SAILPLANE & GLIDING

December 1975 – January 1976 40p



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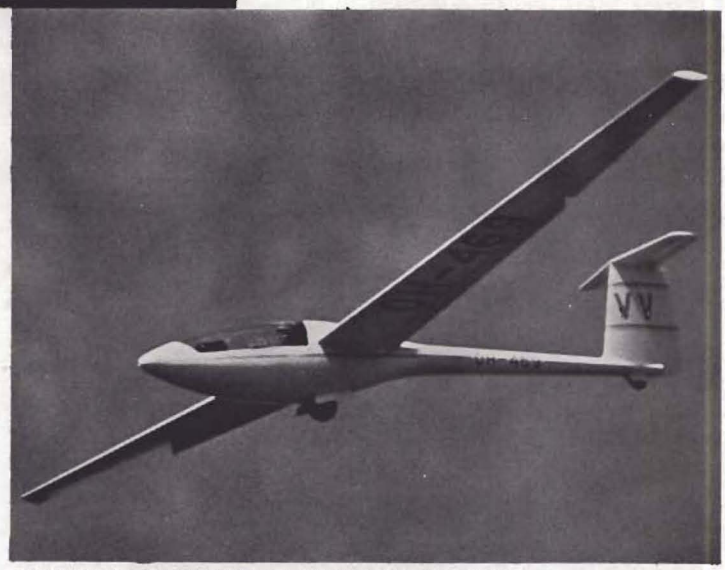
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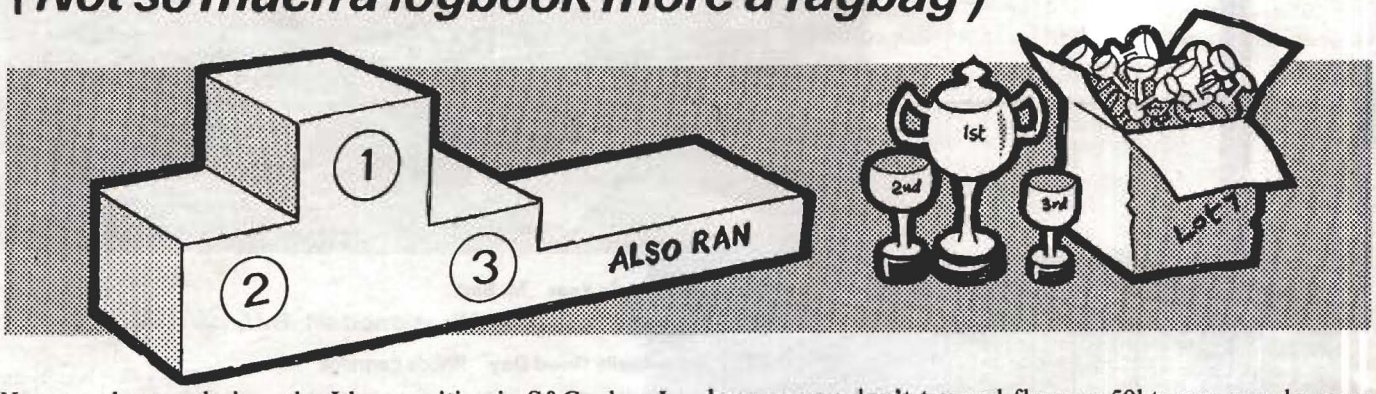
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ONE MAN'S YEAR-
Or a view from the bottom
(Not so much a logbook more a ragbag)

Mike Bird



You may be wondering why I keep writing in S&G when I consistently come near the bottom in every contest I enter and have no records and even this year 1975 no 500kms to my name. (There are some churls amongst the readership who doubtless believe that from time to time we can't sell a couple of ads, when somebody who can scribble is flung into the breach.) Well, there are some very nice people not to mention distinguished aviators lending tone to the bottom end of contests these days, I'll have you know. The era when it was Ph*l*p W*lls first, then a vast gap and three dozen poor slobs also-ran, is long gone. What's more we also-rans, who this year include Chris Simpson and John Jeffries, are very articulate; we have to be able to explain why we didn't quite make it to the top of the pile yet again. Our flights are more interesting anyway.

At Euroglide, for instance, did we really want to know how straightforward and painless the daily winners found it, or would we not have much preferred to hear John Jeffries explain why he spent several extra hours during what was supposed to be a race exploring the sea breeze in the general area of the Wash? The chaps who do a Moffat and "win by not losing", who fly with zero defects, never do interesting things like that.

Whatever's happened to swallows these days?

No, not Slingsby Swallows; the little birds with pointy wings who hold up the telephone wires.

About ten years ago I flew across country in East Anglia and every thermal had about a dozen or more swallows in it; very good markers they were for everyone with decent eyesight. They were breezing up to 3000ft or so, presumably lunching off the insects carried up in the thermals. Have the farmers killed off the insects and discouraged the swallows? It can't be the 1975 weather, surely. May be it only proves that one summer doesn't make a swallow.

Capstan-owners please help

I would like to compare notes with any Capstan-owners on performance. George Burton says Slingsbys have no polar curves. He was not very flattering about the Capstan as a cross-country speedster (that's putting it mildly). All the same it has been taken around a 300km triangle by the late Ray Stafford Allen; it is delightful in thermals and so long as you don't try and fly over 50kts you can do some very satisfactory closed circuits. Timed descents on *thermic* days averaged out around 22:1 at 50kts and 19:1 at 60kts. I don't know what Max glide is, nor at what speed. I would like to know because one needs all the range one can get, especially after flying a Kestrel. I guess about 25:1 at 42kts with a 400lb pay load. Any advice?

Coldest, wettest, muddiest and most labour-intensive retrieve:

After being compelled, by a blizzard which was full of lift but also full of other gliders attempting an Easter weekend task, to escape into clear air and hearty sink, I put down in a nice big meadow only about two air miles from the club. Fifteen minutes later, when I had negotiated, in bare feet, the 200yds of knee-deep mud and snow which represented the only exit from the field, I telephoned for the trailer, ten chaps and a pair of wellies. My wife and seven chaps arrived in no time, but spare wellies were not to be had at the London Gliding Club since the site was also a quagmire.

I was barefoot because the suction of the mud not only pulled each shoe off but effectively buried them under a foot of icy water topped with a thick layer of slush. It was better to go barefoot, except the stones and thorns and the snow were sheer torture and the shoes had to be replaced from time to time in order to forestall frostbite.



Towing the Kestrel to a relatively convenient spot and derigging it was merely purgatory. Hell consisted of carrying the separate pieces in the approximate direction of the trailer. One ingenious thought was to pass the wings across a hawthorn hedge and a deep ditch full of freezing water and snow, into a less muddy field so as to circumnavigate the cow track. Like most cures it was as bad as the disease.

A dozen times the pilot lost his shoes while carrying the bits and had to abandon them until a place could be found to rest the precious glass-fibre—then we would go back and poke about in the water-filled holes that marked our progress and retrieve the vanished footwear. A vile, miserable affair; I can't think why some of them thought it was funny. I can only put it down to hysterics brought on by physical and nervous exhaustion.

As the fuselage was hauled along the cow track, the undercarriage bay filled up with mud. The wheel became a gigantic ball. Discussion as to whether it would be better to slide the thing along on its belly with the wheel up was now academic, since the fuselage was at this stage filled with so much mud that it would soon occupy every crevice from the cockpit to the fin. As the muscular team heaved upwards, Isaac Newton forced them downwards into the mud so that, at those rare moments when the fuselage was momentarily clear of the quagmire, the crew were even more firmly immobilised by it. Wise virgins all, they at least had boots which didn't come off. Laurie Ryan, however, has a tin leg and nearly lost that. An interesting mixture of rain, hail and snow blew horizontally across the grisly scene.

About two hours after arriving, the trailer was eventually loaded and the grubby bits stowed. The Kestrel had travelled the last 200 yards at roughly one yard every 30 seconds.

"Don't come in the bar in those filthy shoes!" bellows Jeffries (whose fault it all was for setting the task anyway). Obligingly I stepped out of my shoes and squelched across the parquet in bare feet with the mud and ice water dribbling between my toes, to collapse at the nearest beer-pump.

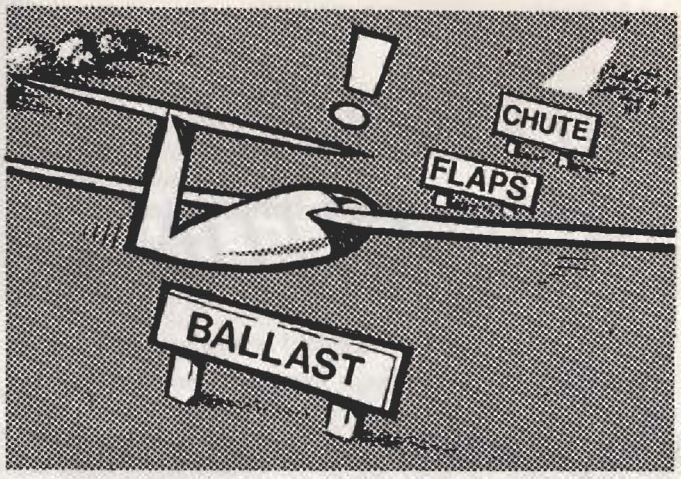
Fastest Met information

If you have a multi-channel radio, Volmet is a very useful channel (128.6 for Volmet South) for wind velocities, cloud-cover and cloud-base as actuals not forecasts for each major airport around the country. Sophisticated users tell me they can work out from wind velocities, etc, whether a depression is on its way and how fast it is making progress though this requires some familiarity with Buys Ballot's law. You don't know BB's law? Well!

It is obviously useful navigationally for correcting headings and also for checking the right approach when landing out.

Most absent-minded approach

After a too exhilarating out-and-return to the Long Mynd, *forgot* to dump ballast (mercifully as it turned out, since the club was rationing water), *forgot* to lower landing flap and *failed* to tweak the tailchute knob hard enough. I thought it was a bit speedy as we rounded out and gave the chute another tweak for luck as we hurtled towards the dog kennels. She sat down beautifully, which goes to show one doesn't always get one's deserts, thank God . . . Next day a large, more strident landing check list is pasted on the



panel; we still need a mnemonic, preferably rude, to burn the vital initials into what passes for our brain. Offers, please!

Roughest ride of the year

Doing finals at 135kts right on the deck, wrestling with the ballast-tap (and trying to see over my shoulder if it was turning the right way) while the turbulence kept throwing maps, calculators and pencils against the canopy. There must be a simpler way.

Shortest retrieve (or, worst final glide)

The not-quite-going-to-make-it final glide is an awful experience. From 3500ft 15 miles out shouldn't it be on? Not in the Capstan it ain't. Three cu, damn them, each fall apart as we crawl at Max glide (42kts??) towards them while the field crawls tantalizingly towards us. Will we, won't we? Nose down, then stick hard back, over the Tring road telephone wires, then snaking across the last two undulating fields at nought feet with a spanking 15kt cross-tailwind to provide an illusion of airspeed and a hell of a lot of drift. Now, how about hauling over this 20ft hedge with a deep gully on the other side? Palpitations. Instinct and a last moment check on the ASI—indicates we are living entirely on ground-effect and that's where we had better stay. Nose is rubbed in hard ten feet short of the thicket. Did I just imagine the jeers of the bookmakers and disgruntled punters, who had bet on the outcome, on the far side?

The passenger, never before airborne in anything smaller than a jet, enjoys it all immensely, regarding it as a perfectly normal arrival. The pilot wakes up sweating at 3am that night and is grateful it wasn't a competition . . .

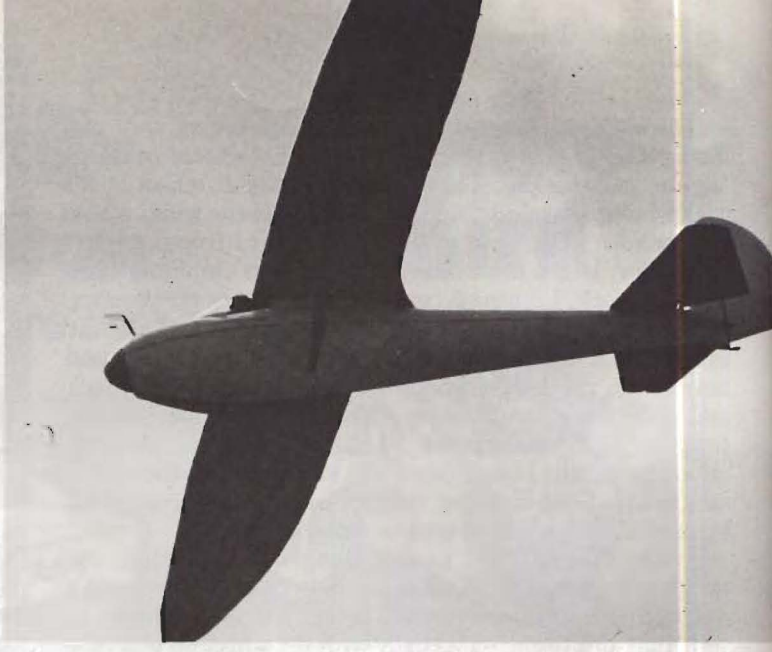
PS The famous film of Frank Pozerskis sliding across the line in his ASW-17 in Euroglide 1974 should be banned, as being liable to tempt impressionable youths like myself into trying the same feat.

Best free ride

After a very late re-start on the last Euroglide day:—charging upwind along a cloud street all the way to Northampton, 30 miles, without circling, in 25 minutes. The gilt came off this gingerbread when I found that everyone else had done the same thing, and half of them did it faster. All the same, the sort of thing that makes all the bother of heaving wingroots and messing with waterballast worthwhile. Modern gliders haven't taken the fun out of gliding; they have put in a lot that was only dreamt of 20 years ago.

Sorry, Mr Tibbs.

OLD FOLKS' OUTING



E. A. HULL recalls a flight this summer in his Kite 1 which would have made world gliding headlines if achieved in the 1930's when the machine was designed

Messing about with vintage gliders can be a lot of fun provided that you can accept the fact that on most days it will not be possible to do much more than local soaring anyway. The lower down the performance scale you go, the greater becomes the problem of even reaching the next thermal before meeting Mother Earth, and thoughts of cross-countries have to be saved up for high cloudbase days, considered suitable for the odd 300km or 500km triangle.

After the youngsters had gone . . .

August 17, 1975, was one of these super days with a wedge of good weather lying between belts of rain and horror to the north and south. At Dunstable, this was the second day of Euroglide and when all the slippery ships had streaked off out of sight for the Long Mynd, a couple of pre-war sailplanes started off to pair fly what is these days a modest triangle, Bicester, Husbands Bosworth and return. Dave Adams was piloting the Weihe (one time resident of Lasham) and I was having a go in my venerable Kite 1 (rebuilt 1939 and reputedly ex-Amy Johnson).

We launched into a superb looking sky and were soon heading westwards at 3500ft. The cumulus were forming in broken streets but the lift was not constant enough to fly along without losing height. At least, not for me. Dave had suggested that I led the way as I was more familiar with our route, but this meant that I needed to push on very hard if I was not to hold up the higher performance Weihe. With a glide angle no better than 20:1, the penetration of the Kite is what an optimist would classify as abysmal and the useful speed range lies between the 30kts for thermalling and the 40kts for going places. Flying faster gives one a very good view of the ground immediately ahead and the fascination of seeing the altimeter winding back like crazy! However, the thermals were pretty close together and I was able to speed up to a dizzy 55kts across the gaps without losing too much height; and to keep above 2500ft.

A problem became evident using this "high speed". The Cosim was reading way up the top of the red tube and the needle of the 5kt vane type vario was jammed hard against the bottom stop. The sink rate was so high that flying through a 3kt thermal produced no change on the vane vario and a minimal movement of the red ball. I got round this by continuously tweaking the capacity rubber tubing behind the panel which caused the vario needle to twitch off the end stop. As we ran into rising air, this movement became much greater and I knew it was worth while pulling up. A bit primitive, but it seemed to be effective.

We made very good progress and Bicester soon came into view. The sky seemed to be full of gliders and we were inspected by a very smart Oly 419. I was just thinking that it really was a "barn door" day when, idly looking down, I saw a real barn door thermalling up beneath me. After a swift double-take, I realised that it must be the "Budgie", Bicester's AV-36 Fauvel flying wing.

Hopping across lines of cumulus

By this time the lift was getting better and better and smooth, regular 6 to 8kt thermals were taking us up to 4000ft. We turned Bicester and started hopping across the lines of cumulus, finding little sink in the blue. We watched a driving test meeting taking place at Finmere and took a look at diminutive racing cars circuiting Silverstone. Somewhere near Daventry we were rather disconcerted by a large black cloud of smoke rapidly approaching from the left at our flight level. This portent of doom revealed itself as a rather scruffy looking Vulcan bomber which fortunately changed course to pass a quarter of a mile ahead of us. A Phoebus came over and joined our thermal, could not compete and pushed off in disgust.

North of Rugby was very overcast and caution was indicated. I slowed right up and watched the Weihe and Phoebus (with us once more) glide off into the gloom. Down to 1500ft, it seemed a good idea to head for a small patch of sunlight and, sure enough, a thermal developed to keep me going. I tip-toed off towards Husbands Bosworth

to try and catch up the Weihe. Things then got difficult and all seemed lost. On the downwind leg of my approach to the airfield, and well below 1000ft, another patch of sunlight did its stuff, the port wing giving a decided kick upwards. A turn that way and after a few seconds there was a real surge and I was soon locked into the core of a four knotter which lifted me to over 4000ft. Back southwards under the murk, using every patch of rising air, eventually brought me back into the sunny conditions where things were easy. I was happily winding my way up in a good one when I was joined by the Booker Motor Falke formating a few yards out from my wingtip, its engine screaming and the two occupants grinning out through the canopy. Fortunately after a few turns they cleared off and left me in peace once more.

Later I caught up with the Weihe and we were able to continue with our pair flying. This really started to pay off now as the cumulus were becoming more scattered. Beyond Northampton we crossed a very dead patch of air which saw us down to about 1000ft over Salcey Forest. Scratching around in zero sink for some minutes produced nothing better and I was looking for the best field when I saw the Weihe throw a circle and then another. The fields that way seemed safe enough so I moved over to join him. It was very weak stuff and we settled down to what seemed an age of steady circling which in time gained us about 400ft. Each of us in turn left the circle to sniff around for something better and we did at last achieve this. With the help of an extra thousand feet we reached Newport Pagnell but were again down very low.

By this time I was really suffering agonies from the cold and cramp—open cockpits are all very well but they did not build them for comfort in the old days.

There was one of the best thermals

Cranfield was well out of range to the left and ahead of us we could see the Weihe from Hinton in the Hedges circling about a couple of thousand feet above us. It did not seem possible that we could reach the thermal he was using, but Dave used his superior range and height to search it out. Seeing him circle lured me on, stretching my glide at 30kts, and there it was—one of the best thermals of the day right up to 5000ft for a straight glide back to Dunstable and completion of a 170km triangle in 4 ¼ hrs.

Could we have flown further? Yes, I think so. Had we been able to start an hour earlier, with no contest launches to delay us, we should have been able to manage a 200km flight fairly easily. Perhaps next year . . .

As a flight, it was very satisfying if only to prove that there is life yet in the old gliders and, on the right day, you don't need to have GRP to go somewhere.

ON A REALLY GOOD DAY

RHODA PARTRIDGE

In the winter when the rain lashes round our old farmhouse and the wind roars in the chimneys, I get out my maps and I plan heroic flights and meditate on sea breezes and ponder final glides and say to myself "on *A Really Good Day* even I might manage a 500km."

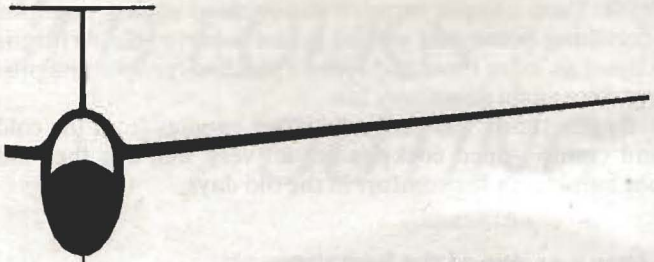
Shobdon. May 31 1975, 7am, and my bed and breakfast landlady brought me a cup of tea. "It's a lovely day" she said, drawing the curtains. I looked out and my scalp crawled. It was *a really good day.* No mistaking it. Not a wisp of cloud, a marvellous sky, pale at the edges and darker in the middle, like a peeled grape. Cold. Kind of challenging. I lay sipping my tea (a mistake, as I later discovered) and planning. Wrexham, Lasham. Wish I hadn't left my maps in the cockpit. Batteries on charge, good. No crew, bad. Wrexham first in case a sea breeze develops later. Into wind, but I can try out the trick John Jeffries taught me for smelling out unmarked streets. A bit of headwind on the last leg, but it could have gone down by evening. Won't be much anyhow.

At breakfast I met Roger. He didn't know the dangers of having breakfast with me. We hadn't met before so I fixed him with a glittering eye like the Ancient Mariner, and said "Would you be very kind and come and fetch me if I fall down?" He froze, a spoonful of grapefruit in mid-air, but he'd said "yes" before he'd had time to think.

I didn't get off until 11 o'clock. (If only I'd had everything ready overnight.) It was glorious, six knots in places and a 5000ft cloudbase. I went rollicking north in fine style, (the streets weren't marked, but they were there) until I got to Ellesmere when I came badly unstuck. "Oh no, it's too cruel. If I land now that's it for the day". But half a knot and an agonisingly slow climb and I was off again. It gave me a fright though, and made me a lot more careful. Keeping higher, taking more thermals.

Navigation was a rabbit's dream in that superb visibility. The country just unrolled, and what it said on the map turned up on the ground (usually well before I expected it) and there was Lasham. A bit late though, four o'clock. Never mind, just keep at it. Nearly down at Swindon, nearly down at South Cerney. Tired now. Stumbling along, not scampering like mid-day and a nagging complaint from my bladder. "Now look here, it's just not reasonable. You have an early morning cup of tea, then you strap us into this ridiculous contraption and expect me to remain quiescent all day. Enough's a blooming 'nuff. Just look down, soft green fields with plump hedges. See? Now, by your left hand there's a lever. Just pull it and we'll soon be under one of those plump hedges. What's that? Nonsense. You don't really wish you were a man. You know you'd hate it. Now, what about that lever?".

In the winter when planning heroic flights I had a perfectly good answer to a nagging bladder. Simple. I'd wet my knickers. I'm deeply ashamed to admit that I just couldn't do it. It's all my mother's fault. Ma! why did you



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have to be so efficient with my potty training? Think about something else. Just keep going. To 6500 north of Cheltenham. A few scruffy clouds over the Severn valley. Clear to the west. Low over Ledbury. Now be sensible. Don't fly her into the ground. North west of Hereford small fields and hop gardens and little hills. A small bumpy field that had been cleared of silage, across the corner of a hop garden, trees on the approach, who says a Std Cirrus hasn't got brakes?, and down. She stops in time (the beauty) and I spring out and Make Myself Comfortable (oh the blessed relief) and off on frozen feet (reeling a bit from fatigue) to find the farmhouse. Pause at the field gate and look back at my lovely glass Broomstick and smile at her. She looks beautiful and elegant and slightly out of place. Like seeing a robin perched on a cornflakes packet.

"I sat in the car feeling grateful and inferior . . ."

The evening went well. The kind Westerbys at the farmhouse were really pleased to see me and they gave me coffee and whisky and their 'phone and excellent instructions for my crew. Then they drove me back to the field the way the trailer would arrive and the trailer arrived almost at once. And out got two girls. Crumbs! no men. "Hallo, where's Roger?" Roger it seemed, had been celebrating his five hours and had, wisely gone off for a meal. "Super of you to come for me, but I'm afraid we've got problems. I can't manage the wingroot." Jill didn't reckon we had problems. She derigged us, had us into the trailer, across two fields, through two awkward gates and onto the road in 15 minutes flat. I sat in the back of my car feeling grateful and inferior and Jill drove us back with aplomb.

