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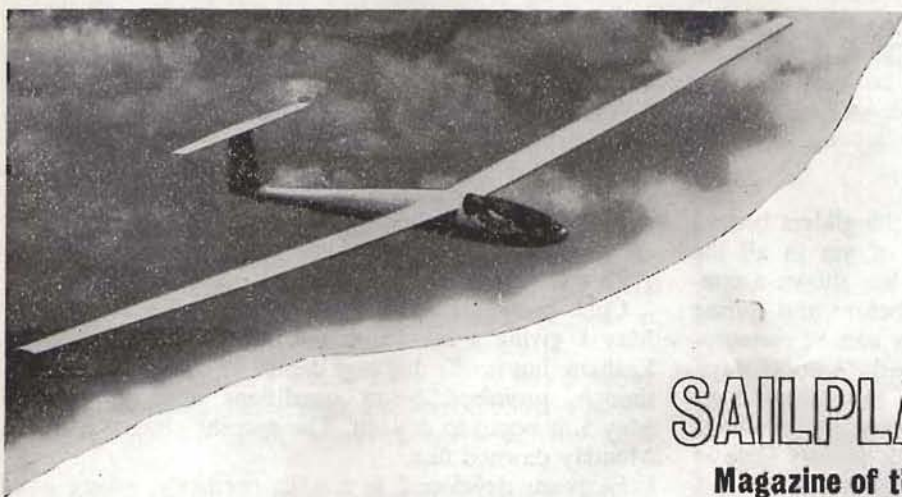
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SAILPLANE & GLIDING

Magazine of the **BRITISH GLIDING ASSOCIATION**

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Cover: A "blue" day. Ralph Jones in his Nimbus 2, photographed by Llewellyn Robins.

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The Year of the Long Distance Glider Pilot

CHRIS LOVELL

What is it, are we getting better? Are the gliders better? Is the weather better? There's a bit of yes in all the answers. The 1974 season at Lasham has shown a consistent sequence of weather patterns before and during the good days. I don't claim to be any sort of meteorologist but an amateur interest from early schools days, coupled with some 1400 hours' gliding, have allowed me to ally the two subjects to a certain extent.

The season was unusual to start with as very little of the classic spring soaring was possible. March 2 and 3 was the only good spell then, bringing a typical polar airstream with high cu-base, odd snow showers and furlined glider pilots flying up to 1500km on these two days, the best being 250km to Daventry and back.

Some of the north-easterly spells in April attempted to become good days but haze or excess wind always spoilt prospects for long distance flying. Easter was best forgotten, cold, windy and nasty stratus. April 23 gave some promise, but on a 200km out-and-return in the club Dart much care had to be taken to avoid large ice clouds. The cold, rather moist air hung around for days with a polar type disturbance producing sleet and wet snow at Lasham over the night of April 27/28.

A 500km Day Lost?

Eventually a col developed over the country and with light winds, temperatures rose a little too near 16°C by noon on April 30. Good soaring resulted and several pilots enjoyed 6kt thermals to a 6300ft asl cloudbase. Trevor Fox completed his 300km out-and-return goal to Leicester Forest East, Chris Garton went to Chatteris and Chedworth, 412km. Other flights to the SW proved it was good there too, so perhaps we lost the first 500km

day of the year by being a bit slow off the mark. Polar air cols have provided good conditions before — April 20 1971 comes to mind.

Cold polar air once again covered the country by May 4 giving a maximum temperature of only 9°C at Lasham, but it was dull and damp. The rising barometer, though, promised better conditions and on Sunday, May 5, it began to dry out. The evening cleared and that Monday dawned fine.

Early cu developed in a 15kt northerly, giving great promise and it turned into an almost 500km day. Chris Garton flew to Lake Vyrnwy and back, 490km, and Hugh Hilditch to Cambridge and returned, 300km. This gives a good spread of weather for 500km triangles, but it was recognised a bit late and we were still reluctant to go early enough.

The cold air persisted and on Tuesday, May 7 produced some rain from glaciating alto-cu at about 08.00hrs, showering on the hopefuls at Lasham that morning. The uncertain start suddenly brewed into excellent soaring cumulus, again with a moderate northerly, though not as strong as the day before. Flights included two of more than 400km to Weston-Super-Mare and Halfpenny Green and several smaller triangles. It developed just too late for 500km flights.

Wednesday, May 8, saw the last of this particular cold airstream as winds backed to SW bringing all 300km attempts to earth in north Berkshire. May 9-12 were mild SW days with passing troughs and generally moist air. By May 13 another cold frontal trough moved south across the country bringing greater instability and low dewpoint. Pressure built from 1013mb at 22.00 on May 12 to 1023mb at 06.00 on May 14.

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This was superb air, dry instability setting off at 08.00 with 8/8cu at 10.00. Even drier, cooler air moved into the north of the country in the afternoon and Alan Purnell, who broke the UK goal and return record on that day with a flight of 540km to Wentbridge Autogrill (A1 near Doncaster), reported cloudbase of 7000ft asl over Sheffield. Hugh Hilditch flew to Norwich and Banbury on a 515km triangle and several pilots completed their Diamond goal. A patch of over-development in the south Midlands caught one or two people out, unfortunately, including Paul Loewenstein who had turned A1/M18 junction for 500km out-and-return and landed at Bicester.

The instability didn't last to May 15. It was a sunny day but thermals became weak and sparse under a lowering inversion ahead of some thundery activity over France.

By Friday, May 17, another trough passed SE leaving us again in unstable air of polar origin, but it didn't clear away properly and Saturday, May 18, was rather disappointing. A high level disturbance crossed Lasham at 16.00, followed by very dry air with a quickly forming pattern of cumulus looking like the Texan sky of our dreams, but too late to use.

As a result of this disturbance, Sunday, May 19, dawned clear and cu formed by 10.00. A secondary inversion kept the cloudbase at 2000ft until 12.00, but when it broke there was lift to 5500ft asl until nearly 20.00. Even with the late start, flights to Brecon, Builth Wells and many other places proved how near we were to 500km again — if only — if, etc.

The next SE moving cold front didn't quite work, it passed at 20.00 on May 21, the date and time Alan Purnell bought his hang glider! Further falls in pressure brought showers southwards, but a gradual recovery stabilised the air and Sunday, May 26, looked a good starter. Once more the task flyers went NW, Shrewsbury, Hereford and Leominster being typical turning points, maximum individual distance being about 450km. The air to the NE was more moist, producing spread out, and those who attempted flights in that direction eventually fell to earth. A total of 4300km was flown that day.

The inversion weakened a little on Bank Holiday Monday but the larger cu didn't help much. Angus Fleming achieved 250km in his K-6 on a commendable 300km triangle attempt via Yeovil and near Oxford.

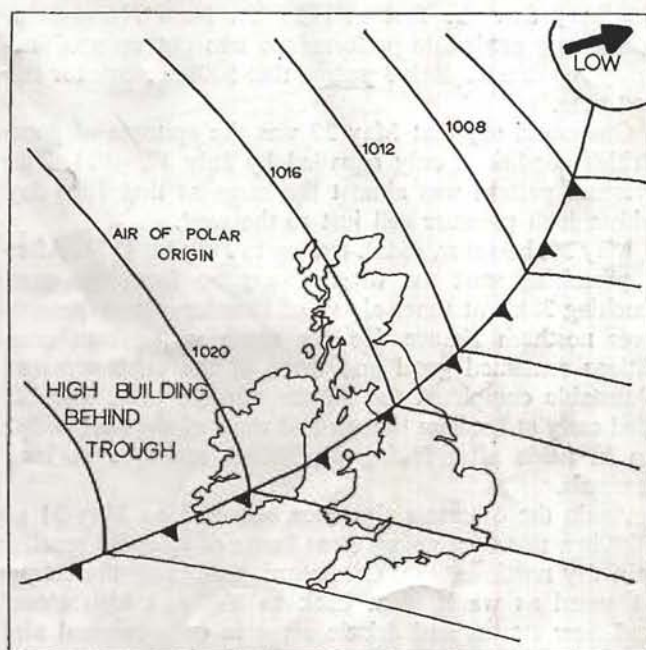
Regular Pattern Developing

The pattern was becoming well established now. A good day followed by a trough system preceding a cold front, then another good day, coming in about five-day cycles.

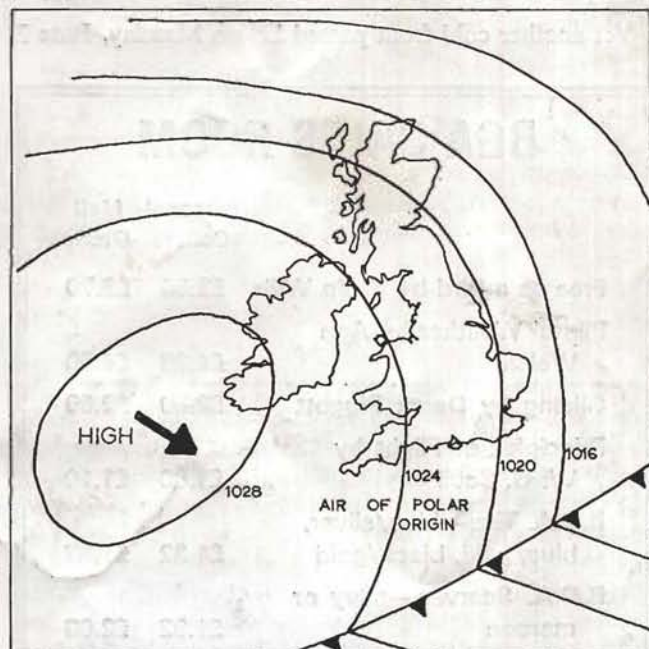
Tuesday, May 28, was rough with a fresh west wind and general increase of cloud to rain, by 19.00hrs clearing on a marked cold front which crossed Lasham at 22.00hrs. Wind became NNW at 5kts and the day ended with a beautiful pink glow in the northern sky. A check with Heathrow Met on Tuesday afternoon indicated very dry unstable air moving SE across Britain behind the front. The situation was very similar to that which preceded May 6, 14, 19 and 26.

Dawn on May 29 looked like every glider pilot's

dream. Cloudless skies again with a ground frost. Cumulus first appeared at 07.40. Wind light north, first aerotows at 09.30. Early cloudbase was variable but generally reached 4000ft asl by 10.00 and 5000ft asl by 11.30. This day the club Kestrel rounded Knighton and



May 28



May 29 — The good day

Melton Mowbray to be back at Lasham in 6hrs 44min from take-off to landing, Guy Butler Madden's Diamond distance at 79km/h; Alan Purnell and Gerry Paddick completed their 510km triangles via Builth Wells and Market Harborough and I spent 8hrs 31min in a club Pilatus B-4 on the Knighton, Melton route at 61km/h.

No doubt the greatest of them all though was Hugh Hilditch's massive 608km triangle to Thetford then across west to Shobdon. He went anticlockwise so he had a

headwind component for much of the time. Many other flights were completed with a good sprinkling of Diamond goals and Silver C height, distance and duration legs.

Other clubs also shared in the day's pickings. Tom Bradbury flew the first ever 500km from Nympsfield, and a very creditable performance was put up at Cambridge when a Skylark 3 passed that 500km mark for the first time.

One could say that May 29 was the epitome of good British conditions only equalled by July 17, 1971. The pressure pattern was almost the same as that July day with a high pressure cell just to the west.

May 30, however, didn't live up to July 18, 1971. After a promising start the wind sprang up from the east, reaching 30kts at times ahead of thundery developments over northern France. To the north of Lasham conditions remained good and three of the contestants at Dunstable completed the 500km triangle task. The lift died early at Lasham though and most of the fleet ended up in fields after failing on 300km attempts in blue thermals.

Again the dramatic clearance occurred on May 31 at 16.00hrs, this time giving three hours of splendid soaring in a dry northwesterly. On Saturday morning the set-up collapsed as winds went back to SW and high cloud and later stratus and drizzle came in on a tropical air-stream — just right for the weekend — completely unflyable.

Yet another cold front passed SE on Monday, June 3,

with a quite splendid, sharp burst of rain and veer of wind from SW to NNW in five minutes at 08.00. By 11.00, a small cu to 4500ft asl developed just north of Lasham and at this time it looked just like May 29. The anticyclonic development was a little too quick and subsidence limited thermal development to 4500ft, and it went nearly blue NW of the Cotswolds by 16.00.

Too Many Late Starts

Notwithstanding that, Hugh Hilditch again went to Brecon and back via Colerne, more than 400km. The day's total came to 2000km, most people leaving it too late to go. High cover caused me to turn back at Worcester after setting off on a 300km out-and-return at 14.00. After I returned, the high cover vanished and cumulus reappeared. It remained soarable until 20.00hrs.

Although more difficult, Tuesday, June 4, remained fine and again great distances were flown. Tony Burton landed 2km short of Lasham, but gained his Diamond distance round Knighton and Melton Mowbray and proved that 500km is possible on an "ordinary" soaring day — inversion 4000ft asl and mostly blue. Paul Loewenstein went to Newmarket, so a very wide area of the country was covered with moderate soaring conditions. Some 500km flights were done from other sites on that day, showing the widespread good weather.

The good spell broke again on Wednesday, June 5, and the air behind the next cold front was straight from arctic regions with far too much instability, giving hail and thunder for a while. As this is being written, June 9, a new pressure build is going on to the west, promising good things towards the end of the week.

Up to this time, 38000km had been flown from Lasham with 15000km of that in Surrey and Hants Club gliders, and this doesn't include all the 100km flights that members are too embarrassed to put into our cross-countries book alongside these 300 and 500kms

Lots of conclusions could be drawn from these observations, but the best prospects for flights of 500-700km are on the day after a nicely timed cold front moving SE across the country. In fact a study of July 16, 1971, and May 28, 1974, give almost exactly the same prospects for the following days.

Other incidental points are that the days with a steady light breeze, averaging, say, 8-11kts, give better soaring conditions than calm ones. Probably this is due to even heating, a regular "breakaway" of thermals and reductions in wind shear — a theory anyway. Getting ready early and launching into the first cumulus of the day paid off each time. Also reliance on late soaring into the evening was successful in the unstable cool air blowing over still warm ground after the sun's heating, very great with clear polar air. I had a 6kt climb at 18.50 on May 29.

* * *

As this goes to press, the rising barometer and promise of good soaring mentioned near the end of this article was borne out by Hugh Harwood completing a 300km goal flight to Dunkeswell and back and Chris Garton going 560km via Crediton, Wincanton and Bromyard. It all comes down to "if the sun's out, have a go".

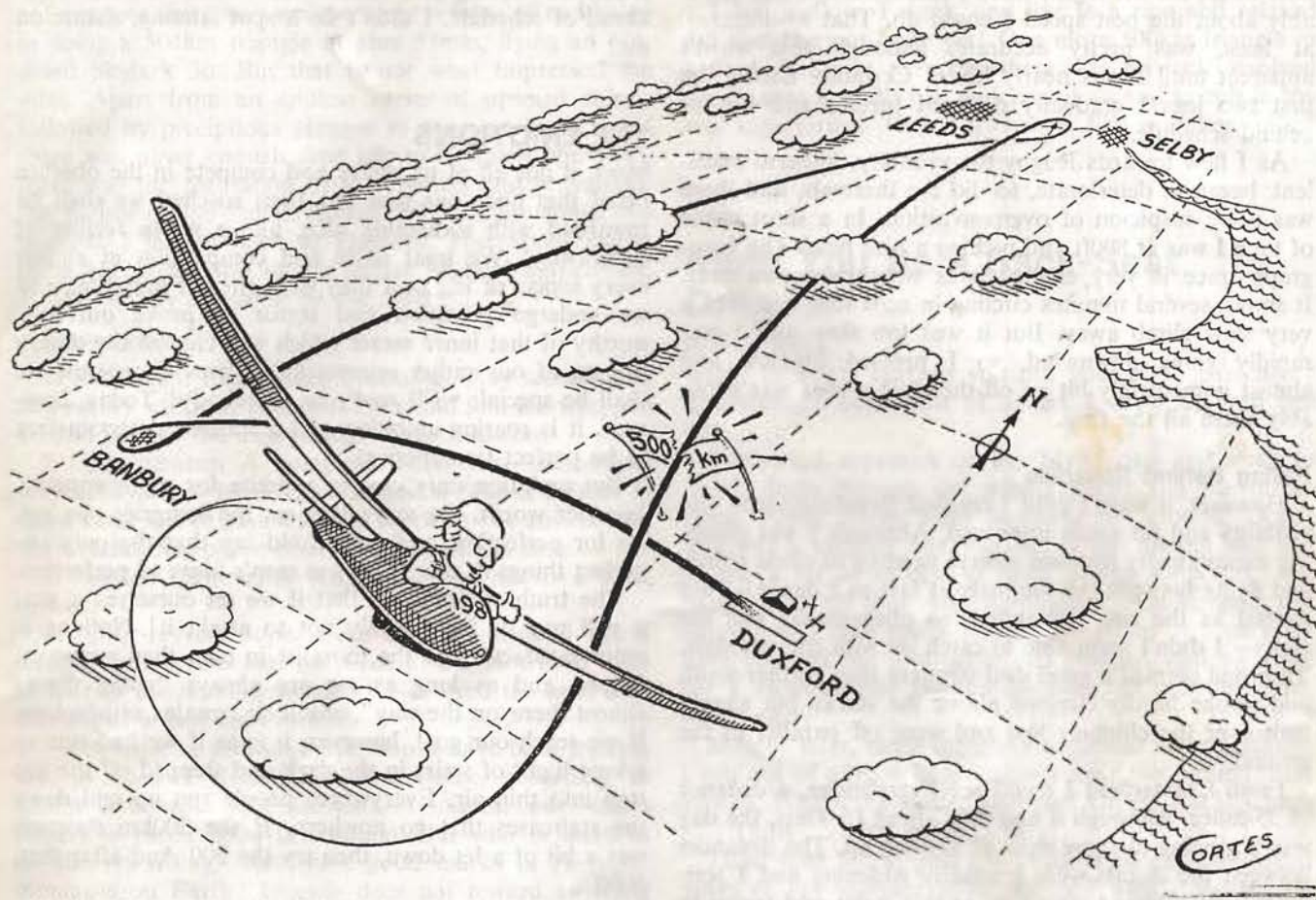
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Around and Inside A 500KM Triangle



STEVE LONGLAND, who took a Skylark 3G on a 500km triangle from Duxford on May 29, gives two appraisals of the flight — the basic facts and then the basic emotions.

THE FACTS

504km triangle in 8hrs 53min at 57km/h, via Banbury railway station and the north junction of the A63/A1. I'm somewhat diffident about explaining what I did, why I did it, how I did it and so on, because the flight was rather uneventful, just long, and most of the assumptions I made during the planning season of winter proved to be irrelevant to the actual flight. However, I was at least mentally prepared for the task when the time came, and that's quite important.

The choice of a NS triangle in preference to an EW depended largely on the assumption that the kind of day a Skylark 3 could be flown round a 500km would also give rise to seabreezes. Due to the Birmingham TCA and the Luton SRZ (and others), an EW triangle from either Cambridge or Duxford is either long and thin, so that there is a good chance of the flight being wiped out — whichever way round one goes — by a seabreeze front, or it would surround the Birmingham TCA and spend a good deal of time under low airways over quite high ground.

If there had to be seabreezes, then it seemed a good

idea to make use of them, unpredictable as their positions might be. This, and the fact that it seemed a good idea to run two of the legs roughly parallel with the M1 and A1 respectively (making navigation much easier, for on a 500km in a 3 you really can't afford to be lost for any length of time), convinced me the NS triangle was the best. Also, as I assumed I would be starting in weak conditions, I didn't want to be threading my way round the numerous active airfields NW of Cambridge and Duxford. Therefore, going to Banbury first seemed the only way.

Stronger Than Anticipated

As it happened there were no seabreeze effects anywhere near me, and the wind was a good deal stronger than I had allowed for, though this didn't matter too much. Conditions at 10.30hrs were far from weak and I went directly off after an aerotow to 2500ft into 4-5kts. Cloudbase was then at 3500ft and for the first three or four hours I rarely climbed higher than this, although cloudbase was rising slowly all the time.

Everything went well to Banbury except the speed. I had marked the course in 55km intervals (giving about nine hours for the flight) since I reckoned this was probably about the best speed I could do. That assumption, at least, was pretty accurate, although this wasn't apparent until I was nearly home. Certainly during the first two legs I gradually dropped further and further behind schedule.

As I flew towards Rugby the visibility, hitherto excellent, began to deteriorate, so did the thermals, and there was some suspicion of overconvection. In a short space of time I was at 800ft and picking a nice field. The barograph trace is very explicit over what happened next. It shows several minutes circling in zero sink and then a very slow climb away. But it was too slow and I was rapidly going downwind, so I pressed forward and almost immediately hit an off-the-clocker that was probably there all the time.

Falling Behind Schedule

However, it wasn't until I reached Bruntingthorpe that visibility and lift really improved. Although I was climbing exceptionally fast, not always needing to circle either, and flying between the thermals as fast as I dared — not as fast as the ring demanded, so phenomenal was the sink — I didn't seem able to catch up with the schedule. The wind seemed a good deal stronger than further south and smoke hardly climbed above the stacks but simply bent over the chimney lips and went off parallel to the ground.

From Chesterfield I could see Ferrybridge, a distance of 35 miles. Although it was only about 15.00hrs, the day was beginning to show signs of slowing up. The distances between the clouds were gradually widening and I seriously contemplated giving up at this point and trying to get back. Since I was so near, though, it seemed a pity not to round the TP which I did in heavy sink, once more finding myself low.

Scuttling back to the Ferrybridge cooling towers produced a feeble thermal and remembering what had happened at Rugby, I moved off and almost immediately found another off-the-clocker. It is a depressing sight to see the clouds slowly edging away from each other and the sky taking on that curious shade of blue so characteristic of late spring, early summer, afternoons.

My only thought now was to stay up. The lift was perceptibly weaker. Gradually, as I went from cloud to cloud, I began to slow down. The wind that had hindered me earlier now helped me along very nicely and to my surprise I found I was beginning to catch up on my schedule. At Peterborough I climbed to 6200ft, the highest I had been all day. I shrieked slowly along, as Skylarks do, to Huntingdon, climbed slowly up to 4500, and continued on my way.

Thermal activity was obviously about to die out completely and only a few isolated haze caps showed where there might be lift. At Bourn I had enough height for a well-judged final glide. However, at this late stage in the game it seemed that it would be utterly absurd for me to land short because of impatience (after all, it wasn't going to make a penceworth of difference to my average speed whether I arrived back in five or 15 minutes), so

when a thermal of about 14kts appeared, I religiously climbed as high as I could and then trundled back to Duxford, arriving at 19.29hrs with 2000ft — 15 minutes ahead of schedule. I didn't do a spot landing, shame on me!

THE EMOTIONS

Most, if not all of us, strive and compete in the obscure belief that once our goal has been reached we shall be rewarded with something nice, like a warm feeling of superiority! We treat strife and competition in almost every aspect of life as if they were rites of initiation, and we undergo privation and terror to prove ourselves worthy of that inner secret which will change the dreary pattern of our rather unremarkable lives Tomorrow we shall be special; we'll *really* be somebody! Today, however, it is roaring ambition and a Puritan determination to be perfect (ie superior).

But ambition only creates appetite for more appetite. In other words, the more you eat the hungrier you get. As for perfection, well one could say that the only imperfect things in this world are men's ideas of perfection.

The truth seems to be that if we set ourselves a goal it will pay us handsomely not to attain it! Nothing is more satisfactory to the moralist in men than perpetual failure, and as long as we are always "going there/ almost there/on the way", ambition remains satisfactory. If we reach our goal, however, it is as if we had run up a long flight of stairs in the dark and stepped off the top step into thin air. Everywhere people run up and down the staircases that go nowhere. If the 300km staircase was a bit of a let down, then try the 500 And after that, 600?

In a Skylark 3G? And then? And then? (Etc, etc). Better buy into glass.

Talk to the Bank Manager. His look is one of complete amazement. "How much?!" You repeat the unmentionable sum.

"Good grief," he replies, "Do you realise you could buy yourself a small improvable property in Dundee for that amount?!"

No Money in Gliding

He is a sensible man, not the least impressed by 500km triangles. Besides, gliding isn't making you any money. He points that out too. Nice chap! He does not realise that ambitious men are not quite right in the head, or heart, for that matter; dangerously unhinged by their obsessions they drag themselves to greater and greater heights of inanity; always hoping that soon, in next to no time, eventually, the answer to the riddle of life will be their reward for relentless and often cruel effort.

