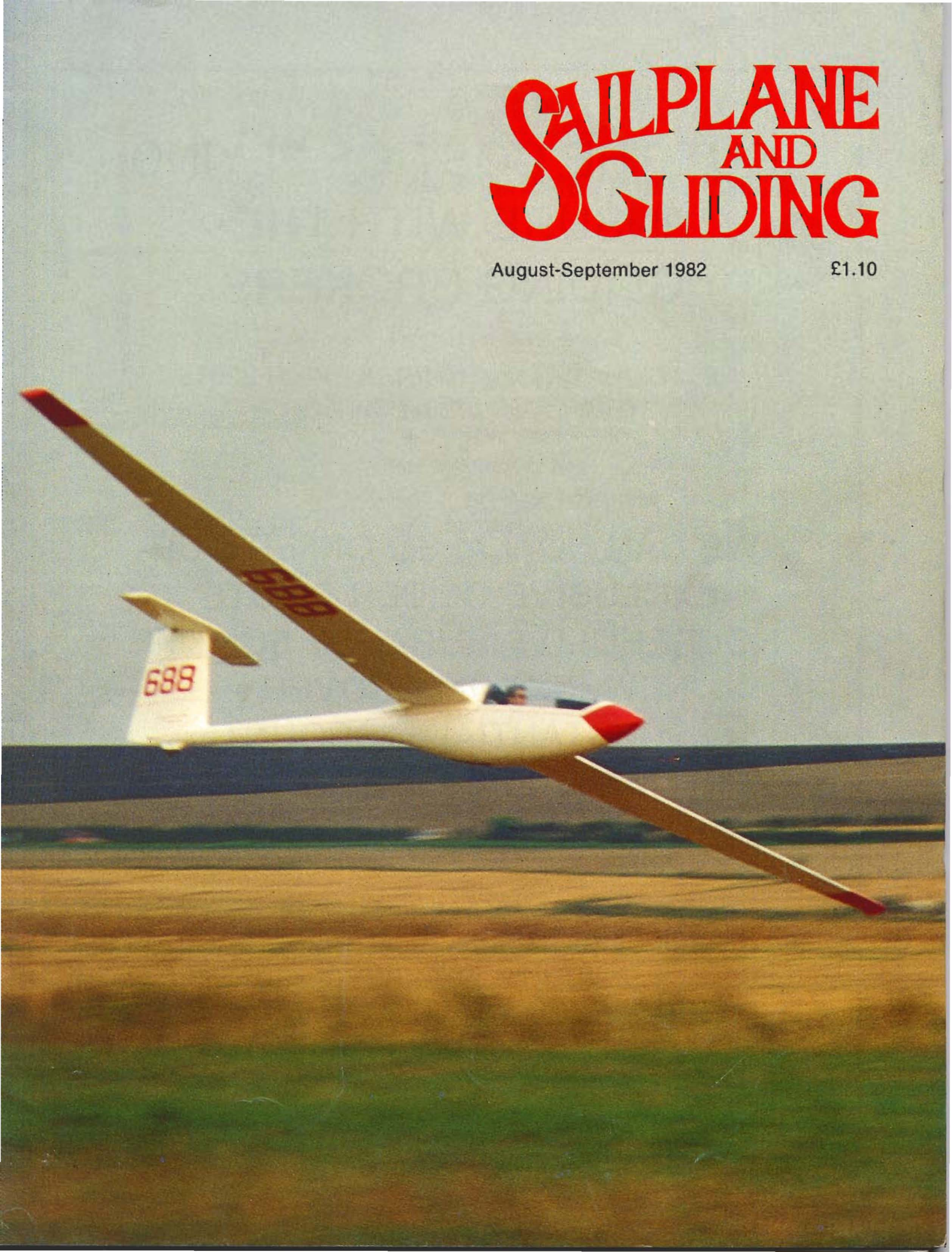
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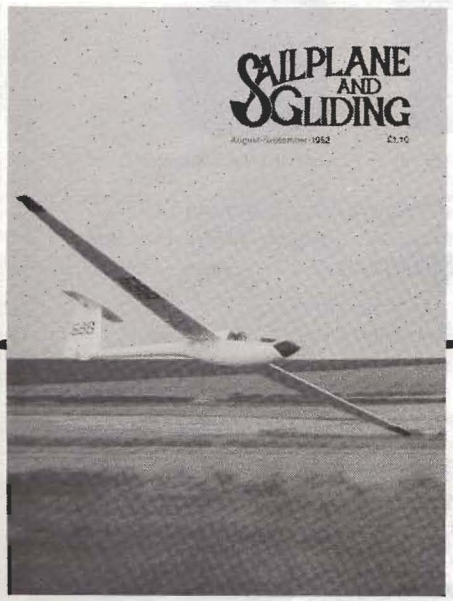
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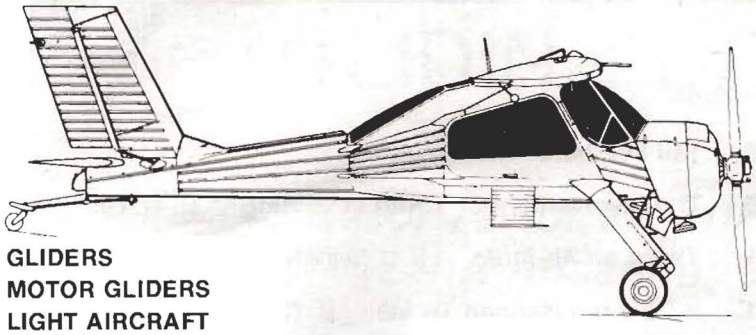
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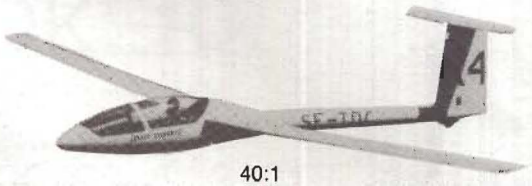
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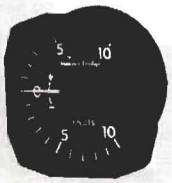
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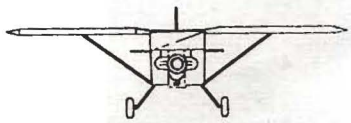
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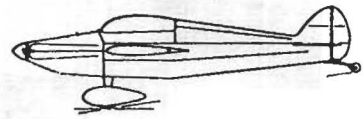
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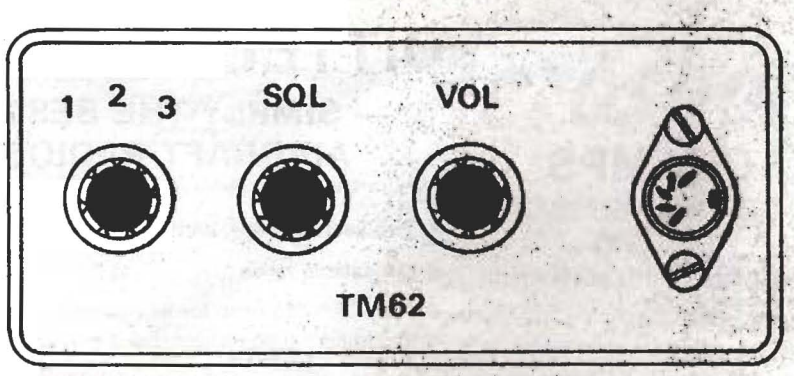


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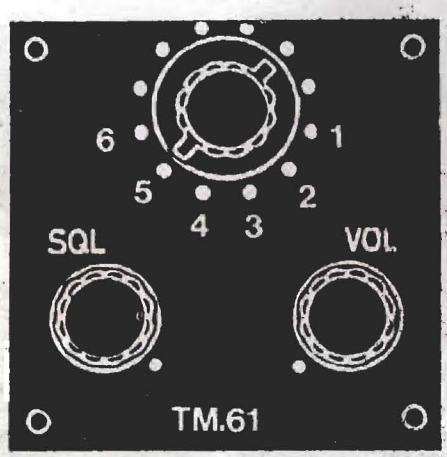
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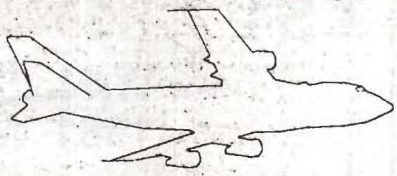
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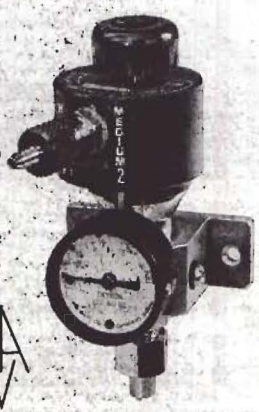


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TAIL FEATHERS



by PLATYPUS

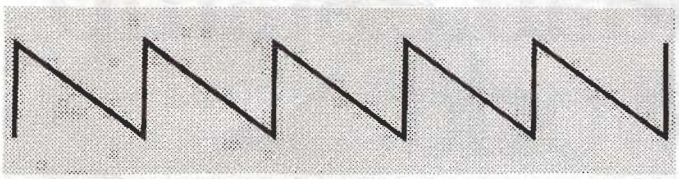
KISSING MacCREADY'S RING

If I read another solemn article about speeds-to-fly and all the gadgetry and trigonometry that is essential to the understanding and exploitation of that subject, I swear I'll explode. Relief can only be obtained by *writing* such an article and getting my own back on the Reichmanns and the OSTIV pundits.

The first thing that gets me about the OSTIV papers on speeds-to-fly (with which the walls of a whole asylum could easily be papered) is not the mathematics; nor is it the diagrams of plumbing and electronics: no, it is the little drawings of what always look like a chain of neatly spaced meringues. These are meant to represent the sky on a typical summer's day. This should immediately arouse one's suspicions if one is true-blue British: any such pictures can only be drawn by foreigners. They always look like this:



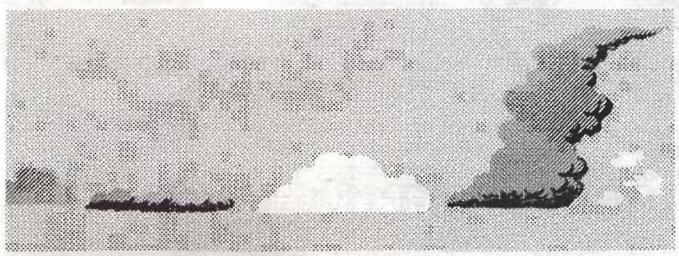
They then put a newly sharpened saw (something I've never seen either) under the meringues, like so:



thereby transporting the British reader into the realms of utter fantasy, since this is meant to represent — wait for it — a cross-country flight.

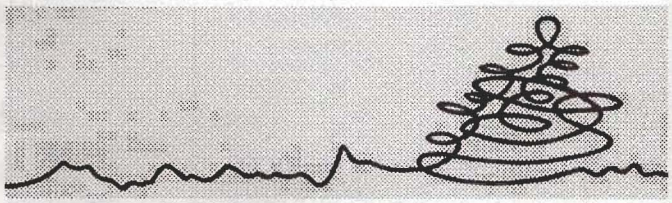
I'll let a minute or so pass for you to get your breath back after rolling around on the floor hurting yourself on the furniture . . .

If one is to anglicise MacCready, some radical changes to those meringues and sawteeth* are needed. First of all the meringues should be stomped on, melted, blackened, chewed by the dog/cat and in some cases blown up to dangerous proportions, to look more like this:



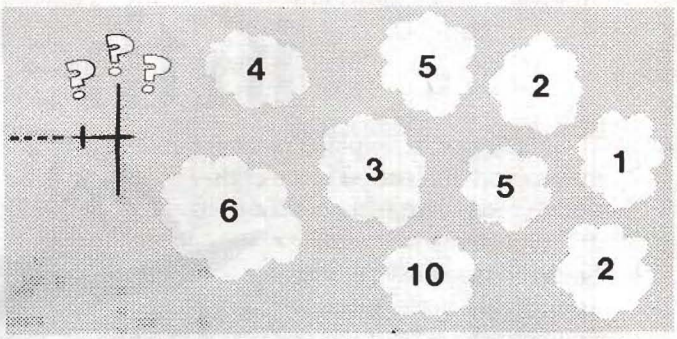
** Sometimes they put bedsprings under the meringues to simulate circling flight. Each bedspring is identical and has obviously been slept on.*

and the sawteeth are replaced by something like this:



looking like a skein of wool after that cat has had it. The cunning observer might say to me, "But there's one perfect British meringue two-thirds of the way along! Quite a decent day really." Yes, in Britain there is nearly always one perfect cumulus — 25 miles away — but when you get to it, it has invariably been stomped on, melted, blackened, chewed etc, etc. That's another point: these foreign skies are always the same in the OSTIV papers. The clouds never seem to go through Shakespeare's Seven Ages of Man from infancy to senility but are always mature and healthy. British thermals usually go from infancy to senility quite abruptly without any normal adulthood in between (a bit like Platypus? ED).

Another gripe about the line of meringues is that it misrepresents the choice before the pilot who is assumed to be flying down some aerial tramlines diverting neither to left nor right. Why not look at our meringues from underneath?



I've sprinkled some random numbers around to describe the thermal strength just like the OSTIV papers. (I'm not going to do a British sky from underneath, you can all do it from memory and, besides, we wouldn't have enough ink left to print the rest of this edition.)

The sideways-on treatment — the meringues joined by tramlines mounted on sawteeth — simplifies things splendidly because it assumes that pilots x, y and z who follow different speeds-to-fly strategies (bold, timid, etc, etc) will all encounter the same thermals. But in practice they don't go through the same air at all, the timid diverting, the bold pressing straight on, etc. The theory assumes the air is two-dimensional when it is three-dimensional. I am not saying that the theories are invalidated because of this, I am just deeply suspicious, that's all. I also feel

that in the three dimensional real sky the pilot has a lot more to worry about than the setting of his MacCready ring. It is the least of his problems. (Come on Platypus, be constructive you've done nothing but criticise; you'll discourage the readers and as far as the advertisers — jeez, I don't know why I let him loose on this page I really don't . . . ED).

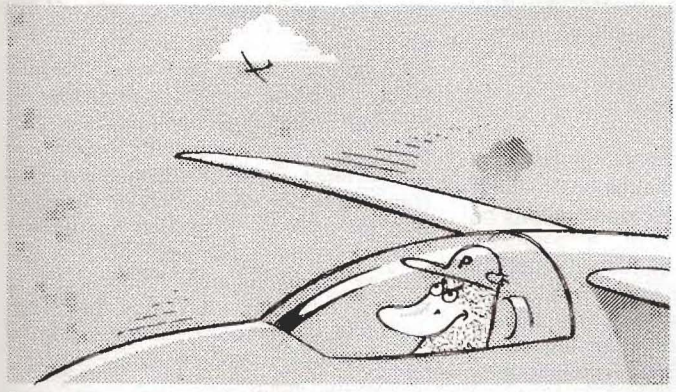
Well, like Alexander the Great slashing through the Gordian Knot at a stroke, I'll boil down the Platypus theory of speeds-to-fly to a simple statement of principle. You can call it the Minimum Acceptable Instantaneous Rate of Climb or MAIROC for short.

Always set your speed-to-fly ring to the rate-of-climb that you would be happy to accept RIGHT NOW.

This may sound odd if applied to the typical situation when you are traversing a vast expanse of dead air, travelling hopefully* towards a far distant area of potential lift. **But that is the whole point.** You say to yourself "If at this very moment I were to encounter a thermal, what strength would it have to be for me to stop and circle in it?"

You might say "you've begged the whole question Platypus. How do I decide what the MAIROC is? That's the real problem." I agree absolutely. And I don't have the answer. **But then neither does anyone else.** Top pilots expect stronger thermals than mediocre pilots like me because they habitually find stronger thermals than I do and so they are entitled to set their ring to a higher rate of climb than I do. But the top pilots can't tell us how to find these stronger thermals: generally they don't know how they do it.

Of course as you traverse this great expanse of air between thermals all sorts of things change, in particular the appearance of the sky ahead. So your Instantaneously Acceptable Thermal also changes, maybe improving to 3kt or dropping to ½kt, so that your ring setting changes and you speed up or slow down.



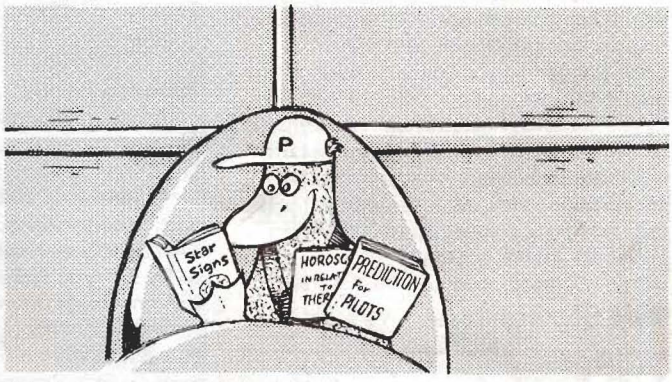
Top pilots expect stronger thermals.

Seen from the side therefore your glide path is not a straight line at all — even if the air through which you have travelled is in a flat calm devoid of lift or sink — because of your changing expectations. That is perfectly right and reasonable since we live in a world of uncertainties. It is a bit like the market for gold — pure speculation.

I suspect that this does not in any way contradict one word of Reichmann's book or the OSTIV papers, but I feel it expresses it in a much simpler form. For one thing it doesn't ask you to calculate laboriously the average strength of past thermals (old theory) or to guess the strength of the thermal ahead or the strength of the lowest part of the thermal where you are likely to enter it (Reichmann) but simply asks you to express your general state of confidence about the sky ahead including worries about sink, the possible disappearance of the cloud you are hoping to use, the distance of the next thermal, etc, in one simple, highly subjective question "What rate of climb would I accept *right now?*"

One interesting thing about this approach is that it confirms the Reichmann view that you should hardly ever fly with the ring set to zero *ie* for absolute Max glide. Ask yourself, if you were crossing a gap under *what* conditions would you circle in zero sink? (*ie* under what conditions would MAIROC be zero and the ring set to zero). The only imaginable case would be if you were sure that you could not reach lift at all in present conditions and decided to hang around killing time, circling in any zero sink you could find, hoping that conditions ahead might improve. In that special case you have given up racing and are simply hanging on, hoping to survive. If your MAIROC was 1kt, however, then you should set the ring to 1kt, *ie* you would fly about 15kt faster than Max glide but with a glide angle only about two percentage worse.

MAIROC also works if you are unwilling to go into cloud and are flying straight and level under a street, climbing at say 2kt.



Don't try to predict the future.

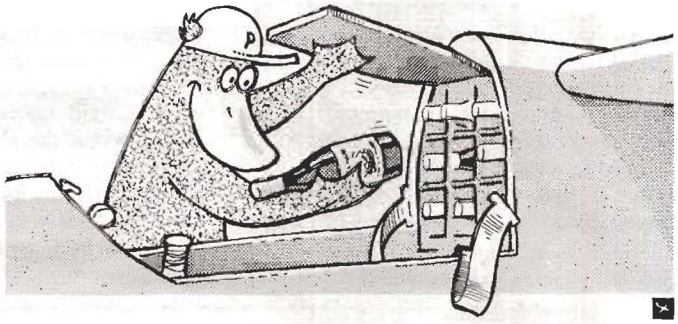
At 500ft below cloudbase you probably would not want to stop for anything less than 6kt. OK, set the ring to six. At cloudbase itself MAIROC might rise to 10kt.

Remember: Don't calculate the past, don't try to predict the future; just ask WHAT WOULD I ACCEPT *RIGHT NOW?* You know it makes sense.

Platypus' lunch time drink

I don't have shares in any brewery but I feel I ought to comment on the difficulty of obtaining in gliding club bars — or any bar — the almost ideal lunch time drink for glider pilots. It is the alcohol-free lager called Barbican which, provided you drink it really cold, is a reasonable substitute for ordinary lager when you know that you may be flying later on that day. Those of us who cannot abide sweet and sticky drinks usually have no alternative but to drink water, which is a truly ghastly experience in most parts of this country.

Strictly speaking, any fizzy drink is less than ideal if you are going to great heights. What we really need is a non-alcoholic Chateau Neuf du Pape for the discriminating palate of the Open Class glider pilot.



* *Please note the correct use of the word hopefully meaning "in a spirit of hope."*

The Involvement of Youth in Gliding

I exercised my prerogative on being given the floor after dinner at the last BGA Weekend to say a few words on what I consider to be a vitally important subject — the involvement of young people in our sport. I make no apology for including my speech material in this short article.

It is an obvious truth that the future prospects for gliding in this country depend to a large extent on the degree of success we achieve in capturing and, of even greater importance, in holding the interest of youngsters. Not all will have the potential to become heads of committees or national coaches, but a healthy, vigorous movement is one within which all points of view as represented by the different age groups as well as income levels (!) can be heard.

More opportunities

Things are a lot better now for those young pilots who have been bitten by the bug and who are ambitious in the competitive sense, due to both an increased club orientation towards cross-country flying and, for the most promising, the availability of the Squad Training Scheme. However, it may be a worthwhile exercise for club committees to consider the average age of their membership and to ask themselves if their club projects the right image to attract the interest of young people in the area.

In general the youngsters of this country have a tremendous interest in, and awareness of, the goings-on within the world of aviation, be it civil, military or sporting. The extent of this enthusiasm has been simply demonstrated over recent years by the upsurge in the popularity of hang gliding. I believe that this is due not only to the fact that it appeals to the pioneer spirit within us all, but also that it represents *affordable* flying.

Tribute to ATC

At this point I must pay tribute to the excellent job the Air Training Corps does in cultivating the interest of youngsters in gliding — many stalwart members of our movement started gliding with the ATC.

Having shown the initial interest, the three areas that have the potential to turn youngsters away from gliding are flying operations, social aspects and the financial strain.

Does your club project the right image to attract youngsters? GEORGE LEE, World Open Class Champion, wonders if we are doing enough to encourage the new generation of potential glider pilots.

Apart from those who go because they simply don't like it, the frustrations of the majority relate to the quantity and quality of their flying. There are enough sides to this problem alone to warrant a major article but I will limit myself to offering a few morsels of food for further thought:

a. Does basic training have the priority and support it deserves in your club?

b. What is the average number of instructors the *ab-initio* flies with during training up to first solo in your club? It may be worth considering allocating two or three instructors to a small group of pupils, thereby improving both the continuity and overall effectiveness of the basic instruction.

A critical period

c. Having survived the frustrations of *ab-initio* training, the young pilot may be tempted to leave with the indisputable achievement of solo flight officially recorded in his or her logbook. This is a critical period as generally the further one progresses in gliding the less likely becomes the possibility of early retirement — an imaginative post-solo training scheme should minimise any temptation to leave at this stage.

d. For the larger club it may be a worthwhile exercise to occasionally dispatch a group of post-solo pilots together with a winch and tractor, an appropriate glider and an instructor to supervise the running of their own "line" at one side of the airfield. One of my happiest memories of early post-solo flying at Bicester is of just such an arrangement one day with a Grunau 2 (what Andy Gough said later when I held up launching as I drifted slowly across the airfield in a weak thermal during a successful attempt to gain my C certificate is not repeatable here, but I had time to consider the error of my ways during an afternoon's winch driving!).

To take the social aspect next, we tend to be a rather cliquy lot in gliding, as much as anything because at the advanced level it is a specialised, individual sport. It is natural the newcomer will feel overawed by it all at first, but if he or she is unwittingly ignored to any extent, a feeling of isolation and "not belonging" will develop and a potential member will have been lost. Similarly in the evenings it is hard for the young newcomer to feel a part of the intense discussions on thermal wave or the latest addition to the XC 5000 Flight Director.

The problems are most acute during the winter evenings, but an imaginative programme of film and slide shows and lecture and discussion sessions, interspersed of course with the occasional good party, can do a lot to foster in-depth club spirit and retain the interest of the youngsters (depending perhaps on the quality of the cabarets!).

The financial aspect is the more difficult to tackle. Aerotow costs cannot be reduced below the going rate although half price winch launches before ten o'clock should be a strong incentive for young people with limited funds.

There are no easy answers, but it may be worth considering schemes such as offering reduced flying rates for club gliders in return for specific amounts of maintenance work. It also behoves club committees to establish close relations with the major local schools and universities, a possible outcome of such initiatives being financial support for a limited number of students, either relating to the payment of membership or flying fees, or even the possible purchase of a second-hand two-seater.

No easy answers

My final point is that as the young pilot gains experience he or she will need careful advice on the business of joining a syndicate — the type of glider, how large a syndicate he or she can afford to join and general advice as to how to get the best soaring per pound. As I said earlier, there are no easy answers especially in these times of inflation and recession, but we can still sit down and consider whether we are doing all we can for our aviation-minded youngsters.

I believe we can consider any actions taken as a result of such deliberations as being an investment in the future of our movement.

TWICE AN AB-INITIO

CHARLES WINGFIELD came back to gliding after a break of twenty-seven years and now has All Three Diamonds.

I started gliding in Canada with the McGill University Gliding Club in October, 1935. I suppose the urge was inherited; my father (who died when I was five) had some sort of a glider before 1914 and one or two old hands here remembered it twenty years later. Much has changed in gliding; much remains the same. I stopped gliding in 1950 due to sinus problems; twenty-seven years later, on an impulse, I drove the twenty miles to the Mynd and put my name on the flying list. So I have been *ab-initio* twice and very soon learnt why gliding people have not changed at all: the hold-ups, disappointments and sheer frustration winnow the chaff and mould the characters of us survivors.