The lot in the bar had reached the raucous stage. We were greeted with groans and cat calls. They had been betting how much after midnight this all woman retrieve would arrive back. It was 10 o'clock. Midnight found me soaking in a deep bath with my radio softly playing "On top of old smokey, I lost my true lover by courting too slow." And I'd lost my 500km by flying too slow—470km in nine hours. Stoopid woman! What did you want to potter along like that for? So all right, you had a fright on the first leg and had a bad case of stay-upitis, but you could have been a bit brisker. Thought you were doing your five hours did you? Not pleased with myself. Sad? Ah no! not after such a wonderful day.

I'd got this blissful collection of visual memories. Beloved Britain in her late spring livery. That unbelievable explosion of green. Happy gliders local soaring. Busy purposeful gliders going cross-country. Little bunches of sailing dinghys on reservoirs and gravel pits. A prehistoric hill fort near Swindon. The Roman road network round Cirencester. That crazy great runway at Greenham Common. The Inkpen ridge. Fat golden coils of the Severn estuary to the south on the way home. The spikey drama of the Malverns. Big red peonies in the farm garden, the strange shape of oast houses against a perfect late evening sky. I couldn't be sad with a day like that to remember. And in the winter when the rain lashes round our old farm house and the wind roars in the chimneys, I'll get out my maps with the tingling conviction that, notwithstanding evidence to the contrary, on *A Really Good Day* even I . . .

Getting the Forecast

This short elementary series by ANN WELCH is intended for the pilot starting cross-country soaring.

There are some pilots who always seem to know when tomorrow will be a superb soaring day, and have the added ability to take it off as well. Most people are not in this "lucky" bracket, although a little systemising of their approach to weather forecasts might help.

The range of weather information pumped out by TV, radio, the telephone and newspapers is considerable, but except in black and white terms—"tomorrow the whole of Britain will have continuous steady rain"—it is not always that useful. For training it is the wind strength that is usually the determining factor but, for example, the BBC 22.00hrs weather never mentions wind. For early cross-country flying good thermals uniformly distributed help a lot, but without practice it is not easy to dig those possibilities out of a newspaper weather map.

Asking the right questions

So you have to develop a system to get just the information you need, and step 1 is to find out and list exactly what is available, including Volmet and the shipping forecasts. You also want the telephone number of the nearest suitable and friendly Met office. The suitability is important since you want a forecaster tuned to the needs of the small aircraft, or at least the service parachutist, rather than 747's at Heathrow or big tankers at Southampton. He will soon be able to provide for gliders if you ask the right questions.

Step 2 is to make a standard form for the information. Some gliding clubs already have a stack of duplicate forms and these usually reflect from experience an order convenient for the forecaster to present his data. The information you need will, of course, vary somewhat with the sort of flying you hope to do, and this article concerns itself broadly with the range Silver badge to 200km triangles.

To begin with you need to find out the overall synoptic picture, and the easiest way to do this is to have the current newspaper weather map available when you telephone the forecaster. The map will, inevitably, be both simpler and more out-of-date than the chart the forecaster will use, but as a means of visualising the general picture being described, it helps. Now you need to know:

1 In what way is the dominant pressure system expected to move, and how fast is it moving? How soon will any change affect the locality you are concerned with? For example, an approaching warm front can affect thermal development 100 miles or more ahead of the front itself.

2 Is the dominant system intensifying or decaying, and what is the central pressure and its expected rate of change?

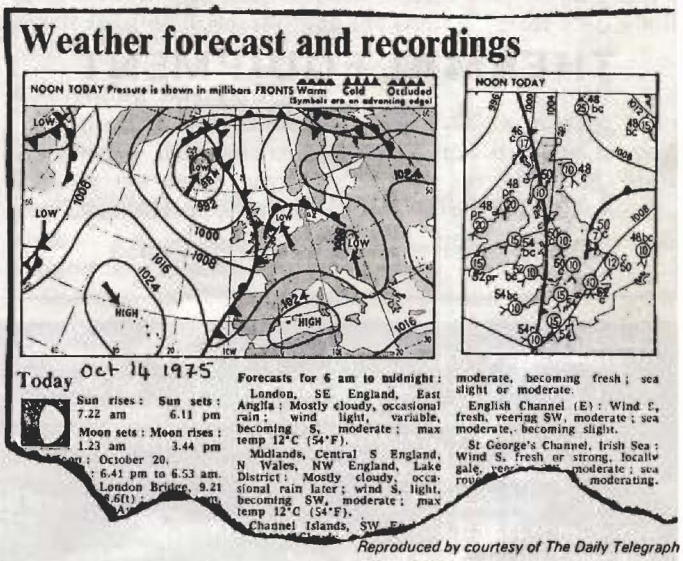
3 What is the expected windspeed and direction, at the surface and at 2000ft, and what change is expected?

4 What is the expected visibility?

5 Is wave likely? Are sea breezes likely and with what penetration?

6 What strength of convection is expected at, say, 13.00hrs?

7 What ground temperature is required before thermals will usefully start?



Reproduced by courtesy of The Daily Telegraph

8 What cloudbase height is likely at, say, 13.00hrs, and what is freezing level? And linked with this question:

9 At what height is the inversion, if any?

10 Is the instability such that cu-nims will develop, or

11 Is extensive spreading out of cumulus likely?

12 Is there likely to be any cirrus or other high cloud that might weaken the surface heating?

13 Up to what time can thermals be expected to continue?

There are, of course, many other questions that could be asked, such as about lapse rates, but all life is a compromise and telephone calls are expensive. To begin with it is best to obtain the basic operational information for the flight as fully and as accurately as possible. It usually helps to tell the forecaster briefly about the type of flight you are hoping to make and the area over which you expect to fly, as well as the period of the day in which you expect to be airborne, and your likely average speed. He will then be able to visualise your needs, and not spend time explaining at length data not required.

If you are calling a forecaster about tomorrow and the

weather situation is a little obscure—it often is—help yourself obtain follow-up information which may clarify the situation from the TV or radio, even if it results in not having to take the day off after all.

On the media Radio 4 gives full national and area forecasts at 17.55, and BBC 1 gives a chart with the forecaster standing in front of it coincident with the outlook statement of the radio forecast. If you are quick off the mark you can get the best of both.

The BBC produce their shipping forecasts on Radio 2, 1500m, at 06.33, 13.55, 17.55hrs (coincident with Radio 4 and BBC 1 so you now need three lots of ears) and 12.33. Although shipping forecasts may seem irrelevant for Birmingham, they do give briefly—you have to be quick—the synoptic situation and also actuals for a stated time. From these you can discover that the cold front actually has gone through, say, Plymouth as expected and has not slowed down. Volmet, obtainable on VHF 128.6 Mhz, continuously broadcasts information from a series of airports, and is also useful for obtaining actual information; as to the onset of rain and of the arrival of the clearance. But listen carefully to the time given for all such information, it may be as much as three hours old.

Canned weather reports may also be available by telephone for your area. Whether they are useful or not for your purpose you can only find out by experience. Usually they are too general, but if dealing with the coast are usually accurate on wind strengths.

Gale warnings turn up on Radio 2 as soon as received and on the hour immediately following. A gale means the wind will be 43kts or more. The terms imminent, soon, and later mean within six hours, between six hours and 12 hours, and more than 12 hours respectively.

The problem is that there seems neither time nor opportunity to listen to all the information that is available. You have to select, to learn the jargon—sunny periods mean more sunshine than sunny intervals—and then learn by trial and error the most reliable means of getting the information you want. It is sensible, too, to work with your gliding club so as to avoid wearing out your friendly forecaster; even the most enthusiastic Met man will tire of giving the same information in rapid succession to half a dozen pilots in search of Gold.

*London Volmet (North) is broadcast on VHF 126.6

Next issue: *Planning A Flight*

WINTER BAROGRAPHS

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Ann Welch's article on Doing A Daily Inspection, August 1974 p164, prompted ROBIN BULL to send us this contribution

NINE LIVES

What the eye doesn't see . . .

For a whole page of the DI book the glider had been certified, by a succession of respectable citizens, as serviceable without comment. Turn over. Next entry said "One canopy bolt knob missing for weeks, found under seat and refitted. Serviceable."

All nice and tidy. Eventually. Meanwhile, how many innocent pilots had, unfortunately, not managed to find the missing knob, the wrong way, in flight!

Why bother?

What do I mean? Well, first, did any of the previous signatories pause to wonder where the missing solid object had gone? And second, how lucky that it didn't fall or roll into, and jam up, any part of the flying control mechanism and put the aircraft out of the pilot's control.

What did you say? "Chance in a million, couldn't ever happen!" So it couldn't, eh! Now bear with me while I tell you a tale, of how one day the proverbial nine lives were reduced by at least one, for some of us . . .

Early (very) one morning . . .

Maybe I was a bit tired, after happily hand-flying for a couple of hours or so, southwards through the starlight over France, while Bobbie our Skipper did his rounds and then had forty winks on the couch back in the centre section.

It was still dark when he came forward eventually, yawning and muttering about food. I ran the autopilot up to speed, switched it in, and let him back into his seat, and we snuffled hungrily at our packets of sandwiches by torchlight. My torch, out of my kit.

Turn left at Vesuvius . . .

Later in the morning sunlight we flew in over the Bay, turned left at Vesuvius, and slid down the long invisible rails of "Bomber Command" approach towards Naples airfield. I stood beside Bobbie, one hand lightly on the four close-grouped throttles, waiting for the round-out and his usual call to "cut!"

It got a bit late and neither came but now the runway threshold was horribly near and high in the windscreen. . .

"QUICK-HERE-GIMME-A-HAND!" and I moved over very fast.

Four panic-stricken hands, pulling madly back on the same control yoke, had to make some impression. With a sudden PLRP like biting a grape only much more so, the yoke came back and we flared abruptly, only just in time. The Lancaster, blessed tolerant aircraft, bounced once with every justification, then settled down and rumbled along the runway.

Only a torch . . .

We were both sweating but not only with Italy's overnight heat, as we fished my torch out from behind the control column and very funny it looked, all flat in the middle and bulged out at the ends like a large untidy hourglass.

Whose fault? Mine mostly of course, for missing a point on checking equipment before joining circuit. But we'd all have been equally dead. And it needn't have been a torch. Lots of other things would have done just as well.

Would do just as well, anytime, anywhere, any aircraft. Like after a high steep approach, over obstructions into a small field or down through the wind gradient onto a hill site.

Everything tidy . . .

So if on DI you find some small fitting is missing, keep on looking until you're absolutely sure that the missing item is not loose anywhere in the aircraft. And when you're airborne remember to keep everything tidy all the time . . . sunglasses case, tobacco, pipe, lighter, camera, aileron locks, coins, pocket knife . . .

Specially too before aerobatics. I mean you'd be a bit vexed, wouldn't you, to find you could **not** "ease gently out of the ensuing dive" because of some small solid object—such as the knob off a canopy bolt—in the wrong place.

Perhaps the memory of a squashed torch long ago makes it specially easy for me to remember that E stands for "Everything tidy in the cockpit?" when running through the in-flight pre-aerobatic check. What check—did you say? Why, HANSEL of course. You didn't know? Oh! dear me! Well here it is then . . .

Hansel

- H Height ample for intended exercise
- A Area suitable, open country, clear of the circuit
  Airbrakes checked and locked
  Accelerometer set
- N Near base, so you'll get home easily
- S Straps tighter than usual
- E Everything tidy in cockpit, no loose objects
- L Lookout completed, all around **and below**, by steep turn each way

What was that? Why not just one good 360 degree turn for lookout? Think now, what does a circling glider do to all the other gliders in sight? Yes, quite right, you do **not** want to find yourself spinning down through a gaggle of other gliders who've rushed in to join the bottom of your "thermal". So make a good part-turn each way to make an S which means "Stay safely clear!"

Just another of the many possible ways of keeping all those nine lives intact.

Exploring the Red Rose Wave

David Brown

Somewhat of a paradox exists to someone trying to glide in the north-west of England. Despite the presence of the Lakeland hills to the north, the Pennines to the east and the Welsh hills to the south-west, only the Lakeland Gliding Club at Walney Island and the Blackpool and Fylde Gliding Club at their new Cock Hill site are in a position to use the waves from these hills.

As these sites normally confine their activities to weekends, it was more convenient to use a suitable powered aircraft to make a preliminary investigation of the wave system over the Lancashire plain. Some typical examples will summarise the findings of a number of flights made in 1974.

Whereas wave activity in this area is usually due to south-west winds blowing over the Snowdon range, or northerly winds triggering wave from the Lakeland Hills, an unusual weather forecast for April 25, 1974, gave a promise of wave activity with a difference. On this particular day pressure was high to the north and a weak warm front was advancing from the north-east. The front passed over Lancashire during the afternoon, giving light rain. At 1700hrs the sky began to clear and, as the layer of stratus broke, a single bar of lenticular cloud appeared lying north to south between Lancaster and Preston, maintaining its position despite the easterly wind.

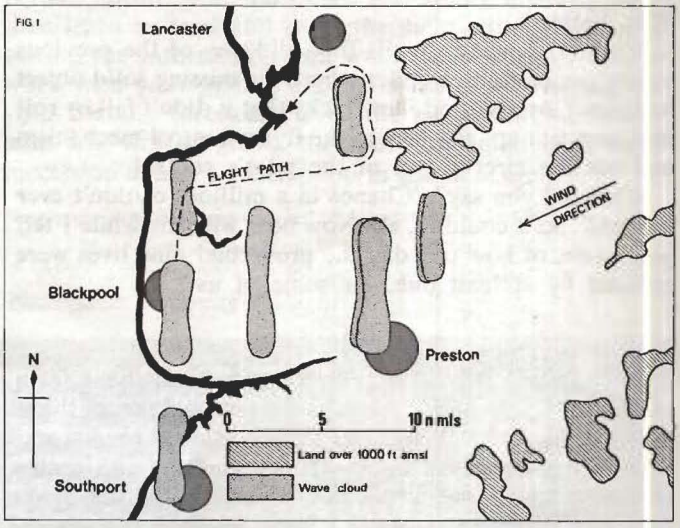
At 1830hrs, airborne in a Chipmunk from Blackpool, I could see two well-defined lines of multi-layered lenticular clouds which had formed upwind of the original bar. As I climbed above the tattered stratus over the coast a further flat lenticular was revealed over the port wingtip, stretching southward down the coast from Fleetwood. This thin veil floated at 6000ft but there was no lift discernible in the immediate area.

"... rose in a stack of six pearl grey saucers..."

To the south-east the most spectacular cloud was sitting over Preston. Its base was at 7000ft and the cloud rose in a stack of six pearl grey saucers, linked laterally to a similar stack. Further north, towards Lancaster, another lenticular was partially revealed. Two of its lower layers were visible but the upper reaches were largely lost in an ill-defined curtain of stratus. Flying eastward between these two towers of cloud, trimmed straight and level at 8000ft, I turned gently to port onto a northerly heading along the windward side of the aerofoil-shaped lower cloud.

The air was smooth, but the vertical speed indicator showed a descent of 200ft/min, then flickered to show a similar rate of climb. After a few moments with no more than this intermittent plus and minus 200ft/min, the needle swung solidly up to 500ft/min rate of climb, then as the northern edge of the cloud passed behind the wingtip the VSI went to 1000ft/min rate of climb. The lift continued as I turned downwind around the edge of the cloud, tapering off until, as the Chipmunk passed towards the downgoing side of the wave, we flew into air sinking at 500ft/min. Power and trim had remained unchanged throughout.

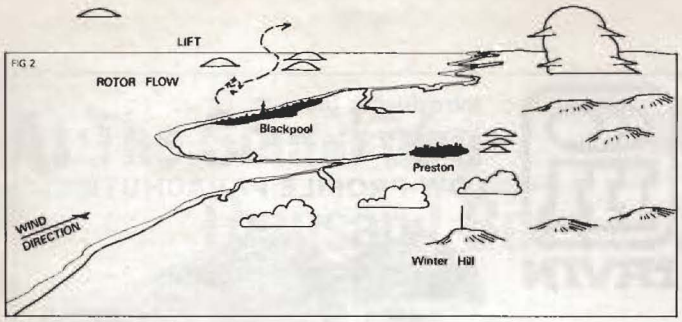
Time did not permit a more extensive investigation of the system but the sky was still gradually clearing and by 1930hrs four lines or bars of multi-layered cloud were visible with bases at 8000ft; a distance of about six miles between the wave crests with the upwind cloud almost overhead the Cock Hill gliding site, deserted on this weekday evening. Fig 1 shows this situation. By 2100hrs the main bars had disappeared, but as far west as Blackpool and far north as Lancaster the sky was dotted with an irregular pattern of small lenticular clouds. With the benefit of hindsight, Michael Garrod's article from S&G ("A Glider Pilot's Guide to Wave Forecasting", December 1973, p406 and February 1974, p28) and the weather forecast, I later applied the Caswell formula to give a wavelength of 6nm with Max lift predicted at 9000ft. This confirmed that the system was indeed working as advertised.



Wave has also been investigated with the wind in the north-west. Typical of this behaviour was a flight on July 24, 1974 when lenticular clouds could be seen stacked downwind of Black Combe, the most westerly of the Lakeland Hills. Although wave lift was contacted over Lancaster it was fairly localised, possibly because of the isolated position of the mountain. The greatest vertical velocity found was 500ft/min at around 8000ft. Further bars of cloud upwind and glowing patches of alto-cirrus upsun at much greater altitude showed the extent of the wave. As the evening drew on and convection ceased over the Pennines, the system extended by spreading laterally and also downwind until the cloud bars reached as far as Preston.

With a northerly wind, so that the full range of the Lakeland Hills gives usable wave, the vertical air motion has given lenticular formations at both low and high levels on numerous occasions, with the upper cirrus formations being tantalisingly paralleled by the contrails of the airliners on Amber One.

Statistically, wave is most probable in the region as a result of the prevailing south-west wind pouring over the Welsh hills. In these conditions on the evening of August 23 a late afternoon clearance revealed cloud indicating high level wave just south of the Ribble estuary. Rotor turbulence was encountered at 2500ft under a bar of stratus cloud. This was a little unexpected being almost 40nm downwind of the high ground, but once in the smooth air of the wave steady lift of 500ft/min was found up to 9000ft. Upper cloud showed that the activity went much higher



and stretched not only across the Irish sea but continued over the Lakes. Fig 2 summarises this situation.

On a number of occasions the clouds associated with these waves have extended right across the Lancashire plain until they have merged over the Pennines with a more extensive standing wave giving a north-south barrier of cloud up to 30000ft along the length of the Pennines.

Although the proximity of the sea and the presence of controlled airspace severely constrain cross-country flights in the area, gliders from Cock Hill have already used Pennine wave during flights into Yorkshire. This small investigation has confirmed that the other waves are indeed there and we need only wait for the right day before someone in a suitable glider connects to produce respectable climbs.

DIAMOND GOAL

from Portmoak Pleasure Farm

BY "CMXIX"

Tuesday, April 1—against all previous form—dawned with wave in the sky and a promise of better things to come. It looked, in fact, good enough for a 300km triangle—Balloch Pier, Edzell Airfield, Portmoak.

Kestrel rigged, breakfast eaten, oxygen cylinder changed, barograph smoked, declaration made and photographed, I was winch launched to the hill. Getting away from the hill and into the wave took 1½hrs of hard scratching in little wisps of lift which finally packed up at 5000ft.

"Both varios hit the bottom"

Even from this height, the next wave upwind at Bridge of Earn, looked a heck of a way off. My worst fears were soon realised as both varios hit the bottom. Half way there, I was down to 1800ft and sinking like a brick. However, just as good sense was about to prevail and I was ready to scuttle back to the hill, the sink reduced. Hauling back on the pole, I was soon climbing at six, then eight, then nine knots to 8000ft when I pushed forward to the next wave, repeated the process until I was north of Perth and turned left for Loch Lomond.

The run westwards was uneventful—a sightseeing tour taking in Strathallan airfield to see the Comet, Lochearnhead, Lake of Menteith ending up with a downwind run from Ben Lomond to Loch Lomond where the first real snag became evident—the turn point was under the wave and completely invisible from the air.

I suppose a real hero would have pulled his brakes, nipped under the cloud (base 6000ft), flown down through the sink, snapped the TP and taken his chances of landing out. Coward that I am, I elected to hang around and sightsee. The whole of the loch, apart from the south end, was clear so I pottered around waiting and chatting with 363 who was following me on the same task. It was here that I discovered the Kestrel's plumbing system is not proof against freezing. My cup runneth over. After 1¾hrs, however, the wave moved far enough downwind for me to take my picture and set off eastwards.

The system had, if anything, improved and I was able to cruise at times at 130kts and maintain a height band of 8—11000ft without trouble, even without actively looking for the best lift. Up to this time I had deliberately chosen to stay low to make navigation simpler and was having trouble in keeping from going up. So much so that beyond Perth I started running into the bottoms of high lenticulars and the upper cloud causing steaming and icing on the canopy.

Around the Edzell area I found myself stuck between the two lenticulars which went right up into the upper cloud unable to decide what to do to escape. Discovering I was at 13500ft and climbing like a dingbat gave me the answer. A couple of whiffs of oxygen and all was clear. I pulled the brakes, circled in the sink until I was below cloudbase and there was Edzell like a giant bullseye. Around the turning point, snap, climb to 8000ft and away downwind to Portmoak.

The best final glides leave enough height for circuit. Mine, despite being at VNE for most of the time, got me back to the pleasure farm at a cautious 5000ft. No mistake about getting back, but it does go to show how far and how fast you really can go downwind.

Poor 363 couldn't see Edzell for cloud and had to abandon the task.

The possibilities on a snag-free day!

The whole trip took me 5¾hrs without really hurrying, which, if you deduct the three hours spent at the start and at Loch Lomond, gives some idea of the cross-country speeds that can be achieved in wave. A K-13 has done the same trip in three hours so what could be done on a snag-free day—150km/h? On a good day it should be possible to break the UK 300km triangle by a very good margin.

Just a few thoughts prompted by this flight.

1 Telephone to see if your turning points are clear of cloud. If not, find alternatives.
2 Don't go high! Height causes navigation problems and the lift that will take you high will also enable you to stay just above cloud and go like crazy. The only time you really need to climb is to penetrate upwind and then only enough to get you over the top of the next cloud. Additionally, lift is usually stronger and more clearly marked close to the cloud.
3 Judge your final glide!
4 How do you cross a startline at a height of 1000m and go straight into wave?

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At The Sound of a Thousand Bees . . .

J. C. RIDDELL

It is not often that I have the chance to evaluate something new, so I was enthusiastic at Don Austin's suggestion that I try out his motor Kestrel. One Sunday in September, I found myself at 5000ft after a prolonged aerotow, flying Don's Kestrel 19 with the sound of a thousand bees in close formation right behind me. Don had fitted a 125cc McCullough two-stroke petrol engine with a propeller of his own make, mounted on a neat tubular folding framework that clipped to the centre section frames. The detachable canopy was cut away to allow the propeller and engine to rise clear of the fuselage.

In the course of Don's briefing, it had occurred to me that I might be up there in the sky unable to raise the engine in the confined space of the Kestrel cockpit. I trimmed the aircraft to 45kts, checked the magneto earthing switch was in the forward position and the throttle set half open. I heaved at the lifting lever and nothing happened. After a moment of thought, I recollected Don's advice to push over at the same time as I pulled at the erecting lever. The added *g* assists to raise the engine. This time, another heave, combined with a discreet push forward, and the engine and framework unfolded itself like an awakening giant to stand sentinel over the Kestrel's centre section.



The engine is fully extended on the folding mount.

Told to expect sound at 60kts

Well the engine was up, but to get it started the propeller had to spin. Don had fitted a large decompressor and told me to expect sound at about 60kts. I felt for the decompressor with my right hand across my chest, and eased the stick forward with my left. As the speed passed through 65kts, I detected an audible whirr note from the spinning prop. I released the decompressor and the engine started.

It was some moments before I remembered to open the throttle fully, and the engine speed increased substantially. I was towed high in an attempt to get above the convection so that I could judge the rate of climb in the smoother air. It was blowing hard from the north at about 30kts and as the convection was up to 6000ft, careful measurement of the climb rate was not possible. I spent the first few minutes of the flight at 42kts, and the variometer showed a climb rate between 1 and 2kts.

