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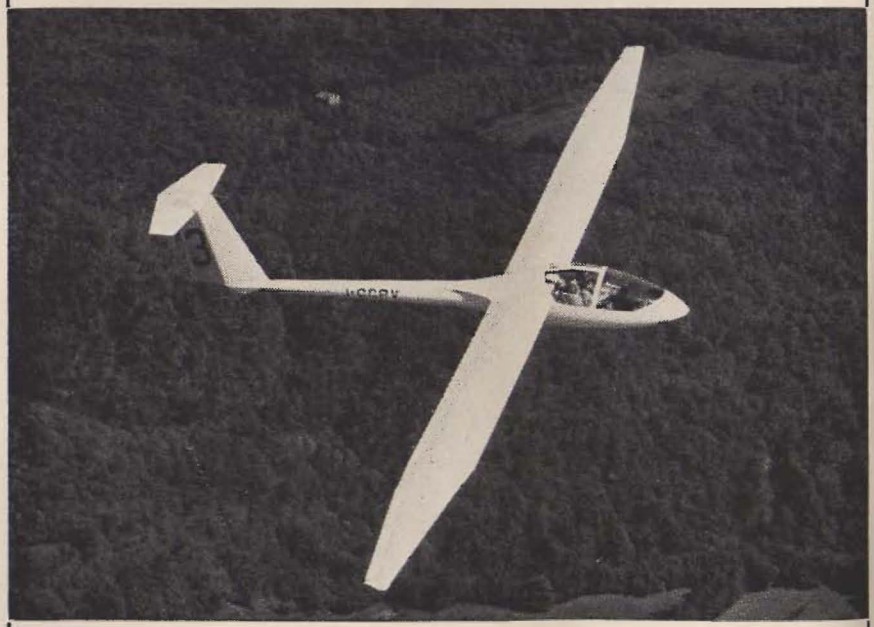
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Ralph's Grand Slam

By GILLIAN BRYCE-SMITH



ONE name dominates the competition results this year, Ralph Jones, the Nimbus 2 pilot who has bagged three Regionals, come first in the Sports Class of the Sport/Club Class Nationals and is now the Open Class National Champion.

I interviewed him at the start of the Nationals and *The Daily Telegraph* Euroglide Contest at Lasham in August. Even on that day in hazy conditions he completed a 132km out-and-return to share first place with John Delafield.

Ralph, a member of the Inkpen Club with a business based on gliding—Southern Sailplanes—willingly devotes every other year to concentrated competition flying. This year, it seems, he and his Nimbus have hit peak form at just the right moment.

After the Husbands Bosworth success, he went on to win at the Wycombe, Dorset and Western Regionals.

He came to gliding via the Army in 1959. Ralph had never lost his schoolboy enthusiasm for aeroplanes and finding the RAFGSA Wessex Club was down the road from where he was stationed, he joined, initially settling for gliding as it was cheaper than power flying.

His first competition came in 1963 and he has been flying competitively ever since. And, in his opinion, this is the only way to fly.

"Everyone's entitled to their own method of enjoying the sport, but for me competitive gliding is the ultimate. It doesn't matter what the prize might be, it's the actual thrill of trying to fly better than other people I enjoy. In fact," he admitted, "I never go into the air unless it's to do a cross-country."

And this year he has added further to his achievements with a 500km triangle.

Ralph, who is a glider repairer and sole UK agent for Schempp-Hirth sailplanes, is enthusiastic about his Nimbus —"easy to fly, able to carry a lot of ballast"—though it has been a struggle to get it into condition for this year's season.

He bought it in January 1972 in an unfinished state, loaned it to a pilot for the World Championships where it was badly damaged and had to be rebuilt last winter before Ralph took it over as his machine.

It has been a steady progression up the ladder, starting with a syndicate Olympia, not forgetting the brief flirtation with a Skylark 3F.

Ralph, as pilots who have competed against him know, takes all aspects of his gliding seriously. So seriously, he felt it ludicrous to strap on a parachute flight after flight without the slightest practical knowledge of how it should be used. So he made a parachute jump to satisfy himself that at least if an emergency came, he would be able to cope.

The emergency came just three months later. Ralph was in a mid-air collision with an Olympia and had to bale out. Thanks to that previous jump, he found it possible to judge the situation calmly and made a safe landing. The Olympia pilot was able to get his glider down without personal injury.

Ralph, who was at the Nationals with his wife and three young sons, says he has one main ambition in the gliding world—to be a member of the British Team.

FORESEEING A COLLISION

The last of a series of articles written by ANN WELCH for the less experienced pilot.

THERE are two sorts of collision. Those in which you haven't seen the other aircraft until too late, and those in which you have seen it in time but still run into it.

The first results from failure of your eyes and your imagination, and the second from insufficient skill and imagination. By imagination I mean appreciating that for *you* a collision can happen at any time. You need to visualise—imagine—situations which could end in collision.

Collisions have occurred, several times, between two aircraft—the only two—that have taken-off or been launched from the same airfield within a short time of each other. Collisions have also occurred, several times, between an aircraft having right of way and seeing the other, because the pilot assumed that the other (a) had seen him and (b) would alter course.

But it takes ten seconds for a pilot's eyes to sort out pre-collision information (see, identify, and initiate action) and ten seconds may be too long when you finally accept that the other aircraft is not going to alter course for the simple reason that its pilot is quite oblivious of your presence.

Keep Looking

If you do not see other aircraft you should be looking for them, and if you do see them, you should assume that they haven't seen you until by appropriate action they *prove* otherwise.

Gliders are much better than many aeroplanes in giving their pilots the chance to see. This is, of course, essential with so much time occupied with unplanned formation flying in thermals, by pilots whose skill, even identity, may not be known to each other. But a crowded thermal, although giving the appearance of high risk, is, certainly statistically, surprisingly safe because the danger is obvious.

A constant searching lookout is kept for anyone getting too close. Maybe even the animal critical distance instinct is at work so you can feel when you are being crept up on. But concern in a thermal must not be only for yourself—seeing that no one runs into you—because you can fly perfectly safely and yet worry another pilot enough to cause him to fly less well.

Can He See You?

How? By sitting in his blind spot below and behind. You are fine, you can see his every twitch, but he does not know where the hell you are, what you are going to do next, or maybe even who you are (fig 1). So get on the opposite

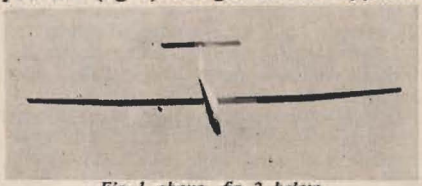


Fig 1 above, fig 2 below

side of the circle of any glider at your height so you can both see each other.

Gliders can run into more than another glider. There is quite a list, headed by the club tug whose pilot cannot see out as well as you, and does not have all that freedom to manoeuvre either (fig 2).



There is the visiting pilot who does not know the local conventions, or the lost or zombie pilot flying straight across the airfield quite unaware; there are hot air balloons fastened to their invisible winch lines, and even parachutists, intentional or otherwise. 2,000ft TV masts could be included as a bonus. So never think it is only an expensive heap of glass-fibre that can get you.

Over a period of four years, the 105 collisions that took place in the States showed that the vast majority, 68%, were convergence overtaking, 28% were from

directly behind and 4% from head-on. Pilot experience ranged from first solo to 15,000hrs. In the majority of these cases, one or both pilots had completely failed to see the other in time, or at all.

Since a high proportion of our total information intake—some estimate 80% —is via our eyes, we should understand the limitations of this excellent tool. For a start its quality can be highly variable being affected by dust, glare, age, tiredness, emotion, optical illusions and hangovers. It can be further distorted by ill-shaped or dirty windscreens, shimmering heat, and approaching darkness.

If this is not enough the eye has to deal with the mechanical problem of focusing, and it takes one to three seconds to fully accommodate the switch from a dark instrument panel to the bright blue yonder, or *vice versa*. In hazy glare with little or nothing to focus on at infinity, our eyes become confused, do nothing and see nothing. This state has the name of "empty field myopia".

Our eyes have a further shortcoming which is that although things can be seen through the very wide angle of nearly 200° (peripheral vision), they only actually focus and concentrate on objects in a 10-15° angle. This little problem is easily and normally overcome by continuous scanning movements. If it is not, and the eyes are aimed steadily ahead, the peripheral vision will see an aircraft —out of the corner of our eye—but does not supply the brain with info on its progress. This is why, quite often, an observed aircraft seems to arrive very suddenly too close for comfort, when at last we switch our focusing beam on to it.

Learning how to scan effectively is not very difficult, but remembering to do it often enough takes concentration and practice. Obviously the first essential is to know what to look for—how aircraft actually look in the sky, and when they become difficult to see at all, such as under cloud when you have the sun in your eyes, or against the cluttered background of a town; remember that helicopters and some aeroplanes have a rapid height gain capability.

At all times when flying you should scan the whole visible sky with a routine frequency and pattern—forwards, away to the left, up over the top, away to the right, and return to the front or any other comprehensive pattern that suits you. And with each 10-15° change of direction of your eyes you should pause enough to ensure that you are deliberately focusing on any possible source of other aircraft.

If you do not do this it is very easy to miss something. Before turning, and certainly before any sudden manoeuvres, an additional and focused search should be made in the appropriate direction. Scanning tests on pilots with a wide experience range show that it takes 15-25 seconds to do a single, thorough, scan.

On coming into the circuit knowing where to look for camouflaged gliders is essential, especially at a busy gliding site where landing patterns have an inherent individuality. Obviously you carry out the basics of checking on the wind, winch, and aerotow progress, followed by a search for other aircraft on normal approach. But also look for gliders on non-standard approaches—because if in any sort of difficulty their pilots will not be looking out for you.

In any collision situation the aspect that rapidly becomes of least importance is whose fault it is, or was—particularly if the other pilot has a go at your tail low down. So look for the glider that has just been launched, in case it has had a cable break and is now turning in underneath or even in front of you; and study the undershoot for the one that got too far down wind and is using up his entire stock of willpower to make the boundary fence, and is at this moment incapable of seeing anything else.

If you see an aircraft shadow on the ground and it is in a spot of bright light, it's you. If there is no bright spot it is someone else; look for him.

Since constant vigilance in collision avoidance is something that needs to become very deep rooted and instinctive, it is worth putting some method into lookout; as with the pre-flight cockpit check.

● Item 1. This process takes place far from the airfield. Whether you have a PPL or not make sure, yourself, that your eyes are good enough even when you are tired.

● Item 2. Before take-off see that the windscreen is clean. If not, clean it: head-on aircraft half a mile away can be covered by one squashed insect: a dirty windscreen into sun and you quadruple your chance of a big bang. Airborne, get to know your aircraft's blind spots. It is

also worth having a ride in the club tug to see where its pilot is blind; in turns on a high wing tug you will be appalled.

● Item 3. Plan. On any soaring flight there is a lot to do, and the more there is the less time that is available for each job—navigation, flying, checking on fields, lookout—so fold your map before take-off and keep sandwiches and cameras to hand, because if you spend in-flight time fumbling with these it will inevitably be at the price of look-out.

● Item 4. Scan. In flight, work to a routine scan pattern, and particularly in hazy weather, or in contrasty cloud shadow areas, keep moving your head and your eyes. Check that you are positively focusing and not just staring into some indeterminate middle distance. When you see an aircraft which could be a threat at least to your peace of mind, keep track of it. If you see one converging and it maintains a constant bearing from you, eg, keeping station with your clear vision panel it *is* on a collision course. *Do something*; if you are not sure what to do make yourself scarce and learn the rules of the air (fig 3).

Obviously, the first essential of collision avoidance is to *see* the other aircraft in plenty of time, but this is certainly not all. The fact that you have counted all three gliders in the circuit does not help anyone if you turn across their bows and plonk down in the middle of the landing area. Collisions (and other accidents) are avoided by considerate flying, by anticipating the activity in the circuit or in a thermal, other gliders contain pilots who also have problems.

Even if you possess only 3hrs on K-8s, the £6,000 worth of glass-fibre that looms large may well contain a pilot who does not have the situation completely in hand; with his fingers playing a mazurka on the flap taps, his mind may be far away. When you first enter the circuit plan your pattern *early* with others in mind to avoid crowding on finals. Land leaving room for those following, and then keep straight. When you enter a thermal give others a chance to see you, and keep it that way.

Our gliding type air is not the crowded sky that the press would sometimes have us believe; much of it is very empty. With a little of the simple virtues of anticipation, observation, and consideration, collisions become an exceptional rarity: though never forget that collisions do not seem to be as subject to the Laws of Probability as to Sod's Law—and no more than two need play.

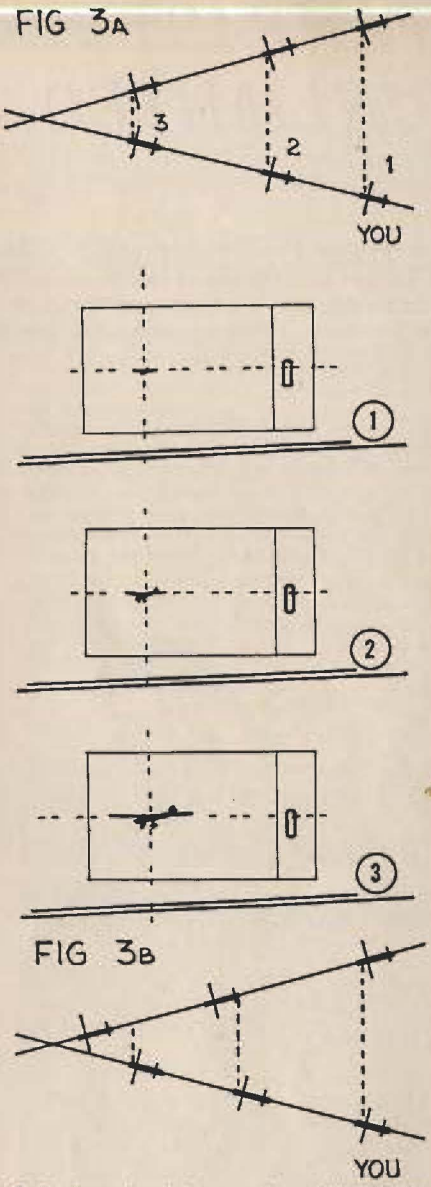


fig 3a: if an aircraft is converging and it maintains its position in relation to, say, your clear vision panel, you will collide. Do something.
fig 3b: the aircraft will pass ahead of you, help by passing astern of him in good time.

FANTASY UNLIMITED

A MIDSUMMER DAY'S DREAM

R.P. Saundby

IT was on a mid summer day in 1973, my partner was flying our syndicate Cirrus and the peace of an English summer afternoon was mine. Lying in the grass among the dandelions and daisies my ears were disturbed only by the buzzing of pollen gathering bees and the periodic



stutter of a gypsy engine as yet another glider was launched to spiral his way to those matronly cumulus sedately sailing across the sky. I realised later that I must have slipped into sleep but, like hypoxia at great altitude, that event could only be postulated in retrospect and not recognised at the time.

* * *

Not remembering the moment of circumstances of falling asleep, when images again began to form in my brain they were as real as those which had gone before. The grass, together with its dandelions and daisies, was indubitably the same, but for the rest, most was different while at the same time being the same. I was at a gliding site, even my own club, yet there in the middle of the landing area was a horse, a large horse being led by a bridle and towing a glider. As I watched it plodded towards the clubhouse, or to where the clubhouse had been, stopped, and the glider was released and the horse, on its own plodded back down the field.

As I pondered a distant whine could be heard from a low building at one end of the strip, at the other end a glider, painted in the most brilliant red, accelerated and rose into the air at the end of a wire, to climb steeply into wind in a manner that I had not seen since our committee had abolished winch launching several years previously. Releasing the wire, which was snatched from whence it came, the glider turned, flew over the houses and soon dipped his wing into a familiar spiral that was to take him climbing into insignificance. The winch hummed again as a second glider rode the wire, this time I noticed his wings were narrow as he came off the wire and darted off.

Where the clubhouse had stood there was a new long low building with a pitched roof of black glass, and I wandered over to the gliders parked in front. These were of two types, mostly single-seaters but several large tadpole like two-seaters, all painted in the same garish red colour. Looking in a cockpit the controls were conventional and the usual loose straps and parachute harness were strewn around, but in place of the instrument panel were a number of ground glass screens, and on the consols and between the blank faces a multitude of switches.

Inside the clubhouse was a notice board. Badly written for sale notices had been scrawled in grease pencil on the plastic board, secondhand gloves, anoraks and boots, even one offering leather boots for £400! No aircraft or instruments for sale but a job with the gliding club was advertised, avionics tech-

nician, grade five on the national scale. At the end of the notice board was a large official printed notice saying *Ethanol Forbidden* and quoting in very



small print all manner of drug laws threatening corrective treatment to anyone who manufactured or drank the stuff. Around the walls hung some old faded pictures, a recognisable Falke, some white coloured gliders and a Piper Pawnee towing a Blanik.

Just then I became conscious of someone looking at me, a middle-aged man dressed in unfamiliar but sensible clothing. On his tunic was a recognisable Gold C badge, although with the three Diamonds on the rim were three blue stones like sapphires and three rubies.

"Are you wanting to join the club?" he asked.

For a moment I was confused. To have said "but I am already a member" was obviously impossible, to say "no" would have gone against my instincts, so I meekly nodded my head.

"I am the CFI," he said. "You will have to fill up an application and get it supported by the usual authorities, trade union, street committee, departments of health, education and social credit. We keep the application books in a case by the door. Did you do any gliding in your youth activities programme?"

"No," I answered truthfully, "but I have read about gliding." And consumed with curiosity I asked "Could I see the gliders?"

"Normally you have to do the Technical College course first but I suppose we could make an exception. Come with me," and he rapidly led the way out of the door, down the steps to one of the two-seaters.

"Jump in," he said. "It's quite strong; and I'll go through our pre-flight checks."

Sitting in the cockpit the controls were familiar enough and I looked at the panel while my new mentor slowly and pedantically checked the flying controls and flaps. After this he flipped a switch labelled "Master" and the panel sprang into life. Pressing a button labelled CG, the figure +5 appeared on a screen. He then pushed a switch forward and the figures flicked downward, +4, +3, +2, +1 0 where it stopped and flashed off.

"What's that?" I asked. "Ballast," he replied, "sensors on undercarriage and tail determine the centre of gravity and we pump glycol from the nose to the tail to sort things out."

After that putting on the straps was rather ordinary but when he came to instruments, more was to follow.

"Full instrumentation is only fitted in two-seaters and Open Class aircraft. Standard Class have a limited fit, the avionics comprise about 80% of the cost of the aircraft, wings can be made in any old composites factory but this panel is only made in one factory in Singapore. The top display is aircraft attitude and direction, director information for a blind



landing is available but is only used in emergency and in a glider you have to be sure that you are on the 6° glidepath.

"The lower main panel is called 'navigational' but it is most often used in the thermal detector mode. Other modes are map display and cloud picture, the nearest weather satellite can give you up to 5,000km radius but we usually use it on the 50km setting. On blue thermal days you can select infra-red scan instead. At the left we have an aircraft energy presentation, kinetic and potential energies with rate of change of energy, essential for any soaring, on the right we have the central warning panel, low battery state, icing, collision, transponder function and undercarriage up below a hundred metres. The attention getters are cancelled when on the ground. The tele-

printer issues Notams, WX and radio sonde reports, but the cockpit tends to fill with paper. Of course, you will have to learn about all these systems at the tech," he said as he closed the canopy and checked the airbrakes.

Struggling for an intelligent question I inquired if a barograph was carried. "My, you have been reading some old books! If someone qualifies for a badge we impound the flight data recorder. Come back to the clubhouse and I'll give you an application book, but when you fill it up make sure that you give your computer access code for this month so that we can get the approvals in real time."

Walking back to the clubhouse, where the car park used to be was a large swimming pool covered by a roof of transparent plastic. It was full of children disporting themselves but the plastic must have contained the shouts and screams. In fact, the silence was almost oppressive, a periodic subdued whine from the winch, a faint whistle from gliders approaching to land, some voices from the clubhouse and that was all.

A new whine caused me to look up and there outside the gate was an electric trolley bus, painted red and just as I remembered from my youth, but not a car, a motor cycle or an aeroplane to be heard. I looked up at the control tower on the roof of the clubhouse and there was a big display in neon lights, an electronic presentation ever changing at its distal end, 2073-06-21-1430-39, as the seconds flicked through from 39 to 59, and then 1430 to 1431. The significance of the first figure burst into my mind but at that instant a severe pain struck me in my side.



* * *

"About bloody time," a coarse voice said, and as I looked up from lying in the grass there was my syndicate partner with his foot poised for another kick, a rough fellow with whom I was forced by financial necessity to share my beloved maid of the skies. "Varios on the blink again and I can't hear a damn thing on the radio, can you fix?"

GLIDING 2001—A Dream or Reality?

By MIKE GARROD

"BELGRADE glider one five one Super Sigma, flight level one three zero, speed two two five knots, ETA eighteen hundred hours. Request joining instructions."

"Roger one five one. Maintain present heading and start—yawn—behind Pan Am Boeing 767—yawn—!"

Good grief, I've been dreaming again. Rub eyes, yawn again and stare through bleary eyes at the ceiling. Gradually the white tiles come into focus. Gliding world tour my foot. Idiotic dream. Nice thought though. Can't see that coming off after what I heard on that programme; experts say oil will have run out by 1995.

Seems reasonable judging by the rate we pour the stuff into petrol tanks, can't last for ever. Third London airport, ridiculous, won't be enough fuel to go round when the place opens—idiots!

I blink, and focus again on the ceiling tiles. When it runs out there'll only be electricity to keep things going—generated by what? Coal won't run out for ages. Solar power—not enough of that here! Atomic power? Water power?—not enough mountains!—Swiss have it made! The windmill will be back, one of these days! Only thing to make aircraft move is hydrogen—doubt if they could produce enough of it to keep all those airliners going.

The tiles dim. Wonder what it'll be like in 2001? Gliding, I mean. When oil runs out.

"A fine day, but with some showers

this afternoon. It will continue very warm. And that's the end of the weather forecast." Sounds okay for gliding, let's go!

Get in my car, not forgetting to remove the charging lead, and drive out on the main road. Throw a switch, mains power takes over, and the miles are soon going by under the thrust of the linear motor. Soon I'm climbing the hill to the club with battery power.

Sky looks all right, no wind, so no good for a bungey launch. Not enough money for a rocket today, so it's the electric winch.

Up we go at 35kts. Smoothly up to 1,500ft, nose down, release. Round and round, up and up. Five thousand feet over Bovington the cloud closes in. The artificial horizon is humming merrily—7,000ft—out we go!

The sky is dazzling. The horizon is masked by a thick haze layer mixed with cumulus clouds. To the north-east a dark plume of cloud, that'll be the new power station at Luton by the railway line. Cumulus looks good down south, always better over London, so that's where I'll go. Less chance of a long retrieve if I land out—good roads—bloke got caught in a downdraught last week in the Highlands—hasn't got the glider back yet! Lower the nose, watch the speed increase, and raise the huge flaps to minus two setting.

At 180kts—the ground moves fast underneath. There are other gliders flying now, heard number four a few minutes ago in cloud over Reading and there's one o eight, struggling low over Birmingham. Says he's gasping for a pint! Grab my water container, take a swig—yee-uk! Distilled water, no body to it!

Over central London

Bank over central London—head west—there's the old airfield at Heathrow coming up underneath. Bank over, spot the control tower, and for a split second a voice seems to say "Glider one five one head three six zero and land at the first opportunity!"—but the radio is silent, apart from the hushed rush outside.

