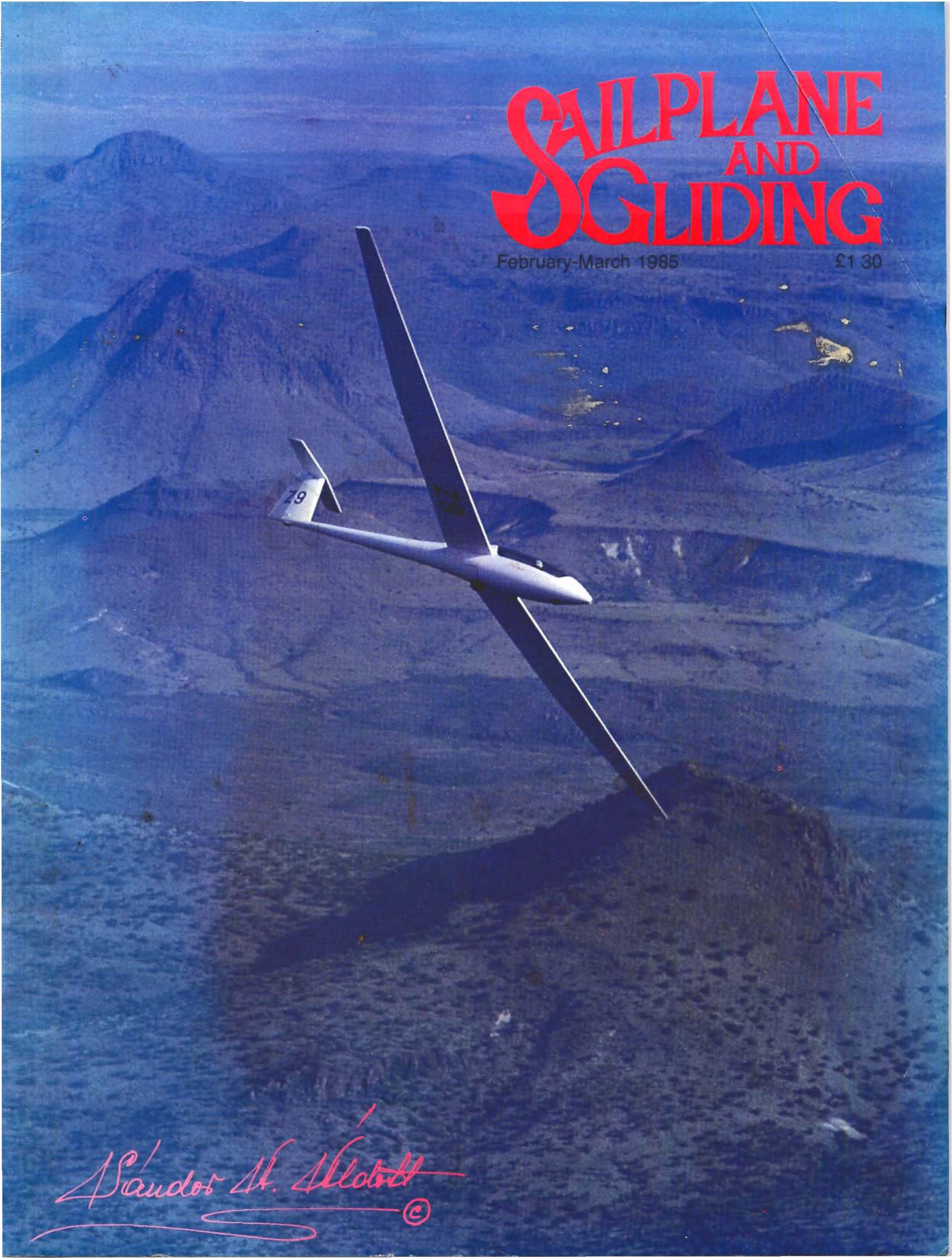


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Consultant Editors:
Alan E. Slater
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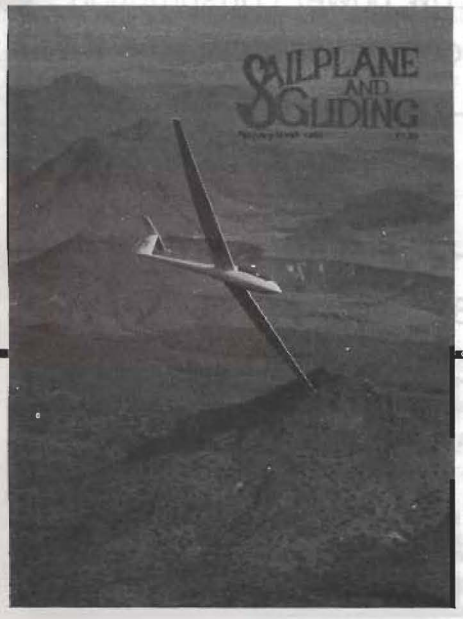
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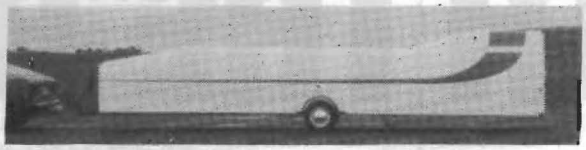
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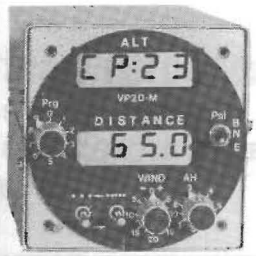
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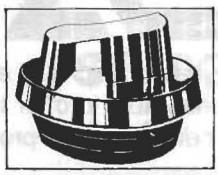
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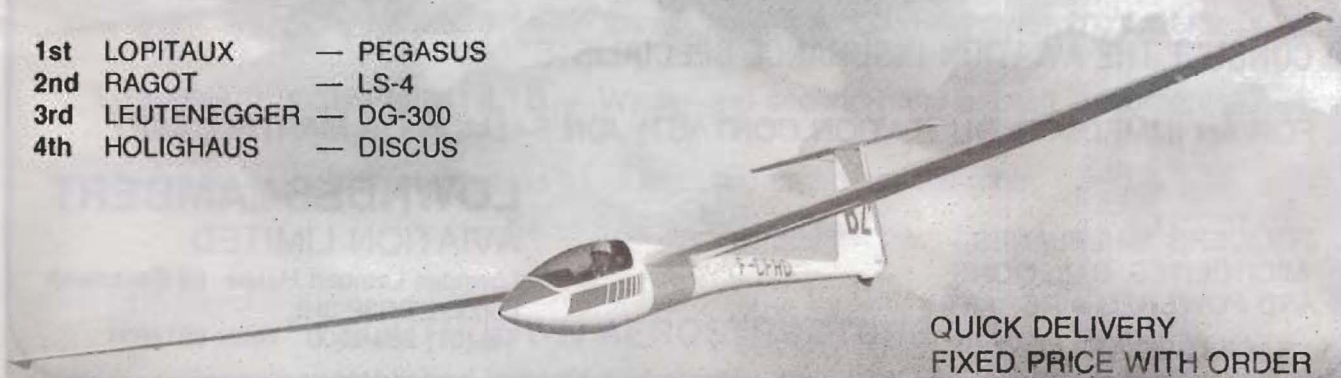
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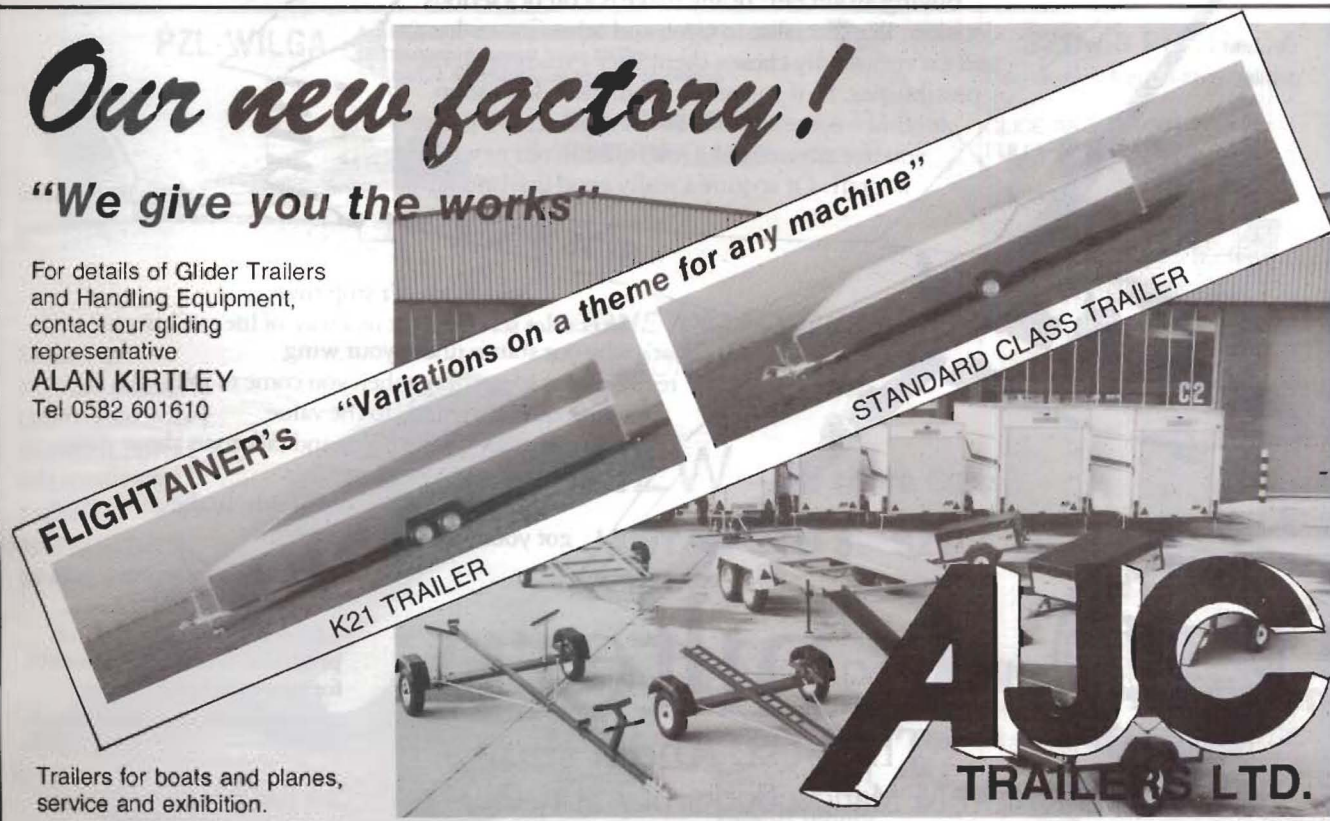
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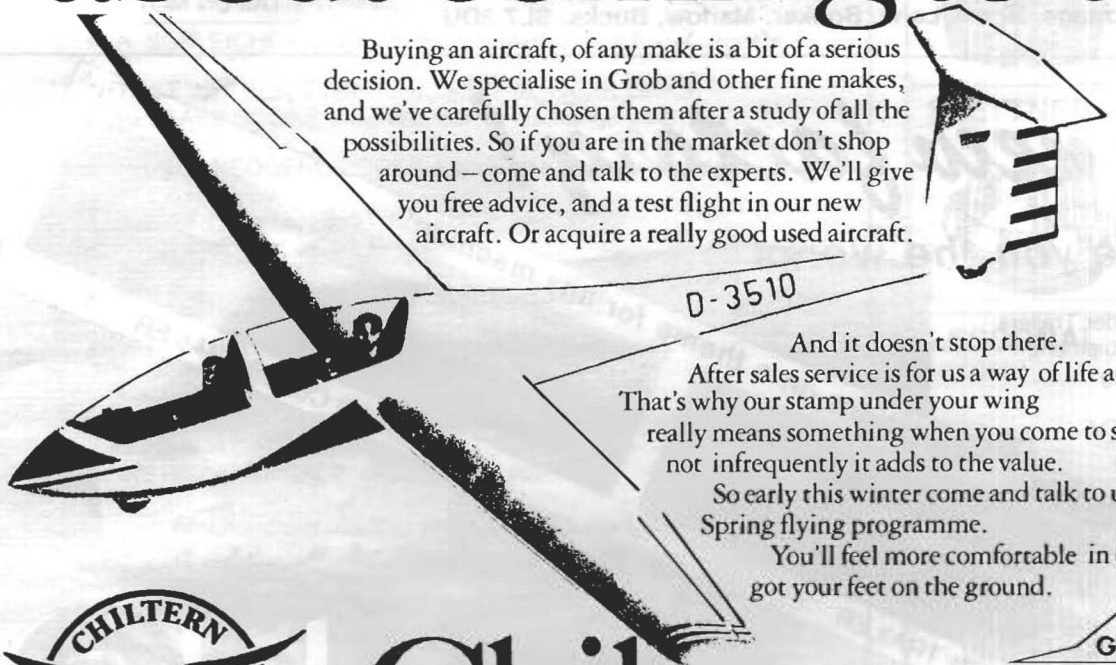
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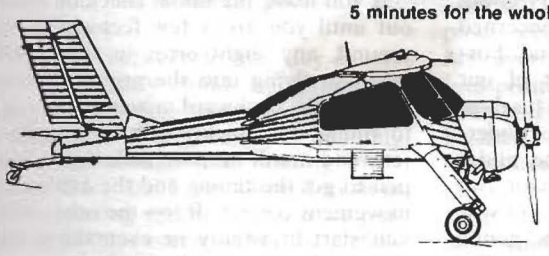
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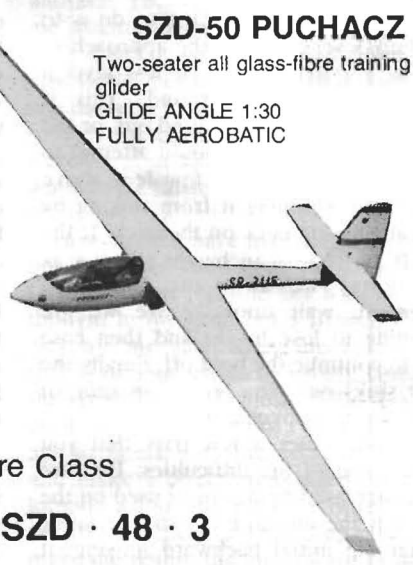
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BACK TO BASICS — Part 3

Those Landings

DEREK PIGGOTT'S popular series is mainly intended for beginners and instructors

There is only one real problem about learning to land a glider — you only get one landing per flight. A single flight gives you just one go at making a satisfactory landing and very little, if any, hope of finding out whether that good landing was chance or skill. Ideally you need a number of consecutive landings to make any real progress.

In order to make consistent safe landings you need to learn to recognise what is happening during the landing and to respond with the appropriate control movement. It cannot be done by learning the rate and size of the backward movement on the stick since this will be different for every landing.

Difficulties usually arise because of a misunderstanding of what you are trying to do. For example, if you are attempting to land on a particular spot you will always tend to fly the glider onto the ground instead of trying to keep it off as long as possible. Similarly, if you are trying to judge the landing attitude you will inevitably fly onto the ground prematurely.

What we are really trying to do is to gradually level out from the approach so that we are flying more or less level a few feet above the ground. This is known as the flare out, round out, or the initial check. Then we should attempt to keep the aircraft just a few feet above the ground, stopping it from sinking by gradually easing back on the stick. If the aircraft starts to gain height (known as ballooning) we stop the backward movement, wait until we *see* we are beginning to lose height and then ease back to continue the hold off. Finally the glider sinks onto the ground *in spite* of our backward movement.

It is only after a few tries that you realise some of the difficulties. Because of the increased flying speed used on the approach the elevator is extra sensitive so that the initial backward movement has to be very small, perhaps only 2-3mm. Most beginners overdo the initial movement on their first attempts. Unfortunately as the glider balloons upwards a few feet, they will respond instinctively by moving forward on the stick. This will usually result in a very rapid loss of height and a rather heavy premature landing. Hopefully your instructor is ready for this and is quick to stop you.

In order to land satisfactorily we have to learn to break that instinct. Unless you balloon upwards twenty or thirty feet you will not have time to prevent flying into the ground if you move the stick forward. Instead you should hold your hand still, wait, and as you see you are starting to sink again, begin another gentle backward movement on the stick to stop the sink as the glider reaches a height of a few feet. For most people this is easier said than done. It seems almost automatic to make a forward movement so that we have to unlearn this instinct. Only if the ballooning takes us very high or occurs towards the end of the hold off is there any need to move forward momentarily. As long as the approach speed has been adequate the ballooning movement is with the aircraft in an almost level attitude and there is no danger of stalling.

Whereas in normal flight the attitude of the aircraft is all important, during the landing we should cease to worry about the attitude and instead be concerned with our height above the ground. Fortunately the designers of most of our gliders have set the wing on the fuselage at the correct angle to suit the undercarriage. If the pilot keeps the glider from sinking while flying a foot or two above the ground, eventually it will sink and land itself in spite of his gentle backward movement on the stick. The touchdown will then be at a low speed and in a rather tail down attitude, landing on the main wheel and tail skid more or less simultaneously.

How far the glider floats during this hold off will vary enormously from landing to landing. Excessive speed or a very small amount of airbrake will result in a longer float and a greater tendency for the pilot to over-do the backward movement and so cause ballooning. Landing against a strong wind or using full airbrake will reduce the distance of the float. Since every approach is at a slightly different angle and speed and the round out is seldom started at the same height, no two landings can ever be exactly similar.

Learning to land is made far easier if the instructor takes over the task of planning the approach and also of using the airbrakes. If this is done it is an easy matter for him to make any changes in the airbrake setting to compensate for a slightly lower approach speed or for losing too much speed while ballooning. The ideal is that the airbrakes should be kept in a constant position for the final part of the approach and not changed unless it is really necessary.

"Don't get too close to the ground. Two or three feet is fine and then keep it floating as long as you can"

Changing the airbrakes at exactly the right moment as the glider starts to sink again after ballooning takes skill and practice and it saves time to get the landing right first and then to introduce the airbrakes. At this early stage of learning it is also important to try to arrange every approach so that there is a mimimum of about half airbrake for the final stage. This acts like a reserve of energy since by closing the airbrakes the wings develop more lift and less drag enabling the glider to fly safely at a lower speed.

If you leave the initial check or round out until you are a few feet above the ground, any slight error in timing will result in flying into the ground. Furthermore, the backward movement needed to round out quickly will have to be a jerk and it will be pure luck if you happen to get the timing and the amount of movement correct. If, on the other hand you start at twenty or even thirty feet and make the stick movement very gradual, the timing becomes much less critical. In this case the levelling out can be delayed or speeded up slightly as necessary by holding the stick still to allow the machine to sink closer to the ground, or by moving back a little more to stop it getting too close. When the aircraft is several feet above the ground and flying more or less level, it will start to sink as it loses speed. As it sinks, a gradual backward movement on the stick will stop the descent and this movement should be continued as necessary to prevent the glider landing. Too large a movement or making it too quickly will result in the glider gaining height. If this happens hold the stick still for a few seconds until the machine starts to sink again, then continue the hold off as long as you can. The glider will make your landing for you.