The sad thing is that after the ballyhoo is over, after we have half frightened ourselves to death for "the answer" that sends our pundits smiling through life, we discover that there is actually no "answer" at all. Effort, like virtue, it seems, is its own reward. After some apparently astonishing feat we are what we were before, saddle-sore, perhaps, but immutably ourselves . . . Others may say, "How excellent! What great merit he displayed!" (or less complimentary things), but judge as

they may and do, it is only we who realise that nothing has changed. The whole business of "doing and achieving" is a confidence trick.

I suppose there may well be some residue of real value in doing a 504km triangle in 8hrs 53min, flying an outdated Skylark 3G. But that is not what impressed the pilot. Apart from an endless series of upward spirals followed by precipitous plunges to the next cloud (as if there was never enough time left to complete the task), there was the realisation of the rootless and unnourishing nature of the "achievement". The flight ended the moment I landed back at Duxford. Just about everything else ended too in the feeling of total anti-climax. It was exactly the same on the 300km.

Then came:

1. Disbelief. I have been dreaming! Any second now and reality will assert its chill force and find me wrapped around one of the Ferrybridge cooling towers.

2. Amazement. A complete inability to understand why a Skylark 3 hasn't gone round a 500km before. Is there some sort of psychological barrier? The answer that the weather has never been right is just too easy.

3. Relief. I'll never do it again, at least not for a week or two.

4. Over-revved. Super alert, bouncing around like a middle-aged firecracker, not tired at all. Not tired even at four in the flaming morning! Not tired the next day. Developed a bad cold instead.

5. A sense of profound irritation. I have been tricked, that is what I chiefly feel. Excellence, according to men's standards, is rewarded — indeed, our whole society is based upon this notion. But who is there to do the rewarding? Are there good marks in Heaven? Applause on Earth? Heaven does not reward anything since it cannot afford to, and the Earth's applause, much as we may seek it, is deeply ambiguous and wounds as it congratulates. Besides, the feat is not that spectacular.

The moment one realises these facts is one of real loneliness. I sat there in the cockpit and thought, "Well! What the hell was all that about?"

It is rather pompous, I suppose, to extract a sermon from a stone — even a Diamond — but the "how" of the flight was truly unremarkable. When Mr A. Vincent flew a 500km triangle in a K-6E two years ago, he was reputed to have said "I just kept on going". That, boringly, was the case here. The "why?" of the flight is another matter altogether, as I have tried to point out. Ambition expects a great deal, of course, and invests very heavily in the erection of rather arbitrary barriers that must be broken if X, Y or Z is to take place. But on the right day, in a mouldy old Skylark 3, the only real barrier is the voice in the head that mutters "Impossible, never been done before in a . . . etc". The voice is not our own, but that of accepted opinion.

So, I did it, but it wasn't quite what I expected — few things ever are, thank goodness! Like everyone else, of course, I realise I will have to change my competitive ways somewhat, and become more understanding of the peculiarly intolerant demands and needs of other people. I will not rush out to the aeroplane early before the rest of my syndicate, make arrogant declara-

tions of intent, and be as irritable and disruptive as others who are exactly as competitive as myself (probably more so!).

I will mellow, I think, and live to a ripe and relaxed old age. But not quite yet! One more 500km triangle in a Skylark 3 just to prove there was no luck involved — it's always skill, you understand — and to rub in my real superiority! Then I'll change, like everybody else!

Must You Be a Back-Seat Driver?

ROBIN BULL

WELL, in which seat do you put your K-13 passenger? The front, I bet. Most of us do. I used to, until one day . . .

West-wind approach on the Mynd, fast and steep as usual, down through the wind-gradient and the turbulence. Pretty rough right down to the ground. Oops! that was a naughty one, ran out of left aileron and had to use a bit of rudder to help. Tough passenger, still happy after all that ridge turbulence. "Good, glad you enjoyed it. Come again sometime." Hmm . . . he must have climbed out awkwardly, he stopped walking away for a moment and rubbed his knee. "Come on, now, who's next?"

Months later, same thing again, similar circumstances. I ran out of aileron in turbulence near the ground. Left aileron. What's the matter with me? Or the K-13? Check . . . Think . . . No, not a clue.

Third time lucky, plus the freedom of expression that years of life together produces. My wife Rosemary in the front seat wasted no time at all in conveying to me that with her feet on the floor where she'd been told to keep them, I'd got her left knee caught, tight, between the brake lever and the control column, as I dealt with a leaping left wing in the turbulence well down the finals. So that's it!!

And indeed it was. We checked, in a parked K-13, and the set-up was as clear as day. Cheek for yourself and see. Go on, you won't even need a tape measure to prove how little room there is in front compared with the back. Now Rosemary is only average size, but you just imagine a large, well-clothed passenger with big knees and you'll see how you could be very short indeed of left aileron, with brake lever half-way back.

Why hasn't this been ventilated before or have I missed something? And are we the only hill-site club who give joy-rides in rough weather? Anyway, why do Schleicher make the back control column removable, instead of the front? I bet they think of passengers in the back seat. And that's where mine go, have done for a year or more. Many of them seem to feel more secure there instead of stuck out alone in front. You can take the stick out, or leave it if you think the passenger is a reasonable, sober type . . . there's so much more lateral room between stick and brake that you won't get a jam-up there anyway.

I wonder, what's the official view on all this?

all pilots can read — but the **BEST PILOTS** read

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coaching corner

BILL SCULL, Senior National Coach, takes a look at basic training methods

ERRORS AND OMISSIONS

Gaps in knowledge and skill and in the guise of poor flying techniques are frequently contributory factors to an accident. In this series of articles, it is my intention to examine in turn each of the basic training exercises and consider points the instructor may occasionally fail to explain, as well as others the student pilot might not appreciate.

The Elevator. A student's appreciation of the effect of the elevator is, in the beginning, limited. He uses it to control the attitude and hence the speed. Initially the glider is flown through a small speed range—typically 40-50kts. Later, use of this control is extended to speeds from 40 down to stalling speed and from 50 up to launch speeds — 60kts or so.

Throughout he may be encouraged to make small movements of the control, often to the extent that the glider is not flown in a positive manner. This shows up particularly in thermal soaring and flying between thermals, when an instruction to increase the speed (to fly through sinking air) brings a half-hearted response and a very small speed increase.

In contrast, a student who is allowed (or even encouraged) to experiment will eventually establish the correct control movement by a series of approximations—too small—too large—just right. There is a risk that if the student is discouraged from positive movement by an instructor who emphasises a gentle use of the control, he may never experience the effect of a too large movement until, perhaps, he is flying solo.

A Potential Accident Situation. Imagine an early solo pilot practising stalls or having a cable break on his first solo. He no longer has the instructor to give him confidence and, reacting hastily to the approaching stall or cable break, he thrusts the stick forward.

These negative *g* sensations, which are often confused with the sensations at the point of a stall, cause him to

react yet again—that is if he hasn't used up all the forward stick travel. The rate of pitch rotation when the controls are used in this way, even at speeds just a few knots above the stall, can be quite alarming. And if the pilot loses sight of the horizon, he becomes disorientated. The consequences can be serious and in this case, of course, it isn't only a lack of awareness of the elevator's effect that causes the accident.

Quite simply, it is vital that the aim of every instructor should be to give the pupil a complete awareness of the elevator's effect, its influence on airspeed and the control rate.

The rate of control movement will initially depend upon the forces required. When converting a pilot of limited experience to a new type with different longitudinal stability characteristics (usually from a glider with large stick forces to one with small forces), it is of special importance to point out this contrast and thus avoid over-controlling in the early stages of the launch.



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EDWARD LONG, glider pilot and farming correspondent for a national magazine, advises on

SPOTTING YOUR CROP FOR THE DROP

This is the peak time of year for cross-countries and with thousands of fields of stubble all over the country, there are plenty of possible landing areas. And stubbles are ideal as gliders can go in without fear of damage to the machine or of incurring the wrath of the farmer.

As all glider types who have landed out will tell you, most of the farmers they have come face to face with have been pleasant. On the whole they are helpful, tolerant chaps for whom a glider in their "twenty acres" is a bit of excitement, and they will normally put up with a little crop damage.

But can we? A glider landing in a field of ripening corn may not do much damage to the crop, but harvesting the glider may be more difficult.

Crop Identification

So it is important to learn a little about crop identification from the air and to know roughly which crop to expect in various regions, as different crops pose very different problems for the intrepid aviator. For instance, field beans look green from the air in July, but so does grass, yet the dangers of landing amongst a six foot high crop of field beans could be decidedly embarrassing.

No one is going to learn a lot about crop spotting from reading about it. It is far better to look at them on the ground. Start off by really examining them closely and notice the colour at different times during the growing season. Another good idea is to stop the car every time you go up a hill and look down on the crops below, then, if possible, go down and relate what you have seen with the crops in the field.

Early in the year many crops look green, but it is the shade of colour that gives a clue to their identity. Of the cereals, wheat, except when it is in ear from late June, is a darker green than the yellow shade of barley.

Wheat is more profitable if it is sown in the autumn, barley in the spring, so in May wheat is much taller than barley and more of a danger to anyone sitting in sink at

1000ft. Grass, on the other hand, can be almost any shade of green. Early in the season it grows strongly and when lots of nitrogen fertiliser is used it is likely to be a dark lush green.

At this stage it can usually be distinguished from cereals because of the lack of drilling signs. In cereal crops the corners of fields are invariably rounded where the drill failed to get right into the corner. The corn is also sometimes separated from the grass of the hedgerow by a head-land cultivation to keep weed grasses from invading the cereal crop.

So a glider pilot seeking somewhere to land has also to be a bit of a detective.

Grass is grazed in strips with an electric fence, in separate paddocks divided off by wire fences or in the whole field. Electric fencing is almost invisible from the air, but the colour of the grass on either side of it may be different and pin-point the lurking fence. Usually the grazed side will be more yellow than the lush ungrazed grass. Noticing this could save pilots a nasty experience.

With the paddock grazing system, a grass field is split up into separate blocks of a few acres each, and a seemingly good landing ground could hide a series of obstacles that could prove interesting, to say the least.

A clue to the presence of paddocks may be the regular areas of grass that are a slightly different colour from the rest of the field. Often in the summer, when the cattle have been grazing the paddock in rotation, this colour change may be quite marked, especially when a paddock with some regrowth is next to a recently grazed one.

The Hazard of Bales

Where grass is conserved for the winter by cutting and baling for hay or taking for silage, there isn't usually the problem with fences, but watch out for bales of hay. Hay-making consists of cutting the grass in swaths and allowing the sun to dry out the sap. After it has been cut a day or two, grass turns a yellow-white in hot weather. Like this it is quite flat in the field and little damage can be done to either the glider or crop. After a few days it is turned and baled. The real danger is that pilots could fail to notice that part of the crop has been baled and if these are left in the field, a 100lb bale could make quite a large hole in a glider.

After grass is cut for silage, the stubble remains quite yellow for several days and is a good indication of a safe field.

Far from safe are any bright yellow crops. In recent years farmers have been laying traps for unwary glider pilots by growing an increasing amount of oil-seed-rape. This is the crop that provides oil for soft margarine and cooking oils.

Rape grows to about five or six feet tall and is rather a sticky crop. It is either winter or spring sown which means that the yellow flowers are out in May or June. After the flowers die back, the crop looks like a light



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green from the air. It is harvested in July or August/September and the stubbles are left long. And these sharp stubbles could do a lot of damage to a glider.

Field beans should also be avoided. Again it can be autumn or spring sown and drilled in rows of from seven to 24 inches, and the crop starts off looking a pale blue-green. As it matures the crop turns darker and just before harvest, from June to September depending on the time of sowing, it turns a very dark brown. Bean stubbles are a dark brown and definitely to be avoided.

Potatoes are grown in ridges and until the foliage meets in the rows in late May, they are easily identifiable. Even when this happens the ridges may be exposed where the crop has failed to come round the headlands or near the gateways.

Potato ridges are normally 30-36 inches across and six to ten inches deep. They should be avoided. Where they aren't easily seen, the crop can be detected by the tractor wheelings made in June and July when blight spraying takes place.

Sugar beet is a better bet when there are few alternative fields. Beet, with their broad leaves which reflect a lot of light, appear much lighter green from the air than other roots. The crop is grown in rows 18-24 inches across on the flat. Again crops will be less forward and more yellow around the headlands. For ease of harvesting, farmers often grow cereals around their best fields and in gangways a few yards across through the crop.

This helps identification. In July and August crops often have yellow patches caused by a virus turning the leaves bright yellow. Although beet should be avoided if possible, they offer a better landing site than growing cereals in June and July, and by landing along the rows, little crop damage is done.

So how are these facts related to the seasons?

At this time of year, look out for stubble fields. Stubble burning is one quick way to get rid of straw in the arable east and a blackened field, usually burnt in stripes, offers a safe landing spot. Where the straw is carted off rather than being burnt, it may be difficult to see which is stubble and which is standing corn. But if there is any breeze the standing corn should sway.

One serious threat we must be careful to spot is maize. An increasing acreage of this crop is being grown in this country. Although the late sowings towards the end of April are slow to come, the crop grows rapidly in June and July. In May it appears as a very yellow crop growing in 30 inch rows, but by June and July it is one mass of green foliage which turns yellow as it ripens in late August and September.

After harvest there are few problems facing anyone seeking a field until the following spring. In March there are a lot of green fields and they could be almost anything, but with the choice of many bare fields, they can easily be avoided.

More Problems in May

The same is true of April, but in May the problems start with rapidly growing crops. In the main arable areas of the country there should still be a lot of brown fields about where beet are coming up. But beware . . . potato fields in early May look pretty brown but the crop is ridged up. Also watch out for the yellow rape crop.

In June things are much more tricky with cereals getting tall and winter rape turning green, so try and find fields where hay has been made or silage taken. By July cereal crops are ripening and turning colour. Winter barley may

be harvested towards the end of the month in the south and east.

In the southern counties the pattern of farming is mainly based on grass and cereals with an increasing acreage of rape. In the south-west there are more cereals than there were ten years ago but grass is still the main crop. Watch out for smaller fields, stone walls and electric fencing — also beware of cauliflowers in Cornwall and parts of south Devon.

Grass predominates in Wales and the western counties, except in Herefordshire where there are a lot of hops and arable crops. In the west Midlands there is a good balance of grass and cereals with some sugar beet, except in Shropshire and Worcestershire. In Lancashire keep an eye open for vegetables.

There are many cereal fields in the east of Scotland and a number of vining peas. These are for freezing and harvesting in June. In the wetter west of Scotland, hay-making is a long job and grass is often put on tripods — so watch out.

Down the east coast there are masses of cereals and in east Yorkshire and Lincolnshire there are a lot of potatoes. Lincolnshire also specialises in brassica crops and other vegetables. In the east Midlands there are arable and grass crops, though again beware of rape and beans.

East Anglia is the main cereal area of this country but a wide range of other crops is grown. In east Norfolk steer clear of all yellow crops — they may not be rape but its sister crop mustard, which is just as lethal.

In south Suffolk and Essex watch out for field beans. There are plenty of alternative fields. And finally, all over the country but especially in Essex and Kent there is maize.

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Last year ANN WELCH wrote a series of three articles aimed at the less experienced pilot. As they were so popular and I have had many requests for a continuation, Ann has added a fourth for this issue.

DOING A DAILY INSPECTION

Some time ago a pilot inspected a Tutor, took it out and had a winch launch. Suddenly, just about at the steepest part of the climb, there was a piercing scream in his ear and a stab of pain in his neck. Panic stricken, he released, did a shaky sub-circuit and landed.

He barely saw the cat it went so fast, but it had been inside the fuselage centresection throughout the DI.

The daily inspection of a glider is a good and simple procedure confirmed by a signature in the yellow book. But, like most really important things, the DI has to be done properly or it is both worse than useless and dishonest. You may be the first person to fly the aircraft after inspection, and because you want to get airborne it is not too difficult to accept some minor flaw. You know it is all right for you and for the small amount of flying you are going to do. But a DI is what it says it is — an inspection for a day.

That small split in the tyre wall, tiny tear in the fabric, stiffness in the trimmer lever, or minute crack in the canopy perspex may not bother you, but what will they be like at the end of the day after the glider has been flown by a dozen less experienced members? On a DI you are not only looking for what is wrong, but what could possibly deteriorate during a long summer day. Careless, sloppy, or ignorant inspections may get by for a while, but sooner or later the owner of the last name in the DI book will have to stand up and be counted. The result may be no more than a rude remark from another pilot, or it could mean an appointment with the coroner.

In general the standard of daily inspections is high. With probably more than 50000 of them done by club members a year only a minute number could be subsequently criticised, with the number of incidents or accidents resulting from inadequate inspections being extremely small.

The yellow DI book belonging to each glider contains instructions and reminders, and should obviously be studied carefully before signing your life away for the first time, but the book is also extremely valuable as a record of the recent history of the aircraft, and it should be examined in this light. Usually two things become apparent; notes on recent work, and "defects still remaining".

Several previous pages should be glanced at, since some people forget to carry forward a defect note when starting a new page. You discover that "temporary fabric patch on wing tip, should be repaired by next weekend" is somehow now a month old. You should regard the DI book as a tool, and use it as such, and not just a place for your autograph.

If you think that something needs saying, don't worry about spoiling the neatness of a page, put it in, if necessary in big letters right across like "Spar damage found on DI UNSERVICEABLE"; just in case anyone else comes to fly the aircraft while you are away looking for someone to repair it. If you come back from an evening retrieve and rig the glider before going home, write in the DI book "Aircraft rigged after retrieve but not inspected"; it helps when doing a DI to know what the long suffering aircraft has been subjected to.

When starting to do DIs on your own, it is easy to feel

that other club members are more experienced than you. Don't be misled. Having done a DI as well as you can, never assume that even if you have missed something the next pundit on the scene will soon pick it up. Last year an aeroplane pilot pre-flighted his Super Cub, including walking all around it, taxied out and took off. At least, that was his intention, except that before he became airborne the Cub swung off the runway and fell on its face in the grass. It had no rudder. The previous weekend the syndicate partner had taken the rudder home to give it some paint, thinking it quite unnecessary to leave a note stating to him what was a blind glimpse of the obvious.

Notes on unserviceability do not have to be made only by a person doing the DI. Even if you have nothing to do with an aircraft but notice, say, some hangar damage, it is a responsible act to at least put a note in the cockpit drawing the owner's attention to it — even if you are unable to tell him directly.

Sometimes when inspecting an aircraft you will find something that you are not sure about, such as surface hairline cracks in paint. Or it maybe that you are not sure whether obviously new harness straps have been correctly attached. There is only one answer to such doubts; find a qualified person to give a second opinion. Inevitably Sod's Law comes into effect at such a time, thermals are popping, pilots are demanding the aircraft, you are being assured on all sides that it is perfectly all right and that anyway the cracks were there last week. It is a difficult moment, and you will have to make up your mind whether to keep the aircraft unserviceable until you have got that second opinion, or let it go. You are inspecting the aircraft and you will have to decide.

If possible avoid sharing the work of a DI whatever the reason, particularly if it is one involving hurry. In the event of a subsequent accident it may be impossible to discover who did what, or even whether some check was done at all, and the overall impression given will be one of carelessness and ineptitude. The only possible case for a shared DI is in a private owner partnership where the same two pilots always do the same checks and know exactly what the other is covering.

As a private owner, it is easy to get into a habit of looking only for certain things on your aircraft. You know the necessary checks, any weaknesses, and the capabilities of the pilot last flying — perhaps yourself. After a season or so of inspecting only your own Super Fumblehawk, it is easy to forget that you simply cannot apply the same criteria to the club hack that spends its life circuit bashing. You will probably have to keep reminding yourself that you must now inspect the aircraft *completely*, even if this takes you quite a long time. Think how the aircraft is used — does it suffer from continuous landing practice, early aerobatics, or as a nesting site for birds — because it will need extra attention to possible damage that could result from any high work load activities.

I once gave an aerobatic lesson in a two-seater with a ten inch chordwise split in the underwing ply skin. A crack had been heard on the previous flight and the glider

inspected by no less than three technical experts who pronounced it serviceable. Only when the aircraft was subsequently derigged and the wing laid on the ground did the split become visible. While rigged the wing weight had totally closed up the crack.

Lesson: such an inspection should include a thorough examination while the wings are flexed by helpers to simulate the inflight loads. While on the subject of cracks, even when you are satisfied that a particular crack is only in the paint, it does no harm to mark the end of the crack and write the date beside it. This aids future inspectors who will probably have the same doubts about the same cracks.

It is always a problem to know how far inspection should be carried. If, for example, glass-fibre fairings, or Falke cowlings, are constantly being removed and replaced they start to wear out around the edges and attachment points, and themselves become less secure. If an aircraft is not normally subject to rigging, and the only reason for inspection under the fairings is to check the rigging pins, then the fairing does not have to come off on every DI. On the Falke, the main reason for removing the cowlings is to check the engine mountings.

It is on these aspects of daily inspections that a club policy can be helpful. If, for example, the Falke engine mountings are checked regularly by, say, the CFI, then it is only normally necessary for the club member doing the DI to remove the cowlings when he considers that there is a good reason for doing so.

During a DI the inspector does, or should do, a full cockpit check, even knowing that this will be repeated by

each pilot. This is as it should be, because it is in this immediately pre-flight area that mistakes occur that may lead directly to further errors in the air.

Extra vigilance is necessary when inspecting new type aircraft because some design weaknesses may not show up until the aircraft has been in service for some time. On new or unusual aircraft, therefore, the inspector needs to search positively for new and unusual faults — particularly where it looks as though the designer has been specially ingenious.

It is both undesirable and unpleasant for anything to go wrong with an aircraft in the air, not least because the pilot, having to fly and navigate, is by no means ideally placed to devote all his thinking time into working out what has gone wrong or into how to put it right again. Once, in very rough conditions, I had to fly a small prototype aeroplane which was reputed to be very tail heavy. It was, and the second pilot and myself had to push hard on the two sticks all the way to our destination. Only after landing, with quiet and peace to think, did it occur to us that the trimmer might be connected back to front. It was. Lots of morals here.

Being competent to do daily inspections is part of the stock in trade of any glider pilot worthy of the name. It is not difficult, but it does require thorough and conscientious work, and a real interest in how gliders are constructed and how they work inside. But above all it is a matter of being absolutely honest with yourself, and being prepared to say, I don't know, or I'm not sure, I need to ask someone who knows more about it than I do.

Production starts on Schweizer 1-35



There is another challenge to glass-fibre with production starting on the Schweizer 1-35, photographed above. At the start of the project Schweizer Aircraft decided this all-metal glider would only be worth producing if its performance was as good as or better than the current Standard Class glass-fibre sailplanes.

Certainly when the 1-35 was flown in its bare state as it came out of the jigs with no fill or finish, comparison flights are said to have demonstrated its superior climbing

ability and a Max L/D equal to that of the contest-ready Std Libelle and Std Cirrus.

An interesting feature is its light weight — the prototype, without instruments or finish, weighed 368lbs empty. This gives it the lowest wing loading of any Standard Class machine but with the facility to take 320lbs of water-ballast and a Max gross weight of 930lbs, the 1-35 is capable of the highest Standard Class wing loading of 8.96lbs/sq ft.

First International Motor Glider Competition

BURG FEUERSTEIN JUNE 8-16 1974

PETER ROSS

This year the annual meeting for motor gliders was again held at Burg Feuerstein in the Frankischer Schweiz region of Germany, between Nuremberg and Bayreuth. To mark the 50th anniversary this year of motor gliders, it was given the title of an international competition, and attracted entries and/or pilots from the USA, Denmark, Austria, Switzerland, and the UK as well as a large entry from West Germany.

The increased interest in motor gliders was underlined by the presence of the West German World record holder and competition glider pilot Hans Werner Grosse, who flew a motor glider for the first time only a few days before the competition started. He was competing in the Advanced Two-seater Class flying a Schleicher ASK-16 with designer Rudi Kaiser as co-pilot. In previous years we have seen two World Champions (Ernst Günther Haase and Heinz Huth) taking part, but this is the first time that a current top competition glider pilot has been involved.

The most exciting development at Burg Feuerstein was the first appearance of the new Schempp Hirth Nimbus 2 with completely retractable 50hp Hirth engine, which has been developed under the personal direction of designer/competition pilot Klaus Holighaus, himself a member of the West German international gliding team. This development can be traced back to the first German retractable engined single-seater, the Scheibe SF-27M which started as a prototype when Alois Obermeyer modified a Standard Class SF-27 sailplane.