Charles describes this photograph of him in Australia as "a scallywag at the end of the trek in Pok Lara."

Nerve-racking experience

In 1935 all training was solo in an open primary, of which the last example was the Slingsby Grasshopper. The idea was that your first attempts did NOT repeat NOT leave the ground. Most clubs used the bungy after the example of the Germans, who were the leaders in the sport. It must have been a nerve-racking experience, but somehow it produced good pilots in the end. I was lucky; the American school favoured winch or autotow and the McGill Club, of ten or 15 members, towed on a grass field at St. Hubert, a few miles South of Montreal. Then it still had the R-100 mooring mast, today I suppose it is covered in concrete and Jumbos.

Your first flight was on a short rope of 30 yards. The instructor watched from the open car and told the driver what to do, and you were pulled along the ground until one wing went down beyond hope of recovery. The car stopped and you all turned round and returned to the start holding a wingtip at a brisk trot. After three or four attempts and when you could go the length of the field safely you were told to leave the ground and fly level at two or three feet, with the instructor telling the driver to vary the speed as necessary, and landing you by gradually reducing it. You advanced by fairly obvious stages: climb to ten feet and release the rope, climb to 50 or 100ft and make gentle left and right turns, and when these were satisfactory you were allowed to climb as high as you could on the full rope and fly a circuit. I suppose we reached 400 or 500ft — Grasshopper my foot. At Cambridge the method was the same, substituting winch for autotow.

How effective was it? At McGill all of us beginners were flying circuits from high launches after four or five weekends — the winter snow stopped flying by mid-December. Our crashery was negligible apart from a few heavy landings which bruised pride and posteriors and broke the landing-wires, and at Cambridge it was much the same but the Totternhoe Secondary and Cambridge Sailplane sometimes had the skid wiped off. I kept no logbook until I went up to Cambridge and anyway there was no way of getting a gliding certificate in Canada, but we would have got our A and B certificates in 20 or 25 flights from scratch. I took my C hill-soaring at the Mynd in July 1937 about 40 flights later ("wind W 15/20, rather rough and low cloud — 1hr 25min), and made my first field landing when I went to the bottom from the Mynd after 74 launches and 5½hrs total.

Training by bungy was much much slower. At Dunstable you got your B certificate from a hill-top launch and your C in a primary with a nacelle. I tried it once: it was so cramped I could only apply half aileron and after two beats below hill-top level I gave up. No instruments of course — you felt the wind on your cheeks didn't you?

Some clubs had some weird and wonderful ideas. At the Mynd they winched with a large ring on the bungy hook . . . Ah dear boy you should not have pulled up so steeply. The worst of the lot was a bungy on the end of the winch cable; you were shot into the air and the hook fell off at 50ft. But of course we Cambridge men with all the knowledge of our twenty years of age held the rest of the world in amused contempt, and only we knew how to do it.

The Falcon two-seater, and the BAC before it, were used for training too, and no one at the Mynd was sent off for his C until he had been passed out as fit for hill-soaring, as a rule after one or two half-hour flights.

During the war many people (but not me) gained much experience as RAF flying instructors and we determined to put it to gliding use. Several of us at the Mynd under Theo Testar joined in the work of re-writing and adapting the **Manual of Elementary Flight Training** and all the ideas were co-ordinated by the BGA Flying Committee, so when the Slingsby T-21 arrived on the scene at the end of 1947 we were ready to start. Soon after, a friend of mine asked me to teach him; he reminded me that he had joined ATS some years before the war, had clocked up several thousand hours as a RAF instructor and was accustomed to being properly converted on to a new type. I learnt a lot in the process and after he had gone solo he was quite complimentary about our method. So you see, the present-day method has come about by evolution and has a long pedigree.

Good hiding place

Success in all sports depends on luck, and my break came in 1946. Early in the war the Army requisitioned all the gliders they could find and although they snooped round looking for mine they never found where I had hidden it. I was in the Army but they sent me to East Africa after Dunkirk instead of to help form the Glider Pilots Regiment. I did not mind much about losing my life — but if I survived I wanted my Kirby Kite, so I was one of the lucky few with a glider. July 14, 1946, was my big day and I flew 147 miles to Redhill. It was about the third longest yet made in Britain, and by far the longest in a British sailplane or a glider of that type and I do not think that a Grunau, Kite or Prefect has ever beaten it. The flight was full of incident; hill-soaring on Wenlock Edge for an hour, scraping for a good quarter of an hour 600-800ft above ground near Droitwich, up to 7500ft asl in cloud over Oxford,

slap over the middle of Heathrow, and at the end I flew past Ann Welch's house and shouted that my arrival was imminent. She dumped an infant on its pot and ran out to wave me in to the field next to the house.

Everything followed from this. Horace Buckingham asked me to fly one of his Olympias in the 1947 US Nationals where I got my Gold C (British No. 2), a distance record of 345km and an O/R of 235km. And that resulted in being picked for the British team in the 1948 Internationals, but sinus trouble was at work and Philip Wills had to tell me a few days before they started that I would have to stand down. Sad, but thank goodness he did.

Between the ages of 33 and 60 I never thought of gliding at all as that is the only way to give something up, but on my next flight I realised that the magic had not gone. The Mynd instructors were very understanding and I tried to stick to the rules but it was mighty hard not to circle in lift when told to fly a circuit!

An old man's sport

The last five years have shown that gliding can perfectly well be an old man's sport within the limitations imposed by fatigue and stiff old bones. I could not manage a day's instructing any more and Heaven only knows what would happen if I got cramp and I hope that quinine prevents it. It is still just as satisfying as it used to be but the main difference is the freedom of action which modern types give you, the K-8 being better than anything I had flown before 1950 possibly excepting Rheinland. Our Vega still fills me with amazement when I think of my Olympia or a Weihe.

I had to cheat a little to get my last Diamond as I was afraid I might run out of time before a 500 day turned up, so I went to Waikerie last February. It is a very special place with some very special people and flying there is a revelation and a most wonderful experience. Obviously it is much easier to get a long distance than in England, but even so there were only two days in my fortnight when a 500km could be done and if luck had not been with me and if the LS-4 performance in heavy rain had not been so good I would have failed.

There is a lot to look forward to — and I'm still hoping that a 500km day will turn up in England.

All pilots can read — but the BEST PILOTS read

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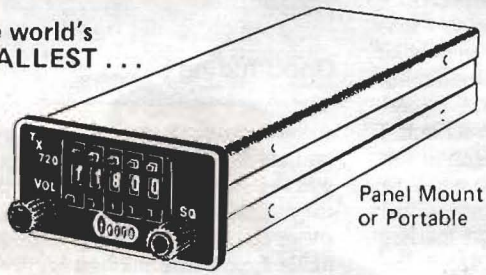
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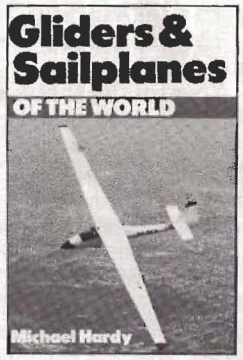
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It couldn't happen to me

(Because I'm too careful)

B. O. O. MOORE

Well, it did. Despite all my care, forethought and pre-planning. My prang duly arrived and claimed a mangled glider and parked aeroplane with the loss of both for some months and nightmares in place of sound sleep for more than a week. The financial cost was in excess of £9000, not including loss of use.

The week started off inauspiciously: Monday was the first day of a week's flying in March. At Waikerie in South Australia this is the start of autumn and the soarable day couldn't be expected to be more than five hours, say midday to five o'clock. Added to that there was a hefty 20 to 25kt breeze blowing from the west. The Kestrel wasn't available so I had to fly the ASW-20 which didn't seem to be good news at the time since I was a devotee of the "there is no substitute for span" school. Most heavy pilots are!

Briefing was simple: in view of the wind strength fly upwind as far as you can and then return.

Quick progress

The first surprise was that in spite of its sawn-off wings the ASW-20 slipped upwind like a dream. So much so that it was an exercise in porpoising than actual thermalling. Consequently ground was covered quickly, and with scarcely a glance behind.

That was mistake number one: unbeknown to me conditions were collapsing behind and I needed to know it.

Truro 50 miles upwind was as good a TP as any and a very pretty sight the township looked from 5000ft, nestling among its hills. Now for the return (ULP), the cu had all gone to ground. Never mind, I told myself, stay in anything that bubbles and drift back to base.

Thus started a struggle downwind! The wind strength had probably reduced and with nothing showing but blue sky it was anybody's guess where the next downwind drift source was likely to be found.

Eventually I came to within 20km of Waikerie but with only 1200ft agl who dares to cross a long belt of trees to make the last hop! (Hop in this instance refers to the practice of "hopping" from one landable area to another, which is what one sensibly does in such circumstances.)

Nothing showed up in a foray towards Waikerie, so I went back to the previous "hop" field, by now at 1000ft agl and in good time for a quick phone call and retrieve well before dark. On landing the wind was still brisk, so I used two pegs to nail a wing down and then went off to the farmhouse to phone. Second surprise of the day: the only available tug was out of action having its oil changed but I asked if it could come as soon as possible.

Readers will now observe my next mistake. Half an hour before dusk I gave the tug up and started to peg the glider down for the night. Halfway through doing this the tug arrived and I reversed my decision. I will never know why I did that. Having made the decision that the light would be too poor for a safe landing and then reversing that considered conclusion is probably what accident material is all about.

I don't think I considered that perhaps after all we could make it, because just making it is no careful way to think. It is more likely I was influenced by the thought that I would have to pay for the retrieve anyway.

So we hitched up. The first attempt resulted in a groundloop. I pulled off but the tug had to take-off, circuit and land. Now it was getting dark. Finally we were away but even then details on the ground were difficult to discern and I'd had many opportunities to discard the retrieve. At that late stage I could have pulled off and landed safely in a field. But I didn't.

Arriving at Waikerie some minutes later the tug pilot took his pick of the two runways, leaving me the one pointing directly into the setting sun. On final approach my visibility was almost nil.

Escape from tension

Now came my third mistake. Bowling along the ground back at base despite the odds, brought an escape from tension and the feeling that all was now safely gathered in. Just a question of taxiing until the hangar came into view. No wheelbrake was applied at this stage. Suddenly the right wing struck something, causing the glider to slew sharp right and slide sideways along the rollout path. Next a parked Cessna 172 hove sharply into view on track which I hit with a resounding smack with the left wing end-on. Application of the wheelbrake was a trifle late at this stage but it did prevent me from being decapitated by the Cessna tailplane.

The right wing was arrested by a vertical breather pipe, two inches in diameter, with such force it sawed into the wing back to the mainspar and held for as long as it bent in the direction of travel. The wing finally escaped by bending the pipe down to the ground and slipping off its end.

This presented the wingtip end-on to the Cessna's cabin, making a mess of the cabin and pushing the aeroplane forward six feet, despite wheel chocks and tiedowns. The leading edge of both glider wings were damaged back to the mainspar and had been so strained and deformed they swept back. Not a pretty sight.

However with all this energy absorption in the right places and not in the cockpit area, I survived with minor bruises only. This was due entirely to the vertical breather pipe stopping a headlong collision with the Cessna.

* * *

The moral of this tale can easily be obscured by obvious conclusions. For instance if I had kept a sharp lookout behind during the outbound flight the return would have started earlier with a direct return to base. Likewise if the tug had not been out of action when the retrieve was called for, or if the tug had not landed on the better strip at the end of the retrieve. . .

The weakness of this view is that these factors were not under the control of the glider pilot and should have been duly allowed for. This is not the sort of mishap that should happen to a very inexperienced or experienced pilot. That leaves just about the rest of us in the middle. And we do tend to form habits.

For those in the cross-country habit it becomes usual to do a hangar landing, either because the glider is privately owned or if club, it is too late in the day to re-launch. The mistakes made during this flight and retrieve were almost all recovered by subsequent action, though this doesn't excuse them. Even the final landing into the west at last light was successful — no mean feat for those that know. The Master Mistake was to succumb to the impression that once on the ground all is well and one can do one's usual thing and roll out to the hangar.

There seems to be occasions when one should forget about tidying up the end product and it may be a good idea to sometimes make a point of rolling to some inaccessible part of the airfield just to prove that tidiness is not habit-forming. That, I feel, is the moral of this story.

INTO ALADDIN'S CAVE

TUG WILLSON describes how he soared the length of Japan in his PIK 20E last October — a total of 1550km

Soaring pilots in all parts of the world do, from time to time, have airspace compatibility problems with regulatory bodies and sometimes power colleagues. For those that have, read on and take heart.

I am an airline pilot flying the L1011 Tristar out of Hong Kong; but in addition to the wide body, I also fly a very slim and sleek PIK 20E from the same place! I have in eighteen months flown the PIK just over 300hrs of which only 23hrs is engine-on time. But more of Hong Kong later as the logical place to start is at the beginning.

In May 1980 I travelled to Jamijarvi in Finland to collect my beautiful bird, where, after a few days of fettling, I soared down to Räyskälä to position for my soaring flight to Germany. For a warm up and whilst awaiting the optimum pressure pattern over Sweden and Denmark. I flew a most exhilarating 500km triangle. The freezing level was 1000ft and a considerable part was flown along the roll cloud of snow storms which continually turned the crystals into every hue and colour imaginable. How can the heart be so warm and the feet so cold?

Only five gallons

After five beautiful days at Räyskälä I set off for Germany. I could write a book on the events of the next three weeks, but space dictates that I simply say I flew Räyskälä to Stockholm the first day. Stockholm to Lubeck the second and Lubeck to Porta Westfalia near Hanover on the third. During these three days I covered 2215km, soaring the whole flight except when required to fly level in control zones by ATC; fuel used was five gallons! The balance of the three weeks was taken competing in the European Motorsailplane Championship, where a perfect holiday was concluded by finishing top of the 15 metre ships.

As soon as the PIK arrived in Hong Kong I immediately set about planning possible cross-countries in the region and so in October last year I soared Japan. Gliding in Japan has a long history but is limited in size and scope by an acute shortage of airfields and landing areas. Over 100 gliders operate most of which are low performance, with only twenty or so made of glass-fibre, the longest cross-country being 120km.

The traditions, culture and impeccable manners of the Japanese nation are



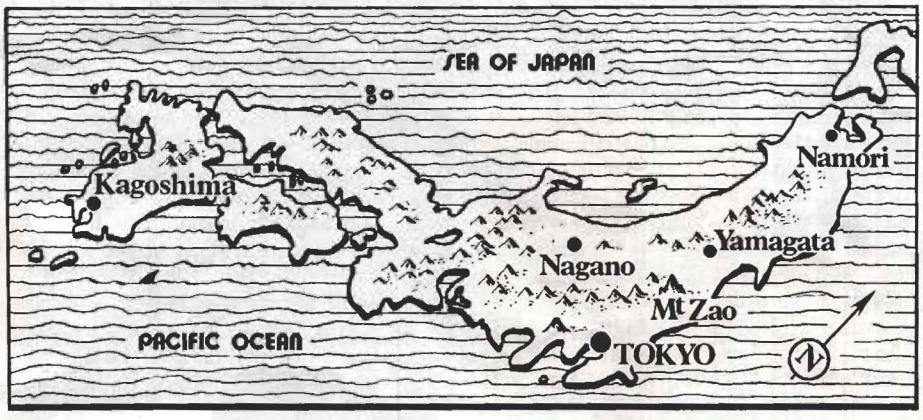
A commemorative postal cover to mark Tug's flight, containing a set of the Royal Wedding stamps.

immediately apparent. They are gracious people and make every effort to please. Every thought, action and consideration is directed to others, never to themselves. The tone of the country is set by the serene bowing when people meet. If visiting be sure to carry a hamper of visiting cards because the cards are always exchanged on meeting. Whilst graciously bowing from the waist, the card is quickly read and the depth and length adjusted accordingly.

Against this background I decided to go for broke and soar the length of Japan from Kagoshima on the most southerly tip, to Aomori, the most northerly airfield of the mainland — a total distance of 1550km. After protracted negotiations the permit for the flight was signed by the Minister of Aviation in person. Whenever I landed this magic document resulted in a bow approaching Silver C duration!

And so, on the national sports day of Japan, October 10, I crossed the startline at Kagoshima at 1026. The support aircraft was an RF-4 flown by Nakazawa San who runs the Japan Motorgliding Club just outside Tokyo and has over 5000hrs on type. The plan was simply to soar as far as possible each day, note the point of firing-up the engine before motoring to the nearest airfield to overnight, then continue the next day's soaring from the engine start point.

The memories of those six days from October 10 to the 15 will stay with me forever. Japan is a country almost entirely covered by mountains of 4-5000ft. Up to this height the slopes are always tree covered. Frequent valleys are steep sided with agricultural communities at the bottom. The trees blossom into every colour imaginable. I flew ridges, rode the mountain air rising off the sunny slopes, thermalled, flew wave and a sea breeze. Cloudbase was between 3000 to 8000ft with thermals up to 10kt. The Japanese Alps, stretching from coast to coast at 10 000ft were magnificent. It was an awesome experience working my way up the snow covered glaciers to finally



rise above 11 000ft and enjoy the breath-taking vista. The effect was hypnotic, so beautiful I could hardly leave. The PIK and I danced and jinked along just above the crest — a joyous harmony of man, sailplane and nature.

Once north of the Alps the mountains became the playground of Japan. Hotels modelled on the traditional Swiss Alpine hotels abound on the ski slopes around Nagano. Further north, the even more beautiful mountain ski resort of Mount Zao. The stopover at nearby Yamagata in a very old traditional inn with its hot spring water bath house was quite unique. I think seven baths made the cleanest *gaijin* in all Japan.

And so, after five days' soaring and one day lost to rain, at 1610 I began my final glide for Aomori from 7200ft, to be received by kimono clad ladies and bouquets. Such lovely memories.

Oh yes — I digress, meanwhile back at Hong Kong the PIK strip is the 12 000ft of concrete at Kai Tak International Airport! Negotiations related to obtaining permission were somewhat protracted, however, after eighteen months involving 200hrs without incident of any kind, I have a distinct feeling that the controllers really enjoy clearing the lovely PIK to land after just seeing one Jumbo follow another. Their clearance to land includes "wheel down and engine running" as I wind it out and start it on final approach. Sensible airmanship has avoided any problems with wake turbulence or jet blast.

What of the future? Well, later this year the all glass-fibre SF-36 two-seater arrives; negotiations are in hand to get into China, and in January 1983 plans are well advanced to soar across the Australian Gafa from Sydney to Perth. That tiny little engine has really opened Aladdin's Cave — I hope I live to soar to my hundredth birthday.

* * *

I would be delighted to hear from any aspiring soaring centurions passing through Hong Kong. Either call Kowloon 290547 or write Captain Tug Willson, Cathay Pacific Airways, Kai Tak Airport, Hong Kong.

A Farnborough for Sailplanes

MICHAEL HARDY argues the need for a separate air display for sailplanes and motor gliders

Once again Farnborough is almost upon us, with space for exhibitors at a premium. There will be a vast range of aerospace industry products and many different types of aircraft, yet sailplanes and motor gliders will be limited to two or three types. Much the same is true of the Paris and Hanover shows.

But there are several good reasons why this is unsatisfactory.

The absence of sailplanes, when viewed against the comprehensiveness of Farnborough in other fields, tends to isolate the gliding movement from the public's attention and diminish public awareness of it as a sport. It was quite a different situation in Germany last year when the World Championships were given detailed and informed coverage by the German press, TV and radio.

Although a modern high performance glider can cost as much as an up-market car, we still haven't an equivalent of the Motor Show or Boat Show where the prospective buyer can get a good look at most (if not all) of the current types in production, plus some of the prototypes, where he can collect sales literature, ask questions of representatives and distributors, get information about financing and delivery dates, perhaps sit in the cockpit and arrange for a demonstration flight. Yet that is surely what anybody thinking of laying out a five-figure sum is entitled to expect; deprived of this opportunity to evaluate the field, he may put his money into a cabin cruiser, sailing boat or new car instead.

In view of the paucity of sailplanes shown in recent years at Farnborough, it is interesting to recall that in the early post-war SBAC flying displays and exhibitions British gliders were well represented. In 1946 and 1947 the show was at Radlett, and in the first year Slingsby showed a Kirby Kite 11 and a Tutor and in 1947 these were supplemented by a Kirby Gull 1V and the then new T-21B, while Elliotts showed an Olympia 2, a Baby EoN and an EoN Primary. Shorts also displayed their Nimbus single-seater, which didn't go into production, and there were three of the General Aircraft GAL 56 tailless research gliders making a total of 11 gliders. In 1948 the venue was Farnborough when Elliotts showed the same three types, but Slingsby was absent and this was the last appearance of gliders for the next 12 years.

Seemed like a comeback

In 1960, perhaps because there were few new powered types, sailplanes reappeared on the public days only when an Olympia 403, a Skylark 3 and a Skylark 2 gave an aerobatic display and an Olympia 419 and a Slingsby T-42 Eagle also performed. It was another six years before the latest British gliders were shown statically, when one of six T-49B Capstans destined for Burma and a Dart 17R were exhibited by Slingsby while Derek Piggott gave a flying display in a Dart 15. In 1968 a Slingsby T-53 destined for Australia was likewise flown and it seemed as if British sailplanes had made a comeback to Farnborough, but sadly the fire at Slingsby's works two months later made this the last British glider to be shown. It was left to Eastern Europe to fill the gap from 1947, with several SZD types and the IS-28M2 motor glider though neither the Poles or Rumanians were represented in 1980, but Caproni Vizzola flew their jet-powered C 22J derived from the A-21 and Eiri showed the PIK 20E motor glider.

Manufacturers still seem a little uncertain of Farnborough's value as a sailplane or motor glider showcase: for instance there have been no French or German types in recent years and East European interest seems to have ebbed for the present.

Yet the number of different countries that have displayed at Farnborough demonstrates the potential for an international show does exist — not, initially, on anything like the scale of Paris or Hanover but large enough to be a viable proposition. Many manufacturers must have been discouraged from exhibiting at Farnborough recently because, having a range of several different types to offer, they want to show them all instead of just one.

Another reason why a separate display has become so necessary is that both the manufacturers and their products are changing at a rapidly increasing pace with many more new developments.

Accepting the need for this sailplane and motor glider display, and their ancillary products such as trailers, instruments and radios, we have such basic questions to consider as venue, frequency (annual or bi-annual) and composition (should hang gliders and microlights be included). One obvious idea to attract as many visitors and prospective buyers as possible would be to have it just before or after the SBAC show, at a venue such as Lasham which is close to Farnborough.

There would be a lot of planning needed to get it right, but it should be possible to put together a display that is commercially viable and could serve as a lynchpin around which television and press publicity for the sport could revolve.

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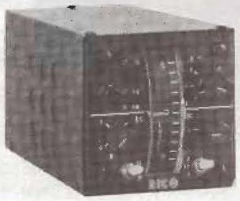
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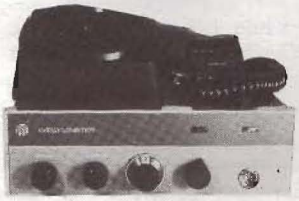
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THIS TIME LAST YEAR...

By MENTOR

Final Glide

Dick had never seen anything like it! He had stood in the early evening sunshine, pint in hand, absorbing the atmosphere and the talk. Three hundred, 500, two had even had a try at 750 but had turned back and were expected home soon.

Dick had delivered his club's Astir for the repairs needed after his wheel-up landing in the ridged field. **That** had been bad luck, of course. How **could** he have known he wouldn't get away from that village. Perfect sun trap, sloping ground, etc, etc.

Someone's radio spoke. "Nine four nine — two minutes!" Heads turned at once, looking to the north-west, seeking first glimpse of level wings, low above trees. "There they are!" Dick searched but couldn't see them at first. Then he did. They were low, unbelievably low, but coming on fast. Over the far airfield boundary, last few gallons of ballast, saved for this moment, streaming smoke-like from the vents. The two sleek sailplanes came straight at the clubhouse, then parted right and left, no more than a faint hiss from the wings as they pulled up into effortless chandelles to present elegant plan views to the audience below. They manoeuvred skilfully into line astern for the downwind leg; wheels popped down simultaneously; landing flaps selected; the two, their brief exhilaration over, came onto as perfect a final turn and landing as Dick had ever seen! **They** had enjoyed it, and there was no doubt the audience had too!

* * * *

The sight lived in Dick's memory for weeks after that. Nothing like it, in his limited experience, had ever been seen at **his** club. He wondered why. "CFI doesn't like it." "Dangerous show-offs." "What about the novice who may be in circuit?" And so on. Dick tried to imagine what it would be like, hounding across the airfield ten feet off the ground, speed-noise high in the cockpit — **was** it noisy at speed? He didn't know but he meant to find out!

Soon the Astir was back and Dick began to experiment with high speed runs at altitude; to find out how it felt at over a 100kt; how much height he could regain by varying the rate of pull-up; how far she would run level as speed decayed. He also practised converting his inexpert and self-taught chandelles into smooth, steeply banked turns. As often as not the speed would decay below the stall and a fearsome judder would set in. But he had only to dip the nose a little to get rid of it, so not to worry. All this at altitude, of course, relying on the altimeter to tell him how he was doing in his efforts to efficiently trade speed for height. Because Dick was smart enough to see that, once the speed had gone, he would have precious little time to get round the circuit without mishap. So he practised — at altitude.