From the point of view of learning to land, ballooning is actually a good thing. When the glider starts to balloon the pilot can predict what is going to happen next and therefore be ready to make the right move. If you hold the stick still and watch well ahead you will see immediately the glider begins to gain height. Next it will stop going up and will start to sink again. So all you have to do is to be ready to make that gentle backward movement as you see it begin to lose height. In this way you know ahead of time what you will need to do.

There is usually plenty of time to spot what is happening and to make the control movements. Do not try to keep too close to the ground during the hold off. If you try to keep within a few inches like the experts you will always fly onto the ground and land prematurely. You must have enough time to spot that the glider is sinking and to make a move to stop it before it touches the ground, so you need two or three feet and not just a few inches. Later, when you are more experienced, you will detect it when the glider sinks only an inch or two and then you will be able to hold off closer to the ground.

At first this ballooning is annoying and rather alarming but the exaggerated movements up and down help to teach us to detect and recognise what is happening. If we become over-anxious about it we are most likely to fly into the ground hard if we happen to start to balloon. Often the root cause of a lot of these problems is that you are not looking far enough ahead. You need to look about a hundred yards ahead to be able to spot what is happening. If you look just over the nose you will see the ground rushing up towards you at the last moment and you will almost always over-control and balloon. A very quick glance sideways during the approach will often enable you to see how high you are in relation to trees or buildings nearby so that you can tell if you are still far too high to start the round out.

Remember, look well ahead; be gentle with the movements and don't leave the initial check late, but start gently in plenty of time. Don't try to get too close to the ground. Two or three feet is fine, and then keep it floating as long as you can.

Once you can make fairly consistent, fully held off landings without the instructor needing to change the airbrake setting, you are ready to progress to the stage of using the airbrakes and doing the planning yourself.

* * *

The next (thrilling) instalment will be about the various effects and uses of the airbrakes.

THE DAY I GOT AWAY WITH IT

JOHN DICKINSON, a pharmacist who has been gliding seven years and is in a Capstan syndicate at Lasham, describes how easily the inexperienced pilot can get into difficulties.

As it always seems to be the season for horror stories, and nothing gets a laugh like someone else's misfortune, I thought that my experience of a year or two ago might stimulate a little thought about safety, and how a novice pilot can get into difficulty.

It was a "between-fronts" day in late April, with early cloud, but promising enough for Ken Stewart's advanced course to plan an O/R to Salisbury. I was only hoping for enough local soaring for a Bronze C leg, but I was allowed to sit in on the briefing and at 10.30am we pulled out to the eastern end of the airfield together.

The cloudbase was lifting and there was a very slight crosswind which was starting to back just enough for us to consider changing ends. However, as I was ready to go, it was decided to launch me and change later.

I aerotowed out in the K-8, the crosswind giving no problems. I had decided to go to 2500ft, but soon found that cloudbase was much lower than I had expected. We picked our way through the clear patches until I released. Visibility was none too good, and my heart started to pound as I struggled to pick out Lasham through the murk.

I flew to the east of the airfield, so as to be in an upwind position for when they changed ends. By the time I'd dropped to 2000ft I ran into patchy lift and started to thermal. I watched gliders still being launched in the original direction, and my attention ratio of thermalling 50% — launch direction 50% soon meant that my height gain was negative.

I was down to 1100ft when I realised that they weren't going to change ends after all and that I was, for circuit purposes, well downwind. Now what to do? My overriding thought became to get into position for a proper circuit, as I'd been taught. I was less than a mile from Lasham, but heavy sink burnt off height to the extent that when I was level with the landing area I was only at about 500ft. I was about to start a skimpy downwind leg when I spotted a K-6 coming towards me. My turn was going to put me right into his path, so I delayed until he was past. I turned in, dangerously low, scraped over the trees and landed, shaking with fright.

". . . such a performance would have me playing the starring role in a funeral"

A figure detached itself from the group by the launch point and marched purposefully across the grass. I stood with bowed head as Roger pointed out, with some force, that such a performance would have me playing the starring role in a funeral, probably sooner than later. I was then relegated to the Falke for circuit planning training.

So what went wrong? First, I expected a set of conditions that did not materialise, and couldn't mentally adapt quickly enough to what I found. From then on it was a case of one bad decision following another. The low final turn was due to me attempting a circuit when I should have landed straight ahead from the downwind position. This followed the late decision to abandon thermalling, due to me not realising in time that they weren't, after all, going to change ends, while being flustered because of the poor visibility.

How could I have avoided it? Well, to put it crudely, what I had done had been to blunder off into the sky with never a thought in my head but a Bronze C leg. Not for me such mundane matters as that conscious effort to calmly consider the conditions and think "What would I do if . . . ?". Neither did I have the courage to break with the accepted pattern and make a direct approach for fear of looking a fool. It needed a little reminder like damned nearly killing myself to make me realise the importance of thinking safety first.

Of course, it could never happen to you. Well, I hope you're right.

PS. A fortnight later we watched a Nimbus hurdle the trees, overfly the launch point at about 50ft and roll to a stop next to the peri track. Needless to say, nothing was said, even though there had been two K-13s and an early solo K-8 in the circuit, so I'm going to tell you a

(Continued on p44)

Aerotowing Accidents and their Prevention

BILL SCULL, BGA director of operations

The second fatal accident to a tug pilot (see BGA News) has concentrated minds considerably. As a result a number of recommendations have been made, both training and technical, to minimise the risk of further such accidents.

How the Accidents Happen. How the accidents happen is really quite simple; the glider gets sufficiently high behind the tug to pull up its tail, However, it all happens so rapidly that the tug pilot cannot release quickly enough and, below a certain height — which may be up to 600ft or even more — the consequence is DEATH!

The factors which combine are usually a glider with a CG or belly hook, turbulence or windgradient. Given these circumstances a hasty action by the glider pilot to come back into position, especially if he gets low, may result in the situation shown:

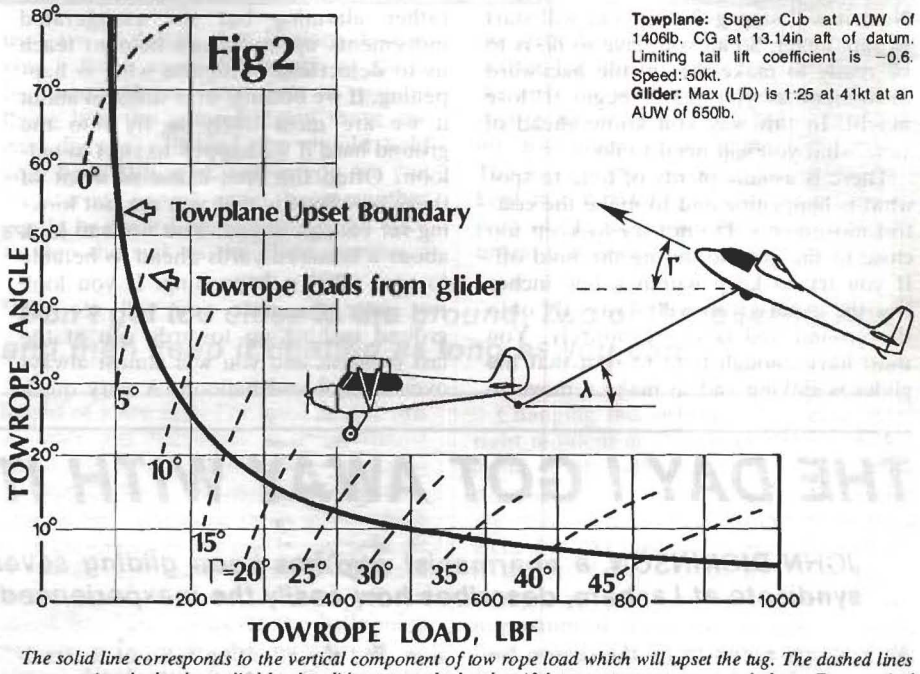
The Remedy — Technical. There has to be a solution. One of the more obvious options is to fit a nose hook to the glider; this need is greatest in the lower performance gliders (low wing loading, low stalling speed and with a high wing).

Another option, which has to be considered is the upward-releasing hook for tug aircraft. Renewed development work is taking place of the device previously detailed in the April 1980 issue of S&G, p73.

Recent analysis of this problem by Frank Irving suggests two possible protections; the graph (Fig 2) indicates the nature of the problem. There are three functions which determine the point where the situation becomes critical — "the aeroplane upset boundary"; the angle the glider assumes, the rope angle (to the tug's axis) and the load in the rope. The graph is interpreted as follows:

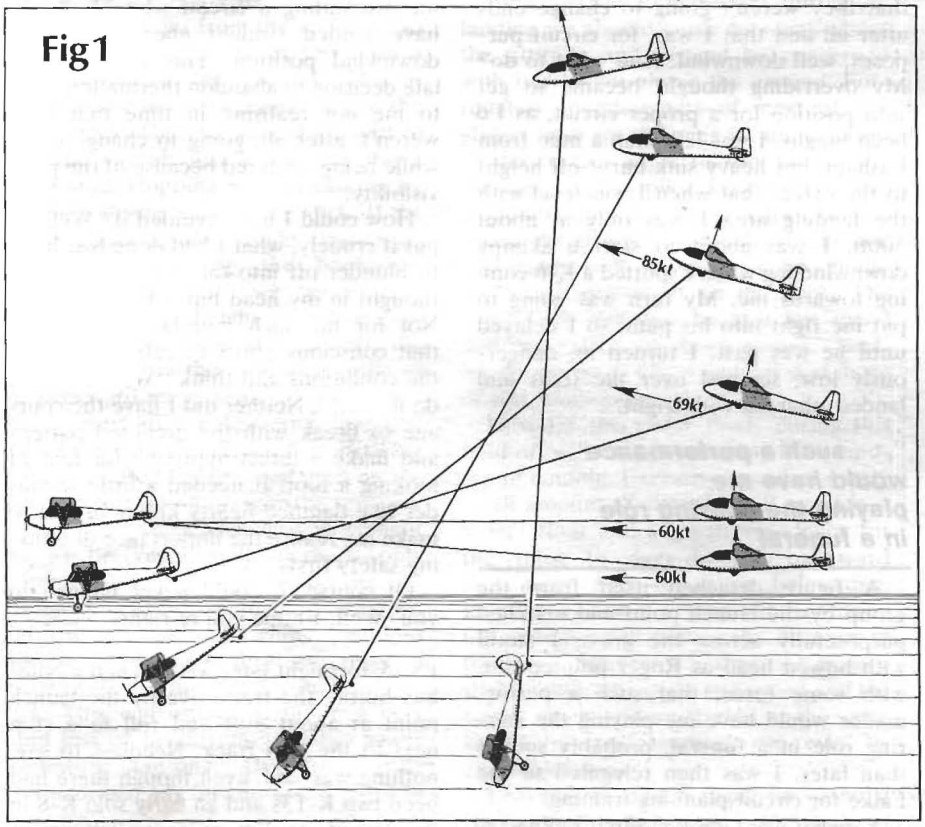
For a given glider angle, say 10°, the critical combination of rope angle and rope load can be read off the graph at the point the "10° line" intersects the aeroplane upset boundary; in this case 28° and 180lb.

However, the weak link required might not be strong enough to get a heavy glider rolling on soft ground. The answer appears to lie with the upward-releasing hook and the only contentious point is deciding the critical angle. At 15° there might be a risk of dropping gliders all over the place; further test work should establish the critical figure.



Towplane: Super Cub at AUW of 1406lb. CG at 13.14in aft of datum. Limiting tail lift coefficient is −0.6. Speed: 50kt.
Glider: Max (L/D) is 1:25 at 41kt at an AUW of 650lb.

The solid line corresponds to the vertical component of tow rope load which will upset the tug. The dashed lines representing the loads applied by the glider were calculated as if the tow rope were extremely long. For practical ropes, the loads are greater than shown – much greater for steep flight paths. The tug will therefore be upset, at small rope angles, by rather gentler manoeuvres than this diagram suggests. The tug pilot can be protected at the left-hand side of the diagram by an upward-releasing hook and from the right-hand side by a weak link.



In effect the glider "winch launches" behind the tug and, very quickly, the situation becomes divergent. ***The only possible safeguard is for the glider pilot to release.***

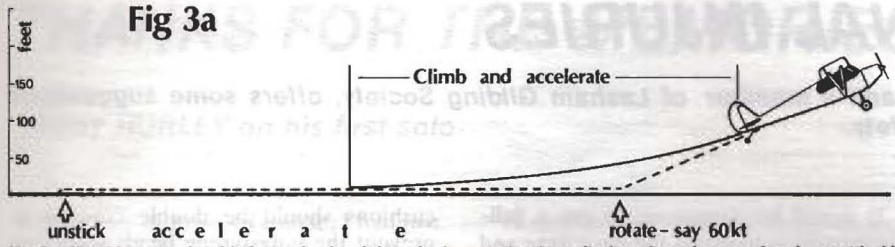


Fig. 3a. The tidier way, less likely to take the glider pilot by surprise, is to climb and accelerate rather than to "hold down" until climbing speed is reached.

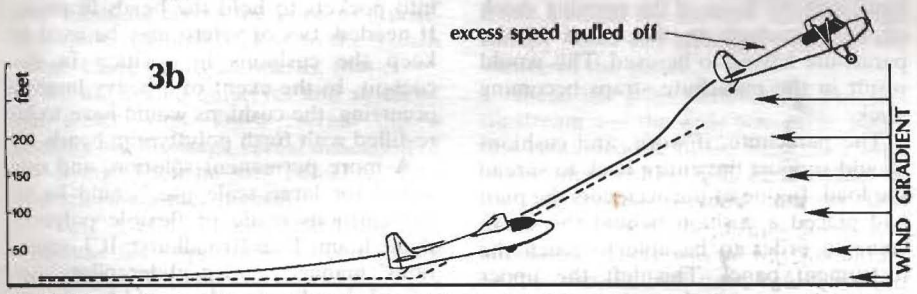


Fig. 3b. Whether the climb profile is "held down" or "climb and accelerate" the wind gradient will cause the speed to increase. On reducing the tug speed the glider will get well below the normal position.

Tug Pilots. Tug pilots should be conscious of the circumstances which can create difficulty for the inexperienced glider pilot. One sees, often enough, a glider that gets low on tow in the early part of the climb. The factors which contribute to this, apart from a lack of anticipation by the glider pilot, are:

- Poorly controlled transition from the level accelerating phase into the climb (see Fig 3a).
- The effect of the wind gradient; as you climb into it you gain speed (see Fig 3b).

Training Needs. This is where the real solution lies; not just in training but also supervision and check flying. To emphasise the point anyone with limited aerotow experience needs checking if at all out-of-practice; not just in his or her ability to keep station but *to cope with getting back into position in a controlled manner.* Failure to check this amounts to dereliction of duty as an instructor!

A visiting pilot may be the greatest risk. If visiting a wave site he may well fly in conditions which are outside his previous experience. Remember the critical elements are:

- Glider with belly hook.
- Turbulence or marked wind gradient.
- Hasty recovery (especially from a low position).
- Short rope.
- Experienced winch-launch pilot *reverting.*

The last point maybe needs explanation. A pilot with hundreds of winch launches in his logbook but only a few aerowtows may have a momentary aberration and forget he is being aerotowed! Mind boggling maybe but it does happen.

Training Recommendations. The Instructors' Committee met to consider various training proposals. The results of their deliberations are:

- Emphasise all aspects of the correct position on tow — in relation to horizon, tug's attitude and slipstream. Note that many of the standard books show positions no longer considered acceptable. (See the last issue, p259.)
- Place more emphasis on "boxing the slipstream" as an indication of where it is safe to go and with more emphasis on *unhurried corrections.*
- Demonstrate how low one can go in safety by:
  - taking off and staying just above the slipstream (or even in it).
  - taking off and going immediately into low tow and *have the student, or pilot being checked, recover to the normal position — slowly!*
- Inexperienced pilots converting to CG hook gliders *must be* given a dual check on CG/belly hook to ensure they can control the glider (against the tendency to pitch nose up).
- Be aware of the risks associated with distractions such as trimming — especially with a change of hands, raising the undercarriage or, even, closing the DV window. There is evidence to indicate that pilots lose their place behind the tug when doing these things.
- The final and most critical aspect is releasing the rope the instant the glider starts to go high. This is not emphasised enough in basic training, because situations seldom arise to warrant doing so and it is not easy to contrive circumstances which necessitate this action. The upshot is that very few glider pilots or, for that matter, tug pilots have had to release in anger and when the need does arise there may be a momentary delay before doing so. The consequence of that slight delay may *kill a tug pilot!*

THE "RIGHT" POSITION ON TOW

We have reproduced the middle section of Bill's picture sequence featured in the last issue, p259, because regrettably pictures 4 and 5 were reversed in the printing.



3. The "old" position — no longer acceptable.



4. Down again — almost to the correct position.



5. This is right! Still comfortably above the slipstream and allowing a good margin for upward displacement.



6. This is still above the slipstream and quite a good position to be in.

REDUCING SPINAL INJURIES

TONY SEGAL, a general practitioner and a member of Lasham Gliding Society, offers some suggestions for improving one aspect of glider safety.

There were two heavy landing accidents in gliders at Lasham in May 1984 which resulted in the pilots sustaining fractures of the spine. Luckily there was no injury to the spinal cord that could have resulted in paralysis. Having witnessed one of these accidents I have made some investigations into the problem. There are four aspects to be considered.

The seating position of the pilot.
Fully supporting the back by parachute and cushions.
The seat structure.
Cushions should be incompressible but deformable.

Frank Irving gave me some OSTIV research papers on the subject written by Dr Stedtfeld of Germany and presented in 1978 and 1981. I can do no better than quote from Dr Stedtfeld's summary:

"Statistics compiled in Germany show that spinal fractures occur in an unduly large proportion of sailplane accidents in which the occupant is seriously injured. The fractures are caused by substantial compressive stresses on the forward parts of the bones of the vertebrae above the lumbar region. The stresses are increased in some cases because of the more reclined seat attitudes utilised on modern high-performance sailplanes. Also on many sailplanes the seat-backs are so shaped as to cause the spine to be bent forwards (that is tending to make the back convex) relative to its natural shape. This uses up much of the spine's natural shock absorption capability with the result that a comparatively minor accident may be sufficient to cause fracture. Substantial improvement should be obtained by eliminating the initial forward bending of the spine. This can be done either by re-shaping the seat-back or by providing a suitably shaped spinal support, either as part of a parachute back cushion or otherwise. Such a support can be made of thermoplastic material of the polyethylene type, need be only 3mm or so thick, and can weigh less than half a kilogramme."

(I suspect there has been a misprint in the summary and the thickness of the support should be 3 centimetres and not 3mm.) I suggest this small lumbar support be made from polystyrene granules or from Dunlopillo DLR material (see later). Each individual pilot could position the lumbar support according to the shape of his own spine, and it could be held in place by friction, ties or velcro.

It would be dangerous to put a full-sized cushion between the parachute and the pilot's back. The cushion would collapse with the force of the opening shock of the parachute in the event of the parachute having to be used. This would result in the parachute straps becoming slack.

The parachute, if worn, and cushions should support the entire back to spread the load. In one of the accidents the pilot had placed a cushion behind the lower spine in order to be able to reach the instrument panel. This left the upper spine unsupported and a fracture resulted in this region. Modern slim-line parachutes give very good support.