At a full throttle run of 6250rpm it pushed the 1114lbs of Kestrel and me at 42kts and transmitted 3hp. I checked the straight and level speed and it seemed that at 55kts we were just losing out but it was impossible to measure in the turbulent air. Nevertheless it took some 15 minutes to descend to 4000ft, and undoubtedly benefit was gained from the presence of the engine.

Twice more I started the engine, and folded it to the cooling position where the engine projects into the airflow to cool, before taking it into the fully retracted position. Both times the exercise was achieved without difficulty. The air noise in the cockpit was a good deal higher with the engine in the midway position than fully retracted, and I did not notice any additional draught in the cockpit, although there were no doors fitted to the engine compartment.

I checked the handling qualities of the Kestrel with the engine extended and running. There was no noticeable change in fore and aft trim when the engine speed was increased, nor was there any tendency to yaw when the sailplane was rotated about its lateral axis. The engine thrust line is only about 26in above the wing retention pin and the 26in diameter propeller is too small to make a significant alteration in the flow over the high tailplane. However, it does provide a significant smear of oil over the fin.

The speed was put up to 60kts with the engine running, and the increase in engine speed was noticeable. There is a risk of overspeeding by flying too fast.

With the engine safely away, I soared for some 30 minutes in the day's convection. The engine was within an inch or two of my head, but in no way did it intrude to remind me of its presence in the cockpit. I flew for some moments alongside a Jantar, and the performance of the Kestrel did not appear to be significantly impaired by the presence of the 14lbs of engine. However with the engine out, the sink went up a good deal.

Don Austin certainly deserves to be congratulated on the technically elegant installation of this engine stowage within the space available on the Kestrel. With a modicum of practice, the rig is easy to use, and was reliable. The weight of 14lbs is quite remarkable.

On the debit side, the fuel capacity is insufficient with only 20 minutes full throttle running time: an hour would be preferred. The power output seems very low on a rather heavy Kestrel 19, and clearly more can be gained by further development of the propeller. Earlier in the day Don got some two feet off the ground after a quarter of a mile of runway, but this engine is purely for self-sustaining, not launching. However, this is a very real advantage when you are pushing your performance up in race practice, for the presence of an engine will reduce the risk of an outlanding. In fact this is the nub of the matter. An auxiliary engine will come into its own to avoid expensive retrieve costs and hazards of landing out. As a Kestrel takes so little power to push it through the air, the auxiliary engine opens up the opportunity for further use as personal transport.

Noise is a real problem—the engine hasn't a silencer and this will not be acceptable in the long term. I think a solution is possible, but propeller efficiency will have to be improved before it can take a suppressor which entails a loss of power.

Don's application has considerable merit. I would like to see the engine used on a lighter sailplane and hope that he has the time and patience to do it.

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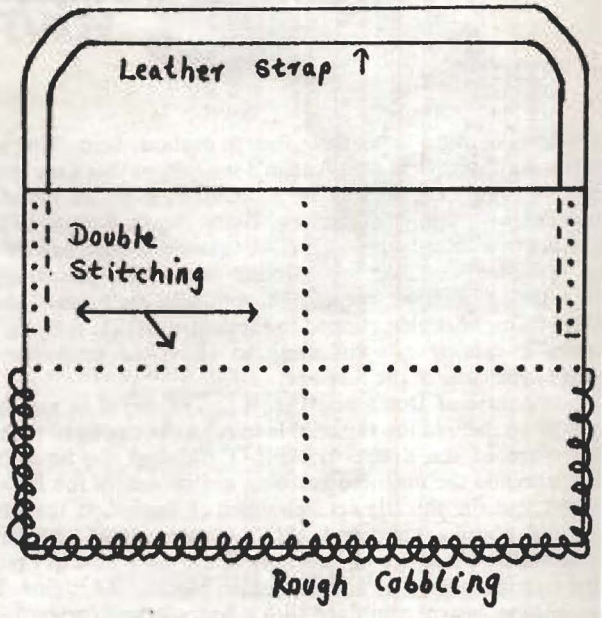
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Glider ballast weights

HUMPHRY DIMOCK



At the Extraordinary General Meeting of the BGA at Husbands Bosworth last year it was mentioned that the slipping of the ballast weights was a possible cause of a fatal accident.

Here is a simple method of making up safe ballast weights, which I do myself personally and therefore know what I am talking about. Two sets in my club have been used for so long that I have forgotten when I made them.

The lead weights are made by melting down any old lead pipes in an ordinary three pint metal saucepan and poured into wooden moulds forming a rectangle 4½ × 5½ inches thick.

The moulds are made by nailing strips of wood 1in × ¾in or thereabouts on to a plank. The lead can be melted on a gas stove quite easily, but the wood scorches, so wait until the wife is out because it makes a bit of a stink. Use the kitchen scales to get the weights approximately 5½lbs per slab. Make four slabs. The wood may not last four times, but it will do two slabs. If the weight is over 1lb out it's wrong, re-melt and try again. Having melted the lead, wait until it starts to solidify round the edge of the pan before pouring so that the temperature is as low as possible, it sets quickly and the wood might not catch fire. Keep a kettle of cold water handy in case the smoke turns to flame.

The four weights are then sewn, roughly cobbled with strong string, between two pieces of carpet remnants in the manner shown on the sketch. Then the most important thing of all is the fixing of a strong leather strap sewn between the carpet remnants as shown. The leather strap should have holes punched with a leatherwork tool. The remnants should be of long pile and foam backed, and bright colours so that it can be seen easily when thrown down in long grass. (One set with lovely new green carpet was lost at Lasham, I would like it returned please.)

In use, the seat belt straps pass up through the strap in the 22lbs ballast weight and it is comfortable and cannot slide forward.

The cobbling can best be done with a 12in upholsterer's needle obtained from any firm that advertises re-upholstery. It can be helped through with pliers.

If anybody has difficulty in obtaining the carpet remnants from their local shop, I will be pleased to get them and send them on if a PO is sent to cover packing and postage.

Let us have safety first.



coaching corner

BILL SCULL, Senior National Coach, takes a look at

MOTOR GLIDER ACCIDENTS

The use of the motor glider in the gliding movement is for two, quite distinct, aspects of training. As a basic training tool it is of great value in giving a student glider pilot time in the air which he might not otherwise get, and the opportunity to concentrate and consolidate on basic handling exercises. And for this, the accident record is fair. The other great value of the motor glider is in certain cross-country exercises. But, not surprisingly, the greatest risk is in the field landing exercises and recently there has been an increase in accidents.

Some criteria for field landing practice

Field selection. There should be few risks in this exercise if discontinued at a safe height—say 500ft—by which time the glider should be positioned on the downwind leg of a circuit. However, the normal practice having chosen a field is to make a circuit and an approach. It is only in the last phase that it may become critical on a number of counts, local effects in the lee of hills, rising ground, etc. Before examining those let's see if we can decide at what height the approach should be discontinued.

Break-off height. To my mind the decision to discontinue the approach is made when it has become obvious to the student that the approach is a good one or not. If the approach is well set up and some intermediate airbrake setting is being used, then it may be quite reasonable to break off at 150ft or so. If the student is to be utterly convinced that the approach is a good one, then he will need more than your saying so; he must see for himself that all is well. If, as should be the case, your perception is better than his, then he will take slightly longer (in time) to perceive that the approach is good. The break-off height in this circumstance should rarely need to be lower than 100ft.

If the approach is a bad one, undershooting or overshooting, but more usually the latter, then the same conditions apply, *ie* that the student sees that he will not get into the field. However, frequently it will take longer to convince the student that "that wasn't good enough" and so the glider will have to descend lower. On many occasions the failure is not made as obvious as it could be by allowing the pilot to point the glider at the place he wants to land, which results in a build up of speed. Although it keeps the picture correct, this means that the motor glider will float for the length of the field, and more. This situation occurs because of the trim change with spoilers and failure to monitor the speed. If the speed has been allowed to increase then in practice, to convince the student, it may be necessary to crash through the far fence as it were. But the nearer the ground the greater the risks, and my preference is for the badly planned approach to be made apparent at the earliest possible stage, and this means good speed control. In this way the break-off height can still be of the order of 150—100ft.

Critical factors. It usually takes more than one of the following to occur at the same time before there is an accident, but I could be proved wrong on that point.

Poor climbing performance. Typical rates of climb for tired motor gliders in current use are little better than 300ft/min. It doesn't take much in the way of sinking air to mean no climb at all—you've surely experienced this on a thermic day. The poor performance in climbing away from a field will be significant in making allowance for local effects in the lee of hills, gradually rising ground or tall obstructions.

Poor climb performance is worsened by flying too slowly, which is a common tendency when faced with tall obstructions (almost like stretching a glide) and is known as "the wrong side of the drag curve". Best L/D speed is at about 45kts in a Falke. At 5kts below this speed the drag is greater, the propeller efficiency less and the climb rate seriously impaired.

Tall obstructions. A pilot faced with obstructions may have to stay low to build up speed before climbing over them. This doesn't come naturally or easily and is akin to diving a glider to avert an undershoot.

Rising ground. The climb gradient in zero wind is only 1:15 approximately (3kts climb rate at 45kts airspeed). With 15kts of headwind this improves to 1:10, but with 5kts of tailwind deteriorates to 1:17. These are very shallow gradients—is there need to say more!

The risks. The critical factors themselves indicate serious risks in the climb away from the field. Accidents have shown, sometimes with serious consequences, that further risks attend the approach into the field. The approach itself is a gliding exercise, albeit simulated. Climbing away is overshooting—an aeroplane exercise. Is the object of the exercise as a whole to teach your student to fly aeroplanes? No!—then take control and do the overshoot yourself. Taking control means opening the throttle, ensuring that the airbrakes are closed and flying the motor glider at the right speed on the best climb-out track. Meanwhile your student can be examining the field that he chose and the lie of the land. The point about taking complete control is that if the

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spoilers are kept open, or are opened after you have opened the throttle and are not expecting it (the brakes opening that is), then problems arise. Try the climb rate with full spoiler some time.

Additional risks. The additional risk in climbing away from the field is that if it is badly planned, inaccurately flown and a real engine failure occurs (is the engine cold?), then the situation could be very difficult. If you are checking another instructor then it should be sufficient to point out how difficult it would be rather than attempting to simulate it.

The legal aspects. "Not nearer than 500ft from any person, vehicle, vessel or structure." In many situations this means not lower than 500ft above the ground. The exemption to this rule for aircraft taking-off or landing doesn't apply for simulated field landings. The instructor teaching this exercise must ensure that the field is in open country and the 500ft rule must be complied with down to break-off height.

Touching down in the field raises questions of legality—not the least trespass, and the landowner's permission is required before you can take-off again. Incidentally, there may be problems concerning the take-off itself, very few pilots are fully aware of the factors affecting the length of take-off run. A few accidents have occurred because the grass turned out to be longer than was thought. Such accidents really are avoidable.

Summary. There are real risks in practising field landings in motor gliders. The protection—do not go any lower than is necessary and do not touch down unless you have the permission of the landowner and you know the length of the grass. Be aware of the terrain and conscious of its possible effects on the approach, climbout or both. Take control and fly the aircraft yourself in the overshoot phase until a safe height is reached.

If you have to land in a field, give careful consideration to the factors affecting the length of take-off run. Try it solo if there is any doubt and be prepared to abort.

PILOTS AND SPECTACLES

Most pilots over the age of 40 need spectacles to correct their vision for reading. Some will in addition need correction for distant vision and a number will need correction for vision at the instrument panel range. The importance of wearing spectacles which are suitable for flying was illustrated by a recent accident in which the pilot, who was wearing full-lens reading glasses, misjudged the distance available for an overshoot.

Near Vision Correction

Where the only correction necessary is for reading, pilots should *NEVER* use full-lens spectacles whilst flying—because of course the pilot's task requires frequent changes from near to distant vision and the latter is blurred by reading glasses. Half-moon spectacles or lower segment lenses with a neutral upper segment *MUST* be used in these circumstances.

Near and Distant Vision Correction

Where correction for both near and distant vision is required, bifocal lenses are essential and pilots are advised to discuss with their CAA medical examiner the shape and size most suitable for each segment. Where triple correction is necessary for reading, the instrument panel range and distant vision, then specialist advice is required and should be sought through the Authority's Headquarters Medical Department, telephone number 01-217 5756.

Finally, all spectacles restrict peripheral vision and thick frames should be particularly avoided. Good airmanship requires spectacle wearers to increase their head movements in scanning for collision avoidance.

Reproduced from a CAA information circular.

all pilots can read — but the BEST PILOTS read

Sailplane & Gliding

The magazine can be obtained from most Gliding Clubs in Gt. Britain, alternatively send £3.90 postage included for an annual subscription to the British Gliding Association, Kimberley House, Vaughan Way, Leicester. Single copies, including postage 65p.

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USE OF FLAP AIRBRAKES

RICHARD H. JOHNSON

With the recent increase in popularity of flap airbrake equipped sailplanes, a few notes on their recommended operation techniques appear appropriate.

I personally have owned two flap airbraked sailplanes (Tiny Mite and HP-13), and have acquired about 700hrs of flight experience with those aircraft. Recently, an additional 65hrs have been acquired in a PIK-20 and Schweizer 1-35. In my opinion, a sailplane equipped with the flap airbrake has outstandingly good approach and landing characteristics, provided care is taken to use the proper technique in their operation.

The one most important requirement for safe operation with this type of airbrake is the necessity to maintain adequate airspeed at all times, especially during landing approach.

Maintain the same airspeeds throughout the approach you would use in a spoiler airbrake equipped sailplane, even though your flaps down stall speed is markedly lower. All temptation to reduce airspeed should be disregarded until below about five to ten feet of altitude because:

1 Should you get low during approach, the flap brakes will have to be retracted and then the sailplane will have only the same stall margin as a conventional airbrake equipped sailplane.

2 Accurate judgement of the touchdown point is difficult, unless constant airspeeds are maintained.

Good landings can easily be made at conventional sailplane airspeeds, or as I prefer, by holding off at one to two feet of altitude with a large amount of flap until the airspeed decreases to about 35kts. Practice will be needed to perform the latter smoothly because the large flap settings produce a strong ground cushion effect.

My observations are that the common error, especially among power pilots transitioning to the flap airbraked glider, is that they accept an inadequately low airspeed for their approach. This is likely due to power training where lower speeds are accepted when landing flaps are down. Here the powered aircraft maintains a moderate minimum flap setting throughout the approach, and adds power if the aircraft gets too low at any time.

The use of a significant amount of flap does require the pilot to lower the glider nose considerably to maintain, say 55kts, which is about the airspeed I use in non-gusty conditions. Excellent forward visibility is attained in this manner, and for this reason I recommend a higher approach altitude than one would normally use with a conventional sailplane. In the unlikely event that overshooting the desired landing point appears imminent, maintain the flaps in their full down position and increase airspeed by aiming the sailplane at a point just short of the touchdown area. Surprisingly short approaches can be made in this way, and the roll-out is still short.

An additional bonus of the flap airbrake can be achieved during take-off and tow. During the take-off the flaps should be set to their full negative position until about 30—35kts of airspeed is attained. Lateral control, especially in crosswinds, is much better with negative flap settings. After adequate lateral control is achieved, bring the flaps to about +5 to +10° and maintain that setting throughout the remainder of the tow, provided tow speeds are normal. If the tow speed is faster than normal, set the flaps to zero or negative settings. Conversely, if the tow speed is slower than normal, do not hesitate to set the flaps to +20 or +30°, to achieve both a better stall margin and visibility. Here, flap settings larger than about 30° will not result in much increase in stall margin, and the added drag of large flap settings may aggravate the low tow speed problem.

Fortunately, for the modern sailplane pilot, flaps are now available to both the Standard and Open Class sailplanes. Learn to use them wisely, and added safety and pleasure will be your reward.

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Boom in RAF Gliding

RAF gliding enthusiasts enjoyed a boom last year. Interest in the sport was at record levels and individual members of clubs affiliated to the RAFGSA almost doubled their cross-country kilometres from more than 42500 to nearly 80500. The launch rate went from 24000 to 86000 and flying hours increased by 3400 to 25000.

The figures were released to coincide with the conclusion of the Association's Silver Jubilee year. Air Commodore G.J.C. Paul, a founder member of the Association, said tremendous progress had been made in the years since he and four friends formed the RAFGSA in the back of a London taxi in 1949. Its development had far exceeded their dreams.

The Association's growth had been considerably aided by continuing financial help from the RAF Sports Board and the Nuffield Trust, which had enabled the clubs to buy more gliders and sailplanes. In addition last year a supplementary grant was made by the Sports Board which had helped the RAFGSA to buy ex-Service Chipmunks to replace their ageing Auster tugs.

The Association's Silver Jubilee was the climax of 25 years of continuing growth and expansion, to the degree that there are now affiliated clubs in many parts of the world. RAF glider pilots have competed for Great Britain in 13 World Championships since 1948 in mixed civilian and Service teams with considerable success.

Gliding began to develop within the RAF in Germany just after the war. Fighter pilots acquired a few captured German gliders and Army and RAF personnel queued to learn how to fly them. Clubs were formed and German instructors helped teach.

In Britain, enthusiasm for gliding began to grow in 1949 and in little more than a decade activities grew from ten members, one glider and one club to 16 clubs with 100 gliders and a total membership of 2500. Associate clubs were formed in the Middle and Far East, while in Britain the RAF Gliding Centre was formed at RAF Bicester, Oxon. It was to become the nerve centre around which gliding, instruction, maintenance and other facets of the sport were to revolve.

These extracts have been taken from the RAF's Dateline.

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Glider for Hire?

TANGLEFOOT

I have noticed of late a lot of "highest launch" claims in S&G and now we have left the field I can tell my "highest launch at Salmesbury" story. It concerns an enthusiastic young instructor, a green pupil, the faithful old T-21B and the main runway at Samlesbury, whose length I suppose is still secret but we used to buy our piano wire on 1500 yard drums and join a bit on.

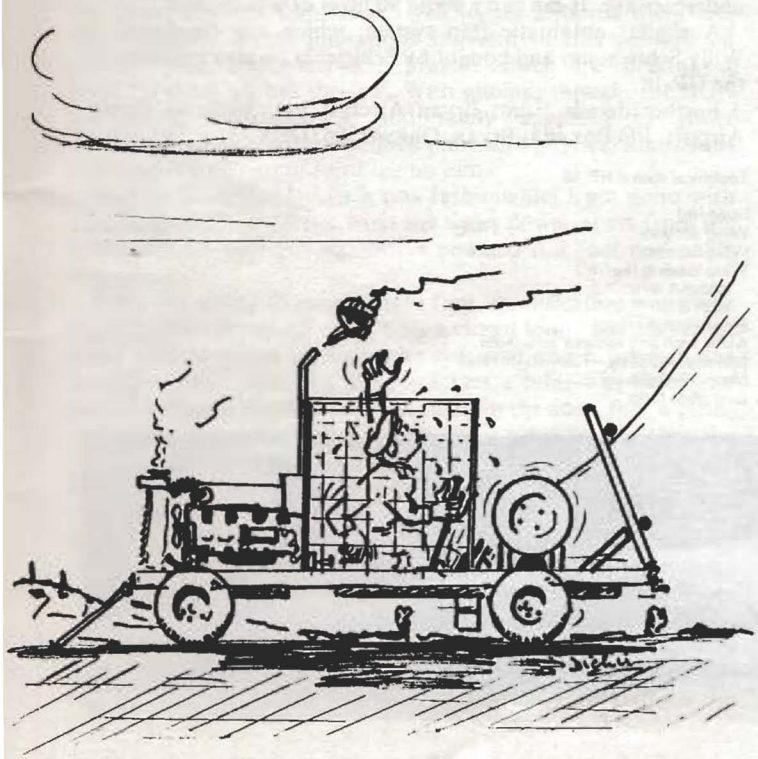
It was early February 1971, and we were operating from 07 in a fresh easterly with a considerable wind gradient. The twin drum winch was being driven by Stan Race, JP, CEng, and a lot of other little letters, who had kited me nicely a couple of weeks previously on the shorter southern run.

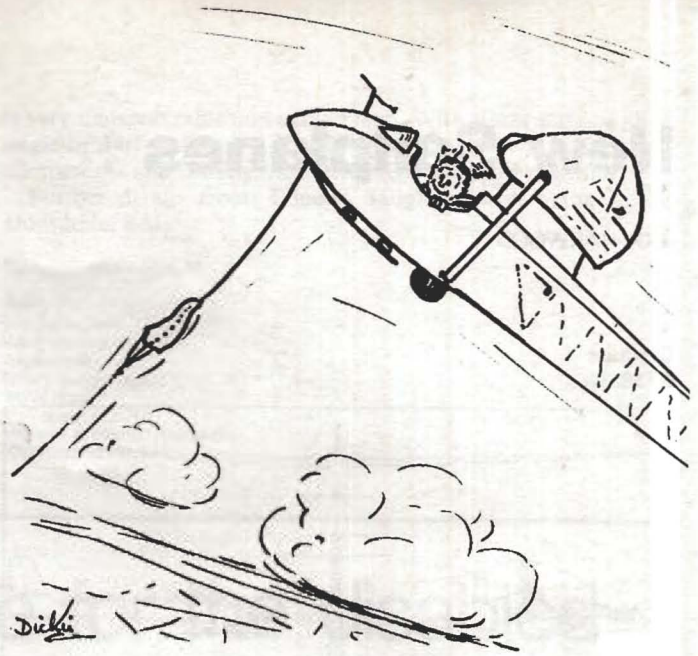
We strapped in, twiddled the twoddles, and got onto the wire. It was a nice launch, about 45kts and I sat chatting happily to the pupil (on about his 15th flight) about climb angles and air speed and steady hands and back pressure until at about 1400 I noticed his left hand creeping out to the release knob.

"Cease and desist" said I, as a bit more seemed to be forthcoming. "Let me have it and we'll try to get a bit higher".

I explained it was not quite normal

At 1500, not far short of the winch, the speed dropped off and I started to lower the nose, expecting the power to die in the usual cut-off. The speed stuck at just below 40 so I waited and surprise, surprise, it suddenly flicked back up to 45. Nothing loth I eased the nose up again and, explaining to the pupil that this was not quite normal, kited up another 200ft before the speed suddenly





dropped again to the bare minimum and I lowered the nose to regain air speed; but held onto the cable. Looking over the side we didn't seem to have moved much relative to the winch and, after a few bumps and vibrations from the wire, it tightened again and I eased up into a climb once more at 45kts.

This got to be habit forming, gain 200ft at 45kts, speed drops, lower nose, sit with hand on knob (the yellow one that releases the cable), speed flicks back to 45, kite up 200ft . . .

Two thousand feet came and went, altimeter wound up, pupil's eyes got larger and larger, instructor began giggling quietly. Isn't it peaceful up here, look at those pretty little clouds over there, and those below, below?!

At exactly 3000ft I reluctantly reached for the release again and gave two firm pulls, not because we couldn't get any higher, we were still going up nicely, but this soft fluffy little ball of cumulus was drifting in directly under our nose, dammit.

Fly around the cloud, pupil goggling happily

A glance over the side before I turned away from it showed we had moved back, yes back, from a position almost over the winch to one opposite the control tower, almost halfway down the runway. Fly around the cloud, pupil goggling happily, do a few exercises, heading discreetly into wind, and arrive back at cloudbase at 2000ft! More exercises, into the circuit, and talk down to a reasonable landing after 20 minutes. Funny, there aren't many people about, where has everyone gone—?

Getting the cable back from the telegraph poles and hedges round the old engineering works by the A59. Cold doubt, we didn't drop it over the main road did we? Must be more cross-wind than I thought.

Eventually they all return, and a slightly huffy Stan explains how he tried to kite me, the winch engine stalled, and every time he let go of the brake to try a restart, the cable began to pay out (the footbrake never was much good) and he had to grab the hand brake again (so *that* was why the speed kept dropping).