* * * *

The articles told him to fly objectively and Dick's object this day had been to increase his speed round a 200km triangle by at least 10km/h over his previous best. He was half way home on the downwind final leg and the thermal was less than solid. He suspected that he was climbing at less than two knots on average. But the calculator insisted that only 2500ft were needed and he was already at 2300. Add 500ft safety margin to that, and he would be off! The minutes ticked by and Dick suddenly realised, in his quest for the last 200ft that he hadn't climbed at all for two turns. He must press on. The cloud ahead must surely give what he needed. It did! Four knots, and he climbed on up high enough to cruise home at 80kt. And at 80kt he suddenly realised what could be in store for him. The task had been formally set by the duty instructor and here was the chance for a "proper" final glide at last, burning off the safety 500ft in the last dash to the airfield. The chandelle; the admiration of his peers; the pints raised in salute as he taxied in to park precisely in front of the clubhouse. Dick's heart thumped at the thought.

He watched the height reduce, still at 80kt, as the landmarks went steadily by, until at five miles and 1500ft he was poised for the last dash. Eyeballing now, Dick scanned the airfield in the distance. No winch launch, nothing in circuit so far as he could see. It was on! He would do it, the grand beat-up!! Consistent with his image of what was required he called — "Delta Charlie — two minutes!" No reply — but they would have heard, he felt sure, and heads would be turning his way.

* * * *

Three miles, two miles to go, and suddenly the aircraft was banging up and down as it got down into the last few hundred feet and into the ground turbulence. Dick wasn't ready for this and his knees were rapped against the panel edge; an apple, his maps and assorted bits of paper flew up, along with the dust from the cockpit floor. He grabbed at things to restore order to the cockpit, clutched the dive brake lever by mistake and the brakes sucked out. Bedlam! By the time he got the brakes back in — surprising what force **that** took — the speed had decayed to 90kt, but he was just about there. Maybe they hadn't noticed his discomfiture — he would finish it off! Over the upwind boundary now and a glance ahead at the signaller giving the all-out. The **all-out?** They couldn't launch now — he was almost onto the winch cable. What were they thinking of?

And that's where his grand finale turned to worms. The pull-up didn't seem to have the same effect it had had at altitude — Dick would work out later what happens when you climb through a wind gradient **downwind!** His chandelle was abandoned out of hand — it was as much as he could do to stop the wings from stalling in just establishing a quick one eighty turn. He remembered the wheel but had a fumble with it as the calculator got jammed in the slot momentarily. And then a hurried approach down through the wind gradient — more speed loss! He hit the ground still pointing off at an angle to his planned approach and got a glimpse of a startled K-13 handling crew waiting to launch as he charged across in front of it. His tail skid picked up the cable — the K-13 got a more abrupt all-out than planned! — and Dick in his Astir ended unceremoniously in the long grass beside the clubhouse. The bar wasn't even **open!**

* * * *

At This Time Last Year a moderately qualified pilot was killed as his aircraft spun off a limited circuit, following a fast final glide and beat-up.

Please send all editorial contributions to 281 Queen Edith's Way, Cambridge CB1 4NH.

1982 OPEN CLASS NATIONALS
Lasham — June 5-13

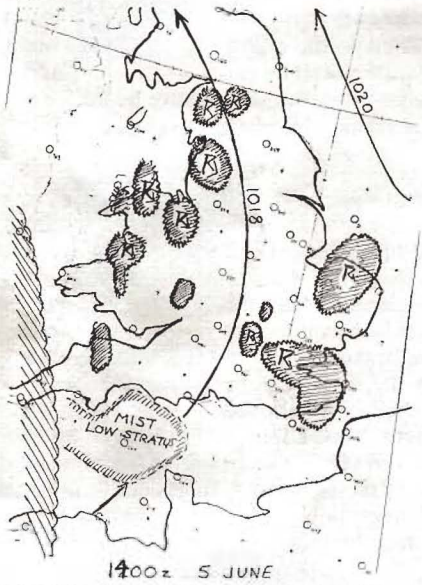
Report and photographs by ANGELA BISHOP

If, at World Championship level the Open Class has recently shown signs of decline, Lasham 1982 showed that it was still very much alive and kicking in Britain. A very well organised contest blessed with reasonable weather allowed 44 pilots to battle it out round tasks which all turned out to have been judiciously set. There was no toppling of giants, with familiar names occupying the leading places. George Lee proved totally unassailable, turning in the fastest time on five out of six contest days, but Bernhard Fitchett's performance in the now outclassed ASW-17 was perhaps equally remarkable. He was the only pilot who could make inroads into the dominance of the new Nimbus 3 and ASW-22 super ships. Martin Wells' achievement in flying his 15m Mosquito to 8th place was also much acclaimed.

Much of the credit for the smooth running of the Championships must go to Frank Irving, chairman of the Organising Committee, who co-ordinated the preparations. Director, Chris Day was much admired for the coolness of his decision making — and the correctness of his decisions, many of which must have been difficult to make. He was ably supported by a capable and experienced team of assistants.

The Nationals were opened by Mr Laurie Bridgeman, regional director of the Sports Council, an organisation which has done a great deal to support gliding in recent years.

Day 1, Saturday, June 5
Task: 326.6km △, Stourport-on-Severn (54), Gaydon Airfield (63).



Met: *Southerly winds gave a hot humid day. Cu started to form by 1030 and conditions were very good for a time around midday. Then cu-nims developed and thunderstorms broke out, mainly to the east of the route, by 1400. Showers affected the second TP. During the afternoon all clouds disappeared from the south coast as far inland as the Berkshire Downs but there were still thermals in the blue.*
Max: *28°C.* ***Dew point 17°.***

A beautiful blue sky greeted competitors as they emerged, eager for action, on this first morning of the competition. What a relief it was, after last year's beleaguered Open Class Nationals, to see the sun!

Although launching was scheduled for 1100 it did not actually get under way until 1133 mainly because of the lengthy initial briefing at which all the officials were introduced to the competitors.* Six tugs launched the 44 gliders in just under an hour and the startline was opened at 1240. The startline had its first big test as gliders jostled for position at the gate in order to get away as soon as possible. There were certain teething problems but these were soon resolved and the 44 gliders were all gone some 32mins later.

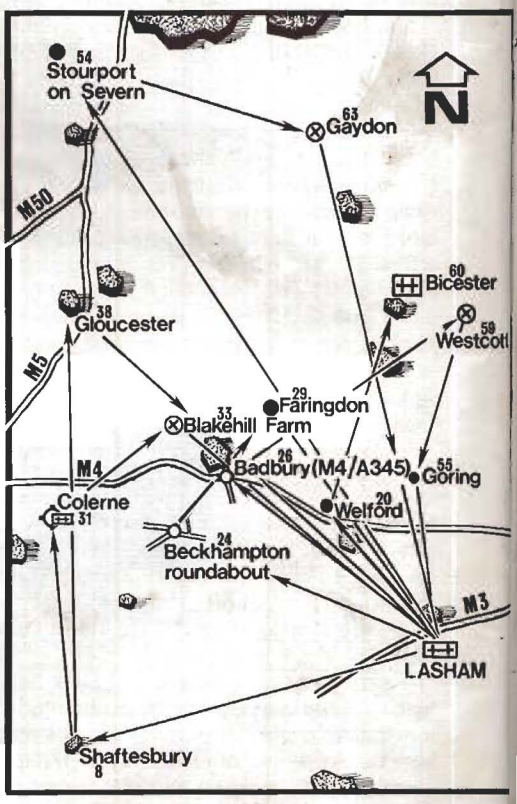
The weather forecast proved accurate and it was not too long before outlanding reports were received and it became evident that some of the thermals were none too reliable. On the ground at Lasham there was a lull as crews listened out for news of TPs rounded, outlanding reports or the magic words "final glide". As the sky went blue at Lasham we could see a mighty line of storm clouds right on track for the third leg. At the finish line there was plenty of speculation as to who would be the first home and as to who would win the vital first day. In the event the first arrival really did take us all by surprise — it was completely unannounced!

** The director also thanked Speedsoaring Ltd for the loan of radio equipment.*

Deviated from track

World Champion George Lee had suffered a radio transmit failure and, unable to call the finish line, arrived silently at the head of the field. His time was not to be bettered. George's story was typical of those that made it home. He had a good run to the first TP and although he got rather low his main problems were encountered around the second TP and on the final leg. There was rain near the second TP and a row of storms down track. George managed to avoid the storms by deviating from track and took a cloud climb to 10 000ft in order to get back to Lasham through the sea air.

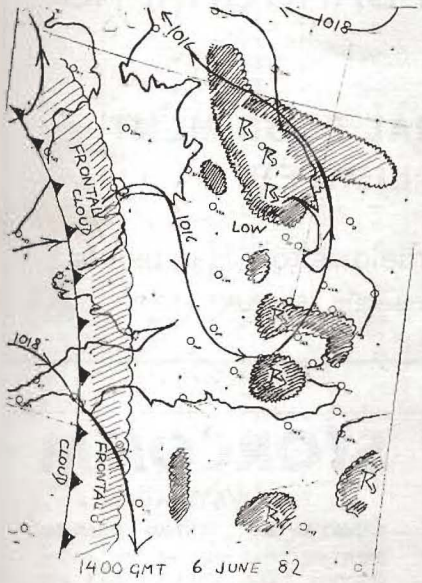
In common with a number of pilots, Mike Throssell took his photo of the second TP in rain. Quite a number of pilots took cloud climbs to help them home — Martin Wells' barograph trace showed what must have been a very fast climb to 16 000ft. Ralph Jones went too far north of the first TP before realising his mistake — one which, unrectified, would have cost him his second place for the day. Frank Pozerskis was not so lucky and lost 134pts for his incorrect TP photograph. Like many others John Delafield lost precious time trying to avoid the storms on the final leg. Unfortunately, these storms and the sea air around Lasham took their toll and a total of 17 gliders landed out. The majority were scattered to the east and west of track on the third leg.



Dave Watt, sharing an ASW-20FL *hors concours* with Alistair Kay, put in a very creditable performance and would have been 5th for the day. As it was, Mike Throssell, flying a Nimbus 2B, took the 5th place to make a very good start in the competition.

Leading positions:		**km/h**	**pts**
1. Lee	Nimbus 3	97.95	1000
2. Jones	Nimbus 3	90.37	911
3. Fitchett	ASW-17	87.19	878
4. Garton	Nimbus 2C	86.79	874

Day 2, Sunday, June 6
Task: 200.9km □, Badbury M4/A345 intersection (26), Westcott (59), Goring (55).



Met: *During the morning the slot between thunderstorms to the east and frontal rain to the west was too small to set a task. By mid-day the slot had widened to nearly 100 miles and well developed cu gave good conditions. The eastern TP was just under the edge of the thundery rain area.*
Max *26°C.* ***Dew point*** *17° falling to 13° during the afternoon.*

Competitors woke to the sound of a heavy rain shower, part of a weather pattern which later wrought havoc at Dunstable where winds of up to 60kt overturned five gliders. The Met situation was so complex that, at briefing, Tom Bradbury found it impossible to draw a cross-section and confined himself to general remarks about what he thought might happen — in the event his forecast proved to be unduly pessimistic.

George Lee was presented with the first of the handsome day winner's cups presented by Sedgwick Aviation Ltd. Uncertainties about the weather picture meant that a second briefing had to be held at 1230. Conditions were already improving and a minimum task of 200.9km was set — a "kinky" triangle designed to avoid the London TMA. Launching began at 1315 but since the startline did not open until 1415 and RTI was only one hour most early launchers crossed the start-line to be observed. The startline was again put under pressure as pilots tried to make an early getaway. Several pilots queried the negative starts they were given on the grounds of being too high.

It soon became clear that conditions on track were much better than forecast and most pilots were known to be making good progress at least until they reached the second TP which many pilots had to photograph after a long glide through still air. John Glossop reported losing a lot of time trying to get away onto the third leg where conditions began to improve. The fact that all finished bar one led the competition organisers to wonder whether they had underset but most pilots felt that, given the late start, the task was about right although the two hour rule caused the day to be devalued.

First home was Bernard Fitchett who had had a fairly straightforward flight and had not encountered problems at the second TP. Bernard's time of 2hrs 7min was beaten only by George Lee's 1hr 59min. However, George was unfortunately scored at zero because of his failure to observe the RTI rule (his start time was one hour three minutes after take-off) — a sad day for George who decided to launch a protest against the penalty on the grounds that a contest official had observed him on tow within the recognition time interval. He also pointed out certain anomalies in the RTI marker system since on that day it had only been changed every 30min.

150pts so that after Day 2 the leading positions were:

			km/h	pts
1.	Fitchett	ASW-17	94.78	712
2.	Lee	Nimbus 3	100.63	649
3.	Carlton	ASW-22	88.52	630
4.	Fleming	Nimbus 2	87.12	613

Overall		pts
1.	Lee	1649
2.	Fitchett	1590
3.	Jones	1410
4.	Carlton	1403

Monday, June 7
The day dawned hazy with a layer of cloud that looked as if it would burn-off at the slight-



The waiting game. Pete Cook's Nimbus 2c, No. 200, is in the foreground.

Spectators at Lasham enjoyed the numerous finishes especially that of Bob Szulc who, during an R/T check prior to take-off had problems with a whistle on his radio and was told by the startline "303 you'll be identifiable by your whistle!" At the finish line a great whistling was heard on the radio and the finish line was quick to ask "303 how many minutes?" which was answered by the transmission of four short whistles! As he crossed the line 4min later he was greeted by spontaneous applause.

Big ships dominated

Angus Fleming had a very good day and his speed of 87.12km/h put him in third place ahead of two of the Nimbus 3s. However, the overall picture was, as predicted, being dominated by the big ships with one exception — Bernard Fitchett in his ASW-17 who looked set to prove that talent also has a big part to play. Martin Wells was 7th for the day — an amazing achievement in his Mosquito. Ahead of him were two Nimbus 3s, an ASW-22, two Nimbus 2s and an ASW-17. More significantly there were also two Nimbus 3s behind him!

As a result of his protest George Lee had his penalty for RTI infringement reduced to

est provocation. This impression was confirmed at briefing when Tom Bradbury held out hope for very good soaring conditions to the west of Lasham. The main difficulty, he said, would be getting away from Lasham. Although a fall back task had been set as well as the main task, both had to be abandoned in the light of changes in the weather. The first leg of the task remained subject to extensive cloud and so pilots were rebriefed on the grid to fly an amended task but even this was eventually scrubbed when the visibility and cloudbase showed no signs of improving.

Tom Bradbury explained that a ridge had moved into Wales and then unexpectedly formed a small high. This had produced the NE winds which maintained a sheet of low stratus covering all of the south-east of England.

While pilots were on the grid Bill Scull's team carried out a survey of the age of all competing pilots. A similar survey in the USA had shown that the average age of glider pilots was 39 and that it was increasing by six months every year — a disturbing finding.

The results of Bill's survey showed the average age to be 38.25, a fact that led competition director, Chris Day, to suggest that, in order to allow some younger blood into the Nationals, Bill should perform a cull of older pilots — to be called Bill's cull . . .

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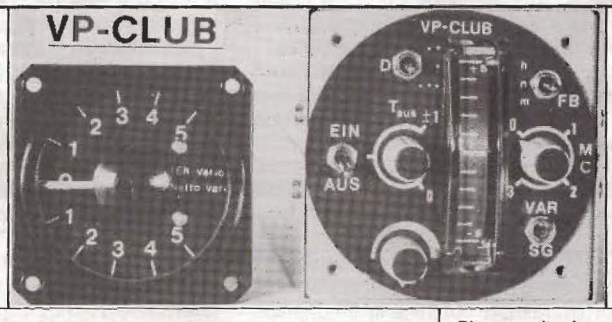
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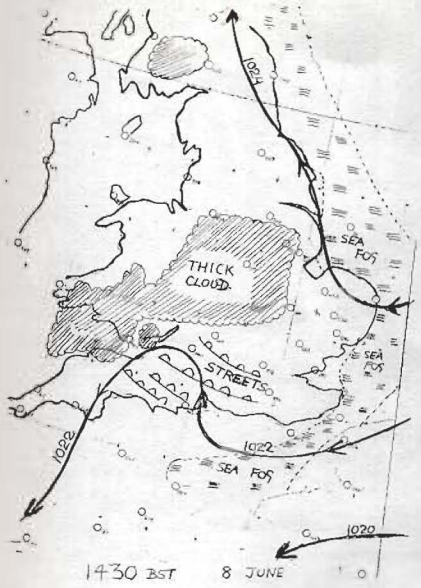
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Day 3, Tuesday, June 8
Task: 243.6km □, Shaftesbury (8), Colerne (31), Blakehill Farm (33).



Met: *Overnight fog dispersed inland during the morning but an area of thick cloud and some rain persisted across the Midlands and into South Wales. Over Southern England large cu developed about an hour after midday with some streets aligned with the easterly winds. By 1630 a line of showers developed south of Lasham and drifted slowly north before dying out.*
Max *24°C.* ***Dew point*** *16° falling to 14°.*

A grey haze hung over the airfield before briefing but it soon began to burn-off as the temperature rose. At briefing a standby task was also set in case the weather played any more tricks. In the event, both of these tasks were abandoned at a second briefing in favour of a revised task to the west — designed to avoid the clag to the north. Launching began at 1315 and with poor visibility early launchers struggled in gaggles to maintain height. The startline opened at 1410 and the gliders were all gone by 1453, although it was mainly the bigger ships that hung around in the hope that conditions might improve. George Lee was hoping to catch the sea breeze front as it developed but, seeing no positive indications of its development, he decided to leave and was closely followed by Ralph Jones and David Innes.

Layer of clag

Visibility along the first leg was very poor. Hamish Brown described it as being like cloud flying and Pete Purdie suggested that the gliders could have done with fog warning lights! The first TP was under a layer of clag and Bernie Fitchett found himself very low. He was forced to go further afield to stoke up and then dart in to take his photo. The visibility improved on the second and third legs although at the third TP one pilot was heard to ask if anyone could lend him a flash cube. But in spite of the poor visibility pilots seemed to be making very good time as they checked in with their crews. The lift was irregular though, and an early outlanding report bore witness to the fact.

Pilots reported good lift around Swindon, many finding 4kt that could be used on either side of the TP. For the big ships a good climb at Swindon was enough to bring them home with a bit of judicious topping up *en route*. Back at Lasham crews watched the skies darken as a storm loomed up from the south. The finish line broadcast a storm warning* and this encouraged pilots to put on a spurt. The first home was Dave Watt flying the ASW-20FL *hors concours*, a performance which would again have earned 5th place for the day and would have maintained the impressive 5th overall.

A devalued day

The first competitor home was Mike Throssell, an early starter, whose speed of 90.28km/h looked very impressive. Soon after Bernard Fitchett crossed the line in an even faster time of 98.80km/h — a time which could only be beaten by a couple of late starters. He was hardly on the ground and crews had hardly had time to work out how many minutes



John Delafield in his Nimbus 3.

needed to elapse before he would have won the day when, over the finish line radio came "26 — three minutes". The sighs went up "it's impossible" and "how does he do it?". George Lee had once again pulled out all the stops with a winning speed of 109.26km/h. The day was devalued with three pilots completing the task in under 2½hrs.

Fourth for the day was Mike Carlton, flying the ASW-22 in its first major UK competition, who said afterwards that he was beginning to get used to his new glider. He had left 15min before George Lee and, when he saw George alongside, he thought it would be a good chance to follow him and see how he did it. Much to Mike's chagrin, however, it wasn't long before 26 was pulling away.

** As well as the "Lasham Volmet" transmitted on 129.9 giving windspeed and direction at one minute intervals.*

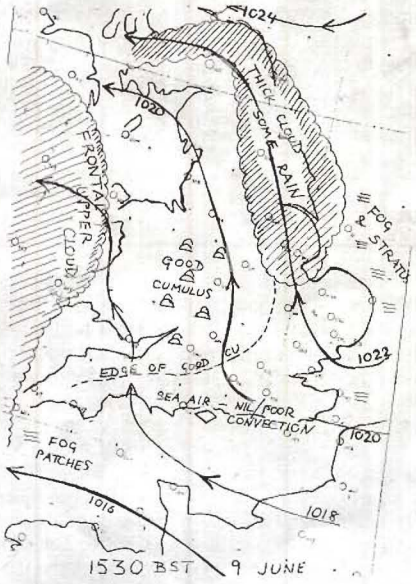
As the storm moved closer pilots finished in fast and furious succession — many of them rather high having stoked up in case of rain. The rain did eventually arrive but was not as heavy, nor did it last as long, as predicted. Quite a few pilots did have to land short including Jane Randle who couldn't see the airfield on final glide and Vic Tull who was to be heard, quite late on, just a few kilometres out trying desperately to gain enough height to get back. Other pilots did make it home after a wait in the Basingstoke area to avoid being washed out. Tony Hanfrey waited some 20min at Basingstoke before risking a finish. Pete Cook and Derek Piggott also played safe at Basingstoke to make sure of some speed points — a wise decision as there were some 438 for the day.

The leaders, with the exception of Ralph Jones who had a slow day, consolidated their positions. John Delafield, after a good day, closed the gap on Mike Carlton for 3rd place overall.

Leading positions:		**km/h**	**pts**
1. Lee	Nimbus 3	109.26	892
2. Fitchett	ASW-17	98.80	763
3. Delafield	Nimbus 3	98.44	759
4. Carlton	ASW-22	94.64	718

Overall	**pts**
1. Lee	2541
2. Fitchett	2353
3. Carlton	2121
4. Delafield	2101

Day 4, Wednesday, June 9
Task: 295.6km △, Shaftesbury (8), Gloucester (38).



Met: *Freshening ESE winds brought in North Sea air with weak thermals, although parts of southern England had none. Good cumulus formed over North Wilts and the Cotswolds but the sea air reached the Swindon area later in the afternoon spoiling convection from there back to Lasham. Visibility was very poor in this sea air.*
Max *24°C.* ***Dew point*** *13°.*

Crews appreciated the blue skies that reappeared this morning and on entering the briefing hall pilots were confronted with ambitious

tasks — 416.3km with a 295.6km fallback.* There was a lengthy wait on the grid — thermals were slow to start as the trigger temperature was held down by cool winds. There was a rebrief at the front of the grid to amend the "A" task in order to keep pilots away from the clag down the east of the country. However, this 397km task also had to be scrapped as time marched on. Launching began at 1250 on the fallback task and with only five of the six tugs operational the startline did not open until 1353.

Two options open

With a long task ahead of them pilots did not hang about and had all departed by 1425. At Lasham the cumulus had begun to improve but it soon became clear that they did not extend very far down track. After Salisbury the skies went blue and talk of sea air was rife on the R/T. The first outlandings occurred not long after. At Salisbury pilots had two options open to them — they could either follow the clouds to the north of track or stay on track in the blue. A large group opted for following the cloud and eventually found themselves with a problem — how to get back south into wind through the sea air to the first TP. Ultimately quite a number of gliders were to end up in fields around the first TP, victims of this tactic.

Those who ploughed on into the blue had a nasty time hopping from one weak thermal to another through the blue, which was just working. Some of the pilots were unnerved by the "prepare to roll" messages they heard on the R/T. Pete Cook and John Glossop came into the TP from the south and could see, to the north, some of those who were trying to battle south to the TP. As they went north they were able to use these thermal markers. Chris Garton and Ted Lysakowski both came to grief as the thermals died in the blue — all the more frustrating as they were almost back to the clouds.

A tricky stage

Pilots who got to the clouds on the second leg then found the going easier, although not all the clouds were working. Most had a fast run to the second TP and began to think they were home and dry. Near the TP there were climbs of 6-8kt which enabled the advance party to glide into the Thames Valley. Here they came under the influence of the strong winds and more sea air. Many landed at South Cerney or South Marston as lift ran out. Mike Throssell was blown well to the east of track and mistook Malmesbury for Cirencester, only realising his mistake when he recognised Hullavington below him.

By 1730 Lasham was quiet, many crews having already left — some on rather long retrieves. There were, however, several gliders not accounted for and a nucleus of spectators waited in hope of some finishes. They were not to be disappointed. George Lee had managed to find a small core near Hungerford which enabled him to head for home and a 500ft top up made it a comfortable final glide.

** Everyone was interested to hear that television cameras would be filming today for a regional news programme.*



Bernard Fitchett being presented with a cup by Mrs Wilma Hunter, wife of Group Captain Hunter, the station commander at RAF Odiham. Frank Irving, chairman of the Organising Committee, is on the left.

The only other finisher was John Delafield. He hadn't been as lucky as George at Hungerford and his final glide calculations gave him 300ft to spare — the calculator was right and he was to find the ensuing final glide very alarming! His 2nd place for the day enabled him to overtake Mike Carlton and move into 3rd place overall.

Bernard Fitchett had what was described as an "epic" scratch and was unlucky to land just short. Ralph Jones, Mike Carlton, David Innes and Richard Aldous could be heard struggling to get home but they couldn't make it. With only two finishers there were not many speed points so they did not lose too much.

With 42 gliders making outlandings today only one pilot, Dave Reed, suffered any damage to his glider — 224 hit a fence on landing. Dave was not hurt but the glider needed extensive repairs and so he was forced to drop out of the competition.

Leading positions:			km/h/km	pts
1.	Lee	Nimbus 3	84.15	755
2.	Delafield	Nimbus 3	77.62	750
3.	Fitchett	ASW-17	268.55	715
4.	Jones	Nimbus 3	253.30	674

Overall		pts
1.	Lee	3296
2.	Fitchett	3068
3.	Delafield	2851
4.	Carlton	2749

Thursday, June 10

The forecast held out no hope of a soarable window and the director decided to scrub at the 0930 briefing. When the prizes were presented for Day 4 a special prize for cheek was awarded to Ron Bridges. He had landed at the same airfield as four others and his landing card was carefully inscribed with the competition numbers of the gliders he had "beaten" and the number of yards he'd beaten them by!