The design was taken up and further refined by the Scheibe factory, then put into production. Several were flying in the competition in the advanced single-seater class. The development was continued in the hands of Willibald Collée who used an SF-27M as an engine test bed to develop a more powerful two-cylinder two-stroke engine, which was being produced by the Hirth company as a power unit for snowmobile racing in Canada. He next commissioned the Scheibe factory to produce an SF-27M with the glass-fibre wings from the Open Class 18m Cirrus, and successfully competed in this for two years (this particular prototype has recently come to Britain and is being flown by Brennig James). Collée and Obermeyer worked closely with Holighaus in the design of the installation of the same engine into the new powered Nimbus.

Also of great interest was a Standard Class 15m Cirrus, which together with the Libelle and the ASW-15 represent the most widely used and competitive Standard Class sailplanes. It was fitted with the same retractable engine installation as used on the Nimbus. Although seen briefly a year ago, it had just been completed, and literally made its first flight on the second day of the meeting. Take-off and climb were impressive. The significance of these two sailplanes is that for the first time no sacrifice is made to performance, and the current top gliders in both Standard and Open Classes are now available with self-launching and self-retrieving capability. The weight of the engine installation is in each case less than the weight of waterballast that may be carried. The only penalty would be in



- 1 The Schleicher ASK-16 in flight.
- 2 An engine run on the powered Std Cirrus.
- 3 Hans Werner Grosse chatting to designer Rudi Kaiser after their flight in the ASK-16 on the first contest day.

weak lift conditions when the pure sailplane would not carry waterballast.

On both these designs the raising and lowering of the engine is carried out electrically, using the motor and rack and pinion from a Bosch sunroof car installation.

The competition itself was again divided into three classes. Class 1 was for advanced single-seaters, and included the Nimbus, the SF-27M and the Schleicher ASK-14, normally fitted with a four-cylinder 26hp Hirth horizontally opposed two-stroke engine, but one was fitted with an experimental Wankel engine made by the Sachs company. Class 2 was for advanced two-seaters, and in addition to the previously mentioned ASK-16, included the Sportavia RF-5b Sperber, the Scheibe SF-28a Tandem Falke (which took the first four places last year), the new Scheibe SF-25e Super Falke which has 18m wings which fold like the RF-5, a more powerful 70hp 1.9 litre Limbach engine and a claimed gliding angle of 1 in 29/30; and two prototypes based on the Bergfalke IV two-seater sailplane (which has a gliding angle of 1 in 34 in the pure sailplane configuration).

The first of these was fitted with two Lloyd two-stroke engines in the wing roots, a development of the Schleicher K-8b seen in previous years which is fitted with a single Lloyd engine in the starboard wing. This, like the K-8b,

was beautifully engineered, and the engine installation appeared to give little additional drag. It took off and climbed well, but produced a very loud noise which might be unacceptable on environmental grounds at some airfields.

The second Bergfalke IV was fitted with the same Hirth two-cylinder engine as in the Nimbus, but mounted fixed on its side in the fuselage and driving a large propeller through a very long cogged belt giving a 4 to 1 reduction. The drive was through a Hookes joint, so arranged that the pivot of the retractable pylon coincided with the centre of the joint which allowed pylon and propeller to retract into the fuselage even though the engine was fixed.

Class 3 was for less advanced single and two-seaters, which contained the K-8b, Scheibe SF-25b Falke with 45hp Stamo engines with both manual and electric starting, SF-25c and C-S Falke with 60hp Limbach engines, the latter having a feathering propeller, retractable cooling flap, and improved rear fuselage shape to get better airflow at the wing root.

For an idea of the nature of the competition, it is worth giving details of the first day. The sky was completely overcast and certainly impossible for a normal gliding competition day, yet a 130km out-and-return was set for Classes 1 and 2 and a 100km out-and-return for Class 3.

It was a case of pressing on for Class 3 competitors, using hill lift wherever possible, and an occasional thermal towards the end of the flight. Classes 1 and 2 did rather better and Klaus Gshwind (ASK-14) completed the course using only 2.2min of engine. It took him 4hrs 10min. He beat the best of the two-seaters, the new Super Falke flown by Rudolf Wilsch who used ten minutes of engine but was penalised three minutes for arriving at the finishing line below the minimum specified height.

The second two-seater was the RF-5b Sperber flown by Manfred Schliwa who carried a lightweight passenger and very little fuel. He used 13.1min of engine and took 4hrs 13min. Third of the two-seaters was Hans Werner Grosse in the ASK-16 who had 19.2mins of engine and took 3hrs 6min.

In Class 3 the leading competitor used 22.2min of engine, and did not score sufficient points to allow a competition day to be declared. This is a good example of the way in which the organisers have developed the rules over the years, because when a lot of engine is used it gives an unfair advantage to the motor gliders with powerful engines which can both climb and cruise further for every minute of engine.

The leading results were: Class 1 Günter Brodersen (SF-27M); Class 2 Rudolph Wilsch (SF-25e); Class 3 Kurt Duzendorfer (SF-25b).

The Carats of Cosford

GORDON CAMP

A new record for the number of 300km triangles flown in one day in the UK was set at the 1974 Inter-Service Regional Championships on May 7, though this was broken later in the month at the Nationals.

Of the 39 pilots attempting the 306km mid-way through the Inter-Services, 30 completed the course, including 14 in K-6es, and 19 Diamond goal legs were claimed. Until this May, the best effort goes back to the 1962 Nationals at Aston Down when 28 out of 40 completed such a task.

The Inter-Services, held at RAF Cosford, also had a promising day on May 6. The 54 competitors, divided into three Classes according to handicap, rigged before the briefing. The Club Class was given a 130km closed-circuit task with the Open and Sport Class being set a 306km triangle, Evenlode, Gloucestershire and Gunthorpe, Notts. These rather obscure places were chosen to achieve a 28% rule record-breaking triangle which didn't infringe sensitive airspace.

Launching started at 10.30 sharp and as a legitimate plot on the part of the organisers to dissuade Sport Class gliders (mostly K-6es) from hanging back, they were timed

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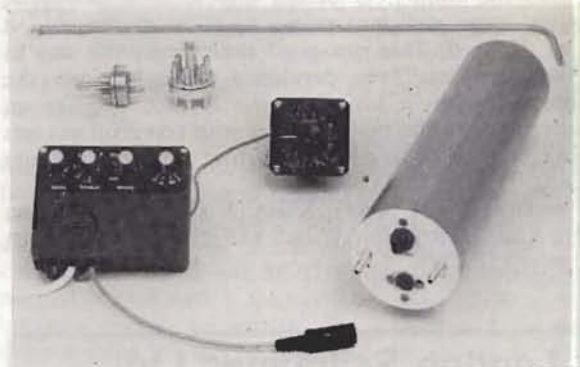
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from take-off. Progress became slow on the into-wind second leg, but the early start paid off as several eventually turned the second point. Of these, five Open Class and three Sport Class completed the course, the fastest being Roy Gaunt (Std Libelle) at 54km/h.

The other hero of the day was Bob Sharman (K-6CR), who took 8½ hrs and crossed the finishing line less than an hour before sunset. He stayed aloft by courtesy of the various Trent Valley power stations situated at intervals along the last leg.

A Golden Day

Three of the eight who finished claimed their Diamond goal legs, but the organisers weren't yet satisfied. With the very names Evenlode and Gunthorpe so reminiscent of remote American mining settlements of 100 years ago, the 1974 "gold rush" was on and the very next day, the record breaking May 7, the briefing for the Open and Sport Class was again "go east young man", this time clockwise via Gunthorpe first, Evenlode second.

The task route was neatly sandwiched between two bands of ⅓ cloud cover, but conditions proved better than the previous day. The competition weather men, Alan Diver and Brian Booth, forecast a ridge of high pressure moving slowly east during the day. There was little chance of over-convection and the surface wind was light and variable.

The Open and Sport Class winners were Bunny Hale (Std Libelle) at 68km/h and Frank Wilson (K-6E) at 50km/h.

In addition to these two good days described above, four other contest days were achieved in each Class, including a novel hill-soaring race for the Open Class along Wenlock Edge to Craven Arms and back. One of the no-contest days involved a race via a turning point quaintly named Llansantffraid-ym-Mechain, a task from which Jock Wishart claimed diplomatic immunity! Jock had taken those "JSW Calculator" advertisements to their ultimate conclusion

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by having John Williamson himself as crew-chief, and he finished joint third with Roy Gaunt in the Open Class, behind the joint leaders Bob McLuckie and Bunny Hale. Clear winner in the Sport Class was Frank Wilson, flying in his first Regional, and the Club Class was won by Steve Walker, a V-bomber navigator also competing for the first time.

Segregation of gliders into Classes with narrow handicap ranges proved very successful, enabling greater flexibility in task-setting and obviating the inevitable anomalies of scoring Kestrels against Skylarks with the same handicap for all conditions. Additional points, which other organisers might well like to consider, were the prohibiting of ground radio checks after the day's first contest launch, and the mandatory use of competition numbers as pilots' call signs.

The 1974 Inter-Service Regionals was certainly great fun, and as an appropriate tribute to Contest Director Peter Saundby, MB ChB, competitors agreed it was "just what the doctor ordered".

FINAL RESULTS (HANDICAPPED) OPEN CLASS

No.	Pilot	Sailplane H'cap	1.5 1	2.5 2	4.5 3	6.5 4	7.5 5	8.5 6	Tot. pts.
1	Hale, R. J.	88 Std Libelle	9(1)	12(8)	0	10(8-)	25(1)	25(1)	81
1	McLuckie, R.	74 Kestrel 19	0	20(2)	5(2-)	18(4)	16(6)	22(3)	81
3	Gaunt, T. R.	88 Std Libelle	5(3)	22(1)	0	24(1)	0	23(2)	74
3	Wishart, R.	88 Std Cirrus	0	19(3)	3(5-)	14(6)	18(5)	20(4)	74
5	Field, S. E.	88 Std Libelle	0	18(4)	3(5-)	20(3)	10(9)	19(5)	70
6	Webber, D. C.	88 Std Cirrus	1(5)	15(6)	0	8(11)	23(2)	17(6)	64
7	Stevenson, J. N.	88 Std Libelle	0	11(9)	7(1)	22(2)	2(13)	16(7)	58
8	Brindle, G. F.	88 Std Cirrus	3(4)	14(7)	3(5-)	10(8-)	20(4)	2(14)	52
9	Wynch, J. W.	88 Std Libelle	0	10(10)	0	11(7)	14(7)	12(9)	47
10	Marriott, S. H. C.	72 Nimbus 2	0	6(12)	5(2-)	16(5)	4(12)	14(8)	45
10	Hogg, A. J.	88 Std Cirrus	0	8(11)	4(4)	2(14)	21(3)	10(10)	45
12	Bishop, J. M.	88 Cobra 15	7(2)	4(13)	0	4(13)	12(8)	8(11)	35
13	Lyndon, R. J.	74 Kestrel 19	0	16(5)	2(8)	6(12)	6(11)	4(13)	34
14	Wray, A. J.	88 Cobra 15	0	2(14)	0	10(8-)	8(10)	6(12)	26

Final results Sport Class

No.	Pilot	Sailplane H'cap	2.5 1	4.5 2	5.5 3	6.5 4	7.5 5	8.5 6	Tot. pts.
1	Wilson, F. G.	94 K-6E	29(6)	5(2-)	0	30(3)	36(1)	32(1)	132
2	Cawthorne, T. R.	94 K-6E	25(9)	0	7(3)	27(5)	34(2-)	30(2)	123
3	Sharman, R. C.	100 K-6CR	39(1)	5(2-)	5(6-)	32(2)	32(4)	6(19-)	119
4	Benoist, J. D.	94 K-6E	13(17)	2(8-)	6(4-)	34(1)	31(5)	20(9-)	106
5	Norris, N. K.	100 K-6CR	37(2)	2(8-)	5(6-)	13(15)	23(10-)	21(8)	101
5	Easton, S. J.	94 K-6E	21(12)	0	4(12-)	25(6)	23(10-)	28(3)	101
7	Murgatroyd, B. W.	100 K-6CR	23(10)	0	6(4-)	18(10)	30(6)	18(10)	95
8	McA. Bacon, G.	94 Pilatus B-4	27(7-)	4(6)	0	12(16-)	34(2-)	16(13)	93
9	Hartley, K. J.	94 K-6E	18(14)	5(2-)	9(2-)	28(4)	26(8)	6(19-)	92
9	Barnes, L.	94 K-6E	31(5)	7(1)	4(12-)	22(8)	2(24)	26(4)	92
9	Best, E. F.	98 Skylark 4	33(4)	0	9(2-)	8(20)	28(7)	14(14)	92
12	Mitchell, J.	94 K-6E	11(18)	3(7-)	10(1)	20(9)	22(12)	24(5-)	90
13	Arnold, A. V.	94 K-6E	35(3)	0	4(12-)	6(22)	16(15)	23(7)	84
14	Williams, D. E.	100 K-6CR	22(11)	0	0	15(14)	25(9-)	17(12)	79
15	Walsh, T. J.	100 Skylark 3	7(21)	0	5(6-)	23(7)	10(18-)	24(5-)	69
16	White, D. P.	100 K-6CR	19(13)	0	0	17(11-)	10(18-)	20(9-)	66
16	Cogger, C. B.	94 K-6E	17(15)	3(7-)	5(6-)	17(11-)	18(14)	6(19-)	66
18	Joslin, C. I.	98 Pirat	27(7-)	0	5(6-)	9(19)	20(13)	4(22)	65
19	Howe, P. J.	94 K-6E	9(19-)	0	0	17(11-)	14(16)	10(16)	50
20	Goose, P. K.	90 Dart 17R	15(16)	0	4(12-)	5(23)	12(17)	9(17)	45
21	Johnson, A. S.	94 K-6E	4(23)	5(2-)	4(12-)	11(18)	8(20-)	12(15)	44
22	Reed, I. B.	98 Pirat	9(19-)	0	2(17)	7(21)	6(22)	0	24
23	Nisbett, N. H.	100 K-6CR	5(22)	0	5(6-)	2(25)	8(20-)	2(23)	22
24	Pilch, G. A.	98 Pirat	1(25)	0	0	12(16-)	0	7(18)	20
25	Dransfield, J. R.	90 Foka 5	2(24)	0	0	3(24)	4(23)	0	9

Nationals with the Waikerie Touch

RIKA HARWOOD'S account of long days of exceptional flying during May 25-June 2 when there was some of the most perfect gliding weather to be experienced in this country, making 1974 a vintage year for the Nationals.



The bustle before the start.

Photo: Simon Morgan

The Inter-Services and Booker Regionals took place early in May. Above average weather and tasks were enjoyed. Exciting and interesting flights were also made all over UK in April and May, by pilots from beginner standard upwards, and it is clear that at last we are experiencing an above average gliding season in Britain.

While the southern hemisphere, especially Australia, is having the wettest weather for decades, we in Britain are, according to the farming fraternity, having one of the severest droughts for a half-century. One might almost say we are having "Australian-type" conditions right on our doorstep. Even so, however, the weather on the Opening Day of the Nationals at Dunstable let us down and the task had to be scrubbed.

Scalecraft Ltd, the London toy manufacturers, generously sponsored this year's event, even giving daily prizes for each of the winners in the Open and Standard Class together with a £25 cheque to go with it. The BGA Executive Committee had approved this scheme, but initially there was some resistance from certain members of the Flying Committee. It was, however, overcome amicably and the matter thus resolved. No doubt it helped to keep the ever increasing cost of competitive flying down — at least for the "lucky" day winners!

The London Gliding Club were the hosts with Carr Withall as Director. The Tasksetter was Geoffrey Stephenson and the "weather" was provided by Mike Batstone of

the Met office. John Hands with his usual dry humour acted as Chief Marshal, and a nearly all-female cast looked after the start and finish line.

The BGA Competition Handbook states that either place or point scoring may be used. The majority of competitors were however none too pleased to find that place scoring had been selected. The more outspoken among them were going all out to get the decision changed before the opening on Saturday. At the first briefing, however, Tom Zealley as acting Chairman of the Flying Committee, forestalled any argument by declaring that the place system was going to be used. The matter was thus closed — so far as this Championships was concerned . . . !

Sir Jack Longland, Deputy Chairman of the Sports Council, then opened the Championships.

Sunday, May 26

Open Class—239km triangle: Duxford 52.8km, Kington 112.7km, Dunstable 73.5km. Standard/Sport Class—200.3km triangle: St Neots 41.7km, Kington 85.1km, Dunstable 73.5km. (Except for May 31 the minimum scoring distance was 40km.)

Weak thermals with 2/8 to 4/8 cumulus at first rising to about 2800ft becoming blue by early afternoon with some patches of strato cu. Lift of 2kts occasional 4kts and light winds was all Mike Batstone could promise the 20 Open and 25 Standard/Sport Class pilots.

Contest launching began at noon with the Standard

Class. The majority quickly left within the first hour, John Cardiff being the latest at 13.10. The Open Class soon followed, Ralph Jones crossing nearly last at 13.35.

The expected blue thermals never came and pilots found cumulus cloud as well as claggy areas with stronger than forecast winds along most of the course. At 16.24 however John Cardiff was back 13 minutes ahead of the next arrival and by 17.40 we had ten finishers in the Standard Class.

John Williamson led the Open back at 16.33, but a real struggle around the 2TP had taken its toll and more and more had to land. By 17.00hrs only Barry Goldsbrough and Frank Pozerskis had joined John at the finish, and with one late finisher in the Standard Class it now looked unlikely that anyone else could make it.

The radio became almost silent until suddenly we heard Ralph Jones and Ray Foot still struggling. Finally at 18.20 Ralph crossed the line followed by Ray one minute later. It had been a hard day's work, and rather disastrous for Charles Ellis who badly damaged his Dart 17 on landing and was thus forced to withdraw so early in the contest.

LEADING RESULTS

	OPEN	km/h	pts	STANDARD	km/h	pts
Goldsbrough	Kestrel 19	71.75	27	Cardiff	Std Lib	61.57 33
Williamson	Kestrel 19	69.97	25	Sandford	Std Cir	54.36 31
Pozerskis	ASW-17	58.61	23	Aldous	Std Lib	52.84 29
Jones	Nimbus 2	50.15	21	Gough	Std Cir	51.29 27
Foot	Nimbus 2	48.81	19	Keogh	Std Lib	50.78 25

Monday, May 27

Open Class—214.1km triangle: Earith Bridge 67.2km, Husbands Bosworth 74.8km, Dunstable 72.1km. Standard/Sport Class—124.6km triangle: Caxton Gibbet 50km, Olney 41.7km, Dunstable 32.9km.

The forecast was not unlike yesterday, but the wind would increase during the afternoon but so would the thermal strength (3-5kts). Cloud would disappear and blue thermals would again take their place. The trouble however was poor visibility at first but this should improve to 15km later in the day.

Although from 11 o'clock onwards there was no problem in staying up, visibility was abominable and launching had to be delayed to 13.00hrs when it became safe to send them off.



Chris Simpson, Chairman of the BGA, in contemplative mood. Photo: Roger Barrett.

A potentially dangerous incident occurred when, owing to a faulty release, the tail 'chute of Humphry Dimock's Nimbus deployed on take-off. Everyone started all at once to shout warnings over the radio to Humphry. This was unintelligible but luckily he heard the startline's warning "jettison tail 'chute!". Fortunately the tug did not wave him off and everything being once more under control launching resumed!



John Jeffries and Gillian Case in the cockpit of the Calif A-21. Photo: Roger Barrett

The conditions on the whole were rather trickier than yesterday. Although the Open Class had left between 13.15 and 13.57, with Ralph Jones leaving it late at 14.15, only six Open pilots made it back, one more than yesterday, but at rather slower top speeds. Again Ralph was last home at 18.26, twenty minutes after Chris Rollings who had left first—one hour before Ralph!

The Standard Class with 11 finishers had a bit of a reshuffle when it was found that Mike Garrod, the provisional day winner, had taken the wrong 2TP. He finally finished up with only 4pts instead of 32! Several others were also docked points for marginal photographic evidence. Bernard Fitchett flying *hors concours* today was fastest at 63km/h.

LEADING RESULTS

	OPEN	km/h	pts	OPEN CLASS	2 DAYS	pts
Lee	Kestrel 19	64.11	31	Williamson	Kestrel 19	54
Williamson	Kestrel 19	62.89	29	Goldsbrough	Kestrel 19	46
White	Kestrel 19	60.07	27	Lee	Kestrel 19	45
Glossop	Kestrel 19	58.58	25	Jones	Nimbus 2	44
Jones	Nimbus 2	50.95	23	Glossop	Kestrel 19	40
Rollings	Kestrel 19	44.06	21	White	Kestrel 19	38

LEADING RESULTS

	Std/Sp	km/h	pts	STANDARD CLASS	2 DAYS	pts
Sandford	Std Cir	62.70	36	Sandford	68	
Shephard	Std Cir	60.82	34	Cardiff	64	
Orme	Std Lib	57.71	32	Shephard	57	
Cardiff	Std Lib	45.51	30	Orme	53	

Wednesday, May 29

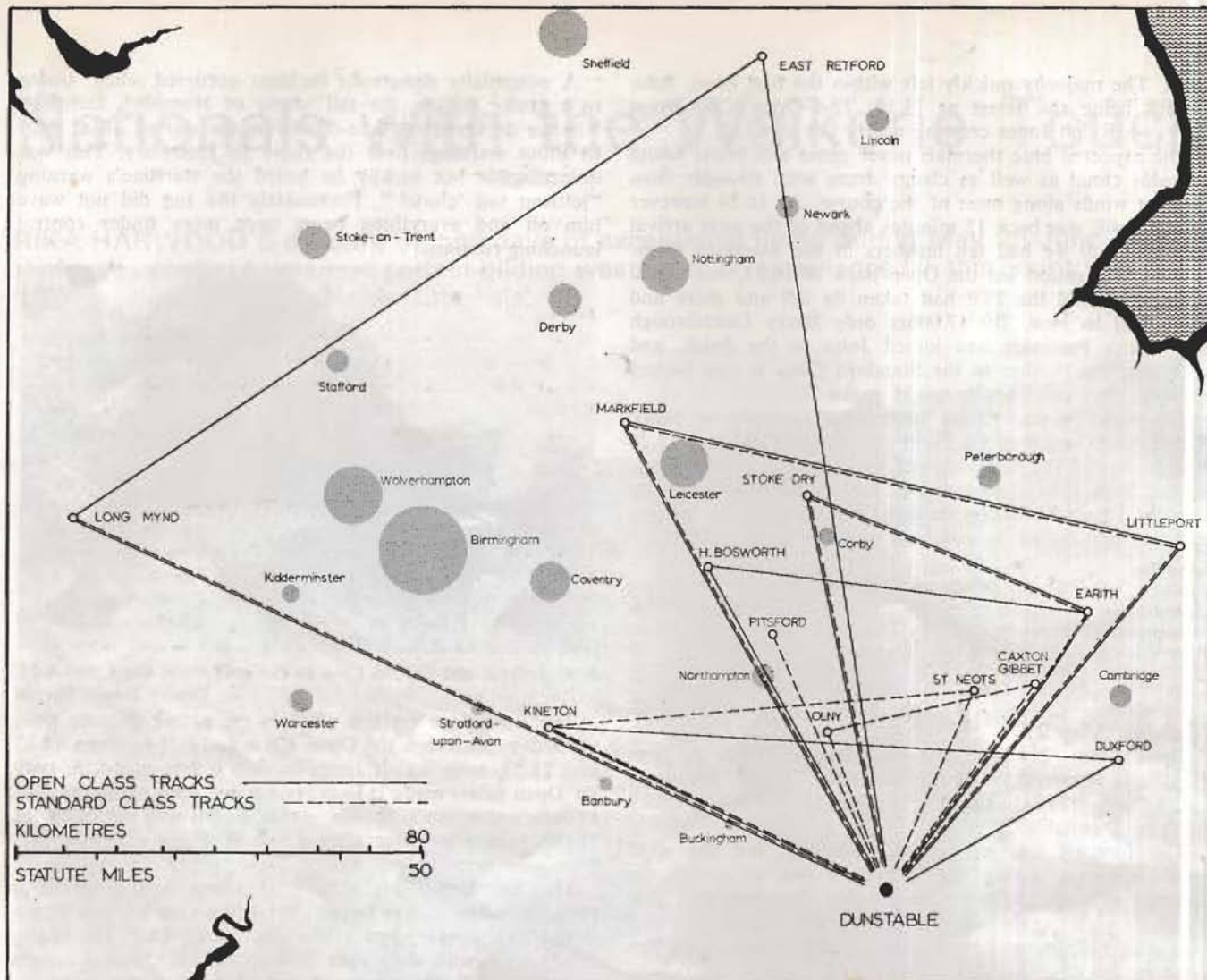
On the 28th there was no task set for the Standard/Sport Class, and the Open Class task had to be scrubbed owing to the weather not developing.