Yes indeed—silence! No more thunderous roar of jet engines—the residents of Ealing sleep peacefully in their beds now. Those runways are covered in tens of thousands of derelict cars, lorries, buses and motor bikes—707's and 747's piled high on each other—soon they'll be saucepans. No more airways, no more traffic zones, raise salutory digit at imaginary controller, who has found growing tomatoes a much more profitable occupation.

A roar makes me look up. A rocket aircraft—that'll be the R.A.F.—one of those swept wing jobs. He'll sweep them forward and extend them when his fuel runs out in a minute or so and glide back to his base in East Anglia. Just another glider really, why should I worry?

There's Lasham, think I'll drop in. "Lasham one five one. Request joining instructions, over."

"Roger one five one—hold—you are second in line behind Spanair two seven six. Over."

Spanair? Spanair *TWO SEVEN SIX?* A chill runs down my spine, my hair seems to stand on end, not a Glider Liner? Hell, this is a nightmare! They're at it again!—wake up! Wake up!

My eyes open again, and refocus once more on the tiles. Crikey! What's the time? Eight o'clock! I'll be late for work! Where did I leave those socks?

SPEEDWELL SAILPLANES

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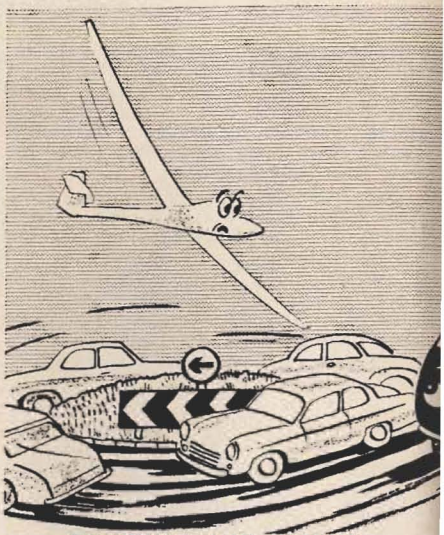
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HOW LOW CAN YOU GET?

He told me about it the day after it happened. We were having a club Task week at Tibenham, home of the Norfolk Gliding Club, and Wednesday's target had been Hawarden via Husbands Bosworth. George—in one of those lovely Libelles—was half-way there before conditions became difficult. Eventually he had to resort to what is known in the trade as "scratching" low circling in any scrap of lift. There seemed to be just one place supplying the only available lift—immediately above a roundabout. He joined the cars in desperate circuits—still managing to stay in the air. Sooner or later it had to happen: a double-decker arrived on the scene but it didn't give way to traffic approaching from the right. . . . he said he slept better the next night—and did not dream at all.



DRAWING AND WORDS BY CHARLES HALL

BLUEBELL

By ROSEMARY BULL

BEING a non-flying wife for 20 years is a funny business. One knows about winching, cables and handling aircraft; understands what is needed for Bronze and Silver badges; has listened to the talk of lengthy cross-countries and of Diamond heights gained. Summer week-ends at the club. Winter evenings with the maps laid out, flights planned and dreamed about. It's a way of life.

And suddenly somebody says "Wouldn't you like a circuit?"

"What me? But I don't fly!"

"Oh, go on. You've been doing the book for us. It's as smooth as glass. You'll enjoy it."

I suppose I'd better or my pilot daughters will think I'm afraid. Well, you are, aren't you? What an idea! Into the K-13 then. Strap you in tight. Shut the canopy.

A five minute circuit and the pilot apologises because it wasn't any longer. I don't mind. Don't mind at all. In fact I feel so sick that if it had been another minute . . .

"Have another, or better still on another day. It's only nerves, you'll get used to it."

But I don't. Five minutes is plenty and it doesn't get any better.

Until the day of Bluebell, dear old T-21. There she sat, stout and kindly, tolerant and middle-aged.

"Aren't you brave?" said an instructor as I climbed in. "I don't feel secure without a canopy".

But I did. It was lovely. The wind in my face and hair, time to look down at the familiar hills and to pick out the footpaths I know so well. Time to enjoy it even though it was only a circuit.

I had another in the evening when the wind had got up strong and cold. It was still good. Feel sick? I never gave it a thought.

PHILIP OGILVIE left for Spain last April and has written to tell us of the gliding possibilities in that country, though it wasn't easy collecting facts. He said that even the Spaniards find it difficult to discover much about "Vuelo a Vela".

Gliding Spanish Style

ALTHOUGH, geographically speaking, Spain is without doubt the best country in Western Europe for thermal soaring, such gliding activity as actually exists has had to compete against a certain lack of cooperation from official circles, although there are signs this state of affairs is changing for the better, now that the sport is coming to the notice of a wider public.

There are, in fact, only two civilian gliding clubs in Spain. One is near Madrid at Mora de Toledo and the other, of which I am a member, near Barcelona, at Igualada. In addition, there are a number of military schools similar to our ATC network, which prepare cadets up to the rough equivalent of Bronze C.

In practice, there are probably less than 100 holders of the Spanish gliding licence and there is a serious shortage of official instructors resulting in poor safety standards and an unacceptably high accident rate.

Few control zones

However, having got off the ground, the solo pilot can really enjoy himself. The country, owing to its large size and isolated main population centres, is relatively unencumbered by controlled zones and, for the greater part, is dry and mountainous, much of it verging on semi-desert.

A visitor from the UK coming for a holiday (ie not intending to stay more than six months and take up residence) may fly with a British C Licence as long as this is supported by adequate medical evidence signed by an authorized doctor competant in aviation medicine. This effectively means a medical test of PPL standard, which now appears to be the norm in most European countries apart from the UK. I am also advised that such a visitor is only allowed to fly gliders of foreign registration. This would mean that to be sure of flying solo he should bring his own machine, although, this particular problem can sometimes be got round in practice!

Spanish licence

Anyone contemplating a stay of more than six months would be obliged to apply for a Spanish gliding licence, which is fairly straightforward once you know how to do it—it took me all of six months to find out!

Without a doubt, the best place to come and fly is Mora de Toledo, the plain to the South of Madrid known as La Mancha. Through much of summer a deep superadiabatic layer ensures thermal strengths of five metres per second during the peak of convection each day. Cloud-base is normally around 3,500m between May and September, although the second half of this period tends to suffer from heavy inversions.

Thermal strengths in January are also good, three metres per second being common. Outlandings present no serious problems although roads are quite far apart in many areas and drinking water should always be carried. Temperatures can be fairly high, rising up to 40°C at the height of summer with chilly nights. The heat can make ground handling of metal gliders positively unpleasant!

Barcelona, by comparison with central Spain enjoys a more equitable Mediterranean climate although again fairly hot in the summer, up to 27°C. Our club fleet consists of two Blaniks, a Fauvel flying wing, a Grunau and a Spatz in addition to four more Spatz privately owned and two private Phoebuses. All towing is with a Piper 150 but the club will shortly be receiving a Rallye for towing and a Cirrus as donations from the State.

I think that this more or less outlines the gliding picture here in Spain although I have had to be rather vague over some of the legal aspects since precise information is hard to come by without a lot of diligent spadework. But I would be happy to provide more specific information to anyone wishing to come and do some gliding. They would be welcome to get in touch with me at Gran Via Carlos III, 86 Barcelona 14 until I return to the UK in a year or two.

My Longest Day

By FRANK POZERSKIS

ON the night of June 13, the weather forecast showed a high was moving slowly towards southern England from France. I decided, therefore, for the good of my health, to take a rest from work the next day and made preparation for a 500km triangle—Shobdon, Bury St Edmunds, Dunstable.

I did this under a dim light so that the Almighty wouldn't notice as I have learnt from experience that whenever I prepare for a flight after a promising forecast, I wake to find that He has dished out conditions suitable for thirsty camels.

It worked, anyway, for the following morning it did indeed look very promising. So at 7.30am I strapped my son to the car and we sped over the 40 miles journey to Dunstable. We quickly threw the Kestrel 19 together and dragged it over to the launch point which was the southwesterly run.

At 10am the first small cumulus blossomed, so I delayed my ordeal and was airborne at 10.35am. I released at 3,500ft, headed in a westerly direction and was down to 1,500ft before I felt the first bump in my seat. The thermal strength was only averaging 2-3kts, so I flew at a cautious 60-65kts between thermals.

Closer to the Ground

I eventually arrived at Bicester where, towards Shobdon, the sky looked more active. However, I was concerned about crossing the Pershore area as I always find myself a lot closer to the blessed ground than I am to the clouds. This time I only got down to 1,200ft near Evesham, but slowly rose again and proceeded to the first turning point.

The fun started at Worcester, where the clouds looked active but just laughed at you when you reached them. I noticed that lenticulars were above these cumulus, which probably accounted for this.

It took me 3½hrs to reach Shobdon, leaving me one hour behind schedule. After taking three shots of the turning point at 1,200ft, I flew away as soon as I could. Conditions improved somewhat, but the sky went "blue". The inversion went up to 4,500ft and I gradually increased my inter-thermal speed to between 80-100kts.

American style

I began to fly American style, diving fast between thermals and pulling up into a corkscrew in strong thermals. I must have worn out most of the flap handle, pushing it backwards and forwards one armed bandit machine fashion. I arrived at Bury St Edmunds at 5pm, turning at 3,500ft without much hope of completing the last leg. I sunk down to 1,300ft near Stradishall airfield, but was saved by a 10kt thermal up to 4,000ft. Well that's life, isn't it?

After that, though, conditions forced me to slow down and I had to resort to flying over towns and ploughed fields in search of lift. At 6.15pm I was at 1,500ft over Letchworth when I found relief in a 1½kt thermal which took me to within five miles of Dunstable Gliding Club, but I had only 600ft and the town to cross.

As I had already sold my soul to the devil at Evesham, I just crept on. Thanks to the Kestrel's performance (unintended plug), I managed to scrape back to the airfield. It had taken an appalling 8hrs 18min and a dead leg to complete, but I'm ready to do it again.

A Racing Dinghy Helmsman's 300km Triangle

By JOHN GREHAN

I HAD spent some 17 years racing dinghies. My Albacore rarely missed a regatta or open meeting within 150 miles. National Championships were a must and my crews—one usually only lasted a couple of months with me—were always black and blue when they left, whatever their colour when they joined. I was a frightful bully and if I didn't win it was always my crew's fault.

One day late in 1969, my number one son informed me that he would probably be making his first solo flight in a T-31 with the ATC the following weekend. I am ashamed to admit that I didn't even know that he had been learning to glide.

I drove him to the airfield myself and he did in fact fly solo. One whole circuit of the airfield landing 200yds back from the far end. Even so, in the three minutes he was airborne, I managed to tell nearly seven groups of onlookers that that "was my son up there alone".

The Answer

I was thrilled and within a few weeks he (my son) and I attended a CCPR course with the South Wales Gliding Club. It was just what I had been looking for.

The single-handed boats looked far too flimsy to me and my reputation was such that if I even approached a prospective crew he (or she) would turn and run or, if cornered, would have an absolutely stone wall excuse for not setting so much as one foot in a boat of mine. And, anyway, the 19 year-olds, some of whom had been sailing for as much as ten years, were beginning to beat me.

I did a course at Lasham and was soon solo and in K-8s. From now on Lasham was my home and I went to Cardiff occasionally to visit my wife and children and earn some money.

I won't bore you with accounts of incidents in and around Lasham in the first year. Suffice to relate that the one which kept my tail glued between my legs for the longest period was when I landed at Odiham (albeit discreetly on the verge of the grass part of the airfield) just when all the top brass from Europe had arrived for a showing of a brand new mammoth helicopter. I was fetched by Jim Mellor in the Pawnee and reduced to the size of a prematurely plucked petit pois.

Thursday June 14 looked like being good. I had sold my boat and caravan and bought a share in an SHK. I usually fly from home in South Wales to Lasham and back in the South Wales Gliding Club tug, which they don't need mid-week. But not direct. The routes are usually something like Usk, Kidderminster, Lasham; Lasham, Bath, Stratford, Usk; and so on. It takes a little longer but the ground west and north-west of Lasham is becoming very familiar to me.

Slow Progress

I arrived at Lasham at around 10am, was airborne at 11.25am and pulled off in a standard Lasham thermal at 900ft. At 4,000ft I set course west/north-west. All blue ahead—not a hint of cu. Over the radio the pundits were bemoaning the blueness and slow progress. Thermals were quite a long way apart, usually around 4kts, but no clues in the air as to where they might be. My glides were taking me down to around 1,000ft and I reckoned that at this rate it wouldn't be long before I rejoined terra firma.

I changed my tactics and called into every village and town to refuel. Bath at last, after nearly three hours, and it responded with a ten knotter. Back to 4,000ft. Now for my photos—quick look at the map—the first time I had touched it since I set off.

Back down to 1,000ft but with two pictures in my camera—I hoped—and I soon set off for the Cotswolds. How glad I was I'd done this trip in the tug.

Nympsfield disappeared above me and Stroud turned up trumps. I forgot what strength, but back up to 4,000ft. I had remained on Lasham QFE for, like

Phil Gardner, I felt it gave me a bit of safety margin. Along the top of the Cotswolds, then I headed for Cheltenham and straight on to Stratford for more turning point pictures.

Turning Point Mystery

How is it that all pundits have their turning point while thermalling? Both mine cost me 3,000ft.

Didcot towers at 6.05pm and below 1,000ft on Lasham QFE, things getting very quiet and smooth. Scratched a one to two knotter to 3,000ft and headed south at 45kts. This was the first time I had flown the SHK in what seemed to me like absolutely still and stable air.

Newbury and Greenham Common slipped beneath me and the altimeter seemed to be unwinding unbelievably slowly. Basingstoke and still 1,300ft above Lasham. I'd made it.

I landed at 6.55pm after 7½hrs flying and had been completely comfortable (physically I mean) all the way. But the most delightful aspect of the trip was that after 17 years of screaming at crews around the course, I didn't utter a single word from take-off to landing.

Sad PS. My son gave up gliding after about a year.

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A New Line on Maps

By R. T. DIXON

The Problem

Last week I watched a glider pilot preparing to fly cross-country. His map was faded, worn and covered in last year's 300km attempts. (Failed!)

Anyone flying from a map like this runs a high risk of getting lost, particularly if his required track is not marked clearly. A pilot who is flying for speed will lose precious minutes while he tries to locate first where he is, and then where he ought to be. At the same time, flying with head down "in the office" may result in a collision.

The Solution

If a map is difficult to read on the ground, it will be impossible to follow in the air. The answer is to prepare as much as possible before you take-off. The first requirement is to compile the following items:

- A set of clean, up-to-date maps of your area of interest.
- Two clear plastic map cases approximately 13"×26". These can be made from a roll of clear, non-adhesive book covering. Use sticky tape to join the edges.
- Coloured pens which will write on glass. Make sure that the marks will clean off with a damp cloth. The pens sold for use with teaching aids are ideal.

Before Flight

Fold the appropriate map to the size of the case so that if possible the area you are interested in is on one side. Place the map in the case and smooth out any creases. The thin plastic tends to stick to the map, but not permanently.

Use a dark coloured pen to draw in the track line, magnetic heading, distance markers for final glide and the wind vector. If writing further details on the case, present it as simply as possible.

After Flight

Just wipe the case clean with a damp cloth and the map remains as new.

I have used this system for some time. The advantage lies in the use of thin clear plastic for the map case. This can be bent without cracking and protects the maps. The only disadvantage I have found is that people keep borrowing them!



A NEW TUG ON THE BRITISH SCENE

By B. H. BRYCE-SMITH

LAST year Cambridge University Gliding Club decided to buy its second tug. The queues for tows by the old Tiger Moth were depressingly long and an embargo was put on any further private gliders.

We first bought a second hand Piper Super Cub 150 (ex French Army) and were offered a Sports Council grant for another tug. The choice came down to a Super Cub—ruled out early on because Piper stopped making them; a Rallye—dismissed as it was thought to be more of a touring aircraft than a tug; and remained with the Bellanca Citabria 7GCBC, fitted with a Lycoming 0-320-A2B, 150hp engine.

It was demonstrated to the club in April by Bowker Air Services and delivered in late July, making this the first Citabria to be used in Britain for towing gliders. In looks and handling it is similar to the Cub, but is chunkier and quite plushy inside.

All the operating speeds, rpm, take-off checks, landing checks, are virtually identical and conversion from the Super Cub is no problem. In fact, it is easier to fly in that the trim changes with flaps are negligible and the elevator trimmer is positive and quick with the quadrant lever underneath the throttle. Landing is simple too, with the same technique as the Super Cub.

When the pilot sits in the cockpit, the immediate impression is of the excellent visibility over the nose. It feels almost like a tricycle undercarriage aircraft and one can taxy without having to snake along for forward visibility.

All the controls are easily reached, although the switches are on the port-wing root behind the front seat. The flap lever has five positions with click stops. Starting is conventional with a push button, and taxying is easy using the steerable tailwheel and heel brakes when necessary. On take-off, acceleration is rapid and the aircraft takes-off with only a small amount of tail up attitude, climbing away at well over a 1,000fpm indicated (1,145fpm at 70mph claimed).

One can throttle back appreciably after take-off and still achieve 1,000fpm

climb rate. The rudder is powerful and the rudder load on climb is not as great as with the Super Cub.

With a glider on tow, a climbing speed of 60-65mph gives a climb rate of 500-550fpm with any single-seater up to 3,000ft and 400-450fpm for a K-7 (two up). We find that second position flap up to 200ft helps the take-off run in light wind conditions, but it isn't essential.

Mirror Vital

The only problem we have found is in seeing the glider while on tow. It is just possible to glimpse the wing tips through the rear side window, but for safety sake it is vital to have a mirror fitted on the strut or over the canopy, fighter style.

The cruise speed at 2,350rpm is 120mph, and the circuit is best carried out at 2,100rpm which gives about 90mph, also the flap limiting speed. Maximum permitted speed is 162mph. Stalls are completely docile at about 40mph with full flaps and a little engine, and 48mph clean with no engine. The worst feature of the stall is the ear-shattering warning hooter which comes in at about 50mph.

With a total fuel capacity of 32 gallons, the Citabria will do the best part of four hours towing without refuelling, so one fuelling session midday is all that is needed.

Conversion Simple

General handling is good and the aircraft is aerobatic, although at present it hasn't been cleared for this due to the American type shoulder straps not complying with CAA requirements. It has good visibility from the rear seat and therefore makes it simple for pilot conversion. All controls are duplicated in the rear except flaps and handbrake, and the vital flying instruments are read quite easily over the front pilot's shoulders.

We like the aircraft and would recommend its use as a glider tug to anyone. It is also an extremely comfortable touring aircraft for two people with provision for up to 100lbs of baggage in a quite spacious compartment behind the rear seat.

The supplier is Bowker Air Services, Rush Green, Hitchin, Herts, and the price, £7,000 (August 1973) including VAT.

FLYING THE CALIF A-21

By FRANK IRVING

THE 1973 meeting of the OSTIV Sailplane Development Panel was held at Turin, splendidly organised by Piero Morelli and benignly chaired by General Oyens. The formal sessions were mainly concerned with OSTIV Airworthiness Requirements and the Standard Class, the latter topic being inclined to generate strong emotions. On this occasion, the SDP were entirely unanimous in observing that the present definition, illustrated by diagrams of singular ineptitude in the Sporting Code, was not as proposed by OSTIV.

Having disposed of exotic discussions on top-roll moments on T-tails and round-the-clock gusts, we set forth to tour the Fiat works at Rivalta, the wind tunnel of Pininfarina and, on the final day, the Caproni Vizzola works. It is a remarkable place, as one would expect of an aircraft factory dating back to 1910: in one of the original buildings, an inspector was checking rib sections for MRCA, surrounded by relics of former Caproni glory.

The main item of interest was the Calif A-21, an elegant side-by-side two-seater of slightly over 20m span (see S&G, Aug-Sept, 1969, Feb-Mar, 1971, June-July 1973). There was little to be seen of the production processes, since eight had just been completed and we had arrived in the interregnum before the start of the next batch.

The last new machine was in Italian Air Force colours, and looked superb. The finish is up to glass-fibre standard although the basic structure is metal, and the fit of control surfaces and joints is outstandingly good. A fuselage structure and a wing outer panel were available for inspection: the engineering looked very professional indeed and although some details such as the flaps/airbrakes were complicated, it all had a neat and solid air.

The flap/airbrake arrangement merits further explanation. The ailerons are relatively short and a camber-change flap is provided over the remainder of the

trailing edge. Hinged about the same axis is a further surface extending forwards on the upper surface, normally held down by a series of latches along its leading-edge.

The whole affair is controlled by a large lever between the pilots' seats. With the lever fully forward, the camber-flap is 'down' for circling and low-speed flight. Moving the lever to a central position raises the flaps slightly above neutral to a high-speed setting.

Taking the lever through a 'gate' unlatches the top-surface spoilers and further backward deflection of the lever lowers the flaps and permits the spoilers to rotate in the same direction. When fully open, the flaps and spoilers form a trailing-edge brake rather like that of the BG-135. The maximum deflection is quite large, perhaps 70° or more, and they extend over about 60% of the trailing edge.

Perilous Habit. Another novel device is the two-wheel main undercarriage, whose track is slightly less than the width of the fuselage. There is a marked tendency to tow the aircraft on the ground without a wing-tip holder, an apparently perilous habit. It gives a good ride but the Caproni test-pilot claimed that it paid to retract it very soon after take-off to improve the rate of climb.

The canopy attachments are very elegant, consisting of a single swinging link attached to its trailing edge and lying flush with the top of the fuselage with the canopy shut. The two front corners of the canopy are also attached to links lying along the inner edges of the cockpit. So, on opening the canopy, it moves up and back and down, finally sitting on top of the centre-section in a very neat fashion.

There is, however, a feature which would not be acceptable in the UK, airworthiness-wise. It is held shut by a pair of small over-dead-centre clips, one at each front corner inside the cockpit. Latching or unlatching therefore requires actions by both occupants.

Another rather curious quirk is that the rudder-pedal adjustment causes both sets of pedals to move together, so it pays to have occupants of much the same size. These, however, are relatively minor criticisms although perhaps it was as well that we were not invited to assist in the



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rigging: the centre-section looks pretty formidable.

By courtesy of Count Caproni and the designers, Carlo Ferrarin and Livio Sonzio, a few of us took the air under the auspices of the test-pilot, Amleto Zanetti. The Caproni air strip is one field away from the international airport of Malpensa, so take-off is at the pleasure of the Malpensa Controller and the height of tow is limited to about 1,500ft.

Take-off, behind a Stinson L-5, is carried out in the aeroplane tradition: stick forward to get the tail up, hold it level for a while, and then firmly rotate to get airborne. The rate of climb was quite good and the enthusiasm for early wheel retraction not absolutely necessary. View from the comfortable, Ferrari-like, side-by-side cockpit was good, although the canopy frame does provide some obstruction.

For a machine of over 20m span, the rate of roll was good although the short-span, wide-chord ailerons provided fairly high stick forces. We were told that they would be reduced on later aircraft. The all moving cambered tail with spring trim gave light elevator forces without being "twitchy", typical of good modern practice. Co-ordination of aileron and rudder was good.

Pre-stall buffet. The stall was entirely straightforward. Flaps down, it occurred at something under 70km/h, with some gentle pre-stall buffet. There was no significant wing-drop and the elevator remained effective in producing rapid recovery: evidently the wing-wake misses the T-tail. Brakes open, it simply wallowed in pitch with a good deal of buffet. The ASI showed some ridiculously low reading, suggesting that the wake from the airbrakes was impinging on the fin-mounted pitot head.