Some glider-seats are poorly designed. If there is a parachute cut-out, as in the K-13, the lower edge projects into the pilot's back. Some gliders have an upward bulge in the seat to help accommodate the wheel-box and little can be done about this, excepting to re-design glider seats. The parachute cut-out could be filled with hard plastic foam or blocked off with suitably strengthened marine plywood. However, this may not allow enough room for tall pilots.

". . . an acceleration peak resulting in a fracture of the spine."

Cushions are widely used for comfort and to enable the pilot to reach the controls and are usually made of soft-foam rubber or other soft materials. In the event of an accident the pilot will continue downwards compressing the cushion. When the cushion is fully compressed the pilot strikes the seat itself. This will give an acceleration peak resulting in a fracture of the spine. The cushion may re-expand to give a second or further peaks which could coincide with a later phase of the crash.

Research into crash-worthiness of helicopters has shown the importance of absorbing energy by a progressive planned collapse of the structure, and that the aircrew need to sit on hard seats. The cushion material should be incompressible, but deformable to absorb energy. The information in the last two paragraphs has been given to me by Gp Capt Peter Saundby of the RAFGSA.

There are two types of cushion that may be used. One is a DIY solution and uses polystyrene beads obtainable from furniture shops or Woolworths. The cushions should be double covered to prevent the polystyrene beads scattering over the inside of the glider and divided into pockets to hold the beads in place. If needed, ties or velcro may be used to keep the cushions in position in the cockpit. In the event of a heavy landing occurring, the cushions would have to be re-filled with fresh polystyrene beads.

A more permanent solution, and one suited for large scale use, would be to use cushions made of flexible polyurethane foam. Tom Broadhurst, ICI operations' manager and a glider pilot, suggested that Dunlopillo would be able to help. Bob Ludman of Dunlopillo, Aberdare, called at Lasham to assess the problem. He has provided samples of Dunlopillo Low Resilience Foam (DLR 100) for trial in a K-13 which is underway at Lasham at the present time. This material is specified for use in aircraft ejector seats.

Modern single-seater gliders appear to allow for little modification with little room for cushions owing to the low profile fuselage. However, there may be room for a slim DLR cushion. Modern parachutes give excellent support to the back. A lumbar support cushion should be used.

Further work on the subject requires the use of an electronic accelerometer and a suitable test rig.

I should like to thank those mentioned in the article for their assistance.

BOOK REVIEW

The Book of Flight Tests by Alan Bramson. Published by Martin Dunitz at £12.95.

I always read avidly the flight test reports that appear in *Pilot* even though there is little chance of ever getting the opportunity to fly in some of the aircraft described. Now Alan Bramson has collected together forty of them for this book.

It is well presented with a handy glossary of the more familiar terms and bits of equipment and more than 100 super photographs showing the planes on the ground and in flight.

The nearest aircraft to a glider featured is the Grob G109, and this receives great acclaim, but the whole book is well worth reading, especially if you are considering buying any of the aircraft included.

B. H. BRYCE-SMITH

THANKS FOR THE MEMORIES

TERRY HURLEY on his first solo

It came as a surprise, of course. I had just made one of my better landings, managing to steer the old red Bocian, bumping and rumbling across the grass to a position quite reasonably close to the launch point. Close by my standards, that is.

We unbuckled ourselves and stood by the glider while Dave carried out a friendly but thorough verbal dissection of my flying. Then he said casually, "Can you afford another flight?"

"Yes," I said, thinking that I might as well take the opportunity to correct my latest batch of faults.

He nodded, then bent down into the rear cockpit, clipped up the loose ends of the instructors' seat harness and dragged the back section of the canopy closed. As I realised what that meant — it sounded like a cell door shutting.

"A sense of impending disaster, worrying as distant thunder . . ."

So this is **It,** I thought. But what if I'm not ready to solo yet? In another couple of flights I'll be sure about it — maybe — but right now is a bit too soon. A sense of impending disaster, worrying as distant thunder, swept through me.

"Just take it gently," said Dave nonchalantly. He turned and walked away, his parachute bulging untidily under one arm like a bundle of washing, buckles tinkling as he went, leaving me standing by the Bocian alone. There was a moment, then I recovered enough to tell myself — this is what you came for so get on with it.

I shrugged my shoulders quickly into the parachute (strange how difficult it had been to get into that in the early days), clipped up and climbed into the glider. My hands and eyes made the familiar movements over the controls and instruments, pausing momentarily on the trimmer. Should I position that differently to compensate for the empty back seat? No. The instructor sat directly over the centre of gravity. Therefore, no problem.

The checks completed I settled back into the narrow seat, took a deep breath and looked around. The evening air was quivering with the sound of larks and sweet with the smell of mown grass. On the port wingtip stood my two helpers, neither of whom had yet flown solo, their faces (I hoped) more tense than mine as they calculated how many flights would be needed to put them where I was now.

A sudden blast of sound and a wave of hot, oily air washed over me as Dusty started the Chipmunk and taxied out in front. I pulled the forward section of the canopy down and locked myself into the silence of the glider.

Ahead the grass flattened in the tug's slipstream and the wide bow in the rope, that reminded me of the belly that wind blows into a fishing line, drew tighter as the tug rolled forward and at that moment I knew the whole thing was impossible. There was no way I could fly on my own. Pull off now, before it's too late. My left hand jerked towards the yellow release knob but the movement was never completed. Very clearly I seemed to hear the voice of Peter, one of my instructors, telling me "You're too tense as usual. Have a little fantasy now before the 'plane moves and imagine what's likely to happen. If the nose starts to swing to the left you'll rudder to the right, and *vice versa.* Get your hands and feet going."

The rope came taut with a jerk and we were rolling, gathering speed behind the Chipmunk, grass blurring beneath the nose, the Bocian bouncing on its suspension, and then all suddenly smooth as it raised itself gently, easily, into the air. I was solo at last. And a brief moment later I was too high, dragging up the tail of the tug, preventing Dusty from lifting it off the ground. We were going to crash! Images of fire flared horribly inside my brain, numbing my reactions, until intelligence and memory reasserted control.

"Ease it down," Tony had said it only last week. "Ease it down now, and then stay there. A little stick pressure is all that's needed. Next time set the trimmer a fraction further forward."

Together the Chipmunk and the glider floated safely over the boundary hedge and began the slow climb to 2000ft.

"If the rope breaks now," I could hear Laurie reminding me, "You'll just have to do the best you can, but in another couple of seconds you'll have a choice of good fields." I glanced down briefly, reluctant to take my eyes off the tug, and there were the fields, long, level and easy to reach. And, of course, the rope did not break, but slowly I began to slip sideways out of position and in an attempt to get back I over-corrected and slid out to the other side. Now what?

"How many times have I told you," Mike's voice was irritable, "Make small corrections. Small corrections and check. Got it?"



Terry, who is in construction management and currently working as the co-ordinator for the new terminal complex at Gatwick Airport, is a member of Coventry GC. He went solo in June and bought a share in a K-6CR in August.

I'd got it. Once more the Chipmunk was floating calmly in the centre of the perspex as if painted there.

As the altimeter needle swung up to the 2000 mark I had a brief pang of nervousness at the prospect of pulling off and leaving the tug which by now seemed familiar, friendly and safe, but training overcame hesitation and I yanked the release twice, rolled to the left and retrimmed. The tug flicked over into a dive and fell away, becoming rapidly smaller like a pebble dropped into deep water.

For a few long minutes I was alone in the sky savouring the pleasures of sun, space and altitude — hearing nothing but the air whispering around the glider with a sound like silk sliding across warm skin.

Where's the airfield? Ten minutes on my own and I'm lost.

". . . the parked gliders glittering in the evening light"

Another well-remembered voice came to my aid "Locate it first by the sun's position." He said it like a man repeating something for the millionth time. I checked, and there was the airfield with the parked gliders glittering in the evening light. It must have been there all the time. Thanks, Reg.

I turned the Bocian towards home, careful to co-ordinate stick and rudder, and then flew straight and level. No. The nose was swinging off course.

"You're paddling the rudder." Who'd said that? They'd all said that at some time or another, I decided.

"Relax and enjoy it. Nice and smooth, that's the way." Les, of course.

Flying carefully, I drifted into the high-key position from where I could look down the chimney pots of the village, see the silent cars in the streets, fields with sheep like scraps of dirty cotton wool, and a flash sudden as lightning as an angler's line flicked out over the

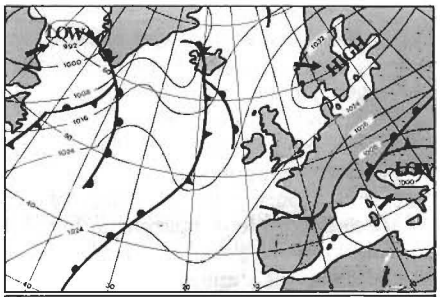
(Continued on p15)

GOING FOR GOLD – the old-fashioned way

DIANA KING recalls a flight last summer in her Olympia 460

It was really John Williamson who started it, by saying to me "If you've got an old-fashioned glider, then sometimes you have to fly old-fashioned tasks," as he sent me off on a dog-leg 300km attempt in my Olympia 460. I failed that time by 55km, but I'd been bitten by the romance of the downwind dash and I started planning others.

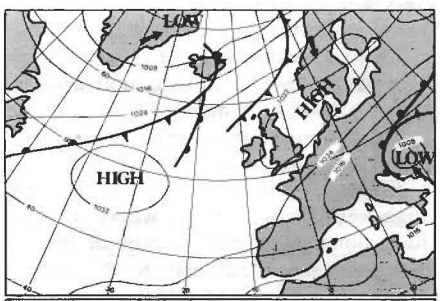
The idea of flying to Plymouth came up in the second week in May because the forecast over the previous two to three days looked as though it was going to be good at the weekend but with strong E to NE winds. (Not a good direction for a straight line distance from the Mynd — they didn't make amphibious 460s.)



Noon — Thursday 10 May 84

There was high pressure to the north and east of the British Isles, with low pressure over the continent but well away from us. A NE airflow commonly gives good conditions at that time of year, so I started to think how I could make use of the conditions in spite of the wind strength and direction.

I decided that somewhere around Gloucester for a TP would involve the minimum of crosswind flying, and Phil and I worked out that with Aston Down as the TP, Plymouth Roborough (described in Pooley's **Airfield Guide** as a grass field) would be about 302km.



Noon — Saturday 12 May 84

On Saturday the forecast was still good but with winds of up to 30kt at 2000ft; I worked out a triangle of velocities and decided that, in theory at any rate, it was impossible to complete the first leg, assuming my normal sort of cross-country speed (about 50km/h in still air, and that's being optimistic!). I reckoned I'd end up in the Irish Sea first! So I stayed local that day, practising in the very strong conditions — it was quite hard work just staying in the same place.

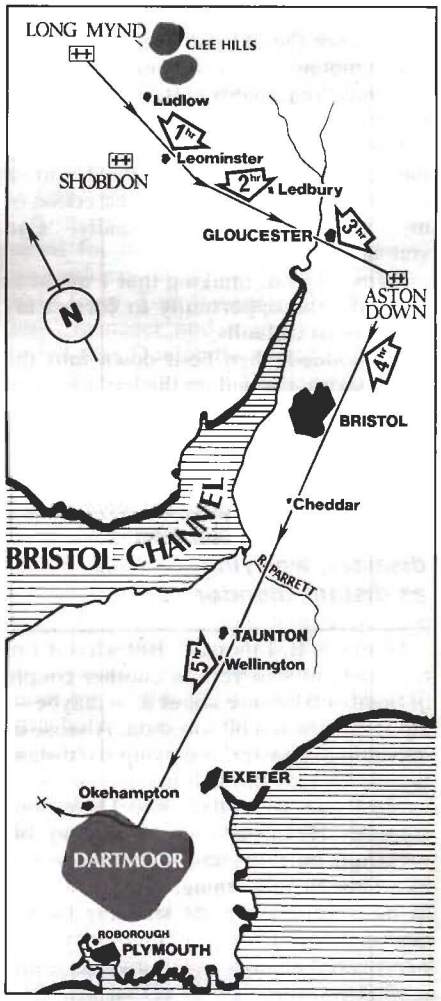
That night was a club committee meeting, so I didn't get to bed till late and in the morning I didn't feel energetic at all. But Phil kept pushing me in the direction of going, and the forecast was good again, with lighter winds. The only bother was talk of high cover moving west over the West Country. When I pressed the Birmingham Met man for more details, he said that he thought it would move away by the time I got there. In contrast to Saturday, the sky was completely blue which didn't encourage me, but eventually I was persuaded to take a launch.

So far that morning no one had stayed up at all, but just as I was about to take off, the duty instructor told me he was sure there was a thermal just to the north of the winch point, although he hadn't managed to reach it. (How he knew I have no idea.) So at the top of the launch I pressed straight into wind and when I was practically out of range of the launch point, flew straight into a whopper of a thermal — 6-8kt right up to 5500ft asl. So I thought I'd better go!

". . . after Ludlow I just flew and flew into sink . . ."

It felt rather odd flying determinedly towards the Clee Hills in order to get to Leominster, but that was the amount of correction needed, with the 90° crosswind of 25kt. It went nicely as far as Ludlow, some dolphining and a couple of climbs, but after Ludlow I just flew and flew in sink until I was east of Leominster and down to about 2000ft asl. I had practically decided to drift down and land at Shobdon when I found a tiny bit of lift and as it drifted me over Leominster it got better and eventually I climbed away again back to about 5500ft.

After that, with it being still blue and such a strong wind, I thought I'd better try not to get low again and in fact the lift was more regular from then on so it was fairly easy to stay high but still keep up



the required speed. I had calculated that I ought to aim to achieve 30km/h on the first leg and 80-90km/h on the second, and I had decided that if I reached Aston Down later than 1600hrs, I would land there as there would be no prospect of completing the task. After one hour I called up that I was at Leominster (exactly on time) which apparently caused much consternation at the Mynd, as of course no one else had worked out the speeds, and they thought I couldn't possibly make it if I was so slow!

The second hour, to Ledbury, was fairly straightforward — there were beginning to be little hazy bits of cloud to help and the lift was very strong. As I approached the Severn Valley I could see it looked very unpromising ahead, so I took a cloud climb (the clouds were getting quite well developed) to 7000ft to try to get across to the clouds on the other

side. I was glad I had because there was heavy sink for miles, but, strangely, the next thermal I got was actually over the river just west of Gloucester (three hours out). So far the view hadn't been particularly good because, although it was very clear, I was flying into sun near the inversion, and in fact this was the case on the second leg as well. But as I crossed the river, the view down the estuary was quite spectacular, with the water all glittering into the distance.

Leaving Gloucester I was still on schedule and I saw Nympsfield almost immediately. I could also see the bright pink hangars of Aston Down away to the left and had to stifle an urge to fly directly towards them instead of about 40° to their left! That last little bit of the first leg was really the hardest because I was getting pretty tired with the constant battle with the wind and I knew I was still only 100km out at the TP, after 3½hrs in the air. Perhaps because I was a bit tired, I made a terrible pig's ear of taking the photos and took ages trying to get them right (successfully, as it later turned out).

Then with rather a boat-burning sensation, I turned downwind at 1600hrs. In about half an hour I was abeam Bristol and saw the suspension bridge and Filton with its **enormous** runway. It made me feel quite nervous seeing it although I was well outside the area.

Over the next hour or so the country rushed past underneath. The thermals were strong and well marked by cloud and the only problem was that I was freezing cold — freezing level was about 4600ft and I was operating between 4000ft and 7000ft. Cheddar Gorge and an almost perfectly round reservoir nearby showed up well and I was impressed by the sight of the River Parrett, with some very large looking ships on it. At Wellington I was still on time, but the sky ahead looked a bit odd — sort of wavy, and some remnants of the high cover that had been forecast which I'd seen moving away in front of me. However just beyond Wellington I got a really strong thermal to 6500ft (this was at 17.30hrs) so it looked as though the lift would continue to work for long enough to get to Plymouth. I was only an hour out from goal on my calculations.

So, beginning to feel confident, on I went to the next cloud, and it **didn't work!** I couldn't really believe it, but I still had plenty of height and I went on and tried about another three or four and they were very weak. Because I'd had such a fast climb at Wellington, I kept expecting to get something good again — there was no indication that the atmosphere where I was was very different from how it had been at Wellington. (Thinking about it afterwards, I believe I'd caught up the effects of the high cover; the people where I eventually landed said it had been a dull day, so I think that the ground had never got warm enough. But it was odd that the sky didn't show it more positively; although it looked a bit wavy and different, there were still clouds which looked to be suitable.

I kept going, still hoping to get another climb, and in no time I was right at the edge of Dartmoor. Then I was really stuck, because I couldn't get above 3000ft and I had 20 miles of unlandable country to cross with no guarantee of lift on the way. I fiddled about for a bit seeing if there was any way of doing it but the John Willie calculator and my nerves agreed that it didn't seem like a good idea.

I looked at the map and there seemed to be plenty more land to the west, so I abandoned any thoughts of Plymouth and went off towards Okehampton, managing to maintain 2500-3000ft in little wisps of lift off the higher ground.

". . . nasty little fields and lots of trees . . ."

I crossed the army camp at Okehampton, meeting a helicopter as I did so and I just kept drifting on, conserving height as much as possible. I would have liked to have gone over the valleys to give myself more range, but they're all rather confined with nasty little fields and lots of trees, so I had to keep over higher ground where the fields were better. By this time I was field spotting as I went along, only going on to the next one if I had managed to find enough height to do so. I was still at 2000ft asl. Suddenly I thought that field I'm thinking about looks rather close! A hasty sprint at the contours on the ¼ million map and another hard look out of the window convinced me that the ground below me was about 900ft, and there wasn't anywhere lower to wander on to. So I thought I'd better stop. A nice big field, slightly uphill, straight into wind, with a cottage at the end where they poured hot drinks and fruit cake into me to try to stop my teeth chattering.

Meanwhile Phil had decided that I would probably reach Plymouth (having heard nothing to the contrary) and drove straight there, to find a large airfield with tarmac runways, arrival and departure lounges etc! It's changed a bit since our edition of Pooley's was published. They were very helpful though; they were expecting us because we'd phoned for permission, and the controller on duty (who was a glider pilot) couldn't have been more helpful, phoning the Mynd to pass on messages, and generally taking a very friendly interest.

So that was that. It was disappointing to fail by so little (15km) but more than ever before it convinced me that I can do 300km on the Oly. The only great mistake in the planning was to pick a destination beyond a tract of high unlandable country — it's quite possible that I could have made it if it hadn't been for Dartmoor. But I enjoyed the flight tremendously; the fascination of doing a dog-leg or straight distance is that you see such a lot of the country, and there's such a variety. It gives you a sense of travelling in a way that a closed circuit never does. If you can afford the retrieve and have a willing crew, have a go! It's an unforgettable experience.

(Continued from p13)

canal. It must be the opening day of the fishing season, I realised.

"From now on watch your speed, mister. You nearly stalled us in once before on the base leg." Okay, Guy. That's something I'll never forget.

"Keep looking out," Dave said.

"Don't cramp the circuit," Les reminded.

"Watch your speed, mister," Guy warned.