Both Classes—306.1km triangle: Littleport 88.8km, Markfield 112.3km, Dunstable 105.0km. Standard Class first.

What a day it turned out to be! The reason why a 500km

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A map by John Glossop showing the task area.

had not been set was because on the Met forecast there was a distinct risk of the wind increasing to 20kts in the late afternoon. Coupled with the few finishers we had had so far, the tasksetter obviously felt it would be better to give everyone a chance to do some real World Champs-type racing; a technique which can't be used all that often in Britain. Had a 500 been set it is possible that only those pilots who had already done this distance would have gone all out to win. The temptation to complete the task might have been almost irresistible to those who were lacking their Diamond distance. Also with the given task pilots had a greater latitude on their start time and with luck everyone would complete without too much trouble. There was a good chance of the UK record going as well!

As one can imagine, excitement ran high among the competitors. In the Open Class everyone carried water-ballast, many for the first time.

Not surprisingly a K-6 crossed the start line first at 11.26 and conditions were so good already that there was no need to hang back. Within 45min the whole of the Standard Class had departed. Anne Burns landed back with instrument trouble while the rest of the Open Class got moving. She was therefore the only one to leave after 13.00hrs.

Betting among the observers as to what time the first pilot would be back created some interest amongst the bystanders, and I am glad to report that the Chief Observer got it right to within half a minute. In fact it was John

Williamson who flashed through the finish line at 15.00.29, and before he had landed his speed had been worked out. It was 103km/h and so we knew the UK record was broken. He was quickly followed by Ron Sanford and thus one pilot from each Class was home 20min before the next lot arrived.

Provisional speeds showed that among those Ralph Jones, 105km/h, had easily beaten John Williamson and so he retrieved his record which John held for exactly 28 glorious minutes. The original record was in fact broken by six pilots including George Burton, who had just returned from Hahnweide and flew for the first time today. John Jeffries in the Calif A-21 improved the record he had broken in April to 81.15km/h while Anne Burns improved hers to 70.82km/h in the women's category.

It was as the Organisers had hoped, a World-Champs-type race day. The majority of pilots exceeded their personal best and when the first starter of the day in his K-6 came in half an hour after everyone else, the whole fleet was home and the day was loudly applauded as a 100% success. In fact it was the first time in a National that all 44 competitors had completed a 300km triangular task. An extra pilot was the Director, Carr Withall, who flew his Kestrel 19 *hors concours*. He would have been 7th had he been scored.

Any regrets about missing 500km Diamonds were quickly forgotten by the competitors for the majority agreed that they had learned more about racing techniques on this one day than they had thought possible. Especially was this the

case for the Open Class pilots. (Many 500 and one 608km triangles were flown from other clubs on this day, reported elsewhere in this issue.)

This great day, however, ended with an unfortunate accident. The Rumanian IS-29D stalled in from about 20-30ft after a slow non-contest take-off on aerotow. The pilot, David Toulson, unfortunately sustained back injury and had to be taken to hospital.

The glider was flown *hors concours* by Derek Piggott in the Sport Class for evaluation purposes, but it was now badly damaged and so Derek had to withdraw.

LEADING RESULTS	OPEN	km/h	pts	OPEN CLASS	pts	3 DAYS
Jones	Nimbus 2	105.45	36	Williamson	88	
Williamson	Kestrel 19	103.65	34	Jones	80	
White	Kestrel 19	97.26	32	Lee	77	
Lee	Kestrel 19	97.26	32	Goldsbrough	71	
Greaves	Jantar	96.86	31	White	70	
Burton	Kestrel 19	95.88	29	Glossop	66	

LEADING RESULTS	Std/Sp	km/h	pts	STANDARD CLASS	pts	3 days
Sandford	Std Cir	86.42	36	Sandford	101	
Cardiff	Std Lib	80.10	34	Cardiff	95	
Shephard	Std Cir	79.27	32	Shephard	88	
Garrod	ASW-15	77.76	30	Aldous	75	

Thursday, May 30

Lightning never strikes twice in the same place, so they say but the Met man felt that here was another very promising day provided the wind did not increase to over 15kts (he hoped it would only be 12kts), and the expected sea breeze in East Anglia did not come inland too far.

After yesterday's racing the tasksetter felt that today he could really stretch the Open Class pilots. In order to keep them away from any sea breeze effect he set a 502.2km triangle to East Retford 164.4km, Long Mynd 162.7km, Dunstable 175.1km, although this meant that he took the risk to set the final leg into wind. They were to be launched first.

The Standard/Sport Class were excused the first two legs and given an out-and-return to the Long Mynd, 350.2km. Somehow there were a lot of unbelieving Thomases and the excitement was of a different nature from yesterday and felt more like nervous tension.

Forty minutes after the first crossing at 10.57 the Open Class had disappeared — four pilots not bothering to cross the startline. However, the first leg being downwind they were going like a bomb and before we knew it pilots were rounding the ITP averaging well over 100km/h. Their initial doubts about the forecast turned to high elation as they found conditions nearly perfect, especially on the northern part of their route. Some even found it better than yesterday! The 327km to the Long Mynd was rounded by all with many in record time. Now, however, the wind would be against them; we at base had already noticed that it was increasing rapidly and during the afternoon it became 20kts at least!

The betting at the finish line was more doubtful and I for one did not think the Open Class would get back.

The Standard Class on the much shorter out-and-return were on their way back much sooner. It was from them we heard that the wind was already beginning to cause great problems.

John Cardiff provided great excitement when, after a brilliant fast time, he was heard at 16.30 only eight miles from the finish, but low and radioing to his crew a likelihood of landing out. He found the vital last thermal how-

ever at an unmentionable height and 20min later he flew at maximum glide angle just airborne over the finish line to touch down immediately. Even with his loss of time he proved to be 13km/h faster than Ron Sandford, the next best, but for him we had to wait until 18.00hrs!

George Lee in the Open Class took us all by surprise when he called "Finish line two minutes". It took him less than that. Ditching his waterballast on the run in, he came across at 17.31 at great speed thus becoming the first pilot to complete the first ever 500km triangle set in a UK Nationals.

Tony Burton, Standard, was another competitor experiencing anxious moments. We had him visual when he said how marginal it would be if he could get in. After a lot of "will he?" "won't he?" from the excited crowd, he actually came to a halt with his wheel on the finish line marker! Phew!

The radio was now working overtime as pilots had to give up fighting against the ever increasing wind in dying thermals. Just when they needed it most they had to drop their ballast. The higher they were the stronger the wind, and without their ballast they could not make sufficient headway. It must have been very galling for those who were only one thermal away or less to see their 500 disappear before their very eyes. As for the Standard pilots they had even less chance to make headway. Nevertheless six of them made it to the finish and three Open Class pilots did likewise. At least the Open pilots were very happy to have been given the chance to fly this task. Five of them landed at Little Horwood 477km. They were: Foot, Glossop, Lysakowski, Simpson and White. Had the wind been as forecast, no doubt we would have seen the majority of them back, all flew well over 400km!

LEADING RESULTS	OPEN	km/h	pts	OPEN CLASS	pts	4 days
Lee	Kestrel 19	77.0	22	Lee	99	
Goldsbrough	Kestrel 19	73.50	20	Williamson	97	
Pozerskis	Kestrel 19	71.46	18	Jones	95	
Day	Kestrel 19	487.7km	16	Goldsbrough	91	
Jones	Nimbus 2	483.2km	15	White	83	

LEADING RESULTS	Std/Sp	km/h	pts	STANDARD CLASS	pts	4 DAYS
Cardiff	Std Lib	72.26	26	Sandford	125	
Sandford	Std Cir	59.76	24	Cardiff	121	
Brown	Std Lib	57.55	22	Shephard	102	
Burton, A. J.	Std Lib	57.51	22	Aldous	89	
Simms	Std Cir	56.56	20	Burton	82	
Gough	Std Cir	54.02	18	Orme	* 81	

Friday, May 31

With two of the most fantastic "Australian-type" days behind us this morning's weather brought pilots down to earth and firmly back in England.

Only the Met man thought that it would clear sufficiently for a task to be flown in the afternoon, therefore task briefing was delayed to 12.30.

Mike was still optimistic at the next tasksetter's meeting at 11.45 but it gave Geoffrey Stephenson quite a headache to set a task which would be both fair and possible, while looking out of the window at the overcast sky and feeling the chilly wind did not help at all!

He decided on a crosswind 147km out-and-return to Kineton for the Open Class, and a 109.5km to Pittsford Reservoir for the Standard and the usual 40km minimum distance was reduced to 35km. Pilots to be on the grid at 14.00hrs and in order to avoid any luck element the start line was to be held for both.

Such was the weather that pilots were reluctant and

scarcely interested in towing out. Indeed the tail end of the grid was still getting into position when suddenly the snifters reported 2 to 4kts with cloudbase rising rapidly—the clearance had come!

Launching commenced immediately at 14.00hrs and soon several gaggles were dotted about the sky waiting for the startline to be opened at 14.35 for the Open Class, 15.00hrs Standard.

As conditions improved pilots returned for later starts, but even so they did not dare to leave it too long and by 15.04 the Open had all left. The Standard were so eager to go that for a while it was absolute bedlam with "gate" calls and they rushed to the line as if the January sales were about to open. How no one was missed we shall never know!

John Cardiff, four points behind Ron Sandford, decided that today had to be an all out effort to overtake him. He came back from a start at 15.24 (2min after Ron) to another at 15.59.57 — a very expensive decision it turned out to be!

With conditions much better than forecast we were obviously in for a busy time at the finish line. By 4 o'clock we had a pretty good idea the Open would be home soon. George Lee set the pace 16.08 at 108km/h and in the next half hour 12 were back. John Williamson with 94km/h tried to have another go immediately but with so many finishers coming in his take-off was somewhat delayed. By the time he was airborne it was too late to risk another attempt. Ralph Jones was the only other pilot to exceed 104km/h and thus he took second place overall!

All but three in the Standard Class completed — John Cardiff among the three and he had to land at Woburn Abbey, thus instead of overtaking Ron he had now given him a 25pt lead.

LEADING RESULTS	OPEN	km/h	pts	OPEN CLASS	pts	5 days
Lee	Kestrel 19	108.96	39	Lee	138	
Jones	Nimbus 2	104.94	38	Jones	133	
Goldsbrough	Kestrel 19	95.33	36	Williamson	131	
Williamson	Kestrel 19	94.08	34	Goldsbrough	127	

LEADING RESULTS	Std/Sp	km/h	pts	STANDARD CLASS	pts	5 days
Sandford	Std Cir	75.53	35	Sandford	160	
Shephard	Std Cir	74.31	33	Shephard	135	
Aldous	Std Lib	72.12	31	Cardiff	125	
Gough	Std Cir	68.95	29	Aldous	120	
Simms	Std Cir	67.01	27	Orme	96	



Barry Goldsbrough, the winner of the first, being presented with his prize by Mrs. Patricia Long, Director of Scalecraft.

Photo: Roger Barrett

Saturday, June 1

On most days a fall-back task had been prepared as a precaution in case the weather kept us waiting. Today's Met, however, was fairly straightforward. There would be some high cirrus but this should not interfere too much with thermal activity. There was therefore no reason at the task-setter's meeting to take this precaution.

One 359km triangle for all was thus set, pilots to be on the grid at 10.30. Unfortunately one of the forecasted high cirrus patches sat right overhead after briefing.

Roger Barrett was duly sent off to do the sifting and surprisingly made encouraging noises and kept finding lift (as the Met had said) under the cirrus. Launching would, however, still be later than anticipated and time was getting on if a big task was to be successful. The tasksetter had thus busily been working out a reduced task and another briefing in the marquee was called. Both Classes were then told to do a 205.1km triangle instead — Stoke Dry Reservoir 78.6km, Earith 59.3km, Dunstable 67.2km. Roger had now been airborne for nearly 1½hrs and conditions were improving all the time and so without further ado launching commenced, the Standard Class first to go. Within 58min (12.10 to 13.08) both Classes had departed from site and according to radio reports conditions were better than they looked.

It was only half past three when the first Open finishers hove into sight and in no time they came flashing by with Steve White leading the pack. By 4 o'clock the first Standard ship was also home. With the finish line at right angles to the hill we had an unobstructed view and could pick up the gliders a long way out. The area at the finish was crowded with people who had come to see this spectacular show. Barry Goldsbrough came in low and fast from over the bowl on the hill. As he did so the hang gliders (who had been practising all day) were just about getting the hang of it (excuse the pun) and one of them rose about 40ft over the hill. From our view point it looked alarming though in actual fact it may have been quite safe, but sensibly they stopped flying for a while. As it so happened Anglia Television were filming at the time. With luck they should have some unusual shots of this.

The biggest excitement of the day, if not of the whole contest, was provided by Frank Pozerskis. He had the vast crowd literally in agony for five whole minutes when he announced "260 probably landing half a mile short" . . . but here he comes creeping near the hill, so low that he has to make a detour round the houses of Dunstable, flying ever so slowly towards us, following the contours of the downslope, hugging it to pick up sufficient speed to cross the final gully at the entrance to the field, the parked trailers partly in his way, now up the slope he flies, still with his wheel up, until with barely enough height left, coolly and skilfully judging the exact right moment, down comes the wheel and he just rolls over the finish line.

Anglia filmed the lot and were as excited as the rest of us. Talk of the marvels of ground effect! —but I hope we shan't have to see that again, Frank—it was too close for comfort.

All but two in the Open completed and 11 in the Standard Class got back and for the first time in the contest we had two equal first and two equal third placings.

LEADING RESULTS	OPEN	km/h	pts	STANDARD	km/h	pts
Lee	Kestrel 19	76.40	36	Sandford Std Cir	59.80	24—
White	Kestrel 19	75.59	34	Gough Std Cir	59.71	24—
Williamson	Kestrel 19	74.63	32	Brown Std Lib	59.51	23—
Greaves	Jantar	73.48	30	Garrod Std Lib	59.42	23—

Sunday, June 2

No task for the Standard Class but a second briefing for the Open Class at noon.

Today there was a special "maximum excitement" award which went under loud applause to Frank Pozerskis for yesterday's cliffhanger.

It was Andy Gough's birthday and as he was equal first with Ron Sandford (although technically Ron was 0.09km/h faster), Andy received the day prize and the £25 cheque "to start his pension fund" it was joked!

Simon Morgan, Scalecraft's PRO, then showed the assembly the 1974 Scalecraft Gliding Trophy which was to be presented at the prizegiving. The trophy was really most beautiful, cast in optically perfect Perspex with a small silver bird floating at the top of the rectangular column. I have never seen pilots showing so much interest and it was admired by all.

By the time the next briefing was due it was clear that no task would be possible and thus prizegiving would take place at 14.30.

Prizegiving

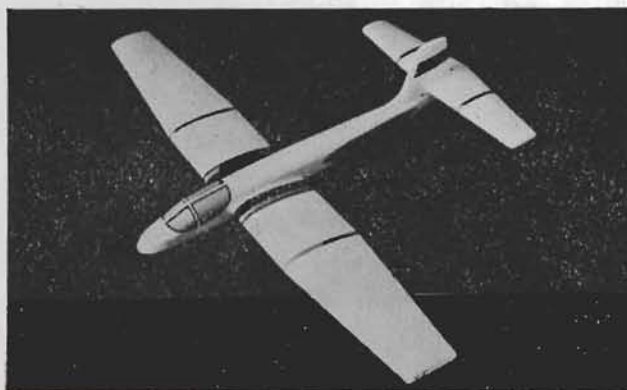
Mrs Patricia Long, Director of Scalecraft, had kindly agreed to present the prizes, although before she could do so she was invited to sign a number of cheques for the day winners. She made a brief but interesting speech commending the association of her firm with gliding.

The new Open and Standard Class Champions George Lee and Ron Sandford then thanked the Director, the London Gliding Club as Organisers for an above average

contest in above average weather, and Scalecraft for their sponsorship. Carr Withall, the Director, then closed the meeting and so the 1974 National Open, Standard/Sport Class had become a thing of the past.

* * *

Readers perhaps would like to know that the pilots have all donated 10% of their daily cash prizes to the British Team World Championships fund for 1976.



The Skysail glider, developed for Scalecraft in expanded polystyrene by a leading model aircraft designer, is capable of long soaring flights. It has a 45inch wingspan, comes equipped with a pulley operated 150ft towline launcher and is made to cope with heavy landings.

FINAL RESULTS OPEN CLASS

No.	Pilot	Sailplane	26.5 1	27.5 2	29.5 3	30.5 4	31.5 5	1.6 6	Tot. pts.
1	Lee, G.	Kestrel 19	14(11)	31(1)	32(3=)	22(1)	*39(1)	36(1)	174
2	Williamson, J. S.	Kestrel 19	25(2)	29(2)	34(2)	9(15)	34(4)	32(3)	163
3	Jones, R.	Nimbus 2 (mod)	21(4)	23(5)	36(1)	15(5)	38(2)	26(6)	159
4	Goldsbrough, J. B.	Kestrel 19	27(1)	19(7)	25(9)	20(2)	36(3)	28(5)	155
5	White, S. A.	Kestrel 19	11(14=)	27(3)	32(3=)	13(6=)	*29(6=)	34(2)	146
6	Glossop, J. D. J.	Kestrel 19	15(7=)	25(4)	26(8)	13(6=)	23(10)	21(10)	123
7	Rollings, C. C.	Kestrel 19	14(10)	21(6)	23(10)	10(13=)	32(5)	17(12)	117
8	Greaves, C. M.	Jantar	11(14=)	13(10=)	31(5)	6(17)	25(9)	30(4)	116
9	Robertson, D. J.	Kestrel 19	15(7=)	11(12=)	13(15)	10(13=)	27(8)	25(7=)	101
10	Lysakowski, E. R.	Kestrel 19	15(7=)	17(8)	27(7)	13(6=)	11(16)	11(15)	94
11	Burton, G. E.	Kestrel 19	DNF	DNF	29(6)	11(11=)	29(6=)	23(9)	92
12	Zealley, T. S.	Kestrel 19	13(12)	11(12=)	21(11)	8(16)	15(14)	15(13)	83
13=	Foot, R. A.	Nimbus 2	19(5)	13(10=)	7(18)	13(6=)	21(11)	8(18)	81
13=	Vennard, D.	Kestrel 19	6(18)	11(12=)	17(13)	5(18=)	17(12=)	25(7=)	81
15	Pozerskis, P.	ASW-17	23(3)	4(19)	19(12)	18(3)	4(20)	10(16=)	78
16	Simpson, C. R.	Kestrel 19	2(20)	6(18)	15(14)	13(6=)	9(17)	19(11)	64
17	Jeffries, J. R., Gillian Case	Calif A-21	9(16)	15(9)	11(16)	2(21)	*17(12=)	2(21)	56
18	Day, C. G.	Kestrel 19	4(19)	7(17)	9(17)	16(4)	7(18)	10(16=)	53
19	Burns, Anne	Nimbus 2 (mod)	16(6)	9(16)	4(20)	5(18=)	5(19)	13(14)	52
20	Cousins, R.	Kestrel 19	12(13)	2(20)	2(21)	11(11=)	13(15)fi	4(20)	44
21	Dimock, H. R.	Nimbus 2	7(17)	9(15)	6(19)	3(20)	2(21)	6(19)	33

DNF=did not fly; asterisk=penalty; figures in brackets=day place.

FINAL RESULTS STANDARD/SPORT CLASS

No. Std.	Pilot	Sailplane H'cap	26.5 1	27.5 2	29.5 3	30.5 4	31.5 5	1.6 6	Total pts. Std Sport		
1	Sandford, R. A.	88 Std Cirrus	30 33	35 33	36 35	24 23	35 36	24 25	184	185	1
2	Shephard, E. G.	88 Std Cirrus	23 27	33 31	32 31	14 12	33 34	14 15	149	150	2
3	Cardiff, J.	88 Std Libelle	32 35	29 37	34 33	26 25	4 4	18 19	143	143	3
4	Aldous, R. F.	88 Std Libelle	28 31	19 17	28 27	14 12	31 32	5 6	125	125	4
5	Garrod, M. P.	88 ASW-15	25 29	*4 4	30 29	10 8	24 25	23 24	116	119	5
6	Brown, H. F.	88 Std Libelle	23 27	12 10	11 11	22 21	23 24	23 24	114	117	6
7	Orme, H.	88 Std Libelle	21 25	31 29	13 13	16 13	15 14	15 16	111	110	7
8	Burton, A. J.	88 Std Libelle	15 16	*23 19	22 21	22 21	6 6	16 17	104	100	9
9	Gough, A. W.	88 Std Cirrus	6 6	0 0	24 23	18 17	29 30	24 25	101	101	8
10	Watson, A. J.	88 Std Libelle	3 3	*25 23	20 20	15 13	25 26	9 9	97	94	11
11	Livesay, M. H.	88 Std Libelle	14 15	5 4	15 15	12 10	21 22	21 22	88	88	12
12	Simms, J. A.	88 Std Cirrus	4 4	14 13	17 17	20 19	27 28	2 4	84	85	13
13	Cole, R. A.	94 K-6E	15 19	23 23	8 13	12 15	12 16	12 13	82	99	10
14	Keogh, B.	88 Std Libelle	26 30	16 15	*2 2	8 6	15 14	12 11	79	78	15
15	Krzystek, T. J.	88 Std Cirrus	12 13	18 16	10 10	12 10	13 12	11 10	76	71	17
16=	Brownlow, B.	88 Std Libelle	8 9	*9 8	19 19	15 13	17 18	7 7	75	74	16
16=	Wright, R. H.	88 Std Libelle	19 23	*0 0	11 11	12 10	19 20	14 15	75	79	14
18	Welsh, J. H.	88 Std Cirrus	0 0	11 10	26 25	13 11	10 10	12 10	72	66	19
19	Kiely, K.	88 Std Cirrus	10 11	7 6	14 14	6 4	8 8	20 21	65	64	20
20	Miller, A. S.	94 K-6E	17 21	21 19	4 4	2 2	2 2	4 8	50	56	21
21	Lilburn, D. W.	88 Std Libelle	15 16	*4 4	6 6	12 10	0 0	9 9	46	45	22
22	Sheffield, R. J.	88 Cobra 15	2 2	4 4	8 8	4 2	13 12	3 5	34	33	23
	Torode, H. A.	90 Dart 17R	8	12	14	10	22	2	68	68	18
HC	Piggott, A. D.	88 IS-29D	(15)	(10)	(23)	—	—	—	(48)	(22)	
	Ellis, C. A. P.	90 Dart 17R	17	—	—	—	—	—	17	24	

HC=Hors Concours; Figures in bold denote Standard Class unhandicapped results; asterisk=penalty.



The briefing tent on the first contest day.

George Lee, Open Class Champion.



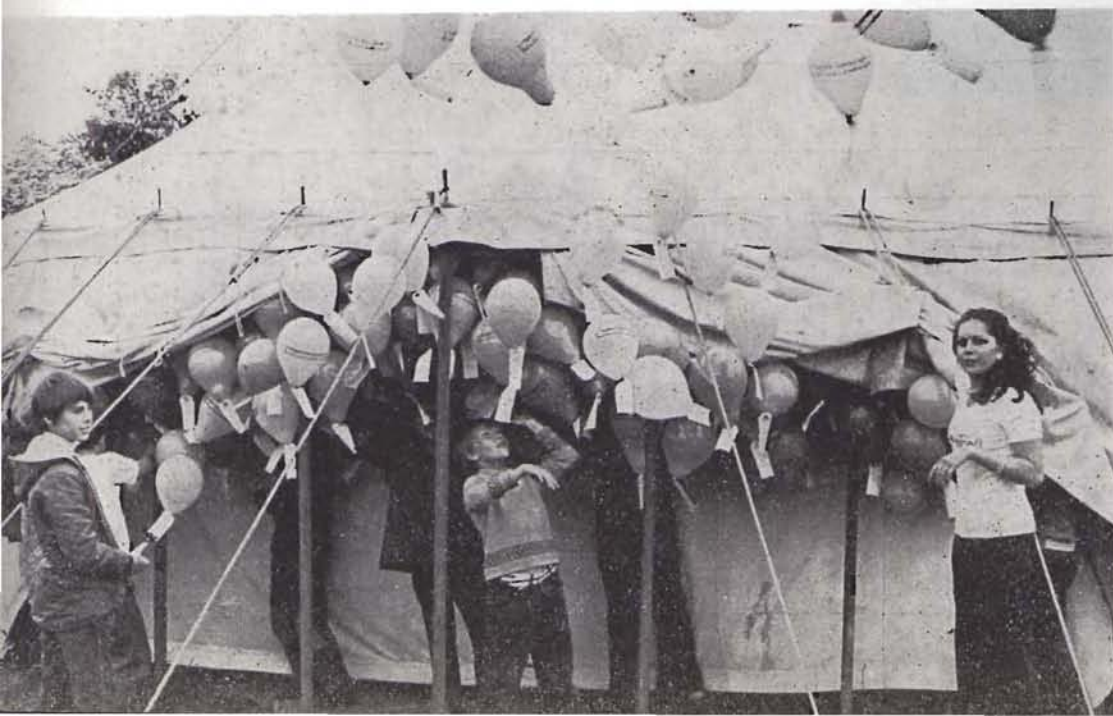
Ron Sanford, Standard Class Champion.