The CFI returned from his pole squatting expedition mumbling into his whiskers about irresponsibility and winds backing with height, but after all we *did* drop the cable over the middle of the runway, didn't we, and it *was* a super launch, so just watch it in future and I'll do the next one . . . but Stan had had enough of acting like Houdini on the brake handles and we only got 1600ft!!

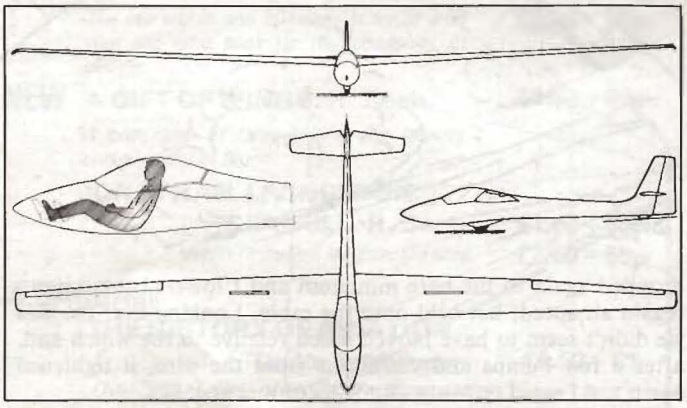
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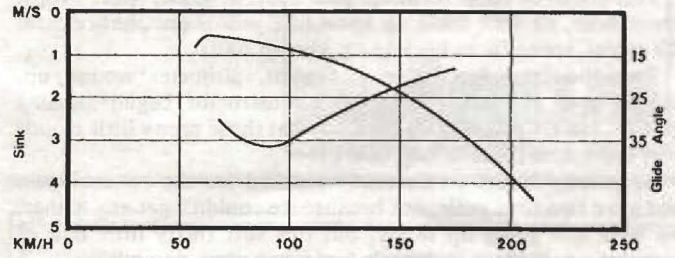
RIKA HARWOOD



JP15-36

Carmam
JP 15-36





CARMAM *(Co-opérative d'Approvisonnement et de Réparations de Matériel Aéronautique de Moulins)* which originally started out as a repair and maintenance works has been in the sailplane manufacturing business for a number of years.

It began by producing, under licence, the Italian M-100s in 1963 and the M-200 two-seater both designed by the Morelli brothers of Italy. It also made (and probably still does) sailplane components under sub-contract for Glasflügel, and now they are introducing the JP15-36.

This Restricted Standard Class sailplane was designed by Robert Jaquet and Jean Pottier as a private venture. The prototype first flew in June 1974. It is now in production and the makers particularly recommend it for early high performance flying and training.

The glider is built entirely of what the brochure calls *stratifié verre-epoxy* and translates as stratified epoxy glass. According to "Jane's All the World's Aircraft" the single load bearing spar is made of 10cm deep glass-fibre with a four point attachment to the fuselage.

Waterballast tanks which are optional hold 80 litres and the water can be disposed of in two minutes. The glider is fitted with an all-moving tail and has a fixed wheel. The large Schempp-Hirth type airbrakes allow it to be landed in the smallest of fields while a powerful wheelbrake shortens the ground roll noticeably.

Further details from: CARMAM SA, BP 201, 03001 Moulins, France.

Technical data – JP 15-36

Span (m)	15
Wing section	Wortmann
Wing area (m²)	11
Wing loading (kg/m²)	
without w/b	27
with w/b	35.5
Aspect ratio	20.4
Empty weight (kgs)	200
AUW with and without w/b (kgs)	390/310
Min sink at 75km/h (m/sec)	0.60
Stalling speed	62
Max speed (km/h)	240
Best glide ratio	36:1

Bryan Aircraft Inc
HP-18

With this, his fourteenth design, Dick Schreder, the well-known American pilot and designer, has produced his best looking glider yet. According to *Soaring* it is his all out attempt to build the best 15-meter racing sailplane possible.

Like all his other gliders it is intended for home construction and Dick is among the few who cater for this market.

The HP-18 has a glass-fibre body forward of the trailing edge while the remainder is made of metal and obviously he has spent a lot of time to reduce drag to a minimum. The interconnected aileron/flaps are also used for landing and give the wing surface a clean smooth look. The glider has a V-tail and retractable undercarriage. It can carry about 90 litres of waterballast.

A similar automatic flap system, which was developed by Willy Schuemann and bought by Schleicher, is also available for the HP-18.

Further details from: Bryan Aircraft Inc, Williams County Airport, PO Box 488, Bryan, Ohio 43506, USA.

Technical data – HP-18

Span (m)	15
Wing section	Wortmann
Wing area (m²)	10.66
Wing loading (kg/m²)	
without w/b	30.58
with w/b	39.12
Empty weight (kgs)	191
AUW with and without w/b (kgs)	417/326
Min sink at 275kg + 73km/h (m/sec)	0.52
Max speed (km/h)	241
Best glide ratio	40:1


HP-18

Schleicher
ASK-18

With this glider Schleicher hopes to find a niche in the increasingly popular Club Class, and three were entered in this year's contest in Germany.

It has a 16m wingspan and the same profile as used on the K-6E. Although at first glance one is reminded of the K-8 the K-18 is in fact rather different. The cockpit provides excellent visibility, has plenty of leg room and has a good seating arrangement. The glider has no front skid and the wheel is fitted just ahead of the C of G. Although a small wheel is fitted to the tailskid, the tail is heavy to lift and makes groundhandling a burden if it is to be used for intensive club flying.

Its flying characteristics are straight forward and the machine is very manoeuvrable and easy to land. With a best claimed glide angle of 34:1 at 75km/h it should be of interest to Club Class competitors and Gliding Clubs who need to update their fleet.

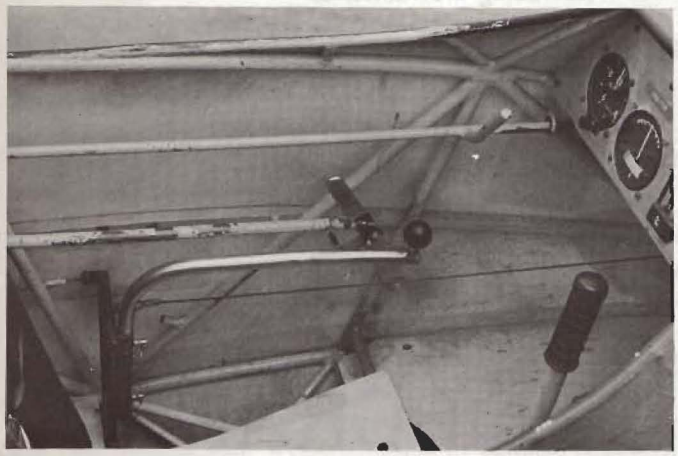
Further details from: London Sailplanes Ltd, Tring Road, Dunstable, Beds.

Technical data – ASK-18

Span (m)	16
Wing area (m^2)	12.99
Wing loading (kg/m^2)	23
Aspect ratio	19.70
Empty weight (kgs)	215
AUW (kgs)	335
Max speed (km/h)	200
Min sink at 65km/h (m/sec)	0.6
Glide ratio at 75km/h	34:1

Gliding made possible for the disabled

ALLAN ROSEBERRY, who is handicapped, writes about the BGA approved modifications made to a K-4 so that he could start gliding.



"Up" position. Full right rudder; spoilers open.

For those disabled who have a yen to get airborne there are, unfortunately, severe limitations imposed in this country on power flying and, anyway, present costs are making it prohibitive for all but the few. With gliding, though, the BGA are giving understanding and ready attention to glider modifications and so the would-be pilot with physical limitations does have the chance of fulfilling his aim.

Back in the fifties (when it was fashionable) I got polio with consequent 90% paralysis from the waist down, apart from the lower part of my right leg; here I retained full foot and ankle movement.

With this ability to use my right foot, modification was made to the rubber circuit of a K-4 with a closed loop. The two front pedal tension return springs were removed and a bracket was welded to each pedal. To these brackets a cable was fitted and passed around a pulley which was fitted in the nose, thus a push-pull action was obtained. Next, it was necessary to clamp the right foot positively to the right rudder pedal, and here we were lucky in being given a device that had been used some time back by a one-legged Portmoak member. It consisted of a baseplate with steel band and quick release over-centre fastener. Inside the steel band ran a leather strap and this was adjusted on the outside by a buckle, so keeping the foot firmly secured to the pedal.

For normal flight this modification worked well but it was found that when higher loads were encountered, such as in a spin, there was insufficient strength to pull the pedal up to get full left rudder. Further, it was pointed out that to meet the required official standard, a pilot must be able to apply 150lbs effort to each rudder pedal (and even Tarzan would have difficulty in pulling that figure upward by foot movement alone).

To answer this problem a handlever was attached to the rear rudder pedal which could be readily grasped and moved through its full arc without fouling other controls or fuselage structure. The photograph shows this cranked lever which is fitted into a socket welded to the rear left rudder pedal. When not required, two pip pins can be withdrawn and the lever removed.

For me this modification is fine but the story will not quite finish here. Launch and normal flight can now be done with this control lever without any leg application at all, so someone totally disabled from the waist down can fly with hands only, except when landing. The next step is to incorporate a further device to the handlever which can operate the spoilers. When this is accomplished there will be many who, when lifted from their wheelchairs into the cockpit, will be able to get up there and compete on even terms with the best of 'em.

Another who has overcome disabilities is John Battershill, a legless Rhodesian Gold C pilot and instructor at the Salisbury Gliding Club, who was photographed by Mike McGeorge on a visit this summer to the Doncaster Club when he took the front seat of the Bocian.



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Slingsby Sailplanes has changed its name to VICKERS—SLINGSBY. We are now members of the OFFSHORE ENGINEERING GROUP of VICKERS LTD and the new title emphasises this change.

* We are continuing our involvement with gliding although this now represents a much smaller part of our business. Manufacture of Kestrel 19 has ceased: we are making two Kestrel 22's, these will have carbon fibre spars and a lengthened fuselage: we hope they will offer the best performance glider available in the World.
* We shall shortly start making a batch of Falke motor gliders.
* The Mosquito fully flapped high performance 15 metre glider from GLASFLÜGEL will be available from us early in 1977 and we have already ordered a batch of 8 to secure the earliest possible delivery.
* We continue to stock the largest variety and quantity of instruments and accessories for gliding in the U.K.

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1975 — a good year

CHRIS WILLS

1975 has been a kind year to the Vintage Gliding Club. We have held five Rallies in Britain, have taken part in two air displays at Shuttleworth and Lasham and our membership is approaching 200. Because of the good weather, there have been no non-flying days at all these meetings. During July, seven vintage gliders from Britain attended the International meeting at Gruyères, Switzerland, for gliders designed before 1945.

Restored during the last year. A 1943 Swedish built Weihe, BGA 1297, has been saved by Derek Godfrey and partners of the Aquila Gliding Club, which flies from Hinton in the Hedges airfield. The machine had glue failure in all ribs in the wings and tailplane aft of spars.

A Replica of the 1923 Platz Sailwing (Reinhold Platz was Anthony Fokker's Chief Designer) has been built by Peter Fletcher, with help from Martin Breen. On Sunday, October 14, the machine became airborne for the first time, unmanned, in a light breeze and was found to respond to its controls.

Being restored, or about to be restored, are a Willow Wren (1931), Slingsby Dagling (1933), Kite 1 (1935), Rhönsperber (1935), Weihe (1943), the Slingsby Sky which was the 1952 World Championships winner in Spain, two Scud 3s (1935) and three Kranichs (1943).

During the last year a Rhönbussard (1934) has been imported to join the other two in the country and is owned by Ted Hull's syndicate.

Repairs because of the glue failure due to damp last winter. The Gull 3 and the Minimoa, BGA 1639, are still being repaired. The 1943 Swedish built Weihe is having its fuselage reskinned near Lincoln.

The last two Rallies of 1975. From August 22 to 25, a Rally was held at Long Marston airfield, home of the Stratford on Avon Gliding Club. This meeting was remarkable for the hospitality shown us by the club members, the very high reverse autotow launches to 1800ft and more, and for the good weather which allowed a task to be set, a downwind cross-country of 24 miles to the nearest gliding club, Hinton in the Hedges. This was the only time that a cross-country task has been set at any of our Rallies this year. The task was completed by Martin Breen in the Mü-13D and Derek Godfrey in the Weihe. The weather would probably have allowed a far greater distance to have been covered by these two machines. Peter Allin over-flew the goal in an attempt on his Silver C distance. He had to land his Grunau at Turweston just 2km short. However, the high 7000ft cloudbase during the late afternoon and evening of the next day allowed Peter to remain at Silver C height for four hours, having got away from 700ft.

The vintage gliders present at this meeting were five Grunau Babies, a Kite 1, Weihe, Mü-13D-3, Rheinland and Mike Russell's Petrel.

The Autumn Rally at Camphill from September 19—22. This was the grand climax of the season with 18 machines present and bungey launches for all. A strong warm wind blowing up the west slope allowed two days of magnificent hill and thermal soaring to approximately 3000ft above the site. The gallant bungey crews, among whom were many members of the public, led by the club's Chairman, accomplished about 100 launches during the two days. All machines were launched in this way and many of the club's more modern sailplanes joined in the fun.

The Derby & Lancs Club's organisation of our meeting was magnificent and reflected the organisation of these National Contests and the World Championships run by the club between 1949 and 1954.

We were very glad to have Doc Slater and Joan Price with us. Both flew in the Kranich and Joan was thrilled to be accompanied in the air, very closely at times, by the Rhönbussard, which she owned before the war.



The recently imported 1934 Rhönbussard photographed by Chris Wills at Backnang, Völkleshofen during 1974.

The Vintage Club's second annual dinner was held on the Saturday night and was attended by over 70 members and guests. Special thanks are due to the Armstrongs. Stan Armstrong, with helpers managed to remove 17 metres of stone wall, and to replace it with 17 metres of welded up gates, in order to bring the bungey site into action. Vintage gliders present at the rally were three Grunau Babies, a Tutor, Eon Baby, Prefect, two Kite 1s, a Gull 1, two Petrels, two Weihes, a Harbinger, Kranich, Rhönbussard and two Olympias.

BEST FLIGHTS DURING THE YEAR

During March, Francis Russell flew his Weihe 80kms from Dunstable to Lasham, amid snow storms, thereby gaining "the Plate". Glass-fibre sailplanes could not stay up on this day.

During August the above machine, flown by David Adams, and a Kite 1, flown by Ted Hull, achieved 170km triangles. (See p244.)

Best height achieved by a vintage glider over Britain was 8830ft asl by Martin Breen in a Mü-13D-3 in wave lift over Shobdon.

Best height achieved by a Vintage club member was 19000ft (more than once) by Dean Macmillan in his Baby Bowlus, in Nevada desert thermals.

American News. Their vintage movement has been going for 18 months. They have held their second annual meeting at Elmira and one regional meeting. Each National meeting was attended by six sailplanes. A Canadian based Mü-13D-3 clearly asserted its superiority over other sailplanes present by "camping out" at 6000ft during the last Rally. The Last National Rally achieved one day's flying in marginal conditions. The US Vintage Club now has a first class newsletter called "Bungey Cord".



Montagne de Coupe . . . "out of sight of landable areas"

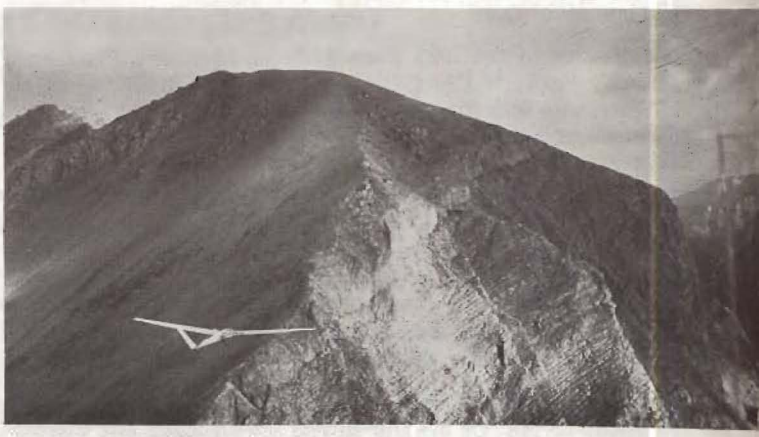


Cheval Blanc (from Coupe) . . . "time to pack up and go home?"

LES ENFANTS DU PARADIS

Photos: Roger Biagi

WILLIAM MALPAS takes us on a spectacular trip along a continuous ridge of mountains in the southern Alps.



Trois Eveches (2819m) . . . "nearing the high point of the Parcours"

Do you know that the south-east corner of France contains a soaring paradise known as the southern Alps? Most French pilots know it because they have been to a course at St Auban, one of the two National Gliding Centres. Many return every summer to fly at one of the several airfields in the area. Some German and Belgian pilots have discovered it and come back every year with their own aircraft. The competitors at Vinon know it, but this includes very few British pilots.

This "gliding paradise" is roughly quadrilateral, with all-year-round clubs at Fayence and Vinon marking its two southern corners. Its eastern boundary is the Italian frontier and its northern limits are a climatic "barrier" along the line of the Col de Cabre and the Col de Galibier. Often gliding conditions deteriorate on passing this line, but there is a strong temptation to do so, because there is heady stuff to the north, *eg* Mont Blanc and various 500km turning points. There is no obvious western boundary, because good flights can be made along the lines of the Luberon and the Ventoux, but this is the direction of the Rhône Valley, not the high mountains. The area marked on the map encloses virtually all the tasks set at the Vinon International Mountain Flying Competition during the ten years of its existence.

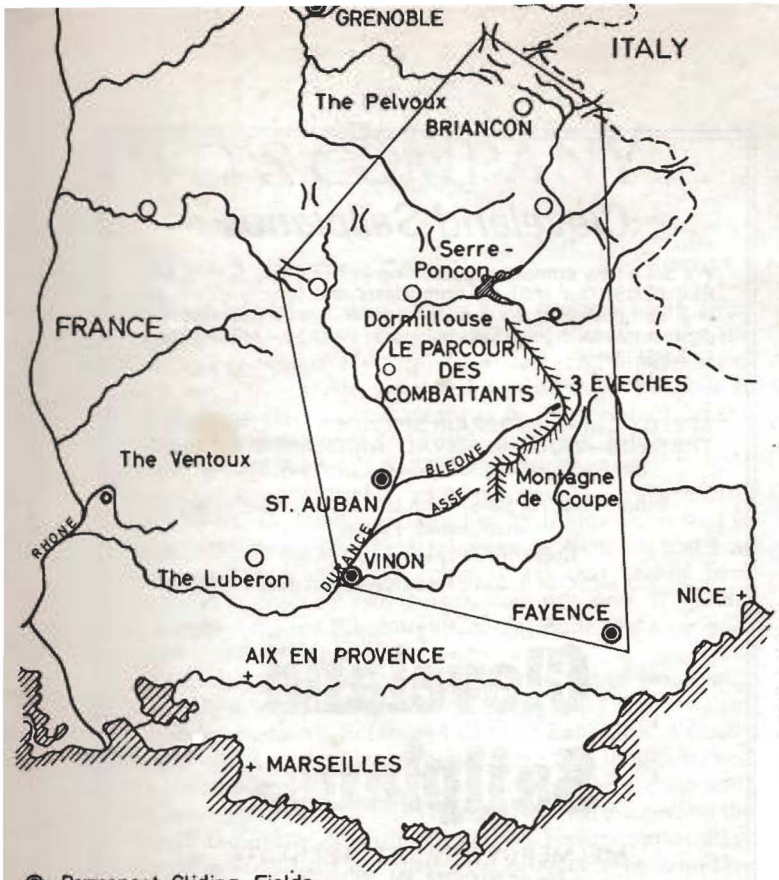
Now tighten your seatbelts! I am going to take you for a trip along *"Le Parcours des Combattants"*, a continuous ridge of mountains 60km long running roughly north-south in the middle of the area. (In English a *"parcours des combattants"* is a commando course). The Parcours was so named by Roger Biagi whilst an instructor at St Auban and the name has stuck.

It implies that the route is forbidding at first attempt, but it becomes easier with practice. It is one of the principal routes to the north. It is not the only route, and is not direct, so it does not always pay to take it, but if you go that way on a good day in July or August, you will certainly have company.

Going from south to north, the start is the Montagne de Coupe (1451m rising to 1703m). Here, if you are at the level of the top of the mountain ridge, which you should be, you pass out of sight of landable areas. The prospect is awe-inspiring, and for the first time it can be frightening, but being sensible you have come with an expert, either in a two-seater or in another glider—and you are in radio contact.

There are two important points to note about the Montagne de Coupe. Although you appear to be very low over the mountains of the moon, even if you arrive near the bottom of the vertical face which clearly shows in the photograph, you are actually in gliding distance of respectable fields, which should be clearly marked on your map. This same reflection applies for most of the Parcours. It is hard to believe you are safely in gliding range of a field, and you are so concentrating on following the glider in front or gazing in awe at the surroundings that you don't have time to take out the map and verify the calculation. You should have done that on the ground before leaving.

The second point is that the Montagne de Coupe is a privileged spot in the Alps. It heats up very fast, it is well oriented for the south-westerly gradient winds and also well oriented for valley winds coming from the Durance



PRINCIPAL RIVERS, COLS AND AIRFIELDS

and its tributaries, the Bleone and the Asse. If the Coupe doesn't work anywhere along its entire length of seven kilometres, it is time to pack up and go home—because very few of the other mountains will work either.

Next in line is the magnificent Cheval Blanc (2323m), seen in the second photograph from the northernmost point of the Coupe. Dazzling white even in summer without its mantle of snow, local flying legend has it that an American Flying Fortress flying parallel to the Cheval Blanc in 1947 found itself in the "down" of the wave and landed in the snow. A second was despatched to drop supplies to the crew and did the same thing!

After the Cheval Blanc there follows a long line of ridges climbing gradually to Les Trois Eveches (2819m) and Tete de l'Estrop (2961m), sometimes in cloud but well clear in



Trois Eveches and La Blanche . . . "looking back along the Parcours"

the third photo with the Edelweiss nearing the high point of the Parcours. If you are below the ridge at this point flying close to the vertical walls, you will find the rock formations fantastically distorted by the upheavals of the earth's crust which produced the Alps. You are at the very source of the Bleone and, therefore, at the receiving end of all the warm air surging upwards along the length of its valley. If you haven't tightened your seatbelt, you will wish that you had!

From here the long ridge of Montagne de la Blanche leads you naturally and calmly to the northern end of the Parcours—the Dormillouse (2505m). Calmly, because the country opens out to the left into a broad valley with some reasonable fields, and in the distance the beautiful lake Serre Poncon, where the Durance has been dammed. Further to the north are the high mountains of the Pelvoux (4000m+).

Our fourth picture shows the Trois Eveches and the Blanche looking back just before arriving at the Fort on the summit of the Dormillouse, which in summer often has many visitors, as there is a good track leading from the valley. The fort is a well-known turning point which is often photographed from below, as in our last photograph.

If you are still at the level of the ridge, you will note that you have climbed from 1451m to 2505m and the chances are you have *NOT STOPPED TO CIRCLE.* On checking my logbook, I find that I have followed the Parcours 20 times, and I cannot remember stopping to circle more than two or three times. I find this very exhilarating. A wonderful change from the search/climb/glide routine of flying over flat country.

It also poses an interesting technical problem in speed



Fort on the summit of Dormillouse (2505m) . . . "northern end of the Parcours"



"Well-known turning point often photographed from below"

tasks. Do you fly at maximum speed consistent with staying at ridge height? Or when cloudbase is high enough, do you pick the best lift to circle up above the ridge and fly the corresponding MacCready setting in between? My own solution to this problem is as follows:

First, to arrive at the Montagne de Coupe at minimum safe altitude.

Secondly, to avoid circling.

And thirdly, to fly at a MacCready setting which will bring me to cloudbase at the Dormillouse. In practice, this setting corresponds roughly to a sinusoidal pattern of lift and sink according to the theory developed by E. Kauer and H. G. Junginger for flying along cloud streets, and published in *"Aerokurier"*.