A quick glance to the right. A white blur — faces turned up in my direction from beside the parked gliders — silver shimmer of the propeller spinning on Dusty's Chipmunk.

"Don't lose co-ordination now that you're low." Mike's voice, reproving as always. Shut up, Mike. This is going to be a beautiful final turn.

"You're doing well." Peter always said something encouraging. "Your flying is getting quite good. By the end of the year you'll be in the Astir."

Speed. Angle. Look out. Airbrakes. Aiming point? Oh, hell — aim at the whole damn field which now rushed up towards my feet and, following a marginal round-out, struck the undercarriage with a thump that made me wince and hope desperately that not too many people were watching.

No voices were needed now to remind me to fly the glider until it stopped and I held the wings level, prolonging this flight for as long as possible, until, inexorably the left wing drooped to the grass and it was all over.

I opened the canopy to the familiar sound of larks and the distant stuttering of the old yellow tractor lurching across the field to tow me back.

A week ago — it seemed a lifetime now — Tony and I had landed after a particularly spectacular flight. He had climbed out of the glider and looked back into the vivid evening sky where we had just been soaring and said, more to himself than to me, "It's bloody marvellous what we get from flying." He shook his head in wonder at the thought. "All this for just tenpence a minute!"

IN PURSUIT OF A SILVER C

Part I – The Distance

By September MARY MEAGHER was getting desperate then, when hope was nearly gone . . .

It was humiliating. As the summer weeks went by everyone else but me made steady progress, got away and flew down to Lasham for Silver distance. "Nothing to it" said Mike Beech smugly. "Got it all in one, too — distance, height and the five hours too." Rob Jarvis showed me his barograph trace — very impressive, too. "Your turn will come, Mary," he said kindly. But I was beginning to doubt it.

Week after week I would think "this is the day!" and make elaborate preparations. Water bottle, seat cushion, fig rolls (fig rolls are just the thing to take on a cross-country — no messy fingers, but lots of energy content). Hat and glasses. A decent parachute that didn't weigh two tons and feel like a sack of rocks tied on your butt. And the barograph.

Alas, the barograph. I was beginning to feel the barograph was a diabolical complication designed by the BGA to humiliate the unmechanically-minded half-baked chicken-hearted glider pilot. First smoke the paper. No. First *find* the paper (or cut one to fit). Then locate some old sticky tape and matches and creep into the smoking shed, which is a dingy little box behind the parachute shed. Why it hasn't burned down long ago I'll never know. After burning your fingers and dropping bits of flaming tape on the floor, the paper is covered with soot and so are your hands. Shove the delicate assembly back into the case (this time try *not* to bend the arm back) and go find an official observer to sign and seal it. At first you feel quite important doing this. "Bernie, would you sign my barograph?" But keep coming back day after day saying "Bernie, would you sign my barograph?" and he begins to think I'm an idiot.

Last week Dave Watt saw one of my traces after another attempt at Silver distance. He found it extremely amusing. Got a good laugh. First it went up. And then it came down. All the way down. Not even a wiggle in between. Very funny. Just you wait, Wattie, I'll show you yet! The course students waiting their turns smirked at each other. Here she is again, heap big smoke and no fire. Lots of impressive preparation and noise about going cross-country, and back on the ground in ten minutes. Just you wait, smirking students, one of these days I will leave **and I won't come back!**

Brave talk, but the weeks rolled by and no day was just right. Booker is in an awkward spot for attempting Silver distance. The prevailing winds are westerly. In a K-8 you've got to fly downwind, it won't go upwind. Fly east from Booker and you end up at Heathrow, which has a nice big runway, but can you imagine landing there in a little glider? To the north-east there is Luton Airport and to the south-east Gatwick airspace, to say nothing of Farnborough tucked up against Lasham. To get to Lasham you've got to fly west round Reading to avoid crossing a jet flight path, and that's not easy. When the weather changed and the north wind blew, it blew too hard shredding the thermals. The south wind usually brings clouds and rain. Booker Regionals took up the best week in August. I nearly got away one day. Brian Spreckley was getting impatient and said he would *show* me the thermals if I just followed him down to Reading, and that would have worked, too, only I forgot to switch on the barograph. Try doing that in mid-air! Can't reach.

"Just you wait, smirking students, one of these days I will leave and I won't come back!"

I was seriously considering towing my glider to Swindon and coasting back to Booker — at least that would take advantage of the west wind.

Worst of all, the days were getting shorter. Nights were getting longer. Mary was getting older. Despair was setting in. And then, when hope was nearly gone . . .

Thursday, September 13. Bright sun at Oxford but still misty over the Chilterns. Wind from the south, light to moderate. Weatherman said it would get cloudy later on. I found last week's barograph in the shed, still sealed and signed, with the pathetic little bump still there that marked last week's humiliation. Bernie said I could use it again without resealing, Mike Philpott and Andy Brown promised to come and get me if I got anywhere, John Wills came down from a jolly in a K-13 and said "You can make it today, Mary, it's 4 up!"

So I didn't mess about, I got my act together without delay, and Tara tugged me up over Borstal, and I thought I detected a bit of lift at 1600ft and released. The barograph was ticking away, right side up. A wide band of cloud formed a street, but which side had the lift? I tried the west side, no luck. Found a bit on the east side, lost it again. Down to 1000ft. Down to 900ft. Over the dump again, disgusted. Started the circuit. And there, just there, found lift. Not a lot, but enough to regain launch height. And now, downwind from Booker at 1600ft; if I didn't turn back, I would be committed to landing out. Should I go back and clean the canopy? It was pretty grimy and 1600ft was not very high to make a decision to leave for a cross-country. In fact it was pathetic. I'd probably end up in West Wycombe. Dither, dither. But there, over Wycombe, was a K-13. In it, though I didn't know it, was Bernie Fitchett and Andy Brown. And the K-13 was marking a thermal. Right, I thought, here goes.

Bernie and Andy saw me coming and Bernie did his best to show me the way to go by climbing to cloudbase and setting off down the line of lift under the cloud street. I followed them up to the cloudbase, which was about 2300ft, but didn't go down the street because I wanted to get into the sunlight over the plains, and so I headed north by compass on track for the 50km goal of Cranfield! On my way at last! Conserving height, and heading for a nice round cloud, I crossed the open sky to the next cloud street. And made it, too, only just. Nicely established under the street, I thought I knew where I was. That must be Aylesbury over there. And there's the Chinnor cement works behind me. Where is Dunstable? Couldn't find Dunstable. I got out the map and tried to read it. Must get a set of bifocals. These glasses are OK for distance but I can't see the names on the map. Anyway, I don't have to worry about the airways, 2300ft is all we'll get today. The main thing is not to get near Luton. Keep heading north till you cross the M1. And look out for Milton Keynes.

I crossed to another street, and almost didn't make it, but found the lift after having selected a splendid landing place — the vast lawn of a stately home. I wasn't sure whose stately home it was, a

wide park with trees, the mansion house, perhaps it was Chequers? Later they told me it was Woburn Abbey, and if you land there, you might end up in the lion park, which would add a new excitement to outlanding. (Should one stay in the glider while the lions prowl round, or climb out and run like hell?)

I didn't see Cranfield until after I had gone past it, and maybe it was just as well because they were having a busy day with an aerobatic display and all sorts of traffic. Met a couple of aeroplanes north of Cranfield, buzzing round but not dangerously near. I got a good lift from the end of a stubble fire, and crossed the M1. There was Bedford — I knew it was Bedford because I delivered some books there and noticed the brickworks. Nobody could mistake the brickworks, it's got about thirty chimneys all smoking at once. I checked my map and there to the north was Bedford/Thurleigh Airport. I could have kept going but I knew I had made the distance and Bedford would be far enough; best to come down and minimise the retrieve. I looked round carefully for traffic to establish the traffic pattern at Bedford but there wasn't any. Not a sausage. Not so much as a Piper Cub. Anyhow I thought I would keep away from the ends of the runway, just in case anyone was coming, so I set up a nice long circuit from 1200ft and began my approach to land on a nice long bit of grass, not too far from the tower. But as I drew closer to the airport, I began to be really impressed by its size. It was certainly big enough. Could I possibly be mistaken? It couldn't be Luton, it must be Bedford, but what was little old Bedford doing with a great big runway like that? Oh well, Derek Piggott says in his book "Pick the largest suitable field available." Bedford has a runway two miles long!

I turned base over a lot of temporary outbuildings and slid over a lot of knobbly bits and pieces of masts and antennae and hardware stuck in the grass, and came down on a long clear bit, but it was miles from the tower. I got out and unscrewed the lead weight from the cockpit floor and wrapped it round with the seat cushion to weigh down the wingtip, and then looked round for the reception committee, but nothing moved. No sign of life. All round the aerodrome, a ten foot chain link fence, and no way out. Perhaps the place was locked up for the weekend and I would *never* get out!

But there were some cars parked behind the outbuildings, and some workmen, so I walked over and they sent me to the gaffer, and he took me to the tower, and they told me to go upstairs, and when I finally found my way to the top, they all looked round at me and said "Are *you* the glider pilot?" And a policeman came up and said did they want to make a report? He took the details and everyone said it was all right, just an unscheduled landing, and they would look after me.

I went down to meet the Station Commander, Wing Cdr Roger Beasley, who looked me up and down and decided I was harmless, and was most kind. It seems Wing Cdr Beasley is a glider pilot, and tows gliders every weekend with a Tiger Moth. I said I had landed at Bedford because I saw the double cross mark on the map for glider operations and thought it would be okay, but he said that it was a top secret experimental Royal Aircraft Establishment and even to come on the base one had to have security clearance.

Dave Watson, Air Traffic Supervisor, took me under his care, and said we could arrange an air retrieve, but Booker was short of tugs that day, so I had to wait for my crew to arrive with the trailer. It was a fascinating place, RAE Bedford. They let me sit in the tower and watch the jets make 300mph low passes over the runway, and I sat in the radar room and watched them talk down a plane to a perfect blind landing, and they brought me mugs of tea, and took me to the Officers' Mess for a sandwich, and had me sign the visitors' book, just after AVM R. L. Lees, MBE, FBIM, RAF, Air Officer Commanding. Mary Meagher, GGP, WAP (Granny Glider Pilot from Wycombe Air Park).

Actually I was very lucky to arrive at a quiet moment. Mike Philpott and Andy Brown came with my car and the open trailer before dark. Mike was very good at taking the glider to bits and we got back to Wycombe by 9.30pm. I tied a tarpaulin over the open cockpit (it's open when the wings are off), but that didn't stop the rain next day from filling up the tailplane and getting into the wings. Caught a rocket from Brian Spreckley for leaving the glider out in the rain.

RESOLUTIONS FOR THE NEW SEASON

GOODIE TWO-SHOES

I'm hiding behind the ridiculous pseudonym because I haven't the courage to let anyone else know my intentions for the coming season. Anyway if they know who I am they will be waiting for me to discard my good intentions long before March is half-way out. But I am serious. My faults are shared by half the gliding world and it wouldn't do any of you any harm to indulge in a little introspection during the dreary days of February. Then you too might emerge a better gliding person.

★ ★ ★

1. I might be over 40 and an instructor, but I'm going to put in a few days of winch driving. I'm quite happy to have a wire launch though gave up winch driving with my twenties. A good day is for flying, not sitting on the ground. But someone has to, so it's back on the winch rosta for me — nothing too strenuous but half a dozen duties a year wouldn't harm anyone. Really the young winch drivers who take the bulk of the launching responsibility in our club are the very members who should be gaining every minute of air experience.

★ ★ ★

2. I hope to be a bit more generous about helping others de-rig. I usually fly for longer than I intend (forgive the mild boasting) then rush off in a hurry. Most other members seem better about this, so this resolution is probably exclusively mine.

★ ★ ★

3. Although I have more than 500hrs I am going to have the occasional dual flight with a senior instructor. Like my driving, I have skipped into some bad habits over the years and need checking out so I don't pass them on to others.

4. I'm definitely going to stop elaborating on my flights and giving infinite details to fellow pilots and my family. Others can go on doing this, but I'm opting out. Half the stories we pass round the bar expand with the telling and we end up believing our own exaggerations. *It would be dreadful if we became as boring as other sportsmen.*

★ ★ ★

5. I'm going to take out a subscription to S&G instead of relying on picking up the occasional copy from the club. In the winter months I miss out. Then I will make myself read all the articles on safety. It should be required reading for all glider pilots. (Hear, hear, we're all for this resolve. ED)

★ ★ ★

6. I'm a committee member and will put my weight heavily behind the concept of

(Continued on p44.)

Thoughts on the Supacat Winch Design

DAVID CLAYTON has been designing winches since his Cambridge University days and was responsible for one used at Lasham in the late 1950s. A winch he designed in 1962 has so far given the Devon & Somerset GC 150 000 launches.

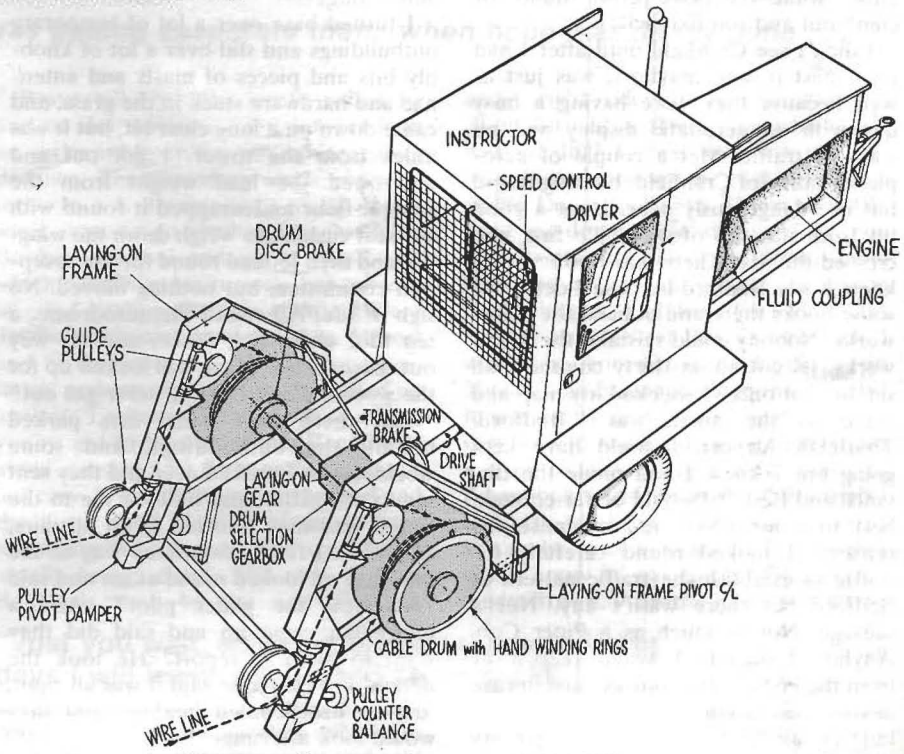
In the old days winch launching was largely for training flights; anyone who wanted to do some serious soaring was apt to have an aerotow to get the extra height and also to get started in a chosen spot. Getting away from a winch launch was the exception. Perhaps then there was less need to be concerned about the difference in operating cost between a tug aircraft and a winch. Now with sailplanes of higher performance and improved soaring technique it becomes increasingly usual to get away from a winch launch and the more expensive aerotow may be unnecessary. Hence signs of a revival of interest in winches.

It's increasingly usual to get away from a winch launch and the expensive aerotow may be unnecessary

For some years now there has been a tendency for the heaviest gliders to get heavier and for their take-off speeds to increase. When airborne they are able to make use of greater pulls from the winch. The permitted strength of weak links in some cases has risen to recognise this situation and the power needed to give a good launch to these heavy, fast machines has naturally increased too. The present-day winch designer must stop and think carefully about how much wire tension and how much wire speed he must provide for, bearing in mind that as well as the big machines, which naturally set the upper limit to required winch performance, there are still slower and lighter gliders which are entitled to expect proper launches too.

For many years after the Second World War much winch launching was done by Ford V8 engines; indeed they could almost be said to have been the standard winch engine and noble service they gave. Power outputs varied a bit but were probably about 80bhp, perhaps 100bhp in the case of the largest of them. Later, in the 1960s, it was usual to think of a diesel engine of the sort then used in the typical lorry of the period giving Max power of perhaps 120bhp. Many of these also gave good service and were generally able to launch the gliders of the time in all or nearly all conditions.

Now things have moved on again and it seems to be necessary to use an engine with a Max output of about 180bhp to be sure that the winch will not be found wanting by the big ones. To be quite confident of a good take-off it is suggested that we should design for a Max wire speed of 95fps. If we allow for 15% losses, this suggests a wire tension at Max speed of just short of 900lbs. If that is enough for take-off and initial climb, it is certainly enough for the less arduous conditions when there is a head wind or when the glider is a less demanding one. Let us consider, therefore, designing engine and transmission so that we can achieve a wire tension up to 900lbs or thereabouts at any speed, from nothing up to 95fps. At Max tension and Max speed the engine will have to be doing its utmost; at any other combination speed and load the engine will be eased off to provide what is required.



Engine doing its utmost

Going back to the days of the Ford V8 winch, it was usual at the time to use a dry clutch and gearbox after the engine just as in a lorry or car. Not being practicable to change gear during a launch it was necessary to decide on the gear before starting, perhaps 2nd for windy days and 3rd for no wind days. When 3rd had to be used the initial acceleration stage was inevitably heavy on the clutch and replacements were often necessary. It was also easy to produce an unpleasant jerk in the transition from take-up slack to all out.

On windy days it was both necessary and desirable to use a lower gear, not because a windy day required a greater pull than a calm day, but because the engine could not run slowly enough towards the top of the launch if it was driving through a fully engaged clutch. The lower gear also, of course, eased the work of the clutch at initial engagement. Later, fluid couplings, torque converters and automatic boxes became more readily available and it was possible to contemplate an arrangement involving gear changes during the launch. Sometimes a transmission direct from a car would be used, torque convertor, three-speed automatic box and all.

One of the disadvantages of this set-up is that if the torque convertor is doing its converting and a low gear is used, the wire pull can be excessive at low speeds and the winch driver has to use his skill to prevent overstressing. It is by no means necessary to provide so wide a spectrum of pull and speed as is required for a road vehicle. Indeed as suggested before, the same Max pull is required at all speeds from zero to full speed. Torque amplification at low speeds is not needed. If the engine is capable of exerting the Max pull at Max speed it will be

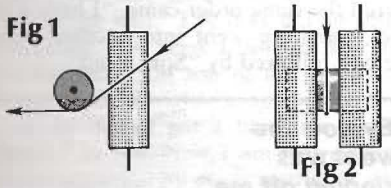
able to do so throughout the speed range, provided we put into the transmission line a hydraulic coupling to enable the engine to keep within its usable speed range when the wire speed is very low or zero, as it will be at the start of the take-off run and again perhaps at the top of the launch on very windy days.

"... we must be content with less pull"

If we have to use an engine which is not fully powered for the job it will obviously not be able to exert as much pull at Max speed. We cannot reduce Max speed or we shall not get some of the gliders off the ground in flat calms — so we must be content with less pull. In this case there may be a good case for a torque convertor so that, although deficient in pull at high speeds, we can get all we want at lower speeds. But for a fully powered engine the direct hydraulic coupling provides all that is needed.