A good circling speed, flaps down, was 80km/h: controllability remained excellent and, despite mild turbulence, there was a very satisfactory sensation of being nicely settled in the turn.

The airbrakes, as one would expect from their vast size, were extremely effective. It is said that the terminal velocity in a vertical dive is only 160km/h, and I can well believe it. A demonstration short-field landing by the test pilot produced a remarkably steep approach followed by a remarkably hard arrival. There did appear to be some problem here, in that if the rate of descent appears to be too high, closing the brakes also involves raising the flaps. The initial effect seems to involve some loss of lift, which can lead to bother if the speed is low or the ground is close.

So far as one could tell from such a short flight, the performance seemed to be in the same class as a good single-seater and, by modern standards, the circling speed was by no means excessive. However, it is only fair to say that we were flying it appreciably below its maximum wing loading of nearly 8lb/sq ft.

All things considered, it is a most impressive machine. The price? Well, somebody produced a figure in lire with an awful lot of noughts on the end which I think translated as £6,000, pre-tax, ex-works. If this is correct—and it may be pretty inaccurate, possibly not including instruments—it represents an awful lot of beautifully designed and finished engineering for the money.

The A-21J, the version powered by a little jet-engine, has now been farmed-out to California. It sounds tremendous fun, although the neighbours probably have strong feeling about the noise of a compressor running at 46,000rpm.

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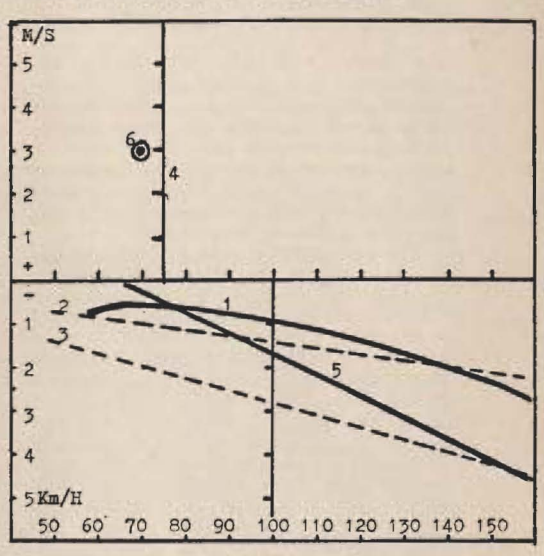
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What's New On The Instrument Panel?

THE PALLINOMETER

By PAT PEEBLES



IT was to be called a mechanical computer for gliders, but that sounded a bit heavy. My friends at Rieti in Italy called it a Pallinometro because of the little ball behind the screen—pallina is Italian for little ball.

I invented the instrument while living and flying in Rome in 1969. The idea seemed simple: take a small spot as an indicator and move it from left to right to show the air speed, and move it up and down to show the climb rate. Three days later I had a primitive prototype in the air and it seemed to work.

The results were very encouraging, so I set about making a proper instrument and by June 1969 I had it completed and installed in an M-100 of the Italian National Gliding Centre. The instrument remained successfully in use until I left Italy in February 1970.

The instrument was 11×11×22cm and completely mechanical in construction. It used barometric pressure capsules both for the ASI and for the variometer. The indicator was a small ball on the end of a fine glass rod pivoted at the back of the instrument. The ball moved behind a slightly spherical perspex screen into which were incised the relevant lines (see diagram). The following things may be read on the instrument: airspeed, total energy climb, glide ratio, climb rate of the air outside the glider, and the best speed to fly according to the MacCready values.

The climb rate of the air outside the glider is read considering the polar curve (1) on the diagram as a zero line. In fact, in calm air it is amazing how the indicator won't move from the line. Having the polar curve in front of you helps in two situations. One is the very desperate situation when small movements of the air outside the glider become important to survival. The other is when you are travelling at a high speed and need to know what the climb rate could be if you decided to slow down.

Two other lines (2) and (3) give direct reading of the actual glide ratio. These are of great help on the final glide.

A vertical line (4) helps to maintain proper thermalling speed. The climb rate during thermalling is read on this line and due to the fact that two values are read off one indicator (6) it is impossible not to notice the air speed while reading the climb rate.

Instead of the usual MacCready Ring there is a line slanting towards the lower right hand corner of the instrument (5). This line is on the outside of the screen and is movable according to the average thermal strength. Maintaining the right speed is a piece of cake, if the indicator is below this line, push on the stick. If above, pull. This goes against instinct but is quite easy to get used to. The whole task of maintaining the proper speed is done without any numbers travelling through the head and only one indicator needs to be watched.

The instrument is easy to read and has shown itself to be popular with pilots (it was used successfully in the Italian Championships of 1969). Unfortunately it has never reached the production stage because of the difficulty of finding a simple method of construction. Designing is one thing but economic production is quite another, but with all the talent around in the gliding world may be someone can come up with the right answer and ideas would be very welcome. The prototype is at present in this country and could be used for demonstration.

Revco Aerials

By R. FEAKES

WITH the increase in the use of radio in both competition and club gliding during the last few years, it is felt that a few words on aerials would be beneficial.

In order to function efficiently, a VHF set must be connected to a well designed, matched aerial by a length of feeder having the correct electrical characteristics. Too often, one sees a VHF set operating into a normal car radio aerial via a length of car radio feeder. While this arrangement generally appears to work satisfactorily, in reality the performance of the radio, particularly of the transmitter, is considerably degraded.

In order to be efficient, a VHF transmitter must work into a load of 50ohms and be fed by a feeder of similar impedance. The feeder used for car broadcast radios is of necessity, low capacitance cable and is totally unsuitable for use at VHF frequencies. The aerial whip itself should be cut exactly for the frequency of the transmitter and should be mounted on the car or aircraft structure by a low loss insulator.

A British manufacturer, Revco Radio Services Ltd of Moorside, South Brent, South Devon, TQ10 9AN, produce a range of purpose designed, well made VHF antennae and feeders for both gliders and cars at very reasonable prices.

A VHF whip, type SCC, cut to frequency and four metres of matched feeder, costs £1.95 approximately, no more expensive than many broadcast car radio aerials. The same aerial and feeder designated MA2 can be supplied mounted on a magnetic base for £6.50 approximately.

I have personally tested the magnetic aerial and can state that it remains firmly fixed to the car roof at all speeds up to 100mph. While the company also make a range of high gain aerials, they are unfortunately designed for business radio and do not cover the gliding frequencies.

A range covering the aircraft frequencies will be available shortly. Revco Radio Services Ltd will provide a catalogue of their range of aerials on request.

COOK

ELECTRIC VARIO

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Technical Angers—1973

By GEORGE BURTON

YOU didn't know that there was a technical symposium at Angers in July 1973? Well there wasn't really but put 80 top glider pilots and their crews together at one aerodrome and then let it rain for ten whole days—and—you have a first class technical symposium! What was discussed and proposed?

There were actually three competition days in each of the two classes and one of the proposals was brought about by a little start line confusion on the first day, which we are all familiar with as a world wide problem. The solution was proposed by Mr Nietlispach and Mr Bohli of "compass" fame. It has been made possible by the development and production of quartz crystal wrist watches in which the time is displayed by numerals which light up when the "interrogate" button is pressed.

What they proposed is that such a watch be incorporated into a simple camera so that when a photograph is taken, the time numerals are impressed upon the film at the same time. If height is also to be controlled, then a separate pen on the barograph can be arranged to "blip" simultaneously. Then all that the pilot does to start his task is to do the same as at any turn point—he takes a photograph of a recognisable ground feature from a prescribed area.

The implications of this proposal are far reaching and warrant a lot of discussion over the next year, but some points made by Hans Nietlispach to illustrate the importance of the idea are: 1. It eliminates the need for ground observation with all its difficulties. 2. The task need not necessarily start at the take-off airfield! 3. The formation of "gaggles" caused by pilots following the leader across the line will be very much reduced.

Mr Bohli, who seems to combine the mechanical skill of a watchmaker with the flying skill of a competition pilot, showed his new "Bohli variometer": this uses the basic principle of the slow rate of climb meters used in power aircraft—the "leaky diaphragm". However, Mr Bohli has used his skill to reduce the mass of the moving parts to such an extent that he has produced a mechanical variometer which is as fast as an electrical one. He has then added to the unit a diaphragm-type total energy unit in which the spring rate of the diaphragm can be altered by a knob from the front of the panel: thus excellent total energy compensation can be obtained at any altitude. The unit can be purchased in the UK from the sole agents, Slingsby Sailplanes.

Inter-Thermal Speed Flying

Another variometer development which was much discussed was the "Netto variometer" proposed by Diplom-Physiker Dr Egon Brückner, in the March issue of *Luftsport*. This device is a development of an old idea, but it presents some very simple solutions to the problems of inter-thermal speed flying which up to now have only been solved by ADC units using complex electronics.

The basic idea is to bleed in air through a suitably adjusted restrictor from the pitot pressure into the connection between the flask and the sensor unit of a conventional variometer. When the restrictor is correctly adjusted, this flow of air is of such a magnitude that it exactly equals the air which is flowing into the flask caused by the normal sink of the glider at one particular speed, thus the variometer reads zero if the glider is flying through air with no net movement up or down.

The pitot pressure is proportional to V2 and it happens that the polar curve is also approximated to by a square law fairly exactly so that compensation is achieved within about 1/10kt over a wide range of airspeed. The static side of the variometer is taken to a "Brunswick tube", or other type of venturi total energy compensator, and the variometer is then corrected for both total energy and polar curve; Dr Brückner suggests we call it TEP correction.

The variometer is now a nett—air mass movement detector and will show only air mass movements of the air.

Deviations up or down from zero show the correction which must be made to the best inter-thermal speed to compensate for rising or sinking air; 90% of the information produced electronically in an ADC is thus very simply produced by a piece of capillary glass tubing and some T pieces.

Copies of a translation of the original article in *Luftsport* can be obtained free of charge from Slingsby Sailplanes, but please send sae.

Next year the organisers at Angers will be insisting that the pilots carry 122.5 and 123.5 MHz frequencies in their radios. This poses a problem for the owners of Bantam radios with their limited bandwidth. Owners of the Dittel FSG 15 and the new, ultra-sensitive ASH 360 should however have no problems.

Finally Mr Bohli announced that he was constructing 20 of his compasses especially for pilots in the Australian World Championships. A special model is necessary because the dip vector of the earth's magnetic field is in the opposite direction to that in the northern hemisphere.

Angers is in the north-western part of France and so on occasions it does suffer from Atlantic depressions in the same way as the UK. The frequency with which this happens appears to be about once in seven years, so I look forward next year to a full eight days flying with the magnificent thermals I have always associated with this excellent competition. It's also a pretty good place for technical discussion!

IMPROVED VARIOMETER

THERE is a new and improved Cook electric variometer—Mk II—with advanced design features to improve the information given to the pilot about the movement of the air mass through which he is flying.

It is easy to install in modern gliders with small instrument panels and little storage space and well suited for use in club gliders because its rugged construction makes it stand up to rough treatment. The electrical interconnections are designed with club use in mind—robust and simple—and the personal battery kit overcomes the flat battery problem.

The low cost of the variometer (£31.50 basic price), the availability of spare parts and a good repair service are important features.

Write for details to: J. Hardy Instruments Ltd, 25 Dimple Road, Matlock, Derbyshire.

Trailer Jack-knifing

By BRENNIG JAMES

IF you drive a car slowly in a gentle turn and, without moving the steering wheel, gently accelerate, two things may happen. Either the turn radius will increase, this is known as understeer, or it will decrease, known as oversteer. Factors which increase oversteer are overloading the boot with luggage or having the rear tyres too soft.

People towing glider trailers take trouble to get the trailer itself fairly well balanced fore and aft, then load up the car's boot with a lot of heavy luggage. The combination is then unstable, simply because the car has oversteer. Once the oversteer gets bad, the mass of the trailer acts on the rear of the car to make it worse and a jack-knifing incident occurs.

The solution is to keep the weight in the car forward as much as possible and increase the tyre pressure in the rear wheels so that the laden car without the trailer handles properly. Then hitch up and you should find there are no problems.

When driving along continental motorways, the trailer will give an unpleasant twitch as you are overtaken by a heavy lorry, and any attempt to correct it tends to make matters worse. The best solution is to dig your elbows into your sides and hold the wheel firmly and still.

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TRAILERS



DEATH VALLEY BIRDMAN

BILL BENNETT, an Australian, takes-off in his delta wing ski kite from Dantes View in Death Valley, California, USA, to make a spectacular unassisted free flight. Bill, the manufacturer of Delta Wing Kites, was in the air 11min 47sec and travelled 6.2 miles to the floor of the valley 5,757ft below.

But a few weeks later on August 15, this jump was far exceeded by Dick Eipper, aged 27. He celebrated his birthday with a leap from the Haleakala volcano in Hawaii to establish a new world record for altitude drop and distance in a hang glider.

Using a "Flexi Flier", a Rogallo-type hang glider of his own design, Dick jumped from the 10,012ft level and dropped a record 8,362ft while travelling 9¼ miles cross-country and staying airborne 19min 39sec.

FOOT LOOSE & FANCY FREE

Low and Slow News

By ANN WELCH

THE Otto Meet on July 21-22 in Orange County, California, attracted 160 aircraft, mostly Rogallos, and 310 pilots. The 300 flights were timed off the official 150ft high hill, with up to 100 further flights off nearby ridges. Five pilots went off the 3,000ft Saddleback mountain overlooking the Meet site, four of them making it back to the site with two landing on the spot landing cross. Spectators numbered over 3,500, although the weather was not suitable for soaring.

In September the first National Championships were held on a 1,700ft hill near Los Angeles, to which the top 30 pilots were invited. This first event was limited to Rogallos, although rigid aerofoil hang gliders gave demonstration flights. The Southern California Hang Glider Association now has 3,400 members.

Duration is now up to 3hrs 36mins—achieved by 22 year-old Pat Conniry at Torrance County Beach flying a commercially built Seagull III sailwing. He could have continued but for darkness.

Oddly, the big problem with soaring hang gliders is the pilots feet—they go to sleep; a previous record time of over 2hrs ended because the pilot, Bob Wills, lost all feeling in his legs. Energy is now being expended on swing seats and harnesses that allow the pilots circulation to continue.

Also in the think tank are designs for

min weight min drag refreshment containers, and means of standing up in flight in order to get exercise! The glide ratio of some sailwings is approaching 1:7 with flights of an hour quite common. The Seagull III is a 240sq/ft Rogallo with curved leading edge spars intended to control camber and reduce pitch instability, designed by Michael Riggs, a 30 year-old aeronautical engineer. The curvature reduces tip stalling by giving the wing tips washout. The Seagull can be used with a swing seat or low drag prone harness.

Several firms are building sailwings that derig down to 6ft lengths, and into two packs of 15lb each—one for each hand—for bus or jet travel.

Some pilots fly Rogallos with remarkable skill including simple aerobatics and formation flying; there has even been a collision though with no harm done. The most unpopular person so far is the pilot who added a noisy backpack engine to fly.

Parker MacCready, 13, son of Paul, who was World Gliding Champion in 1956, flies a black poly covered Rogallo with a large diameter leading edge. Curt Stahl, 14, chief of Product Testing has now flight tested 30 major mods on four different types of sailwing.

The Icarus II biplane has been soared to 1,700ft by Taras Kiseniuk.

In Britain at least one Volmer VJ-23 and one Quicksilver are under construction. McBroom Sailwings of Bristol have just produced two excellent booklets on how to build their Rogallo and how to fly it.

Maiden Flight of YS-53 Sovereign



THE maiden flight of the first production YS-53 Sovereign was at RAF Dishforth on July 21. The pilots, G. Bailey-Woods and J. Beck, found the performance and handling to be better than anticipated.

The YS-53 is the first two-seater glider to be built in Britain for three years and it is hoped this is the start of a new period in UK glider manufacturing.

Yorkshire Sailplanes are newcomers to the glider manufacturing scene, having been involved in glider repairing for the last two years.

It is thanks to the generosity of Slingsby Sailplanes in agreeing to sell their T-53 design to Yorkshire Sailplanes that the YS-53 may herald a new era in British two-seaters.

TO BURN OR NOT TO BURN!

By MARGARET NEILL
and
HELEN REID

A general assessment of women and gliding before the subject is finally closed and we go back to thinking of pilots in terms of their flying, not their biological classification.

MUCH has already been said; many agree there is nothing left to be said; so before the subject becomes as dismal as a fog-bound airfield, let's take a look at women's lib in relation to gliding.

"Oh no!" we can hear the cries—"not that one again!" "Women want the best of both worlds. Equality in everything until it suits them otherwise." So is this the case or have we women in gliding something to grouse about and if so, do we deserve to have it any other way?

Utopia to our male members is soaring heavenwards over our picturesque part of Scotland and finally landing for a soft runny egg-roll.

The few women members take turns on the cooking rota and fry eggs, bacon, make cheese rolls, soup, cups of coffee and tea in seemingly endless quantities. The men take it all for granted and add insult to injury by calling the cook of the day "Mother".

We must admit that when our turn for flying comes along, we are allowed to leave the cooking stove or log book or any other job which has been "delegated" to us, so that we can have our flights, but immediately we have flown—back to the cooking stove.

Some Treats. At this point in our tale, we expect the reader, if having any finer feelings at all, to express a degree of sympathy. But we hasten to assure you that we are occasionally allowed to retrieve cables in our open-sided, open-backed, open-fronted ex-milk float. We cannot however, understand why this favour is allowed us more in winter than in summer.

Even then, our gratitude cannot end there, for we are often allowed to pull and push gliders around and we consider it an honour to be permitted to stand in the freezing wind holding a wing tip while the instructor samples our cooking. And so the pattern is set.

Some months and innumerable fried eggs later, a day dawns which at first looks like any other day. On reflection, flags should be flying, a national holiday declared or at least some recognition made of THE DAY. "You're going solo" the instructor says, "but hurry back I'm hungry—and I hope your flying is better than your frying".

Discrimination? And now to flying itself. To be serious for a moment is there discrimination here? It's a difficult one to answer and here one must speak generally. Okay, we admit most of us have more "off days" than men, are more unpredictable, have a little less confidence—but not to the extent made out by our "superiors".

Is it only coincidental that here, where female membership is approximately 14%, each female pilot took on average 20-30 more instructional flights before going solo than the male counterpart. We do not attempt to draw a conclusion from this—we state facts. So what can be done or is the feudal system so entrenched in the minds of Scotsmen that it is completely invulnerable?

Our male pilots accept us, take our flying as seriously as their own, show great interest in our progress, encourage us, scold us, tell us in no uncertain terms what they think of us if we decide not to solo for various reasons, look after us, are always afraid that we will exert ourselves overmuch, are horrified if we get dirty and in fact cosset and treat us like women.

No garage bills for us. Something wrong with the car? A helpless look in the right direction and we are mobile again. "Don't bother about anti-freeze—I've seen to it", we're told.

So where do we go from here? Equality all the way or being cossetted as helpless, endearing "nice to have around" females, that is the question?

Women's lib—you can keep it!

General & BGA News

AN EVEN FASTER 100km TRIANGLE

JOHN Delafield, a member of the British team, flew a 100km triangle on August 10 at 105.5km/h, 2.5km/h faster than Barry Goldsbrough's effort on April 29 from Sutton Bank.

Barry's claim, and he was the first pilot to exceed 100km/h on the UK single-seater record list of triangles, was awaiting homologation when John bettered the time with his triangle, Crowlands, Boston, Spitalgate. Now this latest flight is subject to homologation.

Both pilots were flying Kestrel 19s.

TWO NEW RECORDS

The World single-seater 100km triangle was broken on August 14 at Samaden, Switzerland, by Klaus Holighaus (West Germany) who flew his Nimbus 2 at 158.2km/h.

Three days later Adele Orsi (Italy) claimed the Feminine World single-seater 100km triangle record with a speed of 124.15km/h flying a Kestrel 604. (Subject to homologation.)

SORRY ABOUT THIS

WITH inflation rampant, it was inevitable that we would have to put up the price of S&G, although there has been great reluctance to do so and every effort made to avoid this increase for as long as possible. We even allowed the quality of paper to fall on the last issues as one way of pegging costs for a while.

But, regretfully, we have had to take the decision and from February/March, the magazine will be 40p. This is also when the format is changed and we hope you will consider the larger S&G good value, though don't think this is the reason for the new price.

Whatever the size, 30p wasn't sufficient to cover production costs.

We are planning a wide range of articles to interest glider pilots of all standards from the *ab initio* to the pundit. Contributions well in advance will be particularly welcome and if there are any subjects you would like featured, please let us know at 281, Queen Edith's Way, Cambridge CB1 4NH Tel. Cambridge 47725. (See p381 for overseas notes.)

MORE ON THE LADDER

THE number of pilots on the National Ladder up to July 17 exceeded the 1972 entry which reflects the better weather this summer.

Leading pilot	*Club*	*Pts*	*Flts*
1 A. Purnell	Surrey & Hants	3552	4
2 J. B. Goldsbrough	Yorkshire	2623	4
3 M. Costin	Coventry	2260	4
4 G. S. Neumann	Cambridge Univ	2206	4
5 G.Butler Madden	Surrey & Hants	2143*	3
6 C. Lovell	Surrey & Hants	2128*	4

* Flights in club gliders

AWARDS TO THREE PILOTS

THREE glider pilots, Nicholas Goodhart, Mike Field and Angela Smith, have been given awards for 1972.

The Aviation Council of the United Service and Royal Aero Club have given a Silver medal to Mike Field for his exceptional flight in a Skylark 4 to 42,520ft asl last May (see S&G June 1972, pp218/9). He beat both the UK and British National records for absolute altitudes and gain of height with his 41,100ft climb after an aerotow over the Oxfordshire countryside.

In announcing the award, the Council said that the flight was one of courage and great initiative, since the higher parts of the climb were made in upcurrents which were unexpected and about which little was known up to this point.

The FAI Tissandier Diploma goes to Nick Goodhart. His activities in gliding are in advanced technology combined with top quality soaring technique.

He has been a leading glider pilot for many years; World Champion (Two-seater Class) in 1956, runner-up in the Open Class in 1958, British National Champion in 1962, 1967 and Standard Class Champion in 1971, winner of the USA National Championships in 1955 and consistently well placed in other World Championships.

For the last 14 years he has held the British Distance record of 579km and kept the altitude record of 37,000ft for 12 years, as well as being the first British holder of the coveted FAI Diamond badge.

Nick has put his energy and experience as a soaring pilot and engineer into Project Sigma, which has brought consider-

able knowledge about the use of variable geometry in high performance sailplanes. He has also been elected a Fellow of the Royal Aeronautical Society.

The O. P. Jones Cup has been awarded to Angela Smith by the British Women Pilots' Association for her three outstanding flights during the South African Gliding Championship last December. She flew a 506km triangle to claim Diamond distance; a 300km triangle at a speed of 102.16km/h for which she is claiming the British National (feminine) record and, finally, she completed another 506km triangle at a speed of 108.9km/h, which beats the current World and British National (feminine) records.

ANNUAL GENERAL MEETING AND BALL

THE BGA Ball for 1974 will be in Yorkshire as the Yorkshire Gliding Club have kindly offered to organise the event together with the AGM. The date to note is March 9, 1974, and the venue will be the Cairn Hotel, Harrogate. Full details will be circulated to all clubs.

WATCH WHAT YOU BUY

EQUIPMENT was stolen recently from a glider trailer, 606, at Wycombe Air Park. We have given details in case any of these items come onto the secondhand market.