Of course there are other spectacular lines of ridges equally beautiful and just as thrilling to follow. Some are spiced by a high col (or saddle), which must be passed in order to continue the task—often with the uncertainty of being high enough to pass when you get there. Irritating if you cannot, because you must return and go around another way. Very exciting if it works with only a few feet to spare.

The southern Alps are no place for beginners, and even experienced pilots new to this game are well advised to practise mountain flying close to an airfield before setting out cross-country. Radio contact with somebody is highly desirable, and maps must be well prepared and studied before leaving. It is interesting to note that there is already some talk of a French mountain flying rating for glider pilots, in view of the large influx of visitors during the summer and the diffulty of checking their experience.

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TWO'S COMPANY . . .

GEORGE D. A. GREEN

While thousands of my countrymen were heading south from Scotland to Wembley on Friday, May 23, to witness one of the worst away games since Flodden, Tom Docherty, in his Kestrel 19 and I, in my Std Libelle, were getting ready to have a crack at the UK distance record. Our plan was to fly due south to the M1/M45 interchange near Daventry, and then south-west to North Hill airfield, Devon, and beyond, if possible.

After the usual scramble with barographs, waterballast, declarations etc, we finally got launched by Jimmy Hempseed in the Super Cub to 3000ft, Tom releasing at 10.45hrs and I at 11.10hrs. As I took off, Tom called to say that he had been dropped into a cracking 6kt thermal and was now at 4500ft, heading south into the Edinburgh Control Zone. Sure enough, when I came off tow, I got 4kts *down!*

I was struggling at 2200ft with the strange feel of No. 5 with her new ballast tanks, when I heard Tom getting clearance for both of us to transit the Edinburgh Control Zone VFR. I finally located my share of the 6kt thermals, wound up to 4800ft, and pushed off over the Forth at Grangemouth, where conditions looked better than on Tom's more direct route. However, on the far side of the Forth, conditions suddenly became very tricky. Classic cumulus refused all coaxing to produce even a meagre ¼kt lift, caused probably by a combination of wave interference from the 10kt northerly wind and the damping effect of the estuary. Tom, meanwhile, was also losing altitude over Kirknewton airfield. All the while, the controllers from Turnhouse were skilfully shepherding both of us through the Zone.

By now, both Tom and I had come individually to the decision to dump ballast. I was now at 2000ft over Bathgate, trying every likely looking cumulus in sight. An ubiquitous J. L. S. flew across my bows at precisely the right moment, guiding me into a smooth wide four knotter which took me back to the 5000ft cloudbase. I was now on the move, jumping along short cloud streets on a heading of 180°. As I cleared Edinburgh Control, I was delighted to hear Tom was managing to dig himself out of his hole at Kirknewton.

I made good time until I crossed the border near Haltwhistle, sticking close to the 6000ft cloudbase, encouraged by the apparent proximity of the expanse of mountains around St Mary's Loch and Talla. It was now only 12.30hrs and progress was well up to schedule. Alas, from Carlisle south, conditions had gone blue down the western half of the country. I called Tom to tell him to stick to the better conditions in the east as much as possible. I tiptoed for an hour down as far as the hills around Crossfell where I hit a series of roaring 6—8 knotters along the sunfacing slopes, which speeded me on my way as far as Kirkby Stephen. I was now edging as far as possible over to the east side of the country.

From here on south progress was slow. Each cloud was taken as it came, hanging on until another one formed ahead—it's wonderful what the power of prayer can do! To add to this I lost my bearings among the low hills and featureless small industrial towns of Yorkshire. I finally realised that, while looking for the Humber estuary to give me a fix, the agricultural land beneath had drainage channels! I was in fact into Lincolnshire.

Back in business again

By this time, about 16.30hrs, the few remaining clouds were getting further and further to the east. I took my last climb to cloudbase, swallowed hard and plundered off into the blue. With my Gold distance in the bag, I drifted down to 800ft and as I was about to pick a field, I turned into the thermal of the day! Everything hit the stops; my barograph trace showed a perfectly vertical climb. In no time at all I was back at 5000ft and in business again.

I located myself soon after over RAF Swinderby, of fond ATC memories, and decided to track towards the A1 to reduce retrieving time; by now the record attempt was well beyond our grasp. Tom called, after a long silence, to say that he was close to me, getting low north of Nottingham. Ten minutes later, he had landed safely beside the railway at East Leak, south of Nottingham, just as I was struggling up to 2400ft in the last thermal of the day. Tom's position was roughly on my line of track and almost miraculously his Kestrel appeared, a few minutes later, in a field below me. I was now down to 1500ft. Was it worthwhile to struggle on, nearly 400kms from home, perhaps for only a few kilometres? I thought not, pulled the brakes and landed beside the Kestrel and the waiting Tom.

Well, we didn't get close to the record, making only 393kms. We didn't even get as far as Husbands Bosworth to wave a lone St Andrews Cross at the Nationals (Ian Strachan please note!) I suppose it could have been worse—we could have put on our tartan tammies and gone to Wembley!

pik 20



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BGA & general news



Christmas 1975



A message from Chris Simpson, Chairman of the BGA

One can look back on 1975 as perhaps the best year for gliding that there has ever been in Britain. Not only was the weather superb, but full advantage was taken of it. We can, I think, be justifiably proud that the overall standard of gliding in the UK is as high as in any other country in the world. It merely remains for us to produce next year a World Champion in Finland to prove it beyond any doubt. In this endeavour, I wish our team every conceivable success.

1975 has seen the completion of moving the BGA office from central London to Leicester and this seems to have been a complete success, and not just for purely economic reasons.

You are well aware of the tremendous struggle that was mounted against the imposition of VAT at 25% on gliding and that this achieved a limited amount of success. It remains, however, at this rate on the purchase of new gliders and must have an effect on the gliding industry out of all proportion to the increased yield. Despite contrary arguments by specious politicians, I cannot see any justice or justification in rating the hire of sporting aircraft at 25%, whilst only so rating boats when they are hired for more than a day and caravans for more than a fortnight.

October has seen the transformation of the Royal Aero Club of the United Kingdom from a social club into a forum where all branches of sporting aviation can meet regularly to discuss their common problems. Gliding has survived and expanded, despite mounting bureaucratic pressures, because we have stood together and resisted them. If every branch of sporting aviation can combine to put forward concerted views, then there is every hope that the progressive future of sport in the air can be assured.

May I thank all those who have contributed to the success of gliding.



A HAPPY CHRISTMAS

AND A SUCCESSFUL NEW YEAR.



BRITISH TEAM FOR FINLAND

The four pilots to represent Britain in the 1976 World Championships, to be held at Räyskälä airfield, Finland, from June 13—27, are Bernard Fitchett and George Lee, Open Class, and Ralph Jones and George Burton, Standard Class, with Roger Barrett as Team Manager.

SCORES ON NATIONAL LADDERS

The top scores on the National Ladders are, in spite of handicapping, the highest on record. As some of these have been achieved in relatively mediocre gliders, Mike Garrod, National Ladder Steward, draws the conclusion that the present level of handicapping is reasonably fair.

Private Ladder

Leading Pilot	Club	Pts	Flts
1 L. E. Beer	Thames Valley	6569	4
2 T. E. MacFadyen	Cotswold	6076	4
3 P. L. Sears	Cambridge Univ	5800	4
4 S. N. Longland	Cambridge Univ	5290	4

Club Ladder

Leading Pilot	Club	Pts	Flts
1 P. Löwenstein	Surrey & Hants	6097	4
2 R. Brisbourne	Surrey & Hants	3931	2
3 A. B. Crease	Imperial College	3279	4
4 C. C. Rollings	Airways	3187	4

COMPETITION DIARY, 1976

The BGA Executive and Flying Committees have approved the following contest programmes for 1976:

Nationals and Euroglide

These contests will be organised in a similar way to 1974 and 1975. The BGA Nationals will be at Lasham from May 22—31 (May 31 is a Bank Holiday), and Euroglide will be at Dunstable from August 21—30. (August 30 is a Bank Holiday).

Separate tasks will be set for the Open and Standard Classes, which will be unhandicapped, but gliders of handicap

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102% and below (which are not in the Open Class) will fly Standard Class tasks and, as in previous years, this group will be called the Sports Class.

The Sports Class will not affect Standard Class scoring (although Standard Class gliders will, in addition, be included in the Sport scores) and the idea is to cater for gliders which do not easily fit the Open and Standard Classes, such as Phoebus 17, Cirrus 17, SHK, Dart 17, K-6E and so forth. Sport Class scores will be handicapped.

Regionals

The following Regionals dates and sites have been approved. The dates are set by the BGA so that spare weeks lie between each contest so that syndicates have freedom to enter any combination of contests.

May 8—16, (currently free); May 22—31, Nationals, Lasham; June 5—13, Competition Enterprise, North Hill (unrated, not run to BGA/CIVV Contest Rules); June 19—27, Western Regionals, Nympsfield; July 3—11, Portmoak; July 24—August 1, (currently free); August 7—15, Northern Regionals, Sutton Bank, and August 21—30, Euroglide, Dunstable.

Entry Procedure

a) Nationals and Euroglide. Entry forms may be obtained from the BGA office. The closing date for entries is first post Friday, January 30, 1976, at the BGA office.

Entry priority will be from the BGA Rating List and this will govern the relative size of Classes. Pilots can therefore enter either, or both contests. All entries received before the deadline above will take precedence over any late entries. Entry fees will be £77 each for the Nationals and Euroglide. (Unless unforseen financial circumstances arise.)

b) Regionals. Apply direct to the organising club.

Ian Strachan
Chairman, Flying Committee

PROVISIONAL BGA SPEED INDEXES FOR 1976

The definitive 1976 list will be published in the 1976 BGA Contest Handbook which will be available from the BGA office in March, 1976.

Quoted speed indexes are in direct proportion to cross-country speed extracted from an "average thermal", compared to 34kts which is the 100% datum.

The "average thermal" is strong in the middle and weak at the outside. Compensation for thermalling performance is made by feeding the Min sink point of the glider's performance curve into a graph which gives an achieved rate of climb. For example, a Foka's speed at Min sink is rather high, leading to an achieved rate of climb of about 2kts from the "average thermal". A K-8 in contrast, has a much lower speed for Min sink and so gets right into the middle of the thermal, achieving 2.5kts.

These corrected climb figures are applied to the standard formula for cross-country speed, these speeds compared with the 34kts datum and rounded off to the nearest even percentage for the list of speed indexes. A full explanation was given in S&G, December 1974, p266—271.

Allowance is also made for ballast capacity on the assumption that on one UK contest day in four, achieved rates of climb will equal 4kts and Max ballast will be used on these days.

SPEED INDEXES Gliders (*include Ballast)

120%	Nimbus 22m*
118%	Nimbus 20m*, Kestrel 22m*, ASW-17*
116%	Kestrel 19m*, ASW-12, Jantar*
114%	Motor Nimbus
112%	Calif A-21
110%	Kestrel 17m
108%	Diamant 18m, BS-1
106%	
104%	PIK 20, Std Jantar
102%	Cirrus 17m, Phoebus 17m,
100%	STD CIRRUS*, ASW-15*, LS-1*, SHK, Diamant 16.5m, HP-14 18m
98%	Std Libelle*
96%	Phoebus 15m*, Cobra 15, Motor Cirrus, KH-1
94%	Dart 17, Foka 5, IS-29D, Club Libelle
92%	Pilatus B-4, Torva
90%	K-6E, Foka 4, Vasama, SD 3/15
88%	Dart 15, Olympia 419, SF-27M
86%	Skylark 4
84%	Skylark 3, K-6CR, Olympia 403, Std Austria Mk 1
82%	Pirat, Olympia 463, Fauvette, BG-135
80%	M-100s, K-14
78%	Skylark 2, SF-26, K-8, Jaskolka
76%	Sky, Weihe, Eagle, Blanik, K-13
74%	Mucha Std, Bocian, Bergfalke
72%	K-7, K-2, SFS-31 Milan
70%	Olympia 2, Meise, Kranich
68%	Tandem Falke, ASK-16, RF-5B Sperber
52%	Falke

Ian Strachan

Notes on list of speed indexes

1 * Asterisks indicate that the speed index applies to gliders with the ability to jettison ballast. Reduce the index by two if ballast cannot be carried.

2 Increase the speed index by two if jettisonable ballast can be carried by gliders in the list for which no allowance had been made (*ie* no asterisk).

3 Very large amounts of jettisonable ballast capacity may increase the speed indexes given below for gliders so modified. This will be notified to contest organisers by the Handicapping Sub Committee.

4 Speed indexes apply in BGA contests at all AUW and CG positions cleared in the glider's C of A and are calculated based on the optimum configuration and AUW for the "average thermal", except for the ballast calculation which is made for Max AUW.

5 Comments should be sent to the BGA for the Handicapping Sub Committee. Changes will only be made as a result of tangible performance evidence such as polar curves, "tested points", from calibrated glides, or well conducted formation runs with known types. Figures are required of Min sink and a high speed point at 70—75kts (130—140km/h).

CHRISTMAS COMPETITION

We have had a record book summer in terms of temperatures and suntans as well as some vintage gliding conditions, so our Christmas competition is for the black and white photograph or cartoon which best reflects the 1975 season.

The prize will be a year's subscription to S&G. Please send your entries to 281 Queen Edith's Way, Cambridge, CB1 4NH, to arrive by first post on Monday, December 15, in envelopes marked "S&G Christmas Competition." Enclose a sae if wanting the illustration returned.

As well as the winning entry, we also hope to print the pick of the runners-up.

TECHNICAL NEWS

Non-standard/sub-standard repairs to wooden gliders. Several cases have recently been reported, in one case structural failure occurred in ground-handling accident. In the latter case no Log Book entry existed by which to crucify the perpetrator! Why bother with non-standard repairs when well documented and proven repair schemes exist in AP2662, CAIP Leaflets, "Standard Repairs" etc.

Repairs to GRP spar caps. The BGA have received a reply from German LBA authorising certain types of repairs on specific types of gliders. The BGA will not accept for UK Certification, major repairs unless they comply with manufacturer's documented repair schemes, or have airworthiness authority approval.

Pilatus B-4 drag-spar bushes have fallen out, and gliders have been rigged and flown without bushes. Security of bushes to be checked on C of A renewal (Add to Mandatory List.)

Dick Stratton
BGA Chief Technical Officer

INFLATION BITES

A sad reminder that rising costs have forced us to increase the price of S&G to 50p from the next issue.

COMPETITION NUMBERS AND LICENCES

Would the owners of all competition numbers please note that they are due for renewal on January 1, 1976, and that individual reminders are not issued.

The fee for issue or renewal of a number for 1976 will be £2.00, and this amount should be remitted to the BGA by March 31, 1976, at the latest. Numbers not paid for by April 1 will be available for re-allocation.

From January 1, the charge for issue or renewal of a competitors licence will be increased to £2.00 and the licence will be validated for a period of three years.

OFFICIAL OBSERVERS

There will be a change in the procedure for appointing/reappointing BGA Official Observers with effect from January 1, 1976. From that date Official Observers will be appointed for the duration of the 1975 edition of the FAI Sporting Code Section 3 Class D Gliders. New editions are issued at approximately five year intervals.

A copy of the Sporting Code and BGA Notes for Official Observers will be sent to all Official Observers on appointment/reappointment. The fee for registration as an Official Observer will be £1.50. New application forms on green paper will be issued to all clubs. Old forms on pink paper will not be accepted and should be destroyed.

Official Observers with the prefix 75/ to their Official Observer number are reminded that their appointment lapses on December 31, 1975. Official Observers with the prefix 76/ need not renew until December 31, 1976.

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ALL THREE DIAMONDS

No.	Name	Club	1975
49	S. G. Davies	Airways	29.7

DIAMOND DISTANCE

No.	Name	Club	1975
1/97	R. A. Foot	Inkpen	31.5
1/98	P. L. Sears	Cambridge Univ	30.6
1/99	M. C. Fairman	London	31.5
1/100	S. G. Davies	Airways	29.7
1/101	K. G. Wilkinson	Airways	27.7

DIAMOND GOLD

No.	Name	Club	1975
2/635	R. G. Mortimer	Ouse	29.6
2/636	M. J. Harper	Bristol/Glos	25.7
2/637	G. D. A. Green	SGU	25.7
2/638	A. R. Levi	Shropshire	25.7
2/639	D. W. Dripps	Kestrel	21.6
2/640	R. O. Willett	Buckminster	29.6
2/641	J. E. B. Hart	Yorkshire	29.6
2/642	D. Cockburn	Four Counties	25.8
2/643	D. G. Cooper	Norfolk	17.8
2/644	J. D. W. Walker	Airways	2.7
2/645	D. J. Freeman	Thames Valley	20.6
2/646	R. G. Baines	Trent Valley	29.6
2/647	R. M. P. Richards	Essex/Suffolk	17.8
2/648	F. K. Russell	London	17.8
2/649	J. C. Francklow	Inkpen	28.7
2/650	G. F. H. Singleton	Doncaster	25.8
2/651	A. J. Stone	Cambridge Univ	17.8
2/652	A. D. Duke	Bristol/Glos	25.8
2/653	M. Gay	Cotswold	25.8
2/654	N. Taylor	Heron	13.8
2/655	A. Brown	Yorkshire	25.8
2/656	D. Brown	Midland	17.8
2/657	P. Purdie	Inkpen	30.7
2/658	E. Richards	Essex/Suffolk	30.5
2/659	J. M. Ridge	Thames Valley	26.8

DIAMOND HEIGHT

No.	Name	Club	1975
3/232	M. Randle	Oxford	8.8

GOLD C COMPLETE

No.	Name	Club	1975
481	R. G. Mortimer	Ouse	29.6
482	A. R. Levi	Shropshire	25.7
483	J. E. B. Hart	Yorkshire	29.6
484	D. Cockburn	Four Counties	25.8
485	D. C. Cooper	Norfolk	17.8
486	K. Rylands	Midland	25.7
487	C. Beer	Kent	31.5
488	A. D. Duke	Bristol/Glos	25.8
489	M. Gay	Cotswold	25.8
490	N. Taylor	Heron	13.8
491	R. I. Cowderoy	Oxford	7.9
492	P. Purdie	Inkpen	30.7
493	J. M. Ridge	Thames Valley	26.8

GOLD C HEIGHT

Name	Club	1975
M. S. Hunt	Deeside	29.7
R. A. Hall	Oxford	8.8
J. M. Ridge	Thames Valley	8.8
H. A. W. Massman	Yorkshire	20.8
R. I. Cowderoy	Oxford	7.9
C. F. Garrod	Surrey/Hants	17.6

GOLD C DISTANCE

Name	Club	1975
R. G. Mortimer	Ouse	29.6
J. Janzso	Kent	31.5
A. R. Levi	Shropshire	25.7
C. J. Batty	Cotswold	30.6
D. W. Dripps	Kestrel	21.6
J. E. B. Hart	Yorkshire	29.6
D. Cockburn	Four Counties	25.8
D. C. Cooper	Norfolk	17.8
J. D. W. Walker	Airways	2.7
D. J. Freeman	Thames Valley	20.6
K. Rylands	Midland	25.7
R. G. Baines	Trent Valley	29.6
R. M. P. Richards	Essex/Suffolk	17.8
F. K. Russell	London	17.8
J. C. Francklow	Inkpen	28.7
G. F. H. Singleton	Doncaster	25.8
C. Beer	Kent	31.5
J. S. R. Bodkin	London	7.8
A. D. Duke	Bristol/Glos	28.5
M. Gay	Cotswold	25.8
N. Taylor	Heron	13.8
A. Brown	Yorkshire	25.8
P. Purdie	Inkpen	30.7
J. M. Ridge	Thames Valley	26.8

SILVER C

No.	Name	Club	1975
4082	C. J. Tipney	Airways	1.7
4083	A. Wright	Thames Valley	20.6
4084	B. E. Evans	Oxford	21.7
4085	T. J. Parsons	Devon/Somerset	25.7
4086	R. W. Hawkes	Midland	27.7
4087	W. Venner	Phoenix	29.7
4088	H. W. Bishop	Hambletons	6.7
4089	G. J. Knight	Stratford on Avon	27.7
4090	C. J. Batty	Cotswold	30.6

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4108	A. R. Verity	Kent	6.8
4109	J. S. Williams	Surrey/Hants	25.7
4110	G. J. Print	Stratford	27.7
4111	R. G. Tomlinson	Buckminster	6.8
4112	D. J. Cole	Four Counties	2.8
4113	H. E. Collingham	Doncaster	3.7
4114	E. D. Needham	Eagle	6.7
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4136	K. B. Ross	Fenland	3.8
4137	P. W. Clements	Dunkeswell	25.7
4138	J. E. Lowe	Thames Valley	8.8
4139	P. Matthews	Fenland	2.7
4140	D. R. Bricknell	Buckminster	14.7
4141	R. J. Farman	Cranwell	8.8
4142	T. D. Healey	Essex	12.6
4143	H. E. Stevenson	Fenland	11.7
4144	A. D. Newman	Stratford on Avon	10.8
4145	I. A. Davies	Swindon	17.8
4146	T. L. Prochazka	Fenland	7.8
4147	J. A. Bieler	Cambridge Univ	16.8
4148	T. S. Lamb	Oxford	12.8
4149	D. Hunter	SGU	16.8
4150	D. P. Clarke	Dorset	10.8
4151	B. Gough	Bicester	24.8
4152	D. S. Smith	Crusaders	16.8
4153	S. Newall	Bicester	24.8
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4156	M. C. Moxon	Oxford	26.8
4157	T. G. Wilson	Cotswold	27.8
4158	J. L. Houghton	Doncaster	24.8
4159	M. Uphill	South Wales	21.8
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4175	A. Lambe	Cornish	30.8
4176	A. L. Phillips	Bannerdown	26.8
4177	R. N. Cook	Oxford	26.8
4178	P. J. Morgan	Oxford	27.8
4179	R. G. Furley	Cotswold	26.8
4180	S. N. Lawrence	Four Counties	27.8
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4198	Elizabeth Miller	Four Counties	27.8
4199	H. Hill-Lines	Stratford	4.9
4200	J. W. G. Meyer	Surrey/Hants	25.8
4201	R. H. Judd	Kent	5.9
4202	J. A. K. Williams	CGS	6.9
4203	Michele Dennis	SW District	13.9
4204	T. Fidell	Doncaster	13.9
4205	I. McNeill	SGU	13.9
4206	R. H. Pursey	Cambridge Univ	13.9
4207	P. Storey	South Wales	14.9
4208	P. M. Nurse	SGU	15.9
4209	A. A. Turner	Cranfield	10.9
4210	R. Issatt	Doncaster	3.8

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NATIONALS ENTRY LIST 1976

THE RATING LIST AND ITS BACKGROUND

In common with most gliding competitions, it is necessary to limit the number of competitors in the British National and the more recent Euroglide annual competitions. Entry to these competitions is generally substantially oversubscribed and since it is desirable to ensure that the highest calibre applicants will not be excluded from their chosen competition, it is necessary to apply some form of seeding to all British competition pilots in order to provide a fair method of regulating competition entries. This principle has been applied to the British Nationals for many years and such a seeding list, more popularly known as the "Rating List", has been published annually between the competition seasons for the purpose.

The process used to compile this list is reviewed regularly by the BGA Flying Committee. The fundamental philosophy has not, in fact, been changed for several years, simply because it appears to give a fair result and achieves the policy objectives agreed by the Committee. The rules used to compile the list were last published in detail in S&G, April 1973, p107. Minor changes to detail have been made since and the scope of the process has been widened, but it is probably worthwhile outlining the fundamental philosophy again.

Two successive processes are used. The first is to combine all the results of a given group of competitions into one list to read as though it were the result of one master competition. This requirement is achieved by giving every competitor a placing score and then listing all such scores in descending order. The placing score is computed by dividing the total number of competitors in a given competition by the individual competitor's final position. This principle is considered to be fair since it gives the more successful competitors in a big competition or class precedence over a similarly placed pilot flying against a smaller field. Three such lists were generated from the 1975 competition groupings. These were:

1 The Open and Standard Classes of the National and Euroglide Competitions.
2 The Open and Standard Classes of the European Angers and Hahnweide Competitions.
3 The results of the Regionals combined with the Inter-Services Competition.