Later in the morning Ted Lysakowski, chairman of the BGA Competitions Committee, chaired a competitor's forum at which topics of current interest were discussed and straw polls taken on controversial matters raised by competitors. A similar exercise will be carried out at the other National Competitions and the Committee will take account of the results in considering amendments to the Competition Handbook for 1983. The main areas discussed were the startline, time recording cameras, TP photography and Class structure.

Weatherwise, a broad band of thundery rain spread eastwards across the country with very hot but unstable air ahead of it at low levels. Although the sun broke through for a few hours it never became soarable.

Day 5, Friday, June 11

Task: 324.2km double △, Beckhampton Roundabout (24), Faringdon (29).



***Met:** After a wet night a small ridge moved in bringing, for the first time, very good visibility and strong thermals under cumulus whose base rose from 3500 to 5000ft during the afternoon. Some spread out of cloud made*

thermals a long way apart. The cold air became deep enough for showers from mid-afternoon on and sea breeze fronts produced some lines of heavy showers later.
***Max** 19°C. **Dew point** 10° falling to 7° for a time.*

There was an air of expectancy this morning as a public address announcement before briefing asked pilots to be on the grid by 1030. At briefing, we were to discover that in fact there was only a small area available to the task setters and so they had decided on a double triangle. Crews were delighted at the prospect of a task which would make retrieves fairly short and let them in on a part of the action as their pilots turned Lasham.

Ragged cumulus

Out on the grid the cumulus looked rather weak and ragged and quite a few pilots pulled-off as launching began at 1130. As a result the startline was able to open faster than on other days but there wasn't the rush to start immediately. A number of pilots had to land for relights and then conditions suddenly improved and there was a rush on the grid as those after relights and those who had pulled-off all decided to get into the air. Starts were spread over a wider time band than on previous contest days and, with the RTI being only one hour, some competitors made a start with the intention of returning later for another. Bernard Fitchett did just this but having gone a little way down track he found himself with Derek Piggott in a thermal which was giving 6-8kt — so he decided to carry on. John Glossop made an early start but was almost blown back to Lasham in the strong winds and so decided to start again. George Lee made a number of starts before finally leaving at almost 1330.

John Young found the going rather slow on the first leg into strong winds but John Delafield described the conditions over Salisbury Plain as "booming". There were large gaps and Mike Carlton nearly came to grief near the first TP. His barograph trace almost dipped below the Lasham baseline. John Taylor, who was with him at the time, did not have the span to survive and was forced to land.

On the whole pilots found conditions on the first circuit to be quite good and as they neared Lasham crews prepared to watch out, not only for their own pilots but also for their rivals. Some announced their presence overhead whilst others went round in silence. Enterprising crews spotted the leaders and suffered stiff necks for their trouble! Some precise calculations with reference to the start times were made and we realised that there could well be fast times and that George Lee seemed to be making up time on the opposition.

Leaving Lasham, pilots were seen to head off in varying directions — Howard Torode went north to Aldermaston where he picked up a good cloud street going due west. Others stuck religiously to track. On the 2nd circuit Chris Garton found that conditions were rather scratchy and small mistakes were costing a lot of time. Bernard Fitchett ran into trouble at the second TP where he found that some high cloud had come in, cutting off some of the lift. He got very low near Wantage before finally climbing away. First home was John Delafield hotly pursued by David Innes and Ralph Jones. They were soon to be seen anxiously waiting near the finish line to see whether or not their times would be beaten by "you know who".



David Innes, left, with Tom Docherty.

Formidable combination

Sure enough, despite the late start which was obviously a gamble, George Lee was the fastest finisher for the fifth time in succession (despite having had to "grovel" on the second leg on both circuits). The Lee/Nimbus 3 combination looked unbeatable.

There were plenty of finishers and some exciting final glides. For the first time during the competition there were some mass finishes. Pete Cook had to cross the finish line on the wrong side of the tower in order to avoid a whole gaggle of gliders converging on the line. He circled and crossed the line again just in case but there was no problem — the finish line acknowledged that he had done it in the interests of safety and accorded him the earlier time.

Ken Hartley and Ron Bridges could be heard late on struggling to get to Lasham but a storm denied them their speed points and they landed out. Pilots agreed that it was a good task and director, Chris Day, was delighted that they hadn't devalued the day. The results did nothing to change the leading positions although further down the list there was some juggling of positions. John Cardiff's was the fastest of the smaller ships at 81.38km/h. Martin Wells was back in 22nd place but, with only 98 points between 10th and 33rd places, he still retained his 8th place.

Leading positions:			**km/h**	**pts**
1.	Lee	Nimbus 3	103.01	1000
2.	Delafield	Nimbus 3	95.24	875
3.	Jones	Nimbus 3	95.13	873
4.	Fitchett	ASW-17	94.13	859

Overall		**pts**
1.	Lee	4296
2.	Fitchett	3927
3.	Delafield	3726
4.	Jones	3552

Saturday, June 12

In the hope of avoiding the storms that were forecast, the task setters came up with an alternative O/R with three different TPs. However, although the grid was assembled and ready to go the task was scrubbed at a 1200 briefing just as the first storm was almost over Lasham. Tom Bradbury explained that extremely unstable air covered England and Wales. Thunderstorms had broken out before dawn in the west and by late morning the Upavon radar reported a great number of echoes in all directions. Subsequently massive cu-nims appeared all around Lasham.

In the evening there was a very successful last night Barn Dance at which Bill Scull was to be seen tripping the light fantastic in a genuine ten gallon hat.



Max Bishop in athletic mood with his dog, Lucy.

Day 6, Sunday, June 13
Task: 188.6km dog leg O/R, Welford (20), Bicester Airfield (60), Welford (20)



Met: *A decaying front drifted gradually away from Lasham during the morning pushed by a cool northerly wind. As the frontal cloud lifted and cleared cumulus formed over the Midlands. This cu soon spread out to form an almost complete ceiling of strato cu which covered most of England leaving only small cracks for the sun to penetrate.*
Max *16°C.* ***Dew point*** *9° falling to 4°C.*

The last morning of the competition looked very grey and dank but everyone perked up on entering the briefing hall and seeing that a task had been set — although the weather did not look very promising.

At briefing John Delafield paid a tribute to Andy Gough who was tragically killed the previous day whilst performing glider aerobatics at RAF Brize Norton. We stood and observed a minute's silence as a mark of respect for one of the gliding movement's most staunch supporters. (See the tribute to Andy on p177.)

A second briefing had to be held at 1100 to set a different task because of airspace problems.

Disappointing start

Out on the grid there was a long, chilly wait for conditions to improve. Launching, originally scheduled for 1145, was put back several times and at 1400 the director informed all pilots that a decision would be made no later than 1430. It was a very difficult decision to make — club gliders soaring locally were just staying up and reports from elsewhere were not very encouraging. Pilots had mixed feelings when the decision to launch was made.

A number of pilots pulled to the back of the grid as launching began and gaggles struggled to keep airborne. An added problem was the 30min RTI. As soon as the gate opened at 1515 pilots made starts and could then be seen in a thermal to the north of the airfield trying to get enough height to go off on track. Several had to come back for relights and John Young didn't bother to relight as he was feeling unwell. David Gardiner set out (by road!) for Portmoak. Some pilots who were



Chris Day, director, ponders on whether there should be a task on the last day while pilots await his decision.

Martin Wells, who did so well to take 8th place in his 15m Mosquito.



John Delafield being presented with a



Chris Garton climbing into his Nimbus 2c.



John Cardiff checking his map.

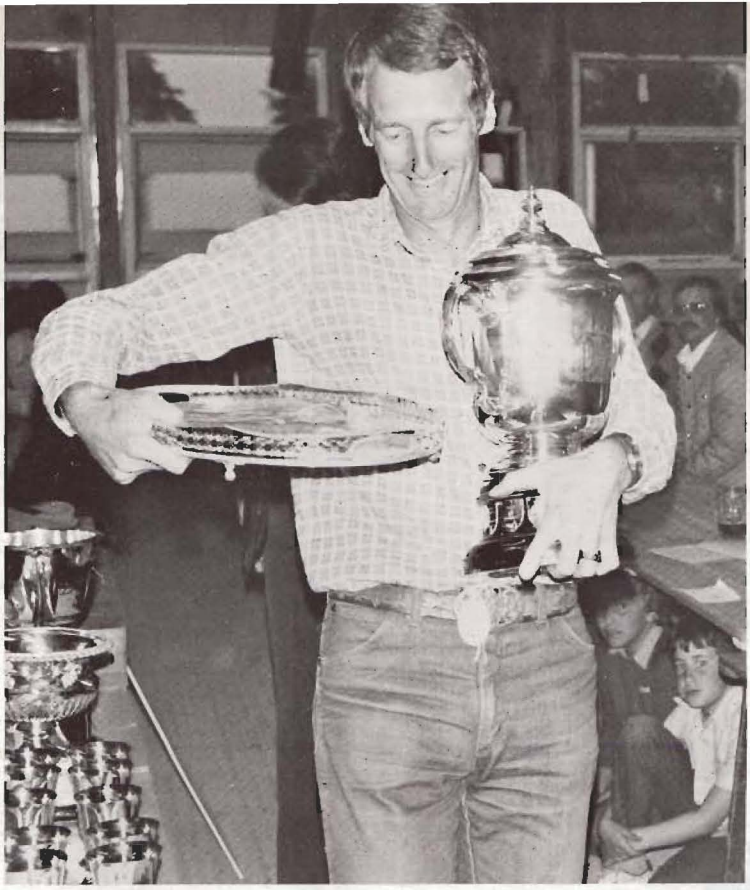




a cup by Mrs Wilma Hunter.







A victorious George Lee.

Frances Russell with his Glasflügel 604, the first to be flown in an Open Class Nationals.



late starting realised that they would not complete the task and so landed back at Lasham having been to the first TP.

On track pilots found that there was about 7/8ths cover most of the time as the cu spread out. But, whenever there was a gap and the sun got through, there could be reasonable rates of climb. For many the going was slow and the late start meant that time would probably run out for the lower half of the field. There was almost 8/8ths cover over Bicester and pilots had to glide in and out through dead air. At Lasham several outlanding reports set people speculating as to what would happen to the prizegiving if they all landed out! The director looked anxious and crews kept their fingers crossed.

Not long after 1800 the finish line leapt into action as Ralph Jones announced his impending arrival. This news set everybody chattering — Ralph was not only coming in first but he had started some 18min after George Lee. In fact, Ralph had made an earlier start and at Basingstoke had decided to come back and start again. He could see the lift clearly marked by gliders just starting and it took him very little time to catch the others up again. Apart from a low point near Weston-on-the-Green, he had had a good trip and felt conditions were not as bad as they looked. It was soon obvious that nobody could catch Ralph and it was some 30min before the main challengers arrived together.

Bernard played safe

Bernard Fitchett had met up with George Lee and John Delafield near Didcot. At that stage he didn't have enough height to final glide but was rather expecting that the Nimbus 3s would. However, they all went on together and topped up at Newbury where Bernard played safe and took extra height just in case.

Ultimately nearly half the field returned to Lasham. David Innes had also left late and was to come second to Ralph Jones. Mike Throssell, who would have been joint third for the day along with George Lee, had a photo penalty which pushed him back to 8th for the day. He must have been very pleased with his final 7th position behind the super ships and his 2nd place behind Bernard Fitchett in the 21m prize. Hamish Brown completed the task and was 10th for the day thus ending a very successful competition for him in which he was 9th overall and 2nd to Martin Wells in the 15m prize.

Of those who landed out, quite a number made it to the Newbury/Greenham Common area and so as not to miss the closing ceremony and prizegiving had aerotow retrieves.

Leading positions:		km/h	pts
1. Jones	Nimbus 3	75.76	955
2. Innes	Nimbus 3	59.73	806
3. Lee	Nimbus 3	59.12	800
4. Delafield	Nimbus 3	57.78	791

The prizes were presented by Mrs Wilma Hunter, wife of Group Captain Hunter, the station commander at nearby RAF Odiham, who recalled having flown as a tug pilot at the 1964 Lasham Nationals. George Lee thanked the organisers on behalf of all competing pilots and so brought to an end the first of the 1982 National Competitions.

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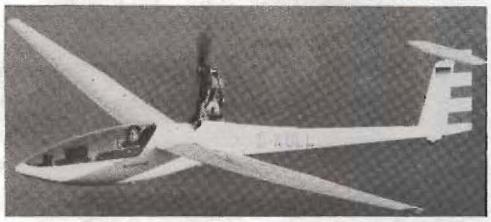
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Open Class

Fin. Pos.	Pilot	Comp. No.	Glider	DAY 1 5.6 326.6km ▲ Stourport, Gaydon Airfield			DAY 2 6.6 200.9km ■ Badbury, Westcott, Goring			DAY 3 8.6 243.6km ■ Shaftsbury, Colerne, Blakehill Farm			DAY 4 9.6 295.6km ▲ Shaftsbury, Gloucester			DAY 5 11.6 324.2km ▲▲ Beckampton, Faringdon			DAY 6 13.6 188.6km dog leg O/R Welford, Bicester Airfield, Welford			Tot. Pts.
				Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	Distance (Speed)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	
1	Lee, D. G.	26	Nimbus 3	97.95	1	1000	100.63	2	*649	109.26	1	892	(84.15)	1	755	103.01	1	1000	59.12	3	800	5096
2	Fitchett, B.	40	ASW-17	87.19	3	878	94.78	1	712	98.80	2	763	268.55	3	715	94.13	4	859	57.58	5	789	4716
3	Delafield, J.	66	Nimbus 3	79.14	7	802	80.69	6	540	98.44	3	759	(77.62)	2	750	95.24	2	875	57.78	4	791	4517
4	Jones, R.	82	Nimbus 3	90.37	2	911	76.48	12	499	80.97	19	595	253.3	4	674	95.13	3	873	75.76	1	955	4507
5	Carlton, M. R.	119	ASW-22	75.59	11	773	88.52	3	630	94.64	4	718	235.8	5	628	89.85	5	798	51.77	7	754	4301
6	Innes, D. S.	774	Nimbus 3	79.93	6	809	77.96	11	513	91.66	5	688	220.8	7	588	88.53	6	781	59.96	2	806	4158
7	Throssell, M. G.	336	Nimbus 2B	83.22	5	839	65.25	25	410	90.28	6	675	197.55	15	526	86.91	7	760	59.07	8	†752	3962
8	Wells, M. D.	321	Mosquito	75.91	10	776	80.55	7	539	82.96	=14	611	202.55	13	539	74.68	22	626	47.68	17	734	3825
9	Brown, H. F.	617	Kestrel 19	76.04	9	777	58.41	38	372	87.29	9	648	192.8	=17	513	81.31	13	693	49.87	10	744	3746
10	Garton, C.	31	Nimbus 2c	86.79	4	874	74.77	13	483	85.73	11	634	87.0	=28	232	86.10	8	750	49.65	=11	743	3716
11	Foot, R. A.	90	Nimbus 2c	70.90	17	739	73.82	16	475	81.50	16	600	209.55	=8	558	71.99	31	601	49.19	14	741	3714
12	Glossop, J. D. J.	19	ASW-17	71.44	16	743	78.75	8	521	86.49	10	641	173.55	22	462	81.42	=10	694	(138.67)	=20	572	3633
13	Lysakowski, E. R.	860	Nimbus 2B	73.08	=13	754	82.64	5	561	82.92	=14	611	87.0	=28	232	79.64	14	675	49.73	=11	743	3576
14	Aldous, R. F.	181	ASW-20L	78.30	8	795	58.69	37	374	81.48	=17	599	233.3	6	621	77.42	16	652	(129.42)	25	534	3575
15	Cook, P. G.	200	Nimbus 2c	66.96	20	714	62.10	=31	391	68.19	34	515	209.55	=8	558	73.70	26	617	52.40	6	757	3552
16	Sole, L. J.	70	Jantar 1	61.65	24	686	61.82	34	390	76.64	28	565	195.8	16	521	72.68	=28	607	48.00	=15	735	3504
17	Piggott, A. D.	11	Janus C	54.15	26	656	67.44	22	425	68.75	33	518	192.85	=17	513	70.73	34	591	47.86	=15	735	3438
18	Pozerskis, P.	260	ASW-17	74.58	27	*632	73.91	15	476	82.61	29	*563	209.55	=8	558	75.60	21	634	(131.27)	24	542	3405
19	Cardiff, J.	915	ASW-20	69.96	18	733	78.08	10	514	83.05	13	612	184.55	21	491	81.38	=10	694	(80.46)	30	344	3388
20	Roberts, D. G.	130	Nimbus 2B	71.59	15	744	64.43	27	405	89.10	7	664	50.0	=40	133	75.70	19	635	46.51	19	729	3310
21	Gorely, T. D. F.	69	ASW-20L	44.53	12	765	66.77	23	420	78.51	=23	577	75.75	=31	202	70.22	35	587	(138.67)	=20	572	3123
22	Purdie, P. G. H.	134	Nimbus 2c	66.21	21	710	(104.4)	44	190	78.15	=26	575	155.3	25	413	74.03	24	620	(138.67)	=20	572	3080
23	Fleming, A. M.	57	Nimbus 2	(236.6)	32	488	87.12	4	613	88.94	8	663	52.45	39	140	76.11	17	639	(138.67)	=27	*524	3067
24	Hartley, K. J.	195	Nimbus 2	63.25	23	694	65.98	24	415	83.96	12	619	50.0	=40	133	(293.25)	40	453	50.34	9	746	3060
25	Batty, C. J.	696	ASW-20	61.47	25	685	69.12	21	437	74.72	32	552	209.55	=8	558	73.02	27	610	(43.84)	33	181	3023
26	Torode, H. A.	970	Kestrel 22	(260.6)	33	*487	64.01	29	403	75.46	31	557	201.05	14	535	74.59	23	624	(94.96)	28	392	2998
27	Tull, V. F. G.	415	Kestrel 19	(284.1)	28	586	69.42	20	439	(218.6)	37	444	81.75	30	218	65.62	37	553	47.05	18	731	2971
28	Forsey, L. K.	481	ASW-20L	(255.35)	35	465	61.99	42	*351	78.45	=23	577	33.7	=42	90	75.70	20	635	49.52	13	742	2860
29	Hanfrey, A. W.	54	Nimbus 2B	68.20	19	722	73.09	18	469	80.12	21	589	65.0	=33	173	82.88	9	711	(33.34)	35	138	2802
30	Bridges, R. C.	157	LS-3A	(202.6)	40	418	62.72	30	395	67.57	36	512	209.55	=8	558	(301.25)	39	465	(74.34)	=31	307	2655
31	Russell, F. K.	604	Glasflugel 604	(228.35)	34	471	78.48	9	518	(209.6)	41	426	180.3	24	*442	(165.40)	41	256	(128.96)	26	532	2645
32	Walker, D. B.	43	Kestrel 19C	65.48	22	706	64.25	28	404	80.61	20	593	75.75	=31	202	75.81	18	636	(19.71)	=37	81	2622
33	Pozerskis, A.	95	Nimbus 2	(229.35)	39	*423	73.69	17	474	81.47	=17	599	33.7	=42	90	81.36	=10	694	(85.96)	=31	*307	2587
34	Stewart, K.	135	LS-3-17	73.06	=13	754	71.84	19	458	(217.35)	38	441	65.0	=33	173	71.34	33	596	(27.09)	36	112	2534
35	Young, J. R.	120	Nimbus 2	(220.1)	37	454	64.99	26	409	(212.1)	39	431	192.8	=17	513	78.33	15	661	0	=39	0	2468
36	Davies, F. J.	985	Kestrel 19	(217.1)	38	448	53.30	41	352	79.55	22	585	168.05	23	447	71.75	32	599	0	=39	0	2431
37	Taylor, J. J. T.	87	ASW-20	(263.35)	30	543	62.03	=31	391	76.05	30	561	62.7	37	167	(42.1)	43	65	(138.67)	=20	572	2297
38	Szulc, B. J.	303	Ventus B	(92.63)	43	191	74.14	14	478	67.88	35	514	33.7	=42	90	72.54	30	606	(85.96)	29	355	2234
39	Thick, M.	171	ASW-20L	(88.6)	44	183	67.84	35	*388	78.48	=23	577	142.05	20	511	64.18	38	543	0	=39	0	2205
40	Bishop, J. M.	227	Mini Nimbus	(258.1)	31	532	57.41	39	368	(135.7)	44	276	97.25	27	259	69.44	36	581	(19.71)	37	81	2097
41	Randle, Jane	79	Kestrel 20	(211.35)	41	*386	59.18	36	376	(208.85)	42	424	57.95	38	154	73.98	25	619	(34.59)	34	†123	2082
42	Docherty, T. P.	727	Nimbus 2c	(136.29)	42	281	55.83	40	361	(168.35)	43	342	147.9	26	394	77.89	=28	*607	0	=39	0	1985
43	Gardiner, D.	363	Kestrel 19	(225.3)	36	464	62.03	=31	391	(210.85)	40	428	65.0	33	173	(161.19)	42	249	0	=39	0	1705
44	Reed, D. W.	224	Kestrel 19	(276.6)	29	570	52.35	43	349	78.11	=26	575	64.2	36	171	DNF			DNF			1665
Hors Concours — British Team Squad																						
	Watt, D. S.	949	ASW-20FL	83.33	5	840	—			92.98	5	701	232.35	7	618	—			—			
	Kay, A. E.			—			80.05	6	534	—			—			79.26	15	671	51.84	=7	754	4118

* = photographic penalty; † = penalty for landing in the Harwell zone; DNF = did not fly

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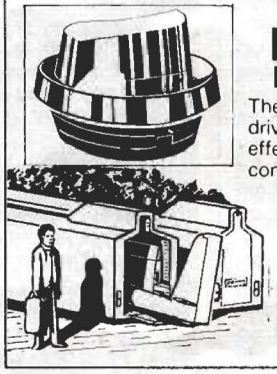
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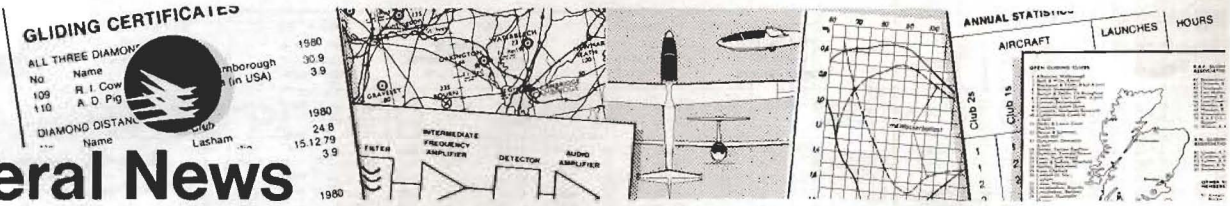


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BGA and General News



ARGENTINA HAVE WITHDRAWN

The Argentina Aero Club have told the FAI that they are withdrawing as hosts of the World Gliding Championships next January. We are now waiting to hear what the FAI are going to do about an alternative venue. They have the choice of finding a replacement country in the southern hemisphere to organise the Championships in early 1983 or to accept an offer for next summer.

MOTOR GLIDER FATALITIES

PIK 20E at Lasham. On May 9 a PIK 20E flown by Michael Lefroy-Eaton was taking-off to the west at Lasham. At a height variously reported as between 150-300ft the aircraft's engine stopped. The pilot turned back towards the airfield but the turn steepened with the nose dropping. The aircraft hit the ground wingtip first. The pilot died from his injuries soon afterwards.

The engine failure, not itself the cause of the accident, is being investigated by Accidents Investigation Branch of the Department of Trade. At the time of going to press no clear cause had been established.

Scheibe Tandem Falke at Enstone. On May 26 a Tandem Falke suffered structural failure after being looped. The instructor, John Downes, and the passenger, Mr Legge, were killed on impact. This accident also is being investigated by AIB.

W. G. Scull, *director of operations*

THE FIVE YEAR RULE

When the BGA constitution was last revised there was a general feeling that steps should be taken to prevent someone hanging on to a particular office for an unduly long period of time. It is always embarrassing to ask someone who has served the Association, working hard in a voluntary capacity over a long period of time, to stand down.

Accordingly Article 36 was written into the BGA Articles of Association imposing a five-year limit on continuous service as an "officer" of the Association. Unfortunately the legal interpretation of the detailed words that were used is such that all Executive Committee members are included in the rule (being officers) and furthermore the rule applies cumulatively to any of the voluntary positions in the BGA. Thus for example someone might serve on the Executive Committee for three years, then be elected as vice-chairman for two years but thereafter be constrained from election as chairman or even re-election as vice-chairman because of the five year rule.

Of course, in practice, we circumvent this constraint by passing a special resolution at the AGM nullifying the effect of Article 36 in respect of the person concerned. In fact we have to do this almost every year, which really makes rather a nonsense of having Article 36 at all.

This has been discussed recently at the Executive Committee and agreement reached that the rule should be changed. This could be done in a number of ways and the views of the movement are sought. One way is to reword Article 36 so as to apply to Sub-Committee chairmen and the chairman, vice-chairman and treasurer of the Executive Committee only on an individual basis rather than cumulatively. Alternatively the rule could be eliminated altogether leaving the AGM election procedure for officers of the BGA as the sole mechanism for changing officers. It should be clear, however, that in seeking to change the rules the Executive Committee do not wish to depart from the sound principle in practice, that there should be a steady regular turnover of BGA officers in order to avoid staleness.