PZL airspeed indicator, ser no 7206026; PZL variometer IVRS5D, ser no 7303005; Ferranti artificial horizon, ser no 130/60; turn and slip indicator, ser no 1.338.311; altimeter type KAA 1505K, ser no 1K.538; Burton inverter, ser no 034; PZL total energy unit, ser no 720/004; 1 McElfish parachute, ser no 58. 28980 and 1 Pye Bantam fitted with a non-standard aerial bayonet socket, ser no unknown.

DORSETAIR

DUE to the unfortunate selling of Compton Abbas last October the axe has finally fallen on this beautiful site. All is not lost, however, as a strong core of members have reacted by forming the Wessex Gliding Club.

At present they have a temporary site at Fovant Ridge where they can operate until at least February. The search is on for a site of a more permanent nature in the Mere area. Any one interested in the new club should write to Henry Wisniewski at 18 The Venn, Shaftesbury, Dorset.

QUITE AN AIM

SOON finding thermals may be a matter of electronics rather than experience or just luck.

Chris Chapman of Aston University and a member of their Gliding Club, has been awarded a Churchill Scholarship of £50 by the BGA to continue development work on an electronic machine of his own design to detect thermals.

As rising air is warmer, wetter and electronically different from static air, Chris hopes that if these variations are accurately measured, thermals could be detected at some distance.

It is a spare-time project, happily based in a glider not a laboratory. Chris monitors audible signals produced by the compact machine fixed to the glider instrument panel. As soon as he can interpret these signals, it should be possible to "home in" on the thermal.

GLIDING CERTIFICATES

ALL THREE DIAMONDS

No	*Name*	*Club*	*1973*
28	A. Somerville	Eagle	29.5
29	J. B. Goldsbrough	Yorkshire	14.6
30	T. J. Wills	Thames Valley	1.7

DIAMOND GOAL

No	*Name*	*Club*	*1973*
2/447	F. A. Woods	London	4.6
2/448	E. J. C. Vann	Cranfield	2.6
2/449	A. T. Farmer	Four Counties	1.6
2/450	P. Redshaw	Lakes	1.6
2/451	R. F. Aldous	Airways	1.6
2/452	B. O. O. Moore	Waikerie	19.3
2/453	D. J. Robertson	Bicester	1.6
2/454	D. P. Holdcroft	Bicester	14.6
2/455	J. Grehan	Surrey/Hants	14.6
2/456	B. A. Barry	London	14.6
2/457	D. E. Hills	Norfolk	16.5
2/458	G. P. Saw	Thames Valley	5.6
2/459	J. R. Young	Inkpen	14.6
2/460	J. A. Sims	Bicester	1.6
2/461	S. E. B. Field	Bicester	5.6
2/462	V. J. Hurd	London	14.6
2/463	C. Leo	Airways	14.6
2/464	D. R. Bath	Heron	5.6
2/465	M. J. Field	Airways	26.5
2/466	D. Wood	Two Rivers	1.7
2/467	J. E. Rouse	Thames Valley	18.6
2/468	T. R. Cawthorne	Bicester	3.7
2/469	G. B. H. Collins-splatt	Dorset Flying	24.6
2/470	J. Graham	London	3.7
2/471	H. Johns	Bristol/Glos	27.7
2/472	A. Fidler	Peterboro/Spalding	1.6
2/473	A. J. Adair	Eagle	10.7
2/474	S. N. Longland	Cambridge Univ	4.7

DIAMOND DISTANCE

No	*Name*	*Club*	*1973*
1/48	A. Somerville	Eagle	29.5
1/49	C. Garton	Surrey/Hants	18.6

KESTREL 19

As a result of the currency changes which have taken place over the past few months, the Kestrel 19 has now become extremely price competitive when compared with other open class gliders.

Our current "normal delivery" position is that for orders placed now (5 Sept. 1973) delivery would be made in February 1975; this situation is acceptable for many pilots because they already have a glider and have a carefully planned programme for its future sale, trailer building, etc. For these pilots we provide a guarantee against inflation by offering a "fixed price" contract at a premium of £300 above the present price.

There are some pilots however who for one reason or another would like a much earlier delivery. We are now planning to raise our production level throughout 1974 in order to "slot in" gliders for these pilots. All normal promised delivery dates will remain as they are but there will be a number of short delivery Kestrel 19s available at an extra premium of £500 to satisfy those who need them. Please write to us urgently if you are in this category.

GOOD SOARING!

For pilots who want to experiment with the "AIR MASS" or "NETTO" variometer as described elsewhere in this issue — SLINGSBY'S can supply a kit consisting of the necessary capillary tubing and a pneumatic switch for the sum of £10. If you tell us the volume of the vacuum flask of your variometer and the point on the polar of your glider that you would like to use as reference then we can supply the correct length of capillary tubing for the restriction.

SLINGSBY SAILPLANES
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Tel. 31751 Telex 57911

Name		*Club*	*1973*
1/50	P. Pozerskis	London	14.6
1/51	J. B. Goldbrough	Yorkshire	14.6
1/52	J. T. Wills	Thames Valley	1.7
1/53	A. J. Stone	Airways	25.5
1/54	L. Beer	Thames Valley	5.6

GOLD C HEIGHT

Name	*Club*	*1973*
A. Alsford	Lakes	13.5
R. Jackson	Clevelands	3.3
W. J. Tyler	Worcester	24.6
M. T. A. Sands	Ulster/Shorts	22.4
S. J. C. Parker	Bath/Wilts	24.6
C. G. Wills	Cambridge Univ	12.6
J. Ellis	Doncaster	30.7

GOLD C DISTANCE

Name	*Club*	*1973*
F. A. Woods	London	4.6
E. J. C. Vann	Cranfield	2.6
A. T. Farmer	Four Counties	1.6
P. Redshaw	Lakes	1.6
P. Lazenby	Yorkshire	4.6
R. F.Aldous	Airways	1.6
B. O. O. Moore	Waikerie	19.3
D. J. Robertson	Bicester	1.6
D. P. Holdcroft	Bicester	14.6
J. Grehan	Surrey/Hants	14.6
B. A. Barry	London	14.6
D. E. Hills	Norfolk	16.5
G. P. Saw	Thames Valley	5.6
J. R. Young	Inkpen	14.6
J. A. Simms	Bicester	1.6
S. E. B. Field	Bicester	5.6
V. J. Hurd	London	14.6
C. Leo	Airways	14.6
D. R. Bath	Heron	5.6
M. J. Field	Airways	26.5
D. Wood	Two Rivers	1.7
D. Brown	Midland	3.7
J. E. Rouse	Thames Valley	18.6
T. R. Cawthorne	Bicester	3.7
G. B. H. Collinsplatt	Dorset Flying	24.6
J. Graham	London	3.7
A. J. Adair	Eagle	10.7
S. N. Longland	Cambridge Univ	4.7
A. Fidler	Peterboro/Spalding.	1.6

SILVER C

No	*Name*	*Club*	*1973*
3413	M. L. Murdoch	London	5.6
3414	C. Hay	Surrey/Hants	5.6
3415	C. D. Hill	Thames Valley	5.6
3416	G. P. Walker	Buckminster	10.6
3417	M. Bush	Cotswold	1.6
3418	C. W. H. Boutcher	Lakes	28.4
3419	T. E. Trivett	Bicester	6.6
3420	S. Richardson	Fenland	3.6
3421	P. Guttridge	Airways	1.6
3422	M. A. Pobjoy	Bicester	16.6
3423	G. M. Rogers	Worcestershire	13.6
3424	C. G. Wills	Cambridge Univ	14.6
3425	N. F. Stringer	Norwich	12.5
3426	P. J. Gascoyne	Trent Valley	26.5
3427	A. Townsend	Northumbria	29.4
3428	T. Fox	Peterboro/Spalding.	1.6
3429	R. P .Merritt	Southdown	14.6
3430	F. H. Wheeler	Surrey/Hants	5.6
3431	W. T. Turtle	Portsmouth	9.6
3432	A. Chester	Swindon	1.6
3433	M. D. Belcher	Cotswold	5.6
3434	K. L. Holborn	Northumbria	1.6
3435	P. Bolton	Bicester	16.6
3436	I. F. Barnes	Essex	1.6
3437	J. E. F. Kettlety	Bath/Wilts	23.6
3438	I. N. Jennison	Blackpool/Fylde	23.6
3439	D. B. Britton	Bannerdown	23.6
3440	N. J. Irvine	Cranfield	24.6
3441	J. D. Holland	Cotswold	1.6
3442	N. J. Forman Hardy	Buckminster	23.6
3443	G. R. Rugg	Thames Valley	25.6
3444	C. Brown	Bicester	30.6
3445	A. P. North-Graves	Phoenix	1.7
3446	B. M. Caesar-Gordon	Airways	10.4
3447	S. P. P. Thomas	South Wales	3.7
3448	J. H. Nunneley	Airways	9.7
3449	Pamela Davis	Kestrel	7.7
3450	A. Booker	Heron	26.4
3451	T. J. Summers	Two Rivers	30.6
3452	R. G. Mortimer	Ouse	4.7
3453	P. J. Walford	Bath/Wilts	7.7
3454	P. Arthur	Cornish	3.7
3455	J. A. Coleman	Cotswold	23.6
3456	I. H. Murdoch	Worcester	4.7
3457	D. Brecze	Cotswold	7.7
3458	C. Goodier	Worcester	4.7
3459	H. R. Johnson	Kent	9.7



Support the British Gliding Team

IF at Lasham George Burton and John Delafield had come equal first in the Open Class, and if John Williamson had tied with Bernard Fitchett at the top of the Standard Class, I should have been not only surprised at the co-incidence but concerned as well. To expect that all four British Team pilots could hold that kind of form for another five months would be asking a lot. As things stand, Bernard has shown again that he has got what it takes to win a top-class contest and the other three did well enough for us to be confident they are still amongst that small, elite band of pilots from whom, one of these days, is going to come another British World Champion.

George Burton did his best for the Boomerang Fund by trying hard to finish the 205 kilometre triangle task on Day 6 at 90km/h or more, so we would get another £150 promised from a whole host of donors if any of the Team made the target we set them at the beginning of the year. His official speed was given as 89.76km/h and I eventually discovered there was just no way I could talk the scorers' computer into rounding that up to 90!

The Team would like to thank everyone who has *so far* helped the Boome-

rang Fund on towards its target (yes, there is still just time to send us your cheque if you haven't yet got around to it!). Ralph Jones and Ray Stafford Allen were particularly generous in giving their Compton Abbas Regionals prize money to the Boomerang Fund, as was "Anonymous" who gave us £100 at the end of the Euroglide Contest. All this, plus contributions totalling over £2,000 from the pilots and crews themselves, has made it possible for at least three of our four pilots to arrive in Australia a week early, time enough for jet fatigue to wear off and for them to get acclimatised to the Oz sunshine before flying at Waikerie. Our base for that extra week is, courtesy Adelaide Soaring Club, at Rhoda Partridge's "Glorious Gawler". Read the last two S&Gs for all the attractions: near enough to the city for us to get fettled easily, yet only 100 miles from Waikerie so the Champs task area is nicely within range.

The Royal Air Force is planning to take our two Kestrels, one Std. Cirrus and Std Libelle on a transport training flight and we do very much appreciate the RAF assistance. For once it looks as though we shall have each British pilot flying a glider he is thoroughly at home in. All we need now is for some pundit medico to tell us there is nothing in the biorhythm theory and Team managers won't have any excuses left!

And here is some advance news for collectors: a special commemorative philatelic cover is being issued by the RAF Museum, in collaboration with the BGA, to mark the 14th World Gliding Championships. The exciting design features a Kestrel 19 and all the covers will be flown by the British Team in Australia. On our return, they will be offered for sale through dealers and the BGA at varying prices depending on whether or not they are individually signed by one or all four pilots. Proceeds will be shared by the RAF Museum and the Boomerang Fund. Watch S&G for more details.

ROGER Q. BARRETT, *Team Manager.*

We gratefully acknowledge the donations to the Boomerang Fund so far received which total £1,622.66 up to September 4. This sum is made up by the following contributors: (The sale of raffle tickets is not included in this list.)

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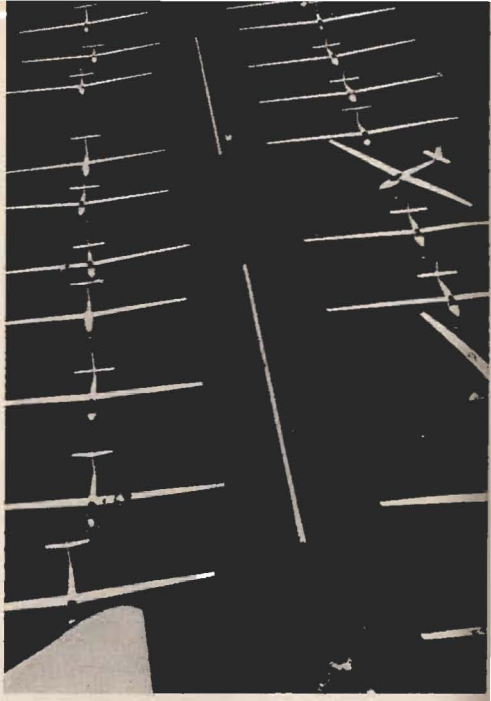
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EUROGLIDE & NATIONAL CHAMPIONSHIPS

Lasham – August 18 to September 2

By A. E. SLATER



AFTER eight competition days, Ralph Jones won the Open Class in both the European and National Championships. The Standard Class flew on seven days, but only six were contest days, and in this class Bernard Fitchett won the two Championships.

This means that there were several days of dud weather, on some of which pilots were waiting on the grid for hours before having to trundle off again at ground level.

The purpose of *The Daily Telegraph* in sponsoring the Euroglide contest was, as last year, to give the prospective British World Championship team practice in flying against their possible rivals, by subsidising pilots coming here from other parts of Europe.

The British team, George Burton and John Delafield in the Open Class and Bernard Fitchett and John Williamson in the Standard Class, found themselves up against four Germans, two Dutch, one Swede and one pilot from Luxembourg, a country which was represented for the first time in an international gliding contest. They might have had five more to contend with, but for the fact that two Swiss, one Austrian, one Dutchman and one Danish pilot had to withdraw for various reasons.

Frank Irving, the Competition Director took the briefings and dutifully learnt to say "good-morning" in the various languages, though the Dutch and Swedish versions took him a day or two to master.

Ian Strachan set the tasks, often being forced to change them by the vagaries of the weather, though the meteorologists did their best.

The met notes by Peter Wickham and Russell Johnson are given in italics.

Saturday, August 18

There was a small high moving east from Ireland in Southern England. Low cloud which covered the Lasham area during the morning burnt off and the anticyclonic conditions which followed were a foretaste of the disappointing weather that persisted throughout the whole of the following week. Thermals were limited in depth to only 3,500ft and were weak owing to thick smoke haze from the Midlands.

Briefing on this first day was given while the assembled company awaited the arrival of Walter Winterbottom, Director of the Sports Council, who duly performed the official opening.

On a misty day, which our overseas visitors probably took for normal English weather, Ian Strachan set the 23 pilots of the Open Class an out-and-return via one of three alternative points in the Oxford region; Headington (130km), Oakley airfield (133km) and Thame airfield (132km), with the intention that they should not take-off until visibility reached three miles.

When eventually the snifter reported an improvement to two miles, Ian Strachan decided to begin launching on the assumption that it would reach three miles by the time everybody was airborne. But it didn't improve: Andersson of Sweden reported it was still two miles, with other sailplanes only visible at 500 yards, and his greatest height was 2,600ft.

However, visibility was better to the north and 4kt thermals were reported with cloudbase at 4,000ft, although when they returned to the Lasham area the haze was even thicker than before. Derek Piggott, for instance, with all his experience as CFI of Lasham, lost his way twice during the last few miles from Basingstoke, though he nevertheless finished third. Joint winners were Jones and Delafield at 53.9km/h.

The ten pilots who finished the course included Rudolf Wilsch of Germany. George Burton had the bad luck to do a ground loop on landing just short of Lasham, doing minor damage to his Kestrel.

By the time the 23 pilots in the Standard Class were due to be launched, increasingly bad visibility kept them on the ground.

Sunday, August 19

Coupled with the smoke haze and anticyclonic stability at low levels was the additional hazard today of upper cloud layers spreading in from weak Atlantic fronts. The result was no thermals at all.

Not surprisingly a no-contest day.

Monday, August 20

Lasham was fortunate to lie in a rather narrow zone of clear, soarable air between frontal cloud layers over the Midlands and moist sea-air conditions to the south and west. The whole pattern was slow-moving and the task area towards the west remained soarable all day. The main hazard was a certain amount of layer-cloud spreading out from developing cumulus.

Frank Irving reminded the foreign retrieve crews that if they saw a notice that said road works it meant that the road does not work.

Each Class were given an out-and-return task, the Open Class via Bradford-on-Avon (174km) and the Standard Class via Devizes (138km), the Standard to start first.

The Standard Class were all launched by 12.36pm allowing the Open Class also an early start. Conditions were somewhat tricky; at the start there were 20 gliders sharing only two thermals over the site.

Experiences were very variable, for instance Chris Day never sank below 2,000ft, yet Tony Burton was once at 300ft. On the whole, it was easy going out but difficult coming back.

In the Open Class Jones averaged 81.2km/h, winning the day and keeping his overall lead. George Lee was second at 79.7km/h. All but three finished the course. Wilsch again led the visitors by coming in seventh place. Fitchett also maintained his overall lead in the Standard Class by winning at 75.8km/h.

Tuesday, August 21

Thick cloud over Southern England all day which was in no hurry to move away. The tasks set were scrubbed.

Wednesday, August 22

High pressure settled over the North Sea and easterly winds covered southern England giving weak thermal conditions, mostly blue under the anticyclone and complications aloft due to regional blobs of upper cloud from Tuesday's front. Thermals were slow to develop and only the presence of stubble fires made this much of a day.

Frank Irving had to calm a restive audience as the task setters were taking rather a long time, but they eventually came up with a 150km triangle via South Marston and Didcot for the Open Class and an out-and-return for the Standard Class via South Marston (133km).

Just after everybody was launched, a sheet of alto-cumulus came from the west and covered the sky, causing many remarks about "they've had it". However, Peter Wickham said it was only a local sheet and sure enough it passed off, leaving the competitors with a day of blue thermals. This didn't worry Bobby Clifford of South Africa because it was his normal home weather. The absence of cumulus was to a certain extent relieved by the numerous stubble fires, though not sufficiently to enable any of the Open Class pilots to complete more than two legs. One landing field was con-

gested by Manfred Dick, Piggott and Wilsch.

George Burton won the Open Class by landing only 12km short from Lasham while Chris Day and Jones came equal second by landing 16km from base. In the Standard Class Fitchett was first over the finish line, but his speed, 64.2km/h, was beaten by Dick Teuling (Holland) with 66.4km/h. It was a day for the visitors for Andersson came fourth, Peter Sand (Germany) fifth and Dann Paré of Holland sixth.

As the conventional thermals from sun-heated ground were stopped by an inversion at 3,000ft, the hot air of the stubble thermals was evidently hotter than the top of the inversion, carrying many pilots up to well beyond 4,000ft.

Thursday, August 23

Thunderstorms overnight to the south-west gave rise to extensive layer clouds which persisted all day with Lasham depressingly overcast. Tasks were hopefully set, but not attempted.

Friday, August 24

Small amounts of cloud but the upper atmosphere was still moist and a veil of thin cirrus clouds, aided by aircraft condensation trails, made the thermal conditions disappointing. Thermals were blue, weak and slow to brew-up. Again extensive stubble-bubbles saved the day for most people.

A 247km triangle, via Shaftesbury and Tetbury, was set for the Open Class with a 206km triangle, Devizes and Oxford, for the Standard Class. Nobody finished the course in the Open Class, most people coming down near the second turning point. Wilsch and Jones tied for first place by landing at Kingsclere, 229km.

The Standard Class likewise, everybody came down short with one distinguished exception, Tony Burton, who radioed at 6.30pm that he was starting his final glide but doubted if he would make Lasham. Then, at 6.41, with four minutes to go, he decided he could just make it, and sure enough at 6.45 he glided in at minimum speed to an immediate landing, the only one out of 46 to return by air.

Nevertheless, the overall leaders were unchanged, Jones in the Open Class with 3,871pts in four days and Fitchett, Standard Class, with 2,755 in three days.

Saturday, August 25

A similar day to yesterday with blue thermals not brewing up till about 1pm, restricted in depth to some 4,000ft, but they were better in strength than the day before. Stubble fires were still very much in evidence.

The task for the Open Class was an out-and-return to Faringdon (130km); for the Standard an out-and-return to Didcot (104km). In exact contrast to yesterday, everybody got round except one pilot in the Standard Class. Reasons suggested were various; for instance, that the course was not as long as the day before, and that the air had become more unstable; in fact, thunderstorms broke out during the night. Stubble fires were again largely used, although, to quote one pilot, "there were some real thermals".

George Burton won in the Open Class with 74.2km/h, with Jones second at 72.3km/h and Delafield third at 69.2km/h. In the Standard Class, Paré not only won at 76km/h but actually displaced Fitchett temporarily from his leading position overall with 52pts to spare.

Sunday, August 26

Again similar to yesterday except that there was cumulus for a change. The majority of pilots reported good conditions with moderate thermals and a little streeting. Visibility, however, was on the poor side.

Briefing came before prize giving this morning so that Sir Leonard, Chairman of Slingsby Sailplanes and Vickers Shipbuilders, and Lady Redshaw could attend the daily prize giving.

The task for both Classes was a 205km triangle via Devizes and Oxford, set by Gerry Burgess, deputy task setter.

This was the best day yet with plenty of cumulus and some streets, with the result that Jones made a phenomenal 91.9km/h, with George Burton not far behind at 89.8km/h and Lee at 87.6km/h. Best in the Standard Class was Fitchett with 79.6km/h, enabling him to recover his overall lead.

August 27, 28 29

A cold front and poor visibility on the Monday was followed by a ridge of high

pressure in the north on the Tuesday. Pressure built across the North Sea, causing the front to return. On Wednesday rain reached the area by the afternoon.

Thursday, August 30

Ridge extended north-east over the country. Cold air over the area with fresh north-west winds. Plentiful thermals, some temporary over-development expected.

After three non-competition days both classes were given the choice of the same two tasks, an out-and-return race via either Chiselbury Badges (135km) or Sixpenny Handley junction (143km).

Air Marshal Sir Neville Stack, President of the RAFGSA, was present at the briefing.

Because of the strong northerly wind, the east-west runway could not be used and launching took place over rather rough ground. The winners were Lee in the Open Class 84.3km/h and Fitchett in the Standard Class 83.8km/h. Many pilots had second launches.

Friday, August 31

A warm front moved east across England and Scotland during the morning. This brought warmer air replacing cold air. The main problem was strong west northwest winds.

The Standard Class were set a 101km triangle via Chilbolton and Newbury but nobody got round and too few people went far enough to score, so this was not a contest day for them.

The Open Class were given an out-and-return via Shaftesbury (160km) and some pilots made the only contact with wave lift to be reported during the contest. The outward journey was against the wind, so the only three who succeeded in getting back came in at an extremely fast glide, one of them doing an estimated 200km/h over the ground. They were two Germans, Dick who won the day, and Wilsch, who came second, and one British pilot John Jeffries placed third.

Saturday again turned out to be a no-contest day and as the weather for Sunday looked uncertain for a fair contest, it was decided to have prize-giving at Ilam. This was by Brian Trubshaw of Concorde fame, who arrived for the occasion in a K-13. He is photographed



Photo: Godfrey Harwood

with Geoffrey Thomas (Lasham Management) who between them share 50,000hrs.