Tom Zealley all dressed up and waiting to go.

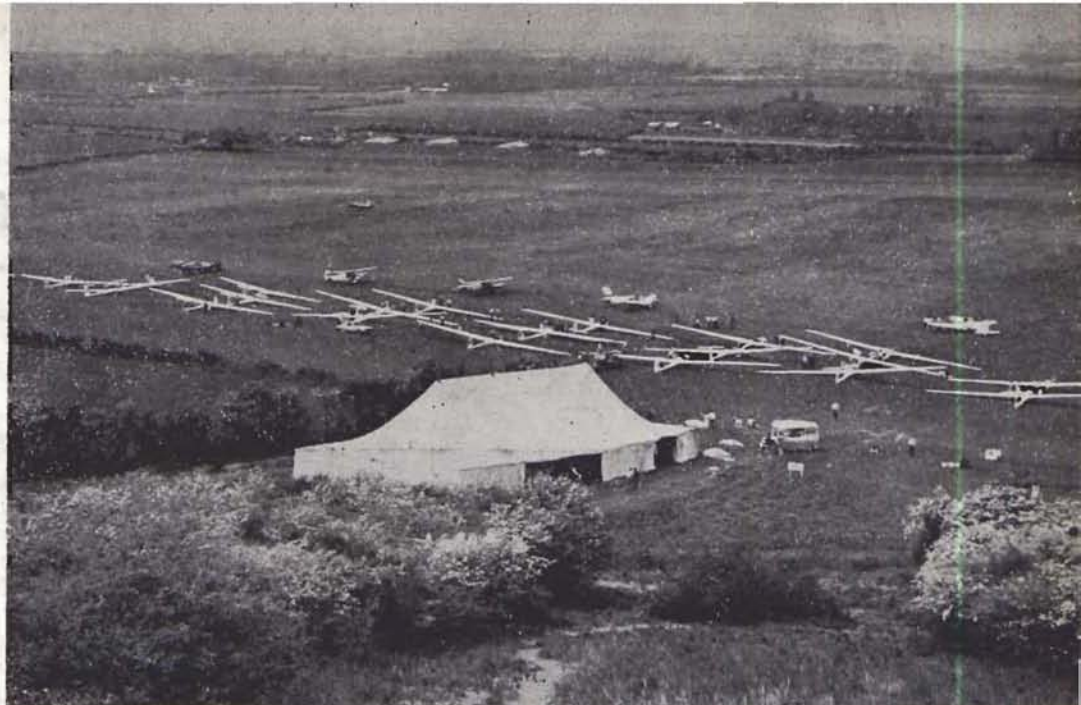


Sending news of the Nationals by balloon. Scalecraft launched hundreds each day to the delight of the volunteer team of young helpers led by 13 year-old Francis Lambert.



Kay Pollard, in charge of Control.





The stage is set (one Class gone).

Carr Withall, Director, keeping in touch by radio.



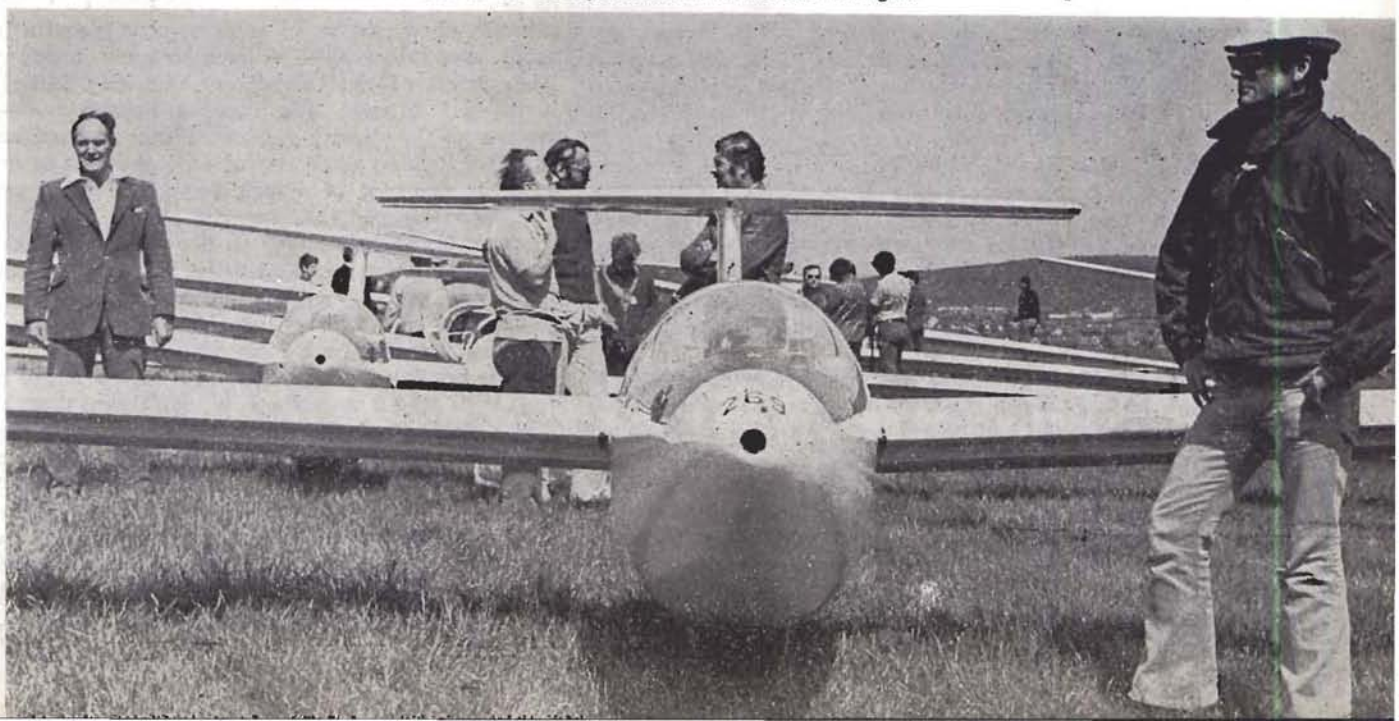
Ralph Jones, third in the Open Class.



FOCUS ON THE NATIONALS 1974

Photos: Courtesy—Roger Barrett, Simon Morgan and Scalecraft Ltd.

John Williamson in the cockpit with Jock Wishart far right.



A LAY VIEW OF THE 1974 NATIONALS

SIMON MORGAN



*"And how the silence surged softly backward
When the plunging hooves were gone."*

— Walter de la Mare

I always start magazines at the back, so that is where I begin my impressions of the 1974 Nationals. Perhaps the tail always wags the dog if you swing it hard enough!

The first sign that things were really over was the silence. The field, suddenly deserted by the thrill and spirit of a great Championship, lay darkly under the brooding shadow of the Downs in the gathering darkness. Rain fell steadily on empty, flapping canvas in front of the closed hangars. I wished I had not had to remain behind. It was indescribably sad.

All National Championships in every sport are more or less the same in this respect. But one is programmed by life to expect some sort of continuity from any closely-knit personal situation. One is disciplined to think of objective spectatorship as shallow and halfwitted and generally a bad business. Hence it always comes as a shock to see a convention-centre or a shooting range or an airfield gain and lose a soul before one's eyes.

To me, the 1974 Nationals had a strong soul, a vibrant spirit. I had not really had very much idea of what to expect, except that I had helped a crazy architect friend to design a concrete glider as an April Fool for a Nigerian newspaper and was thus aware of the premise that what goes up must come down: our 290 ton glider, held together with post-tensioned cables in grouted tubes, was designed to land on a bed of 10 tons of expanded polystyrene granules fired from a rocket-assembly in the nose 1.5sec before impact. It carried one passenger, and was ostensibly

a Top Secret project under development in the Caucasus. Distant shots of the Bristol Brabazon under prototype construction were suitably doctored and supplied with beautiful plan and elevation blueprints as evidence of the existence of this radar-piercing terror-weapon.

I thus went to the first briefing at Dunstable like a lamb to the slaughter. Carr Withall, with his first few words on that first morning, seemed to press a button which instantly animated and electrified the whole Championship. In fact, the daily *Rise and Glide with Carr Withall* programme will go down in my list of hard-to-beat entertainments. With his all-singing, all-dancing panel of boffins, pavement-artists, persuasive talkers and incorrigible liars, he is sitting on a goldmine road-show.

To the newcomer, the outstanding feature of the Chairman of the Organising Committee and Championships Director, apart from the magnificence of his station, was his plausibility. Whether this should be judged as plausible magnificence or magnificent plausibility will doubtless remain a bone of contention among pilots who took it as one or the other on the 500km day. Where I come from, he would be buying drinks for years.

Geoffrey Stephenson definitely had a unique skill apart from his obvious expertise as a task-setter; who had ever before seen such beautiful characters on a blackboard? I also watched with paralysed fascination the amazing and quite unbelievable Man from the Met Office. Of all the people one has ever met, the engaging Mike Batstone must rank as one of the most improbable combinations of scientist, shy humorist and clairvoyant.

The Magic Dimension

An inspection of the Met Centre before my first briefing had been vital. This gave the Carr Withall programme its magic fourth dimension. A plethora of switches, calculators, charts, boxes of gubbins, pencils and a half-eaten apple were all geared in mathematical bondage to the High Priest of the teleprinter. Watching Mike Batstone in full cry through Tim Newport-Peace's razor-changing low-budget PA/Radio system during briefing was somehow like looking at the tip of an iceberg or at an elegant ankle at the hem of a long dress. The mind ran to the teleprinter, boggled, and ran riot. While Mike spoke, that tiny tent was briefly linked to the whole global octopus of communications technology. A hailstorm in Papua at 08:42 had been taken into account, of course, and, since you mentioned it, this was the precise reason why it would be so easy coming back from the Long Mynd.

After briefing, I always had to do the rounds of my Scalecraft signs with a sledgehammer, and found that the Downs House stables had the only adequate answer to my transportation problem. On my way I always found Tom Zealley polishing and fiddling, while others just polished and yet others just fiddled. John Jeffries told me that simultaneous polishing and fiddling was a great knack and not to be undertaken lightly, but this sounded rather condescending; whenever I saw him on the grid, strapped and belted in like some latter-day Biggles, he was always attended by a

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crew of three, of whom one polished while one fiddled while the third watched the leading edges like a chameleon for flies.

Apart from the splendid vision of Rika, bringing the field down out of the afternoon sun, which I shall always remember, the laminar-flow syndrome was one of my most interesting discoveries at Dunstable. Competitive rifle-shooting, my own hobby, depends on criteria equally vital and yet—to a layman—just as ridiculous as flies on wings. One can make very many comparisons between these two absorbing sports, even down to the success of beginners' luck on rare occasions. The only major difference seems to be in blood-alcohol levels. Many of the world's greatest shots find that they perform better after a heavy night, which probably makes sense in a sport which depends on massive experience and relaxation rather than on fast reflexes.

Glider Pilot Characteristics

Having familiarised myself with the basic essentials of gliding, I found it thrilling. Never having met glider pilots before, I think I can quite honestly assert that—as I had expected—the long periods of total isolation in silence either attract or produce a slightly contemplative person. This quite noticeable introspection, shyness, dedication or whatever else one might call it is the one aspect of the gliding fraternity which to me marks them out from the powered-flight folk. By innuendo, this implies that during the daily siesta at the 1974 Nationals the tug-pilots were fighting with spanners in an atmosphere of raucous wassailing in the Scalecraft marquee, but suffice it to say that they behaved very well!



Anne Burns plus the hat. Photo: Simon Morgan

My thanks to Denise Cadisch for her kind hospitality and capable organisation, my thanks to David Cadisch for taking me as a passenger on a trip to buzz Woburn Abbey, my congratulations to Anne Burns on her headgear, and my invitation to everybody to visit the Rifle Championships at Bisley to see positive proof that *all* worthy minority sports champions should *de rigueur* wear peculiar hats.

Wycombe Regionals

ARTHUR DOUGHTY



Tony Deane-Drummond rigging his Jantar helped by Mrs. Pat Strugnell and Ralph Jones. Photo: Philip Whiteman

This year's Wycombe Regionals was undoubtedly one of the best we have had at Booker. There were eight competition days, 24 entries and the pilots between them flew more than 24000km in just under 600 hours.

The weather conditions were somewhat variable. The opening day, Saturday, May 12, was cold and showery with a strong SW wind. At the third briefing it was decided there would be no task. In contrast, on the closing day, May 19, the weather was superb, although at briefing there were looks of incredulity when the task was announced, a 311.5km triangle via Bickmarsh and Norman Cross. Even the Met man, Mike Batstone, expressed optimism about the forecast, although at the briefing it didn't look quite that sort of day and a 200km triangle was set to be flown if launching hadn't started at 12.30.

However, have faith and think big could be a suitable motto for task-setters and it certainly paid off this day. The fastest time was by Ralph Jones (Nimbus 2) at 77.4km/h, unhandicapped. Seventeen competitors finished

and three who fell short were only one thermal away from home. And what of the days in between?

Well there was a dog leg goal race to Swanton Morley (181km) on Sunday, May 12, the wind having dropped a little but not enough to get pilots back to Booker. Eleven completed the race.

On Monday, May 13, an almost equal length task of 182km out-and-return to Bickmarsh was set. This was spoilt by the forecasted occasional shower developing into a big storm cell in the Oxford area which few pilots managed to penetrate. Best flights of the day were by Ted Belbin (Std Cirrus) who took 10000ft and landed at Bickmarsh, and Bob Harding (Std Cirrus) who landed two fields away from the turning point.

Tuesday, May 14, was one of those classic days and the task was a 303km crosswind out-and-return race to Barkston railway junction. Ralph Jones was fastest at about 93km/h, unhandicapped, and 20 out of 23 competitors completed the course, plus two club members who tagged onto the back of the grid. The day also gave eight pilots the opportunity to complete Gold C distances and claim Diamonds for a goal flight.

Wednesday, May 15, wasn't quite so good, nonetheless good enough for a 215.5km triangle via Pitsford reservoir and Papworth Everard Hospital. Nine completed the task, the day being won on handicapped speed by Rob Harding, and another nine pilots managed to round the second turning point.

Two days of rather hazy conditions followed with uncompleted triangles resulting in devalued scores: the task for Thursday, May 16, being 128.8km, via Bicester railway station and Bregborough brickworks, and on Friday, May 17, a 147.5km via Towcester racecourse and Castle Ashby.

Saturday, May 18, promised better conditions, the only problem being patches of medium cloud cutting off the sun and convection. With this in mind an out-and-return to alternative turning points was set, M1/A45 interchange, 140.5km, and Potton Mast, 138.5km. Unfortunately, the patches of medium cloud became 8/8 cover and few people got away, the maximum points for the day being only 133.

Now to that last day on which many pilots thought the task impossible. But when they had completed it they said: "If only we had launched later we could have gone that much faster." No wonder they all went home happy!

FINAL RESULTS (HANDICAPPED)

No.	Pilot	Sailplane	12.5 1	13.5 2	14.5 3	15.5 4	16.5 5	17.5 6	18.5 7	19.5 8	Total p.s.
1	Jones, R.	72 Nimbus 2 (mod)	706	52	1000	987	501	536	62	1000	4844
2	Stone, A. J.	88 Std Libelle	837	115	792	840	651	371	133	835	4574
3	Harding, R. W.	88 Std Cirrus	695	154	873	1000	561	228	0	894	4405
4	Rouse, J. E.	88 Std Libelle	713	28	735	826	541	197	0	785	3825
5	Deane-Drummond, A. J.	74 Jantar	599	0	655	806	309	363	13	902	3647
6	Watson, B. B. C.	88 Std Libelle	561	44=	—	—	363	459	0	—	3393
7	Watson, Patricia	—	—	—	730	567	—	—	—	669	—
8	Ellis, J. J.	74 Kestrel 19	334	74	658	775	419	348	0	751	3359
9	Stafford Allen, P. R.	88 Std Cirrus	499	DNF	673	776	282	41	76	928	3275
10	Warming, A. H.	74 Kestrel 19	535	0	619	824	331	91	67	679	3146
11	Costin, M. C.	84 Cirrus	9	30	844	500	614	154	21	876	3048
12	Keogh, B. F.	88 Std Libelle	596	44=	647	528	191	0	0	776	2782
13	Hanfrey, A. W.	88 Std Cirrus	340	6	611	391	139	165	0	914	2566
14	Cousins, R.	74 Kestrel 19	594	0	326	703	162	173	0	483	2441
15	Lusted, E. J. F.	88 Std Libelle	13	6=	559	577	139	36	44*	979*	2353
16	Woodford, J. M.	88 ASW-15B	59	44=	453	396	200	388	0	756	2296
17	Forsey, L. K.	90 Dart 17R	374	DNF	DNF	206	440	464	0	205	1689
18	Pope, M. H. B.	74 Kestrel 19	454	DNF	471	DNF	DNF	DNF	78	636	1639
19	Carlton, M. R.	74 Kestrel 19	57	0	292	DNF	210	256	92	469	1376
20	Bowden, R. F.	98 Pirat	235	—	373	—	208	—	0	—	1284
21	Burlock, M. C.	—	—	12	—	123	—	45	—	288	—
22	Smith, D. A.	100 Skylark 3B	0	16	124	379	191	225	12	276	1223
23	Belbin, E. R.	88 Std Cirrus	207	156	108	30	214	210	0	260	1185
24	Winfield, K. W.	94 K-6E	44	—	83	—	179	—	0	—	1100
25	Whiteman, P. D.	—	—	51	—	447	—	137	—	159	—
26	Wathen, A. E.	90 Dart 17R	39	4	359	499	DNF	0	47	148	1096
27	Smith, G. K.	84 Cirrus	0	13	489	260	DNF	DNF	0	0	762

*asterisk = pilot flew K-6E.

Competitions 140 Million Years Ago or HAHNWEIDE 74

GEORGE BURTON

The Hahnweide gliding field nestles on the north-western slopes of the Swabian Alps; this beautiful area of southern Germany rises sharply in a series of cliffs and pinnacles 1500ft above the area round Stuttgart and Kirchheim. The area was under the sea 140 million years ago, now limestone deposits thousands of feet thick and crammed full of fossils, bear witness to that time and provide the visiting glider pilot with a fascinating pursuit on the occasional rainy day.

This year's International Hahnweide Competition was the ninth organised by the Wolf Hirth club and, like last year, was directed by Dr Knapp with Teutonic efficiency.

The gliding field itself is only about 200yds wide and half of this slopes down like the ski slopes at St Moritz. There is just sufficient room for two lines of gliders with tugs landing on either side in a lane not much wider than a wing span: this year there were 87 competing gliders and when you were taking off along the steep part of the slope, it is no wonder that there were half a dozen hairy looking ground loops. I did one myself and after leaping six feet into the air and cartwheeling round to run backwards down the slope, I was amazed to climb out and find the glider still in one piece. I repeated the performance the next day just to demonstrate that it was not a fluke!

Alps Under Scrutiny

The organisers gave us a good look at the Alps right from day one: this was a 340km quadrilateral Donauschingen, Ulm, Lauchheim and back. The first leg along the wooded north-west escarpment of the Alps, then along the deep valleys of the upper Danube and finally out, into the plain to the north, returning to the hills back at Kirchheim. I had no real problems, cloudbase got up to 7000ft above the terrain on the first leg but then came down to around 4500 near Ulm. Winning time was 3hrs 30mins, I was third with 3hrs 47mins.

The second day was one of the favourite tasks at Kirchheim, twice round a triangle, each 256km making a total of 512km: this gives the spectators an interest in the progress of the race as they can see their local hero round the base turn as well as cheering him on his final dash. Again, no real problems though I wasted a little time on the second circuit by making a longish detour on the second leg. My friend Otto von Gwinner had told me of a prehistoric meteor crater which is a well known sink hole on this track. The crater is quite clearly defined both on the map and from the air. It is about 30 miles across and is bordered by a ring of wooded hills. I followed the hills but it was quicker across the middle.

Day 3 was very interesting. We went down into the Black Forest then across to Donauschingen again before making for home. Perhaps I should say up into the Black Forest because the turning point, called the Kandel, was on top of a 5000ft peak! It was easier to go round it looking up! There was some tricky flying to negotiate a trough which was passing through but with a little pair flying with Otto we finally got back to base and a "pepper steak" at a local guest house.

Day 4 was also an interesting task, an out-and-return to Donauschingen. The interest came near the turning point when we encountered an inland sea breeze. It was the most clearly defined front of this type that I have ever seen — on one side clear air with a visibility of 50 miles and on the other side milky haze with a visibility of less than five miles: along the junction a line of cumulus with 10kts lift and no need to circle.

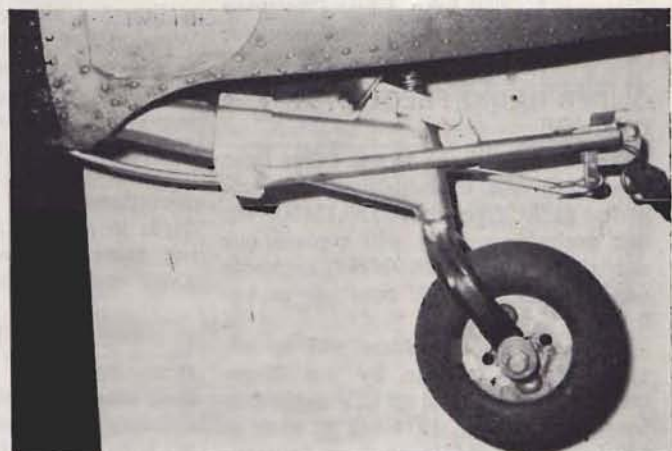
On the fifth day, the trough had deepened and a full size depression was developing. The task was an out-and-return to the Klippeneck, the famous site where Hanna Reitsch used to fly. I landed near the turn but fortunately the day was heavily devalued as only three got back.

The depression deepened and it rained on Thursday and Friday giving Otto the opportunity to take us to visit a fossil museum and see what competitions were like 140 million years ago. The Pterodactyls won of course and the penalties for coming second seemed pretty severe. One fascinating fossil was of a crocodile type creature which had been killed, possibly by a volcanic eruption, whilst actually giving birth to its young: one poor little crocodile was a couple of feet from its mother but four others were still in her womb. We all searched the limestone on the way back and found several Ammonites.

The last day was another of their favourite tasks. Twice round a 134km triangle: Aalen, Ellwangen. Conditions were superb and everyone finished thoroughly exhilarated. A magnificent contest, I hope I can go again next year.

Leading results—Open Class: S. Baumgartl, ASW-17; S. Armbrust and G. Eckle both on Nimbus 2. George Burton came fifth in his Kestrel 19. Standard Class: D. Hüttner, Std Cirrus; O. Schäuble, Std Cirrus and E. G. Peter, H-203.

Towing Hook for Chipmunks



Now that more Chipmunks are coming on to the second-hand market, clubs may be interested to know that CAA approval is about to be granted for the installation of a PA18 (CUB) type Schweizer hook on these aircraft. The Major Modification application has been made by R. B. Stratton in association with RAFGSA at Bicester, where the prototype (shown in the photograph) was installed, proof-tested and test flown.

BGA & general news

SERIOUS LONDON TMA CHANGES

After very considerable negotiations with CAA and the NATS, it is with great regret that I have to inform Clubs that when the new London TMA is implemented (early 1975) the Rule 22 exemption for gliders will cease. This was finally confirmed at a meeting attended by the BGA Chairman, Chris Simpson, and myself, on July 2. This decision has been made at the top level of the Civil Aviation Authority.