So far we have tried to provide for the most difficult cases. If we have a big enough engine for that what about the smaller machines? We don't want to give them 900lbs pull — they wouldn't like it. If we did they would simply get going too fast. Let the winch driver then bring his speed control lever back and this of course is a perfectly sound way of doing it. But would it not be better if we could arrange to inhibit the torque produced by the engine so as to render it incapable of pulling too hard no matter what the driver does? This we can do with a torque limiter built into the injection pump.

Many winches have rollers to guide the wire onto the drum and very often, if you look at a winch from the side during a launch, you see something like this: (Fig 1.)



This is terrible — all sorts of things are wrong.

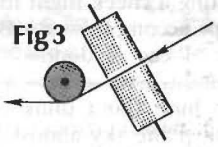
1. The rollers are often about 2in or 3in in diameter and this is much too small for the wire to be bent around without drastically shortening its life.
2. The wire scuffs across the vertical roller as it goes and this must and does cause abrasive wear.
3. The rollers are arranged so that if the pull is perfectly straight the wire does not touch. Looked at end on it is like this. (Fig 2.)

If the wire then drifts a little one way or the other, which is almost bound to happen during a launch, the fast moving wire will begin to touch a stationary roller with scuffing and abrasion until the roller has got up to the right speed. (Try launching in the dimpsies and watch for sparks.)

These are some of the things which are wrong. What can we do about it all?

First we would like to make the rollers much bigger (12in diameter at least), but if we do that the vertical rollers will have to be proportionally longer as well to make sure the wire does not come off the end of the roller at the top of the launch. But then the roller will be much heavier and will take much more time to accelerate to the right speed when the wire first touches, producing much more scuffing — and that won't do.

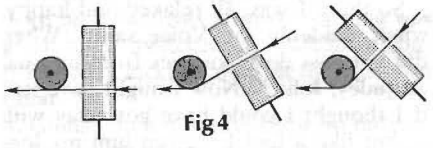
Let us then try turning the axis of the roller around a bit — like this: (Fig 3.)



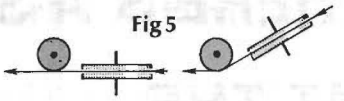
Much better at that particular moment of the launch, but still wrong at other times. Probably on balance, it is better like that but we have not yet got to the root of the problems.

"... we want to avoid the scuffing, both sorts ..."

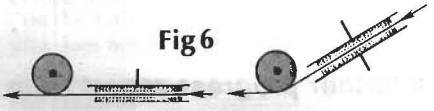
What are we to do? Remember we want to increase the diameter that the wire rolls around and we want to avoid the scuffing, both sorts, *ie* the "first touch" scuffing and the "out of plane" scuffing as in Fig 1. Suppose we could, no matter for the moment how we do it, arrange for the axis of the vertical roller to follow the wire as it rises above the horizontal like this: (Fig 4.)



We would have gained a lot. For one thing we would have got rid of the "out of plane" scuffing. It would also be unnecessary to have a long roller as only the middle bit would ever be used. The next step is to increase its diameter which we can now happily do as it won't have to get correspondingly longer. So now we have got something like this: (Fig 5.)



Better put flanges on just in case and what have we got? A pulley! (Fig 6.) We have got rid of some of the problems, but there is still a long way to go.

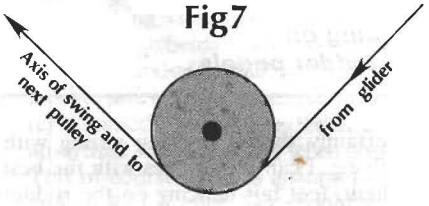


We have so far done nothing about that horizontal roller nor have we decided how to make the moving roller or, as it is now, pulley follow the wire.

If we are to avoid the problem of scuffing due to "first touch" it is evident that the wire must always wrap the roller or pulley by a reasonable angle, and provided that the pulley is of a reasonable diameter, as it must be, it does not matter to the wire, once it has taken up the curvature of the pulley, how far around that pulley it has to go before being straightened again. It must never be just touching or just not touching it as was the case when we started; also, to avoid the other problems, we must use large diameter narrow pulleys with flanges instead of long rollers, and these pulleys must swing so that the wire always runs true over them.

How to achieve all this?

It can be done. The entry pulley must follow the glider and if it is to preserve an angle of wrap it must swing about an axis which is not horizontal. (Fig 7.)



The wire must leave the pulley along its axis of swing and must then go to another pulley which also is able to swing, so that the wire can traverse the drum as it leaves and all is geometrically correct without scuffing. Many people seem to be working on problems of winch design and the author would like to suggest that the time has come to call a symposium on the subject. Perhaps the BGA would organise one. Meanwhile would those interested in the subject get in touch with Dr Gordon Peters, Burts House, Wellington, Somerset. (Tel 082347 2820.)

(Supacat are now building the winch for the Devon & Somerset GC which will be ready for the soaring season.)

THERE'S A SADIST AT THE MYND



John, now a sales engineer having been a long-term RAF technician, took up gliding in 1983 after ground slides in a Dagling 30 years ago. He says this probably accounts for the fact he now spends most of his time doing ground slides in a K-8!

A further progress report from JOHN McCORMICK of the North Wales GC

Perhaps some of you may remember the day that I couldn't get down. (See the August issue, p162.) My technique and flying skills have improved vastly since then. Now I can't stay up.

It's not my fault, of course. I've got every excuse. For a start I swear the CFI only sends me off when there's nothing but 6kt down around. "Don't come back for forty minutes," he admonishes, and then feigns surprise as I reappear at the side of him almost beating the cable down in the process. Actually, now we've had new drogue chutes fitted to them it's going to be a close run thing.

Then there's the sea breeze we get here at Pen y Parc, which usually kills the lift before it can get started. To be fair, the powers that be have been looking for a new field further inland for some time. At the last AGM one was turned down because an airway ran over it at 3500ft. It got my vote, 3500ft is twice as high as I need.

". . . feet fair dancing on the rudder pedals . . ."

Certainly there's nothing wrong with my flying. I can turn circles with the best of them, feet fair dancing on the rudder pedals as I kick that little black ball back into the centre. I can now include the altimeter and vario in that quick glance away from the ASI, and pretty soon I reckon I'll find enough time to look outside.

Even the CFI seems satisfied with my progress. On my last two check flights he didn't say a thing from start to finish. Perhaps that's not quite true, for it seems to me he's getting a bit religious. When I turned round after the flight to ask him how I'd done, he was sitting with his head in his hands, muttering "Oh God, Oh God." It's touching to think that he feels safe enough to spend his time praying with his eyes tight closed whilst I'm in control up front.

Actually I did manage to thermal on a recent visit to the Mynd. There was some chap in the back, of course, giving directions, and pretty direct directions they were too at times. It was on that trip that I found I'd got a sadist aboard.

Now you may think I'm beginning to suffer delusions of grandeur, but I'd gone down there with the express intention of getting a check flight for the K-8 and perhaps accomplishing a Bronze leg in hill lift. "Piece of doddle", had said the club pundit. Everything's a "piece of doddle" to him. Can't think why when he falls out of the sky almost as readily as I do. Notice no name, it indicates I am aware of the laws of libel, and anyway he's bigger than me, although I hasten to add not so good looking.

However, I digress. The notion really appealed and I could visualise myself doing it, just wafting gently backwards and forwards, backwards and forwards whilst I sat out the necessary thirty minute period. None of this working myself to a frazzle with frantic circling and getting dizzy in the process. All this explains how I came to find myself airborne with this sadist character.

We had come off the wire at nigh on 2000ft straight into a thermal and with the Voice cursing me steadily from the back climbed up to 3500ft before turning out over the valley. Lovely, I thought, even I can plan a circuit from up here, fly around nicely for a while, don't mess up the approach or landing and then I'll be off in the K-8.

So there I was, all relaxed and happy, when suddenly the Voice said, "When did you last do recoveries from unusual attitudes, John?" Now I might have lied if I thought I could have got away with it, but like a fool I'd given him my logbook when we got into the aircraft, and having nothing to do, due I'm sure to my superb flying, he'd been sitting there reading it. "Just a little while ago," I replied, hoping from my tone that he would infer that it certainly wasn't needed. It didn't work. "Take your hands and feet off the controls," he said, "and hold them up where I can see them." I was still trying to comply, especially with the feet, when the world leaped sideways. Quick as a flash I had it straight and level and under full control. There's absolutely nothing wrong with my reactions, it comes of being a confirmed coward.

"How was that?" I cried triumphantly. "Fine," he said, "but somewhat premature, I was only trying to look underneath before we started. Now let's begin again, I have control." It was a phrase I was learning to hate. Up the aircraft leapt, arched over with a sick making lurch, and the world started to revolve. "Let it go three revolutions," said the Voice. The fool actually thought I was going to sit there and count them.

"Sort it out," came the command. Hands and feet moved frantically but in perfect unison and there I was back in level flight. Meanwhile the brain had refused absolutely to take any part in all this nonsense, I think I was running on autopilot. "I have control," came the Voice again and there we were with sky all around and nothing on the clock. How the hell did he get us into space? I thought in panic as I searched frenziedly for sight of the world, and then there was another lurch as the nose dropped and the earth reappeared. He had hidden it under the tail. Every time I recovered the same order came, "I have control," and we went into another manoeuvre followed by "Sort it out".

"By now the sweat was dripping off me"

You name it, we did it, every move in the book and two dozen others I swear that he invented on the spur of the moment. By now the sweat was dripping off me, I hadn't worked so hard in years. Correction, I'd never worked so hard, full stop. Eventually he allowed me to level it out at 900ft and I breathed a sigh of relief. He can't do much more, I thought, too low. Wrong! "Make a negative *g* manoeuvre," said the Voice. So I did him a McCormick special. All right,

so I only pulled minus .1g, but that's the way I like it, nice and gentle. "Not like that," he said, "like this." There was a loud bang, I swear the wingtips met somewhere under the cockpit, and I was absolutely covered in flying sheep — er — droppings. The idiot in the back was roaring in maniacal laughter. I think it was at this point that I suggested his parents hadn't been married.

There's only one way to cut this short, I thought, and announced that I was planning the circuit. "I have control," he replied. Now I must admit that came as a surprise, I could only think that he wanted to do the landing himself. Perhaps at last he was taking pity on me and had decided I'd done enough for one day. He's making a bit of a cock-up of this, I thought smugly, as we went past the spot where I would normally turn base leg. We were now too low, too far downwind, we were still going the wrong way, and there was already one aircraft on the approach. This is going to be interesting, I thought, and by now I was positively glowing with happiness in the knowledge that he was going to get his come-uppance for all the indignities he had heaped on me earlier.

Abruptly the Voice burst through my reverie. "Sort it out," he said. AHHH! the proverbial cold hand clutched my heart. He can't do this, I thought desperately as I whipped the aircraft round, short way back, what's my height? what's my speed? where's the wind? where's the other bloody aeroplane? Oh God, look at the rate of sink, and the sadist in the back said quite casually "Let me hear your landing checks, John." I'm pretty sure it was at this point that I told him politely to go away.

To cut a long story short, I made it back, albeit all of a quiver, but worse was to come. After they had lifted me out of the aircraft and laid me on the grass I ventured to ask about the K-8. "Sorry," he said, "I've only got an assistant rating, you need a full Cat to clear you for that." On top of this, although he said all the right things in my logbook, he hadn't got a blue pen, so he signed it in red. Now I am viewed with instant suspicion by every instructor who opens it. I'm thinking of sticking those two pages together with something like jam so that it looks natural.

They say that you learn something on every flight, and this one was no exception. I learned never to get into an aeroplane with a strange instructor of whom you know not his mental history. So I scurried off back to North Wales, where at least I know the instructors involved and where I have been assured that the close proximity of the Denbigh Psychiatric Hospital is purely coincidental.

GLIDING NEAR MILITARY AIRFIELDS

A warning by CHRIS TERRY, a Flt Lt in the RAF with 3000 Service flying hours as well as being a glider pilot chasing his Diamond distance.

In the April 1983 issue of S & G, p70, Mike Emmett points out some of the legalities of flying in and around controlled airspace and his first two paragraphs deal with the ATZ and MATZ. His final sentence on ATZs is: "It is obviously unwise to linger near the extended centre line of a busy runway even when outside the ATZ". This advice had obviously been missed or forgotten by a brave few who flew their sleek machines very close to a service airfield recently resulting in two airmisses being reported by Tornado pilots within the space of half an hour.

Came close to major incident

The signal reports illustrate how close we came to having a major incident.

Case 1. Tornado pilot, five miles from touchdown on radar approach in good visibility, given warning by controller of two gliders ahead, one at half mile range and the other at one mile. The pilot immediately took avoiding action.

Case 2. Tornado, five miles from touchdown on radar approach in excellent visibility was warned by controller. Pilot looked up and saw glider one mile ahead and 500ft above. He took avoiding action.

The Facts

1. The gliders were perfectly legal, *ie* outside 1½nm from the airfield boundary (but inside the MATZ).
2. Airmiss 1 was a Tornado on a swept wing approach with the front seat pilot using "head down" instruments and the rear seat "safety pilot" blind ahead and below because of the very high nose attitude of the Tornado in this configuration.
3. In both incidents a timely warning was given by a "switched on" talkdown controller who, luckily, could see the gliders on radar.
4. Gliders do not always show on radar.
5. Instrument approaches for fastjet aircraft can begin up to ten miles out and 2000ft above airfield level; once on the centre line speed is reduced and the aircraft becomes a most unmanoeuvrable machine with one aim in life — to hit the end of the runway it is pointing at! Speeds may be anything from 140kt to 220kt and a 2½° glide path is normally flown; *ie* at two miles the aircraft would be at 500ft, four miles 1000ft, six miles, 1500ft etc and crews practising in good gliding weather are almost invariably "on the dials" with a safety pilot in the rear who does not have good forward visibility.

The Hazards

1. A mid-air collision is obviously the worst possibility resulting in two very broken aeroplanes, death, destruction of persons and property on the ground (£14m of tax payers Tornado has to come down somewhere!) and piles and piles of paperwork.
2. Wake turbulence from a passing jet could be enough to break a glider into pieces — a near miss can be frightening enough however if you end up behind and below the passing piece of hi-tech, rest assured you will be in for a rough ride!
3. In hazy conditions a glider becomes very difficult to see and a pilot travelling at 420kt plus may not see it in time to avoid — this applies all over the country with low flying military jets as low as 250ft — but that's another story!

The Answers

1. Service flying regulations and procedures will *not* be changed to suit the occasional weekday cross-country glider pilot.
2. Cross-country pilots can help themselves greatly by:
   (a) Planning their routes to avoid busy service airfields.
   (b) Checking whether airfields are active — **most** airfields close down **most** weekends and after 1800hrs; however it is never safe to **assume** them to be closed.
   (c) Contacting nearby airfields on the advertised VHF frequency when possible. This of course requires a suitable radio and an R/T licence, but should you be able to talk to someone you will always get a friendly controller on the other end who will be pleased to hear from you; — knowing your height and position will help ATC to keep their jets away, even if they cannot see you on radar! Prefix your call sign with "Glider" and advise the controller of any major height or position changes.
   (d) Using your common sense!

The message to all glider pilots is clear — Being legal is not safe enough — **keep away from extended centre lines of all active airfields**, especially those operating military fast jets. There will always be the risk of a mid-air collision for as long as there is more than one aeroplane in the sky — don't stack the odds against yourself.