The latter Competition requires preliminary treatment by merging the results of their Open and Sport Classes only, into one list, as agreed with their organisers. Where names recur within a list, all but the highest reference is deleted. All foreign pilots' names are retained at this stage. Finally the previous Nationals Entry or Rating List is retained as a fourth list.

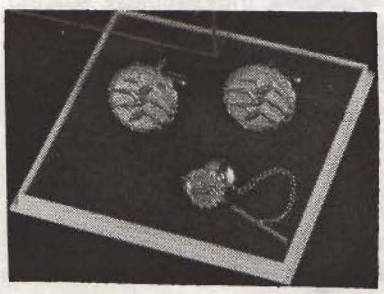
The second process is to combine these lists into one. This process nominates one list to be the master and then progressively merges one other list at a time by interleaving successive names. Recurring names and now the non-British names are deleted when each list has been merged. This part of the process gives the Flying Committee a little flexibility during the annual review of the task, since the relative weighting of a given list or competition group can be adjusted by starting the interleaving sequence at some point down the master list. The relative weightings have in fact been unchanged for 1974 and 1975, and identify the Nationals/Euroglide list as the master. The European Competition list is merged first by starting the interleaving from position ten onwards on the master. The previous Rating List is merged next, by starting interleaving after position 20 on the combined master. Finally the Regionals list is merged from position 20 onwards on the combined master. The current Nationals Entry or Rating List thus emerges.

Consideration of this complete process will show that a well-placed Regionals pilot, even in his first competition, can be assured of a place in his chosen National the following year. Conversely, a pilot who does not do well in the Nationals may well lose access to the following year's Nationals, and will need to seek re-promotion through the Regionals. However, a consistently successful Nationals pilot, who would thereby be placed high in the Rating List, could suffer a bad year, or even miss a year entirely, without endangering his right to a Nationals place the following year. These are the type of criteria that the Flying Committee seek to preserve.

In accordance with the above philosophy, the following list has been compiled from the results of the 1975 Competitions together with the previous Rating List as used in January 1975. This new list will be used to determine the priority of entry to any of the British National and Euroglide Competitions for all Classes in 1976, in the event of any such Competition Class being oversubscribed on the respective entry closing date. (See page 268.)

Any prospective Nationals pilot who believes his position in this list to be incorrect, to the possible jeopardy of his right to enter, is requested to submit full details of his recent competition record to the BGA without delay.

In conclusion, it is probably worthwhile to emphasise that this list is compiled for its specific purpose only, based on individual performances in competi-



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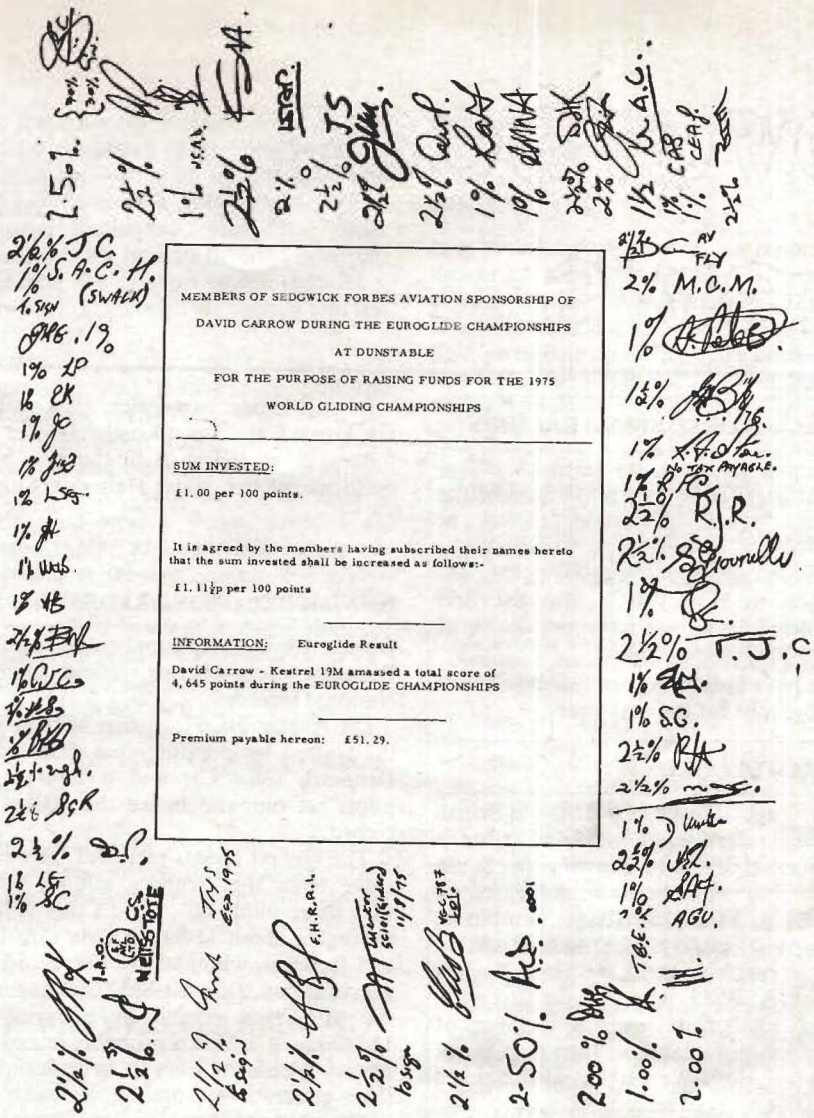
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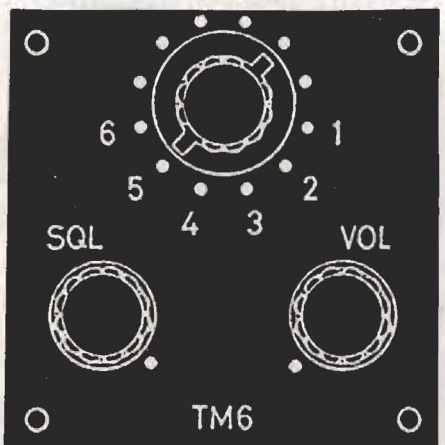
tion. The list is deliberately curtailed at a point where it is not likely to serve any purpose and therefore does not necessarily include every pilot who competed in 1975. This list does not, and was never intended to, reflect the individual ability of one pilot in comparison with another, except so far as this comparison might be reflected in his competition performance.

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BGA Flying Committee

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118 Field S. E.
119 Elliott E. G.
120 Wilson F.
121 Costin M. C.
122 Woodier C. J.
123 Beck R. J.
124 Rouse J. E.
125 King P. A.
126 Webber D. C.
127 Smith J. D.
128 Bowden D.
129 Linee T. E.
130 Throssell M. G.
131 Cole P. G.
132 Deane-Drummond A. J.
133 McLane J. L. C.
134 James D. B.
135 Watson, Patricia
136 Roberts D. G.
137 Stevenson J.
138 Dransfield J. R.
139 Wright R. D.
140 Burgess F.
141 Bleaken L.
142 Vann E. J. C.
143 Seth-Smith M. P.
144 Przewlocki J. K.
145 Herringshaw G.
146 Sutherland M. N.
147 White D. P.
148 Brindle G. F.
149 Duffin R. R.
150 Rowland C. D.
151 Ellis J. J.
152 Woodford J. M.
153 Krzystek T. J.
154 Richards R.
155 Cook R. A.
156 Crawshaw G. H.
157 Cook P. G.
158 Walker S.
159 Stoddart R. C.



David Carrow, who came 12th in the Open Class at Euroglide in his Kestrel 19c, was rather touched by the extent the Aviation Department of his firm of International Insurance Brokers, Sedgwick Forbes UK Ltd, sponsored him during the competition to raise £51.29p. Some of the sponsors' signatures decorate the official looking document.



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CAMERON BALLOONS

overseas news

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

750km Δ WORLD SPEED RECORD

On going to press we learn that Tim Mouat Biggs of S. Africa has claimed the World 750km Δ speed record at 124.98km/h in a Nimbus 2 during the Rhodesian Nationals on October 16. (Subject to Hom.) It is also the first completed 750km Δ set in any National or World Championships.

We have been promised full details and photographs for the next issue.

WORLD RECORDS

The triangular distance World and British National record set up by Mike Carlton in his Kestrel 19 last January in South Africa has now been homologated at 770.99km. Klaus Holighaus, Nimbus 2, broke this record in May with 823.22km and is currently held by Hans-Werner Grosse, ASW-17, who flew the first completed 1000km Δ over a distance of 1012.2km in Finland on June 6. It is not known if Hans-Werner has also claimed the 1000km speed record.

Edward Minghelli and R. Gravance, USA, are the new holders of the two-seater goal and return record with 751.30km flown on June 26 in a Prue 2A.

The ladies World records awaiting homologation are the 750km Δ at 73.63km/h flown by Adela Dankowska, Poland, on June 2, and the triangular distance of 770km with the same flight in a Jantar 1.

Adele Orsi, Italy, flew a 100km Δ (glider not known) on August 19, at 127.20km/h.

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In the ladies two-seater class Adela Dankowska and Irena Kostia claimed the 100km Δ at 104km/h in the new high performance two-seater Halny on August 12.

DANISH RECORDS GALORE

During some exceptional good weather Danish pilots broke about twelve National records.

On August 10, Holstebro airfield had the highest temperature ever recorded in Denmark (36.4°C), and a number of pilots set out and broke the 100km Δ record.

The highest speeds recorded, however, came from the Arnborg gliding centre with three pilots all in Std Class gliders averaging about 114km/h, one with 119, and Ib Braes, who had lost the record the previous day, flew his Std Cirrus around the 102.68km course at a speed of 134.66km/h, which is probably one of the fastest speeds in Europe in a Standard Class glider.

Thermals during this weekend reached to over 10000ft and a number of pilots claimed their Gold C height with little or no cloud flying.

CANADIAN CHAMPIONSHIPS

These were held in July with 6 contest days out of a possible 10. Dave Webb of Fort Erie, Nimbus, won in the Open Class with 5697pts; Dick Mamini in an ASW-12 came 2nd with 5385. In the Standard Class Jim Carpenter won with 5743pts in a Std Libelle; Hal Werneburg came 2nd with 5658pts in a Std Cirrus. The tasks included a Cat's Cradle in which Webb flew 604.5km and landed after 8pm.—*Free Flight.*

ITALIAN NATIONALS

Year by year the Italian Nationals at Rieti become larger and more international. A record number of 90 pilots took part and visitors came from Austria, Switzerland and West Germany.

Walter Neubert of West Germany, who has won this event four times already, did so again this year flying an ASW-17. Before the contest started he clocked up 163km/h around a 100km Δ.

In spite of much interference from thunderstorms, 11 contest days were flown out of a possible 15. Neubert won on four of them. The leading positions, except second place in both classes, were all taken by the visitors. They were: Neubert, Germany, ASW-17, 10342pts; Vergani, Italy, Nimbus 2, 10265pts and Memmert, Germany, Nimbus 2, 9987pts. Adele Orsi was the second highest placed Italian coming 7th in the Open Class. Hans Nietlispach, Switzerland, flying the new Hornet came first in the Standard Class with 9231pts, followed by Brigladori, Italy, Std Libelle, 9166 and Peter, Germany, Hornet, with 9071pts.

SWEDISH CHAMPIONSHIPS

This year's Swedish Championships had six contest days, and *Flyg Revyn* shows in its table of results not only the total points, which were used in the final reckoning, but also the total placings, which were not. This shows that, if total placings had been used, the 2nd and 3rd pilots would have changed places, and also the 8th and 9th, but the rest of the field of 15 would have remained the same. Ten flew the Std Cirrus type, 2 the Std Libelle, and the others the LS-1C, 1D and 1F.

Leading final results: Gunnar Karlsson, Std Cirrus, 5564pts; Ake Pettersson, Std Cirrus, 5454, and Goran Ax, Std Cirrus, LS-1F, 5382pts.

OSTIV CONGRESS

The 15th Congress of the Organisation Scientifique et Technique Internationale du Vol à Voile (OSTIV) will be held from June 18—26 at Räyskälä, Finland, the venue of the next World Championships.

The technical and scientific sessions will be held in Motel Laakasalo about 5km from the airfield. Limited accommodation will be available at the motel for OSTIV participants.

Authors, affiliations, titles of papers and comprehensive summaries should be received as soon as possible, but not later than January 31, 1976. For Technical papers the address is: Floyd J. Sweet, Chairman OSTIV Technical Section, 1910 Massachusetts Avenue, McLean, Virginia 22101, USA.

Scientific papers to: Dr Joachim Kuettner, Chairman OSTIV Scientific Section, c/o World Meteorological Section, CP No 5, Geneva 20, Switzerland.

The Technical programme will cover sailplane design, construction, instruments and operation. Topics of particular interest would be concerned with:— New structural concepts in sailplane design; Aerodynamic improvements. Results of flight tests related to performance. Airworthiness requirements. Fatigue in sailplane structures, especially glassfibre. New developments in motor sailplanes. Soaring in controlled airspace and advancements in pilot training.

The Scientific session is concerned primarily with soaring meteorology. Topics will include, but not be limited to:— Characteristics of thermal convection. 'Thermal waves' and organised convection. Atmospheric boundary layer studies. Airflow over mountains, including lee waves. Cloudphysics studies using sailplanes or motor gliders. Turbulence. Measuring techniques and instrumentation and Forecasting for soaring pilots.

THE PILOT IS STILL SHAKING

We have had the most extraordinary accident. Fortunately, the pilot was not seriously hurt, but it was close. The pilot who was flying a Std Cirrus from Waikerie took off without zero-ing the 'Bulsac' electric variometer, and having climbed to 3000ft on the PZL decided he would adjust the Bulsac with a small screwdriver he had in his pocket. While doing this he dropped the screwdriver and as he could not quite reach it he undid his straps, retrieved the screwdriver, and started to fasten the straps again using both hands.

At this moment the glider hit a thermal or some turbulence which lifted one wing, the pilot made a grab for the stick and may have given it a sharp knock. Whatever the immediate cause, the glider bunted sharply into an inverted position, subjecting the pilot to severe negative *g* throwing him through the canopy and out of the glider.

Fortunately, the pilot was not unconscious and managed to pull the parachute rip cord. The canopy was fully deployed at 700ft, and apart from some minor cuts and bruises, he landed safely. The Std Cirrus relieved of the pilot's weight, but upside down, entered an inverted spin and crashed about a hundred feet from the pilot. The glider broke about six feet off one wing, and had a broken fuselage but the damage was less than one would expect.

The pilot by the way has not come to rest yet—he is still shaking!

Extract from letter to Ted Hull and report in 'Australian Gliding' *by Martin Simons.*

* * *

The moral of the story should be pretty obvious—remember the saying "He became a cropper 'cause he didn't do his DI proper."

HOW MANY PREFER GLIDING

The proportion of the French population who take up gliding and power flying respectively in different age groups is shown in a diagram published by *Aviasport.* For gliding the most popular age group is 18—22yrs, in which (to the nearest unit) 12 people per 10000 of the population do it. The next most popular group, 15-18yrs, in which nine per 10000 are glider pilots, is the only one in which they outnumber the aeroplane pilots, who are only four per 10000.

EUGEN HÄNLE

It is with great regret that we report the death of one of Germany's leading designers and manufacturers, Eugen Hänle of Glasflügel. He was killed in a light aeroplane accident on September 21.

We hope to publish an appreciation in our next issue.

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your letters

IN DEFENCE OF WOMEN PILOTS

Dear Editor,

Of course the women pilots are as good as the men. It just takes longer for a really top notch one to come along. We are so few!

Last season 2½% only of the competitors in the major competitions were women. That's pretty long odds by any standard and yet Ann Welch and Anne Burns have made it to the top.

Now Rhoda, keep their example before you. You can "exert that supreme effort of will . . . etc" against anyone. I know, you do it now. But please don't keep bleating about how difficult it is to be a poor little woman glider pilot. I know it is, of course, but I'm sure the other lot aren't interested at all.

We still need the women's records and trophies, if only because we are still a category apart *(vive la différence!)*, but our aim should be to get many more girls to take up gliding seriously so that there would be a much greater chance of really good female pilots emerging, and thus the need for a special category could disappear.

Personally, I'd be very sorry to see them go, I do like to weigh up the opposition!

Troston, Bury St Edmunds, Suffolk. ANNE WALKER

FOR THE ATTENTION OF INNOCENT YOUNG PILOTS

Dear *Marje,*

I must write to you so that you may warn other innocent young glider pilots who may fall under the spell of that woman, that witch! I kept silent all through the "does R-P- exist" controversy but her article in the last S&G brought all my pent up emotions to the boil again. Please forgive me if this letter is a little incoherent. I find it difficult to control myself.

It all started a year or two ago at Compton Abbas: I was de-rigging my Oly 2B when this delightful creature offered to help. I of course knew who she was and the idea that this pundit would deign to notice my little Oly really shook me emotion wise. But what really undermined my natural reserve and set my pulses racing were her first words. They are burned on my heart. "Oooo" she breathed huskily "an Oly 2. How lovely. My machine (a casual glance at a gleaming plastic vulture idling at the field's edge) is really only an overgrown Oly".

Delightful creature, Oh! jewel among women, and so intelligent! I treasured the memory of those words through cold winter evenings as I sat by the fire polishing my main pins. The picture of her bending into the cockpit to look at the panel stayed with me for months. The wing tip she held went unwashed until the next C of A.

Then, suddenly, one day last summer the idyll ended, the bubble burst. I remember as if it were yesterday. It was at Inkpen on a fine summer day. The scent of newly mown hay in my nostrils, the day made glorious by the song of the lark and the idle chatter of a passing glider pilot being broadcast over three counties by *her* Dittel. My nerves twanged and a shiver of delight ran up my spine. Once more we were together on the same field.

Should I declare my feelings? I would! I sidled up to her just in time to hear this Jezebel say to some other victim "My machine is just like this but grown-up a bit". The faithless hussy!! Just the words she had used to inflame my senses. But horror upon horror. This new challenger for her affections had (I can hardly bear to think of it) a K-6.

Marje, what can I do? I take constant cold showers, I keep on with the Reddy-brek, I have joined the Young Conservatives, nothing seems to be of use. My one consolation is the thought of her applying her wiles and trying to convince that John person, her latest victim no doubt, that she flies a grown-up Calif.

"WORRIED SILVER C."

THE CLUB CLASS CONTROVERSY

Dear Editor,

Chris Riddell's letter "A Mirror on Soaring life" (S&G August, p178) has shown him a backwards view of what I said about club gliders ("Club Gliders and Gliding," S&G June, p130), as he has reversed most of what I tried to put over.

I did not say that competitions should be banned, or even that there should never be a Class for club gliders, and certainly not that their performance should be limited. I pointed to the Standard Class, originally intended to encourage development of club gliders, and to the obvious moral that the same fate awaits any new Club Class. I also suggested how various proposals (not mine) for such a class would not work.

Chris's argument about the Std Libelle and another man's rules is fallacious. It was modified specifically for the Standard Class, with rules, from the Open H-301 Libelle. It is merely a truism to say that pilots should be trained to handle the gliders they will fly, but this overlooks the high cost of training to unnecessarily high levels of skill to cope with difficult characteristics, none of which actually contribute significantly to improved performance and which certainly do not advance the enjoyment of the sport.

While the worst excesses of recent years are disappearing from the latest designs, in the past they have too often been uncritically accepted, defended presumably because to admit any difficulty might be taken as a reflection on one's ability. Any new Club Class will have to be most rigorously defended to protect the interests of club pilots and to prevent it becoming once more the plaything of the competition world. I have no reason to feel optimistic from past history.

Preston, Lancs. JOHN GIBSON

SUGGESTIONS FOR AN IDEAL DESIGN

Dear Editor,

Following correspondence and looking around currently produced gliders, I have formed certain conclusions as to what may be considered desirable characteristics for Club Class gliders.

The original K-6 design probably fulfilled most of the requirements but is very dated and out-classed. Current Standard Class designs are tending to be progressing towards maximum permitted gimmickry and complication. If this trend continues, in ten years time it is going to be difficult to find a suitable glider for early solo pupils, as I have no doubts that we'll still be training pupils on K-13 type two-seaters, especially in small clubs.

It is also noticeable that cockpits are getting smaller every year. Being 6ft 3in and weighing 16 stone, this, personally, is a trend I deplore.

My suggestions for a Club/Standard Class design are as follows:

A maximum permitted span of 15m.

There should be a maximum permitted wing loading in landing configuration.

A maximum permitted stalling speed of 35kts at Max AUW, and preferably less.

No flaps or retractable undercarriage.

Drag device (airbrakes) must be capable of reducing glide performance to 1:10 or less, and be fully adjustable and re-settable in flight. (If anyone can design and manufacture a tail chute to this requirement, good luck to him.)

Waterballast should be permitted but arranged so that cross feeding isn't possible between individual tanks. The maximum jettison time should be one minute for complete emptying and 80% of ballast must be out within 30 seconds.

If an all-flying tail is fitted, it must have anti-balance tabs, like the Oly 419. No spring feel should be permitted.

The minimum wheel diameter should be 8in over the tyre and there should be an efficient wheel brake and built in tail carrying handle, with the nose section reinforced to cope with tipping forward on braking.

A minimum clearance under the wing tips when in take-off configuration should be specified.

The cockpit should be capable of being easily adjustable for all pilots from 5ft 4in to 6ft 6in with the maximum disposable cockpit load of not less than 250lbs.

There should also be a requirement for visibility of an object on the ground in front of the aircraft with the pilot strapped in.

I believe that a formula based on the above lines would produce a glider suitable for early cross-country flying (without the ballast) and be a good club machine. At the same time it would be usable for competitions, encouraging designers to pit their wits.

There is very little doubt that if present trends carry on we will soon have landing characteristics with all the subtleties of an armour piercing shell!

Bath, Avon. J. H. WHITTLE

THERMAL DICE

In the 1950's John Pringle, President of the Cambridge University Gliding Club, invented Thermal Dice. The principle was brilliantly simple: throw two dice, one red and one green, and the difference gives the rate of rise or fall of the air in which one is flying, or, if one is thermalling, the amount to be added or subtracted from one's thermal strength. One then decides whether to stay in the same place (thermalling) or move a number of places across the board (whose "Squares" are hexagons) determined by the glider's speed. The faster one flies, the greater one's rate of loss of height (see the article by John in S&G, February 1960, p18).

The game was much played in Cambridge in the late fifties, and many subsidiary rules grew up, such as doubling the dice-throw above cloudbase, adding one over towns, and subtracting one over woods, which were marked on the board. There was plenty of scope for ingenuity in the choice of units in order to maximise the realism. At one stage I thought it would be more fun to transfer the game to a quarter-inch map, and constructed the necessary equipment, but this proved not to be the case, all the players preferring my hexagonal-grid representation of Cambridgeshire. We also thought of constructing miniature instrument panels for each player, to eliminate the paper-and-pencil work, but found that that would also eliminate the barograph traces which it was such fun to construct afterwards.

Now the game is available for purchase (details below) to be played on a map, using miniature instrument panels. The set comprises four panels, each with variometer, altimeter and ASI, all cleverly graduated to facilitate the calculations, a best-speed-to-fly calculator, three dice (marked with green, red, and blank faces), some scales, two packs of cards (like "Chance" and "Community Chest" in Monopoly): and a piece of celluloid to place over the map. If there is a wind, this is slid over the map each complete turn. Four markers represent the four gliders, and the set is completed by a Chinagraph pencil, a task-board, and a set of rules. Everything is well-made, if slightly amateur in finish.

On playing the game, my family found the rules not entirely clear. Unlike in Pringle's game, the dice indicate what is happening to the glider and not the air, and although this was all right when climbing, we had difficulty in working out what we were supposed to do between thermals. But after inventing our own interpretation all went well, though we soon had to add some more green faces (provided) to the dice.