It is likely that this decision will have a serious effect on gliding in the south-east since the cessation of the Rule 22 exemptions means that no glider will be able to penetrate the revised TMA under any normal circumstances — although it may be possible to make some special arrangement for competitions only (but at this stage this is not at all certain). Obviously some areas will be affected more than others and Clubs likely to be affected have been notified and asked to comment.

John Ellis, *Chairman*
BGA Airspace Committee

GLIDER RADIO FREQUENCY CHANGE

Negotiations with the Home Office have resulted in the introduction of a new glider radio frequency 130.1MHz for our exclusive use. It will replace our shared frequency 129.9MHz, exclusive use of 130.4MHz will continue as before.

Existing licence holders will be advised of this change by the Home Office in October and all new applicants from November 1, 1974 will be granted 130.1 and 130.4MHz as their frequencies. The new frequency can be used by existing holders after November 1.

The use of 129.9MHz is to be phased out gradually and licences renewed after October 1, 1975 will not include this frequency. Pilots should note that all licensing is now handled by the Home Office, Radio Regulatory Divi-

sion, Waterloo Bridge House, Waterloo Bridge, London SE1.

S&G MAILING CHARGES INCREASED

Owing to the recent postage increases together with the steep rise in price of envelopes since the paper shortage it is necessary for us to alter the mailing charge portion of the annual subscription.

As from this issue therefore the annual subscription will be £3.00 instead of £2.75 to cover these increases. The price of the magazine remains unchanged at 40p per copy for personal callers, or for copies bought over the counter at your club.

A DIPLOMA FOR ANDY

Our congratulations to Andy Gough, CFI of the RAF Gliding and Soaring Centre, who has been awarded a Paul Tissandier Diploma by the Fédération Aéronautique Internationale for outstanding contributions to British gliding for almost 25 years. Andy, a Warrant Officer, has nearly 5000 hours in gliders and 2000 hours in tug flying.

As CFI at Bicester since 1962, he is responsible for some 20000 launches each year. There is tribute to his great personal ability in achieving high operational and administrative standards in gliding. Also, as an outstanding aerobatic glider pilot, Andy has given many displays for charity.

A NEW NATIONAL COACH

Brian Spreckley, former CFI of the Buckminster Gliding Club, has been appointed a National Coach by the BGA to replace John Heath.

John, who worked with Bill Scull, Senior National Coach, for more than two years, has returned to South Africa and his career in engineering. In Bill's words "he did an extremely thorough job and his contribution to British gliding is greatly appreciated."

Brian, who is 26 years old and

married with a son and daughter, went solo at 16 with the ATC at RAF Kirton-in-Lindsey, Lincs. He stayed with the ATC for two years as an Instructor and was also a member of the Lincolnshire Gliding Club until 1972 when largely instrumental in starting the Buckminster Club.

He has a share in a Kestrel 19 and this May made use of the exceptional weather by gaining his Gold C distance and a Diamond for goal, as well as completing 482 of a 500km triangle. Brian's wife shares his interest in gliding — she is a Bronze C pilot.

EXCEPTIONAL NATIONAL LADDER

The National Ladder, headed by Steven Longland of the Cambridge University Gliding Club, is the largest on record for June with 40 more pilots having entered compared with last year.

This reflects the excellent weather and the list represents a lot of Gold C distances and a scattering of 500km flights. It is interesting to note that the exclusion of all contest flights has not diminished the number of entries.

Leading Pilot	Club	Pts	Fits
1 S. N. Longland	Cambridge Univ	4235	4
2 A. Purnell	*Surrey & Hants	3661	2
3 J. C. Cardiff	London	3623	4

CLUB NEWS CONTRIBUTIONS

I can imagine some contributors to the Club News must be disappointed — probably annoyed — when their copy is cut. I haven't an over-zealous red pen or get a fiendish delight in ruthless editing. It is simply a matter of necessity.

In the last issue, the club section would have taken 12 pages had I not hacked out the trivialities. While we all enjoy reading what other clubs are doing, the outstanding flights by members and improvements to sites, a lot of the material creeping in lately is club newsheet standard.

There are in-jokes and tedious detail belonging to the noticeboard, not to a

magazine with a wide circulation abroad as well as this country.

I am convinced you would soon be bored if I let the section expand at the expense of general features. So club news writers, be tolerant when I cut down your copy and please take a critical look at your contribution and judge for yourself whether it will be of interest to anyone outside your own club.

Editor

ENTERPRISE ESTABLISHED

The weather was ghastly and only allowed three competition days, but the spirit of Competition Enterprise, held from June 22-30 at North Hill, home of the Devon and Somerset Gliding Club, was sufficiently strong to make it an enormous success. It was unanimously agreed that it should be repeated.

Philip Wills, the inspiration behind Enterprise, is going to write a full account for the next issue. His son, Justin Wills, won Class 1 in a Std Libelle with 471pts with Tony Maitland (Diamant) second with 318pts. Class 2 winners were Guy Gothard, Bill May, Lou Glover and Lou Frank (T-21) with 171pts and Tony Smallwood (Gull 2) second with 121pts.

NO CHURCHILL AWARD

After careful consideration the BGA has decided not to make a Churchill Award for 1974 as it was felt the applications were not of sufficient merit. But the Committee stresses that anyone unsuccessful before shouldn't hesitate to apply in a future year. It could be that the first time there were several applications of merit though only one award could be made.

MIDSUMMER MAXIGLIDE

On Saturday, June 22, the Lasham Gliding Society held a maxiglide day in which all members were invited to partake.

Tasks were set for Silver and Gold C aspirants, an out-and-return for Diamond hunters and a Cat's Cradle for those with their badges complete. Prizes were awarded for the best efforts. Unfortunately the weather curtailed most cross-country attempts, the furthest being 246km in a K-6 while the longest was a 6½hr local flight.

A total of 561 launches were achieved between 04.22 and 21.59. Can any club in the UK beat this?

We gather that similar events are run by several clubs so what about holding a midsummer maxiglide on National level next year?

Please let Lasham know if your club is interested. The object of the exercise is not only to get maximum launches but maximum effort from every member, as well as good public relations and publicity.

WHITBREAD BURSARY AWARDS ALLOCATED

The £100 set aside for the Whitbread Bursary Awards, available to pilots achieving their Bronze C before their 19th birthday, has been allocated and no further claims can be considered for this calendar year.

FIRST HANG GLIDER FATALITY IN UK

Famy Best, the pilot of a hang glider, was seriously injured on June 15 and later died. He had dropped from a height of 80ft after losing control while soaring on a hill near Bridport.

GLIDING CERTIFICATES

DIAMOND DISTANCE			
No.	Name	Club	1974
1/59	A. R. Nicholas	Swindon	7.5
1/60	M. G. Throssell	Essex	14.5

DIAMOND GOAL			
No.	Name	Club	1974
2/478	W. G. Scull	in Australia	29.1
2/479	J. W. Wynch	Four Counties	7.5
2/480	A. J. Wray	Heron	7.5
2/481	R. Wishart	Mawganvale	7.5
2/482	F. G. Wilson	Chilterns	7.5
2/483	D. E. Williams	Bannerdown	7.5
2/484	D. C. Webber	Kestrel	7.5
2/485	M. K. Norris	Chilterns	7.5
2/486	B. Murgatroyd	Four Counties	7.5
2/487	J. Mitchell	SW District	7.5
2/488	S. H. C. Marriott	Army	7.5
2/489	R. J. Lyndon	Chilterns	7.5
2/490	C. I. Joslin	Wrekin	7.5
2/491	P. J. Howeggo	Anglia	7.5
2/492	K. Hartley	Bannerdown	7.5
2/493	R. J. Hale	Portsmouth	7.5
2/494	P. K. Goozee	Kestrel	7.5
2/495	G. F. Brindle	Humber	7.5
2/496	J. M. Bishop	Cranwell	7.5
2/497	E. F. Best	Portsmouth	7.5
2/498	A. V. Arnold	Mawganvale	7.5
2/499	G. H. Upson	Bristol/Glos	14.5
2/500	A. E. Wathen	Thames Valley	14.5
2/501	P. J. Charnell	Kestrel	14.5
2/502	A. J. Mainwaring	Essex	7.5
2/503	A. W. Hanfrey	Inkpen	14.5
2/504	R. B. Hayden	Essex	14.5
2/505	R. F. Bowden	Thames Valley	14.5
2/506	G. Millward	Chilterns	19.5
2/507	A. Linee	Dorset	19.5
2/508	A. B. Crease	Imperial College	14.5
2/509	J. D. Thompson	Coventry	19.5
2/510	H. Middleton	Coventry	14.5
2/511	G. N. Halliday	Four Counties	14.5
2/512	J. N. Ellis	Doncaster	7.5
2/513	P. J. E. Osborne	Inkpen	19.5
2/514	H. A. R. Haresign	P'boro/Spalding	19.5
2/515	E. Specht	Burton/Derby	19.5
2/516	T. Fox	Surrey/Hants	30.4
2/517	W. Mason	Coventry	14.5
2/518	R. J. Sheffield	Chilterns	29.5
2/519	A. S. Miller	Four Counties	29.5
2/520	E. R. Boyle	Derby/Lancs	29.5
2/521	A. J. Norrie	Surrey/Hants	29.5
2/522	R. F. Smith	Airways	14.5
2/523	I. H. Shattock	South Wales	19.5
2/524	B. T. Spreckley	Buckminster	7.5

DIAMOND HEIGHT			
No.	Name	Club	1974
3/194	C. H. Wiggins	Chilterns	18.3
3/195	R. J. Sheffield	Chilterns	18.3
3/196	G. Millward	Chilterns	18.3

GOLD C COMPLETE			
No.	Name	Club	1973
377	S. N. Longland	Cambridge Univ	22.9
378	B. Docker	Surrey/Hants	9/10
379	A. M. Southwood	Essex	21.10
380	C. C. Rollings	Airways	21.10

381	Angela Smith	London	28.12.72
382	A. E. Burgess	Bicester	27.10
383	D. G. Lee	Four Counties	24.10
384	P. J. Evans	SW District	24.10
385	G. Garlick	in Australia	15.10
386	T. A. S. Rosie	Fulmar	19.1
387	B. W. Davies	Hambletons	18.1
388	M. G. Throssell	Essex	16.3
389	I. A. Ronald	Lakes	9.3
390	E. J. F. Lusted	Airways	31.3
391	W. G. Scull	in Australia	29.1
392	J. W. Wynch	Four Counties	7.5
393	F. G. Wilson	Chilterns	7.5
394	D. C. Webber	Kestrel	7.5
395	M. K. Norris	Chilterns	7.5
396	J. Mitchell	SW District	7.5
397	R. J. Lyndon	Chilterns	7.5
398	P. J. Howeggo	Anglia	7.5
399	G. F. Brindle	Humber	7.5
400	J. M. Bishop	Cranwell	7.5
401	A. V. Arnold	Mawganvale	7.5
402	G. H. Upson	Bristol/Glos	14.5
403	A. J. Mainwaring	Essex	7.5
404	B. H. Bryce-Smith	Cambridge Univ	19.5
405	G. Millward	Chilterns	19.5
406	J. N. Ellis	Doncaster	7.5
407	W. Mason	Coventry	14.5
408	R. J. Sheffield	Chilterns	29.5
409	A. S. Miller	Four Counties	29.5
GOLD C HEIGHT			
Name	Club	1974	
C. H. Wiggins	Chilterns	18.3	
G. Millward	Chilterns	18.3	
R. G. Rodger	Surrey/Hants	1.5	
K. A. Jones	Crusaders	11.5	
A. S. Maclean	Cranwell	7.11.73	
M. A. Pobjoy	Crusaders	11.5	
GOLD C DISTANCE			
Name	Club	1974	
L. K. Forsey	Thames Valley	31.12.73	
M. R. Carlton	in Australia	29.1	
W. G. Scull	in Australia	29.1	
J. W. Wynch	Four Counties	7.5	
A. J. Wray	Heron	7.5	
R. Wishart	Mawganvale	7.5	
F. G. Wilson	Chilterns	7.5	
D. E. Williams	Bannerdown	7.5	
D. C. Webber	Kestrel	7.5	
M. K. Norris	Chilterns	7.5	
B. Murgatroyd	Four Counties	7.5	
J. Mitchell	SW District	7.5	
S. H. C. Marriott	Army	7.5	
R. J. Lyndon	Chilterns	7.5	
C. I. Joslin	Wrekin	7.5	
P. J. Howeggo	Anglia	7.5	
K. Hartley	Bannerdown	7.5	
R. J. Hale	Portsmouth	7.5	
P. K. Goozee	Kestrel	7.5	
G. F. Brindle	Humber	7.5	
J. M. Bishop	Cranwell	7.5	
E. F. Best	Portsmouth	7.5	
A. V. Arnold	Mawganvale	7.5	
G. H. Upson	Bristol/Glos	14.5	
A. E. Wathen	Thames Valley	14.5	
P. J. Charnell	Kestrel	14.5	
A. J. Mainwaring	Essex	7.5	
A. W. Hanfrey	Inkpen	14.5	
J. C. Strugnell	Trent Valley	18.4	
B. H. Bryce-Smith	Cambridge Univ	19.5	
R. F. Bowden	Thames Valley	14.5	
R. B. Hayden	Essex	19.5	
G. Millward	Chilterns	19.5	
A. Linee	Dorset	19.5	
A. B. Crease	Imperial College	14.5	
J. D. Thompson	Coventry	19.5	
H. Middleton	Coventry	14.5	
G. N. Halliday	Four Counties	14.5	
J. N. Ellis	Doncaster	7.5	
P. J. E. Osborne	Inkpen	19.5	
H. A. R. Haresign	P'boro/Spalding	19.5	
E. Specht	Burton/Derby	19.5	
T. Fox	Surrey/Hants	30.4	
W. Mason	Coventry	14.5	
R. J. Sheffield	Chilterns	29.5	
A. S. Miller	Four Counties	29.5	
E. R. Boyle	Derby/Lancs	29.5	
A. J. Norrie	Surrey/Hants	29.5	
R. F. Smith	Airways	14.5	
B. T. Spreckley	Buckminster	7.5	
SILVER C			
No.	Name	Club	1974
3570	A. J. Todd	London	17.1
3571	J. Hewett	Southdown	3.3
3572	V. Rendle	Cambridge Univ	7.3
3573	J. Tournier	Thames Valley	14.4
3574	J. Marsden	Two Rivers	15.4
3575	M. C. Davies	Bristol/Glos	14.4
3576	R. B. Coote	Southdown	14.4
3577	R. C. May	Dorset	20.4
3578	E. J. Lambert	Coventry	14.4
3579	H. F. Kennedy	Two Rivers	14.4
3580	P. J. Richie	Kestrel	20.4
3581	P. W. Ross	Surrey/Hants	21.4
3582	B. P. Sanders	Thames Valley	27.4
3583	R. W. Brammah	Kestrel	20.4
3584	D. L. Powell	Mawganvale	27.4
3585	G. E. Love	London	27.4
3586	G. McLean	Hambletons	27.4
3587	W. M. George	W. Wales	14.4

No.	Name	Club	1974	1975	I. G. Liddell	Dorset
3588	W. F. Maidment	Surrey/Hants	23.4	3658	R. J. Dorward	Bristol/Glos
3589	C. V. J. Heames	Anglia	26.4	3659	G. J. L. Smith	Cotswold
3590	A. W. Hanfrey	Inkpen	7.5	3660	D. C. Pattison	Northumbria
3591	W. A. Clarke	London	6.5	3661	C. Emmott	Derby/Lancs
3592	D. I. Harris	Kent	7.5	3662	B. W. Lucas	Coventry
3593	R. Matthews	Kent	27.4	3663	E. W. Waterman	Bristol/Glos
3594	J. Finlay	Bristol/Glos	7.5	3664	N. Fisher	Doncaster
3595	I. A. H. Barker	Surrey/Hants	7.5	3665	A. D. Bould	Wrekin
3596	G. N. Ballard	Surrey/Hants	2.5	3666	D. S. Driver	Northumbria
3597	F. J. Mann	Rotherham	27.4	3667	J. D. Eames	Airways
3598	R. Bavin	Coventry	30.4	3668	F. J. Wiseman	Cambridge Univ
3599	E. R. Macfarlane	Airways	7.5	3669	E. Hobart	Polish AFA
3600	P. F. J. Wells	Clevedons	27.4	3670	P. Wenham	Coventry
3601	C. R. Hitchman	Southdown	27.4	3671	A. P. Moulang	Kent
3602	D. G. Moore	Thames Valley	23.4	3672	D. Byrne	Thames Valley
3603	E. C. Curtis	Four Counties	8.5	3673	M. F. Evans	Surrey/Hants
3604	J. H. Critch	Essex	8.5	3674	M. Melia	Yorkshire
3605	P. L. Warne	Phoenix	12.5	3675	P. B. Gray	Derby/Lancs
3606	D. M. Macpherson	Airways	6.5	3676	D. Neal	Dorset
3607	Janina Slater	Surrey/Hants	19.5	3677	I. H. Hunt	Cambridge Univ
3608	A. R. Walsh	Cambridge Univ	15.5	3678	P. J. Higgs	Swindon
3609	F. M. Dent	Bristol/Glos	7.5			
3610	I. H. Byrne	Bicester	19.5			
3611	E. W. Lipski	Essex	19.5			
3612	C. K. Lewis	Surrey/Hants	19.5			
3613	S. P. Willis	Essex	8.5			
3614	W. J. Smart	Herefordshire	30.4			
3615	J. J. Bailey	Essex	19.5			
3616	A. F. Coombes	Surrey/Hants	19.5			
3617	L. G. Dawson	Burton/Derby	19.5			
3618	P. A. Ward	Burton/Derby	19.5			
3619	P. A. Doyle	Essex	14.5			
3620	T. H. Reynolds	Yorkshire	19.5			
3621	D. W. Reed	Coventry	19.5			
3622	D. J. Dye	Bristol/Glos	30.4			
3623	B. Tapson	CGS	8.5			
3624	J. D. Macdougall	Surrey/Hants	14.5			
3625	J. Walsh	Surrey/Hants	14.5			
3626	R. I. Cowderdy	Oxford	19.5			
3627	S. P. Mackey	Essex	14.5			
3628	Sheila Corbett	Essex	14.5			
3629	Carol Whitworth	Fenland	19.5			
3630	J. N. Wardle	Surrey/Hants	19.5			
3631	J. R. Baxter	Swindon	19.5			
3632	D. E. Ingle	Northumbria	19.5			
3633	A. S. Rutter	Chilterns	19.5			
3634	R. A. Hall	Oxford	19.5			
3635	D. D. Mitchell	Cambridge Univ	15.5			
3636	D. D. Gay	Herefordshire	19.5			
3637	J. J. Fisher	Heron	26.5			
3638	Georgina Stewart	Trent Valley	26.5			
3639	C. R. Hobbs	Devon/Somerset	26.5			
3640	A. K. Leider	Enstone	19.5			
3641	L. J. Crampton	Bristol/Glos	19.5			
3642	J. Olsson	Blackpool/Fylde	27.4			
3643	W. C. Williams	Essex/Suffolk	12.5			
3644	M. C. S. Apps	Heron	26.5			
3645	S. E. Evans	Oxford	29.5			
3646	P. Smith	Chilterns	16.4			
3647	Mary Wales	Enstone	29.5			
3648	E. H. Murphy	Phoenix	25.5			
3649	Pamela Roberts	Midland	26.5			
3650	B. D. Kelsey	Surrey/Hants	29.5			
3651	R. J. King	Airways	15.5			
3652	A. Croker	Essex	30.5			
3653	J. A. Fielden	London	29.5			
3654	R. Warner	Cambridge Univ	30.5			
3655	A. J. Long	Cambridge Univ	29.5			
3656	P. R. Barley	Wrekin	29.5			

Dorset	29.5
Bristol/Glos	26.5
Cotswold	26.5
Northumbria	26.5
Derby/Lancs	29.5
Coventry	29.5
Bristol/Glos	30.5
Doncaster	29.5
Wrekin	29.5
Northumbria	29.5
Airways	5.6
Cambridge Univ	29.5
Polish AFA	19.5
Coventry	30.5
Kent	31.5
Thames Valley	29.5
Surrey/Hants	3.6
Yorkshire	29.5
Derby/Lancs	29.5
Dorset	29.5
Cambridge Univ	31.5
Swindon	31.5

29.5 their spare time and, by virtue of his
26.5 personality, endowed it with a remark-
29.5 able prestige. As a practical man, he
29.5 could visualise the problems of inspec-
30.5 tors and provide the soundest of advice;
29.5 as a trained engineer — and probably
5.6 few knew he had a double First in En-
29.5 gineering at Cambridge—he was equally
19.5 at home with the more profound papers
31.5 and discussions in Committee. The
29.5 diversity of his work for the BGA was
29.5 quite astonishing and he greatly en-
31.5 hanced our reputation in the eyes of
31.5

OBITUARIES

RAY STAFFORD ALLEN,
1917-1974

It is easy to visualise airworthiness as a matter of ritualised inspections and endless paper work but, in the semi-amateur context of most work on gliders, more essential ingredients are a real understanding of the machines, a feel for the materials, enthusiasm tempered by competence, perseverance, a sense of great responsibility and the knowledge that one's efforts will ultimately bring pleasure to others.

Ray Stafford Allen was eminently well-endowed with these virtues and British gliding could hardly have been more fortunate in having his services as Chief Technical Officer for the last ten years. He was the first to be appointed to this post when the running of the BGA airworthiness scheme had become too big a job for members of the Technical Committee to tackle in

His sudden death on May 13 leaves us sadly diminished. It is one thing to write a list of his talents and accomplishments, quite another to convey the warmth of his personality and the respect and affection which he enjoyed. He will be greatly missed, not only by his friends and acquaintances amongst the Technical Committee and the glider inspectors but also by all the pilots who benefited, albeit indirectly, from his work. He was pure gold and, if you count a life well spent in enabling others to enjoy the delights of flying, his was eminently well spent.

Our deepest sympathy goes to his wife and family.

F.G.L.

HEINI HEIRISS

South Africa's National Champion, Heini Heiriss (42), and his passenger were killed on June 1 in a flying accident.

Apparently they took off in a tug towing a K-6 immediately after a winch launch and flew into the falling winch cable. The cable parachute

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caught the wing of the tug and cap-sized it into the ground where it burst into flames. The pilot of the K-6 realised seconds beforehand what was about to happen and shouted a May Day to Heini but obviously it was too late. The K-6 pilot landed safely.

Heini Heiriss, who was German by origin, had lived in South Africa for many years and quickly became a valuable asset and popular member of the gliding fraternity. He will be sadly missed by all who knew him. Our deepest sympathies are extended to his wife and three sons.

R.H.

SIR JOHN CHAMIER

Air Commodore Chamier, CB, CMG, DSO, OBE, in his position as Secretary-General of the Air League, founded the Air Defence Cadets who took gliding courses at many British gliding clubs during 1939 and were later transformed into the Air Training Corps. He had been active in the BGA until he resigned in late 1934 during the controversy over its constitution. He died on May 3 at the age of 90 years.

KARL O. LANGE

Dr Lange was one of a group of Germans who, after taking a prominent part in the pioneer development of soaring flight in the early 1920s, emigrated to the United States and there made successful careers. I have always understood he was the holder of the World's first C Certificate (which did not exist before 1924) but have been unable to find any published record of the claim.

In the USA Lange was principal meteorological adviser to the soaring fraternity up till 1939, and he wrote the meteorological chapter in Barringer's standard American textbook "Flight Without Power", published that year. Around 1946 he conducted a research programme with sailplanes, repeatedly flying round a triangular course, which proved that, within limits, the strength of the upcurrent in a thermal on any particular day is inversely proportional to its diameter. A Professor of Meteorology at both Massachusetts IT and Harvard, Lange was a Director of the Soaring Society of America from 1933 till 1939 and Director of the US National Soaring Contests in 1936 and 1937. It was several months before his death, at 70 last November, became known to American soaring people.

A. E. SLATER

WINNING on the wind

by George Moffat

George Moffat, twice Open Class World Champion ('70 & '74), tells all.

Fly with him in over twenty-five of the World's greatest ships from the 'fifties to the 'seventies. Share his winning contest techniques in intimate detail. Live with him through a decade of success in world-class competition and record flying. Savor his wit and candour in selected 'Infamous Last Words'. Famed '52 World Champion Philip Wills contributes a gracious and informative Introduction.

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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.

GLIDING AT TOCUMWAL

Being in Australia for the World Championships, I took the opportunity of gliding at several different clubs before and after the competitions, starting at Gawler and then on to Tocumwal from Waikerie.