HOW 82 AND I DID IT

by RALPH JONES

FIRST day to Headington roundabout, where?—never heard of it! However, my wife soon showed me the little book full of turning points and I was duly posted towards Oxford. Groping through the murk we eventually found Basingstoke, then Hampstead Norris. By this time the lack of other gliders on track was getting me worried. What was the turning point? However, Brennig James turned up in his Diamant and I knew all was well! We shared a thermal in which he outclimbed me, as everyone seems to do.

Passing a "herd" who were on the way home we trogged off to the roundabout, had a look and started for home. Near Goring I met 402 (Ted Lysakowski) and GB (George Burton) circling under grotty clouds and climbing rather slowly; still, going up is better than going down, so I dallied for a while. Then a swift dash over to Hampstead Norris (actually my intention was to head south, but the compass would point that way) revealed a field fire going well. A climb here with 49 (Don Austin) was enough to get me home to tie first with John Delafield.

Day 2—Bradford on Avon and back I caught most by Devizes except for an elusive Kestrel I kept glimpsing ahead.

We push after him—he has obviously seen the Nimbus and goes for the turning point low, and then turns away to the south. We sail sedately in at 3,000ft, take a picture and turn back to Keevil. 2,000ft asl and still no lift (funny—there was plenty here a few minutes ago!) 1,000ft asl and a weak thermal eventually condescends to help out. Far above a Kestrel purrs along near cloudbase—268 (George Lee) in a hurry! Nothing to be done but work patiently at 2kts, now 4 and we are away again. 268 is at Lasham when we get back, but my late start is enough to take first place.

Coughing in the smoke from a burning field fire just SE of Swindon makes me wonder why gliding is regarded as a clean sport! Day 3—A triangle South Marston, Didcot Towers is the problem. All the reasonable thermals are smoke. Ray Foot (Nimbus No 90) and I had a fair run from Lasham but this field fire is fantastic, varios on the stops. As we are flying pretty close Lemmy Tanner informs me that he hasn't got much aileron control in the turbulence. Him and me—both! He said later that he had timed the climb at 3,000ft in three minutes. Ron Sandford in Std Cirrus 242 is on the opposite side of the thermal.

On to South Marston at 120kts plus, a quick chandelle to take the picture and back to the fire and I see ASW-17—JW "Juliet Whisky" flown by the German Nationals runner-up—Rudolf Wilsch climbing slightly below. The main fire has burnt out and the lift is dropping off, although there are still a lot of gliders around, the smoke making the white wings appear cream and the lack of horizon causing them to appear to be hanging in space. A fast run to Wantage and back to the weak thermals, a slow climb and tiptoe to just short of Didcot. "Juliet Whisky" and Manfred Dick in "Drei Whisky" who are slightly below me rush back down track to a fire just starting.

I made the mistake of following gliders ahead. Within a few minutes Nimbus 82 is trailing two streams of water on the traffic on the A34 just north of East Ilsey. Cooking gently in the cockpit I worked like hell to get out of the valley, eyes glued to the instruments. If I collide with anything at this height it will be with a bus not a glider!

Thirty minutes later Wantage is a few miles to the north and 2,500ft below. And so to a weak stubble fire south of Hampstead Norris. "Juliet Whisky" joins me and we compare rates of climb in almost non-existant lift for nearly an hour, never getting more than 1,600ft asl. The fields below are gaining gliders as the others catch up. One glider passes over us about 500ft higher and GB is approaching Basingstoke. Time to final glide somewhere. At 46kts tail down, we creep off towards Aldermaston. Little bell rings—can't land in their Zone, so slowly along the blue line around the west side, running out of height and ideas similtaneously. Chris Day saved the day (excuse the pun) and I landed alongside his Kestrel in a stubble field. Joint second and with GB a few miles ahead—could be worse.

Day 4—A 247km triangle. Again a late crossing of the line. One thermal and two fires later, the "herd" is located just short of Shaftesbury. I join them and we coast slowly up the second leg. Every now and again we lose a ship to the fields. Ted "Lys" (402) and I get to the second turning point together. I get my picture and dive to a field fire to the west. This is a good one going to over 5,000ft which is 1,000ft above the inversion. The layers of smoke from many such fires, trapped by the inversion, completely obliterate the ground below for a while. The compass is resorted to.

A glider circling below west of Swindon reminds me that there is a competition on. It's 402 and he's climbing, but he is too far to the north of me and I go on. Then I see in the distance two gliders circling about the same height as myself. I creep slowly towards them hoping they will not see me and take fright. It is JW and 268—I have been looking for them all day. We all run a little, thermal a little. JW is slightly behind but climbing well. 268 and I run towards Hungerford hoping to lose him.

Ahead and slightly to the right I see a glider low but climbing. "George, there is a glider circling" I said. "There is no lift here" 402 said plaintively, but there was a little. Now two Kestrels and a Nimbus hang around in the smoke of a fire at Hungerford waiting for the thermal that surely must come. It cost me

800ft before I decided to go on.

Being on home ground I went to Inkpen ridge to take advantage of the light NE wind and proceeded along it very gently. Hannington Mast. My crew are on top of the hill about level with me. They tell me that JW passed here at about the same height. Just over the brow of the hill ahead I see the orange and white ASW-17. Round some trees and it is down hill across the corn field to a quite inadvertently deploy/jettison of tail 'chute and very essential ground loop into JW's field. Got 'im. Joint first.

Out-and-return to Faringdon on Day 5. I don't really have any recollections about this day at all except for the result. 82 and I were second and GB received his Gold Medal in the presence of Sir Leonard Redshaw.

A 205km triangle Devizes, Headington roundabout was the task for Day 6. No startling impressions about this one either. An easy run up the first leg. Gained nine minutes on GB but he slipped past me on the second leg and was home before me. My speed 91.9km/h. I do remember, however, approaching Basingstoke with Ray Foot at 3,500ft asl on final glide—safe I suppose! First for the day and this began to consolidate my lead.

Day 7—Three days of no competition flying find me rather lethargic on day seven. The usual late crossing of the line and I managed to miss the best thermals until well on the way back. Clobbered by 18 minutes by George Lee on his second attempt, and on a very short task! Also beaten by seven other pilots!

Still smarting from yesterday, I listened very carefully to the briefing. The eventual task was an out-and-return to Shaftesbury. We were all launched into 8/8 strato-cu and a stray NW wind. For the first time in this competition I noticed the wind. Not bothering to cross the startline I pressed forward to Worthy Down. Below, a Kestrel seems intent on landing and my reckoning told me George Lee must be the only one this far out. A call on the radio confirmed it was 268. Some turbulence—a thermal was giving off nearby, but where? "Something here" I said and 268 moved a little my way and began to circle. I moved on and got a scrappy thermal. Needless to say he outclimbed me but at least there were two gliders to sort out the lift, not only non-confident me. Then suddenly 66 (John Delafield) and 260 (Frank Pozerskis) were there. JW was also in the same area. Ahead the sky was looking much better—blue with about 5/8 cu. A quick run back to Lasham and then a *fast* time I thought! On my second launch after 15.30 all thoughts of fast times had long since gone. Standard Class machines were still around but most of the Open Class were past Salisbury. So it was hang on to the Standard Class "herd" and hope they didn't notice the two (David Ince was there also) black sheep.

At Chilbolton 53 and 82 had a little more height than most of the 15m ships and they began to go down throwing futile circles then straightening up and landing, just like moths when they have been flying too near a street lamp.

Pushing on towards Salisbury, 53 and I were getting pretty desperate. Two machines had finished and we were halfway along the first leg! Flying along the A30 in a futile attempt to reach Old Sarum I came across some trees which were higher than the Nimbus, so a slight turn left, select landing flap, undercarriage down and approach into a field. However, the field sloped away—another 800yds to be had. Brakes away, flaps to neutral—Oops!

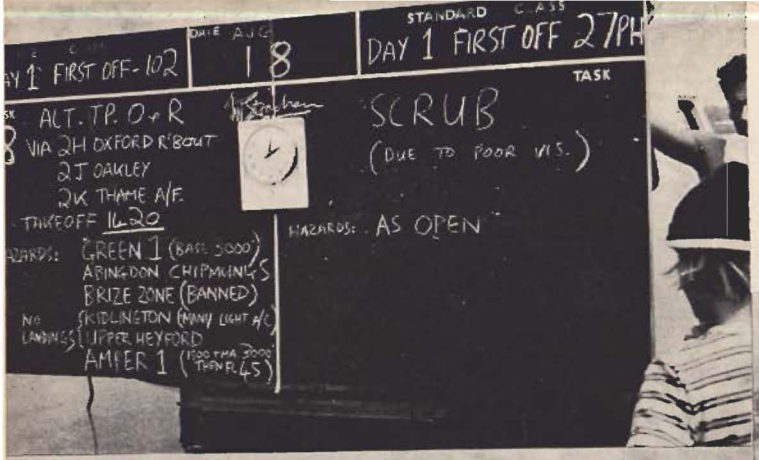
We are running down the field parallel to the A30 at 55kts. I noticed amongst the traffic Alf Warminger's rather nice Rover motor car towing his trailer at much the same level. The ground rises ahead, but to the right another field is at least level. Feed in a little flap, gain enough height to cross the A30 and its attendant telephone wires. Yet another stubble field appears ahead and lower. We slip over the edge and cross another three fields to land just SE of Old Sarum —2.2 miles after putting the wheel down to land for about 25 points. Was it worth it? No. For me there were 17 winners that day !

For the first time that I can remember I didn't want to fly a glider. The lead was still mine, albeit by a much reduced margin. We had an "exhibition" launch on Saturday but no contest. Prize giving on Sunday, it boomed. Somebody wanted to fly 82 but when we pulled it out a flat tyre was found—she didn't want to fly either.

OPENING DAY AT THE NATIONALS

photos: G. and B. H. Bryce-Smith.

Competition Director, Frank Irving





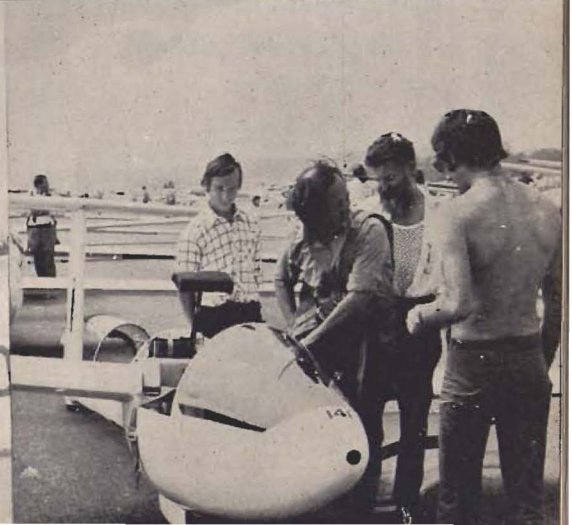












FINAL RESULTS — DAILY TELEGRAPH — OPEN CLASS

LASHAM — August 18—September 2

No.	Pilot	Sailplane	18.8 (909)	20.8 (1000)	22.8 (1000)	24.8 (1000)	25.8 (1000)	26.8 (1000)	30.8 (1000)	31.8 (583)	Total
1	Jones, R.	Nimbus 2	909 1=	1000 1	962 2=	1000 1=	963 2	1000 1	833 8	105 18	6772
2	Wilsch, R. (Ger.)	ASW-17	856 8	734 7	900 5=	1000 1=	714 9	832 4	960 3	566 2	6562
3	Lee, G.	Kestrel 19	798 10	978 2	635 20	945 4	831 6	933 3	1000 1	219 6	6339
4	Delafield, J.	Kestrel 19	909 1=	772 5	773 13	760 5	904 3	738 11	976 2	197 7	6029
5	Jeffries, J. R.	Kestrel 19	884 5	696 10	799 11	599 14	711 10	804 5	783 11	558 3	5834
6	Lysakowski, E. R.	Kestrel 19	803 9	601 14	746 15	993 3	854 4	782 6	847 7	157 13=	5783
7	Burton, G. E.	Kestrel 19	605 11	723 9	1000 1	105 23	1000 1	967 2	944 4	302 5	5646
8	Dick, M. (Ger.)	Kestrel 17	197 21	799 3	900 5=	689 6	842 5	769 7	809 10	583 1	5588
9	Piggott, A. D.	Kestrel 19	907 3	585 15	900 5=	640 7=	753 8	767 8	749 12	189 9=	5490
10	Goldsbrough, J. B.	Kestrel 19	463 16	794 4	901 4	640 7=	696 11	760 9	935 5	195 8	5384
11	Day, C. G.	Kestrel 19	467 15	634 13	962 2=	512 17	686 12	543 19	821 9	132 15	4757
12	James, D. B.	Diamant 18	890 4	519 17	871 9	614 11	362 22	608 16	435 18	383 4	4682
13	Austin, D. C.	Kestrel 19	872 6	637 12	668 19	618 10	604 15	618 15	436 17	186 12	4639
14	Tanner, L. E. N.	Kestrel 19	494 12	669 11	889 8	607 13	827 7	84 23	735 15	189 9=	4494
15	Ince, D. H. G.	Kestrel 19	285 20	725 8	790 12	584 15	547 18	674 12	743 14	82 19	4430
16	Pozerskis, P.	Kestrel 19	485 14	31 22	698 18	540 16	431 19	649 13	849 6	189 9=	3872
17	Foot, R. A.	Nimbus 2	863 7	745 6	754 14	123 22	580 16	750 10	0 22=	0 22=	3815
18	Warminger, A. H.	Kestrel 19	107 22	437 18	808 10	621 9	630 14	627 14	265 21	112 16	3607
19	Burns, Anne	Nimbus 2	331 19	553 16	570 21=	496 18=	561 17	461 22	595 16	38 21	3605
20	Tull, V. H. G.	Diamant 18	439 17	380 20	723 16=	206 21	401 20	546 18	744 13	108 17	3547
21	Cousins, R. C.	Kestrel 19	419 18	430 19	336 23	609 12	643 13	602 17	397 19	0 22=	3436
22	Wood, R. A.	Cirrus VTC	488 13	13 23	723 16=	281 20	393 21	471 21	0 22=	157 13=	2526
23	Wishart, R.	Kestrel 19	65 23	324 21	570 21=	496 18=	25 23	478 20	388 20	66 20	2412

FINAL RESULTS — DAILY TELEGRAPH — STANDARD CLASS

No.	Pilot	Country	Sailplane	20.8 (974)	22.8 (1000)	24.8 (1000)	25.8 (1000)	26.8 (1000)	30.8 (1000)	Total
1	Fitchett, B.		Std Cirrus	974 1	963 2	818 2	557 16=	1000 1	1000 1	5312
2	Paré, D.	Holland	Std Cirrus	749 4	841 6	774 5	1000 1	837 4	766 5	4967
3	Sand, P.	Germany	Std Cirrus	789 3	870 5	788 4	841 5	848 3	547 15	4683
4	Sandford, R. A.		Std Cirrus	633 11	797 11=	603 15	659 10=	734 12	734 7	4160
5	Williamson, J. S.		Std Libelle	881 2	330 21	108 23	875 4	909 2	948 2	4051
6	Burton, A. J.		Std Libelle	470 18	596 17	1000 1	897 2	397 19	668 10	4028
7	Camp, G. W.		Std Libelle	626 12	839 7	643 14	559 15	747 10	575 14	3989
8	White, S. A.		ASW-15	662 7	933 3	756 6=	463 19	371 21	781 4	3966
9	Andersson, G.	Sweden	Std Cirrus	74 22	871 4	736 10	825 6	779 7	682 9	3946
10	Glossop, J. D. J.		ASW-15	117 19	797 11=	714 12	761 8	713 13	841 3	3943
11	Teuling, D.	Holland	Std Libelle	651 9	1000 1	726 11	887 3	40 23	615 12	3919
12	Hood, L. S.		Std Cirrus	567 16	824 8	525 19	557 16=	702 14	721 8	3896
13	Meddings, E.		Std Libelle	578 15	661 16	586 16=	637 12	735 11	622 11	3819
14	Brown, H. F.		Std Libelle	636 10	808 9	756 6=	808 7	752 9	48 23	3808
15	Watson, A. J.		Std Libelle	585 14	759 13	749 8	470 18	793 5	267 21	3623
16	Gough, A. W.		Std Cirrus	619 13	807 10	551 18	712 9	778 8	119 22	3586
17	Kronfeld, W. J. R.		Std Libelle	658 8	755 14	742 9	420 20	684 15	322 20	3581
18	Grenet, P.		Std Cirrus	674 6	303 22	702 13	659 10=	783 6	413 18=	3534
19	Gaunt, R. F.		Std Libelle	685 5	394 20	799 3	394 21	602 17	604 13	3478
20	Knipe, F. H.		Std Libelle	501 17	744 15	293 22	609 13	365 22	484 17	2996
21	Tönges, O.	Germany	LS-1c	86 21	410 19	586 16=	377 23	608 16	509 16	2576
22	Brownlow, J. B.		Cobra 15	108 20	572 18	302 21	570 14	547 18	413 18=	2512
23	Braun, J.	Luxembourg	Std Cirrus	39 23	12 23	498 20	389 22	395 20	754 6	2087

FINAL RESULTS — BRITISH NATIONALS — OPEN CLASS

LASHAM — August 18—September 2

No.	Pilot	Sailplane	18.8. (943)		20.8. (1000)		22.8. (1000)		24.8. (1000)		25.8. (1000)		26.8. (1000)		30.8. (1000)		31.8. (514)		Total
1	Jones, R.	Nimbus 2	943	1=	1000	1	962	2=	1000	1	963	2	1000	1	840	7	93	16	6801
2	Lee, G.	Kestrel 19	829	9	978	2	635	18	945	3	882	5	934	3	1000	1	194	4	6347
3	Delafield, J.	Kestrel 19	943	1=	776	4	773	11	760	4	904	3	739	9	977	2	174	5	6046
4	Jeffries, J. R.	Kestrel 19	917	5	702	8	799	9	599	12	712	8	804	4	792	9	514	1	5839
5	Lysakowski, E. R.	Kestrel 19	835	8	609	12	746	13	993	2	855	4	783	5	854	6	138	12	5813
6	Burton, G. E.	Kestrel 19	632	10	729	7	1000	1	105	21	1000	1	967	2	947	3	266	3	5646
7	Piggott, A. D.	Kestrel 19	941	3	593	13	900	5	640	5=	757	7	768	6	759	10	167	7=	5522
8	Goldsbrough, J. B.	Kestrel 19	484	15	798	3	901	4	640	5=	697	9	761	7	938	4	172	6	5391
9	Day, C. G.	Kestrel 19	487	14	641	11	962	2=	512	15	687	10	545	17	828	8	116	13	4778
10	James, D. B.	Diamant 18	924	4	529	15	871	7	614	9	364	20	610	14	454	16	338	2	4704
11	Austin, D. C.	Kestrel 19	905	6	644	10	668	17	618	8	605	13	620	13	456	15	164	10	4680
12	Tanner, L. E. N.	Kestrel 19	516	11	675	9	889	6	607	11	828	6	85	21	746	13	167	7=	4513
13	Ince, D. H. G.	Kestrel 19	297	19	731	6	790	10	584	13	549	16	675	10	754	11=	72	17	4452
14	Pozerskis, P.	Kestrel 19	507	13	32	20	698	16	540	14	433	17	650	11	855	5	167	7=	3882
15	Foot, R. A.	Nimbus 2	896	7	750	5	754	12	123	20	582	14	751	8	0	20=	0	20=	3815
16	Burns, Anne	Nimbus 2	346	18	562	14	570	19=	496	16=	563	15	464	20	612	14	34	19	3647
17	Warminger, A. H.	Kestrel 19	111	20	449	16	808	8	621	7	631	12	629	12	277	19	99	14	3625
18	Tull, V. F. G.	Diamant 18	459	16	393	18	723	14=	206	19	403	18	548	16	754	11=	95	15	3581
19	Cousins, R. C.	Kestrel 19	438	17	442	17	336	21	609	10	644	11	603	15	415	17	0	20=	3487
20	Wood, R. A.	Cirrus VTC	510	12	13	21	723	14=	281	18	396	19	474	19	0	20=	139	11	2536
21	Wishart, R.	Kestrel 19	68	21	335	19	570	19=	496	16=	25	21	480	18	406	18	58	18	2438

FINAL RESULTS — BRITISH NATIONALS — STANDARD CLASS

No.	Pilot	Sailplane	20.8. (1000)		22.8. (1000)		24.8. (1000)		25.8. (1000)		26.8. (1000)		30.8. (1000)		Total
1	Fitchett. B.	Std Cirrus	1000	1	1000	1	818	2	635	12	1000	1	1000	1	5453
2	Sandford. R. A.	Std Cirrus	605	8	820	7=	603	11	744	7	721	8=	780	5	4273
3	Williamson. J. S.	Std Libelle	892	2	305	16	108	17	977	2	905	2	957	2	4144
4	Camp, G. W.	Std Libelle	598	9	865	3	643	10	637	11	734	7	648	10	4125
5	Burton, A. J.	Std Libelle	417	15	601	13	1000	1	1000	1	368	15	725	7	4111
6	White, S. A.	ASW-15	639	5	968	2	756	4=	534	15	343	16	819	4	4059
7	Glossop, J. D. J.	ASW-15	98	16	820	7=	714	8	854	4	698	10	869	3	4053
8	Hood. L. S.	Std Cirrus	529	13	849	4	525	14	634	13	687	11	769	6	3993
9	Meddings, E.	Std Libelle	542	12	672	12	586	12	721	8	721	8=	687	8	3929
10	Brown, H. F.	Std Libelle	608	7	831	5=	756	4=	904	3	739	6	60	17	3898
11	Watson, A. J.	Std Libelle	550	11	778	9	749	6	541	14	782	3	333	15	3733
12	Kronfeld, W. J. R.	Std Libelle	634	6	774	10	742	7	488	16	668	12	401	14	3707
13	Gough, A. W.	Std Cirrus	589	10	831	5=	551	13	801	5	767	5	148	16	3687
14	Grenet, P.	Std Cirrus	653	4	281	17	702	9	745	6	772	4	515	12=	3668
15	Gaunt, R. F.	Std Libelle	666	3	365	15	799	3	460	17	581	13	672	9	3543
16	Knipe, F. H.	Std Libelle	452	14	763	11	293	16	691	9	338	17	573	11	3110
17	Brownlow, J. B.	Cobra 15	90	17	575	14	302	15	649	10	523	14	515	12=	2654
	Hors-Concours														
	below			below		below		below		below		below		below	
16	Clifford, R.	South Africa Cobra 15	35	17	859	3	472	14	851	4	121	18	549	11	2887

NATIONALS (ALMOST) WITHOUT TEARS

By IAN STRACHAN

— who claims that his crew did virtually no work during the contest . . .

THE SF-27M and I, wife and dog (the complete equipage) arrived at Husbands Bosworth for a week's practice before the Sports Class Nationals. The last time we flew at HB we won the contest, so this time, believing in some murky law of averages, I knew in my bones that we couldn't repeat this (defeatist . . .).

However, with a crew of one spaniel (partly under control) and one wife (totally out of control) the idea was to either get round all the tasks, or to land out at sites from which a self retrieve with the mighty Hirth 26hp motor was possible. Rhoda may claim to own "the most beautiful ** that *** ever made"', but our SF syndicate own the "most versatile soaring machine ever made".

Practice week featured a radio failure and one day I soared the SF to Bicester, had the radio fixed and flew back in the evening when thermals were dead. The return to HB used only 15min of engine time for a 40min flight and included a useful practice final glide.