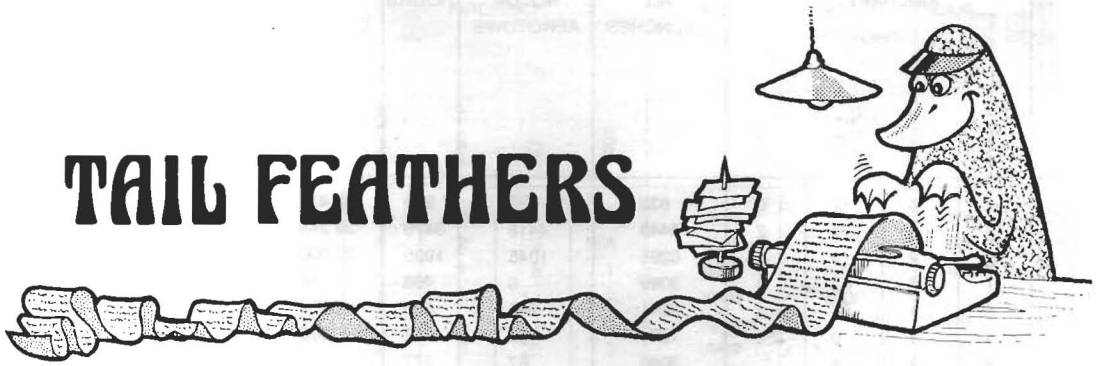
ANNUAL STATISTICS — OCTOBER 1, 1983 TO SEPTEMBER 30, 1984

GLIDING CLUBS	AIRCRAFT				ALL LAUNCHES	NO. OF AEROTOWS	HOURS	CROSS-COUNTRY KM	MEMBERSHIP		Estimated No. of Temporary Members
	Club 2s	Club 1s	PO	Tugs					Flying	Non-Flying	
ALTAIR	1	0	4	0	1534	0	201	250	12	0	0
ANGUS	3	2	3	N/A	4340	N/A	605	1084	59	21	300
AQUILA	2	1	8	1	1809	1031	450	870	35	0	203
AVON	3	1	17	2	3100	3100			71	15	640
AVRO	4	1	1	0	5011	0	686	N/A	132	64	388
BATH & WILTSHIRE	2	3	20	3	3999	697	1475	7435	110	9	262
BLACK MOUNTAINS	1	1	40	1	1700	1700	2761	135 000	80	100	700
BLACKPOOL	2	3	15	—	4851	—	1742	—	125	16	500
BOOKER	8	5		6	14 000	14 000	13 500	N/K	425	60	3640
BORDERS	2	1	12	1	2519	2435	1548	2800	66	10	453
BRACKLEY	1	0	10	0	5002	27	959	1489	101	25	1174
BRISTOL & GLOUCESTERSHIRE	3	3	32	2	8441	5407	5704	73 600	211	38	1091
BRITISH AEROSPACE FILTON	1	0	0	0	84	0	78	965	15	0	20
BUCKMINSTER	1	2	10	1	5500	3700	1500	3539	90	0	916
BURN	3	3	18	2	5634	1654	2198	6500	125		457
CAIRNGORM	2	0	5	0	650	0	245	N/K	34	—	102
CAMBRIDGE UNIVERSITY	3	4	31	2	8457	2170	3480	36 953	158	92	1804
CONNEL	3	2	1	0	2879	0	748	600	25	20	1051
CORNISH	3	2	1	4	2973	194	528	297	49	21	395
COTSWOLD	3	1	29	0	8891	N/A	3293	45 119	167	93	1598
COVENTRY	5	4	53	4	9334	7962	5029	29 500	283	71	1693
CRANFIELD	1	1	13	2	1564	1564	776	3000	80	1	172
DEESIDE	2	2	12	2	2579	2579	1967	10 211	112		53
DERBY & LANCS	3	3	24	0	8100	0	2934	5400	175	95	670
DEVON & SOMERSET	2	3	21	1	8551	1002	3243	52 459	178	84	845
DORSET	2	3		1	4283	417	689		101	27	428
DUMFRIES	2	0	5	0	861	—	158	400	32	—	102
EAST SUSSEX	2	2	12	1	6569	1417	1380	3000	132	46	875
ENSTONE	2	1	9	1	3440	520	2672	42 336	60	5	180
ESSEX	4	2	20	1	8373	1481	1817	43 230	175	7	
ESSEX & SUFFOLK	2	2	12	2	2657	2657	1251	9000	90	—	600
HAMBLETONS	2	4	2	1	2927	523	857	8100	80	—	
HEREFORDSHIRE	3	1	12	1	2015	2015	1350	8385	87	—	206
HIGHLAND	1	3	5	0	3001	5	759	1800	45	5	244
IMPERIAL COLLEGE*	0	3	0	0	300		210	2700	45	15	
INKPEN	2	2	5	1	1735	1735	729	3400	68	2	347
KENT	3	3	28	1	11 862	3908	3000	4500	270	25	1910
KENT MOTOR GLIDING	4	0	1	0	4603	0	1045	35 000	48	—	439
LAKES	2	1	6	1	1515	1450	752	3266	50	0	
LASHAM	7	0	120	7	34 805	12 736		223 665	640	130	3496
LONDON	4	4	81	3	15 864	8466	5819	N/K	329	73	4800
MARCHINGTON*	1	0	14	1	1430		690	1500	66	4	
MENDIP	2	3	10	0	4260	0	868	5840	73	0	420
MIDLAND	3	3	21	1	10 484	156	3524	6331	180	69	1562
NENE VALLEY	3	0	3	0	2775	15	366	298	35	—	600
NEWARK & NOTTS	2	2	7	0	4947	10	732	3079	70	0	435
NEWCASTLE & TEESSIDE	2	1	5	0	1282	0	376	400	36	2	189
NORFOLK	3	2	28	2	3917	3419	1832	11 735	150	17	272
NORTHUMBRIA	3	2	23	1	2253	612	540	1500	91	26	220
NORTH DEVON	2	0	6	2	3300	650	900	5300	20	—	2354
NORTH WALES	2	1	3	0	3145	7	345	0	51	5	110
OUSE	2	1	12	1	6000				110	12	25
OXFORD	2	3	12		6099	46	1806	10 580	79	4	420
OXFORDSHIRE SPORTFLYING*	2	6	1				1444		25	—	
PETERBOROUGH	3	1	12	2	1745	1745	720	6800	63	0	328
RAE (Bedford)*	0	0	5	1	160		350	3000	19	6	
RATTLESDEN	2	2	7	0	4314	61	785	7750	52	2	
ROYAL AIRCRAFT ESTABLISHMENT	2	3	5	—	3439	—	946	3100	48	12	15
RSRE	2	2	1	—	1346	6	233	135	22	10	80
SGU*	3	3	18	2	6833		4730	2236	143	60	
SHALBOURNE	2	1	11	—	3522	0	782	4300	43	—	—

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	Club 2s	Club 1s	PO	Tugs					Flying	Non-Flying	
SHROPSHIRE	0	0	12	0	632	632	948	11 412	31	0	50
SOUTHDOWN	2	3	24	2	6440	4418	3470	28 249	209	48	506
SOUTH WALES	2	2	18	1	6295	1045	1995	22 000	103	3	130
STAFFORDSHIRE	1	2	2	0	3099	0	498	60	57	9	253
STRATFORD ON AVON	3	1	25	2	3611	365	820	3500	124	8	729
STRATHCLYDE	3	1	0	0	1261	57	207	300	44	1	144
STRUBBY	3	1	5		3060	67	277	180	36	2	114
SURREY & HANTS	0	11				included in Lasham's statistics			245	50	
SWINDON	2	2	10	1	4506	211	1060	N/K	85	6	950
TIGER	N/A	N/A			N/A	N/A	N/A	N/A	9	0	
TRENT VALLEY	2	3	18	0	5370	18	1586	12 500	80	1	100
ULSTER	2	2	11	1	1276	1227	929	4750	39	—	
UPWARD BOUND TRUST	3	0	1	0	2027	0	234	150	26	0	272
VALE OF NEATH*	3	0	8	1	2504		510		41	0	
VECTIS	1	2	0	1	753	753	203	0	41	—	60
WELLAND	2	2	4	0	2966	1	346	750	39	7	250
WEST WALES	3	0	5	—	2250	0	263	743	33	2	150
WOLDS	4	1	10	1	7796	345	1167	4400	168	14	1446
YORKSHIRE*	3	5	40	3	7297		4076	12 912	276	66	
CIVILIAN CLUB TOTALS	187	153	1095	112	358 706	72 038	118 696	990 643	8232	1616	44 938
**No statistics received, last year's figures used.*											
ARMY GLIDING ASSOCIATION											
KESTREL	2	4	4	2	6634	506	1385	14 655	112	27	400
SOUTH WEST DIST (Wyvern)	2	4	6	2	9362	204	1817	5405	97	0	
ROYAL AIR FORCE GSA											
ANGLIA	2	2	3	0	4608	0	601	1752	56		200
BANNERDOWN	4	3	6	—	8981	35	2386	17 806	53	15	120
BICESTER	6	7	16	5	17 598	7216	6826	39 280	249	6	900
CHILTERNS	2	3	0	0	2742	0	744	2848	50	1	150
CLEVELANDS	2	4	14	2	6540	4865	3039	51 650	113	—	164
CRANWELL	3	3	8	1	5918	500	2351	4271	120	0	500
FENLAND	2	4	4	—	5424	74	1167	4482	98	0	112
FOUR COUNTIES	2	4	7	0	5907	50	1640	22 770	90	5	N/A
FULMAR	2	3	1	1	4700	250	800	4500	40	0	250
HUMBER	2	3	5	0	5256	0	941	4140	60	0	100
WREKIN*	2	2	5	1	4470		910	3344	65	0	
ROYAL NAVAL GSA											
CULDROSE	3	2	2	1	2566	1055	459	2100	47	—	250
HERON*	2	2	4	2	4947		1044	11 047	112	42	
PORTSMOUTH NAVAL*	4	3	0	6	2761		720	250	75	12	
SERVICE CLUB TOTALS	42	53	85	23	98 414	14 755	26 830	190 300	1437	108	2921
CIVILIAN CLUB TOTALS	187	153	1095	112	358 706	72 038	118 696	990 643	8232	1616	44 938
GRAND TOTAL	229	206	1180	135	457 120	86 793	145 526	118 943	9669	1724	45 859

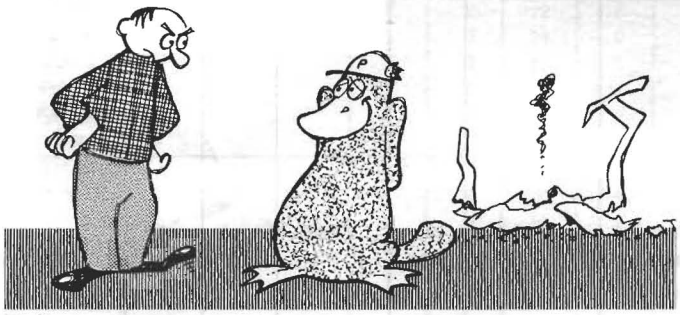
TAIL FEATHERS



by PLATYPUS

Bloody Competitions

A more or less scientific poll of S&G subscribers last year revealed that one of the things they wanted *least* in this organ of ours was competition reports. I feel trebly guilty, since I myself set many of the tedious tasks, do large amounts of the uninteresting (to others) flying, only enlivened by the odd crash, and write reams of soporific contest reports, only enlivened by the odd spot of libel. Of which more later. Congratulations, though, to John Willy in the last issue for a succinct, synoptic view of the Open Nats, getting away from the thermal by thermal treadmill, and to Jane Randle for her report of the same event in *Flight,* the sole illustration being one of an unsuccessful but still intact ASW-20 (my own); this report carried the best plug



Enlivened by the odd crash.

for Irvin glider parachutes I have ever seen; I can't wait to join the queue.

No, I must not yet reveal what people like *most* (except to say it wasn't this column, in spite of my indignant demands for a recount) because we still need to poll the other half of our readership who buy their copies at the bar. As for that quite different constituency, those louts who will happily pay £5 for a round of drinks, then scrounge other people's copies of S&G to save a bob or two, I suppose their opinions should be canvassed as well, even though I put not buying your own S&G on a par with child-molesting and mugging pensioners. Ears burning? I should think so. But Comps reports will, I promise, get more interesting if JJ gets his way.

Are You Flying Faster and Enjoying it Less?

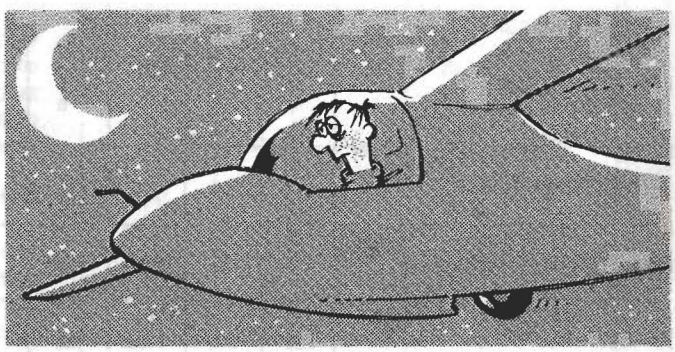
I wrote this little piece before I saw John Jeffries' splendid article on reforming contests (the last issue, p252) but it rings the same bells.

It is a well-known fact (by which device I hope to steamroller anyone who has the nerve to query this unverified assertion) that the cost of a glider goes up as the *cube* of its performance. So a 20% improvement in achieved cross-country speed will cost you about 75% more. However, the pilot who whiffles around a contest course 20% faster than everyone else obviously spends correspondingly less time in the air. Since his flying time is diminished (I nearly said his pleasure is diminished, but coming first is its own reward, says he, speaking from very dim memory) his cost per soaring hour increases as the *fourth power* of the performance improvement.



Coming first is its own reward.

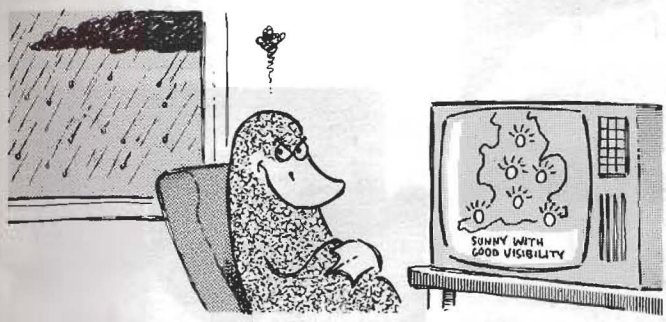
In my example the glider with a 20% better performance will cost 107% more per hour. (That's splendid: I've just talked myself out of buying a Nimbus 3; supported, I should add, by my wife and my bank manager.) The irony is that the better the L/D, the more hours the super-sailplane can stay up, from the first zephyr of the morning to the last dying gasps of warm woodlands on a gentle west-facing slope. What actually happens in modern contests is that the super-glider fillets the best part out of the day and discards the rest. A scandalous waste. And there is always the problem for the organisers of setting tasks that are not going to be devalued by being finished in under two and a half hours — even a 300km is at risk, though it may be the biggest task the lower performance gliders can manage. The old Skylark pilots used to boast of putting up to 50 hours of soaring in the logbooks during one Comp. They had a whale of a time with their seven and eight hour (even ten hour) epic voyages across wild Welsh terrain and rocky coastlines. From dawn to dusk no thermal in the whole country went unscathed.



From dawn to dusk no thermal went unscathed.

But Now . . .

At this point in my nostalgia trip I received John Jeffries' radical idea for a new type of contest. Hooray! (When I was in the Navy the ratings were told to shout Hooray! while the officers



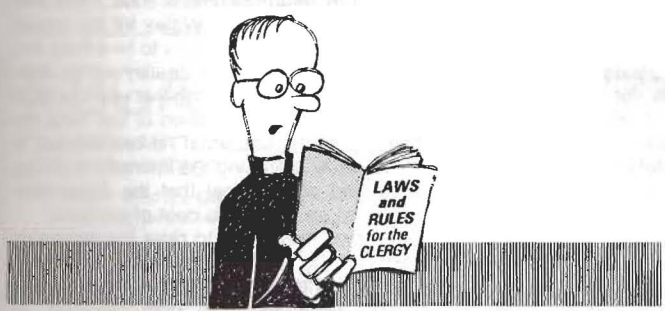
I don't understand it or believe it.

had to shout Hoorah! I can't remember what the petty officers were supposed to shout during these spontaneous demonstrations of loyalty, but it's not very relevant. *It's not relevant at all — get on with it. ED.)* Of course it'll not catch on for Nationals or World Champs, since the idea will be buried in all the usual guff about fairness. And there is the problem that announcements of pilot-declared goals in the past were always greeted with groans from pilots who suddenly had to *think,* and fret about the Met. I don't bother to listen to the Met in modern Comps because (a) I don't understand it; (b) I don't believe it and (c) I can't do anything about it even if I understood or believed it. I just stumble around the course when it seems OK. But JJ would compel me to think very hard indeed.

A Change of Scapegoat

And of course you'd always have an excuse every time you failed to win the day. You'd blame the Met man, whose advice misled you into declaring the wrong task.

The task-setter would of course be eliminated. I've known a number of pilots who wanted to eliminate the task-setter, but usually that reflected an immediate personal grudge rather than a matter of principle.



Every new vicar is warned.

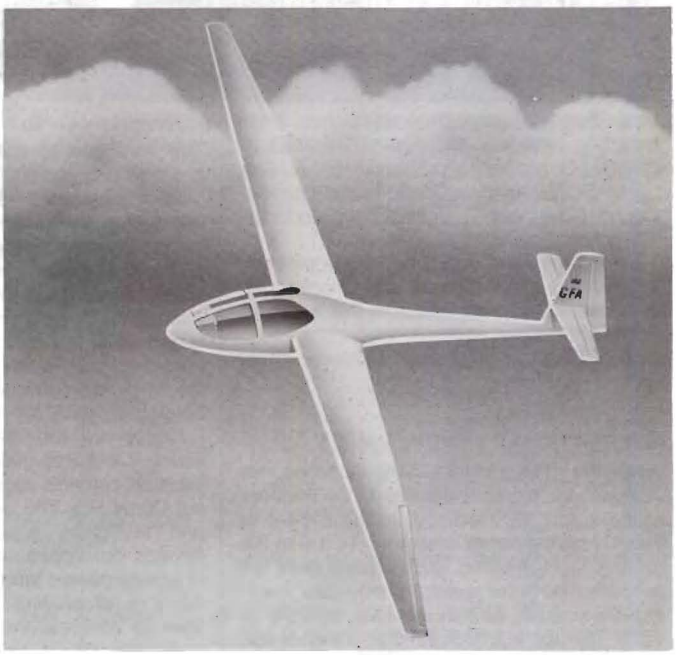
Another Reason for Abolishing Contest Reports

When someone I respect both as a pilot and as a person writes to say I have cast a slur on his honour, I do something which I never normally do and re-read one of my columns. (See this issue's Your Letters and the 15 Metre Nationals report in the October issue, p219.) I have done so very carefully and see not a word to alter. Nothing was either stated or implied to the discredit of our correspondent, who I know has never cheated and never would. What I did suggest, very mildly, was that top class non-competing pilots should not even give the *impression* that they might influence a race. That's especially true if the pilots involved have been brilliantly successful pair-flyers in previous contests.

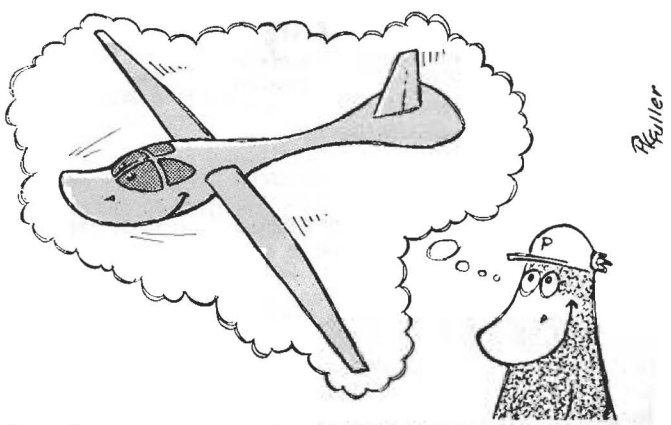
I believe that every new vicar is warned not to park his bike near the local tart's house. He might be inside saving souls or next door buying a newspaper; all the same, envious and malicious tongues will wag, causing distress to the faithful and bringing scandal upon the Church. It is the innocent more than the guilty who are likely to fall into the trap, since they are unaware of how lesser and meaner spirits will interpret even the most blameless actions.

By the way, I'm glad that it wasn't any of the other Booker pilots I offended. They wouldn't write in, they'd just break an arm or two.

Platypi in the Sky

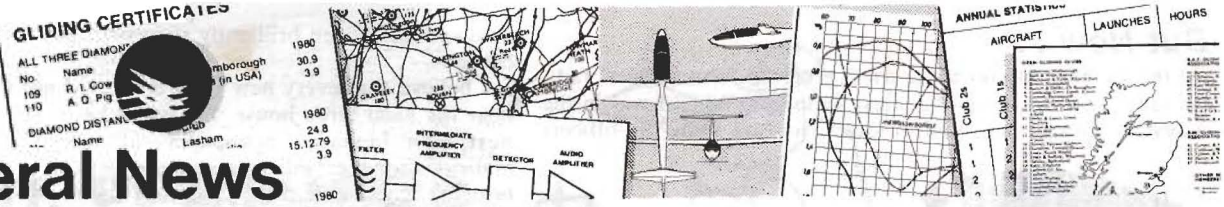


The Aussies have just produced a lovely-looking (natch) side-by-side two-seater called the ES 65 Platypus. Since the name came from an indigenous antipodean amphibian I can't really demand a royalty. Martin Simons writes to say that I ought to get Down Under and give it the Platypus Poison Sting of Approval or some such award. An excuse for going to Oz before I get too decrepit has long been sought; I must seize it. There is no doubt that flying a high performance side-by-side two-seater is the most fun two adults can have in public without getting arrested. I wish it massive success.



Since the name comes from an antipodean amphibian I can't demand a royalty.

BGA and General News



NOSE TOW HOOKS FOR AEROTOWING

Two recent fatal accidents to unsuspecting tug pilots has re-emphasised the inherent dangers associated with aerotowing from CG related tow hooks, particularly in turbulent conditions.

The BGA Instructors' Committee met in November and voted in favour of a BGA requirement for nose hooks to be made mandatory. Theoretical studies made on behalf of the Technical Committee substantiate this recommendation.

The CAA delegate to the Joint Airworthiness Requirements Committee has been asked to draw the attention of the JAR 22 Working Group to this problem.

The BGA Executive Committee at its meeting on November 7, provisionally endorsed this policy.

We advise those concerned of the probability that the installation of nose hooks may well become a prerequisite in the future for BGA certification.