I was welcomed at Tocumwal by the dynamic Bill Riley and his CFI Ingo Renner and managed a good trip in the Kestrel 19. The next day, when the election was being held in Britain, I tried a 500km out-and-return with the local weather a good deal better than at the turning point some 160 miles away. This slowed things up and I didn't quite make it back . . . by roughly the same percentage as Edward Heath failed in his task!

But it was thoroughly enjoyable and the night stop with a farmer and an early morning retrieve by air was equally satisfying. Such retrieves are normal practice at Tocumwal and, although a bit costly for the pilot, does ensure the glider is ready to fly at an early hour the next day.

Charges at Tocumwal are higher than normal but the visiting pilot gets a good return for his money. The CFI soon knows the aspirations of his visitors and if the weather "comes good" is out there by your glider with barograph, camera, maps, the weather forecast and suggested routes mapped out.

Both Ingo and Bill are knowledgeable and outgoing and visitors can fly cross-country in the Caproni and quickly learn advanced techniques. The fleet complements the thinking of the management and comprises two tug aircraft, two Blaniks, three Pilatus B-4, a Phoebe, Kestrel 19 and a Pik-20 on order.

It would be difficult not to be impressed by the present operations at Tocumwal and even more so by its potential. The field itself was once the largest airfield in the Southern Hemisphere and two of the original runways are kept fully serviced.

Next stop was Benalla, an equally warm welcome and a ride in a Kookaburra, then on to Canberra and Sydney.

GEORGE COLLINS

FIRST FRENCH ALL-GLASS-FIBRE SAILPLANE

Wassmer's Standard Class WA-28, the first French all-glass-fibre sailplane, is a successor to the WA-26 Squal, which had wings of sandwich construction. Named Barakuda, it has had its first test flight at Issoire. The span is 15m, tail conventional with elevator in the low position, and best gliding angle 1 in 38 at about 90km/h, but the polar published in *Luftsport* shows the minimum sink at 6m/sec: this must mean decimetres, ie 2ft/sec.

SWISS NATIONALS

These were held from May 15-26 at Schanis and resulted in eight contest days. There were 35 pilots in the Standard Class and 25 in the Open. The Open Class was won by Herbert Frehner in a Nimbus 2 and Dieter Memmert of Germany came second. The first five in the Standard Class were: Hans Hedinger, Basil Obrist, Rene Luscher, Hans Nietlisbach and Pieter Teunisse of Holland.

DUTCH NATIONALS

These were held at Terlet from May 8-19. All 22 pilots entered flew in Standard Class sailplanes and a contest resulted on seven days. On May 18 a 500km triangle was set but no one got round, the furthest distance being about 300km. Other triangles set covered 153, 322, 200 and 208km. The two remaining tasks were out-and-returns of 140 and 170km. Leading (unhandicapped) results: Foelkel, Std Libelle, 6542pts; Paré, Std Cirrus, 6121pts; Kuyper, Std Cirrus, 6035pts.

INTERNATIONAL ARDENNES CONTEST

After having achieved only three contest days in the period set aside for this contest, the organisers decided to extend the competition an extra weekend. The foreign pilots were unable to stay and thus only flew on the first three contest days. There were four pilots flying in the Open Class and 16

in the Standard, and only the Standard Class was classed as a competition. The tasks were: April 28, 2 x 75km triangle; May 1, 162km triangle; May 2, 150km triangle. A 318km triangle and 2 x 160km out-and-return were flown on May 11 and 12. The flying took place at Saint Hubert in Belgium; Michel Bluekens, ASW-15, was the winner followed by Henry Stouffs, LS-1 and Dieter Hefter, Germany, Std Cirrus.

SOUTH AFRICAN CHAMPIONSHIPS

The South African Championships will be held at Oranjekrag Airfield from December 17 to January 4. For entry forms and further details contact the Gliding Secretary, Aero Club of South Africa, PO Box 2312, Johannesburg, 2000.

FIRST RUSSIAN HANG GLIDER

The Novosti news agency states: "The Soviet sportsman Mikhail Gokhberg has made the first free flight on a kite in the USSR. Wearing skis he took off from a height of 950m (3117ft) near Elbrus in the Caucasian Mountains, flew over the steep of the famous Cheget, over a pine forest and steep cliffs, and made a perfect landing on his skis. Three years ago he made his first on a kite of his own design towed by a speedboat."

AUSTRIANS PREFER SAILPLANES

Sailplanes in Austria outnumber all other forms of aircraft together, and have done so for at least the past two years, according to statistics published in *Austroflug*. Figures for 1972: 618 sailplanes, 461 others (387 aeroplanes, 55 motorgliders, 17 helicopters, 2 balloons). In 1973: 634 sailplanes, 497 others (410 aeroplanes, 67 motorgliders, 18 helicopters, 2 balloons).

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your letters

GLIDING NEEDS COMPETITION

Dear Editor

I have always had the greatest respect for Ann Welch and her opinions, but there is one aspect of her article in last month's S&G which I find inverted thinking.

As I read it, the suggestion is that the pressure to obtain the maximum possible performance should be moved away from World Championships, leaving only record breaking as its incentive. On the other hand, World Championships are costly to run and need all the support that they can get.

Surely, these two philosophies are irreconcilable. Would the pace of sailplane development be as forced without the incentive of wing-tip to wing-tip competition and would World Championships have their present tremendous status if they failed to encourage the best pilots in the best machines to put up the best performances?

I feel the answers to both questions must be no. A Standard Class only competition, or a Standard Class and Bigger Standard Class competition, would not command the same respect from the world's gliding fraternity and therefore the effort from the sailplane developers. Gliding needs its Holighaus's and Grosse's in both record breaking and competition.

Is there really a "costly rate of obsolescence?" Big Cirrus are still manufactured and there is a waiting list for the Kestrel. Later designs advance rather than supersede them. If arbitrary restrictions are placed on the "Open" class, will it succeed in reducing cost? Would Sigma be significantly less expensive if it were designed to 19m?

Let us keep the Open Class wide open, there will always be a good number of enthusiastic entrants.

Stony Stratford

EDDIE VANN

STUBBLE FIRE DANGER

Dear Editor,

In your April issue (p54) Humphry Dimock writes on the phenomenon of flare-ups in stubble fires. I have experienced a number of these and there seem to be two factors that have been common to all of them. First, I have only experienced them in hot inverted weather with light winds, and second, the field has to be fairly large, about 40 acres is the smallest in which I have seen any sort of rotational airflow occur. In one such flare-up I recorded a climb of 3000ft in two minutes (15kts).

I did, however, have a less pleasant encounter with a flare-up coming from a huge field of approaching 200 acres. The flame front was all along one side of the field and moving downwind. At one place a narrow tongue of flames had advanced in a crescent ahead of the main front. It was obvious from the appearance of the flames in this area that a strong rotational wind was blowing in an anti-clockwise direction.

I entered a column of smoke at about 1000ft but the aircraft, a K-13, was thrown violently to the right against full left aileron. For several seconds the machine was entirely out of control and several hundred feet were lost

before it was regained. I had to land shortly afterwards and possibly it was as well that I did, for, within a few minutes, a full scale tornado had developed.

At ground level the tornado was about 60 yards in diameter, at least that was the width of the track it left on the ground. The lower 200-300ft was cone shaped and leant downwind. Above that the core was quite narrow, about 50ft I think, jet black, and went straight up to cloud-base, wriggling violently as it went like an enormous snake. From the unbelievable speed at which the wriggles went from the ground to cloudbase, I estimated the vertical velocity of the core at about 100kts.

Now we are accustomed to thinking that gliders are unbreakable in the air, provided they are flown below the rough air speed, but an encounter with a knife edged gust of 100kts is well outside either the British or the OSTIV design standards. So possibly we should exercise a little caution when stubble burning comes round again. If a circulatory airflow is evident, it might be wiser to stand off for a few minutes, just in case it does build up into a big black twister.

Malvern, Worcs.

LYN BALLARD

MORE ABOUT TURNING POINT PHOTOGRAPHY

Dear Editor,

Frank Irving's article in the December issue, p 438, is a most constructive approach towards turning point photography and competition organisers should study it carefully. I would like to add more observations made whilst taking hundreds of turning point photographs in competition conditions.

One of the main advantages of a tilted camera not mentioned by Frank, is that if the bracket is designed and positioned properly (so as not to photograph the clear vision window slides) the pilot merely turns his head briefly and sights the turning point through the normal viewfinder. This gives a hundred per cent accuracy in sighting, makes it virtually impossible to photograph the wrong area, calls for only one photograph of the turn and does wonders for the pilot's peace of mind as he leaves on the next track.

Those organisers demanding a wingtip in the photograph are creating some of the most dangerous circumstances imaginable. The pilot is compelled (if he is flying in a serious competition) to go into a vertical bank just over the turning point, looking away from the nose attitude, juggling the wingtip position by use of the stick in the wrong hand and operating the camera with his normal flying hand. I gather that some of the best pilots have spun from this position, right at a time and place where it is reasonable to expect other sailplanes underneath and around them.

The wingtip requirement was put in to cater for cameras mounted other than horizontally in their fixed brackets, which then made interpretation of the negatives difficult without a reference point. Rather stipulate that the camera must be mounted normally, which means that the frame number on the negative can always be taken as being the

bottom of the photograph (ie the nearest to the aircraft). An additional safeguard and reference can be the canopy grease-pencil mark as used in the United States, which would also permit abnormally mounted cameras.

That brings us to the camera itself. There is obviously a case for specifying the type and size of film as Instamatic 126 to allow quick processing and simplify the task of the film examiners who must have a standard size viewer. To condemn a pilot to use a cheap, often unreliable and relatively inefficient standard type of camera is comparable to insisting on the use of pellet-type variometers and no total-energy devices.

I have seen dozens of failures of these cameras and heard of many more. By all means prohibit such devices as telescopic lenses (they are impracticable in a cockpit anyway), but leave the rest to the pilot who must stand or fall by photographs from the camera of his own choosing.

Finally, it may not have occurred to some pilots that a camera bracket must always be fixed to the canopy and not to the cockpit. Otherwise, since it is best made from reasonably thick aluminium to prevent bounce or vibration in turbulence, you could find out the hard way when you have to bale out that it becomes an efficient hook guaranteed to hang up your parachute harness.

Salisbury, Rhodesia

TED PEARSON

DOES S&G HAVE EDITORIAL FREEDOM?

Dear Editor,

I am new to gliding and have noticed that *Sailplane & Gliding* is claimed as the official magazine of the British Gliding Association. Does this mean the BGA has a firm control on the material used and regularly dictates the kind of articles to be printed? I am only asking out of curiosity. *Sailplane & Gliding* has such a varied and International content, it is difficult to imagine it being dominated by officialdom. By the way I do like the new format—keep up the good work!

Teddington, Middx

ALAN JAMES

S&G is extremely fortunate. While it is the BGA's official magazine and the BGA keeps an eye on the business-like running of it, we maintain complete Editorial independence. The Magazine Committee's Chairman is the link between the Editorial staff and the Executive Committee and our liaison brings us first-hand news on events and policies affecting gliding as a whole. [Ed]

COMPETITION FLYING—A NEW SUGGESTION

Eric Richards has sent two amendments to his letter in the last issue: Under Scoring System, he adds that paragraph (2d), Duration points, should not be included in inter-club competitions. And (2e) should read:

$$\frac{\text{Glider h'cap}}{100} \times \text{Total points from (a), (b) and (c).}$$

BOOK REVIEW

Winning On the Wind: By George Moffat, World Champion 1970 and 1974. Published by The Soaring Press. Copies available from the BGA, 75 Victoria Street, London SW1 0JB.

Anyone who has read George Moffat on "Low loss flying" will need no encouragement from me to order their copy of his collected works, "Winning On the Wind" which is about to be published. If you do not read the American periodical *Soaring* and aspire to be a contest winner, you

will soon realise what you have been missing over the years. Like *Sailplane & Gliding*, *Soaring* is a must for the serious pilot. But here is a chance to catch up on the articles by George that you missed along with his pieces for the *Soaring Symposia*, and to realise how you can improve your techniques and your chances of becoming a champion.

This book is a collection of the best of George's writings on competition techniques, comparisons between types of gliders, and "how I dun it" accounts of epic flights.

George is a school teacher and has the irresistible urge to give away the knowledge and experience he has gained. This is unusual in a World Champion, especially as he wields a pen almost as well as he flies his sailplane. He has a gift for writing in an exciting and inspiring manner and this book should encourage many more pilots to have a go at their first competition.

There is a wealth of ideas and advice on improving your performance by avoiding unnecessary losses, advice on flying in your first competition and on how to get into practice for this kind of flying. As he points out, it is no longer possible to have a much better machine than your competitors, nor to be able to out perform them during the climb in thermals. Winning must be done by consistent good flying and by avoiding making mistakes. It is easy to underestimate the effects of psychological pressures on competitors, and George uses every gambit to gain a psychological advantage over the opposition. He explains in detail how he planned his campaign to worry his competitors at Waikerie (not published before). Here he gained a victory before the start of the contest, which must have had a telling effect on many of his rivals later in the championships when the pressure was on.

The accounts of his epic flights and his introduction to soaring are beautifully written. They catch the flavour and excitement of scraping to and fro above the mountain ridges in Texas and the sudden changes in fortune which characterise the whole business of soaring across country. You feel with him the desperation of knowing that you have been too impatient and have little hope of climbing back up from 400ft, to the exhilaration of the 1000ft/min climb back to 12000ft a few minutes later.

It is interesting to read about the comparative merits of the various gliders which George has flown but I only wish that he would make more constructive suggestions for improving the breed. How many contests are spoilt by damaged machines which could be avoided if they had more wing tip clearance or better airbrakes?

One small point to be noted when reading about the various types described is that some of the accounts refer to early production models which were later modified and improved. The Dart referred to is almost certainly the earliest 15 metre and not the vastly superior 17r. Similarly with the Kestrel which started life with a 17 metre span and a bad wing root loss at low speeds, and ended with improved lateral control and greatly improved performance at all speeds.

In many ways I wish George had rewritten this collection of articles to give a new assessment of the more currently available types. He chose, however, to leave these as written in their original historical perspective. It is a great book, if not the book on competitive soaring. I can say nothing of the production layout or pictures because I have only read a typewritten copy. It should be available in England well before Christmas so that you will be able to absorb George's words of wisdom in time to give the local pundits a run for their money next year.

DEREK PIGGOTT

club news



What a dramatic change in a year that started with gloom, despondency and fears that gliding would never be the same again. The club contributions are full of exuberance, records being broken in all directions from the launch rates to the kilometres flown. Copy and photographs for the October/November issue should be sent to the Editor, S&G, 281 Queen Edith's Way, Cambridge CB1 4NH, tel Cambridge 47725, to arrive not later than August 14 and for the December/January issue to arrive not later than October 16.

June 15, 1974

GILLIAN BRYCE-SMITH

BRISTOL & GLOUCESTERSHIRE

It's a long time since we have experienced such soaring conditions as we have had during the last few months. During our annual task week, held in conjunction with the Cotswold Club, the weather more than made up for the near washout the year before. John Taylor, John Mast, George Upson and Mike Davies all gained their 300kms with Tom Bradbury doing the first ever 500km triangle from Nympsfield in Std Libelle 253.

The following week saw Ted Elliot and Arthur Duke completing 300km triangles. On June 9 several members made cloud climbs but broke off due to heavy icing. However, John Taylor was high enough for Gold height to complete his Gold badge.

Over the last few months several Silver distances have been flown by members, including Ted Waterman, Derek Dye, Gordon Dorward, Jim Finlay and Mike Davies.

Ron Sandford returned victorious after coming first in the Standard Class at the Nationals. Another bonus for Ron came with the confirmation that his wave climb to more than 17000ft in 242 on March 16 gave him a Diamond.

The first cross-country in a club two-seater, the Bocian, took Mick Munday and David Giles to Leicester. It needs no imagination to visualise the scene when it was discovered the retrieve crew had brought the T-21 trailer! Nevertheless, everything was somehow fitted on.

Our tug position is still unresolved, the Super Cub G-BCFO remaining on the deck due to red tape. Mike Hayden, tug pilot for the courses, had a fright when the Terrier undercarriage collapsed on landing due to a weld fatigue, damaging the prop and possibly the engine. Yet again Tony Gaze has come to the rescue with his Rallye—the club can never express enough gratitude for all his work over the years. With Colin Pennycuik's Super Cruiser soon to be returned to tug-status and "Foxtrot Oscar" already strain-

ing at the chocks, we will soon be back to full tug strength.

Preparations for Euroglide continue at breathtaking speed with our Chairman, Mike Harper, leading the team preparing the clubhouse and facilities. We are determined that it will be a Comp to remember.

R.A.R.

CAMBRIDGE UNIVERSITY

May has been something of a record month for us. With generally excellent weather, the five hours — traditionally flogged out on the ridge at the Long Mynd — has been the Silver leg of the month with eight flown entirely in East Anglian thermals.

I. Hunt, D. Mitchell, C. Perkins and B. Warner now have the Silver Cs and B. H. Bryce-Smith completed his Gold badge with a 300km triangle. Anne Walker achieved the same task on the same day, both gaining their first Diamonds.

On May 29 the club's first 500km triangle was flown from Duxford by Steven Longland in a Skylark 3g while Sigfrid Neumann took his new Kestrel round a 400km triangle. When he heard the Skylark was on the way back he nipped round an extra 100km triangle.

Desmond Pearce did a 300km triangle in 6½hrs in an Oly 460 on June 4 while Peter Whitehead covered the same distance in the club's Skylark 4. A week later Desmond climbed to 18000ft to collect his second Diamond. It's good to see our students making the most of their education. June also saw some interesting Silver C distances with a declared Dunstable coming to ground at Lasham.

Landing at Duxford. The airfield is riddled with large holes cleverly concealed with overgrowths of grass. Gliders landing at Duxford may use the runway (watch out for aerotows and other power movements), or the grass landing strip/winch run to the south of the runway. This strip is approx 60 yards wide. It is extremely hazardous to land anywhere else on the airfield.

S.N.L.

CORNISH

Although the fine spell continued into early summer, on occasions the weather was strangely unpredictable. For instance, there was the day when Graham Talling did his first solo in the K-13 and couldn't get down again. He repeatedly finished circuits higher than when he started until in the end only a fistful of airbrakes brought him safely back to earth.

Varios have been showing plenty of promise and but for NE winds, many more distance tasks might have been attempted. Unfortunately you fast run out of land downwind! Ian Pilling was the first to have a go but fell short of his Silver distance. Carl Knight followed, only to fail the same task by 1km, although he picked up a Silver height on the way.

Sixteen club members raided Inkpen over the Spring Bank Holiday week and collected 11 Silver legs between them, eight in one day.

D.E.P.

COVENTRY

Hundreds upon hundreds of cross-country kilometres were flown during May with enough Silver and Gold to strike a mint. During one day John Cadman and Harry Middleton, both in Std Libelles, and John Thompson, BG-135, completed their first 300km triangles.

On another mid-week day at the end of May several attempts were made at 500km and 300km triangles. Peter Partridge in his syndicate Cobra was the only one to complete 500km in an eight hour flight.

Once again we were graced by all those smoky traction engines. We held the rally during the Bank Holiday and 25000 people found time to come to the airfield. In fact it was the most successful yet, thanks to the valiant efforts of Sid Gilmore. The Rothman's Aerobatic team gave a most spectacular display and the now resident hot air balloon ascended and descended all day, tethered to a huge steam engine.

We are expecting a few changes at the AGM. Several senior committee members are due to retire by rotation and a complete reshuffle is expected, including the election of a new CFI. Our thanks to those who are retiring for their hard work and good luck to the "new boys".

The holiday courses are filling up gradually and we hope they will be even more popular this year. Two course members are coming over from the USA especially to fly with us.

V.M.G.

DERBYSHIRE & LANCASHIRE

Our task week at the end of May has been the main topic of conversation at Camphill in recent weeks. It would seem 1974 will probably be remembered as the year of the Diamond triangle.

On the Wednesday Eric Boyle flew a 300km triangle for his Diamond; Brian Jackson landed a mile short to claim his Gold C and complete his Gold badge while John Shipley did 300km but forgot to switch on his barograph. That day 16 gliders were flown 2793km.

Dave Pillans' triangle on the Thursday gave him a Diamond and on the next day Brian Morgan, Don Hatch and Ted Neighbour repeated the performance, all returning within a few minutes of each other.

Peter Gray did 134km in the Prefect with a 5000ft gain of height to give him two Silver C legs. He finished the week with a five hours to complete his Silver C in only four days.

The task week ended with more than 5000km flown and claims for five Diamond goals, five Gold distances, one Gold complete, five durations, five Silver distances, two Silver heights and three Silver Cs completed, plus countless "nearly made it" stories. We look forward to the next task week, the myth that Camphill is a difficult site to fly from having been finally nailed in its coffin.

George Moffat, hot from his World Championships' victory, stayed with us for two days in June. Our courses are running smoothly under Ron Sanders and are bringing an influx of new members.

P.H.

DEVON & SOMERSET

Within an hour of their wedding, club members Jennifer (née Harrison) and Dave Bailey were airborne together in the club Bergfalke 3. Their reception was at the club and the wedding cake was decorated with two intertwined Otfur rings.

We have introduced a new system of launch marshals to relieve our instructors of some of the burdens of organisation. Lectures have been in progress for *ab initio* and the soaring season has started well with several first solos and three duration flights in one day.

Our club Swallow has been replaced and work goes on at the site, constructing a car park, the levelling of another large area, the installation of additional toilet facilities and the near completion

of our hangar workshop.

At the moment we are enjoying our annual task week and are eagerly anticipating the birth of Philip Willis' brainchild, Competition Enterprise.

B.H.F.

DONCASTER & DISTRICT

A highly successful country and western night in the hangar attracted more than 400 members of Doncaster and surrounding clubs and the proceeds have paid for a Land Rover to speed-up cable retrievers. There was an equally riotous coach trip to an Old Warden flying day.

But a bit of flying has been done as well. John Ellis scraped home on his 300km triangle, Peter Russell completed his Silver with the first duration in the Bocian while Silver height was gained by Len Singleton, Mike Prendergast and Malcolm Ogley.

Silver distances from Doncaster include those by Fred Mann, Fred Grey, Eric Leroy and Malcolm Ogley. David Hessey achieved his five hours and Norman Fisher collected his at Camphill.

Finally, congratulations to Arnold Wigley — only a month after going solo at 68, he had a soaring flight of 1½hrs.

G.D.W.

DORSET

At our AGM on May 4, Ray Witheridge was re-elected Chairman. He recorded another successful year's flying with an increase in aerotows compared with the previous year, though autotow figures were slightly down.

Barry Thomas, re-elected Treasurer, said the club's finances were in a fairly healthy state and the year's operations showed a satisfactory profit. Phil Tiley was elected Secretary and Ted Andrews, Norman Eyres, Dave Wootton and John Adams join Messrs T. Bessant, K. Besent, B. Meyer and B. Stobart on the Committee.

The annual awards were presented by Cdr Kidston as follows: the longest flight, Ted Andrews; the best achievement, Julia Cave; the best endeavour, Harry Wolf; the top tug pilot, Tony Bessant; the best gain of height and the best achievement in a club glider, Ken Pemberton and the best *ab-initio*, John Hoyle.

Our first task week started well on May 26 with Terry Linee completing a Diamond goal flight of 320km in his Std Cirrus only a week after his father had achieved a similar distinction in the same glider. During the week six of our members completed their Silver Cs and several gained individual legs.

The winners were Ian Liddell and Bob Little flying an Oly 2b. The newly acquired club Skylark was in second place, flown by Robin May, Peter White, Denis Neal and Harry Wolf with Tony Howard third in his K-6E. John Adams distinguished himself by gaining Silver C duration and height before completing his Bronze C.

M.L.B.

ESSEX

We have had a fantastic start to the season with Tony Mainwaring, SHK, starting the ball rolling with a 300km Diamond goal flight. The next day our CFI, Mike Throssell, flew the same glider on a 350km out-and-return to Lincoln in what was to be his warming-up flight for a 500km triangle the following week.

Rex Hayden, Skylark 4, did a 300km Diamond goal flight in 8hrs 25min on a day when many of our pundits either turned back or fell down. Sheila Corbett, John Critch, Eddie Lipski, John Bailey, Steve Mackey and Paul Doyle have all completed Cs.

Our flying weeks, though few in number, have been a great success and well attended. With only half the season gone we have almost reached last year's total of cross-country kilometres as well as the number of hours flown—and 1973 was a record for us. However, with all the soaring it does make it difficult to keep up launch figures!