Barry Rolfe, *Administrator*

TOST COMBI E HOOK WARNING

The Tost Combi E release hook has been reported to the BGA Technical Committee by Derek Piggott, CFI of Lasham Gliding Society, as likely to jam, even when the release knob is fully pulled and the hook completely opened.

He considers it is a design problem which has already been a contributory factor in several accidents and incidents. Derek thinks that whereas the older Ottfur release is designed so that the large ring bears on the automatic "cage" and the small ring always has a direct pull out from the hook, the Combi E has the "cage" too close to the hook so that the large ring can be pulled into a near horizontal position.

Describing the present situation as unacceptable, he feels it is prudent to warn of the possible hazards and suggests the Combi E over-ride "cage" should be modified to operate in the same way as the Ottfur. This would mean a new part and a mandatory modification.

Meanwhile he advises making sure the approved Tost rings are safe and compatible with both the older Ottfur hook and the nose hook of the Kestrel and Libelle where the hook is inside the glass-fibre fairing.

Dick Stratton, BGA chief technical officer, who believes they will have to standardise on the Tost equipment since Ottfur hooks are no longer in production, makes the following points:

1. There is some difficulty in confirming that Tost Combi E hooks have been a contributory cause to specific accidents.

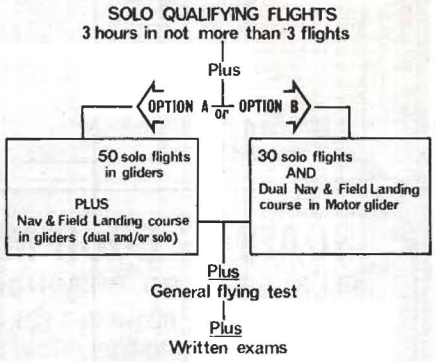
2. The track record of this hook, even when used with Ottfur rings, is good. Even at intensive winch/auto sites like Cambridge and Bristol there is no evidence of re-occurring malfunction, even though there may be occasional "hang-ups" when tested before flight by means of an upward (unrealistic) pull by the cable handler.

3. The **Tost hook** should ideally be used with **Tost rings!!** The decline of the UK glider industry to zero makes nonsense of attempting to perpetrate British glider launching tackle for ever!

4. Some hook **installations** contribute to poor operational standards by virtue of location, angle and depth of insertion into the structure. This is not the hook's fault!!

5. We believe there may have been aerotow "hang-ups" on LS-4s — probably because of the **installation** of the hook, possibly used with Ottfur rings.

PROPOSED CHANGES IN BRONZE BADGE REQUIREMENTS



After consultation with the director of operations and the national coaches, I reached the conclusion that it would benefit the movement if more training could be brought into the Bronze C requirement and the standards raised to be more in line with our European counterparts.

The end result will hopefully be a higher standard of soaring pilots better equipped to cope with cross-country flying and certainly better trained to carry out field landings.

This will also, hopefully, reduce the number of field landing accidents and controlled airspace violations.

Being very much aware of the need for a democratic type approach, we held a meeting of the Instructors' Committee to discuss the planned changes and seek views and proposals for the committee members. We then had a series of meetings in the regions, chaired by the senior regional examiner and attended by the CFI of each club in the area, regional examiners and others interested, as well as attending the RAFGSA CFI conference where the Bronze C was on the agenda. Wherever possible I, or one of the coaches, went to meetings ex officio, the local senior regional examiner being in the chair.

The findings of these meetings, the views and wishes of the CFIs, their proposals and

objections were presented to the Instructors' Committee in March. From this meeting and the lengthy discussions that ensued, the Committee are making the following proposals to become effective on January 1, 1983.

Recommendations

1. The qualifying soaring tests should be altered to require: three hours' soaring in not more than three flights. (Note that the type of launch is no longer related to the duration of the flight.)
2. The applicant for the Bronze C must have completed a minimum of 50 solo flights in a glider. Of these 50 flights, a maximum of 20 flights may be made up of dual field landing training in a motor glider, at the rate of one hour's training on motor gliders equalling ten solo flights, if so desired.

The dispensations regarding qualified aeroplane pilots currently set out in **Laws and Rules for Glider Pilots** will still stand.

3. The candidate must complete the general handling flight tests, as at present, and must also produce evidence of satisfactorily completing a course of field landing and cross-country navigational training. (This course will automatically be covered if the candidate opts to reduce the number of solo flights as detailed in para 2.)

The minimum acceptable field landing training is as required for the current Bronze C, *ie* dual or solo field landings, off site or into a "difficult" corner of the airfield, solo field landings to be under the supervision of an instructor.

In the light of present day trends and needs the most satisfactory form of training in these difficult areas is by use of the motor glider, but options must be left for those clubs who do not have this equipment.

4. All other elements of the Bronze C requirement will stand as at present, with new more comprehensive examination papers produced, to be circulated well before the introduction of the new requirements.

These proposals will be considered by the BGA Executive Committee in the autumn for a target implementation date of January 1, 1983.

John Morris, *chairman*
BGA Instructors' Committee.

GC SECURITY PARACHUTES

International Marine and Aviation Consultants and Agents of Fareham, Hants have recently gained the marketing rights for parachutes and associated equipment designed and manufactured by GQ Security Parachutes of California.

The range includes Model 150, the first parachute the company has designed specifically for glider pilots. It weighs under 16lb with a rate of descent comparable to the large 28ft canopy.

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A TRIBUTE TO ANDY GOUGH



Photo: Harris Morgan

The tragic death of Warrant Officer Andy Gough following structural failure during his aerobatic display in a Blanik at RAF Brize Norton on June 12 will be deeply and lastingly felt by his wide circle of friends in many parts of the world, and particularly by the countless number of pupils he taught to fly during a gliding career spanning some 35 years. He had been awarded the British Empire Medal, the Royal Aero Club Bronze Medal and the FAI Paul Tissandier Diploma for his major contributions to the sport.

Andy started gliding in Germany, at Minderheider, in 1947 and was solo trained by the accepted method of the day on the single-seater SG-38. Gliding rapidly became the main outlet for his enormous enthusiasm, seemingly unlimited vigour and powerful leadership. An excellent soaring pilot, he was one of the few glider pilots to fly across the English Channel before air traffic considerations made such flights extremely difficult: on May 21, 1958, he flew from S. Cerney to Germany setting up a UK distance record of 348 miles.

He became an Inter-Services Champion a number of times, and consistently gained high placings in UK National Competitions and was a member of the British Team in the 1970 World Gliding Championships at Marfa, USA. The South Africans invited him to fly in their National Standard Class Championships in 1972 where his aggressive competitiveness brought the wingtip of his Cirrus into brushing contact with a mountainside, an incident which did not prevent him from gaining first place in the contest.

Although Andy stopped keeping a gliding logbook years ago, when pressed he would modestly admit to some 7000hrs in addition to his large total of powered flying — mostly as a glider tug pilot. He was instructing for much of his time, and after several CFI appointments in RAF gliding clubs he became CFI at the RAF Gliding and Soaring Association Centre at Bicester on its formation in 1962 and had held the post ever since. Ever helpful and forthcoming Andy put all he had into this job and will be remembered by numerous young, not so young, and downright old glider pilots for the wise advice and expert tuition he was able to impart so well during their early, and often later, flying days.

His unfailing enthusiasm, generous sense of humour and helpfulness — not to mention his entrepreneurial flair — were an inspiration to all who shared the privilege and good fortune to work with him and to fly under his perceptive eye. Many a senior officer has been left in no doubt that his actions on the gliding field, or performance in the air, had not won Andy's acclaim. However, his tact and sensitivity were never far away and he knew exactly when a ready smile was needed for encouragement, or to avoid misunderstanding after a well-deserved rocket.

As Centre member of the RAFGSA Executive Council he made major, vigorous and shrewd contributions to debate on club and financial matters. He also found time to sit on the BGA Instructors' Panel where again his immense experience and practical, robust wisdom made much impact.

An exclusive ability

For well over 20yrs Andy was an outstanding glider display pilot who had developed that exclusive ability to show off the full capability, beauty and grace of a sailplane in aerobatic flight. He devoted equal care and detailed attention to both big and small display occasions. Not untypically he had accepted invitations to fly three shows on June 12: the first, at Halton, he had flown immaculately before being aerotowed to Brize Norton for the Station's open day flying display. Finally on that day he was due to fly at a charity event near to Bicester.

Andy Gough combined his personality, skill, energy, charm, and perhaps his greatest quality — humanity — to serve the Royal Air Force and gliding in a unique style with verve and dedication seldom surpassed. Those who knew him well will remain proud to be counted among his friends: for them, and the many others he helped to appreciate the immense joys and fascination of gliding, he leaves a void which can only be filled by memories of the admirable and irrepressible qualities he possessed in such full measure. Our deepest sympathy goes out to his wife Audrey, and to all members of his family.

John Brownlow,
Chairman of the RAFGSA.

INSURANCE COMPANY NEW TO UK

Over the last 12 months BGA officers have been discussing the UK glider insurance market with Ron Wyatt of Wyatt International Insurance of Canada.

Wyatt Insurance have for many years been running successful insurance policies for members of both the Soaring Society of America and the Soaring Association of Canada and they are now extending their interests to offer cover to British pilots.

The BGA Executive Committee have welcomed this addition to the limited number of insurers dealing with gliding business in this country in the belief that more competition will assist members.

Barry Rolfe, *BGA administrator.*



Don Hale of the Stratford on Avon GC, who didn't hurry to get his Silver C, was amused by this cartoon drawn by his son-in-law, Dennis Jones, charting his progress.

BGA ACCIDENT SUMMARY — Compiled by ARTHUR DOUGHTY, Chairman, BGA Safety Panel

Ref. No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew			SUMMARY
						Age	Injury	P/Hrs	
17	K-7	1664	M	30.01.82	Farnborough	28	N	122	High approach in fresh wind to touch down and landing at upwind end of landing area. Struck exposed edge of concrete block in which was set a runway light. Earth normally level with top of block
					P2	62	N	7½ P2	
18	K-6CR	1279	M	14.02.82 15.15	Doncaster	66	N	138	The Libelle was in the aerotow launch queue with pilot in the cockpit. The pilot of the K-6 thought he was well clear but the stbd wing 2ft in from the tip struck the raised port wing of the Libelle 4ft from the tip.
	Libelle	?	M			?	N	?	
19	ASW-19	2727	M	30.01.82 12.30	Lasham	39	N	770	Pilot was doing cockpit check prior to making first flight on type and on reaching "air-brakes" thought to himself, "The ASW-19 hasn't got a retractable undercarriage." He then pulled the U/C lever which is mounted on the same side of cockpit as airbrake lever and undercarriage collapsed.
20	Twin Astir	2399	M	07.03.82 11.30	Nympsfield	29	N	1574	After an aerotow launch, P1 in front seat states he could not retract U/C so moved the operating lever fully forward to down position and checked it was correct. After an approach and touchdown stated by witnesses to be normal the U/C collapsed. Front and rear cockpit U/C levers both in down position.
					P2	25	N	17 P1 hrs	
21	Jantar 1	2079	M	13.02.82 15.20	Weston-Super-Mare	26	N	132	After winch launch to 1000ft pilot joined downwind at about 800ft just as shower of rain started. Rain eroded performance, restricted visibility and in attempting to fly a normal circuit a low final turn was made and further complicated by a pedestrian. Touch down crosswind and ground looped.
22	Falke	G-AYZW	S	21.03.82 15.00	Portmoak	39	N	1125 gliders 143 Pwr	P1 demonstrating engine restart by diving but engine failed to start. Pull out commenced at about 95kt. On attempting to level out pilot found control column could not be moved forward so pulled back to complete loop and with assistance of P2 managed to move column forward and recover to near normal attitude.
					P2	26	N	318 gliders 134 Pwr	A downwind landing in a ploughed field was made. On examination it was found the stbd wing main fitting had failed and the vertical wing connecting pin had been forced into contact with the elevator push/pull rod.
23	ASW-20	2524	S	04.03.82 17.10	Bryngwyn 6 miles NW of Hay-on-Wye	55	N	1200	After 5000ft aerotow soared wave slots which closed. At 3500ft decided to return to Shobdon. Spotted River Wye through cloud and took up heading related to incorrect fix so that flight was towards high ground. Broke cloud at 2500ft and tried to fit terrain to D/R position. Landed up a valley in small sloping field 1500ft above Shobdon. Wingtip touched while making final turn and landed with yaw.
24	Falke	G-AYUP	S	14.03.82 11.50	Cranwell North	45	N	291 gliders 127 Pwr	Motor glider landed to right of launch point bus and started left turn to clear landing area. Pilot saw glider on approach on path that was between motor glider and bus so opened throttle to expedite clearance. A gust lifted upwind wing exposing underside of tailplane to wind, pitching glider forward. Propeller broken and engine shock loaded.
					P2	?	N	?	
25	K-13	1457	M	17.02.82 12.30	Parham	61	N	232	Simulated cable break at about 150ft. Turned upwind followed by 180° turn to land downwind/crosswind on transverse runway. On touch down observed temporary stakes being erected to mark point-to-point course. Induced ground loop to avoid stake but struck one 3ft in from tip.
					P2	60	N	102 P1	

GLIDING CERTIFICATES

FAI 1000km

No.	Name	Location	Flight	1982
2	M.T.A. Sands (Ulster GC)	USA	O/R	18.4

ALL THREE DIAMONDS

No.	Name	Club	1982
126	K. Mitchell	in USA	18.4
127	J. A. Evans	Bitterwasser, S.A.	1.11.81
128	S. T. E. Walker	Deeside (in Australia)	14.2
129	C. Brock	Kestrel (in Australia)	10.12.81
130	L. S. Hood	Clevelands	9.5
131	J. Taylor	Bicester	10.5
132	J. N. Ellis	Yorkshire	9.5
133	R. C. Stoddart	Yorkshire	8.5
134	N. Gaunt	Yorkshire	9.5

DIAMOND DISTANCE

No.	Name	Club	1982
1/187	K. Mitchell	in USA	28.3
1/188	J. A. Evans	Bitterwasser, S.A.	1.11.81
1/189	S. T. E. Walker	Deeside (in Australia)	14.2
1/190	C. Brock	Kestrel (in Australia)	10.12.81
1/191	L. S. Hood	Clevelands	9.5
1/192	J. Taylor	Bicester	10.5
1/193	J. N. Ellis	Yorkshire	9.5
1/194	R. C. Stoddart	Yorkshire	8.5
1/195	B. J. Szulc	Polish	9.5
1/196	N. Gaunt	Yorkshire	9.5

DIAMOND GOAL

No.	Name	Club	1982
2/1088	C. D. Marsh	Airways	28.1
2/1089	C. F. Coles	Surrey & Hants	23.3
2/1090	S. T. E. Walker	Deeside	6.2
2/1091	A. M. Thomson	Two Rivers	14.4
2/1092	R. C. Hufton	Doncaster	7.5
2/1093	M. Morris	Doncaster	8.5
2/1094	D. R. Sutton	Yorkshire	9.5
2/1095	M. Taylor	Two Rivers	25.4
2/1096	J. Day	Ouse	9.5
2/1097	T. W. J. Stoker	Ouse	9.5
2/1098	T. W. Eagles	Bannerdown	9.5
2/1099	A. P. Smith	Humber	9.5
2/1100	R. I. Gibbs	Humber	8.5
2/1101	R. A. Bickers	Kestrel	15.4
2/1102	A. J. Reed	Ouse	9.5
2/1103	R. L. McLean	Yorkshire	8.5
2/1104	M. C. Mahon	Two Rivers	18.4
2/1105	T.S. Hills	RAE	9.5
2/1106	A. R. Newberry	RAE	9.5
2/1107	D. J. Eade	Surrey & Hants	9.5
2/1108	W. R. Brown	Yorkshire	9.5
2/1109	C. J. Townend	Doncaster	9.5
2/1110	P. Shambrook	Clevelands	9.5
2/1111	G. Wright	Yorkshire	9.5

DIAMOND HEIGHT

No.	Name	Club	1982
3/518	J. D. Jones	Bristol & Glos	11.3

3/519	C. M. Davey	Four Counties	25.3
3/520	J. G. Shepherd	Borders	11.4
3/521	A. Wright	Thames Valley	25.3
3/522	J. Bridge	Woodspring	13.3
3/523	A. Yorkas	Woodspring	17.3
3/524	A. F. Hall	Essex & Suffolk	11.4
3/525	A. Quilter	Thames Valley	25.3
3/526	B. Elliot	Four Counties	25.3
3/527	A. J. Eddie	Four Counties	25.3
3/528	D. G. Cooper	Norfolk	11.4
3/529	D. Fraser	SGU	11.4
3/530	J. C. Bastin	Surrey & Hants	10.4
3/531	K. A. G. Buchan	SGU	28.4

GOLD C COMPLETE

No.	Name	Club	1982
865	C. D. Marsh	Airways	28.1
866	J. C. Bastin	Surrey & Hants	10.4
867	S. T. E. Walker	Deeside	6.2
868	A. M. Thomson	Two Rivers	14.4
869	R. C. Hufton	Doncaster	7.5
870	M. Morris	Doncaster	8.5
871	A. P. Smith	Humber	9.5
872	R. L. McLean	Yorkshire	8.5
873	M. C. Mahon	Two Rivers	18.4
874	A. R. Newberry	RAE	9.5
875	W. R. Brown	Yorkshire	9.5

GOLD C DISTANCE

Name	Club	1982
C. D. Marsh	Airways	28.1
C. F. Coles	Surrey & Hants	23.3
S. T. E. Walker	Deeside	6.2
A. M. Thomson	Two Rivers	14.4
R. C. Hufton	Doncaster	7.5
M. Morris	Doncaster	8.5
D. R. Sutton	Yorkshire	9.5
M. Taylor	Two Rivers	25.4
J. Day	Ouse	9.5
T. W. J. Stoker	Ouse	9.5
T. W. Eagles	Bannerdown	9.5
A. P. Smith	Humber	9.5
R. I. Gibbs	Humber	8.5
R. A. Bickers	Kestrel	15.4
A. J. Reed	Ouse	9.5
R. L. McLean	Yorkshire	8.5
M. C. Mahon	Two Rivers	18.4
T. S. Hills	RAE	9.5
A. R. Newberry	RAE	9.5
D. J. Eade	Surrey & Hants	9.5
W. R. Brown	Yorkshire	9.5
M. Dawson	Bannerdown	9.5
C. J. Townend	Doncaster	9.5
P. Shambrook	Clevelands	9.5
G. Wright	Yorkshire	9.5

GOLD C HEIGHT

Name	Club	1982
B. Sword	Borders	11.4
G. Lees	SGU	11.4
P. Roubaud	SGU	11.4
J. A. McCoshim	SGU	10.4
R. B. Kennedy	SGU	11.4
J. J. Russell	Thames Valley	26.3
J. Bridge	Woodspring	13.3
A. Yorkas	Woodspring	17.3
C. Wilby	Essex & Suffolk	10.4
D. J. Gilder	Essex & Suffolk	10.4
P. R. Mannering	Wolds	11.4
L. A. Marshall	Essex & Suffolk	10.4
R. P. Everett	Essex & Suffolk	11.4
J. C. Bastin	Surrey & Hants	10.4
M. Hayes	Norfolk	15.4
A. E. Hughes	SGU	10.4
A. S. Black	Angus	11.4
G. Cartwright	Wolds	11.4
M. F. Brook	Yorkshire	25.4
R. Hill	SGU	11.4
J. T. A. Hunter	Wolds	11.4
M. P. Day	Norfolk	10.4
R. A. F. Brown	Norfolk	10.4
T. A. Reynolds	Southdown	11.4
F. T. Bishop	Southdown	9.4
P. Southam	Four Counties	22.3
Vivien Haley	Essex & Suffolk	11.4
B. Kroemeke	Four Counties	22.3

SILVER C

No.	Name	Club	1982
6092	R. D. House	SGU	11.4
6093	Ann Shaw	SGU	11.4
6094	R. Thompson	Northumbria	2.4
6095	D. R. Stewart	Fulmar	23.3
6096	M. R. Smith	Coventry	3.4
6097	R. W. Hawkins	Southdown	12.4
6098	R. S. Jones	Connel	11.4
6099	M. Wilson	Fenland	2.4

26	K-8B	2262	S	27.03.82 09.50	1 mile east of Portmoak	48	N	2	Early solo pilot lost sight of site while flying on hill towards sun in anticyclonic haze. On reaching SW corner of hill turned left and disappeared into haze to a field landing with 40° tailwind component. Collided with upwind boundary fence with nose and rotated until tailplane struck fence.
27	Diamant 18	2367	W/O	27.03.82 15.05	Bishop Hill above Scotlandwell 1 mile N of Portmoak	29	S	160	Arrived at corner of hill at 800ft from 1100ft winch launch and commenced to circle in 1kt lift but lost height as lift was on one side of circle only. At 600ft decided to do one more circle and when facing hill realised it could not be completed without hitting trees. Attempted to pull up to pancake on tree but struck one with wing.
28	PIK 20e	2303	S	09.04.82 19.05	Portmoak	55	N	924	After turning finals at about 400ft pilot selected flap and half airbrake. A strong wind gradient was encountered so brakes were closed and flap reduced. Glider continued to sink rapidly and struck a bush on the boundary with a wingtip which yawed the glider to a sideways landing.
29	Sport Vega	2616	M	27.03.82 12.56	Lasham	43	N	50	Acceleration at start of autotow launch in nil wind was slow and cable went slack. At height variously stated to be between 10 and 50ft pilot released but had insufficient height to acquire adequate speed for a landing. Landed heavily on main and tail wheels.
30	K-13	2317	M	07.04.82 17.10	Lasham	31	N	1000 +	At commencement of autotow launch the launch cable picked up a parked cable with anchor tyre attached which lodged in wingroot/fuselage joint. P1 appreciated something was wrong so released and landed ahead. Bouncing tyre cracked canopy. Launch from grass instead of previous position on runway.
					P2	18	N	?	
31	K-7	1626	M	14.04.82 12.05	Portmoak	42	N	8	Visitor hill soaring "and after coping with the onset of orographic cloud for some time, became enveloped in cloud and after losing orientation flew over the top of Bishop Hill and into downdraught. I became aware of the ground 50ft below . . . so opened the airbrakes and landed."
					P2	Solo	flight		
32	Mosquito B	2472	M	14.04.82 14.10	Lasham	47	N	135	Pilot bounced on touchdown and lost directional control finally groundlooping to collide with the K-8 which was at the launch point with pilot installed awaiting a launch. Approach observed by deputy CFI and assessed as too fast and over control in pitch.
	K-8	?	S						
33	K-7	2187	M	27.03.82 13.47	Pershore	21	N	¾	Early solo pilot failed to round out adequately for landing on day with nil wind and haze.
					P2	Solo	flight		
34	K-13	1612	M	17.03.82 ?	Chaflock	—	—	—	The glider had landed on the line of the winch run and was in the process of being pushed back to the launch point but due to a hump in the field was out of sight of launch point. The glider was also out of sight of the winch driver and only in view of the relay signaller who permitted a launch to proceed. Crosswind drifted cable under wing of glider and lifted it from the ground.
					P1	?	?	?	
	K-13	2610	N		P2	?	?	?	
35	K-6CR	2315	M	15.04.82 15.30	Doncaster	16	N	12	While flying at high speed, 80kt, pilot heard a muffled bang and reduced speed to 50kt and found all controls functioned normally, with no adverse handling. Returned to A/F when convection ceased and found centresection fairing missing and damage to fin. Retaining wing nuts not fitted.
36	Nimbus 3	?	S	18.04.82 14.30	1 mile NE of Lasham	39	N	1020	Glider flying into wind at 1400ft 1 mile north of and parallel to runway prior to joining circuit. Pilot saw tug descending in right hand turn about 200ft above and to port so initiated a turn to the right. As tug passed there was a collision between the port wing of the glider and the port wing of the tug. Tug pilot stated he descended in a left turn scanning to the left before and after straightening out and then looked right and saw the glider very close, about 150ft, and took evasive action unsuccessfully by diving to the right.
	Piper PA 18 Super Cub	G-ATRG	S			42	N	270 Pwr	
37	Pirat	2042	M	11.04.82 13.00	Westmeston Sussex	22	N	111	Field selected from 800ft while hill soaring. On finals a late turn to line up into wind was made and the field had slight slope down from left to right. The lower port wing scraped across the wire and post boundary fence.
38	K-6CR	2570	M	10.04.82 14.00	Parham	42	N	120	Centresection fairing became detached in flight. Further details awaited.
39	Fauvette	2679	M	11.04.82 14.15	Camphill	54	N	380	At about 200ft on winch launch the canopy flew open. Pilot decided to abort launch and lowered nose and opened airbrakes before releasing cable. Held canopy closed with left hand and landed heavily. Pilot was heavily clothed and thinks he dislodged canopy latch when reaching forward to check airbrakes.
40	Sport Vega	2728	S	13.04.82 18.20	Camphill	32	M	450	Winch failed when glider was at about 150ft and pilot's reaction to decaying speed was apparently slow. A turn to the left was initiated, possibly in an attempt to reach the ridge face, and the nose lowered. A high rate of descent in the wind gradient with inadequate roundout for landing was observed resulting in touchdown on nose. Pilot has no recollection of accident.
41	K-8B	1502	S	12.04.82 09.20	Camphill	59	N	908	After winch launch to 1400ft pilot performed aerobatics over the valley concluding with fast downwind run at 10-20ft followed by a chandelle and full airbrake approach. On touchdown over ran landing area and collided with west boundary wall and a tree.