R. B. Stratton, *BGA chief technical officer*

INTERNATIONAL COACHES MEET

When the International Gliding Coaches met at Papendal, the National Sports Centre near Arnhem and the National Gliding Centre at Terlet, Holland from October 12-14 it was the group's sixth meeting and in future they will be called the International Safety and Training Committee. At the previous meeting in Reno, Nevada in March 1983 an initiative had been taken by the Americans to expand the original European group.

There were representatives from Australia (1), Belgium (1), Canada (2), Denmark (2), Finland (1), France (2), Germany (3), Netherlands (6) (including Hein Schwing the CIVV Sec.), Norway (1), Sweden (2), UK (4), and the USA (3). The meeting was opened by Wim Adriaansen, chairman of the Soaring Section of the Royal Netherlands Aero Club, and chaired by Bill Scull.

The main purpose was to exchange ideas on training and safety matters and in this respect it was successful. The host country takes a lead in presenting details of its operations with particular emphasis on developments since the previous meeting and the Dutch input was on liability, the system of training instructors, improved statistical analysis and critical glider (flying) characteristics.

Saturday's session started with a look at the human factor in accidents with a short presentation on categories of pilot — anti-authority, macho, fatalist, must act and invulnerable. The response came from a French delegate, a professor of psychology and a pilot for 39 years, whose students had carried out a special study of gliding accidents. Identification of "type" was not something to be told to a pilot but rather to help them discover their own traits.

FROM THE SECRETARY's DESK



Barry Rolfe, BGA administrator

The latter part of last year at the BGA saw much activity relating to the sad incidence of tugging accidents. Officers and staff were involved in meetings with the CAA and the Accidents Investigation Branch, the computer at Imperial College went into overtime and special meetings of the Safety, Technical and Instructors Committees were convened. The results of all this discussion so far are related elsewhere in this issue of the magazine but the work will continue in the effort to make aerotowing safer for the tug pilot.

Concerned with the need to bring more young pilots into gliding clubs we have had informal contacts recently with the Air Training Corps HQ. The advent of modern gliders and launching equipment at ATC sites heralds the appearance in greater numbers of young people who have been exposed to the joys of soaring and hopefully who will wish to continue this activity with a civilian club. We intend to liaise more closely in future with the ATC in the hope of mutual benefits for both organisations.

At their December meeting the Executive homologated a new UK single-seater 400km speed record by Ralph Jones at 114.3km/h; UK multi-seater records for 200km by R. Jones and M. Hackett at 96.5km/h and for 400km by D. Watt and I. Hargrove at 86.6km/h and a UK 15 Metre Class record for 300km by Robin May at 102.2km/h. New motor glider targets were also set by Ian Strachan for British National single-seaters with 100km at 76.5km/h and 300km at 83.1km/h.

Applications are now invited from members for a gliding related project to gain the Churchill Award of £100 for 1985. This award is available to individuals for organising a research project into gliding or some ancillary subject such as meteorology. Full details and application forms are available from the BGA in Leicester and the closing date for the receipt of entries will be April 30.

Book Conference quickly

Our draft accounts for 1984 show a deficit of just over £3000 and have caused a flurry of paper between the Executive, the treasurer, the chairmen of Sub Committees and the Leicester office in a hasty review of the 1985 budget. All this will no doubt be highlighted at the AGM on March 2 and in the meantime you will have noted that increased costs, particularly of paper and printing, have resulted in a small increase of 10p in the cover price of this magazine. A programme for the Conference at Cardiff on March 2/3 is enclosed and I would ask you to send in your booking by return as time is short. I think that this is our first visit to Wales for the annual get-together and it promises to be a lively and entertaining event. Tom Zealley will be stepping down after completing five years as BGA Chairman, and having seen at first hand the amount of time and effort he has devoted to successfully furthering the interests of gliding clubs and pilots I feel that the Association owes him an enormous debt of gratitude.

Finally, please help to raise the necessary funds for the British team at the next World Championships by selling your share of raffle tickets. More available from Leicester, of course!

The group had tried for some time to get a basis for comparison of each countries' accident rates and had standardised on fatalities, which was more meaningful when compared as a rate. The figures are for 1972-1983.

Country	Launches/ Fatality	No. of Fatalities	Launches/ Year
NL	180 400	9	135 307
S	138 500	9	76 638
GB	115 000	33	316 708
AUS	98 000	25	151 716
DK	95 300	9	71 474
D	73 200	142	866 075

Accident prevention efforts were concentrated in a number of areas; of greatest concern was collision risk. The Germans had 34 mid-air collisions from 1975-1980 — not surprising perhaps since they have more than 6000 gliders.

A comparison of aerotowing practice and activity in the various countries suggested that the UK accident record to tugs was rather worse than elsewhere. In general rope lengths were longer than we recommend and use — typically 50m. The risks also appeared to be less in those countries which were all-aerotow — Finland, Sweden and France. One point on which the group was unanimous was that all gliders should have a nose

hook — indeed, the Australians will not accept a glider without one.

W. G. Scull, *BGA director of operations*

National Ladder correction. Steve Longland, Cambridge University GC, was omitted from the Club Ladder final positions. He obtained 3551pts from four flights in the CUGC K-6CR, thus winning the Slingsby Trophy for second place.

This omission was entirely due to my oversight, for which I offer my apologies to Steve, and to Annabel Lucas, who now misses second place by only 4pts.

M. Randle, *National Ladder Steward*

OBITUARY

BERT PAGE



Bert Page died recently after a short illness leaving many friends behind.

Originally a stalwart of the Derby & Lancs GC, he moved to London and eventually became apprentice supervisor with British European Airways. A founder member of the Airways GC, he piloted the first ever civilian glider flight at Booker and was a course



In October Bill Scull, BGA director of operations, was invested with the Livery of the Guild of Air Pilots and Air Navigators by the Grand Master, HRH The Prince Philip, Duke of Edinburgh, at the Merchant Taylors' Hall before the Guild's annual awards banquet. Bill has been a Freeman of the Guild since 1972 and has served on various Guild committees to represent gliding interests.

BGA ACCIDENT SUMMARY — Compiled by KEITH MITCHELL, Chairman, BGA Safety Panel

96	Pirat	?	M	7.7.84 11.20	Long Marston	38	N	7	Pilot released from reverse tow launch at 600ft because of excess speed. Initiated a small circuit, but lost height rapidly and landed downwind in field close to site. During ground run glider was thrown up by ridge of loose earth, yawed and landed heavily.
97	Blanik	?	M	21.4.84 19.15	Hinton-in-the-Hedges	49 45	N N	1000+ —	Pilot chose to land on runway at 90° to that in general use and from which he had taken off. After touching down 500yds from threshold of runway the glider overshot the intersection of the two runways and the wing caught that of another glider parked beyond the intersection.
98	K-13	1611	M	7.7.84 14.47	Perranporth A/F P2	52 16	N M	70 0	Pilot failed to correct for crosswind whilst winch launching. Had drifted over fence on downwind side of runway when cable broke at 100ft. S turned to recover track. Tailplane struck fence post and glider stalled causing a heavy landing.
99	Cobra	1739	M	9.6.84 14.21	Rufforth	27	N	139	Due to runway obstruction glider landed on grass strip then ran over an obstruction onto runway. Obstruction threw glider back into the air and it landed heavily causing damage.

BGA MAIL ORDER

SEEN ANYTHING ODD THIS WINTER?

Don't send for Ghostbusters — it's only Plat. heading for the front of the queue at the B.G.A. Shop.

Stay in the armchair and order THEORY OF CROSS COUNTRY GLIDING by Anthony Edwards — £2.50, YORKSHIRE GLIDING CLUB a history of the first 50 years by Chris Riddell — £2.75, ACCIDENTS TO GLIDERS 1984 — £1.25, FREE AS A BIRD by Philip Wills — £7.70, and many more titles.

Remember — read now, fly later.



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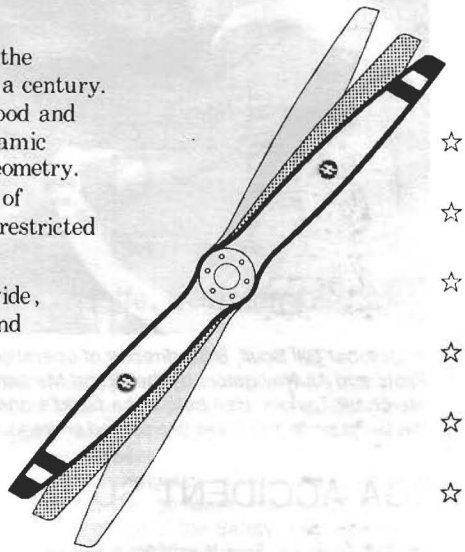
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member of BGA instructors' course No. 1. He introduced many of the BEA apprentices to the delights of gliding.

As a meticulous and highly respected engineer he was always happy to advise or help anyone who asked. He vetted new gliders and motor gliders for the BGA and ARB and took a deep interest in many of the more unusual light aircraft and replicas flying today.

In addition, almost unknown to aviators, he spent much of his remaining spare time inventing devices to help the disabled. He was even able to advise surgeons on better technical methods of bone repair and the like.

Bert will be missed by many, but there is no doubt at all where he's gone. He's up there, making friends, mending broken wings, inventing new harps and helping new angels with their first flights.

JOHN ELLIS

GLIDING CERTIFICATES

After the summer when more than 100 Diamond goals were achieved (the most since fabulous 1976), the autumn produced a proliferation of Gold and Diamond heights (over 100), mostly from Aboyne. Several of these high fliers were women, including Pamela Hawkins of Booker who becomes Britain's second female to complete All Three Diamonds (Anne Burns was the first in 1961).

Husband and wife rivalry has been prominent: Margaret Young completed Gold badge No. 1058 on October 27, beating her husband John who became No. 1059 three days later. In between their son, Michael, gained Diamond height on October 28.

Pamela Watson of Hambletons beat husband Roger to Gold height, whilst John Norman of Bicester gained Diamond height just ahead of his wife Lynn, but Susan and Michael Woollard of Nympsfield won their Gold heights on the same day. On another "same day", Alan Coombs of Deeside GC gained Silver, Gold and Diamond heights all in one flight on October 11.

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100	Skylark 3F	932	S	24.6.84	Selby	34	M	56	On first cross-country attempt pilot mistook crop field for meadow. He realised this too late and chose another field which also contained crop. Tip contacted crop with subsequent ground loop causing substantial damage.
101	K-6CR	2102	S	21.6.84 17.30	Lasham	22	S	7.10	After a low circuit glider turned finals at about 150-200ft. Pilot opened full airbrake. The speed was adequate but pilot failed to round out properly. Glider landed heavily and bounced or ballooned about 50ft causing a loss of airspeed which the pilot failed to correct. A heavy landing resulted.
102	Libelle	1615	S	6.7.84 14.45	SW of Yeovil	54	N	800	Pilot selected an adequate field but was still overshooting after side slipping. Turned to avoid boundary but stalled in from about 3ft. When on ground pilot discovered he had approached downwind.
103	Olympia 463	1300	N	20.6.84 171.0	North Weald	31	N	45	After "all out" glider was snatched forward and over ran cable. The uncovered shock rope became jammed in the wheel box. Pilot pulled release and called "stop" which was not heard. Launch was continued. At about 100ft rope pulled free and glider landed normally.
104	Jantar 19	2026	M	7.7.84 11.30	Weston-super-Mare A/F	28	N	900	After a normal approach and landing starboard wingtip struck hay bale sled during ground run. Bale sled was parked in cut grass and had not been seen.
105	K-7	1694	M	25.6.84 16.00	Lasham P2	36	N N	113 0	P2 was dealing with a cable break at about 200ft but did not round out. P1 failed to take over in time to prevent a heavy landing.
106	Oly 460	1154	S	7.7.84 16.45	Walton, Powys	31	M	416	Pilot on cross-country, low at second TP selected suitable field. Circled in weak lift on downwind leg, spun, losing height which led to a marginal undershoot. Glider struck boundary hedge with fence.
107	Pilatus B4 IS-28 B2	1776 2511	W/O S	13.5.84 18.50	Walney A/F	46 22	F N	66 14	Ridge soaring with Pilatus overtaking IS-28. Aircraft collided and IS-28 pilot was able to carefully fly back to airfield and land safely. Pilatus was heading towards hill and made an apparently well controlled 180° turn away from hill, but then entered a spin and hit ground.
108	Capstan	1237	M	1.8.84 17.22	Walney P1 P2	54 20	N N	700 1¼	Pupil turned downwind prior to joining base leg, then underestimated strength of headwind and curlover. Aircraft undershot. Wingtip hit bushes and groundlooped.
109	K-7	2477	M	11.6.84 20.30	Hedley	52	N	180	Undershoot developed in high wind. Pilot dived sharply then tried to pull up over fence but fuselage contacted causing damage.
110	K-8	2369	S	19.7.84 16.45	½ mile NW Laneast	21	N	27	Pilot with little field landing experience was on a Silver distance attempt. His selected field was unsuitable so selected another with a poor overshoot field. Approached too high and realised he would not stop before boundary of field. Attempted to reach overshoot field but hit boundary bank.
111	K-8	2221	M	8.7.84 ?	Kirton Lindsey	22	N	9	Visiting pilot drifted downwind of airfield in thermal, then continued thermalling downwind of airfield, just within gliding range. Flew back to airfield at too high speed and made late decision to land in rape field. Rapid decelleration.
112	Astir CS77	2391	M	13.7.84 16.45	Long Mynd	22	M	120	Pilot on cross-country misjudged height required to cross valley and ridge in order to soar slope on far side. Realised late that he would not clear ridge and made heavy landing on steep upslope of nearside of ridge.
113	Breguet Fauvette	1302	W/O	15.7.84 16.00	Fairsnape Fell	49	F	174	Aircraft observed spinning down and crashing on to hillside. Investigation showed that the safety pin from the starboard tailplane lower retaining pin became detached while in the launch area. After 40mins in flight the retaining pin fell from the glider causing upward folding of the starboard tailplane, followed by a spin.
114	K-6CR	2503	W	29.7.84 13.45	Saltby	50	F	?	After what appeared to be a normal early stage of winch launch the cable released at approx 300ft and went over the portwing. The glider was seen to turn to port before spinning steeply to the ground.
115	K-8B	2653	M	22.7.84 14.15	Pen-y-Parc, Holywell	39	N	7	Pilot misjudged height on approach, opened brakes fully and flew into the downwind boundary fence.
116	Sport Vega	2716	M	12.5.84 15.00	Bentley	42	N	251	On the ground run of field landing port wingtip touched the ground, causing a groundloop to the left. Underside of port wing damaged by stones.
117	Astir Jeans	2450	N	9.6.84 16.30	RAE Farnborough	29	N	26	Glider started to overrun launch cable. Pilot had difficulty pulling cable release and in so doing pushed forward on the stick. Glider weathercocked and was catapulted off the runway when release was pulled. Ran across a ditch with mounds of earth on each side.
118	Skylark 3F	920	N	17.6.84 13.10	1 mile NE Lasham	55	N	650	Pilot of Skylark reported what he considered to be dangerous thermalling by a glider from another site, involving three near misses by the other glider.
119	Kestrel 19 Falke	1762	N	1.7.84 15.50	Lasham P2	56 50 15	N N N	900 2100 0	Motor Falke lined up for take-off but did not take off immediately. Pilot did not see Kestrel which was landing and began to take off. Kestrel pilot took evasive action to avoid a collision.

A new green form for FAI badge claims has recently been introduced; this should now be used for all claims, but will be *mandatory* for Gold and Diamond legs from April 1, after which the old form will not be accepted for Gold or Diamond claims.

Gordon Camp, *FAI certificates' officer*

ALL THREE DIAMONDS

No.	Name	Club	1984
168	A. D. G. Cumming	Camb Univ (in USA)	8.8
169	A. J. Norrie	Lasham	7.10
170	F. J. M. Humblet	Booker	18.8
171	J. R. Taylor	Surrey & Hants	7.10
172	G. B. Atkinson	Coventry	11.8
173	Pamela Hawkins	Booker	9.10
174	T. F. Cockett	Booker	11.8

DIAMOND DISTANCE

No.	Name	Club	1984
1/254	A. D. G. Cumming	Camb Univ (in USA)	8.8
1/255	F. J. M. Humblet	Booker	18.8
1/256	G. B. Atkinson	Coventry	11.8

DIAMOND GOAL

No.	Name	Club	1984
2/1349	S. Cervantes	Deeside	1.8
2/1350	R. P. Davis	Rattlesden	11.8
2/1351	K. Manley	Southdown	1.8
2/1352	M. A. Medlock	Surrey & Hants	1.8
2/1353	R. C. Bridges	Coventry	1.8
2/1354	M. C. Burlock	Cotswold	11.8
2/1355	D. A. Booth	Coventry	12.8
2/1356	S. J. Mynott	Cambridge Univ	11.8
2/1357	A. R. Born	Booker	1.8
2/1358	R. T. Metcalfe	Lasham	30.6
2/1359	C. Hale	Bannerdown	11.8
2/1360	A. D. G. Cumming	Camb Univ (in USA)	3.7
2/1361	D. J. Branscombe-Smith	Surrey & Hants	4.7
2/1362	R. M. Parks	Surrey & Hants	6.7
2/1363	J. D. Bally	Black Mountains	19.8
2/1364	R. Dixon	Lasham	11.8
2/1365	C. G. Corbett	Essex	12.8
2/1366	K. A. Moules	Wyvern	19.8
2/1367	G. K. Payne	Booker	5.7
2/1368	R. G. Johnson	Essex	1.8

DIAMOND HEIGHT

No.	Name	Club	1984
3/652	B. R. Wise	London	20.9
3/653	A. D. G. Cumming	Cambridge Univ (in USA)	22.11.81
3/654	T. M. Austin	London	20.9
3/655	I. A. Fraser	Bicester	9.10
3/656	A. J. Norrie	Lasham	7.10
3/657	B. Hughes	Bicester	9.10
3/658	J. R. Taylor	Surrey & Hants	7.10
3/659	S. C. Bicknell	Surrey & Hants	7.10
3/660	R. W. Partridge	Surrey & Hants	7.10
3/661	D. E. Barker	Bristol & Glos	9.10
3/662	A. J. Southard	London	9.10
3/663	A. W. Coombs	Deeside	11.10
3/664	Angela Veitch	Highland	11.10
3/665	E. J. Shotton	Fulmar	9.10
3/666	Pamela Hawkins	Booker	9.10
3/667	D. J. Thomas	Bristol & Glos	9.10
3/668	D. A. Salmon	Derby & Lancs	13.10
3/669	J. F. R. Jones	Hambletons	13.10
3/670	M. E. St. Jean	Kestrel	23.10
3/671	M. J. Baker	Four Counties	9.10
3/672	D. R. Sutton	Yorkshire	13.10
3/673	J. D. Norman	Bicester	22.10
3/674	G. G. Buckner	Bicester	22.10
3/675	J. F. Beringer	Bicester	23.10
3/676	B. S. Carpenter	Bicester	23.10
3/677	S. G. Jones	Avon	23.10
3/678	A. Townsend	Booker	31.10
3/679	M. J. Young	Booker	28.10
3/680	Lynn Norman	Bicester	31.10
3/681	S. H. Simpson	Bicester	31.10
3/682	T. F. Cockett	Booker	31.10
3/683	J. R. Dransfield	Deeside	31.10
3/684	W. R. Brown	Yorkshire	13.10
3/685	J. Grainger	Yorkshire	13.10
3/686	J. B. Dobson	Clevelands	13.10
3/687	A. H. Mather	Booker	28.10