However, playing again after a gap of some years confirms my earlier opinion that thermal dice is best played on a board, and not a map, and to that extent the commercial product is unsatisfactory. Anyone not familiar with the game might find this set a useful introduction, and the instrument panels are fun, but I have to confess that its effect on my household has been for us to take a large piece of hardboard and spray hexagons all over it using an aerosol paint spray and some chicken wire, and then to find the red and green dice that have been missing for years!

The Armchair Pilot

This version of thermal dice was devised by Martyn Wells about three years ago when he was flying an Olympia 2B and the gliders in his original game were of Olympia performance. When Martyn bought a Std Libelle about a year ago the game was modified so that the gliders were of Std Libelle performance. The calculator supplied is identical to the one in his glider and can also be used in a Std Cirrus or ASW-15.

Martyn believes that the game helped him with his cross-country flying. A point which, to some extent, he has proved in two of this year's Regionals—he was second at Lasham and fourth in the Northern Regionals.

The game is £6 a set, p&p included in the UK, from New House, Weston Road, Brentford, Evesham, Worcs, tel Evesham 831021.

Book Review

British Gliders edited by P. H. Butler. Published by the Merseyside Aviation Society, 4 Willow Green, Liverpool L25 4RR and obtainable from the BGA office. It is priced at 70p plus 15p p&p.

This is the second edition, the first appeared in 1970, and it again aims to be as complete a record as possible of all UK gliders with some of the more successful designs developed abroad within the last few years.

The Editor apologises for reprinting some of the photographs simply because of the general shortage of good shots, but it is a competently produced book with loads of intriguing facts. There are lists of all BGA C of A allocations from 1930 until February, 1975; notes on post-war unidentified aircraft together with some background information on glider types and manufacturers; BGA competition numbers; serial numbers used by various Service associations and a list of gliding sites.

G. B-S



club news

A wintery scene at the Essex & Suffolk Club photographed by J. S. Bradley. John Wallis's Auster is taking-off with the K-7 on tow.

Copy and photographs for the February—March issue should be sent to the Editor, S&G, 281 Queen Edith's Way, Cambridge CB1 4NH, tel Cambridge 47725, to arrive not later than December 4 and for the April—May issue to arrive not later than February 10.
October 16, 1975 **GILLIAN BRYCE-SMITH**

AIRWAYS

John Nunneley swore a mighty oath that he would eat his glider if he did not complete a 300km triangle by September 30. Here he is to be seen at Booker duly eating his glider—a cake model K-6E—in the presence of two hungry invigilators, Gerry Leach and Gardner Sorum of Thames Valley.



For the benefit of those who find themselves making similar rash promises in the future, the following specifications may be useful: span 15in; weight 6oz; fuselage, sponge cake compressed and covered with white icing and wings, two layers of ice cream wafers wrapped in rice paper and covered with icing.

J.N.

ANGUS

The last few months have seen good soaring weather at our east coast site. Numerous Bronze C legs have been achieved and the Pirat is now fully employed.

Alistair Eddie and Les Horribine both got their Silver heights and Ron Davidson his Silver duration and distance in the one flight in the club Pirat, landing at Portmoak.

A safety lecture by Bill Scull, National Coach, was attended by at least 40 members. This was followed at the weekend by numerous spin and stall checks.

The Bob Kerr Trophy, won by our CFI Les Joiner, was presented at the annual dance by Henry Dyce, a close friend of the late Bob Kerr.

Congratulations to our new instructors, John Riley and Murray Hackney. A few of our members went to the competitions at Aboyne but they didn't come back with any trophies this year.

P.E.

BLACKPOOL & FYLDE

It has not seemed an outstanding summer, but our hours have risen 50% from only 10% more launches, so it has been a good season of club flying. The hills ensure that we get a variety of soaring from winch launches, and we have reached the north face of Longridge Fell, 4 miles away. The downwind dash is also downhill by 400ft, so the K-6E, Kestrel 17 and Skylark 3 arrived above hilltop height. The wind was only moderate, about 10kts, but the face is a good shape and rises 800ft, so it gave ample height for returning upwind to the airfield. Six pilots tried it and all got home, even when the wind was dropping later. We expect the return to get easier in stronger winds, for the hill would give more extra height than was required to combat the headwind. This would encourage us to send the Olympia and K-13, and excite us because the strong north winds usually show signs of good waves.

Five hour flights are usually done on interesting days with thermals, rather than by sticking close to the hill. Thus the Skylark team, Ken Stephenson, Tom Gornall and Dave Masterton got good value, Dave went into cloud for Silver height, and Tom waits for a calibration chart to be put under the microscope to prove his climb.

Ken Fixter had two attempts at 50km, landing just short in Bronte country, and then visiting Cleveland Sailplanes, by air and purely socially. Ian Hamilton struggled east while the wind veered north, and did well to reach Harrogate. Our first Diamond was won by Gil Haslam on a triangle from Lasham.

We expect to hear soon of a new club in Abu Dhabi, for Ron Smith, a civil engineer, has gone there to work. His professional knowledge was invaluable while we were draining and clearing the field, and without him we would surely have been unable to erect our own hangar.

K.E.

BRISTOL & GLOUCESTERSHIRE

Doug Jones has resigned as CFI and the job has been taken on by Howard Johns. We hope Doug gets some reward in the heavens. He certainly presided over the best season in club history for hours and distances.

Congratulations to Nigel Humphries on passing the instructors' course. He's the man who ensured that the Western Regionals went smoothly, although he denies responsibility for the weather. Also to Doug White on getting his Bronze C.

Dave Richardson, tug pilot for our courses, has left for Portmoak, complete with Silver C and memories of one of the busiest course seasons on record. Mike Munday ran a successful advanced course and has arranged for Bronze C landing checks to be done in fields down in the valley.

Permission has been granted for a clubhouse, extension for showers and a new bunkhouse.

B.S.

CAMBRIDGE UNIVERSITY

We have flown a record number of aerotows this year despite our debauched currency, and the average club member appears to be staying up much longer than usual from the standard winch launch (1300ft). The number of solos has been average this year, but club membership has expanded to the point where Bluebell (T-21) and the K-7 are suffering. Despite every effort of members to destroy it, our winching equipment has functioned well, though the wheels seem to have fallen off our tractor over a dozen times. Competitive spirit has remained keen, if a little desperate. At the end of August there was a furiante of musical chairs on the Ladder with Paul Sears (Dart 17R) ending the season at the top. At the more relaxed end of the club there have been numerous Bronze and

Silver legs and completed Silver Cs. Charles Perkins (Skylark 3) and Anthony Stone (Dart 17R) have flown 300km triangles and gained Gold distance and Diamond goal. In Aboyne, where a number of our pilots have spent excellent holidays, Ken Whiteley gained Gold height.

S.N.L.

COTSWOLD

Our early optimism was more than justified—all previous club records have been broken for launch rate, kilometres and hours flown. The wonderful summer was largely responsible, but our new towcar and reverse pulley has meant a fumble-free use of the weather.

The high launch rate has helped finances and allowed us to replace just about every other item of ground equipment. The last on the list was the faithful old bus. Having disposed of her (to an omnibus preservation society would you believe?), we now boast a magnificent new vehicle, complete with canteen, lecture room, automatic signal system, etc.

The 15000km flown produced many sagas. Larry Bleakin tried to fly the first 500km from our site and fell down just 4km short. Chris Batty flew his first cross-country for a Silver distance and his second for a Gold, missing his Diamond goal by about 1km.

Twelve Diamond goal flights were flown with CFI Malcolm Gay and Larry Bleakin completing their Gold Cs. There were 39 Silver legs and 12 Silver Cs completed. Peter Bentley, aged 17, and Paul Gentil flew Silver distances, Paul to complete his Silver C. Peter tried to round off his flight to Inkpen by flying back, but landed a few kilometres short. Five Bronze Cs were gained and there were 12 first solos.

Of the first solos, mention should be made of Allan Roseberry. His progress to first solo had to start with buying a K-4 and modifying it so that he, a paraplegic, could be taught to fly. Having overcome that handicap, he than took on the Chairman's job as well. Congratulations also to Ruth Housden and Helen Jeffs who went solo.

Yet another first for the club was holding a task week at Aston Down during the late summer holiday. Three Diamond goals were gained at the beginning and tasks were flown every day of the week.

Now we can only wait for the Christmas S&G and draw 500km triangles on maps.

J.D.H.



No, "Harpic's" not round the (S) bend. The Bristol & Gloucestershire Club's Chairman, Mike Harper, is taking a well-earned rest from driving the slave gang who quarried tons of Cotswold stone while making a new lavatory block for the caravan site.

COVENTRY

Despite the lack of club news in S&G recently, I can report we are alive and well. There has been a move to change the name of the club, but the overwhelming majority of members voted against this at the AGM.

Although cross-country flying started late this year, the situation has improved and in June 6600km were flown. There have been 80 cross-countries, including three 500km, two 400km and six 300km. By August 2 the total was 13000km and, with a few more good weeks, we hope to equal last year's total of 21000km.

A successful club competition was held over the August Bank Holiday and we had three good competition days with Claude Woodhouse narrowly taking first prize and the T-21 landing at Yarmouth again.

C.T.

DEESIDE

With over 25 gliders and three tugs on the site, the first two weeks of October gave our visitors nine Diamond heights and about 26 Gold heights. By mid-November the visitors will have migrated south, leaving us locals to seek wave through the shorter winter days.

Looking to the future, the area by the runway at Aboyne is gradually being widened and levelled to accommodate errant pilots, to the interest of the airfield cows. Mains electricity is to come to the hangar and workshop. And in the longer term, building a clubhouse will involve bringing mains water more than a mile.

R.H.

DERBYSHIRE & LANCASHIRE

Another successful year seems to be the consensus of opinion at Camphill. Our second task week in August was better than the first and John Humpherson showed the way in the club Oly 463. Mike Armstrong, Ted Neighbour and John Shipley keep ploughing round the 300km triangle and John managed to get his barograph to work at last to give him Gold distance and Diamond goal. Numerous people have completed their Silver C, many legs have been gained and ten people have gone solo. Andrew Stocks joined us in February and in six months went from *ab-initio* to Bronze C with 50hrs solo. Bob Frodsham went to Gold height in his Dart, soaring wave.

We are now 40 years old and it was nice to take a step down memory lane in September when the Vintage Gliding Club visited us and held a weekend rally. We made it an open weekend, the public poured in and the beautiful old gliders were able to soar our west ridge in perfect gliding weather. Everyone had a most enjoyable and memorable weekend with winch and bungey launches, the four two-seaters being used for air experience flights.

Our courses have been well attended throughout the summer and brought an influx of new members. Small groups have visited us from other clubs and most have enjoyed good weather.

Ian Gordon now has his L-Spatz from Germany which he brought to Camphill complete with fin decal—a black eagle carrying a bomb!

Brian Jackson has been attacking the field again and we now have two newly harrowed patches, plus a third one marked out.

P.H.

DEVON & SOMERSET

Now is the time for tidying up the Club records and figures for the AGM in December, and also for paying annual membership fees.

Looking back over the year, we have had a super soaring season with several Silver and Gold legs achieved. We have had many visitors, both with and without gliders, who have all seemed pleased with the site, and once again held a successful competition (Enterprise) and a task week, along with several holiday gliding courses.

Work is nearing completion on a new retrieve vehicle for the club, as our two tractors are beginning to show signs of wear. We hope this will give us faster and more efficient retrieves, although our launch rate this year has been very good and we have done more aerotows than ever before.

A and B certificates have been gained by Colin Uncles and Clive Steiner, with Steve Barber, John Turner, Geoff Cook, Janet Half-acre and Stan Fouracre completing their Bronze Cs.

J.R.H.

DONCASTER

Doncaster's soaring season closed with four completed Silver Cs by E. Collingham, J. Houghton, W. Thorpe and D. Whiteley, a Gold distance by Graham Singleton, a good number of Silver and Bronze legs and ten first solos.

It was also our most successful season for mid-week and evening courses thanks to the efforts of many club members, in particularly David White, Lilian Sharp, Joan and Frank Thompson, Ann and Bernie Gould.

Doncaster has been gaining a reputation as a wave site since strong winds brought the elusive wave onto the doorstep. Soaring flights of over 10000ft have become commonplace while John Ellis achieved 13000ft plus.

A seven-page newsletter was issued to all members this autumn and it is hoped it will become a quarterly magazine.

The winter programme includes forums for instructors, tug-pilots and winch crews, lectures, an annual dinner with guest speaker George Lee, a Bonfire Night social, Christmas

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party, pantomime and solo nights. Thanks to the ladies who had an autumn "spring-clean", the clubhouse is all spruce for the winter evenings.

The soaring season closed with numbers of new syndicates formed and mustering, new faces on the tug pilot squadron, two newly qualified instructors and many new members.

P.Y.

DORSET

The task week from August 24—31 provided a lot of flying. Ian Liddell was the top scorer and put up a very consistent performance in an Oly 2B. Second place went to another Oly 2B, the flying shared by Mike Bryan, Brian Povey and Harry Wolf. Harry was also in charge of the club K-13 which gave several pre-Bronze pilots their first taste of cross-country flying and took third place, in spite of being in use for normal flying and checks at the weekends.

At a very successful reunion party organised by Ken Phipps in September, founder members (including our first Chairman and CFI John Garrood) were invited to meet present members.

1975 has been a memorable year for us in Dorset, probably setting a record for flying time per launch though our total of launches is likely to be down.

M.L.B.

DUBLIN

We have had one of the best soaring seasons with an unprecedented crop of Silver legs and completed badges. Most of these were gained during the epic fortnight in Kilkenny which shattered years of gloomy preconceptions about the weakness of Irish soaring conditions.

Our normal operation at coastal, ATC-ridden Baldonnel seems to have induced a conservative attitude to cross-country flying. But pilots set off in streams from inland Kilkenny for their Silver distances, covering a total of 2300km in the seven gliders during the seven task days, while three more two-seaters notched up the heights and durations locally. Not exactly earthshaking, but a sorely needed boost to the club's post-solo pilots after two dismally barren years.

The Ulstermen were there in force for the fortnight, and set the standard: major honours to Alan Sands (Kestrel 19) for an out-and-return to Kerry, completing his Gold C, and to Jim Weston for a 270km flight in the Skylark.

There was a competition of sorts but compared with Kilkenny "Nationals", Competition Enterprise is positively cut-throat. Nevertheless, next year we hope to run something nearer a serious competition which, apart from the fun, should again help jolt Irish gliding into a more progressive phase.

Back home, Mark Wilkinson showed the value of agricultural connections (and of forward planning) by setting course in late August for a friend's farm. He landed in the front meadow and was greeted by a champagne reception to celebrate his Silver distance and the last Silver leg of the year.

Congratulations to our sister club in Kerry which after a long hiatus is back in operation with a new Airedale tug.

T.A.W.

DUNKESWELL

Frank Jewell held an impromptu champagne party on the night of his first solo. There have since been first solos for John Killoran, Rodney Barge, Dave Winter, Gerry Binmore, Peter Craggs and 72 year old Alfred Davis. Dave Parker and Brian Johnson made use of the Bank Holiday thermals to gain Bronze legs.

We have just celebrated our first anniversary, having done a total of 5099 launches and 462hrs! The collection of Dunkeswell based gliders now consists of the club's T-53, a T-49, Foka 4, Grunau, Swallow, Olympia 2B, Pilatus and Dart 15.

B.H.F.

ENSTONE

Since our last entry we must be one of the few clubs to have doubled our fleet. Thanks to the guidance of our Chairman, Eric Giles, we have acquired a K-7 which has already made many flights but not, as feared, at the expense of basic training in our T-21.

October has seen the end of the soaring season but our two open days this month have been a great success, giving a boost to our finances as well as gaining some new *ab-initios*. Our thanks to Andy Gough who performed two spectacular aerobatic displays in appalling weather conditions.

Congratulations to Justin Wills for coming second in the Standard Class at Euroglide.

Although S&G is safe at the moment, our first issue of the club magazine produced by R. Bridges was excellent and very professionally presented.

M.W.

ESSEX

July saw our first visit to the Ludwigshaven Gliding Club in W Germany, the town being twinned with that of Havering, Essex. During our fortnight's stay we were given receptions by the Mayors of Ludwigshaven and Dannstadt, and several aerobatic displays by the German Champion, Rudi Mathes.

A competition for the fastest 100km triangle was won by David Appleby in his Cirrus. Congratulations also to John Easy who did five hours in the German K-8 to gain his Silver C.

Our thanks to the Germans for their generous hospitality and we look forward to seeing them in Essex next year.

The good soaring weather during August and September produced an abundant crop of Silver C legs with John Pavelin completing his Silver C in one flight. The season was rounded off with a super barbecue.

A.J.

ESSEX & SUFFOLK

This soaring season has been our most successful, particularly for cross-country kilometres flown. A few years ago it was almost unheard of to venture away from the site, but nowadays at the "puff of a cu" it's maps out and lines drawn.

Many badges were claimed during two weekends in August. Alan Grout (Skylark 4) and Peter Madams (club K-6) both flew to Duxford and gained Silver height and duration to complete their Silver Cs. Mark Matheson (Skylark 4) went to Duxford and hung around for five hours to complete his Silver C, a few days later doing an out-and-return to Kettering. Cedric Vigar (Skylark 3) gained his Silver duration and distance, taking the Duxford route.

Bob Bousefield (K-6E) had two Diamond goal attempts, declaring out-and-returns to Leicester and landing at Market Harborough and then Cambridge on the return legs. To prove it was possible from our site, his partner Mike Lee repeated his journey of last year. Then Russell Richards (Std Cirrus) completed his Diamond goal on the Leicester out-and-return.

Our training programme has continued strongly with three new assistant-rated instructors, Colin Smith, Eric Lewis and John Wallis, to help out with the good intake of *ab-initios*. First solos have been flown by Bernadette Planques, Doug Wright, Neville Bleach, Frank Bodiam, Simon Barnes, Stephen Wallis, Ed Leach and John Hooper. Several of these pilots have since flown Bronze hours, including Bernadette who has converted to Swallow and is our first regular lady pilot. Dennis Burchett has completed his Bronze C.

As this goes to press, members are trekking to Challock and Usk in search of wave and ridge soaring.

C.C.S.

HIGHLAND

After a leisurely summer, we find ourselves breathless with achievements this autumn. Bill Hill went on an instructors' course in June, thus adding a much needed assistant instructor to our ranks. We have three new solo pilots, Chris Macrae, John Lambert and Martin Knight; Chris has already made the big leap from the T-21 to the Swallow.

Neil Collier did his Silver distance on one of the reasonable thermal days we have had this year, whilst a lucky northerly airflow one weekend gave some other Silver C hopefuls a chance to do their five hours on the Ben Aigen ridge. Ruth Tait, John Macfarlane and George Hobben completed their five hours on the Saturday, and Jim Tait did his on the Sunday—quite a weekend for the Taits! Bill Meyer went all the way to Lasham for his five hours, and did it two days running for good measure! We congratulate Neil Collier, Bill Meyer and Jim Tait, who have now completed their Silver Cs.

The prospect of the move to Dallachy Airfield (disused—very!) has generated a new verve and enthusiasm in the club members and, whilst waiting for the wheels of the planning authorities to grind out a satisfactory conclusion, we have made a start on clearing the ground. We have also overhauled and modified all our ground equipment and lavishly painted everything (except the gliders) green for ground camouflage, and yellow for aerial visibility. All being well, our next report should give details of our move accomplished, and expatiate on the joys of flying at Dallachy!

R.E.T.

IMPERIAL COLLEGE

It hasn't been a bad summer for us as a club. Our larger membership means that if a day looks promising, even a weekday, pilots

suddenly emerge from holes in the ground or forgotten corners of the hangar, and fly. Nigel Leak and John Chapman finished their Silver C. Tony Crease took the Dart round 500km, unfortunately forgetting to turn on the barograph.

The club fleet has just finished a month's stay at Aboyne. The first group had a lot of inclement weather but still had three Gold height days. On the last of these there was some thin high cloud cover which cut off the sun, leaving those flying with both canopy and feet iced up.

News is coming back that the second party in the first half of October had flights to 21000ft and 25000ft.

A.P.P.

INKPEN

At the time of writing the long awaited Public Inquiry into our planning appeal is nearing its end. The original estimate of two days has already stretched to four, but we anticipate and hope that one more will end this interminable and frighteningly expensive legal wrangle.

No holds have been barred in the battle. On the evening of the third day some kind soul visited our site and used a hammer on the aircraft in the open hangar and our club Blanik and two private ships were extensively damaged. Common vandals do not travel a mile or more in a howling gale to get their kicks, so we must obviously draw our own conclusions as to the culprits.

On more pleasant topics, 1975 has proved to be a super soaring summer for us with Inkpen "standard thermals" popping all round. Ray Hunt, our CFI, eventually got that elusive Diamond distance and followed it up with a very creditable performance in the Lasham Regionals, his first competition venture. Tony Mattin managed his Diamond goal and Nick Moreland completed his Gold with two super flights within ten days.

Silver Cs were gained by John Francklow, Geoff Nicholls and Keith Baker, while several members managed one or two Silver legs. A notable achievement has been Sue Whittingham's first solo—she now joins her parents in a flying family trio.

A concerted effort to increase the club ratio of instructor/members has resulted in four successfully completing instructors' courses. All agreed that at no time can these BGA courses be classed as holidays, however, the ultimate satisfaction is well worth the effort.

Ralph Jones' mishap at Euroglide proved to us lesser mortals in the club that he is human after all. Tough luck Ralph, but better at Dunstable than in Finland next year!

R.W.

KENT

August and September produced some of the best soaring weather of the summer when the persistent NE winds gave way to south-westerlies. The change came in time for our second task week which, though not as successful as last year, produced some good flights. The winner in League 1 was Tony Moulang (Dart 17R) with Peter Howeland (K-6CR) coming first in League 2 for pilots up to Silver C standard.

Silver Cs have been completed by Peter Howeland, Ken Munday, Dick Verity and Rob Judd. With four club two-seaters, we are sometimes short of instructors so are pleased Dave Harris, Jo Janzo and Ron Reilly are currently doing an instructors' course at the club.

The clubhouse development scheme has at last received planning permission. When we can afford it this will allow us to extend the hangar and clubhouse, increase the workshop area and lay down tracks to the trailer and caravan parks.

C.B.

LONDON

We soon settled down after all the domestic excitement and turmoil of Euroglide to the serious business of utilising the last of the season's thermals—and some good soaring weather has continued right into October.

Early this month Ron Page, our winter winch driver, completed his Silver C when he flew to Colchester. One of the best days of the year was in September when Frank Pozerskis (ASW-17) did a 100km triangle in 46mins (130.5km/h). Unfortunately, although observed, he didn't carry a barograph. However, just to prove there are good days in September, he flew the same task after tea in 47mins.

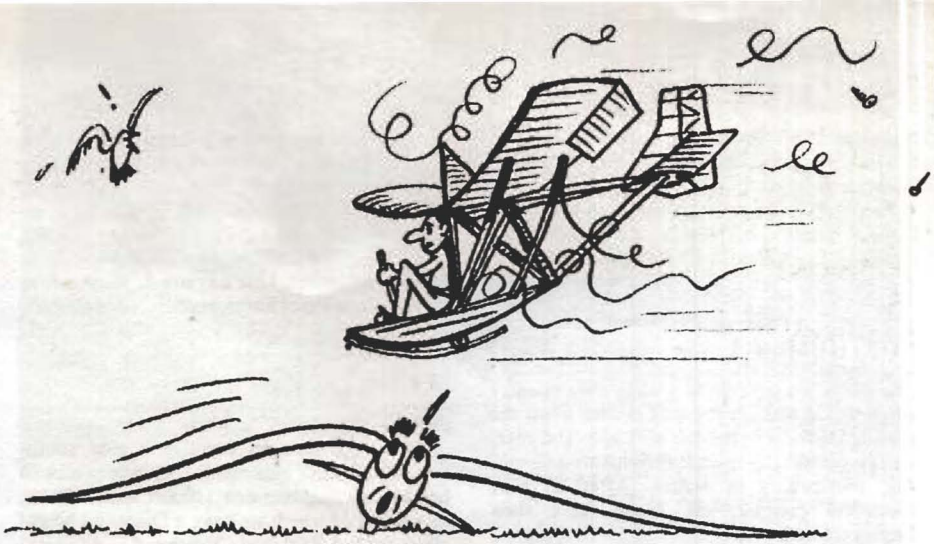
Our vintage glider fleet now totals ten with the arrival from Germany of a 1934 Rhönbussard. The club Prefect, now owned by a private syndicate, will soon be in the air after 3½yrs being repaired. Originally it was thought the work would take three months and cost £300—however both calculations were vastly under-estimated.