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

GLIDING CERTIFICATES — Silver C — cont.

No.	Name	Club	1982
6100	P. R. Roubaud	SGU	11.4
6101	R. Beard	Bath & Wilts	11.4
6102	Jane Adams	Shalbourne	11.4
6103	G. Lees	SGU	11.4
6104	S. J. Murray	Fenland	10.4
6105	J. M. Rayner	Midland	11.4
6106	D. A. Potter	Enstone	11.4
6107	D. L. Jobbins	South Wales	11.4
6108	Geralyn Macfadyen	Cotswold	15.4
6109	G. Davies	London	14.4
6110	R. C. Adams	Essex & Suffolk	17.4
6111	I. C. Lees	Doncaster	18.4
6112	B. Gardner	Wolds	12.4
6113	C. V. James	Phoenix	18.4
6114	D. Nicol	Mendip	11.4
6115	W. B. Bowen	Ulster	11.4
6116	P. A. Myhill	Wolds	12.4
6117	P. R. Jones	Avon	15.4
6118	Jane Ballard	Surrey & Hants	15.4
6119	W. P. Stephen	Newcastle	11.4
6120	L. A. Marshall	Essex & Suffolk	10.4
6121	J. Brassington	Newark & Notts	21.4
6122	J. W. Carter	Herefordshire	27.2
6123	H. M. Searson	Doncaster	17.4
6124	Hilary Trice	Lasham	21.4
6125	G. Wynne	Surrey & Hants	22.4
6126	Susan Williams	Bannerdown	11.4
6127	R. Speer	Southdown	9.4
6128	A. B. Fleetwood	Avon	22.4
6129	M. F. Brook	Yorkshire	25.4
6130	M. D. Miskimmin	Ulster	15.4
6131	F. M. Wallis	Southdown	21.4
6132	G. J. Treharne	East Sussex	28.4
6133	C. S. W. Price	Wolds	13.4
6134	P. Smart	Essex & Suffolk	11.4
6135	D. Edwards	Airways	21.4
6136	R. W. Edwards	Bristol & Glos	7.4
6137	A. M. Segal	Lasham	23.4
6138	K. W. Woodcock	Chilterns	23.4
6139	D. L. Johns	Peterboro' & Spalding	26.4
6140	Lynn Norman	Phoenix	25.4
6141	Barbara Reed	Midland	4.5
6142	D. P. Smith	Cranfield	30.4
6143	L. W. R. Hill	Devon & Somerset	29.3
6144	O. J. Truelove	Chilterns	5.5
6145	C. Bandy	Coventry	5.5

BOOK REVIEWS

Gliding Competitively by John Delafield. Published by Adam and Charles Black at £8.95 and available from the BGA at £9.45 including p&p.

Perhaps the title of this book may give the impression that it is only for competition pilots. In reality **Gliding Competitively** contains a wealth of information and advice for every pilot, but particularly for those who aspire to cross-country flying.

So often the most promising beginners fail to reach their potential because they do not have a proper programme of training after they have gone solo. As a very experienced flying and gliding instructor John D. understands this problem and has written this book to help these pilots.

A point well made throughout is the need to use every soaring flight to explore and extend your knowledge and experience in recognising and using every available source of lift. His advice on using local soaring flights to develop the techniques and skills needed for cross-country flying is particularly valuable.

Perhaps it is a pity that both thermal centring and field landings are not discussed in detail but John feels they are well covered by other text books. However, there is a fascinating section on the psychological aspects of competition flying. Sadly, we all have our bad days and must learn to accept them and live with our mistakes. So many potential champions go to pieces after a disappointing day and until a pilot learns how to overcome this kind of personal problem he will never become really competitive. This is the first book I have read which tackles this problem and offers some sound advice.

Unfortunately we can't all have an ace competition pilot like John to show us how to make the most of our aircraft and conditions. This book must be the next best thing. At the cost of an aerotow flight it is a bargain for every solo glider pilot who wants to make rapid progress and also for the many more expert who need some comfort after a disastrous day in a competition.

DEREK PIGGOTT

Gliders & Sailplanes of the World by Michael Hardy, published by Ian Allan Ltd, Shepperton TW17 8AS, at £6.95 plus p&p. The 176 pages of this 6in x 9in book provides "potted histories" and data of about 300 gliders and includes some 30pp on motor gliders. Around 160 photographs have been used — some however lack definition while some others are wrongly placed. There are no GA drawings included.

I found the lay-out, as well as the index, not easy to follow for a quick reference but as the book costs only £6.95 it merits a place on your bookshelf.

RIKA HARWOOD

Intriguing advertisement in the *Belfast Telegraph*, spotted by Bob Rodwell: "Sportavia RF-5 Motor Glider, new, unwanted present, £50ono."

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50 YEARS AGO — First British Nationals

A. E. SLATER

For the first two years of British gliding there were only inter-club gliding matches; that in 1930 being at Ivinghoe one day when the London and Manchester Clubs took turns in flying the same Prüfling down the hill until one of the Lancashire lads flew it into a tree. In 1931, on the south coast, there was a contest at which the longest glide won a trophy.

In 1932 the Furness Gliding Club, largely composed of workers at the Vickers firm, played host to a real BGA contest from August 30 till September 7. The site was where the river Duddon, coming down south-westwards from the Lake District, opened out into a sandy estuary some miles long with a steep soaring ridge on its SE side nearly 1000ft asl.

I could only get the first weekend off, so did the Friday night round at my hospital in Kent, bicycled to Dartford to catch the last train to London; then on a third class sleeper from Euston to Carnforth, then by rail along Morecambe Bay, and finally cycled northwards to the site, calling at a hotel to book for the night.

A share in both

It was now Saturday morning and eventually eight gliders were assembled: Slingsby's very first product called the British Falcon, the London Club's Professor, Kassel 20 and Kassel two-seater (in both of which I had a share, the two-seater being bought from the BGA which had sequestrated it from the Scarborough Club in lieu of an unpaid bill), Dudley Hiscox's Hols der Teufel, a brand new Scud 2 prototype, the Furness Club's primary and Dagnall's first and only attempt to produce a sailplane, with two alternative pairs of wings, which was as well because one of them broke when someone held on to the tip with all his weight as it was being lifted over a stone wall.

This first morning was calm, but in the afternoon a lovely smooth wind sprang up from the NW, so that one could soar up the estuary along a steep slope going right down to sea level, wondering if one would find as good a one the other side of each headland. (By coincidence, the *News Chronicle* that very morning had published an extract from Hilaire Belloc's **Cruise of the Nona** in which he described the excitement of approaching each headland and wondering what surprise would confront one the other side.) In this wind the only way of avoiding a landing into a stone wall was to approach below the top and make a downwind landing just below the top. I pulled up too soon and stalled at four feet, breaking the bulkhead behind the seat (repaired next day); but I heard later that the highly experienced pilot of the two-seater pulled up too late and flew into the hill, removing much of its nose.

Soared along the mountains

The big feat of the day was by Buxton in the Falcon; he soared up the estuary and over the col at the top, then descended into Lake Coniston valley, soared along the mountains bordering the lake, then glided on to a landing on flat ground beyond the lake. A group of boys ran up and asked how fast he had come: so he explained that glider pilots didn't try to go fast (they didn't in those days), so he was asked "how slow did you come?"

This was a British distance record of 13 miles, beating a previous one of six miles along the Yorkshire coast. But in the official report in S&G he was credited only with duration, not distance.

The weather was pretty poor for most of the rest of the week, and the BGA report is somewhat confusing, but Slingsby won a prize for a modest O/R in his Falcon.

The only other crash was when someone thought of showing the public what a primary glider was for. He took-off above a series of stone walls, obviously with no idea which ones he wasn't going to hit! He got over the first two and hit the third.

BRIAN WEARE

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Actually, we're a bit short of skoob this month but order any of the following books during August and the prices shown will include all postage and packing charges plus a FREE car sticker:

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FREE AS A BIRD — Philip Wills	**£5.70**	SOARING ACROSS COUNTRY — Bill Scull	**£8.95**
ACCIDENTS HAPPEN — Ann Welch	**£3.45**	GLIDING — Derek Piggott	**£6.70**
GLIDING COMPETITIVELY — John Delafield	**£9.45**	PILOTS WEATHER — Ann Welch	**£10.25**
UNDERSTANDING GLIDING — Derek Piggott	**£10.20**	BRITISH GLIDERS — Merseyside Aviation Soc.	**£4.20**

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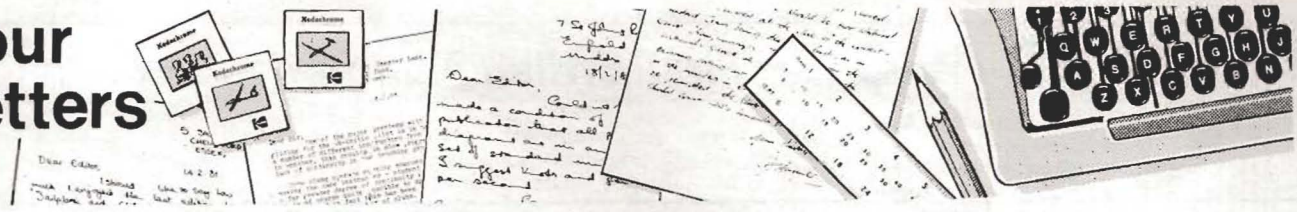
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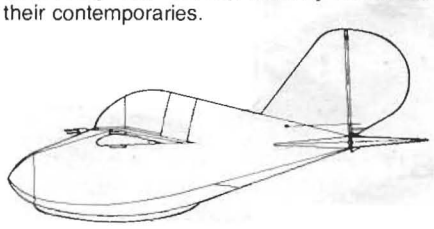
MR NYBORG

Dear Editor,

In response to Dr Slater's article about the Nyborg glider in the April issue, p94, I would like to offer my own assessment of Mr T. G. Nyborg based on five years' research.

He was born in Denmark in 1872. An engineer by training, he was also a talented mathematician who took a lively interest in the emerging theory of aerodynamics. In 1900 a Norwegian friend drew his attention to the albatross, whose flight appeared to be more efficient than predicted by theory, which prompted him to investigate the characteristics of bird flight to derive a theory of aerodynamics which was more accurate. Like his contemporaries, he did not appreciate that the high performance of the albatross was due to its soaring, but though this misleading observation triggered his researches his theory was not founded on it — indeed Nyborg was almost certainly aware of his error by 1910-12.

To prove the validity of his theories, he built a series of flying machines — 1903 hang glider; 1905 hang glider; 1909 motor glider; 1911 aeroplane and 1919 glider. Between 1918 and 1920 a further study of the characteristics of soaring birds made Nyborg revise his theory, concluding that for efficiency a glider should possess a very narrow chord. On this basis he built the world's first lead-sled in 1921 with a 6.6lb/sq ft (32.2kg/sq m) wing loading. Although these early machines only achieved hops of a few seconds and circumstances prevented testing of the 1919/1921 gliders, photographs show the designs were structurally and aerodynamically ahead of their contemporaries.



The 1946 version

The revival of British gliding in 1930 encouraged him to continue his experiments and four further gliders were built in 1931, 1934, 1945 and 1946. Derived from the 1921 glider, they were virtually identical being modified in detail in the light of experience. Both fuselage and wings were entirely ply covered, mainspars were 4¼in square (108mm) solid ash. Camber changing flaps were fitted and the 1931, 1934 gliders also featured ill-conceived wingtip split flaps as alternative rudders which were found to be ineffective and later abandoned.

Most development flying was from auto-towed bungy launches in a small field near Worcester. Though many launches resulted in low hops, to the derision of numerous critics, photographs clearly show that many were well clear of the ground. A great mystique surrounded Nyborg and his gliders, making it difficult to differentiate between fact and legend, however the gliders were undoubtedly controllable. Not surprisingly pre-war pilots were horrified at the 8.8lb/sq ft (43kg/sq m) wing loading, 48kt(88.5km/h) take-off and 61kt (113km/h) cruise. Nyborg's claim that the poor performance shown in Slazenger's test flights was due to a high speed stall may have some factual basis as later tests suggested the thick-flat bottom wing section was separation sensitive at lower speeds, resulting in an increased sink rate rather than a true stall. Post war tests suggested an actual L/D of 20-25 — quite an achievement for a small machine.

Mr Nyborg died in 1962 and although his theories were imperfect he did conceive the basic nature of today's lead-sleds as early as 1921. Had he been more responsive to constructive criticism gliding history may well have taken a different course. The sole surviving Nyborg glider (1945) is to be restored for static display only due to its extensive deterioration, therefore a replica would be the only means of definitely establishing the true performance of this machine. Such a project is under cautious consideration.

Establishing the history of Mr Nyborg and his gliders is extremely difficult as he had few friends and left few documents, therefore I would be most interested to hear from anyone who ever met this gentleman or has any photographs of his unique gliders. I am particularly anxious to trace Mr Nyborg's notes which were reputedly given to a Midland GC member in 1964.

Nyborg TGN Glider 1945: span, 34ft, 10.4m; wing area, 51sq ft, 4.74sq m; wing-loading, 8.8lb/sq ft, 43kg/sq m; aspect ratio, 22.5; weight empty, 285lb, 129.6kg; weight loaded, 450lb, 204.6kg.

PAUL WILLIAMS, **39 Woodhouse Street, Warwick CV34 6HL.**

THE FRENCH METHOD

Dear Editor,

I would like to comment on your article "Waggling to Safety" in the last issue, p115. The procedure in France for an aerotow with a glider that has its airbrakes open is mandatorily taught to all students. Perhaps you know that teaching in France must be done by state-acknowledged instructors, who must all go through a one month course in the National Centre of St. Auban, run by the State Department of Transportation. The whole course of instruction must follow the national method, according to an official student handbook. This business of aerotow incidents is taught to everyone, and the rule is whenever the tug pilot notices *anything* wrong with the glider he waggles his rudder. The sailplane pilot then knows he has to check his aircraft, most often his airbrakes. Also the man holding the wing at take-off is *responsible* for *hearing* and watching the airbrakes locking before he may lift the wing, which is the signal for take-off.

Finally, I would like to tell you about the standard practice we impose here in Roanne for towing. The glider pilot is asked to hold his hand on the airbrakes lever, with a stretched arm, during *the whole* tow, thus preventing it opening in a gust. This is especially helpful in wave and rotor towing, since many gliders have a weak airbrakes lock.

JACQUES ANGÉNIEUX,
St. Leger sur Roanne.

FURTHER TRIBUTE TO ANDY GOUGH

Dear Editor,

May I add a few words of tribute to Andy. Wherever Andy was there was a flourishing gliding club. At Aosta earlier this year German pilots who had known him in 1946 asked to be remembered to Andy.

BRENNIG JAMES, **Marlow, Bucks.**

DEFINITELY NO UNIFORM

Dear Editor,

The writer of the letter "Sartorial Clean-up" in the last issue, p144, has somewhat wisely chosen to stay anonymous.

I would be delighted if he could divulge the secret of staying immaculate while slaving away for hours under an oily winch, painting a hangar roof, repairing trailers or partaking of any other of the myriad delights of gliding. Or, dare I suggest it, perhaps he is one of the "turn up to fly only" brigade.

As for a "uniform", perish the thought. The essence of gliding is the promotion of individualism and self-reliance. Were we conformists to society's norms, we'd spend our weekends glued to the goggle box *(and stay very clean)*. The whole British gliding movement is based on freedom with responsibility; the BGA alone has stayed free of government interference and petty regulation.

Away with thoughts of uniformity; let us promote individuality and character in an increasingly drab and regimented world, and let us concentrate on the important things like safety, glide angles and fettling, not on what the next guy's wearing.

STEVE PROUD, **West Wales GC.**

NOT FOR RHODA

Dear Editor,

"Always Immaculate" must stop fantasising. There's absolutely no way he's going to get me into a gold flying suit.

RHODA *(never immaculate)* PARTRIDGE,
Presteigne, Powys.

CERTAINLY NOT A REAL GLIDING TYPE

Dear Editor,

"Always Immaculate" hasn't spent too much time on a gliding site or he/she would know that he might be required to do jobs which would ensure he wouldn't stay immaculate for long. Even carrying a tyre for a wingtip could soon make his "regulation airforce blue flying suit" look pretty grubby — let alone a gold one.

MIKE LINDSAY, **Brooke, Norfolk.**

DEREK HAS A SOLUTION

Dear Editor,

"Always Immaculate" of Bognor Regis and other readers may be pleased to hear that just recently I found a new source of lightweight flying suits which are ideal for gliding. Sizes are from 34 to 42 in khaki or burgundy, making them suitable for everyone except the largest men. They have the usual zips, pockets and pencil holder on the arm and are excellent value at £25.

Call or contact me at Lasham (025-683-270) or at 01-876-0277. Delivery takes one or two weeks.

DEREK PIGGOTT, **Lasham.**

SADLY NO PRIZE!

Dear Editor,

On behalf of the Oxford University GC may I claim the prize for spotting the deliberate mistake on the cover of the last issue? Unless Justin Wills has modified his Twin Astir, can I suggest you have reversed the photograph. From memory the Twin Astir I isn't shaped like this and definitely our II is not!

M. J. DOWDEN, **Oxford.**

(Full marks. But it wasn't a deliberate mistake! Ed)

SPEEDS-TO-FLY — OR NOT? (PREFERABLY NOT)

Dear Editor,

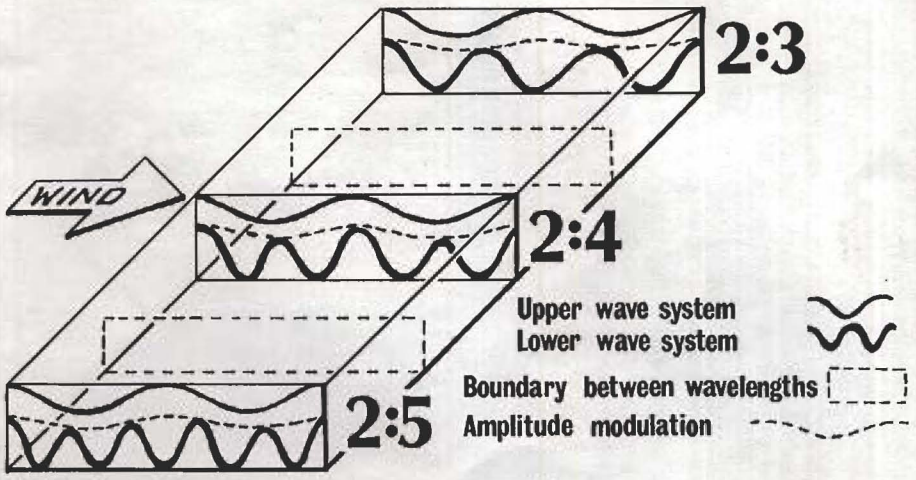
Mike Jefferyes has got the speeds-to-fly all wrong in his article in the April issue, p74. The Pirat speeds-to-fly he gives are 0:45, 1:49, 2:53, 3:60, 4:69, 5:76, 6:80, 7:83, 8:85. As the curve is a parabola all the increments should be about the same, falling off at higher speeds. His increments are 4,4,7,9,7,4,3,2. The increments should be about 3-4kt. Even for a Nimbus 3 the increments per knot are only 6kt.

BRENNIG JAMES, **Marlow, Bucks.**

Mike Jefferyes replies: Recent calculations on the Silene polar (dual) give figures in line with Brennig James' comments, 4.85kt airspeed increments per knot of anticipated climb from 0-6kt falling to 3.5kt at the higher speeds. However a second look at the Pirat polar confirms my original figures. The reasons for the unexpected increments may be twofold.

1. The perpetual difficulties of obtaining accurate polar curves. Note: Dick Johnson's work was of great help for the DG-200.
2. The fact that the polar curve is only an approximation to a parabola. The high induced drag and interference drag at low speeds, and the change in profile drag coefficient at high speeds as the whole airframe is presented at a different angle to the airflow, will distort the polar curve.

My experience of the cross-country performance of the Pirat indicates that its glide performance in the mid-speed range is impressive for a 15m wooden machine, whereas its low speed performance and sink rate are not. My speed-to-fly figures appear to confirm those impressions.



Model of harmonically related lee wavelengths 3:4:5

CHANCE OF A "SECOND SEASON"

Dear Editor,

Rob Rodwell's stinking cold must have blunted his appreciation for some of the benefits of Florida soaring (see "Flying in Florida", June S&G, p114). Admittedly there is not the thrill of thermal soaring in mountains, but there is considerably more peace of mind about landing out on the multitude of strips and airfields which exist and which encourages one to press on distance tasks.

Four pounds per person per night in an air conditioned room at the Kennilworth Hotel is a sight cheaper than most British hotels these days and the not universally bad "fast food" restaurants make living significantly cheaper than a comparable stay in the UK.

Rob is quite right when he withholds his praise from the East Coast of Florida, but 80 miles away to the west there is Sarasota, Tampa, etc. On the Gulf Coast it is all together more attractive and an ideal stop for two or three days with the family.

There are not many places in the world where you can stroll out to your high performance glass-fibre "poorsuit ship", pulling on your white silk gloves and cracking off into reasonable to good thermal conditions without all of the sweat, difficulty and waiting we usually associate with the sport in England.

Derek Johnson and Sebring have gone a long way to achieving gliding as we would like gliding to be (but hardly ever is in the UK) and from October to April he offers a wonderful choice of a "second season" for those lucky enough to travel to the USA.

P. A. HEARNE, **Wateringbury, Kent.**

LEE WAVE HARMONICS

Dear Editor,

My article on lee wave harmonics in the April issue, p64, suggests that, by analogy with the simple harmonic series, lee wavelengths are harmonics of a fundamental wavelength characteristic of the airmass. I now believe that the wavelengths observed are only harmonically related and so appear to form part of the (incomplete) simple harmonic series. The mechanism by which this occurs is quite simple, and it is not as stated in the article the very existence of harmonics that enables multiple wave systems to occur, but rather the existence of multiple wave systems that causes harmonics to occur.

In multiple wave systems the upper and lower systems must be harmonically related to each other by integer ratios (1:2; 2:3 etc) otherwise such systems could not be sustained because of destructive interference. Now if this ratio needs to change for any reason, one or other of the wave systems must change its wavelength to a new value which must also be harmonically related to the (unchanged) value in the other system. This means that it is also harmonically related to the original wavelength in the same system.

In the satellite photographs the wavelength changes harmonically when moving along a line perpendicular to the wind direction, and this therefore implies the existence of an invisible upper system harmonically related to the observed lower systems. This is shown diagrammatically in the Fig above which illustrates the most commonly occurring ratio of 3:4:5 which is really three double systems of 2:3; 2:4 and 2:5. Note how the upper system modulates the amplitude of the lower system to create a suitable "terrain" for its own wavelength. The height level of the nodal surface between the two systems is determined by the requirements of a harmonic relationship between the two systems, since a change in this height level will cause the wavelength of one system to increase and the other to decrease.

This simple mechanism explains what would appear to be an extraordinarily unlikely phenomenon.

JULIAN WEST, **Munich, W. Germany.**



A North Devon GC group taken to mark the completion of their 1000th launch at the site since June 20, 1981. Richard Burgess is in the front seat with his CFI, Barry Pearson, behind. From l to r: John Beckett, John Fisher, Allan George, assistant treasurer, Owen Hill, Jeff Thain and Jack Pearson with Rosemary Hill and "Little Jeff" Thain at the front.

CLUB NEWS

Copy and photographs for the October-November issue of S&G should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, tel 0223 247725, to arrive not later than August 10 and for the December-January issue to arrive not later than October 5.
June 9, 1982 GILLIAN BRYCE-SMITH

AVON SOARING CENTRE (Bidford Airfield)
Good weather during most of April and May enabled Andy Fleetwood and Phil Jones to complete their Silver Cs, Phil managing all three legs within one week. Tony Jackson and Jeromy Fleetwood achieved Silver heights whilst Phil Pardoe and Dennis Geoghegan join the Bronze brigade. Tim Harrison went solo in the Blanik as a change from flying Tridents.

The weather let us down for the first few days of our competition but we eventually managed five contest days. Congratulations to the overall winner Dave Breeze (SHK) and runners up Peter Light (304) and Trish Watson (Libelle). Peter also achieved his Gold distance and Diamond goal whilst winning day 4, the task being a 303km triangle.

Our thanks to Jane Jones, Pat Light, Jeromy, Dave *et al* for much hard work on the ground and to Ralph Jones who enjoyed setting the tasks in addition to flying *hors concours*.

May 25 produced some very good wave flying during the late afternoon and evening, six gliders including our Janus C getting to between 7000 and 8000ft, mostly from thermal climbs to about 3000ft initially.

D.J.C.

BATH & WILTS (Keevil Airfield)
We have just completed a very successful task week with eleven good tasks flown on eight of the nine days. On the first day Stuart North, task setter, completed his Diamond distance. Three other pilots flew the 300km triangle, one landing just short, overcome by the heat. On the same day Kate Hargreaves completed her Silver C with her height. Stuart North won with Andy Smith second.

Five pilots are entering the Western Regionals. We have two new instructors, Edward Thompson and Joy Lynch.

J.L.