The contest proper opened with a triangle which was made tricky by an ASI failure and by London haze reducing thermals at Henlow, the second turning point. The bolshy ASI proved to be no problem and turned out to be due to a loose pitot connection—but diaphragm total energy ain't half soggy with static pressure instead of pitot!

However it shows the benefit of knowing the feel of your machine's controls, its trim settings for different speeds and its aerodynamic noises to assess speed.

The London haze by contrast was a problem, bringing most pilots down on the second leg although some heroes completed the task. My last weak thermal was from the hot air generated by a Kestrel pilot who had just landed below me. The SF wasn't doing too badly



at all in overflying this more expensive machine.

We ground to earth at Old Warden in company with a Std Libelle and a Cobra. By landing at an airfield we had only thrown away a few yards of distance and, of course, a potentially hazardous field landing in not very good country—there were a lot of crops and hardly any cut hayfields.

Resisting the temptation to donate the machine to the Shuttleworth Trust, I took off without bothering to refuel and reached base after 12min engine time and 30min flight time, having practised another final glide in poor visibility conditions.

Figure 1 is of the barograph trace for the day. The bottom line shows ignition circuit "live" when it rises above its baseline. It should also be mentioned that, in accordance with BGA contest rules, the engine was locked after retraction (after launch) and the seal of the locking device, which was inaccessible in flight, was broken by independent observers after landing.

FIG. 1

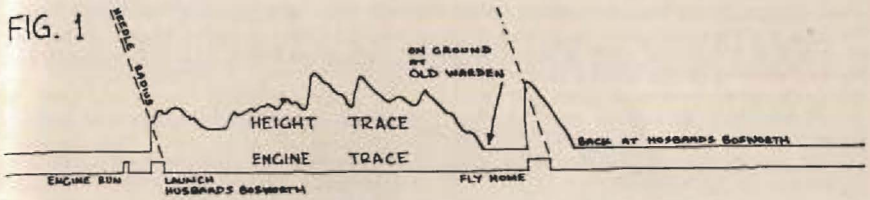
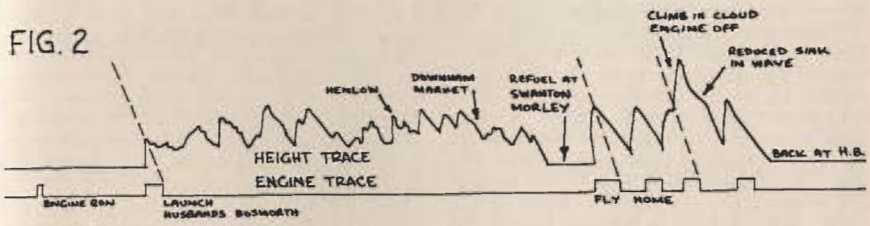


FIG. 2



On the next day, the task was cancelled due to a late brew-up. There was, however, a short time in which a productive launch was possible between the start of thermals and the start of a helicopter display on the airfield which stopped further launches. So while Kestrel waited for a launch, the SF was soon soaring, as it was able to bypass the launch queue.

Several days of rain followed but my gloom was perhaps less than most pilots because:

(a) My entry fee had been less.

(b) I had just sown two lawns at home.

(c) My wife was slightly cheaper to support than the usual crew of three or four hulking blokes that some chaps bring to the comps.

The next contest day produced a fairly routine 200km crosswind out-and-return to Nympsfield. Four hours soaring for five minutes' engine time, two low scrapes including a very clear view of Edge Hill, and the SF was second for the day.

Second again

The most significant day for the motor glider was the dog-leg Swanton Morley race via Henlow and Downham Market. The first leg was very difficult, and impossible for some including a proportion of the Kestrel brigade. I went nearly 15 miles off track to the east where conditions were just good enough to stay airborne.

Having the motor aboard helped me to reach Henlow, because several times when fed-up with weak thermals I headed off towards the turning point, keeping myself within range of a landable airfield all the time so that I could at least fly home in comfort. But each time after pressing on, another thermal presented itself, some at quite low altitude.

So we progressed from crisis to crisis, from Molesworth to Chelveston, Little Staughton, Tempsford, Old Warden and finally to Henlow. Conditions now became good and the ground fairly zipped by until overconvection set in at Ely. Time to mentally change gear again and Downham was photographed while circling very cautiously in zero sink.

My old RAF station at Marham gave me a weak thermal up to final glide height and from there on, of course, it was lift all the way! Second again for the day and second overall—can't be bad for a motor glider.

A short pause to shake up three gallons of petrol with some oil for refuelling and off back to HB. Two hours flying which took 40min of engine time and sampled some cloud thermals and some wave upwind of Peterborough. Figure 2 shows the trace for the day.

And so the final day of the contest. A short out-and-return with alternative turning points, returning against the

wind. A patch of overconvection went through and then we were launched, the SF being first on the grid. Upwind was the first shower of the day so the prudent thing seemed to be a dash down the route before the day turned to rain. A bad decision! The day winner was cunning enough to pull off the grid and wait until conditions stabilised later.

Meanwhile I made fast time towards Peterborough, one of the turning points, but caught up a big blue patch of weather and found that I couldn't even hold station against the wind while waiting for conditions to perk up. It seemed useless to be drifted over the fens so I set course upwind and hoped. Unfortunately Sibson airfield touched my wheel before a strong thermal and so this was the rather ignominous end of the contest for me.

But having paid a landing fee to the Peterborough Aero Club, found two gliding types there masquerading as power instructors, and topped up with fuel, I was soon climbing in a thermal with engine retracted. Inevitably conditions were now quite good and having climbed to 8,000ft in cloud I returned to HB.

Crew redundancy

So ended my first nationals during which my crew never had to leave base. You purists may scoff but this must be a trend in the right direction. The heroic retrieve stories leave me cold nowadays. We had one recently where it took until the following day to get a glider down from the top of Bredon Hill—just why did you land on top, Anne?

So, you will say, it's only Ian on his hobby horse again. You are right. But at last there appear "signs in the East" that manufacturers are stirring from their sleep. The Yorkshire lot have seemingly missed the chance of producing the world's first high performance motor glider, because a motor Nimbus by Schempp-Hirth is now being made in Germany.

It will have a 50hp engine, electric start and automated engine extension before starting. This will be the breakthrough in motor glider performance, though costly, but if a production line is set up the price will come down. In principle the motor kit could be fitted to any of the Cirrus machines because all the Cirri and Nimbi have fuselage centre sections braced with metal tube, so rendering the fitting of a retracting engine like the SF-27M straightforward.

Of course the SF itself has been in production for several years and current ones have electric start and assisted (engine) erection. The SF is the machine for a pilot who is satisfied with K-6E performance and is 180lb or under.

So progressive soaring pilots, unite. Let's see some second and third generation machines soaring in UK skies. Before long we could be independent of winches, tugs, field landing damage, irate farmers and recalcitrant wives and families. And just think of the potentialities of a motor Nimbus for winter wave exploration . . . See you at Aboyne next October.

A TRAVELLER'S TALE —probability sums

By ARMCHAIR PILOT

HAVING been invited to lecture at the State University on the Monday, I hired a car for the weekend, and on the Sunday set off in search of a gliding club. It was noon before I found one; cloudbase was already eight or nine thousand feet, and conditions looked magnificent. I wandered into the glider hangar, which contained an assortment of aircraft, including a two-seater and a K-6 still in its delivery crate. But not a soul was to be found, and I concluded that everyone must be airborne in other gliders.

Outside I saw a man walking past carrying a parachute, and went to ask him where the glider pilots might be. "Oh, they came out from town this morning, but decided to go home after taking a look at the weather." It was not the last time that I was to be surprised by American indifference to good soaring weather. "Why don't you come with me and take a look at the sky-diving?" he added.

Well, I was evidently not going to glide, so I might as well spend the day in the congenial company of people who like leaping out of aeroplanes.

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SOUTHERN SAILPLANES

(RALPH JONES)

SOLE U.K. AGENT FOR SCHEMPP-HIRTH

REPAIRS TO ALL TYPES OF GLIDER

INSTRUMENTS AND SPARES

We drove across to the take-off point, where I was warmly greeted. People were dressed in the widest variety of parachutes, helmets, stop-watches and altimeters. Some were repacking their parachutes on the grass; others—about six, I suppose—were preparing to take-off in a light aircraft. After watching the first cluster of sky-divers descending, I was asked whether I would like to try myself. That seemed an interesting proposition, but first, I thought, it might be wise to satisfy myself about the safety of the sport.

"How often does your parachute not open properly?" I asked in an attempt to elicit the most fundamental piece of information.

Opened every time

"Well, we reckon about once in 60 jumps," came the reply. "See that girl over there? She has just made her one hundredth jump, and her parachute has opened *every time*—that's pretty unusual."

I fell to wondering what the probability of making a hundred or more such jumps was, given that the probability of each being successful was 59/60, but then I remembered I was on holiday.

Of more immediate concern was what happened if the parachute did not open properly.

"Oh, we always carry a spare chute on our front, like that fellow over there is."

Too high a risk

Even though I was on holiday, I could not refrain from multiplying 1-in-60 by 1-in-60 and noting that it came to 1-in-3,600. That is the same probability as is attached to any *particular* second if you choose a second at random from an hour, and seemed to me to be altogether too high a risk for a family man.

I voiced my fears in terms of my simple probability sum, and declined the invitation with thanks. "Gee, you don't have to worry about that," said my would-be host, "the second chute *always* opens."

I refrained from asking the obvious question "then why take the first one?" and quietly took my leave, trusting myself instead to the less quantifiable hazards of an American highway.



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REGIONALS ROUND-UP



The first day of the competitions at Nympsfield from the air. The photograph was taken by the thermal snifter, R. A. Robertson

WYCOMBE
June 23 - July 1

By ARTHUR DOUGHTY

WYCOMBE REGIONALS, 1973, and what a line-up of sailplanes there was this year—one Nimbus 2, seven Kestrel 19s, five Std Libelles, two Std Cirrus, one Phoebus 17 and three old fashioned wooden ships.

Day 1

For the first time in several years it was possible to set and fly a task on the opening day—a 219km triangle, Thame airfield and Norman Cross. Only two pilots completed the task, Ralph Jones (Nimbus) at a speed of 55.8km/h and Graham Saw (Kestrel 19) at 44.9km/h.

Day 2

One of the better days and a most satisfying one for the met man, Mike Batstone, and the task setter. The forecast indicated good convection and a 176.75km triangle was set via Hampstead Norris village and Olney church. Ten competitors finished with Richard Aldous (Kestrel 19) first at a speed of 68.4km/h.

Day 3

There are some people in the Movement who would like to see distance tasks abolished but I think this would be an unfortunate decision, not least because there are pilots whose ability at speed flying is surpassed by their skill and delight at scratching and scraping. Such a task gives them a chance to prove their mettle against speed merchants. A distance task also proves a last resort for task setters in the face of adverse conditions. Today was one of those which gave a choice of a Cat's Cradle, turning points given at Potton Mast 11, Norman Cross 10, Bicester station 7 and M1/M45 interchange 3.

More than 67hrs were flown by 17 sailplanes covering a straight line distance of 2,021km. Ralph Jones with 326.75km was the only pilot to exceed 300km with Ben Watson (Std Libelle) achieving 232km.

The task for June 26 was cancelled on the grid and June 27 and 28 were also enforced rest days due to rain.

Day 4

The task was a 163.5km triangle via Edgehill airfield and Towcester racecourse. The day didn't come up to expectations. Ralph Jones just got round the first turning point to cover 77.5km but on handicap, lost the day to Fred Sheppard (Std Libelle) who landed at Edgehill along with Alf Warminger (Kestrel 19).

Day 5

The weather was better for the out-and-return race of 141.5km to the M1/A45 interchange near Northampton. Sixteen competitors were launched in 31min and 11 got back with Ralph Jones covering the course at 62.25km/h.

Day 6

The big non-event day when a 200km triangle was set with turning points at Broadway tower and Towcester racecourse. No one left the field in the hazy, weak conditions except non-competitor Justin Wills who did 560km to Scotland. Is there a case for free distance in competitions?

The trophy for the overall winner went to Ralph Jones, the cup for the best Standard Class entry was won by Bernard Keogh and the trophy for the best team entry went to the husband and wife combination, Ben and "Trish" Watson.

All speeds and distances in the text are actual before handicapping.

Final Results *Pilot(s)*	*H'cap* %	*Sailplane*	23.6 24	24.6 29	25.6 24	29.6 7	30.6 27	*Total Points*
1 Jones, R.	72	Nimbus 2	24	27	24	5	27	107
2 Keogh, B.	88	Std Libelle	18	22	11	2	25	78
3 Williamson, K.	74	Kestrel 19	16	18	18	0	23	75
4=Krzystek, T.	88	Std Cirrus	10	27	10	2	17	66
4=Sheppard, F. W. L.	88	Std Libelle	12	12	20	7	15	66
6 Watson, B. B. C.	88	Std Libelle	—	9	22	—	—	
Watson, Patricia			8	—	—	5	21	65
7 Rouse, J. E.	88	Std Libelle	12	20	12	0	19	63
8 Warminger, A. H.	74	Kestrel 19	3	26	14	3	14	60
9 Saw G. P.	74	Kestrel 19	22	16	16	2	DNF	56
10 Fairman, M. C.	74	Kestrel 19	7	24	14	0	10	55
11 Aldous, R. F.	74	Kestrel 19	5	29	6	0	10	50
12 Morison, S. H.	74	Kestrel 19	18	8	6	2	12	46
13 Emmett, M. R.	88	Std Cirrus	2	14	14	5	8	43
14=Green, G. D. A.	84	Phoebus 17	14	2	2	0	2	20
14=Watson, A. J.	88	Std Libelle	20	0	DNF	DNF	DNF	20
16 Wathen, A. E.	90	Dart 17R	2	4	4	2	6	18
17 Winfield, K. W.	96	K-6E	0	—	8	—	3	
Margetts, D.			—	6	—	0	—	17
18 Costin, M. C.	74	Kestrel 19	2	5	DNF	DNF	DNF	7
19 Strugnell, J. C.	88	Cobra 15	—	—	—	0	—	
Cook, H.			2	0	0	—	4	6

WESTERN
July 21-29

By MIKE CLEAVER

NYMPSFIELD was again the site of this year's Western Regionals: as usual Mike Harper was "boss man" and the weather produced six contest days. Tom Bradbury was unable to get to us from the Indian Ocean, so Peter Baylis brought our weather. Altogether the pilots of the 31 machines flew 17,198km on the six tasks, scoring 56,712 points in the process. There were 136 away landings without incident (we even made Ralph Jones do one!), but a Hercules pilot filed an airmiss against a glider which was legitimately penetrating the Lyneham Zone in VMC.

After the appalling weather of the previous day, Saturday dawned dry but overcast and the task was cancelled.

Day 1

A fair forecast with occasional showers and a 20kt northwesterly wind gave better prospects for a contest day on Sunday with a 138km triangle to the south, turning points at Keevil and Watchfield. Eight pilots completed the course and some interesting final glides resulted. Ralph Jones, who won the day,

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took almost an hour less than the next man home.

Day 2

Monday was soggy and horrible and Tuesday threatened to send the next lot of rain into Nympsfield before the overnight alto-cu had burned off. After frantic phone calls to the Coventry Club, it was decided to trailer to Husbands Bosworth and fly a task in clear air. However, the clag got there before us and the edge of it lay half way up the course as launching began.

To give pilots a fair chance, they were released at 3,000ft over Market Harborough and timed off tow. Many glided out straight to their landing points, the rest measured their thermals in fractions of a knot. Only seven scored and with four past Y, it was just a contest day. The turning points of the 120km triangle were Spitalgate and Melton Mowbray. Ralph Jones again came first.

Day 3

Cloudbase wasn't high enough to launch 31 gliders until lunch time. A 217km triangle was set via Stratford-on-Avon and Ludlow Castle which ten pilots completed. Conditions improved throughout the day, though thermals were not easy to centre.

The two Nimbuses (or is it Nimbi? Bi? Buses!) set off in formation, but the separation between them increased as the day went on. Ralph Jones reached Stratford in 40 minutes and had his crew working out the time for breaking the UK record. He was about 15 minutes too slow for that, but still achieved 83.3km/h on a day that didn't look at all like a record day. He was first with Paul Sears (Dart 17) second.

Day 4

The good weather was definitely with us. The forecast was for 10-15kt north to north-west winds and 4-6kt thermals (in practice, some thermals over the high ground were 10kt). Some pilots even reported wave activity in the Shobdon area.

A task similar to yesterday's was annouced: a 220km triangle via Moreton-in-Marsh station and Kingston church. Conditions were easy over the Cotswolds, but changed drastically over the Severn Valley with 11 gliders landing between the Cotswold Edge and the Malverns. From here they were spread out along to the second turning point, and seven of

the ten who rounded it got home with Ralph Jones winning the day.

Day 5

The forecast was even better, so a long thin 304km triangle was set—Greenham Common, Kingston, Nympsfield. Once again, the Severn Valley proved very different from the Cotswolds and the lower performance machines found it hard going against the headwind. The day was won by Derek Vennard (Kestrel 19).

Day 6

The grid was launched on a 90km out-and-return to Donnington Brewery, next to a lake near Stow-on-the-Wold. Visibility was poor and of the 19 pilots who submitted films, only five had photographed the brewery. This reduced the day's maximum points to 180 and gave zeros to the fastest pilots. Ralph Jones made this his fifth winning day.

Final Results *Pilot(s)*	*H'cap* %	*Sailplane*	22.7 750	24.7 156	25.7 1000	26.7 1000	27.7 1000	29.7 180	*Total Points*
1 Jones, R.	74	Nimbus 2	750	156	1000	1000	816	180	3902
2 Throssell, M. G.	84	SHK	630	—	784	—	806	—	
Southwood, A. M.			—	0	—	836	—	0	3056
3 Sears, P. L.	90	Dart 17R	522	0	870	380	874	168	2814
4 Woodhouse, I. C.	88	Std Libelle	555	67	777	678	702	3	2782
5 Vennard, D. A.	74	Kestrel 19	71	0	791	849	1000	0	2711
6 Atkinson, G. B.	74	Kestrel 19	147	110	828	867	635	0	2587
7 Aldridge, K. R.	88	Std Cirrus	641	127	480	306	805	0	2359
8 Longland, S. N.	100	Skylark 3G	584	0	551	551	649	0	2335
9 Dimock, H. R.	78	Kestrel 17	92	0	768	471	774	151	2256
10 Thorne, J. V.	74	Nimbus 2	572	0	300	823	478	0	2173
11 Crawshaw, G. H.	80	Diamant	583	—	187	—	527	—	
Kenworthy, A. T.			—	0	—	818	—	0	2115
12 Findon, D. E.	88	Std Libelle	134	0	726	374	713	167	2114
13 Pope, M. H. B.	74	Kestrel 19	500	59	720	196	593	0	2068
14 Fay, F. W.	88	Std Libelle	203	42	139	810	702	10	1906
15 Smoker, J.	98	Skylark 4	92	DNF	442	487	710	38	1769
16 Beer, C. N.	100	K-6CR	223	—	0	—	824	161	
Stafford Allen, P.			—	0	—	480	—	—	1688
17 Keogh, B.	88	Std Libelle	654	0	279	427	297	0	1657
18 Hughes, C.	98	Skylark 4	92	—	224	—	806	—	
Saint, A. W. G.			—	0	—	489	—	8	1619
19 Benton, D.	100	Skylark 3	338	0	214	434	577	0	1563
20 Gay, M.	100	Skylark 3	600	0	127	472	308	42	1549
21 Wells, M. D.	124	Olympia 2B	164	0	176	434	616	0	1390
22 Simmons, T. K.	90	Foka 5	391	0	94	246	641	0	1372
23 Webster, J. W. A.	94	K-6E	DNF	DNF	721	489	327	0	1317
24 Davies, B.	88	ASW-15	0	0	183	369	615	2	1169
25 Hill, M. B.	88	Std Cirrus	0	—	274	—	624	—	
Winning, E.			—	142	—	128	—	0	1168
26 Smith, F.	98	Skylark 4	0	0	167	167	660	33	1027
27 Leech, V. D.	94	K-6E	148	—	305	—	384	—	
Dabill, J.			—	0	—	185	—	0	1022
28 Roberts, D. W. H.	106	Olympia 460	31	—	—	252	—	—	
Gibbons, J.			—	0	—	—	502	—	
McGill, J.			—	—	163	—	—	0	948
29 Greenland, D. P.	98	Pilatus	108	0	126	252	384	15	885
30 Young, J. R.	88	Std Cirrus	73	0	384	184	60	23	724
31 Wales, C. D.	84	SHK	0	DNF	0	—	553	—	
Millett, D. H.			—	—	—	114	—	0	667

NORTHERN
August 4-12

By NICHOLAS GAUNT

A WESTERLY airstream interspersed with warm fronts at the beginning of the Northern Regionals at Sutton Bank produced a low cloud base and convection much influenced by wave. By the weekend, stable anti-cyclonic conditions moved in.

Day 1

A 87km goal race to Currock Hill. Wave produced a line of cumulus along the coast where conditions were reasonable, but final glides were long into a 20kt headwind.

Day 2

A 132km dog-leg race to Sturgate via Thornton-le-Dale. This was very much a wave day with 8kts at 4,000ft over Sutton Bank going up to a 12,000ft ceiling. Most of the wave was blue making location difficult.

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Day 3

Poor convection was forecast so a short task was set, a 132km out-and-return to Durham Cathedral. Everyone landed out up to the turning point with Mike Carter and Barrie Goldsbrough contacting wave on their re-lights and completing the task.

Day 4

A forecast of 3 to 4kts thermals inspired a 182km triangle via Market Weighton and Doncaster Airport. At least half the field found wave and this was the highest scoring day with eight gliders completing the task.

Day 5

There were task and grid changes and eventually a Silver C triangle, 72km, was set via Dishforth and Rufforth. Almost everyone was on the ground after Dishforth but G. Brook got round and deserved a gold medal instead of scoring a meagre four points.

The organisers did well to produce a reasonable competition out of difficult, wave dominated, conditions.