It is hoped to hold the fourth International Vintage Rally at Dunstable next August. A variety of tasks other than cross-countries are being planned, such as height gains and spot landings, the emphasis being very much on the preservation of the gliders. Any ideas would be appreciated by Angus Monroe who is to be Contest Director.

Dave Elliot, who attended one of John Jeffries' many high-performance courses, was set a task to Husbands Bosworth for Silver distance. The other pilots landed successfully, but Dave arrived at a good 5000ft and continued to soar on. When he reached the top of the half mil map he thought he better land. Admittedly he got his Silver distance, but missed his duration by only 15mins and his Gold distance by 50km!

We are sad to say goodbye to our two lively winch drivers, John and David, who are off to university, and to our resident tug pilot, Robert Lee, who finally managed to find time to take a few gliding lessons and went solo two weeks before leaving.

D.Y.



The Norfolk Club goes modern!

MIDLAND

There was a noticeable lack of catapult days in the middle of the year, but towards the end of September some good winds right on the hill brought out the bungey rope, plus a share of stiff legs and aching lungs again. There was some decent wave on Sunday, October 5, when Don Brown got 19500ft asl, pressing forward into Wales as far as Corwen. Louis Rotter also used the wave that day for an out-and-return to Llangollen. September 21 saw five successful cross-countries in thermals.

Fashions change in Silver C distance destinations. At one time from here it was more often than not Nympsfield, but now Long Marston has become more popular. Rick Swancott flew there on a difficult day in September. Nigel Palmer had a stab at Long Marston too, but fell down beyond Droitwich—not quite far enough for the one-percent bit.

The K-8 is not back on the site at the time of writing, but several pilots at K-8 stage have converted to the Oly 2B and are enjoying the change of type. The club is in the process of acquiring a Pirat. Something of a syndicate shake-up is going on too, with more fresh gliders due on the Mynd this autumn.

Finally, congratulations to Bob Scarborough on getting his full rating.

W.J.T.

NORFOLK

The East Anglian summer began on June 7 and for the next 14 weeks we had almost continuous glorious weather, particularly on Sundays. Then we had our open day . . . September 14. We suffered the worst possible conditions that any slow-moving depression sitting over Tibenham could produce.

As promised, James Stewart flew in from London to open the show, but we were only able to provide a few aerobatic displays at very low altitude. Our score is now three out of four open days ruined by the weather, but we will probably try again next year.

The excellent soaring conditions before, and after, the disaster-day have produced many badge successes with N. Riley completing all

three legs of his Silver C in one excursion, and M. Butcher doing the same in two flights on consecutive days.

The latest glider to be airborne at Tibenham is the Dagling . . . and it is said that "if you haven't flown a Dagling—you haven't lived!"

C.E.H.

NORTHUMBRIA

One of the advantages of gliding over country where Hadrian built his wall is that when the wind is south-west and the air stable and cool, we can count on the wave that forms over our site, particularly in winter. After a fairly successful summer, old hands have their fingers crossed.

Our club had two successful excursions to Brunton—an ex-RAF airfield on the Northumbrian coast. There was enough thermal activity to give reasonably extended flights. We are grateful to Andy Robinson, the farmer who gave us permission to use the site.

Congratulations to the Mayor of South Tyneside who at 70 had his first flight in a glider when he went for a trip in the club's Blanik at Brunton.

As well as six new solo pilots and six further Bronze Cs, we have two new Silver Cs, Mike Stott and Bob Grey.

R.R.H.

OXFORD

August 8 was an unforgettable day for two of our members. Mike Randle (Phoebus) and Richard Hall (Skylark 4) found cloudbase at a staggering 8200ft. Richard easily collected Gold height with a climb to 15000ft. while Mike soared to 20000ft for a Diamond. During the first of our three flying weeks, five hour flights were made by Peter Morgan and Tom Lamb, with deteriorating weather conditions on both occasions.

We are grateful for the friendly help of the Enstone Gliding Club, our hosts during the following week. Many members obtained their first experiences of aerotowing, autotowing and runway landings (not to mention the fun of actually driving the towcar). John Giddins flew the Skylark 3 to Podington, 41 miles away, for his Silver distance attempt. Later, while consulting "Piggot" for the details of the 1% rule, he realised that he had failed, as his total height loss was over 2200ft!

The task week organised by Richard Cowderoy was generally agreed to be a great success. More than 3000 cross-country kilometres were flown by our members. There were several entries from the RAF Chilterns Club (we even let them win on at least one occasion!) and the modest entry fees were spent on the prizes. One of the club K-13s competed dual in several of the tasks, landing away at Biggleswade on August 27 with Sue Wyeth and CFI Peter Brooks. On the same day Peter Morgan flew to Biggleswade in the Skylark 4 to complete his Silver.

Another "double" was performed on the previous day at Henlow, when Rob Cook flew the Skylark 3 to complete his Silver. Just as the retrieve crew (including the CFI) rolled onto the field, Mick Moxon (Skylark 4) cruised out of the evening murk and landed close by for yet another completed Silver C. The barbecue at the end of the week was a great success, in spite of the rain and thunder which threatened to douse the charcoal.

During September, Richard Cowderoy completed Gold C with a climb in cloud to 11300ft and Martin Brown flew his Silver distance to Twinwood Farm in the Skylark 3. Recent first solos include Peter Smith and Liz Rounding.

P.H.

SLEAP

Sunday, October 5, saw our "wave season" open with a flourish when in a 10kt south-westerly, four of our members made climbs to heights varying between 11000ft and 26700ft, as a result of which we have a Diamond height claim for Ian Paul (Std Cirrus) and Gold height from Ken Brett (Sky).

A review of our past 12 months reveals 414 launches, all aerotows, with the staggering total of 697hrs duration. When we consider that among our 16 flying members and seven aircraft we have obtained six Silver badges, one Gold height, two Golds complete, one Diamond distance, one Diamond height, and a Gold and a Diamond height awaiting confirmation, we feel quite pleased with our modest progress.

Our fleet currently consists of seven privately owned aircraft: Kestrel 19, Std Cirrus, Std Libelle, Dart 15, K-6, K-13 and a Sky.

We operate weekends only from Sleap airfield (Shropshire Aero Club—gliding section) and we extend a warm welcome to clubs or individual pilots who may care to visit us, but please first contact Ian Paul at Tarvin (0829) 40787 or Don Vernon at Crewe 67532 or 65423. We are also ready to expand a little and have vacancies for two gliders, either privately owned or belonging to a syndicate. Please contact us as above.

D.V.

SOUTHDOWN

With summer over, and various Southdown expeditions trooping off to Shobdon and Portmoak in search of wave, we look back on our first full season at Parham with considerable satisfaction.

Over 5000kms of cross-country flying have been recorded, this being many times more than in several years at Firle! Eight Silver Cs and countless Silver and Bronze legs have been gained, plus a large number of first solos and conversions to our Swallow.



The fleet has been increased by three more syndicate gliders, all in mint condition and which, between them, represent almost 40 years in gliding—a 20m Kestrel, Dart 17R and a Rhönbussard (circa 1937), the latter, we believe, being one of only two in the country.

We are very grateful to Ann Welch for her talk on cross-country flying and meteorology during our August course, and it was earlier that same evening that most of the club aircraft encountered wave up to about 2500ft off the South Downs, just south of our site. So, in addition to proving a very good thermal site during the summer, Parham has also given us wave on occasions (although not to Portmoak proportions!).

Congratulations to Fred Ashbee on his first solo flight in the K-7. No doubt he will soon join his son, Mark, on the Swallow list. Brian Hunt is the latest to convert to the Swallow, and Dave Connaway to the Oly 460. Richard Marsden landed only 85km short of a declared 300km, on a Pirat flight from Shobdon in September.

We hope for a winter of northerlies to utilise our ridge on the South Downs and to collect a good bag of Bronze legs and Silver durations!

I.D.B.

SOUTH YORKSHIRE & NOTTINGHAMSHIRE

We have made satisfactory progress during our first four months with encouraging badge flights and an increase in membership from 12 to 42.

Les Tingle and Bill Hemmings went solo during a weekend course run by CFI Tony Faulkner. John Cawrey gained his Bronze C legs within four weeks, Allan Hobson has a Bronze leg and Les Hill, who joined the Skylark 2 syndicate, flew his Bronze legs in the first flights in this glider.

Some members took the Capstan and Skylark to Portmoak in September. The weather was not good, but Howard Deakin did six hours in a Pirat for his duration and Chris Ruff achieved his first Bronze leg.

A second Skylark has been with us for the latter part of the season and we are grateful to two of the co-owners, Steve Evans and Allan McClelland, for their instruction and help.

The 22ft caravan we were given was blown over by a gale and damaged, but Harry Howarth is rebuilding it as a launch point control and mobile kitchen.

Saturday flying has now been introduced on two Saturdays each month and it is hoped to improve on this shortly. Any local instructor who would be willing to help out on Saturdays would be welcome and should contact Tony Faulkner on the site.

We are considering buying a hangar so that aircraft can stay rigged and safe this winter.

J.M.

STAFFORDSHIRE

The good summer has seen a steady increase in our membership but our total launches have not yet matched last year's due to the poor weather at the start of the season. We are taking advantage of the dry condition of the field to carry out further levelling and drainage work on our north-east run before the winter rains arrive.

As the summer thermals die out, so our hill is beginning to work. On one day in September the Std Libelle was rigged just too late for the thermals but spent nearly 3 ½hrs in hill lift.

Recent achievements include Roy Mountford going solo, Peter Chadwick gaining his first Bronze leg, Peter Lowe his second Bronze leg, and Alan Cliffe flying his Dart 15 to Northampton and then back-tracking to land at Husbands Bosworth.

F.B.

SURREY & HANTS

A verdict on 1975—a little less sunbathing with a few more cumulus and things would have been perfect; still whose complaining at 60000 odd cross-country kilometres? The most happy gliding event of the year was the gaining of a complete Diamond badge for Wally Kahn. He flew his 500km on the famous May 31 and his 5000m gain on October 5 during our Portmoak wave blitz, more of which below.

The Portmoak expedition is run for four weeks, about 20 gliders go, including three club ones, and a Lasham Super Cub to supplement the local launching facilities in times of great wave.

The great wave came on October 5 and stayed throughout that day and the next. What excitement, vast climbs, warm sun, no icing, strong rough wind gradients and big smiles all round. Below is a summary of what happened in figures but the atmosphere could only be realised if one was there. All launches were to about hill top height of 1000ft.

Pilot	Oct 5	Oct 6	
W. Dean	21300	20650	200km
W. Kahn	20200 + Dh	13000	
M. Cowburn	20000	15000	
C. Lovell	18400	16900	200km
P. Horne	17800	13600	
P. Thompson	17500	19500	190km
A. Purnell	17500	17500	400km
C. Lewis	16150 + Gh	15200	
P. Brigden	16100	9800	
P. Garnett	16100	—	
F. Sellick	16000	13000	
N. Stevenson	15500	12000	
D. Dooley	15000	15000	
B. Middleton	14400 + Gh	—	
D. Hills	13500	10000	
J. Partington	12900 + Gh	—	
G. Fryer	11300	13500	
B. Eppy J. Wardle	9000 (K-13)	—	
C. Cooke	8000	16500	
S. Partington	5700 + Sh	10400 + 5hr-	

Dh = Diamond height; Gh = Gold height; Sh = Silver height.

The following heights were also gained on October 6 by P. Gardner, 16200; D. Abraham, 13800 for Gold height; J. Stanley, 13000; D. Martin, 13000 for Gold height; C. Kovac, 12200; G. Paddick, 12000 and R. Whiting, 9500.

Many other flights on this day included cross-countries over the Highlands as the wave system allowed jumps upwind without too much height loss. Alan Purnell's flight was to Loch Lomond and Dyce Airport. The expedition continues as this is written and the westerlies are just getting organised again after a brief rest.

C.L.



The Swindon Club's new tug!

SWINDON

As you can see, we have acquired a new tug. We are pleased with its performance—it's capable of launching the entire fleet (including the hangar) to 2000ft in two minutes. Its only drawbacks are a rather high fuel consumption and certain difficulties getting aerotow retrieves from New York.

For the record, our club Skylark 4 landed at RAF Fairford in the summer. It was flown by Tony Bullock who, although he denies it, we are sure was thoroughly lost. Since it was late in the evening, BAC allowed him to store it in the hangar alongside Concorde. It was aerotow retrieved the following morning.

Incidentally, Fairford don't like gliders very much so it's not a recommended practice.

P.J.H.

TRENT VALLEY

We have three more Silver C pilots, Peter Fillingham (Pilatus B-4), Norman Jones (Skylark 3F) and Roger Mills (club Pirat), after cross-countries to a disused airfield near the East Coast. Roger, who had returned from an instructors' course the previous week, also gained his five hours on the flight.

Congratulations to Doug Scott on his Bronze C and to Graham Rudkin, Neil Rogers and Peter Clayton on going solo.

Following magnificent thermals produced by some of the biggest stubble fires we have seen, we have been frustrated by looking at wave just out of reach on our winch launch. The three tugs we sometimes use are all sick.

However, it has left us time to concentrate on the clubhouse and other facilities and we are now the proud owners of our first flush loo. We are also in the process of installing a generator for power.

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Finally, another new glider has appeared at Kirton—a Std Libelle bought by our Chairman, John Rice and John Swannack, a senior instructor.

J.P.N.

WOLDS

A relatively mild winter followed by a benign spring produced a considerable fledging of new solo pilots so that the queue shifted marginally from the twin to the single-seaters. The situation was alleviated by the timely acquisition of a K-6 so that the fleet now comprises two K-7s, a K-6 and a Skylark. A new syndicate Cobra also graces the hangar, the capacity of which is now the limiting factor in the number of aircraft on site.

A happy combination of availability of machines, an increased number of instructors and weeks of soaring weather, have produced the greatest number of launches, the largest number of hours and more successful badge flights than in the previous history of the club.

Regular summer visitors' flying evenings and our first ever open day and flying display were rewarding financially and in terms of recruitment to the club.

Wave is contacted more frequently now that we have the Condor tug and so as the memorable 1975 soaring season draws to a close the anticipation of duration wave flights begins.

We congratulate Bob Fox on his promotion to CFI and our newly qualified instructors David Williamson, John Durman and Brian Stott—the two last gaining their five hours from the site during the summer.

G.H.H.

WOODSPRING

A recent expedition to Germany resulted in Toby Fisher buying an immaculate Meise. This now brings our fleet to three club and two syndicate aircraft.

Three of our gliders are being taken to Usk in mid-October in search of wave. Our first six months gave us a total of 2275 launches. As our first year's target is 3000, we are naturally pleased with the result so far.

We have a second tractor and are hoping to build a twin drum winch in the near future, pending a grant. Also our MT building and workshop is now all but complete.

We recently held a successful wine and cheese party and are organising more social events and a winter lecture programme.

P.T.

SERVICE NEWS

BANNERDOWN (RAF Colerne)

July and August have probably been the most successful time in the club's 25 years. We have broken all our records with more than 4000km in 450hrs from over 2500 launches.

One of the best efforts was on August Bank Holiday when John Davies gained Gold distance and Diamond goal on an out-and-return to Leicester East, in what can only be described as barely marginal conditions for such a flight. This flight is believed to be our first Diamond Goal from Colerne. Two other notable flights were Bob Brown's Silver distance to Little Rissington and Al Mahoney's to Tarrant Rushton.

During this period, we have achieved five first solos, four Bronze Cs, nine Silver legs, and two Diamond goals, the second one by Roger Crouch during the Lasham Regionals.

Two more additions to our fleet are expected shortly, another medium performance machine to replace our K-6E which was lost in a field landing accident, and a Primary, now being restored to flying condition.

F.C.P.

BICESTER (RAFGSA Centre)

The exceptional summer weather continued late into autumn at Bicester with a Silver distance to Upavon achieved in mid-October by Lyn Daby, one of our American members, to add to the ten Silver legs gained in September.

The RAFGSA CFI's annual conference at Bicester in September was considered a great success, providing a forum for a cross-fertilisation of views and ideas with valuable contributions by guest speakers.

Two resident staff members, Bob "the carpenter" Welsh and Jim "MT" Oxberry have been posted and we welcome back Pete Abbey and Ron Newall as their replacements. Lloyd Russell's return to the USA will cause a large gap in our ranks—he weighs 220lbs—and he will be sadly missed.

The Club Libelle is extremely popular, being flown some 21hrs in September and currently on expedition at Aboyne with Terry Cawthorne and Mal Purvis. A Kestrel is joining our fleet and the fate of the K-8/K-6 machines is being considered. A replacement of one of the Motor Falkes is also a possibility, the Motor Falke having proved its tremendous value.

B.T.

CRANWELL (RAFGSA)

The club has been making the most of the kind autumn weather with plenty of good soaring. We now have four more Silver C pilots, Rob Farman, Dick Millington, Derek Gray and Charlie Wakeham. Charlie also completed his instructors' course. Newcomer Derek finished his Silver with a trip to Skegness in his own very rare Delphin machine. Several Bronze Cs are also well on the way.

Dick Millington and Brian McDermid received Whitbread awards and Dick Cole waved the flag for Cranwell in Euroglide. Next month we trek north to Portmoak.

Finally it's farewell to club secretary Steve Walker. Thanks for your help and good luck in the Navy!

E.G.N.

CRUSADERS (Cyprus)

A tremendous turnover of personnel due to postings has changed the faces in the clubroom and on committee meetings in one fell swoop.

The most deeply felt loss is Bill Dickson, our CFI for two years, who is retiring from the RAF after his next six months with the RAFGSA Centre at Bicester. As well as being our CFI, his spare time was spent as ground equipment member, aircraft member and collector of Avgas etc. His successor, Tony Clarke, is warmly welcomed.

Sadly we also lose Mike Barrett, Secretary and statistician, who progressed from *ab-initio* to instructor in 14 months. Our "Phantom instructor", Brian Ward, and Dick Acton, tug pilot, aircraft member and snatcher of gliders on soarable days, have also been claimed by the posting people.

Malcolm Brooke, Derek Smith and Mike Johnstone, who have all recently managed their five hours, have passed instructors' courses. Derek's wife Sandra took our Swallow to Silver height and gained her first Bronze leg.

Our ground equipment member, Graham Lawrence, claimed his Silver height on the same day and has completed his Bronze C. Bronze legs have also been achieved by Fred Shiel, John Mooring and John Mahoney.

We now have all seven gliders serviceable and flying, a tribute to the hangar work done in spare time by busy members.

G.E.L.

FENLAND (RAF Marham)

We have had two successful expeditions. The first to Swanton Morley, led by CFI Jim Pignot, gave us three Bronze legs, three durations, three Silver distances and four Silver heights. The most noteworthy duration was by Ken Ross who flew for 6½hrs and covered 182km to take him completely off his map. His first question on landing was "Where am I?"

Our expedition to Sutton Bank in early October, led by Paddy Hogg, was one of our most successful to the Bank. Six gained their durations to complete Silver Cs and Roger Staines got his Gold height in wave.

We have added three assistant ratings to our list of instructors, Carol Wright (our first female instructor), Steve Stevenson and Ken Ross.

Nigel Vernon got his first Bronze leg in our Prefect, flying more than an hour to over 3000ft. Congratulations to Stu Hoy (IS 29D),

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who gained his Diamond goal and Gold distance in late August, and to Ben Benoist who represented us so well in Euroglide.

Our statistics chart is looking great. We went over the top of our goal for hours and launches some weeks ago, as well as the goals set for Bronze and Silver legs. So far this year 13 members have completed their Silver badges—Pete Matthews, Ken Ross, John Martin, Tom Prochazka, Chuck Emmerling, Steve Stevenson, Steve Heppell, Ray Hudson, Russ Leaviss, Pete Bubier, Cory Bubier, Kim Slawinski and Pete Storey.

Tom Prochazka and John Martin are returning to the USA in the near future.

J.E. and C.B.

HUMBER (RAF Lindholme)

The good weather of 1975 was reflected in the fact that we have done a record number of cross-country kilometres and gained numerous Bronze and Silver C legs. Hours and launches are also up on previous years, and our stats member, Brian Jennings, has successfully completed an instructors' course at Bicester.

A syndicate has been formed within the club to buy a Cobra, and its arrival is eagerly awaited. A syndicate T-21 has also joined our ranks, owned by the Sheffield Air Scouts who are trained to solo standard to qualify for one of their airmanship badges. They and their Scouters are proving invaluable to the club.

Chris Gildea, our deputy CFI, on a trip to Aboyne in October, became the first person ever in the club's history to gain a Diamond when he climbed to 19500ft.

We are hoping to hold our annual dinner-dance on November 21 at the Hatfield Country Club.

K.M.G.

PHOENIX (RAF Brüggen)

Our Std Libelle is back on line after its accident on the airfield. Both pilot and glider are flying as well as ever.

Congratulations to Max Bishop on his full Cat and we welcome newcomers Kev Keily, another full Cat, and his wife Liz.

Our Swallow and K-4 have been sold and we are buying a new glider. Ken Mackay has retired as airfield catering executive and Luke Lucas, Jim Watson and Chris Johnson have taken over with Frankie Rae doing the supplies.

Another ridge soaring expedition to Vennebeck is planned for early November with a possible trip to the Alps for more Gold and Diamond height attempts.

It has been a good year statistically and although launches and hours are slightly down on last year, we have logged many more cross-country kilometres.

With the splendid weather conditions we are maintaining a good launch rate and on October 4 recorded 121 launches and 23 flying hours.

Ron Cawthorne organised one of his Chinese nights in September with 50 of us descending on a local eating house. It was a great success. The club magazine, "Crosswind", continues to flourish with contributions being made by many members. But please let's have some copy from you ex-Phoenix members.

Phoenix will see many changes in the New Year with Neil Stagg, Bob Jones, Ron Cawthorne and Tony North-Graves returning to the U.K.

A.M.

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WREKIN (RAF Cosford)

We had a very successful summer and are approaching 9000 launches and a total of 2000hrs flown.

Names in the news with Silver legs include Keith Buckner, Plug Burnell, Paul Deen and Keith Roots, while Dave Cottle has at last ended his long sequence of four hour flights and completed his Silver C! Recent Gold heights obtained at Aboyne and more notably from Cosford in wave on October 4 will help swell the list of Gliding Certificates.

The ladies too have had their share of the limelight, with Jennie Saunders gaining her Bronze C and Trish Platt going solo with five other members during an *ab-initio* course in September. We were pleased that her husband, Martin, was one of the five as both have made a very good contribution to club activity.

Departures have included Mike Osborne and Mike Darwen to Fenland, Frank Smith to solo flying, and Jim Eva, our Chairman, to Gan. Jim was presented with an inscribed tankard in appreciation for his considerable contribution to the management of the club over the last two seasons. While drinking Jim's farewell beer in the club bar, we were able to welcome Frank Kennedy back to gliding after a year's enforced absence. We wish them all well.

I.D.M.

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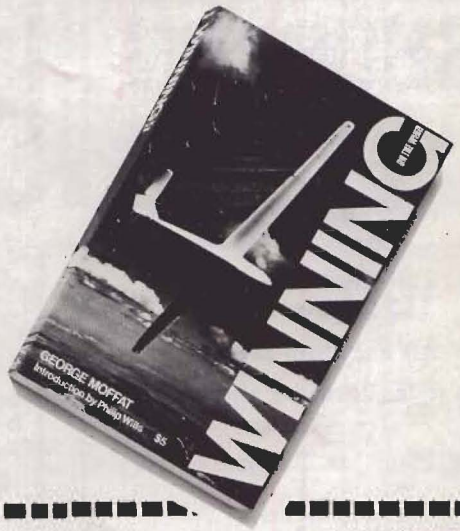
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