BOOKER (Wycombe Air Park)
There are two new additions — the Grob G109 motor glider demonstrator — which is available for club use, and Mike Carlton's ASW-22 — which is not. There was an interested crowd to see the latter off on its first flight from British soil.

May was an eventful month with a well supported Competition Kitty being won by Brendan Chaplin in his Cirrus and Booker pilots also winning when we hosted the Inter-Club League. Brian Spreckley led the members of his soaring course on an epic follow-my-leader task, the whole group (including Brian) landing seven miles short of 500km having averaged 90km/h.

We are pleased to welcome the new caterers, Sally and Dave Caunt and their daughters. Our appreciation of their good food is exceeded only by the pleasure of having real ale in the bar.

A.C.

BRISTOL & GLOUCESTERSHIRE (Nympsfield Airfield)
In early May our manager, Chalky White, left to take up a new job in Yorkshire. We wish him all the very best. Meanwhile the club continues to run surprisingly well with various members taking special responsibilities and Freda Barker doing a fine job managing the courses.

Cross-country enthusiasm has been boosted by Ron Bridges' weekend task-setting. This proved to be good training for the Inter-Club League competition to which Nympsfield was host during Whit weekend. Dave Hodsman again leads the club ladder by an impressive margin.

The new field extension is proving its worth: extra cable length gives better winch launches from the west end and tugs can land with the rope on at the east end. However, visiting pilots are warned that it has not yet been surfaced and they should not land to the east of the old boundary which is still clearly visible.

J.R.B.

BUCKMINSTER (Saltby Airfield)
The season has started well with some good soaring days and some of our occasional wave.

We have had a sudden glut, or should it be clutch, of solo pilots. Congratulations to Damian D'Lima, Dereck Thurgood, Billy Wright, Tony Hallam, Gavin Pinfold and especially to Richard Tomlinson who went solo on his 16th birthday. Cliff Stapleton has quickly followed his Bronze by completing his Silver C with a duration and Eric Sempers achieved Silver distance.

Our first leg of the Inter-Club League turned out to be a purely social event due to poor weather conditions.

The Citabria is back in action again after much hard work by Ray and Carl and another Falke has joined the club fleet.

T.C.M.

CAMBRIDGE UNIVERSITY (Cambridge and Duxford)
Bill Dainty and Alison Campbell flew Silver distances, Alison to complete her Silver C, and heights have been available on many days.

Our tug fleet is now down to two with the sale at the beginning of our task week of a Citabria. Fortunately launches didn't suffer as we had the loan of a Condor. We ended the week with a barbecue in our hangar and with the addition of a live band it was generally agreed to have been one of our best do's.

P.E.B.

CORNISH (Perranporth)
We welcome the Motor Falke GAYYK to our fleet. Congratulations to Bill Lewis, Tim Major and Barrie Wallace on converting to the SLMC, and also to Bill on completing his PPL.

We contacted good wave on April 29 from the wire directly over the airfield following three weeks of northerlies.

Our thanks to Culdrose GC for hosting us over an excellent flying and barbecue weekend on May 15-16 and for supporting our ram roast on May 29 in such numbers. The course season has started briskly and is well booked.

Our committee would like to see a genuine reciprocal membership throughout the gliding movement, something which at the moment seems intangible. To that end we suggested £15 per month and £5.50 per weekend as realistic rates. Observations or suggestions from other clubs are invited, addressed to The Committee, Cornish Gliding (and Flying) Club, Trevellas Airfield, Perranporth, Cornwall.

W.B.W.

DEVON & SOMERSET (North Hill)
The fine weather since Easter has stirred us into activity. Chris Dobbs and Ted Wilcox completed their Silver Cs, Chris with a height

and Ted with a distance leg. Ted returned after phoning to find the vast empty field near Bodmin had sprouted cows who had inflicted minor damage to his Skylark.

Ron Smith and John Boley also have distance legs with a possible height for John; there are Silver heights for Colin Watt and Derek Webb and Dave Andrews and Dave Roberts have gone solo.

We had a successful May task week with tasks flown on four days by eight gliders ranging from a DG-100 to the L-Spatz. Our best wishes for an early return to Albert Bourn who had a heavy field landing, damaging his L-Spatz and his back, after the best flight of the day.

Our Silver Jubilee dinner is at the end of October (see the last issue, p135, for details).

I.D.K.

DONCASTER (Doncaster Airfield)

Congratulations to I. White, E. Gibson and P. Morris on going solo and to J. McKenzie on completing his Silver C. Our CFI, Mel Morris, completed his Gold C on May 8 with a 300km Diamond goal flight, just one of five flown that weekend.

Competition Kitty, represented by a lone Justin Wills, was held at the same time as the third leg of the Inter-Club League at Winthorpe and won by our Chris Townend.

Our cross-country week started well with wave flights to 8500ft in a south to south-easterly wind which has never been known before. The rest of the week consisted of excellent early afternoon soaring followed by a race back before the thunderstorms at 4pm.

V.F.F.

DORSET (Old Sarum)

We expect a sub-lease very soon at Old Sarum from the new lessee, then we can settle down after our departure from Tarrant Rushton and temporary stay at Henstridge. Under the new lease we expect to be able to use our two tugs again which, with our two winches, will give ideal launching.

Hopefully there is a possibility of leasing a building for a clubroom and bar, which has been sorely missed since leaving Tarrant Rushton.

J.R.H.

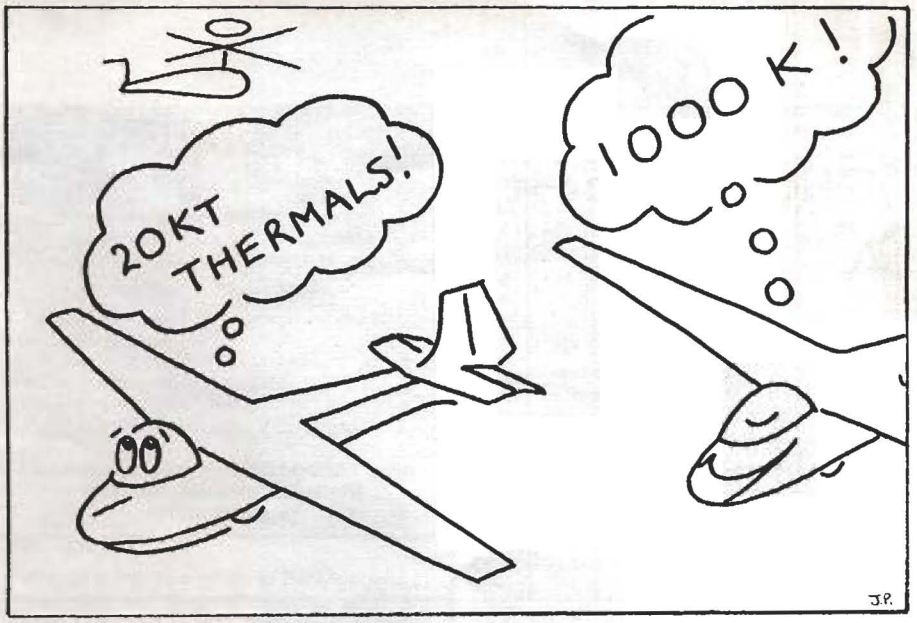
ESSEX & SUFFOLK (Hadleigh)

A highly successful period started on February 14 when J. W. Ballance had the first soaring of the season with an hour in the club Pilatus B-4. From then on there were several solos, numerous Bronze, Silver and Gold legs beginning with Lorraine Haynes and Brian Commercial going solo the same weekend. Brian now has his Bronze C.

There have been several reshuffles among the syndicates and a new ASW-19 has arrived.

The Easter expedition to Portmoak was a total success. With eight flying days, the 19 pilots and eight gliders clocked up 322hrs wave and ridge soaring resulting in Diamond heights for Alan Hall (ASW-19) and Paul Rice (Libelle) and Gold heights for Dave Gilder, Tony Langford, Clive Wilby, Roy Everitt, Viv Haley, Terry Reynolds and Les Marshall. Terry and Les also getting durations at the same time. Other durations were achieved by Marion Doran, Simon Commercial, Barry Clarke (who completed his Bronze C and gained a Silver height), John Gilbert (who also gained a Silver height and completed his Silver C with a distance flight a few weeks later) and Peter Stuart, Peter completing his Silver C.

S.C.



The Swallow and the K-8 hoped for suitable blessings (see Hambletons report below).

HAMBLETONS (RAF Dishforth)

Our summer got off to an exceptional start with the weekend of May 8-9 producing superb thermals and a cloudbase of over 6000ft. Mark Boyle (Astir) declared a not-quite-300km triangle, but happily flew on to land just up the road and claim Gold distance. George McLean (Kestrel) flew 500km for his third Diamond.

Congratulations to all newly converted Oly and Astir pilots on their Bronze and Silver legs; also to Clive Armstrong on going solo only six weeks after joining us.

On May 31 we had a historic moment when the Pope flew over our hangar in a helicopter, the gliders being lined up neatly at the launch-point in the hope of receiving suitable blessings.

J.P.

HEREFORDSHIRE (Shobdon Airfield)

On Easter Sunday Tony Maitland and Justin Wills went to Enstone and Tony came back (Justin lives nearby). On the Monday Tony did 220km and Les Kaye got his five hours and Silver height.

In late April the Peterborough & Spalding GC visited with six members and five gliders. They set tasks every day and flew their heads off, then trailed away on a superb wave day, except Tony Fuller who re-rigged his Cobra and had the flight of his life — 13 000ft and five hours. Tony Maitland got to 21 000ft.

On a wild May day when we were grounded by crosswind gusts Barry Meeks and Nigel Grates came in after an epic flight from Neath. They started in 10 000ft wave and ended street hopping and picking fields.

On the great May 8-9 weekend Philip King did a 360km O/R in 5½hrs, Graham Mason did 297km turning Moreton-in-the-Marsh and Llangollen and Charles Boucher did 235km. On May 25 Rhoda Partridge got to 12 000ft from a thermal.

R.P.

HIGHLAND (Dallachy)

While we had some good flying on January 1 we had to wait until February for the first good thermals and there were more non-flying weekends than usual during the winter. Congratulations to Stewart Finlayson and Keith Millar on going solo.

At our annual dinner-dance on March 5 awards were presented to Gerry Robson (Altitude trophy), John McFarlane (Club Ladder trophy) and Alan Clark (CFI's trophy).

Our Easter flying week began well on April 3 with Neil Collier flying 100km in the Astir. Edinburgh University GC, on making their annual visit, came with nine members and their K-13 and K-8. Two of their members, Gary Kinnear and Kate Byrne, gained their B certificates. We lost four days at Dallachy due to the weather but with strong northerly winds we bungy launched from Knock More.

We had some good soaring in April and May and achieved a club record of 80 launches in a day on May 8.

G.A.

INKPEN (Thruxton Airfield)

Congratulations to Joe O'Keeffe, his daughter Sarah, Philip Wilson and Wendy Harper on going solo and to Brian Jeans on his Silver height.

Our thanks to Dorset GC who made us welcome over Easter when our members had a chance to try winch launching. We were glad they visited us in early June and made good use of our tug.

P.P.

KENT (Challock)

We have had many good soaring days since April with numerous badge claims. Congratulations on going solo to Julie Williams (who now has Bronze legs), Adrien Wild, Stuart Ray and Geoff and Ann Johnson; to Phil Holiday on Bronze legs and to Paul Petty, John Bailey and Bill Waite on Silver heights.

The open weekend in early May, hit once again by gale force winds and heavy showers, was nevertheless a resounding success with over 400 air experience flights. We are still enjoying the boost it has given to membership and holiday courses.

The Inter-Club League meet at Parham produced a 300km flight for our Novice, Peter

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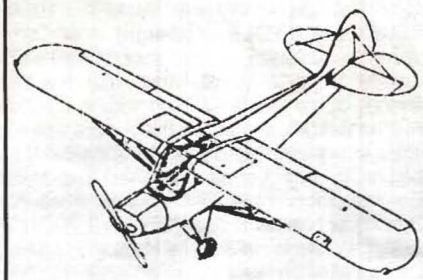
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"The licence contract between Alexander Schleicher Segelflugzeugbau, 6416 Poppenhausen/West Germany, and company S.A. Centrair, PDG Marc Ranjon, Aerodrome Le Blanc, 36300 Le Blanc/France, permitting the manufacture and distribution of the glider type ASW-20F has expired. A new contract is not being negotiated. The company S.A. Centrair is thus no longer entitled to build gliders of the type ASW-20F or to distribute them."

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Poole, but there could have been more thermals at the Ringmer meet.

We wish Mike Kemp, being sponsored by the Team Training Scheme, every success in the Western Regionals.

J.H.

LONDON (Dunstable)

Recent solo flights include Gordon Parker (for the fourth time) and Antoine Songy. Cross-country activity has been intense with the 100km standard triangle proving very popular. Some prefer multiple laps, for instance Warren Kay (Libelle) did three laps in 3hrs 45min and J. Rooke (ASW-15) went round twice.

On May 29 Mike Thick and Lloyd Forsey set off on a 330km triangle but due to a "slight compass error" Mike arrived at Halstead instead of Dunstable from Husbands Bosworth, covering 390km in his ASW-20L.

On June 5 a storm unfortunately blew over four gliders damaging them severely. The Kranich was also slightly damaged by a falling Prefect.

F.R.

MIDLAND (Long Mynd)

Addy Brierley shot round his Diamond 300km with hours to spare and Chris Ellis did a creditable Gold distance in his Oly 460. Robert Rayner, Andy Turner, John Rayner, Roger Hill and Barbara Reed have Silver distances.

We had another successful "Bronze week" with a bunch of pilots having their first field landing in the valley. Congratulations to John Green, Paul Fowler, Brian Brock and Phil Glyn Davies on their first solos.

The Rockpolishers League started again at the Mynd and we had one difficult but enjoyable task day.

A group of members enjoyed the Husbands Bosworth hospitality on their task week and our own weekend task series continues.

We had two successful open days in May, aided by a small group of dedicated members and a strong west wind.

M.A.

NEWCASTLE & TEESSIDE (Carlton)

The Easter course run by Brian Richmond and Peter Irving was an excellent start to the season. With fresh north and north-westerly winds persisting for the first half of the week there were three Silver legs, two Bronze legs, a B badge, two first solos and over 120hrs of soaring.

Congratulations to Julia Cutty and Nigel



Julia Cutty.



Nigel Petts.

Petts on going solo at 16, to Bill Stephens on completing his Silver C with duration and height legs and to Bob Cassidy on his five hours. Bill Stephens also won the course trophy given for a competition well administered by Ken Cutty. The course ended with an excellent social evening with food prepared by Sally Storr.

We have final planning approval for a new toilet block and work should start soon.

W.R.I.

NORFOLK (Tibenham Airfield)

Our chairman, John Wood, and treasurer, Dorothy Souper, are retiring after many years' devoted work. John's chairmanship has seen tremendous development of our club and we doubt if we would be as successful without his leadership. It is largely due to Doc Souper's careful management of our funds that we are solvent. The new treasurer is Ivan Esgate who already does our aerotow accounts. John Tarrant takes over as chairman in July.

We have at least three new syndicate aircraft — the Espins have a Pirat, the Lee family a LS-4 and Ernie Cunningham went behind the Iron Curtain to fetch a replacement for the IS-28B. Unfortunately he had to leave it behind while the paperwork is sorted.

As usual at Easter half the club went to Portmoak where several gained Gold and Diamond heights in some good wave, but unfortunately our fund-raiser at Robin Coombe's fish farm hit poor weather and it wasn't as well supported as usual by the public.

Derek Bloom went solo in just 12 weeks. We think this is a record.

We had three contest days at the spring task week when Robin Coombe and John Ayers completed the 200km task, Charles Owles and Adrian Prime took the blue K-13 to Wisbech and Roy Woodhouse, CFI, went to Crowland to collect Snoopy.

We are again running a "Come and try it" event with the encouragement of the Sports Council, a full programme of courses and an autumn task week.

M.J.R.L.

NORTH DEVON (Eggesford)

We have completed 1000 launches at the site since June 20, 1981. The 1000th was during a Whitsun course for five members and made by Richard Burgess and Barry Pearson, CFI, who were suitably welcomed on completion of the flight by Allan George, assistant treasurer.

Jeff Taberham is now an assistant instructor and we welcome back John Beckett after a 15 year rest. His Oly 2 gives us a total of four gliders.

Congratulations to Tony Lowe, Steve Cooke and Jeff Thain on going solo and to Allan George on his Bronze C.

B.P.

OUSE (Rufforth Airfield)

Events are fast moving at present, both on the ground and in the air. Since the turn of the year club architects, surveyors, civil engineers, builders and willing labourers have almost completed our new hangar and road.

On the flying side late April and early May proved very successful. John Reed (Sport Vega), Tom Stoker (Skylark 4) and Julian Day (K-6CR) flew Gold distances, Julian and Tom being the first from the club to achieve this in wooden gliders. Hugh Etherington gained his Silver height and duration, John Stables his duration and Richard Skembrowicz managed a Bronze leg.

We had a rest from flying over the Bank Holiday as the airfield was used as a carpark for the Pope's visit to York — it helped to swell the club coffers. We followed this with a flying week.

S.R.L.

OXFORD (RAF Weston-on-the-Green)

As always we continue our struggle to survive. The chairman and members of the committee were called to Whitehall to receive a prepared letter requesting us to vacate the hangar, accept reduced level of operation, etc. Among the more glaring errors it contained were factual ones relating to club statistics which could have been checked by reference to old issues of S&G. Far from escalating our operation, we have been undergoing a steady decline since the boom years of '75 and '76. The wonder of it all is that we are still able to attract sufficient numbers of *ab-initio* members who accept the frustrations caused by the parachuting operations. The worst problem is still that of complete shut-down in northerly winds, and we are no nearer finding another site than we were two years ago. Another recent surprise was the mandatory increase in third party cover to £500 000 on all gliders operating from Weston. Is anyone else encountering this?

The club fleet is back to strength with the purchase of a K-8 from Swindon. A new syndicate has been formed to fly Cirrus 579, and Glen Bailes in this aircraft has completed his Silver badge and made a Gold height claim (from the Long Mynd) in a short space of time. Several members enjoyed their week at the Mynd, and Graham Barrett flew his Olympia 460 home to Weston to round it off.

Meanwhile the RAF have started more work on the hangar doors and runners. This means that the hangar will be unusable for a while and the K-13s end up packed into the workshop like sardines. Let us hope that this situation is indeed temporary.

P.H.

PETERBOROUGH & SPALDING (Crowland Airfield)

At the last committee meeting a proposal that the Auster Terrier be sold and replaced with a Super Cub was given serious consideration. It was eventually decided that if help is available

through the Sports Council, we should retain the airframe and replace the engine with a Lycoming early next year.

The opening of a large branch of the John Lewis Partnership within the new shopping centre in Peterborough has brought an unexpected benefit. A gliding section is to be set up within their social club and should be flying with us as part of the PSGC. Their social club subsidises their flying costs by 50%.

The East Anglian Inter-Club League is now firmly established, particularly on the social side. This was further reinforced by the social mayhem at the second meeting at Crowland Airfield. We didn't think we made that much noise, but RAF Wittering are applying for a rate rebate!

M.C.

RATTLESDEN (Rattlesden Airfield)
The Easter flying week started with bitter cold winds but conditions improved on the Tuesday. Tim Beales and Les Hickson went solo followed by Tim's brother Simon the next weekend. In May Rob Smith and Dave Johnson gained Silver heights and Andrea Arnold has just gone solo. Congratulations to them all.

Neville Theobald is installing our first proper loo and we have been presented with a mobile "NAAFI" in the form of a single decker bus. Our thanks to Humphrey Chamberlain who also came first in the Inter-Club League's Novice Class at Lavenham Airfield flying a K-8 with Roger Davies (K-6E) third in the Pundit Class.



Club Contributors: Please, if you are sending handwritten copy, print all names. Only a sixth of you did for this issue so the chances are some people have been attributed with strange names. We have done our best in checking you with previous contributions but this doesn't always work. (ED)



SGU members with parents and children at the recent flying evening for disabled youngsters.

We wish Brian Griffiths a speedy recovery after his push bike accident.

R.H.

ROYAL AIRCRAFT ESTABLISHMENT (Farnborough)
Our club fleet is doing lots of cross-country kilometres. The weekend of May 8-9 brought us over 2500km with Trevor Hills (Skylark 4), Jill Atkins (Phoebus) and Tony Newberry (Phoebus) completing 300km triangles and Chris Fox (Vega) his 500km. Chris has also been selected with Paul Kite for the Squad Preparation Training Scheme.

We spent a very pleasant weekend at RAF Odiham (Kestrel GC) for the Inter-Club League over the May Bank Holiday — thanks for the hospitality and the superb barbecue.

C.P.G.

RSRE (Pershore)
We are pleased that the mention of CFI Barney Bank's retirement in his BGA Diploma citation was somewhat premature. There is now little doubt that he will soon regain full medical clearance.

The recent unusually good Sunday weather brought a crop of badge claims, including two from 16-year-old David Bland who became eligible to fly the Oly by completing his Bronze C and then took it to 5700ft after only one flight.

With a queue of Bronze C pilots fretting at the necessary half-hour limit on our sole single-seater, we have crossed our fingers against the ever-present threat of eviction and bought a Swallow to release the Oly for cross-country and duration attempts.

At the AGM Jack Byrne retired as chairman and is succeeded by Allan Bland.

A.B.

SHROPSHIRE SOARING GROUP (Sleap)
Increasingly improved weather has resulted in our full house of 12 gliders being frequently airborne and brought one Diamond goal claim. Perhaps some meteorologist can explain why it's always a good day on Monday.

P.L.U.M.

SCOTTISH GLIDING UNION (Portmoak)
The Glasgow & West of Scotland Club, based at Portmoak, have sold their Pilatus for a Vega which is proving popular.

We had an unusual flying evening during May when members helped ten handicapped boys with muscular dystrophy to have flights. It was organised by Lesley Freeman who is studying the disease for her Ph.D.

We said goodbye to Simon MacIntosh (ex secretary) and John Gibson who are emigrating to Canada.

Jane McCoshin, an 18-year-old student vet, gained her Gold height in the club K-8. The task weekends have started again and are popular with pilots of all grades of ability.

A.S.

SHALBOURNE SOARING SOCIETY (Nr Hungerford)
Our clubhouse is now up but there is a lot of finishing work before it is habitable. We overcame our aerotowing ban by using a field at Jeff Nichols' farm for an aerotow experience week. Our thanks to Barry Smith and Sue Thompson of the Tiger Club who provided and flew the tug.

Brian Greenaway is our first Shalbourne trained pilot to become an instructor. Congratulations also to Brian Greenaway and Jane Adams on completing their Silver Cs. Mike Young, aged 16, and Frank Adams have their durations and Richard Swallow, Isobel Wittingham and Phil Clayson their Bronze Cs.

We now have a phone at the launchpoint, Oxenwood 204.

B.C.M.

SOUTHDOWN (Parham Airfield)
We are taking part for the first time in the Inter-Club League with East Sussex and Kent GCs. East Sussex were hosts on May 15-16 when Richard Hawkins (Southdown Novice)

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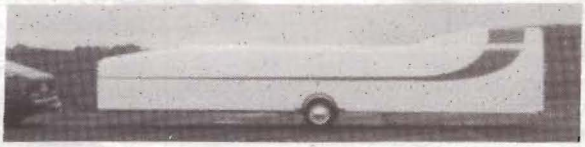
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The next deadline for club news contributions is August 10. We regret we cannot accept copy received after that date.

won for our club by homing back to Parham — the only creditable flight of the contest due to poor weather.

At Parham on May 29-31 all Classes were set a 311km triangle on the Saturday with Doug Gardener (East Sussex) winning the Pundit Class, Steve Turner (Southdown) Intermediate and Peter Poole (Kent) the Novice Class. On Sunday only three completed the O/R. The score now stands at Southdown 28, Kent 24 and East Sussex 16pts.

John Davidson, Mike Wallis, Richard Hawkins and Ron Speer have their Silver Cs and Peter Hurst Bronze C. Diamond goals were achieved by Steve Turner and John Ward during the Inter-Club League.

A.V.S.

SOUTH WALES (Usk)

During our enjoyable expedition to the Long Mynd, which ended with the Rockpolishers competition, Phil Towell completed his Silver C by flying back to Usk.

Paul Cullen has had his first flight of the year to the Brecon Beacons which lasted 6hrs. Zenophon Symenodise completed his Silver C at Long Marston in the K-8 and converted to the Pirat and Graham Bailey and Steve Reed are now instructors.

Our new twin-drum which is very successful — our thanks to Dave Rowlands, Lyn Everett and Graham White for their hard work. Our thanks also to Corinne Westacott — due to her efforts as publicity officer we are giving air experience flights on three nights a week.

E.M.P.

STAFFORDSHIRE (Morridge)

We are a cross-country club at last. CFI, Charles Webb, flew our new K-18 cross-country for the first time when he soared to Saltby in May. The following day, deputy CFI, Colin Ratcliffe, flew his Astir on a triangle turning Camphill and Marchington, and Peter Lowe (Olympia 2B) gained Silver distance and height. Peter also ran our June course when the only *ab-initio*, Jeff Smith, had 30 flights in five days.

Mike Ruttle and Peter Coleman have gone solo. An open day in June is in support of Leek Sports Week and we are hoping to attract some new members.

P.F.

STRATHCLYDE (Strathaven Airfield)

Congratulations to Martin Rogerson on his Silver distance. We hope this is a sign of things to come as improved drainage of the area has certainly helped to boost our local soaring.