Final Results *Pilot(s)*	*H'cap* *%*	*Sailplane*	4.8 16	5.8 13	8.8 10	10.8 30	12.8 4	*Total Score*
1 Austin, D. C.	74	Kestrel 19	16	13	4	26	0	59
2 Goldsbrough, J. B.	74	Kestrel 19	8	11	8	30	0	57
3 Walsh, T. J.	100	Skylark 3	—	9	—	—	0	
Dixon, R. J.			8	—	4	24	—	45
4 Sheffield, R. J.	88	Cobra 15	8	0	4	28	0	40
5 Carter, M. E.	94	K-6E	0	0	10	22	0	32
6 Gaunt, N.	80	Diamant	13	4	1	11	0	30
7 Ellit, E. G.	84	SHK	8	0	2	20	DNF	30
8 Payne, I. H.	114	Bergfalke	10	0	0	18	0	28
9 Stoddart, R. C.	98	Dart-15	8	2	1	16	0	27
10 Mawson, J. J.	88	Std Libelle	7	0	6	13	0	26
11 Brook, G. F.	88	Std Libelle	7	0	1	13	4	25
12 George, C.	98	Pirat	6	0	—	—	0	
Addis, R. C.			—	—	0	13	—	19
13 Beck, J. J.	102	BG-135	5	5	0	7	0	17
14 McLane, L. G.	100	K-6CR	12	DNF	DNF	DNF	2	14
15 Purves, J. M.	110	Blanik	0	—	0	14	—	
Smith, J. D.			—	0	—	—	0	14
16=Hill, J. D.	110	K-13	4	0	0	9	0	13
16=Buckley, Phillippa	90	Dart 17R	—	0	—	5	—	
Burne, A. G.			8	—	0	—	0	13
18 Taylor, C. G.	102	Olympia 463	8	0	0	1	0	9
19 Mackay, N.	94	K-6E	8	DNF	DNF	DNF	DNF	8
20 Benson, J. M.	98	Pirat	4	0	0	3	0	7
21=Wilks, E.	94	Pilatus	0	0	0	7	0	7
21=Ramden, P.	88	Cobra 15	7	0	0	0	0	7
23 Wright, T.	150	Kite 11	4	2	—	—	—	
Westerman, J.			—	—	0	0	0	6
24 Cliffe, A.	98	Dart 15	2	0	0	0	0	2
25 Riddell, J. C.	90	Torva	0	0	0	DNF	DNF	0

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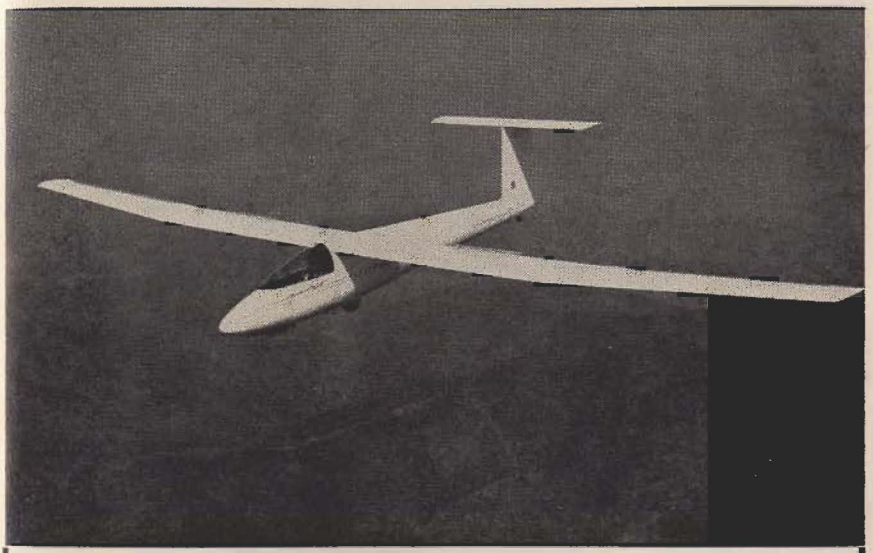
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OVERSEAS NEWS



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

CZECH MOTOR GLIDER

A NEW Czechoslovak side-by-side two-seater with engine and propeller in the nose, the M-17 "Universal", built in Brno, is described in *Letectvi* and *Flieger Revue* as intended for both gliding and power-flying instruction and suitable for cheap sport and touring use. The designer, Jiri Matejcek, also designed the Orlik sailplane. The M-17 is mostly of wood, is a shoulder-wing design with T-tail, has a span of 17m, and all-up weight of 580kg, best glide ratio 28, minimum sink 0.85m/s. Alternative motors are Stamo MS 1500 (45hp) or Mikron III (65hp).

MOUNTAIN SOARING CONTEST

AT the annual contest at Vinon among the Alpilles mountains in Southern France, 26 entrants in the Standard Class included seven foreigners, one of whom, Peters of Germany, with an H-203, won every task and the whole contest. The Open Class of nine entrants had six foreigners including two British: Brennig James with his Diamant, who finished third, and Humphry Dimock with his Kestrel 17, in seventh place. Winner was Tavernier of France with an ASW-17, who also came first in every task. A feeble barometric gradient, writes Michel Batterel in *Aviasport*, failed to interfere with the diurnal mountain and valley winds.

The first 500km flight from Vinon, made by Louis Abeille on May 12 in an LS-1, is described by him in *Aviasport*. Isolated cumulus at 5,000ft appeared at 10.00hrs and he set off northwards at 11.15, reaching Thorens-Gilières, south of Geneva, and photographing it at 15.10. The return journey was made via St. Auban and the Durance valley, and he landed back at Vinon at 19.20.

GLIDING IN LUXEMBURG

JOHN BRAUN, the sole representative of Luxemburg in this year's *Daily Telegraph* European Contest, is the first Luxemburger ever to take part in an international gilding competition. He learned gliding at the Midland Gliding Club in 1966, and the following year started a club of ten members in Luxemburg; but it soon disappeared, and he now flies with a Belgian club at Namur. During the Belgian Championships many flights are made across Luxemburg. Mr. Braun, who has a job in Brussels, says there are now two gliding clubs in Luxemburg, but they are not very active.

On the opening day of the 1956 World Gliding Championships in France, a Turkish two-seater made the best two-seater flight of the day and landed in Luxemburg; but it took three days of struggle with red tape to get it out again.

SOUTH AFRICAN CHAMPIONSHIPS

THE South African National Gliding Championships are from December 16 to January 4 at Oranjekrag in the Orange Free State.

Interested pilots are invited to write to

either The Aero Club of South Africa, PO Box 2312, Johannesburg, or to the Contest Director, Maurice Otto, PO Box 969, Bloemfontein.

25 FLIGHTS EXCEED 500km

AT the Austrian National Championships on the third contest day, June 12, a 516km out-and-return race was set from Mariazell to Gmund-Stausee/Gerlos. In the Open Class nine out of ten completed the task, Schütte averaging 96km/h. In the Standard Class 14 out of 24 completed and two others exceeded 500km without quite reaching the finish. This is claimed by *Flugsportzeitung* as an unofficial world record. The aggregate distance for that day by all 34 competitors was 16,385km. The Championships lasted from June 2 to 16 but only five contest days were possible.

FATAL COLLISION

FOR the second time within a few months a glider has been in collision with a military aircraft. There is a newspaper report of an Austrian two-seater colliding with a Czech military plane that tried to intercept over Czechoslovakia on September 3. Both glider pilots were killed.

USA OPEN CLASS CHAMPION

GEORGE MOFFAT, flying an ASW-17, is the USA Open Class Champion after a nine day contest in the 40th National Soaring Championships held at Liberal, Kansas, from July 24 to August 2.

ASWs dominated the top of the score sheet, 17s being flown by Johnson in second place and Greene third with Scott fourth in an ASW-12.

George quickly established himself in a leading position. As one of the organisers commented, "His climb to the top was quick and his perch thereon unshaken".

GERMAN CLUB CLASS

The Club Championships, the second to be held in Germany, were staged at Oerlinghausen. Out of 39 entries, 24 were of the K-6E and CR type and they took the first 11 places. Klaus Jonas was the winner despite a great variety of daily placings, being successively 11th, 6th, 2nd, 8th, 18th, 1st, 8th and 2nd. Tasks were all triangles, varying from 200 to 323km and including a task of twice round a 210km triangle.

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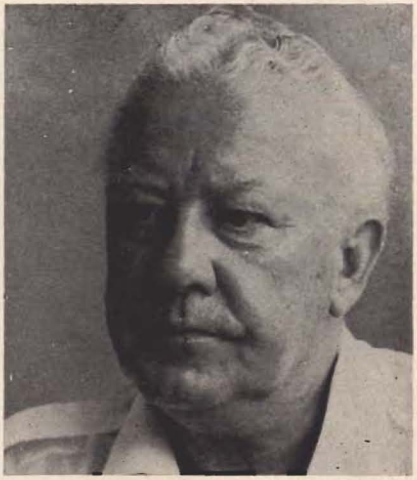
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OBITUARY

SEFF KUNZ



IT is with great regret that we report the death on August 30 of Seff Kunz at the age of 67, after a brief illness.

For over 40 years he has been an important figure in the gliding movement in Germany, and it was through his efforts and ability as a negotiator, that gliding was admitted to the Berlin Olympics programme in 1936. The 1939-1945 war denied him his greatest wish that it should be permanently included.

Not only in Germany was he a power in the land. As a Committee member and Vice-President of CIVV he did great work for international gliding. Indeed it is no exaggeration to say that his life for nearly half a century was devoted to the cause of gliding; latterly his influence was greatly felt in the field of motor gliding competition rules.

Although he had retired as Chairman of the German Gliding Commission in 1972 he was as active as ever and his contributions to gliding are too numerous to be listed. Like everyone else he sometimes was disappointed or disillusioned but he never gave up, and kept his goal firmly in sight, always willing to assist anyone who needed help or advice. A warm-hearted personality he made many friends the world over. It will be difficult to fill the gap he has left behind.

R.H.

CORRESPONDENCE

CAN'T BE TOO THOROUGH

Dear Editor,

The cover photograph of the February/March issue showing a ASW-15 on tow filled me with pride because I participated with this particular machine in the Rhodesian contest, having taken about a year to fix it in my spare-time after it had been badly damaged. Our syndicate was advised to get a new fuselage, but with Peter Eich's help, advice and material, as well as literature on glass-fibre repair, the old fuselage was returned to its original shape in my garage. My wife sighed with relief when the wings were finally removed from our dining room after several months!

It handled as before, but I was very lucky. After a final glide at speed on the third day of the contest, I noticed something amiss with the elevator at the end of the landing roll. On inspection we found that the elevator lever in the fin, which is actuated by a push rod, had broken where it was kinked in the crash. This I had missed when inspecting for damage in this part. So you cannot be too thorough, especially with control fittings that are difficult to get at. With the Rhodesians' friendly help I soon had it repaired and flying.

The cause of the crash of our brand new glider was probably due to a slightly large diameter tow ring not properly inserted, and thus it came out on take-off. Later in Rhodesia I experienced again, as with this towrope, difficulty in releasing with the rope in tension. This could be very dangerous if you are unable to abort a take-off. It could occur especially with the downward facing aerotow release, as found in the ASW-15 and ASW-17, using non-standard tow rings.

Salisbury, Rhodesia. LUDI PIO

STANDARD CLASS AIRBRAKES

Dear Editor,

When is the OSTIV Standard Class going to be resurrected? You didn't think it was dead? It actually became moribund some years ago when its spirit was extinguished by a stream of pure contest gliders and a flood of justification by pundits looking for another competition class, blandly ignoring the pilots who form the majority of the gliding movement in all countries and for whom the Standard class was devised.

Apart from the spirit, however, there used to be a regulation that Standard class gliders must have a drag-increasing device designed to produce a glide slope not flatter than one in seven at a speed of 1.3 times the stalling speed. John Williamson tells us that many current GRP gliders achieve about one in 12. Either this regulation has been cancelled, or it is being so blatantly ignored that the Standard class is indeed dead.

Preston, Lancs. JOHN GIBSON

WAVES ON WINGS

Dear Editor,

Various suggestions have been made on how to reduce drag in turbulent boundary layers, but one I have not seen is to make small corrugations resembling sea waves or sand dunes. This would be far easier than sucking air through the wing surface; this is only realistically possible with an engine, because of the amount of air involved.

It is observed that in the turbulent boundary layer of the atmosphere over both sea and desert, that waves and dunes form which increase in amplitude downwind until they attain a more or less steady size and spacing. It is assumed that these tend to minimise drag. (A moderately rough sea causes no more drag than a grass field, less if the grass is long.) Consequently it is suggested that on a wing shortly behind the transition point (where the airflow becomes turbulent) small corrugations should be made which increase in size until a steady value near the trailing edge. Similar corrugations could be placed on the fuselage, other than the nose. It would be interesting to know if any experiments have been done to test this theory.

Salisbury, Wilts. RICHARD TINDALL

CABLE BREAK REMINDER

Dear Editor,

Some two years ago I read Roy Cross's "Anatomy of an Accident (S&G, August 1971, p303) and began to wonder how I could avoid getting into the same situation. Six months later W. G. Scull commented in "Accident Analysis" (S&G, February 1972, p32): "Quite possibly if an instructor had said to Roy 'Thinking about cable breaks, are you?' the accident might have been avoided."

I realised then that what I needed was a reminder before every launch that cable breaks are not infrequent happenings, and that it pays to have a plan of action ready for that tricky situation when you are too high for a landing ahead and too low for a short circuit.

It was impractical to charge someone else with the responsibility of reminding me before every launch, and so I developed a self-reminder. It consists of lengthening the standard mnemonic to CB-SIT-CB-CB. I have been using this revised mnemonic for 18 months now and I find that the extra CB (standing for "cable break" of course) is easy to remember. It forces me to devote a few seconds' thought before every launch to the cable break situation and this can't be bad.

I pass this tip on in the hope that some others of our fraternity will find it helpful, although it is a recurrent feature of my ideas that they turn out to have been invented (and discarded) ten years earlier! Who knows, the powers-that-be might even like it sufficiently to recommend wider use, but one has to guard against the situation where one needs a mnemonic to remember the mnemonic.

Harpenden, Herts. ALASTAIR R. WILES

EQUALITY IN GLIDING

Dear Editor,

I feel that the Scurr-Partridge affair was spurious and tasteless and should have been a private correspondence. Women the world over have made an enormous contribution to this sport and have participated on an equal basis.

Supporting a feminine contest (Poland) when all contests are open to women doesn't seem very liberated, but perhaps they're paying their own way.

Berkeley, California, USA. DAVID REED

TOW-BAR HEIGHTS—STANDARDISATION

Dear Editor,

I applaud the letter from Gordon Camp in your last issue calling for respect for the agreed standard height for trailer couplings, but I must dispute the height he quotes.

The applicable standard, which has been in use for more than thirty years (BS AU113), quotes the height to the centre of the ball as 19" plus or minus 2" with the vehicle in the unladen condition. At present this is the only standard applicable, but the International Standards Organisation is currently considering the provision of a new standard. The Draft ISO proposals are for a ball centre line height of 385mm plus or minus 35mm (approximately 15" plus or minus 1½") with the vehicle and trailer fully laden. At this time it seems probable that the Draft ISO standard will be accepted, but the old and the new standards, quoted in the unladen and laden conditions, will probably produce a not disimilar result.

Whilst harping on the subject of standardisation, may I put in my own plea for use of the correct wiring sequence when fitting the 7-pin plug and socket for connection of the trailer electrics. I can gladly send anyone who wishes a copy of the standard wiring sequence.

C. P. Witter Limited, Trailer Towing Bracket Manufacturers, Chester. RODNEY B. WITTER

IMPROVING THE GLASS BIRDS

Dear Editor,

I read John Williamson's article on High Energy Landing Problems (June/July) with great interest since he points at a major defect on modern sailplanes—poor brakes. Whilst there is not much we can do about our glass birds, except be damned careful, there is something we can do on the next generation.

If designers don't want to disturb the laminar flow, why not do what Caproni did with the A-21—use trailing edge brakes? Or what Berkshire Manufacturing did with the Concept-70 and Laister Sailplane Products with their Nugget—put 90 flaps on from the wing root out to the aileron?

The Concept-70 and the Nugget can both achieve a landing glide ratio of 6 to 1, or less. And another factor which should be noted is that with the flaps, the stalling speed goes down, not up as with the DFS-type brakes when they are deployed.

It has been proven here in the United States that sailplanes can be made with flaps and do not cost any more than sailplanes with DFS-type brakes. Since they will be allowed in Standard Class rules from January onwards, why not use them instead of the dive brakes? The results can only be safer.

New Jersey, USA. BRIAN EVANS

JOHN WILLIAMSON comments:

Brian probably has a good point and I would agree with the feasibility of the system he advocates. The only stipulation I would make is that the selection of full brake should be easy and rapid. My only experience of such devices was in the Slingsby built HP-14. Approach was steep and landings very slow, but there was an uncomfortably long moment as the flaps were laboriously past the full lift position when the glider ballooned, thus causing the final approach path to steepen alarmingly. This in the face of a small English field was quite an experience!

HANDICAPPING DISTANCE FLIGHTS

Dear Editor,

I have often wondered why the distance required to qualify for a badge flight is not calculated in a way similar to competition soaring—on a handicap basis dependant on the type of glider being flown.

It seems to me rather unfair that with so many GRP gliders around nowadays a pilot still has to fly 50km for a Silver C, regardless of whether he is in a Tutor or a Diamant 18.

I would be interested to see what the general reaction would be to the suggestion that the BGA recommend to the FAI that the minimum distance for Silver, Gold and Diamond C flights remain the same, but with the following provision: "If the glider flown betters the datum glider (ie has a handicap of less than 100%), then the distance flown to qualify for a badge flight must exceed the minimum distance by the per cent which the gliders' handicap is less than 100%."

That's quite a mouthful, I know, but quite simply what it means is this. If someone wanted to fly a Silver C distance in a Diamant 18, then he would be required to fly the minimum distance of 50km plus 20% as the Diamant handicap is 80%. He would therefore have to fly 60km. If trying for a Gold C distance, he would again need to travel the minimum distance of 300km, plus 20%=360km.

After all, distance flights do have to comply with the one per cent rule which is much the same principle. This suggestion would not be applicable to height and duration claims. Any comments?

London. JOHN BUCKELS

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CLUB NEWS



CONTRIBUTORS PLEASE NOTE

Copy and photographs for the December/January issue should be sent to the Editor, S&G, 281 Queen Edith's Way, Cambridge CB1 4NH, telephone Cambridge 47725, to arrive not later than October 17.

Copy and photographs for the February/March issue should be sent to the Editor to arrive not later than December 6.

August 15, 1973

GILLIAN BRYCE-SMITH

BATH & WILTS

IT seems a long time since we had a mention in S&G but we are still very much alive and soaring at Keevil. Operating as we do at weekends from an RAF airfield, we haven't been without our problems which tend to curtail our activities. However, it is pleasing to record this as one of our most successful years so far.

New gliders and syndicates on the field have boosted both the club and the privately owned fleets. The club solo fleet has been added to by an Olympia 2B and a Std Libelle, Skylark 3A and K-6CR have joined the privately owned contingent.

We have had more than 20 solos, Bronze and Silver legs; no doubt the presence of the Oly to relieve the Swallow list has helped. Silver Cs have been completed by Jerry Richards, Jim Kettlety, Peter Walford and Nigel McNaught. Steve Parker achieved Gold height in the Skylark 4 shortly before successfully attending an instructors' course at Lasham. Bill David completed a 300km triangle in his Cirrus, but unfortunately the camera shutter stuck and his turning point photographs were ruined.

A young member, Andrew Davis, flew the K-6E to Lasham for a Silver distance. He will soon be following in his father's footsteps around a 300km triangle .

N.M.

BLACKPOOL & FYLDE

OUR first real contact with wave lift was made on Wednesday July 25, in a northerly airstream. The wind had enough shear in the lower levels to give hill lift on our north-west face, and this developed into an evening thermal over the airfield. The whole fleet cruised around gently, including John Cooper who had just been entrusted with the Swallow, but told to keep away from the hill because the beat was so short. So instead he climbed to 2,500ft for his C and a Bronze leg well beyond the hour.

Eventually Gil Haslam moved across to the east and led the way into real wave, having to leave good lift at 6,500ft as dusk fell. The high clouds were giving no help to indicate what was happening, but we are now quite sure that it was a pure Helm wind off our own hill. This excites us greatly, for we have met gentle waves upwind of the hill on several occasions, presumably the remnants of waves triggered off a long way upwind. In future we will take

these as proof that the airstream is willing to wave, and will explore likely places in the lee of our local slopes.

This was the highlight of our club camp, which otherwise featured useful training and local soaring over an ever-widening radius. We also used the hangar regularly for six or seven gliders, even though the doors are not yet made.

K.E.

BRISTOL & GLOUCESTERSHIRE

INITIAL problems concerning the availability (or lack) of tugs during the Western Regionals were resolved when David Schofield turned up with his bright yellow Cub and John Thorne in his Minerva. Our own Terrier, recently bought to replace the tugs lost in the fire, was only available at the last moment through the hard work of Ron Lewis and Cyril Pugh to replace a blown cylinder head. As far as entries were concerned, we had a full house with 31 competitors, most of whom let off steam on Saturday night with one of Brigitte and Keith Knotts' now legendary barbecues.

The middle of the soaring season has not lived up to the tremendous soaring weather we experienced earlier this year, nevertheless a good amount of cross-country flying has taken place with Howard Johns completing a 304km triangle via Greenham Common and Kingston to gain his Diamond. Martin Fricker, our frustrated course tug pilot, gained both his Silver distance and altitude in the club K-8 while Gordon Dorward managed his five hours in their new Skylark 4.

Our autumn wave trip to Shobdon will be from October 19-22 and we welcome friends from other clubs in search for wave. So far, we have three Skylark 4s, two Libelles, two K-6s and a Kestrel coming along. Keith Aldridge is rumoured to be turning up in a Hurricane!

After the catastrophic fire last May, the club has all but returned to normal: we have a lovely bright new hangar and an equally bright new Bocian to put in it. So that the Bocian will not get lonely at night, we are putting a Blanik in to keep it company.

Finally, I'm sure that all members will join me in wishing our scribe for the last year or two in S&G, Mike Cleaver, good luck as he is heading off "down under" in search of better soaring. He leaves for Australia in time to find out where Waikerie is on the map.

R.A.R.

CORNISH

WITH the eventual arrival of the soaring season several members have made spirited attempts at the Silver C. Congratulations to Jan Janson who, on her first cross-country, claimed the honour of being the only lady pilot to fly Silver distance from Perranporth.

Dave Short scraped away from 500ft in the 463, landing just 50km away at Padstow. Dave later flew Silver height on July 3 when Pete Arthur completed his Silver by winding the 463 up to 5,500ft in cloud. George Collins continues to put us all to shame, flying a 90km tour of Cornwall on June 30. Ian Sincock took the Pilabus on its first cross-country, landing at Bodmin airfield.

Several members have visited other sites this year. P. Hawkey, C. McKenzie and T. Nankivell went to Lasham. P. Arthur, B. Farrow and D. Puttock hitched up the 463 and trailed to

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Shobdon. As a result Dave claimed Silver height and distance and Pete Arthur flew 100km.

Latest arrival at Perran is Brian and Janet Penrose's Pirat. Bill Scull brought a Falke down to enable us to evaluate the possibility of motor glider operations at our site. We had the worst weather for a long time so most of us only had a chance to sit and look at the films that Bill carries round. Those who did get a flight were most impressed and it has given us plenty to think about.

P.H.

COVENTRY

MANY congratulations to our youngest pundit, Simon Wesley, for going solo on the day he was 16 and gaining his A and B. His father has been seen to hide away the keys of Jacob's Ladder trailer as keen son casts his beady eyes upon it!

After a very bad month of flying in July, there has been a spate of short triangles and several attempts to fly longer cross-countries resulting in field landings and awkward retrieves. The famed T-21 has kept up its superb standard of cross-country flying and once again beat all the hot ships by getting to Great Yarmouth in marginal conditions.

A warm welcome to another club member who emigrated to South Africa a few years ago, Chris Falconbridge. Chris is flying regularly in South Africa and made us all very envious by showing his photos of the wave conditions.

To help us through the long, dark, non-flying days of the coming winter the club has invested in a colour TV. Only Gold C pilots are allowed to handle the controls.

V.M.G.

DONCASTER

DURING the weekend of August 3-6, the skies over Doncaster were full of nostalgia with the Vintage Glider Club rally. The club based Sky and Rhönbussard, along with Chris Wills in the Minimoa, flew to Kirmington on the Sunday giving Peter Young his Silver distance in the Rhönbussard. It was a wonderful weekend and a special thanks to Chris Wills for a magnificent slide-show and talk.

We have had a nice crop of Bronze and Silver badges during June to August.

John Ellis gained his Gold height in a cu-nim flight on July 30 with a climb to more than 11,800ft. He said he saw a flash of lightning and thinking it was the wrath of the other Libelle syndicate members, returned.