Next date on our social diary is the annual Riverboat Shuffle on August 2 when we foresake soaring for cruising.

P.McE.

ESSEX & SUFFOLK

The Skylark syndicate has been busy lately with John Barnes and Bill Williams completing their Silver Cs. One Sunday in late May Alan Vincent visited us from North Weald and was launched in his Std Cirrus at 11.50hrs and returned just before 19.00hrs. He had a jaunt round a 500km triangle, the first Diamond distance from our site and he didn't need it!

Two weeks later our Chairman, Mike Lee, gained his Diamond with a 300km triangle in the K-6E. Other notable achievements have been the completion of his Silver C by Roger Davies; Bill Williams did six hours and John Wallis his duration in the newly acquired SHK. There have been several first solos, Bronze C legs and completions.

Our three summer flying weeks this year will be from Whatfield for the first time; this is due to hard negotiating by our Committee and the co-operation of RAF Wattisham, the ATC and NATO.

C.C.S.

HIGHLAND

We now have four more solo pilots, Carol Reid, Chris MacCrae and Douglas Finlay plus Ian McKay of the Fulmar Club. Our congratulations to Shirley Higgins, and to Mick Miller of Fulmar, for their duration flights, slogged out on the ridge of Ben Aigan in squally conditions.

Our twin-drum winch is already showing its worth: we have increased to 70-80 launches a day and heights of more than 1200ft are no longer uncommon on the launch.

The Auster sits gloomily in the hangar

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contemplating the mangled remains of its engine, for which we are still awaiting parts. The situation has been eased, however, by the arrival of the Deeside Club with gliders and a Super Cub. They are in exile for a month from Aboyne while tarmac is applied to their strip. We have enjoyed their hospitality so often in the past when our airfield has been closed that we are pleased to have this opportunity of welcoming them.

R.E.T.

IMPERIAL COLLEGE

Our training course held over the Easter vacation was a great success. Flying started well before breakfast and stopped at dusk. Paul Minton and Doug Walker, working in shifts, managed to send five people solo. Of the five, three went aerotow solo and two of these converted to the K-8. Dave Rhodes, before converting to the K-8, got his first Bronze leg in the K-7.

A combination of poor weather and the unfortunate timing of the annual exams meant little flying for student members between the end of the Easter vacation and the middle of June. By now, however, this lamentable loss should have been fully made up.

A.P.P.

KENT

April gave us quite a good start to the season with ridge and thermal soaring as well as another good wave day. May has been one of the best months that any of us can remember with too many Silver and Bronze legs to mention, six pilots claiming seven Silver legs between them in one week.

The club's Skylark 4 has been put to good use. John Dickens did a 300km triangle, showing us that he could do it here as well as in Australia, and Richard Pitman, one of our resident instructors, took a day off for a 300km out-and-return for his Gold distance. Nobody from the club has yet managed a 500km but Ron Cousins did 470km and John Hoyer had two flights of nearly 400km in his Skylark 4, so hopefully this is getting near.

The courses are running well again this year under Glyn Richards and Richard Pitman.

C.B.

LAKES

We are like so many small clubs, in a position of declining prosperity due to fuel crises and economic factors. As a result, our instructor/pupil ratio must now be the highest in the country! We hope to reverse this by local advertising and offering holiday courses using the new Super Cub. The club fleet now comprises eight gliders, two motor gliders and one tug.

What we lack in thermal activity is more than compensated by the wave generating properties of our environment

and several good climbs have been made. Ray Jackson went to 12000ft, Ian Ronald, our Vice-Chairman, completed his Gold badge with a climb to 13200 and Roger Bull achieved 16500ft.

Our visit to the Hereford Club over Whitsun was the most successful expedition in recent years. Eighteen members flew a total of 140hrs and 1500km in six aircraft. Silver badges were completed by Roy Partington, Ray Jackson, Arthur Alsford and a duration by John French.

The outstanding flights of the week were by Roger Bull with a Diamond claim for his 314km out-and-return and by Peter Redshaw who flew a total of 330km on the same day in a vintage Oly, remaining airborne for nearly ten hours.

D.J.C.

LONDON

May must surely go down as a vintage month. The longest flight has been achieved by John Cardiff, who completed a 500km triangle in a Std Libelle. Next on the list is John Jeffries, who successively raised the records for two-seaters for the 100, 300 and 400km triangles in the Calif. A considerable number of 300km triangles have been done, excluding those during the Nationals. Geoff Love has gained his Silver C, and missed out on a 300km triangle by a mere 11km, this in a Club K-8.

Speaking from the contestants' viewpoint, the Nationals were a great success, many pilots completing every task—thereby saving a great deal of expense on fuel. The "Lead Sled" Wednesday will be remembered for many years to come. Carr Withall and Geoffrey Stephenson, to mention but two of our organisers, are to be commended for their time and effort towards the smooth running of the competitions.

Our Rallye Minerva had its final fling during the Nationals, and has been sold to an Irish Club where its noise will be compatible with the local traffic—apparently a helicopter squadron! At present we have no plans to replace it, relying on the Commodore and two hired aircraft to keep things moving.

Some old faces have reappeared at the club recently. Martin Simons is on a

short visit from Australia and learning how to hill soar again. Chuck Benton has been over from Germany, while the Ruffett family may well be rejoining us after an absence of many years.

After considerable delays, the workshop extension has sprouted upwards, assembled by Tony Letts and gang. This will become a much needed spray booth, allowing much more room in the main workshop for glider assembly and repairs. It will also appease the local fire officer!

David Toulson was unfortunate to suffer a severe shake-up, flying the IS-29D, as a result of stalling at 40ft. The aircraft was substantially damaged, but David was declared to be in one piece by the hospital.

The death of Ray Stafford Allen is a severe blow to our club, and gliding as a whole. We will miss Ray and his Capstan, and all the helpful advice he has given in the technical field for many years. We have a new club trophy in mind to commemorate his work for the club. To his relatives we offer our sincere condolences.

M.P.G.

MIDLAND

The season so far has seen much more cross-country flying than in recent years. Furthest was Don Brown (Dart 17) with 408km of a 500km attempt on May 14. Mike Horan (Skylark 4) declared the same task on the same day and finished one thermal short of Don. Among those attempting more modest tasks, Pam Roberts (K-6E) completed her Silver later in May with a flight to Nympsfield in difficult conditions.

We enjoyed having the Vintage Club with us over the Spring Bank Holiday. Sharing thermals with Minimoa, Kite and Sky was a new experience for most of us—and pure nostalgia for a few.

A new syndicate has formed and brought in a very well kept Swallow. It's nice to have a Swallow on the site again.

With the kitchen complete and operational since the courses began, a new lecture/briefing room—strategically placed between club-house and hangar—is being fitted out, and the old lecture room is being converted into additional sleeping accommodation.

W.J.T.

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TRAILERS

NEWCASTLE & TEESSIDE

For those yet to visit us, we fly from Carlton Bank, off the A172 and 15 miles south of Middlesbrough. Our site, 1200ft/asl, is on the north scarp of the north Yorkshire Moors with excellent ridges facing NW, N and NE. This part of the Moor is rugged and gives a plentiful source of thermals.

We continue to improve the site and the next project is a new NE-SW runway to allow greater use of our Auster tug. The number of privately owned gliders has grown and now includes a Tutor, Olympia, Bergfalke, Skylark and Cobra in addition to the club K-13 and Olympia 2B.

Our May and June flying weeks were a great success — Alan Spellman and John Stout both completed two Silver C legs and John Cundall did his five hours. We are holding another flying week from August 31 to September 8 and visitors are most welcome then or any other weekend. Our telephone number is Wainstones 434.

Barry Brighton, Chairman for many years, has resigned. We greatly appreciate all he has done for the club and welcome Colin Richardson in his place.

R.P.

NORFOLK

We had a very successful task week in early May which resulted in 1500km flown in four soaring days. A realistic handicap was applied to the aircraft in order to produce a winning glider rather than pilot.

Contestants ranged from Alf Warming's Kestrel to the club Swallow — the K-6 being the eventual winner, although the cup was presented to Graham Cogman for the most meritorious flight. There's nothing like the spice of competition to get everyone in the right frame of mind to leave the airfield and have a go—with six Silver legs into the bargain.

Open Day is on September 15 with the accent on gliding and light aviation. The Senior National Coach, Bill Scull, paid us a short visit and checked out D. Page and C. Hall for SLMGPPLs.



Bill Scull at the Norfolk Club.

We end with a tale of woe: having gained Silver distance and duration, Richard Watson carefully parked the Skylark with the parachute on the wing tip and went to phone Tibenham. During his absence the 'chute was stolen. So if anyone tries to sell you an Irvin Type EB62 (Glider) No. A449934 in white nylon, please make an offer and then send a policeman to collect it.

C.E.H.

OUSE

In the April issue we reported a flight to over 13000ft from a winch launch in wave from the Pennines. Now we are experiencing wave over the site from the north Yorkshire Moors to the east. On Easter Monday just about everything was soaring at above 7000ft with several members in excess of 10000ft on the Spring Bank Holiday Monday, this time in the Pennine wave.

The evening flying season is getting under way with practically all available evenings fully booked.

G.M.

OXFORD

Silver C fever has been rampant and already Richard Cowderoy, Richard Hall and Steve Evans have been successful. Bill Helfrecht, newly converted to the Skylark 3, showed his liking for the aircraft by having two attempts at five hours in two days, clocking up nine hours of flying.

Midweek flying has happily become more practical. Two attempts at 500km have been tried by Mike Randle and Dave Lidbury, both midweek and both in Phoebus 666. Deteriorating conditions on May 30 cut Mike short, while very rough thermals took a sickening toll of Dave. They both returned to base after about 300km.

The new club Pirat is proving a popular soaring machine and the new syndicate Olympia has made its appearance.

SCOTTISH GLIDING UNION

After a spell of easterlies during spring, the return of westerly winds has brought good hill, wave and thermal flying conditions to Portmoak. On May 29, Tom Docherty flew his Kestrel 19 more than 400km to Husbands Bosworth, with clearance from Turnhouse controllers on 130.4MHz while passing Edinburgh.

Two recent wave climbs have reached 20000ft, one being by Chairman Frank Reilly in his SHK to complete his three Diamonds. This latter flight was made during the club task week in June, on a cat's cradle task flown almost entirely in wave. The principal difficulty reported by competitors on this task was the necessity to keep descending below the lenticular bases to take turning point photographs.

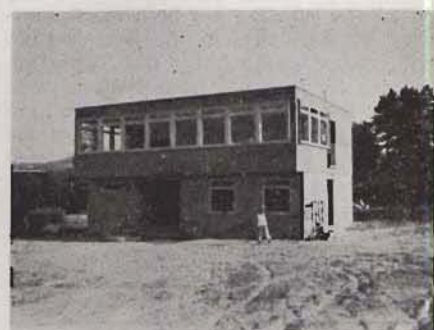
The club has now taken delivery of its second Pirat, and is shortly expecting delivery of a Bocian. Visitors will no doubt be happy to learn that the bridge and entrance to the club has now been widened and paved with concrete, thanks to much hard work by Jimmy Rae.

R.A.W.

SOUTHDOWN

We will be flying for the last time at Firlie on the weekend of June 15/16 and are sad to say goodbye to a beautiful and challenging site. We are moving to our new clubhouse at Parham during the

month and hope to be fully operational on the last weekend.



Southdown's new clubhouse.

The clubhouse looks good and although we have delayed the building of the bunkhouse section due to financial reasons, we are hoping members will be able to make a start on it soon. Meanwhile, after all that space we had at Firlie, we will have to practise field landings before the CFI lets us loose on the single-seaters.

Many thanks for much hard work to Madge Dugdale, our retiring Secretary, and Hilda Woolnough, Memberships' Secretary for 12 years, who are being replaced by Margaret Norton and Derek Eastell. The Committee is glad to welcome Gordon Newberry, clubhouse and fund raising Chairman.

Our thanks also to Jeff Creffield who generously loaned us the K-13 for several years. We now have a Blanik on its way.

Our two young members who went solo early this year have both converted to the Swallow; and congratulations to Ruth Newman whose persistence paid off when she went solo on the Easter course.

S.E.

STAFFORDSHIRE

A great deal of hard work is being put into the club this year. The powerful new winch is nearing completion under the direction of Alan Cliffe and Len Kirkham, while Bob Wilshaw and Frank Davies have been finishing our smart new clubroom. Laurie Birch and Frank Hemmings have been running Tuesday evening flying which has proved both popular and lucrative. Sundry members put their backs into improving our east wind run and in no time at all we had levelled a wall and ditch, mown a landing strip and filled the worst of the indentations.

By the beginning of June we had equalled last year's total of launches and the launch rate is steadily improving. Soaring has been rather elusive during the first half of the year although Frank Hemmings took the Skylark 4 for a 2½hr tour of the district. Throughout one day we had the frustrating experience of seeing the cumulus dissipate as soon as they reached Morridge; a phenomenon which hasn't been fully explained.

New members are keeping our hard working instructors busy and our CFI, Arthur Lowens, is planning to run a club course week at the end of July.

F.B.

SURREY & HANTS

As detailed elsewhere in this issue, this season will take a lot of beating for cross-country enthusiasm and badge success. After an indifferent early spring, the first serious attacks on 300km goal flights came on April 30.

Among many goal declarations thereafter, Messrs Fox, Partington, Fryer, Rodger, Norrie and Saunders have gained Gold distance or Diamond goal legs. Gerry Paddick, Tony Burton and Guy Butler Madden have now passed the 500km mark. Alan Purnell has the out-and-return record with 540km and Hugh Hilditch achieved the "improbable" (mentioned last issue) 600km triangle.

The Silver merchants are out in force as well, Charmian Middleton and Charles d'Arcy flying back to Lasham from South Marston one weekend after two others had flown there earlier in the day. A "without barographs" fumble meant that they had to do it again the next weekend — and they did. By June 4, club gliders had flown more than 25000km.

By the time this is printed we hope to have succeeded on our Great Maxi Glide Project to make more than 600 launches on June 22, exploiting all our facilities to the greatest extent between 04:12 and 21:50hrs.

C.L.

SWINDON

Our CFI, Ray Nicholas, scraped home after eight hours in the Phoebus on May 7 to complete 500km. A Gold distance attempt to Land's End by Dave Scholfield on Easter Sunday in the club Skylark 4 fell short at Launceston.

Anne Bradley, Steve Huband, Philip Turner and Dennis Badham have gone solo, Pete Higgs and John Baxter have their Bronze Cs and Eddie Fogglin achieved Silver height on May 7.

Since last appearing in these columns we have boosted the club fleet with a Skylark 3F from Keevil. Also certain of our members have developed a fetish about antiques — the Tutor has been dragged from the back of the hangar and given a C of A and Tony Bullock has flown his K-4 for five hours on Inkpen ridge.

The highlight of our social year was surely the dinner-dance. As a final point, visitors to South Marston are asked to note that we are now restricted to the use of runways only, so please keep off the grass.

J.R.B.

TRENT VALLEY

Congratulations to Graham Wilson and John Swannack on gaining their full category rating. John Rice, on his second cross-country, flew his Pirat from Doncaster via Sutton Bank to Dishforth. Georgina Sewart has completed her Silver C and Brian Fowlkes and David Bensted their Bronze Cs.

It is heartening to see so many new faces around the airfield and our T-21 is hard-pressed to cope with the before 9am arrivals. Vin Fillingham, our CFI, has been comparing launch rate figures with last year and we are showing a decided improvement.

P.F.S.

ULSTER & SHORTS

The club's best-ever cross-country day came on April 27 when Jeremy Bryson flew Ireland's first 300km triangle in the Kestrel at 64km/h, turning at Magilligan and St Angelo to land back at Newtownards. Jim Weston, in a Skylark 2, did well to fly two legs of the same triangle.

Wally Galloway, K-6E, also landed at

St Angelo, to give a day's total of well over 600km. A few days later Alan Sands tried a 300km triangle in the Kestrel, but came to earth after 160km in the wilds of Tyrone.

With the newly acquired Capstan supplementing the Blanik, mutual soaring and family flying now feature more prominently than before. But May and early June weather was not propitious for cross-countries and the provincial general strike in May lost us one whole weekend.

We soon hope to have arranged the periodic use of a stretch of the old Limavady airfield, which is ideally situated with regard to Binevenagh without the summer hazards of Magilligan beach. Approaches to the relevant Ministry have been sympathetically received and in anticipation of this and other safaris, an old open trailer has been rebuilt and fitted for the Blanik so the whole fleet is now roadable.

R.R.R.

WYCOMBE AIR PARK

Our CFI, Chris Rollings, has been working hard at gliding. He started with a two-seater 100km goal flight on May 10 at 122.0km/h; he came seventh in the Open Class at the Nationals and on June 4 completed a 500km flight in the K-6E.

Two of our other pilots, Steve White and Richard Aldous, did well in the Nationals. On the same day Chris did his two-seater goal flight, John Ellis attempted the single-seater 100km goal flight. Although his time was faster than the current record (held by another of our pilots, Justin Wills), the margin wasn't sufficient to claim the record.

J.M.C.W.

YORKSHIRE

The season has started well for us with more kilometres flown by the first week in June than ever before. The potential for cross-country flights in wave is being realised regularly with many flights in excess of 200km.

Geoff Crawshaw became our first pilot to achieve a Diamond goal flight entirely in wave. We wonder who will be the first to break the 500km barrier. There have been numerous gains of height of over 10000ft with Fred Knipe leading the way with a gain of almost 20000ft.

Thermal conditions have also been very good at times with Diamond goals for Mike Carter and Alan Kenworthy during the last week of May. Pilots who have completed their Bronze and Silver legs are too numerous to mention.

Although conditions in Yorkshire are rarely suitable for really high speed cross-countries, we believe that there are many attractions in flying from Sutton Bank — unrestricted airspace, good visibility and frequent safe wave conditions. We hope visiting pilots will endorse this view following the Northern Competitions we are organising in August. We have a full entry list and are hoping for an excellent week.

P.L.

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SERVICE NEWS

ANGLIA GSA (RAF Wattisham)

We are still recovering from the loss of some half-dozen experienced and enthusiastic members. Of these, three have gone for officer training (Del Foyle, Dave King and Gordon Forsythe) and now Dave Sillett, an Instructor and BGA Inspector, has been posted. He will be difficult to replace as a person and hard-working inspector.

Dick Cole, who did so well in the Nationals in his K-6E, winning the Schleicher and Centenary trophies, remains our CFI, whilst Philip Howdego, in the same glider, completed his Gold with two Diamonds in the Inter-Services Competitions.

To replace our instructor losses, Chris Heames, Roger Gobal and Russell Richards are at Bicester on their instructor courses. Our fleet now consists of a T-21, Blanik, K-6CR, K-8 and syndicate K-6E and Sky. Good news too for DCFI Eric Richards and his son Russell. They have bought a Std Cirrus which should arrive this weekend. In addition to winch launches, we sometimes have the opportunity of aerotows by using a privately owned Tiger Moth.

E.R.

BICESTER (RAF GSA Centre)

Cross-country distances so far have been well above the early season average of previous years with Pete Goozee, "Chalky" White and Dave Catt all completing Gold tasks. Frank Burgess had a go at a 500km triangle on June 4 and managed to cover 380km. Five hour durations have been done by Angela Lee, Bill Tootell, Vic Dawson and Bob Lucy, the latter completing his Silver C.

Our pilots in the Inter-Services Regionals did well, Simon Field was fifth in the Open, Terry Cawthorne second in the Sports, and Eddie Edmonds fourth in the Club Class. In the Nationals John Glossop finished sixth in the Open and Andy Gough ninth in the Standard Class.

A very successful barbecue was held on June 8 to mark the departure of two of our American members, Bill Galt and Dave Martin. Bill has been associated with us for many years and it was through his enthusiasm and dedication to the sport that many of his colleagues at Alconbury have been introduced to gliding. Dave Martin also has done much to further gliding at Upper Heyford.

A.E.B.

CRANWELL (RAFGSA)

As well as a spate of first solos, Bronze and Silver legs during May, Max Bishop completed his Gold at the Inter-Services

Comps and this scribe managed to peak just before the bad weather set in. While we were away, Richard Millington, our ATC mascot, went solo on his 16th birthday.

Our Deputy Chairman, John Delafield, has left to join the pundits at Bicester. John must take much of the credit for our reorganisation and emergence as a successful RAFGSA club. Max has also left us on marriage and posting to Germany. Like John, he will be difficult to replace and we wish them both every success in the future.

S.T.E.W.

CRUSADERS (Cyprus)

May 11 has been the best day this year with Ken Jones (14200ft) and Mike Pobjoy (12100ft) gaining Gold C heights and, with most pilots finding 15-20kts, a large number of Silver C and Bronze duration flights were achieved. And a recent soaring fortnight gave new solo pilots a lot of useful experience.

Now that summer has arrived, most of the best soaring is over the Central Plain and the first "dust devils" have been sighted. The Swallow has had a major overhaul and respray and the Oly 2B now goes off for the same treatment.

We used the Swallow in a static display and CFI Bill Dickson gave a flying display in the Falke to try and entice new membership. Congratulations to Pablo O'Kerwin and Ralph Gwatkin who have returned from a successful instructors' course at Bicester. Maybe we will get our second T-21 back on the line.

We lose five good members this month; Colin Pinnell, an excellent Chairman for three years, Sue Carr, John Osborne, Mark Boyle and Brian Logan.

B.W.

EAGLE (Detmold)

The club worked feverishly during the last weekend of May to set-up a self-contained camp on the airfield for the British Forces Germany Gliding Championships, held from June 1-9. But the weather was disappointing with cold, wet and windy conditions preventing flying on five of the nine contest days.

The Competition Director was Peter Williams, our Chairman, and the Championships were officially opened by Major Wally Lombard, Deputy Chairman of the RAFGGA. Thirteen gliders were entered in the main class which was won by club members Alan Sommerville and Martin Hardy (Phoebus C) with Peter Young (K-6CR) from Two Rivers in second place.

P.W.

FENLAND (RAF Marham)

May has been good with 11 Silver and eight Bronze legs. We were also able to send five Americans on their first solos, including two wives. Our friends from the USAF bases at Lakenheath and Milden-

hall now account for some 40% of our 92 flying membership.

With such a thriving membership we are now feeling the pinch, only having three solo club aircraft — the Prefect, K-8 and K-6. However, we have no intention of turning away new members.

Worthy of mention is 17 year-old Carol Whitworth, who actually did all three legs of her Silver C in one flight in an Oly 2B from Marham to Wattisham.

D.W.

PHOENIX (RAF Brüggen)

Club activities at Brüggen are almost at a standstill. The RAF GGA competitions are under way and there has been a mass exodus of members and gliders to Detmold to compete.

Through the past months our proposed new glider has taken on many shapes and forms. It finally arrived and revealed itself as a Std Libelle; two weeks before the competitions were to take place.

All our gliders are on-line, which is something of a record and much credit must be given to Tony North-Graves (aircraft member) who has worked for

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many hours. He has been ably assisted by Robbie House and Ray Brownrigg, Steve Stephenson, Mike Simmonds, Nigel Sherwood and others giving very welcome help.

Our MT side is also functioning well under the new management of Terry Honeyball with a great deal of work being accomplished by the usual people. The bar is still providing a good social scene on Wednesday evenings.

During the last two months statistics are up to scratch. Nearly 300 flying hours gave us eight new solo pilots and a vast collection of Bronze and Silver legs. Congratulations are due to them and also to Spud and Pat Warne on gaining Silver Cs.

As a final word we would like to congratulate an ex-member, Frank Wilson, who came first in the Sport Class of the Inter-service Championships. Frank, who was posted back to UK last year, was a raw recruit when he joined Phoenix so we feel we've a share in that win!

A.P.M.

WREKIN (RAF Cosford)

Cross-country flying has been stimulated by Benny Goodman offering a £10 prize for the first 300km from the club. Garry Moore's best effort brought him 25km short of the site, but the award for the most persistent must go to Benny Goodman who has had four attempts in the last month for his own prize.

In June the T-21 had its 5000th launch of 1974 and several Silver and Bronze legs have been gained. Graham Heady, Mike Boyden, Pip Barley and Andy Bould have completed their Silver Cs, with legs gained by David Butt and Paul Gillham. Peter Hillier, John Saunders and David Cottle have their Bronze Cs and John Richardson a Bronze leg.

The Bocian, with Benny Goodman and Jenny Saunders, created a new club record of 11000ft by soaring our local ridge. On the same day "Tug" Wilson just missed Gold height in the K-6E.

We are now flying during the week and on Midsummer's Day we hope to continue from dawn to dusk.

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