We have a dawn to dusk flying day on the longest day with a reported start time of 0330hrs!

Our spring expedition to Feshiebridge was very enjoyable with off the clock thermals on most days. Paul Aspin completed his five hours and Dave Clempson, who recently went solo, gained both Bronze legs.

Our local publicity campaign is being very successful and encouraging new faces.

P.A.

STRUBBY (Strubby Airfield)

Flying continues unabated despite the fact we are temporarily reduced to three instructors. It says much for their enthusiasm and dedication that we have had our usual crop of solos and Bronze Cs.

Roy Partington is our new CFI and as well as weekend and Wednesday flying, we are giving air experience flights in the evenings. We have an expedition for about half our members in July to Sutton Bank.

Our ground engineer, Ray Bourner, is now a BGA inspector which is a great help. Ray and his wife Dot live on the site so if passing in the weekday you can be sure of a cup of tea and a chat.

C.McD.

SURREY & HANTS (Lasham Airfield)

Spring wave expeditions to Talgarth and Portmoak were moderately successful with wave and ridge soaring but only one badge flight — Jon Bastin's Diamond height at Portmoak.

The first half of the season has been excellent (reminiscent of 1976 some say) often with about two-thirds of the day soarable enough for cross-countries. A strong NW flow on May 1 brought 8kt thermals and a 7000ft cloudbase in spite of the 30kt wind.

A four-day spell in mid-May produced several notable flights. **May 7** — Chris Lovell (Mosquito) rounded Sherborne and Hereford on a 400km triangle. **May 8** — Chris Starkey (Astir CS) completed a 306km triangle in 3hrs 53min. **May 9** — Ted Lysakowski (Ventus) set a 520km triangle Sherborne, Melton Mowbray and completed in 6hrs 20min with Bob Szulc (Nimbus) slightly slower but collecting his Diamond goal on the way. **May 10** — Alan Purnell (Nimbus) flew a 500km O/R to Doncaster and Roy Pentecost (Mosquito) completed a 500km triangle Hereford, Ely with Jon Bastin unlucky to miss his 500 by 30km on the same task.

Alan Purnell flew his Air Data Processor (see p108 of the last issue) in late May and reports excellent operation for the first hour until a power supply failure when the seat of the pants had to take over!

R.P.

TRENT VALLEY (Kirton Lindsey)

There were five durations at the start of May, two pilots also gaining Silver height, and Mick Ward (Pirat) completed another 300km while John Swannack (Kestrel) flew 110km in 1hr 6min.

Our team did well in the Inter-Club League at Winthorpe, Pete Housley flying the only wooden ship to complete the 119km triangle.

We have just had a very profitable flying week with a few first solos. An outstanding flight of the month was the cloud climb by Chris Lines (Oly 2) to 12 200ft.

Anyone wishing to come by air is welcome, bearing in mind we now operate exclusively from well marked grass runways on the diagonals.

R.H.

ULSTER (Bellarena)

Alan Sands made a 1000km O/R flight along the Appalachian mountains in April to equal William Malpas' British national record and gain the UK's second 1000km diploma. He flew a Kestrel from Julian, Penn, turning at Bluefield, Virginia, in a 10½hr marathon.

His achievement sets the seal on an excellent half-year for the club. Having budgetted for 1200 launches in 1982 we'd logged three-quarters of the target by the end of May, helped largely by a big influx of Dubliners and aircraft for a very successful nine-day Easter camp. It was supported, for the second year running, by a Mynd party too, and was followed in May by a joint UGC/DGC task week which kept the tempo high.

During Easter Billy Bowden and Mike Miskimmon both completed their Silver Cs, in Mike's case it being a three-legs-in-one flight. Several other Silver legs were flown and Jacqueline Gribben and Jim Lamb both soloed. Earlier, our two Americans, Tony Fruzyna and John Nusbaum, soloed too — in Tony's case, unfortunately, only shortly before he was recalled to Wisconsin.

Foreman Jim Wallace has presided over a spate of enthusiastic do-goodery which has seen the hangar floor concreted, the toilet block finished, the access track repaired and a restart on the conversion of a ruined cottage into a clubhouse. The Mackie winch, too, is now debugged and in regular operation. We now have a phone on site — 050475 301.

R.R.R.

WELLAND (Middleton)

At our recent AGM the revised constitution was ratified. The committee remains the same.

We now have a second Dexter tractor and have disposed of the old ones. Congratulations to Don Martin on his Bronze C and Silver height; to Jim Gardner on going solo; to Alan Bushnell on his B badge and converting to his Skylark and to Norman Martin on converting to his Swallow.

We welcome several new members and a disco evening has added considerably to club funds — thanks to all concerned.

R.H.S

WEST WALES (Templeton)

Our newly acquired site at Templeton has been the source of much soaring activity during March and April. Steve Proud flew the first Silver distance of the season two weeks ago. There have been several not quite successful attempts at the duration on days when it was certainly attainable.

Our site is beginning to look more respectable, and the hangar is waiting for a lick of paint, but the thermals are too tempting at the moment. Thanks to Brian Baker we now have a cow-proof gate at the entrance to the site. Our membership has doubled in the past six months to 36 full flying members. We have a Falke and a K-7, and are hoping to swap our T-21B for a Swallow. Visitors are always welcome. Flying at weekends only.

H.P.

YORKSHIRE (Sutton Bank)

The soaring season has been very successful, the most notable weekend being May 8-9 when Silver distances were gained by Paul Mann, Frank Murray and John Priestly. Eight 300kms were completed and there were three flights in excess of 400km. Three 500kms were flown by Nick Gaunt, Dick Stoddart and

John Ellis — John in fact clocked up 580km and now holds the club distance record.

The holiday courses have been particularly successful and the new one-day courses are becoming quite popular at weekends, helping to keep the two-seaters busy and encourage new recruits.

This year's Northern Regionals' director is Chris Riddell who, judging by the number of entries, is in for a busy time but he does have a well seasoned team helping him. Members of the British Training Squad will be joining in *hors de concours* under John Williamson's wing.

H.H.

SERVICE NEWS

BICESTER (RAFGSA Centre)

The new Nimbus 3 and the LS-4 have been popular during the good spring weather. Jonathan Taylor and John Brownlow gained their Diamond distances in the Nimbus and Terry Joint did 500km. Total cross-country kilometres exceeded 17 000 in April and May with nine flights of over 300km. There were many first solos and Bronze and Silver legs with Dickie Dawes and Andy Hill completing their Silver Cs.

Three pilots made quick progress after going solo — Steve Feltwell soon gained a Bronze leg, Al Knowles his duration after three weeks while Joe Daniel claimed a Silver height and duration within five weeks.

The usual Joint Services Adventurous Training courses were at Bicester plus several two-day courses for senior RAF officers.

Finally, our thanks to the Caunt family for their support, Dave as a full Cat instructor and Sally as the bus catering queen, helped by the three girls (two solo pilots). We wish them well in their new venture at Booker.

C.L.B.

CLEVELANDS (RAF Dishforth)

Despite a prolonged absence from these pages the Service element is still alive and well at Dishforth.

After an indifferent winter wave season we have had good soaring in recent weeks, notably May 9 which saw our first 500km from Dishforth by Leigh Hood with an O/R to Dunstable in his new LS-4, Phil Shambrook took the Astir to Saltby for his 300km and Andy Smart got his duration in the K-8.

Congratulations to Jackie Shambrook our resident soup dragon who recently went solo in the Blanik and has converted to the K-8 and to Geoff Owen who went solo in the Blanik after three weekends.

We welcome Ben Benoist who is posted to Leeming and Paul Whitehead who after his tour on Vulcans is learning to fly all over again with CFS.

T.C.

CRANWELL (RAFGSA)

The season since Easter has been excellent with Jim Stewart, John Shackell and Gr Cpt Joyce going solo. There have been many Bronze legs and completions, several Silver legs and Val Ramsay has her Silver C.

John Rogers completed a noteworthy 300km triangle in the K-6 followed most of the way by Kenn Dodd in the Astir.

We are making good use of our new ASW-17 and pilots who have converted are delighted. We welcome Dave Cockburn whose experience will be most useful.

G.A.B.

FENLANDS (RAF Marham)

We have had a number of changes. Our CFI, Ben Benoist, has been posted and we thank him for all his efforts over the years. Ralph Dixon has taken over. John Sullivan has also been posted and Al Raffan has joined us.

For a month we had to move to Watton as we couldn't fly here owing to military operations.

Rab Gillespie, Smurf and Andy Hill have their Silver Cs and Terry Mitchell is now a full Cat.

J.A.

FOUR COUNTIES (RAF Syerston)

Congratulations to Jackie Barley and Shaun Vincent on going solo (Jackie now has a Bronze leg and Silver height), to Woodstock on his Bronze C, Silver height and distance and to Keith Fuller and Fozzie on gaining their Silver heights.

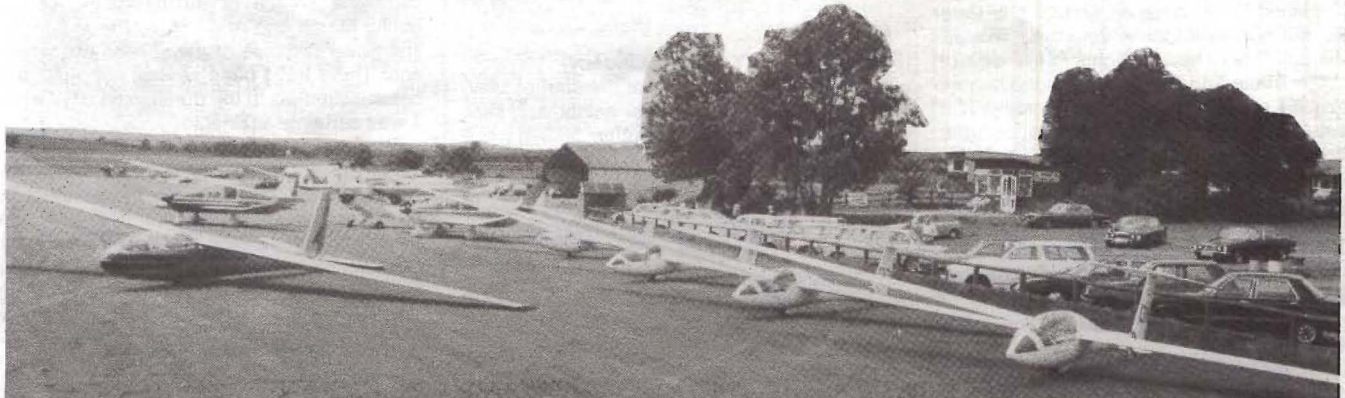
The Aboyne expedition was very successful with Al Eddy, Barry Elliot and Colin Davey

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achieving Diamond heights and Cosmo and Bernard Kromeke Gold heights.

A new member, Chris Heimes, completed a Diamond goal to give him all three Diamonds. Tim Bralesford has converted to the club ASW-20. The new club ladder is going well and our congratulations to Danny Thorogood and Bob Spiller on becoming instructors.

J.T.

FULMAR (RAF Kinloss)

Thanks to the efforts of Nick Murphy and Rich Amall the bus winch is now on line. Congratulations to Ken Bannister on gaining two Bronze legs.

Two of the fleet have been resprayed so now all our Schleicher aircraft have the same colour scheme.

Keith Buckner and Nobby Clark are the latest additions to the club with a welcome return by John Garret.

P.G.

HUMBER (RAF Scampton)

We have settled nicely into our new surroundings with ten new members from Scampton alone. We have three serviceable winches, thanks to the efforts of Dick Gibbs, Tony Smith, Dave Wilson and their helpers.

On May 29 Sue Gildea, the youngest member of the clan, went solo three days after her 16th birthday and gained a Bronze leg and Silver height four days later.

The weekend of May 8-9 brought our first 300km triangle from Scampton when Dick Gibbs flew round York Minster and Leicester in 5½hrs. Tony Smith did the same task in just under 6hrs the next day. Also on Saturday Mick Marriott went to Saltby for Silver distance and took a launch there to fly back. Trina Jennings also gained her Silver distance, Bruce Davidson his Silver height and Birgitt Pleiner a Bronze leg on her first solo soaring flight. The weather was so good that 7100ft was recorded in clear air at 5 o'clock that evening by Dick Gibbs.

The K-13's wings are being recovered. We could certainly utilise another high performance single-seater and our statistics support our need.

Any visitor, by land or air, will be most welcome.

K.M.G.

TWO RIVERS (RAF Laarbruch)

The K-8c is resplendent in her new coat of paint after a major and it is now the turn of the K-8B.

Mick Lee and Simon Hutchinson took the Astir for a competition at Asperden and came fourth.

We have had some super soaring days. Mike Taylor, Vince Mallon and Simon Hutchinson have gained their Gold distance and Diamond goals with CFI, Mick Mahon, claiming his at Sebring, Florida.

Dennis Standley, Richard Jones, Sue Dall and Dave Mintey have Silver legs, Sue and Dave completing their Silver Cs, and Jerry Cawley his Silver height.

The "pot" has spent a lot of time in the air between here and Brüggen. We are eagerly awaiting the new winch and we recently had a pleasant barbecue.

D.R.M.

WREKIN (RAF Cosford)

So far the soaring season has gone well with plenty of Bronze and Silver legs. Well done to Tim Wood who resoloed and is now a tug pilot.

Al Marshall and Al Robinson have their Silver Cs, the latter gaining his duration after 19yrs and 600hrs.

We say goodbye to our chairman, John Crouch, who is going to RAF Newton and welcome John Cook, an assistant Cat, who takes over the post. Good luck to Mick Davis, Phil Morgan, John Lambert and Harry Chapple in the Inter-Services Regionals.

S.J.

WYVERN (RAF Upavon)

Despite very good weather since April the membership, temporarily depleted by the South Atlantic operation, has not been particularly active except for the usual hard core pilots. Roy Gaunt, deputy CFI, set a fine example by completing 398km in the club Cirrus. "Dusty" Miller, Pete Brennan and "DC" Declancy went solo with Tony Radnor resoloing after a long absence.

Keith Robinson and John Hawkins are now assistant Cats and Edwina Bonser took three weekends to progress from both Bronze legs to solo aerotow (we usually winch) and then to her first field landing.

Our instructors went on the course at Middle Wallop run by John Williamson to train instructors to teach cross-country flying. From 85 launches we flew more than 5100km. Our special thanks to Phillipa and Barry Perks for their outstanding ground administration.

J.R.H.

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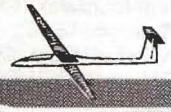
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Overseas News



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

The German Nationals at Bayreuth from May 22-June 6 had 12 contest days. Bruno Gantenbrink (Nimbus 3) won the Open Class with 9686pts, Klaus Holighaus (Nimbus 3) was second, 9362pts, and Sigi Baumgartl (ASW-22) third with 9034pts. The 15m Class Champion was Ernst-Gernot Peter (ASW-20) 9140pts. Reinhard Schramme (Ventus) was second with 8965pts and Manfred Dick (Ventus) third with 8928pts.

The Standard Class with 11 contest days was won by Heinz Schreiber, 8353pts, followed by the brothers Jochen and Holger Back with 8273 and 8268pts respectively. All three flew LS-4s.

Australian Nationals. Werner Geisler, president of the New South Wales Gliding Association, was competition director of the latest Australian Nationals, held at Narromine from December 30 last to January 8, after a week's practice period during which new rules for the start gate were tried out in the hope of ensuring greater safety and easier recognition: not more than three at a time were to cross at 1000m and 80kt. However the idea had to be given up because so many pilots crossed too fast so as to convert speed to height. There were three Classes: 14 entries in the Open, 36 in the Standard and 30 in the 15 Metre. Tasks were all triangles or quadrilaterals: none were less than 300km and the longest were on Day 5 with 772km for the Open, 597 for the 15m and 514 for the Standard. Only two days were unflyable: one through poor weather and one because of a ground temperature of 40°C (104°F). There were very few outlandings (none on the 772km day) or accidents.

Winners were: Open Class, Ingo Renner (Nimbus 3) 8000pts (he won every day); 15 Metre Class, Bruce Backhoff (Ventus A) 7625pts and Standard Class, John Buchanan (LS-4) 7666pts — *Australian Gliding.*

The Dutch 15m and Standard Class Nationals were at Terlet from May 17-28 and resulted in eight contest days in both Classes. The general cloudbase was rather low which made flying the tasks often demanding. All but two of the tasks were well over 200km.

For the second year running the Championships were marred by a fatal accident. On the last day Bertus v.d. Salm, who had flown in many previous Nationals, lost his life while landing out. The accident is under investigation.

Leading results 15m Class: Daan Paré (Ventus B) 7048pts; Baer Selen (Nimbus 2, H'cap 4%) 7005pts and Dick Kuyper (Mini Nimbus) 6169pts. Standard Class: Leo Viss (ASW-19B) 5273pts followed by Henk de Glopper (ASW-19) and Eric Busser (DG-100) with 5213 and 4822pts respectively.

"Alpine Thousand" Attempts. For an unofficial competition to be the first Austrian pilot to make a 1000km out-and-return flight along the Alps, four pilots took-off on May 13: Karl Bräuer and Helmut Frind from Turnau for a TP at Tschmut in Switzerland, and Othmar Fahrafeller and Andreas Hämmerle from Mariazell for a TP at Sedrun, also in Switzerland. Total distances would have been 1010km.

All but Frind rounded their TPs but on the return they were overtaken by darkness and did not make it, though meteorological conditions were still good. Fahrafeller landed at 2030, Bräuer at about 2100 (all Summer Time: they had started at about 0900). Frind turned at Arlberg and got back to his starting point at Turnau, setting up an unofficial record of 780km with an unannounced TP. — *Flugsportzeitung.*

Akaflieg Winter Meeting. Despite the recession, there is much optimism abroad in the German Akaflieg groups. Stuttgart have just brought out a new design and Hanover, Karlsruhe and Munich are all about to. The Stuttgart Fs-31 aroused much interest at the Akaflieg winter symposium in Esslingen. It is of hybrid construction, *ie* various fibre materials are combined so that the advantages of each can be exploited. The complete two-seater fuselage of the Fs-31, made of carbon and Kevlar fibres, weighs only 141kg, of which 14kg

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The Fs-31 fuselage first flew on December 30, 1981 with the original Twin Astir prototype wings and a Glasflügel 604 tail. The whole aircraft weighed just 343kg. The maiden flight was highly successful.

Professor Eppler explained to the symposium how it was now possible to compute the profile co-ordinates for a wing, given any desired polar curve. The problem now was to decide what an ideal polar curve actually looked like. Now that wing profile optimisation is so refined, the Akaflieg are turning their attention to induced drag and interference drag. Taping has eliminated most induced drag at the root end, so that attention is focused on the tips. Brunswick are undertaking a detailed evaluation of winglets during 1982 and there is talk of trying out two "ears" at each tip, one slanted up the other down.

There is still uncertainty as to whether a right-angled wing/fuselage junction causes more or less interference drag than a rounded one. Stuttgart have developed a number of alternative fairings for the Fs-31 to investigate this problem.

Hanover are investigating the possibility of embedding solar cells in the gel-coat of the upper wing or tail surface. The problem is that the heat absorbed under direct sunlight raises the temperature of the glassfibre to over 70°C — too hot for the resins currently in use. The Hanover students are now building a tailplane for their DG-200 with an area of 0.2m² of solar cells incorporated. Specially resistant resins are being used which increase the weight of the tail by 2kg.

Swedish Sailplane Building. Sailplane building in Sweden, hitherto rather neglected, is looking up according to A. Sandberg of Sundervall. But now the Experimental Aircraft Association is running a sailplane building group, the number of projects has increased from four in late 1980 to 11 this spring of which three should be airborne this summer. Ten Monnett "powered glider" kits have been obtained from the USA.

Darmstadt queries speed-to-fly theory. During trials in 1981, the Darmstadt students repeatedly took simultaneous measurements of recommended speed-to-fly, actual airspeed, glider's longitudinal attitude and elevator deflection angle. Their astonishing finding was that they could find *no* pilot who was able to stick sufficiently closely to the recommended speed-to-fly to justify the classic speed-to-fly theory. There appeared to be very little difference between the behaviour of top competition pilots and relatively inexperienced students. All allowed the speed to oscillate markedly — even averaging the speed out often brought it little closer to the desired value. The Darmstadt students therefore conclude that precise "speed-to-fly" flying is impracticable, but they have an alternative suggestion: "attitude-to-fly."

It is much easier to make adjustments to the glider's attitude relative to the horizon than to chase a particular speed on the ASI. By keeping a horizontal bar on a plexiglass display covering the horizon, the pilot can achieve an optimum flight path far more easily. Darmstadt are publishing full details of their proposed "attitude-to-fly" indicator in due course.

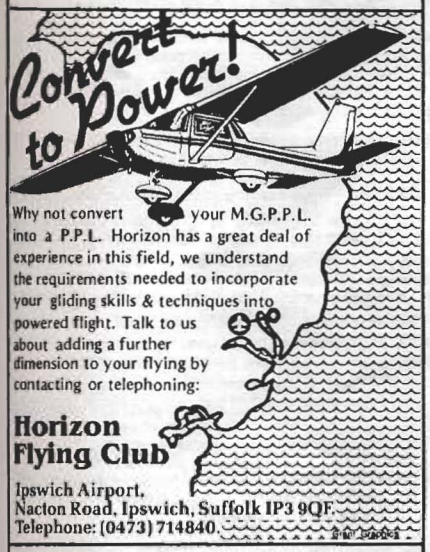
(All these items were translated from *Aerokurier.)*

Gliding in Bolivia. What must be the highest gliding operation in the world is 5nm west of La Paz international airport (and only 10° off the extended centre-line) at an altitude of over 13 300ft. For a time the club actually autotowed off the airport's main runway in between airliner arrivals and departures. Landing speeds at La Paz are some 25% higher than at sea level.

The club has a K-7, a Blanik and two oxygen-equipped Pilatus B-4s. Launching is by a twin-drum Tost winch. The site is only 30km from the Andes and so has excellent mountain soaring potential. La Paz itself lies on a high plateau sandwiched between the east and west Cardillera of the Andes. There have only been two flights in excess of 300km from there but the typical August to November weather (8000ft cloudbase, 2-3/8 cu) makes 750km look possible. The major limiting factor is the problem of outlanding and retrieving. There is only one tarmac road and very few dirt tracks in the whole vast expanse of the Altiplano. *Aerokurier.*

Gliding Accidents. A French PhD student has produced a doctoral thesis on the psychological aspects of gliding accidents. Viviane Inysant-Hannequin undertook a computer analysis of detailed questionnaires filled in by 750 glider pilots, and conducted some 30 in-depth interviews with pilots who had had accidents. She used the data to interpret the main psychological factors involved in glider accidents. Her work is intended to help determine future accident prevention policies. A limited number of facsimile copies are available (in French) from Professor M. A. Bouet, V.H.B. Rennes II, 35 043 Rennes Cedex.

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DEESIDE GLIDING CLUB
DINNET, ABOYNE, ABERDEENSHIRE
Tel: 0339 85-339 or 0339 2551

If you're an experienced glider pilot and looking for a good base to fly from on your holiday, Coventry Gliding Club is the place for you.
Situated just outside Husbands Bosworth within easy reach of many other Clubs. Aero-tow launching ensures maximum soaring opportunity for both long distance and local gliding.
Club facilities include Licensed Bar, first class accommodation, good company and easy access from motorways.
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For details ring:
Market Harborough 880429 or 880521
For holiday courses ring
Market Harborough 880484
or write to: COVENTRY GLIDING CLUB
Husbands Bosworth Airfield,
Husbands Bosworth, Leics.

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Your easily accessible wave site in superb unspoilt country on the Welsh borders.
Falke, Blanik, Twin Astir, aerotowing seven days a week. Easy to-get-away cross country possibilities. Good wave set up by the Welsh mountains. Private owners and club expeditions welcome, but be sure to book. Courses tailored to your requirements. Power and parachuting available. An excellent area for small hotels, amiable landladies, self-catering, historic towns, stately homes, beautiful walks and choice pubs.
Please write to the Secretary.

Herefordshire Gliding Club,
Shobdon Airfield, Leominster,
Herefordshire
Telephone: Kingsland (056881) 369

LONDON GLIDING CLUB

Dunstable Downs, Bedfordshire

Telephone: 0582 63419

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

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Weekend "mini" courses

• • •

Modern gliders
Excellent instruction
Friendly atmosphere

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Meadowcroft, Christow, Exeter
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SCOTTISH GLIDING UNION

Portmoak
Scotlandwell
by Kinross
Scotland

Telephone
Scotlandwell
543

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Excellent Hill, Thermal and Wave soaring in beautiful surroundings
Full accommodation available with catering and bar
Flying 7 days per week all year round
Resident Instructor
Aerotow and Motor Falke facilities
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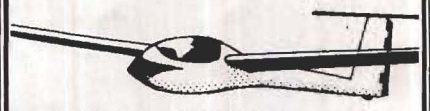
The Course Secretary
Tremearne, Breage, Helston
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Tel: Helston 62294

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Super soaring at Britain's largest gliding centre.
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From £115-£180.
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Please ring Challock (023 374) 274 or 307
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Two ASK 21's in club fleet.

Unbeatable launching system with Jaguar powered main winch and retrieve winch for rapid turn round.

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Send for details to:

Tony Spicer
Midland Gliding Club
Church Stretton
Shropshire SY6 6TA.
Tel: Linley (058861) 206

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