Bob McLean of the Aviation Services has caused interest by returning from Germany with a two-seater, a Grunau Baby 5. We are looking forward to him test flying it.

The club is awaiting the arrival of a new Bocian. This will take a great load off the K-13 for flying checks etc.

We are sad to be losing John and Betty Ashmore and family who are going to South Africa. They will be missed very much.

J.D.

DORSET

THESE notes have to record the end of an era in the resignation as CFI of Allen Palmer after five years of invaluable and unremitting effort on the club's behalf. His place is being taken by Graeme Morris.

The team of instructors which Allen has built up was further strengthened during his last months by the attainment of full ratings by Peter White and John Collins, so that out of a total of more than 20 instructors, half are now fully rated. The club is in an extremely strong position on this score.

Ken Pemberton's progress continued to outpace the average when on July 29 (early in his second year's flying) he took the club Swallow up to 8,500ft in cloud for a handsome Silver height and followed this by getting his five hours in the same machine two weeks later. Bob Little and Winsor Lewis also made Silver duration flights and Silver heights were recorded by Fred Dunmore and Brian Stobart. The first half of 1973 has produced 12 new solo pilots and three more have their Bronze C.

The committee meeting at the clubhouse on August 13 had their deliberations on the knotty problems of a new lease interrupted by the arrival by balloon of David Barker from Romsey with his wife and a friend. These aviators had used the Dunwood Manor golf course for a launch point and were apparently using an airfield for the first time for landing. No doubt they have their own kind of problems! M.L.B.

ENSTONE EAGLES

THE season is showing a great improvement over last year and on April 29 we experienced our first wave flights at Enstone. Dave Wales, chairman, took his SHK up to 7,500ft and Roy Garner reached more than 8,000ft above the airfield in the Skylark 3. Dave's report on his flight suggests the wave lift was caused by wave shear as the lift ran parallel to the ground level wind direction, although the wind at about 4,500ft was at least 45° to the ground level direction.

Our task week, which was held at the beginning of the season, enjoyed much better weather than the previous two years with members covering more than 900km in cross-country flights.

Congratulations to the many pilots who have completed their Bronze C and to Geoff Alcott, Keith Tillsley, Chris Heath and Mike Munday who have their Silver Cs. Also special congratulations to Mary Wales who has re-soloed after ten years to become our first solo woman pilot.

We have unfortunately parted with our Grunau Baby but have our third Olympia 2B. And by now Dave Wales should have his Std Cirrus. While the number of syndicate machines must be limited, we welcome new *ab-initio* members—flying will continue throughout the winter.

Renovation work is continuing on our clubhouse which now has such luxuries as running water and toilets, thanks to an enthusiastic team of "navvies" and "excavator pilots". Complete internal redecoration and renovation is hoped for by the beginning of next season.

Many thanks to Matt Wilcox, our retiring secretary, for his work in the past. He is now a fully fledged tug pilot and joins George Graham and Pete Moss.

Three Enstone based machines entered the Western Regionals, the SHK, the Skylark 4 and the well known Olympia—321—flown by Martin Wells. He certainly stayed well in the running with his vintage machine and reports that he beat a certain Nimbus on one particular day!

C.E.H.

ESSEX & SUFFOLK

WITH the return of our K-7, we again have our full complement of serviceable club aircraft. We also have a K-2 and a K-6, all launches being aerotow with the

two club Austers. On the syndicate side, there are six aircraft—Cirrus, Swallow, Skylark 3F, K-6E, K-6CR with the latest being the Pete Brown/Mike Bailey Pirat. Now there is rumour of a Pilatus.

Five pilots have been solo in June and July and two, Brendan Grimsey and Mike Brown, have flown one hour legs of their Bronze C. Four Bronze Cs have now been completed. Roger Davis soared for five hours and followed this with a Silver C distance the next weekend. John Masters flew a Silver C distance and gained his height on the way in the Swallow, with Mike Bailey also reaching Silver C height during a course at Ipswich. These results prove that those cold winter training weekends were worthwhile.

Mike Lee has added to our instructors' strength and two more of our members have qualified as tug pilots.

We are looking forward to a task weekend over the August Bank Holiday, our first attempt at this when it is hoped to welcome several visitors. Our members now enjoy reciprocal membership of the Norfolk Club at Tibenham and several have already flown from this excellent site. C.C.S.

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HIGHLAND

TOGETHER with RAF Fulmar, we held our longest day celebration on Saturday, June 23 when we flew from dawn till dusk. Dawn came fresh and clear at 3.25am, the first thermals bubbled up at 7.30am and the sea breeze held off till 6pm. The thermals were active enough to keep the soaring pilots happy, the sun was sufficiently hot to please the basking and impressed visitors, and by 3.25pm the stars of 3.25am could be seen laid out on the grass gathering strength to celebrate till the next 3.25am. Nine gliders took part, including a welcome Skylark and crew from the Cairngorm Club; we did 280 launches, flying went on till 11.30pm and the barbecue which followed saw dawn round again.

This brilliant occasion apart, we have had our gliding successes. Flying the Skylark 3F, our president, Hendry Dyce, set up a new site record of 23,000ft in strong wave conditions. The next day Mary Raffan got her Silver height with 12,500ft in the same glider. Jeff Howlett of Fulmar Club and Hendry Dyce declared a 300km triangle which they just failed to achieve owing to the inevitable sea breeze.

We have two new solo pilots, Charlie Grant and Ruth Tait. Ruth flogged the circuit for three years between babies before finding herself alone in the sky with the T-21.

We are pleased to welcome the ATC to Milltown and hope they have many splendid gliding days at the site.

R.E.T.

INKPEN

THE club continues to go from strength to strength with a membership of around 100 and a privately owned fleet of 20 gliders.

Congratulations to Ralph Jones on his successes at the Regionals and the Sport/Club Class Nationals. He has also done a 500km triangle to give him all three Diamonds, one of the few pilots to achieve this in Britain.

This has been a highly successful year for the club in terms of cross-country mileage. We have had 300km Diamond goal flights by Ray Hunt (Pilatus B-4), John Young (Std Cirrus), Bob Cunningham (SHK) and Peter Purdie (Std

Cirrus). Unfortunately Peter was only allowed to bask in glory for a few hours as his film was run over by a car outside the pub during the celebrations.

Have you seen "The Sunship Game?" We have imported this exciting film about competition flying in America and will be showing it on October 12. Tickets at 65p are from Jane Jones, Inkpen Gliding Club, Shalbourne, Nr Marlborough, Wilts.

Don't put your glider away for the winter. Come and enjoy some ridge soaring on the longest north-east ridge in the south of England.

M.Y.

LONDON

THE first completed 500km triangle from Dunstable was achieved in June by Frank Pozerskis in his Kestrel 19. This was the culmination of numerous failed attempts and he deserves congratulations.

Gold C triangles have been gained by Vic Hurd, Bernard Barry and Jack Graham. Our manager, John Jeffries, took a K-13 round a 200km triangle at more than 60km/h. So far the fastest reported flight for our local Boomerang fund is only 63km/h by Brian Holloway, but this should be raised substantially before the season ends.

Proposals for alterations to the northern side of the London TMA near Dunstable, involving an extension to the Luton SRA and the raising of Amber 2 airways, are under consideration by the Board of Trade. Both Tom Zealley and John Jeffries have attended meetings on this subject and managed to put forward our case to good effect. It is hoped that our losses will be compensated by some gains which is encouraging.

The farmer who cuts our airfield grass has recently bought an expensive new grass-drier which seems to prefer a diet of short grass. We're hoping this will avoid the ground looping length of grass which we have suffered at times with the previous silage system.

M.P.G.

NORFOLK

INCLUDING the Condor tug, our hangar now contains no fewer than 11 aircraft, ranging from Libelle to Tutor. For the time being, the Tutor is tethered to the hangar wall and collecting dust, but with the possibility of retaining autotow capability for the winter months, we may yet again sample the delights of the open cockpit and the opportunity to lean out and twang the rigging wires.



Besides weekends, we also fly on most Wednesdays and Thursdays at Tibenham, thanks to the willingness of the volunteer tug pilots, who now include four club members with recently obtained PPLs. C.E.H.

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Part of the Ouse delegation at the Northern Competitions *Photo: Geoffrey Mitchell*

OUSE

IF there is a week when it isn't prudent to have one's holiday, it is the Northerns Week. However, despite the Arctic winds, 14 members had an enjoyable stay at "The Bark", flying, crewing and tugging.

Our evening flying programme is coming to a close. We will have entertained more than 500 visitors and gained a few new members.

G.M.

PETERBOROUGH & SPALDING

THE course we organised for the local education authority was most successful with six physical training teachers from schools in the area gaining knowledge of the sport. In fact, some were enthusiastic enough to consider joining the club.

The third of our club courses at the end of July had good weather with each pupil averaging two training flights of more than 30min on each day.

This year we have recorded six duration and four distance flights plus three gains of height, all for Silver C legs. Eight members have been solo and qualified for their A and B certificates, a further two completing their Bronze C. Conditions were so good on August 4, we had five club gliders achieving Silver C distances at the same time with our Capstan being flown to Swanton Morley in 92min.

In appreciation of the educational facility we provide in teaching people to fly, the local county council have allocated a grant of £250 towards the cost of our latest acquisition. Our autumn draw, which takes place at the buffet-dance on October 26, is expected to raise an additional £150.

The advent of clubhouse catering and the arrival of a deep freezer, has paid dividends. Under the control of catering officer Anne Breese, it is not unknown for us to make more selling food than we do from flying.

J.V.L.

SCOTTISH GLIDING UNION

THE summer activities at Portmoak are in full swing. Courses go from strength to strength, many visitors staying a full fortnight, and five hour flights have been quite numerous. Two-seater facilities are good with two T-21s, two Capstans, one Falke, plus three privately owned K-13s and a Falke. With two tugs and the winch, it is not unusual to see the aerodrome practically devoid of machines.

Congratulations to the three musketeers, Andy, Roy and Bert, stalwarts of the club who have all now completed Silver Cs in their Olympia 2B. Attempts are regularly being made to break the 300km barrier and with Tom in the SHK 444, having flown numerous cross-country flights recently, plus the two Std Libelles, the Kestrel 19 syndicate and three new Cirrus syndicates, such flights should become the rule rather than the exception. There are rumours of a UK distance record attempt from Portmoak.

Thanks to a long haul by Alistair, our treasurer, driving both ways, the club fleet now includes a new Pirat.

G.K.S.

SHROPSHIRE

ON July 29, a moderately good day, Barry Bate made a Silver C distance flight of 98km, whilst the writer slowly completed a 200km triangle below 3,000ft/asl.

Looking back on our first full year of regular weekend operation at Sleap, we have flown 490hrs from 723 launches with 1,500km in cross-countries and a maximum altitude in wave of 13,700ft. A modest start, but perhaps of greater significance is that finances are in a satisfactory state.

I.P.

SOUTHDOWN

HAVING missed the last edition of S&G there is a backlog of achievements to cover. Jim Hewitt got his Silver distance with a flight to Tangmere, so with Robin Trave's visit there and Derek Eastell's recent trip to Lasham, we should get some useful contributions to our Sponsored Flight, Boomerang Fund.

Ray Merritt completed his Silver C and Tony Rickwood re-soloed. Peter Bowles, Penny Wood and Mark Eastell have gone solo and Peter did a very fast conversion to the Swallow, as did Gordon Norton. With Peter Atkin now also on the Swallow, there is a welcome easing of pressure on the K-7.

Unfortunately the K-13 was damaged on a ground loop and the Swallow was also damaged in June. However, thanks to some fast work by Ken Fripp, the Swallow was back flying again in a week and we were able to have the K-13 in time for the August course.

After two non-flying days on the course, the weather improved and some useful flying was done. We had a successful dinner party on the Thursday night and it looks as if its going to be a regular event.

S.E.

SOUTH WEST DISTRICT

THE past months have been encouraging. We have an enlarged home having taken over the entire hangar. The convenience of housing all functions under one roof is tremendous. The arrival of a bus converted for housing our Tost winch has quietened our minds as in recent weeks we have had niggling problems with our existing winches.

Evening work is paving the way to more productive weekends. The flying achievements have been consistent and we have another Silver C pilot in John Wesley. In the Silver C ladder we have seven more legs for distance, one for duration and three for height. Three more pupils have completed their Bronze C and five their A and Bs.

We have had several visitors from Inkpen and Bicester. We were most grateful for the use of the Falke and are only sorry more people couldn't enjoy the trip.

We trust Col Sheppard's achievements in the Middle Wallop Air Display were appreciated by those who watched the BBC TV on August 13. J.R.A.

SURREY & HANTS

CHRIS Garton has shown the rest of us how to do it, completing a 500km triangle, Membury, Norwich, Lasham, at 69km/h on June 18. He was flying his new Kestrel 19.

Tony Burton took his Std Libelle on an out-and-return attempt to Ferrybridge (560km) on July 3. He made it back to four miles south of Bicester —492km— his nearest miss yet.

We have our new club Kestrel 19 in the air at last and Jumbo pilots don't get better briefings!

Geoffrey Thomas has had to give up managing Lasham due to personal circumstances and Rick Knight of Compton Abbas has stepped into the breach while an appointment is formally made by the management committee.

G.L.

PS The correspondent, Chris Lovell, married on August 11 and his club send best wishes to him and his wife, Beverley.

YORKSHIRE

ANOTHER Diamond from Sutton Bank! This time the distance—the first ever from a club sited in the north of England. On June 14, in conditions which were less than ideal, Barrie Goldsbrough flew a declared out-and-return to Bicester, in a time of 7hrs. He began his final glide 35 miles out under a leaden sky and, helped by a bit of reduced sink, scraped back onto the hill with 150ft to spare. David Lilburn, who came sixth in the Sports Class of the Sport/Club Class Nationals, has set a difficult target for the height cup this

year with his climb in wave to 19,000ft over Consett (from the Bank) on June 30.

The number of visiting pilots continues and the amount of flying they get is generally very high—one visitor from Cambridge achieved Gold height, Silver distance and 15hrs within one week. The demand for places on the public courses has been so great this year that extra ones are being run in the autumn. The instructors' course week run by John Heath in July was also blessed with good weather.

The Falke, at the end of its third season is approaching the 2,000hr mark. The success of this machine, for both *ab-initio* and advanced training, has far exceeded our expectations.

We are all recovering from a riotous Northern Comp week. If the weather was unreliable it didn't seem to matter —we all had a lot of fun. S.V.G.

WORCESTERSHIRE

DESPITE a long absence from these pages, soaring is continuing apace at Bickmarsh. Since our clubhouse burnt down at the end of last season, various changes have taken place. The T-21s, Falke and winches have been sold, but as we have a Wilga tug that will tow a glider to 2,000ft every four minutes, we are now doing aerotows only.

Jim Tyler was appointed CFI last October and has been chasing pilots to do more all the season. With seven completed Silver Cs so far by Rogers, Kelly, Poole, Jennison, Goodier, Light and Murdoch, he is reasonably satisfied. Ten Silver durations have been completed from our flat site. One of note must be Gerald Kelly who thermalled the club K-8 for 5½hrs all below 2,500ft.

Bernard Poole took his Skylark 3 on a Silver distance flight in May, landed at his goal, had a re-light and flew back again. Jim Tyler, not to be outdone, took the Cirrus on a 315km triangle, Bath racecourse, Market Harborough and return, on April 29. Then on June 24 climbed in cloud to 17,000ft over Bickmarsh. These flights earned him his Gold badge (the first in the club) and Diamond goal.

John Edwards has joined the ranks of our hard working instructors, as has Eric Fry after an absence of 12 months.

A word of warning. After gliding has ceased on Sunday evenings the Warwickshire parachute club use our site for delayed drops. So any pilot who decides to call on us on Sunday evenings welcome, but please look up. There may be someone dropping in on you!

J.T.

WYCOMBE AIR PARK

WE were very sorry to bid farewell to our CFI Norman Smith who has left to take up a power flying job in Africa. Norman was CFI of the gliding side here for the last 2½yrs, setting and getting high standards by example of his own exemplary flying. During this summer he gained his CPL with the intention of progressing into power flying and we all wish him every success in this exciting new venture. We now realise the reason for all those hairy beat-ups —obviously putting in some practice for the future! J.M.C.W.

SERVICE NEWS

BICESTER (RAF GSA CENTRE)

TWO of our members, Des Holdcroft and Terry Cawthorne, have gained their Gold badges with 300km flights in the ASW-15. Mike Abbey has received the Whitbread Bursory and was not long in confirming his early promise by completing his Silver C.

From a cross-country point of view we have not found the latter part of the season quite living up to expectation, but the training programme has paid dividends with 30 A and B certificates during the last three months and numerous Bronze C legs. Among those going solo recently was the father and daughter combination of Derek and Pauline Keer. Out of the USAF Alconbury members, Ed Nygaard went solo and soon followed it up with a Bronze C leg.

A second Falke has been added to the fleet and, with an increase in the numbers coming here for gliding experience under the adventure training scheme, it will more than pay for its keep.

During the weekend of August 11/12 it was good to see Andy Gough getting

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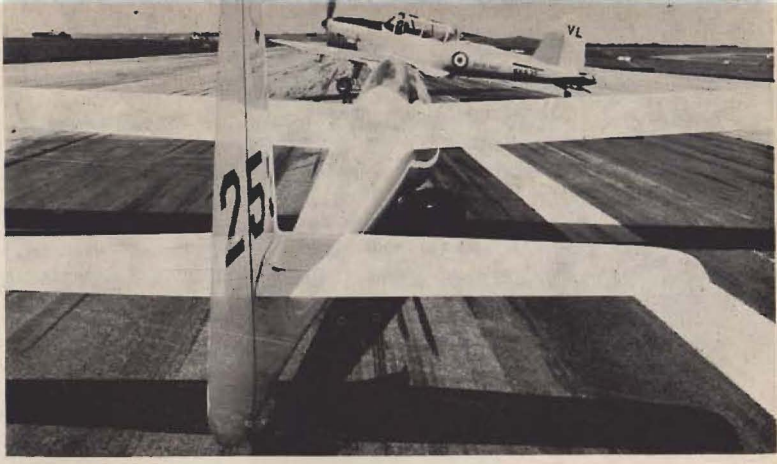
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The RNGSA's Libelle photographed from an unusual angle with the Chipmunk in the background

in a spot of practice in the Cirrus before going to Lasham for the Nationals. All of us who fly regularly at Bicester realise Andy's dedication to the job of CFI and appreciate the high standard of flying and airmanship he maintains.

A.E.B.

CRUSADERS (Cyprus)

THE season is progressing well with some of the hottest days ever recorded in Cyprus. This has caused both the hopeless 2,000ft inversion days and, when it has broken, 9,000ft blue thermals with lift sometimes in excess of 30ft/sec.

These thermals, although strong and going high, are a long way apart with tremendous sink in between. Trying to find the next one can be a problem without a cloud in the sky and the whole ground burnt brown in the simmering heat.

Ab-initio training has suffered just a little this summer due to the club instructors temporarily losing their week-end accommodation at Anzio camp Dhekelia. This has meant that training has been reduced to Sundays only for the time being, but mid-week soaring has been going strong with flying during the whole of July from Prastio and Vatili.

Several people have been trying hard to win the chairman's shield which is presented for the longest flight of the year in excess of 200km. This distance may sound quite short, but when it is considered that we only have a landing area of approximately 75km diameter, and with strong sea breezes near the coast, these flights are an achievement.

J.R.O.

CULDROSE (RNGSA)

FOLLOWING the Easter land-out damage to the Capstan we now have one aircraft like new, thanks to the efforts of maintainers Ian and "Mac". We sadly returned the Barge to RAF St Mawgan, on a particularly turbulent day, to the consternation of this scribe who thought he could handle the T-21 on aerotow. The K-8 has also gone back but with luck, both will be seen again at the summer course—long may this happy liaison continue.

The RNGSA's Libelle has been given its share of flying at Culdrose and put up an impressive demonstration of L/D ratio at Air Day. The Pirat was also flown and brought tears to the eyes with a low Vne run and climb-away (like a Phantom) to 400ft before side-slipping in to land in front of the crowd. Air Traffics' faces were a delight to behold when, on hearing the tug call finals, Alan Blampied in the Pirat advised that he would "hold".

The Pirat has also been to Dishforth where it compared favourably with a K-6. It does better than expected on the

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ridge and has spent several happy hours over the cliffs at Land's End, but has only managed one more Silver duration, this time in thermal at the hands of Dan Archer. However, by the end of our course we should have many more, plus a bevy of new solo pilots, and something more to tell you about—like retaining the Naval Air Command gliding trophy . . .? S.C.

PORTSMOUTH NAVAL (Lee-on-Solent)

WE are not very competition minded at Lee-on-Solent but two of our members, Tim Simmons (Foka 5) and Humphry Dimock (Kestrel 17) recently competed in the Western Regionals. Humphry had just returned from a competition at Vinon in France. He was as irrepressible as ever and his enthusiasm for gliding seemed to have reached a new peak after this competition. When asked to put his experiences into words he wrote:

"It is impossible to describe the International Mountain Gliding Competition in the French Maritime Alps without reference to the wonderful daily weather conditions. The best British gliding day is not as good as the worst day in France. Thermals go to 5,000ft when starting, and to 10,000ft or more by the early afternoon. Then the scenery itself is so wonderful.

"One mountain called the Molar is like a double tooth rising to 9,000ft with a plain of about 12 acres at the top which looks smooth enough to land on. The anabatic winds surge upwards at up to 20kts. Another mountain with a spire top at 10,000ft had climbers only a wingspan away as gliders soared joyously upwards before diving away at 100kts. Every day produces another of those great romantic moments of my life. How I wish that I could afford to live there . . ."

We welcome Bunny Hale to our committee as the new vice chairman. Bunny was the sole RN competitor at the Husbands Bosworth Nationals this year, flying the new RNGSA Libelle, and will be a great help to our organisation. Congratulations to Derek Aldridge on his five hours and Silver height. Our activities could be curtailed in the next few months as a result of re-surfacing of the main runway at Lee-on-Solent. R.F.L.



A winning combination from the Pheonix Club. Mike Parkin (left) and Frank Wilson (far right) with crew member Nick Knapton (centre)

PHOENIX (RAF Brüggen)

PHOENIX was well represented at Inter-Services (Germany) Gliding Championships at Detmold from June 7 to 17. Given a final brief before leaving of "bring back the Pots or I'll charge you soaring fees", they saved next weeks housekeeping by winning every award apart from the best Army pilot.

The results were:

			Pts
8	Frank Wilson Mick Parkin	K-8	4857
2	Ben Benoist	K-6	4177
8	Gery Wallace	Swallow	2261

Gerry took the top Swallow prize and the prize for the best maintained glider in the competition, a just reward after the many hours he and his crewman, Ray Brownrigg, spent last winter refurbishing the Swallow. A word must be said about the ground crews who worked so efficiently and tirelessly.

Meanwhile back at the strip, Nigel King keeps our standards up and insists on us hurtling all over Western Germany by road looking for a weekday launch site (we cannot fly from Brüggen during the week). The clubhouse is now looking really smooth under the management of George Laughton.

Robbie House and Dick Gray are at Bicester at the moment being educated in the ways of instructing by the Andy Gough Co. We expect them back any day complete with steely bloodshot eyes and calm assurred manner.

Next year's aces are now going solo and congratulations to John Foey and Tom Jones. John Foey promptly insisted on picking up his C, Bronze C leg and Silver height in the Swallow—not a bad start.

E.F.B.

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