GOLD C COMPLETE

No.	Name	Club	1984
1039	V. J. Chambers	Surrey & Hants	12.8
1040	S. Cervantes	Deeside	1.8

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GOLD C DISTANCE

Name	Club	1984
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R. J. Metcalfe	Lasham	30.6
C. Hale	Bannerdown	11.8
A. D. G. Cumming	Cambridge Univ	3.7
D. Hilton	Booker	5.7
D. J. Branscombe-Smith	Surrey & Hants	4.7
R. M. Parks	Surrey & Hants	6.7
J. D. Bally	Black Mountains	19.8
C. G. Corbett	Essex	12.8
K. A. Moules	Wyvern	19.8
G. K. Payne	Booker	5.7
R. G. Johnson	Essex	1.8

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R. G. Baines	Trent Valley	27.9
C. J. Hamilton	SGU	6.10
R. J. Mills	Trent Valley	6.10
T. M. Austin	London	20.9
I. A. Fraser	Bicester	8.10
K. L. Fixter	Blackpool & Fylde	10.9
D. A. Hilton	Wolds	30.5
M. R. Farrell	Cambridge Univ	31.8
L. F. Parris	Kent	6.10
S. A. Hughes	645 VGS	7.10
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L. C. Bradley	Bristol & Glos	8.10
C. R. Taylor	Bristol & Glos	9.10
Annabel Lucas	Lasham	9.10
B. Hughes	Bicester	9.10
G. Gilkes	Surrey & Hants	9.10
A. W. Coombs	Deeside	11.10
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Pauline Watson	Hambletons	13.10
A. B. Wood	Coventry	6.10
E. J. Shotton	Fulmar	9.10
J. F. Niman	Hambletons	13.10
P. Florence	Bristol & Glos	13.10
Claire Jarvis	Hambletons	14.10
P. Davis	Surrey & Hants	6.10
B. F. R. Smith	Bristol & Glos	8.10
P. J. Mallinson	Bristol & Glos	11.10
C. B. Roddick	Bristol & Glos	11.10
J. D. Spottiswood	Bicester	13.10
E. Specht	Coventry	23.10
M. E. St. Jean	Kestrel	23.10
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H. Chapple	Wrekin	27.10
Elaine Townsend	Booker	27.10
Margaret Young	Booker	27.10
J. R. Young	Booker	30.10
Susan Woollard	Bristol & Glos	30.10
M. G. Woollard	Bristol & Glos	30.10
C. D. Hatcher	Booker	30.10
Lynn Norman	Bicester	31.10
S. H. Simpson	Bicester	31.10
Lorraine Richardson	Four Counties	9.10
G. W. Craig	Oxford	6.10

120	Super Falke	G-BHSD	M	29.6.84	Lasham P2	53 60	N N	508 0	After a normal flight pilot made a long approach with the engine off using a small amount of brake. At about 6ft pilot felt a/c drop and nose go down. "Up elevator did nothing and a/c landed heavily on main wheel." Stall possibly caused by sudden severe gust.
121	DG-200	2368	M	21.7.84 15.00	Brentwood	43	N	1012	After an attempted cross-country pilot was forced to land on the only field which looked safe, a large playing field. Whilst rounding out pilot saw the entire area was covered with small metal posts (left after fête). Pilot attempted to steer between them but aircraft struck three posts.
122	Olympia 463	1370	S	21.7.84 16.40	Rufforth	21	N	11	Airbrakes opened about 75ft. Pilot did not notice this but saw tug pilot giving hand signals and pulled off at 400ft. Tried to return to airfield but was too low. Finally did low slow turn into field but groundlooped and hit fence going backwards. Pilot unaware throughout flight that airbrakes were open.
123	K-6CR	2355	N	1.7.84 14.00	Rufforth	31	N	150	Pilot's landing options were successively reduced while club operations changed ends. "Spoon" broken off tail skid on rough ground.
124	T-49 Beagle Husky	1132 G-ASNC		14.7.84 12.30	Crowland A/F P2	61 18	N N	995 —	After release from a normal tow, and during a photographic session, the tug pilot crossed the glider from left to right estimating his height clearance as 300ft. However, the towrope struck the glider, damaging the trailing edge of the elevator.
125	K-13	2830	M	24.5.84 15.47	Challock		N		Glider hand landed near winch after simulated cable break and was being moved back to the launch point. When some 300yds from the winch another glider was launched. This released the cable almost overhead the winch. The cable was wound in slowly but it was not noticed that the parachute was drifting the cable towards the glider on the ground. The metal fittings at the end of the cable fell across the K-13 wing causing minor damage.
126	Libelle	1598	M	15.6.84 17.30	Cliffe	32	N	270	During field landing glider ran over very rough ground not noticed from the air, some minor damage caused to the fuselage.
127	K-6CR	749	S	7.7.84 18.24	Dishforth	43	N	20	On aerotow the rope broke at 200ft and a straight ahead landing was made into standing corn. No alternative was available and the glider suffered substantial damage to the tail-plane.
128	K-6E	1454	S	30.6.84 14.05	Withington	46	N	700+	Glider was landing in nil wind conditions in a field of freshly cut grass. Within moments of landing a "skating" sensation was felt together with a gentle swing to the right; corrective left rudder had no effect. Glider slid along ground with left wing on the ground. Loss of directional control was probably caused by grass which became tightly wrapped round the wheel and jammed under the fuselage.
129	T-49 Capstan	1203		27.7.84 20.30	Charing P2	66 28	N	564 0	Pilot encountered heavy sink during a passenger flight and decided to make a field landing. Selected a field with a difficult approach and misjudged his approach. Left wing struck a fence post and glider cartwheeled 270° stopping 30yds into the field.
130	K-8B	2358	S	7.8.84 16.14	Parham A/F	40	M	3.50	Pilot underestimated severity of approaching squall and left decision to land until rain started. Encountered severe turbulence on approach and increased speed. Landed heavily, ballooned up then struck ground with right wing then nose.
131	K-2	2920	S	8.8.84 20.05	Strathaven	43	N	9	Pilot opened airbrakes on approach instead of closing them, undershot into fence causing substantial damage.
132	K-13	1447	M	11.8.84 20.45	Long Mynd P2	36 33	N N	1100 —	Pupil flying circuit with verbal assistance turned onto final approach too soon, heading towards parked aircraft. Instructor took over but was unable to avoid landing over rough ground not normally part of the landing area, damaging skid mounting. Landing was downwind. Field operation had not been changed with change in the wind as it was getting late.
133	PIK 20BC	2049	M	28.7.84 17.03	Bickmarsh	45	N	347	Pilot on downwind leg, having misread wind sock, found he was being drifted in towards the runway. While adjusting for this he allowed himself to be carried downwind to an undershoot situation, landing in crop short of runway and damaging undercarriage and fuselage.
134	Nimbus 2B	2375	M	1.8.84 19.00	2 miles E Northampton	49	N	918	Undercarriage collapsed when a/c was landed heavily during field landing.

F = fatal; S = serious; M = minor; N = nil.

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P. Crawley	Clevelands	13.10
Gillian Dalgleish	Booker	24.10
D. J. Dash	Deeside	27.10
A. H. Mather	Booker	28.10
J. Osment	Booker	30.10
H. A. Calderwood	Booker	23.10
I. Strickland	Lasham	13.10

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6820	M. R. Haynes	Essex & Suffolk	11.8
6821	Gillian Webster	Lasham	11.8
6822	C. J. Tillbrook	Coventry	19.8
6823	P. B. Ranford	Booker	19.8
6824	D. M. Bland	RSRE, Pershore	12.8
6825	P. J. Stonebanks	Bannerdown	11.8

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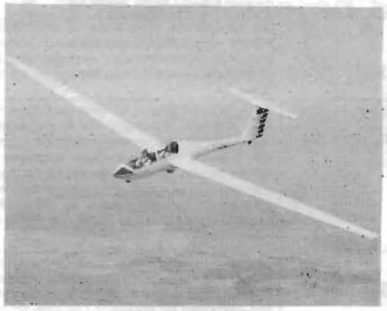
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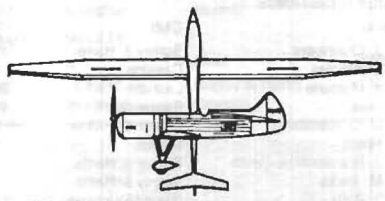


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CLASS STRUCTURE DISCUSSED

CIVV had a special meeting in Frankfurt, W. Germany in October when CIVV delegates, major glider manufacturers and OSTIV Sailplane Development Panel members discussed the glider Class structure. The following are extracts from the report given by our delegate, TOM ZEALLEY.

General Objective

The manufacturers and many others agreed it would be better to spend money to give the most improvement in performance per dollar spent: this meant an increase in span rather than expensive refinements with the existing limited span which gave only marginal improvement. Both winglets and variable geometry (meaning variable wing area) were denounced as being non cost-effective and should therefore be disallowed.

Two-Seaters

Germany held a successful Two-Seater Nationals last summer which encouraged a lot of people to say that CIVV should define a new Class for two-seaters. There were bids for span limitation to be set at all the figures from 18 metre to 24 metre! I think this was really a red herring and it is unlikely CIVV will decide on a Two-Seater Class definition at the main meeting in March. (Helmut Reichman was a particular advocate of a Two-Seater World Championships Class.)

Decision Required

All the manufacturers, but particularly Klaus Holighaus, were adamant that a decision must be taken in March (no votes were taken at this meeting) and that almost any decision would be better than to allow the situation to drift. Some also asked that the final decision should remain unchanged for ten years or so, though it was pointed out that no one CIVV meeting could bind its successors that far ahead. There is already agreement that no new World Championships Class may be introduced with less than four years' notice.

Method of Introduction

There were real fears that CIVV decisions about Classes will devalue existing gliders. Bob Buck (USA) made the point that CIVV delegates stood in danger of being accused "you have scrapped my glider". There are very diverse views as to how any new 17/18m Class would be fitted into the World Championships. While many thought it should replace the present 15 Metre Class, those from smaller countries (Austria, Sweden, Netherlands etc) were keen to keep the 15 Metre Class. Indeed I got the impression that if the motion in March was simply to call for the replacement of the 15 Metre Class by a new 17/18m Class then it would probably be rejected.

Five classes a possibility

There was some support for a phased introduction of the new Class with perhaps handicapping used to allow overlap of two Classes for a few years. My own view, (which, I think, had fair support) was that the most CIVV should decide in March was to introduce a new Class (suitably defined) in four years' time and that no decision should be taken to scrap or merge any other Class for the time being. There is already a growing feeling that our single all Classes World Championships will have to go and we could finish up with five World Classes (including Two-Seaters) gathered into two or more events.

Separation of 15m and Standard Classes

While the closeness of performance between the 15 Metre and Standard Class was put forward as the reason for wanting to extend the 15 Metre to 17 or 18m, many people were concerned by the closeness. One view provoking heated debate was that restrictions should be introduced for the Standard Class to reduce its performance, *eg* no water-ballast.

17m versus 18m

Schweizer, Holighaus, Dirks and Lemke all came down in favour of 18m rather than 17m. Weibel favoured 17m though not dogmatically so. He felt it would be practical to have a two-piece wing and still keep the trailer length within bounds. The two-piece wing would be cheaper than the four-piece wing that all agreed would become essential with 18m. One argument was that the extra cost of the longer trailer would balance out the extra cost of a four-piece wing. Certainly the 18m advocates saw a lot of advantage in being able to use a standard 15m trailer and also, possibly, having a glider that could be flown in both a 15m and 18m configuration.

Cheapness

There were frequent pleas for cheaper gliders. The manufacturers offered no way forward on this and the point was well made that the new low performance K-23 training aircraft was just as expensive to produce as a top class Standard Class glider. However in the same connection the point was made that there was growing interest in handicapped competitions with older gliders — the so-called Club and Sport Class competitions. Both the USA and Australia are running such competitions at National level.

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Your Letters



WIN OR WINGE: A COMMENT

Dear Editor,

John Jeffries makes many very fair points in his article in the last issue, p252, on the current state of soaring competitions. Competition practices were formed in the fifties when Ann Welch was competition director at Lasham for a number of years. They always seemed to me to be a substitute for war. The briefing, the synchronisation of watches, the roar of the tugs as we launched our manned missiles on the programmed path, all reminded us of the 1000 bomber raids over Germany.

When I have sat down to write the budget for the Northern's one week of danger, I find that we are turning over more cash in that competition than we did for a year in the early days of my association with Sutton Bank. Often more than eight tugs are needed to provide a high launching rate for the 40 sailplanes in the meeting. Both are totals greater than those for the first Nationals I flew back in the fifties.

So we progress, or do we? We still operate on those same principles of competition organisation that are wasteful of both time and equipment. The need for a high launching rate means that we must pay to bring aircraft from the other end of England for half an hour's flying on three or four days in the week? The cost is enormous when compared with the very small advantage gained. The practice seems all the more irrational when our super sky ships fly for one or two hours out of a soaring period of seven or eight.

Platypus mentioned in the same issue, p259, his satisfaction as two parachutes opened after a mid-air collision this year; that these are getting more frequent is not surprising when held startlines push 40 gliders and more into local thermals. Why do we do it? Is there vicarious pleasure in sudden death? Perhaps someone will write in to tell me.

I detect that pilots these days go to soaring meetings to fly and use their aircraft. At the Northerns, the amount of non Comp flying is often twice the flying hours spent in combat. So I am led to the conclusion that our present competition format restricts flying and prevents the use of our aircraft.

Restricting the flying time to the best hours in the day is directly linked with the desire for high speed around the course. No doubt the reason is a desire to break world records. This is most unlikely to happen in the UK in thermals for both cloudbase and temperatures are too low to give the conditions necessary. On the very few days when there is a real possibility of record breaking, then tasks can be set accordingly. Is it realistic to consider a 300km triangle task a satisfactory test of flying skill when the course is flown in gaggles and there are only seconds between the course times of the finishers? My impression is that navigation, weather interpretation and timing are all of little importance in this task today because the course is too well marked and sailplane performance is so close.

Denied the opportunity to use skill in the air to win competitions certain competitors turn to other means to enhance their chances of success over their fellow men and women. We have seen the growth of so called "gamesmanship" in soaring — a development that I deplore. A year or two ago I had an experience that showed me how totally unscrupulous behaviour of this kind can upset a meeting and how quick people are to think ill of one another. I am quite sure that the format of our Comps encourages this tendency.

We should take John's comments to heart and ask ourselves why, with the superior wings we now use, we should be tied to the modest thermal and the few hours in the day that they burn. Competition Enterprise has shown us how we can fly all day long in a wide range of conditions. It is now time to move on from this dated format, to reduce costs and increase utilisation. Let us put a greater premium on pilots' ability by building more pilot input into the tasks. Most of all, let the pilot decide when to go. It will make it a much cheaper and safer meeting.

J. C. RIDDELL, **Wetherby, Yorks.**

MOTOR GLIDER RESTARTS AT 500FT

Dear Editor,

While not wishing to detract from Ian Strachan's excellent write up of the DG-400 in the last issue, p262, I would like to caution pilots on the safety or otherwise of restarting at 500ft.

The theoretical reasons are as follows. If you know where you are and can read off the altitude correctly from the map you could easily be 200ft out in your calculation. If you have been flying for some time the heat of the engine and the fact that it has been turning through 90° means that the fuel line may be empty, so the engine may need to turn for some time before firing if it fires at all. With the engine out the drag depends a great deal on whether the prop is turning or not, so if you have to force land your approach might be very risky.

The practical reasons are as follows. I have tried it and it usually works, but not always, and in my case the exception could have been fatal, but luckily was not.

On a long flight when you get down to 2000ft estimated height above the locality you must decide to start the engine. Below 1000ft forget it. In 72hrs you can retrieve yourself by road from Malaga quicker than the undertaker can shunt your remains into the crematorium.

BRENNIG JAMES, **Marlow Common, Bucks.**

ANOTHER EAGLE ATTACK

Dear Editor,

I had only just put down the August issue of S&G which reported an air battle with an eagle in Italy, p178, when I was told of a similar incident at Connel.

The club Pirat was being flown over Ben Lora by John Anderson at about 2000ft when he noticed a large bird some distance above. A few moments later there was a heavy impact on the tail of the glider which was fortunately not damaged. Regrettably the golden eagle was killed.

Club member, Mike Gregory, who is a leading Scottish expert on the golden eagle, was observing the bird from the club Swallow. He couldn't come up with a reason for the attack, other than it had been a territorial dispute or a challenge for food, but did say that the eagle tends to play by diving at other birds of prey, each pulling away at the last moment. Unfortunately the Pirat doesn't have this degree of manoeuvrability!

It is understood that Ben Lora isn't a normal breeding ground and it could have strayed from Glen Coe. The bird was recovered and it is being preserved for scientific interest. Apparently an eagle attacked an RAF aircraft some forty years ago.

It is an experience the club doesn't want repeated and we question the effect of such a heavy impact on a more vulnerable part of the glider.

M. G. RAYWORTH, *secretary of the Connel GC.*

THE PILOT PLATYPUS CRITICISED

Dear Editor,

All but a few readers of S&G will have been puzzled by the second paragraph headed "15 Metre Class Sportsmanship" in the Platypus write-up of the 15 Metre Nationals in the last issue, p219. The clear intention of the paragraph was to say that cheating had probably occurred but couldn't be proved.

That is what Platypus said, but *who* was he talking about? I'm sure many readers will have paused at that point and asked themselves that question. Well, I am able to tell you. He was talking about myself and Alister Kay (flying an ASW-22). This is not paranoia, neither is it a guess, since, on the last day of the competition I was summoned to the director to answer an allegation that I had used Alister in the ASW-22 to assist me round the course.

Whoever made this allegation was callous enough not to bother to speak to me first or to check the facts. The ASW-22 that day, the only day it flew that week, flew from Booker to Dunstable, local soared for a few minutes and was back on the ground at Booker shortly after the startline opened. This may be proved. My only radio call, which only goes to show what a filthy cheat I am, was to give Alister the TPs.

Not only this, but on the previous day I cleverly arranged for Alister to show me the way round in his high-performance Pegasus. This was done in total secrecy — except that he landed at Dunstable first and arranged with the organisation to obtain a competition start. The fact that no radio calls were made between us only goes to show that we must have used a secret channel . . .

I hope I make my point. Platypus would do well to remember that S&G is read all over the world, and apart from the unpleasantness that such an ill-defined allegation creates for individuals, it can hardly do much for Britain's excellent gliding image to write up the embittered mutterings of a few participants and crews at a gliding contest.

Finally, and much less importantly, may I correct Platypus in his statement that the highly controversial penalties applied on Day 2 did not affect the overall results. This, however, takes nothing away from John Cardiff who beat us all, penalties or no. My most sincere congratulations to him.
DAVE WATT, **Maidenhead.**

MORE ON INSURANCE MATTERS

Dear Editor,

I refer to Bill Scull's article in the last issue, p277, drawing attention to advice received from brokers on insurance matters and would like to add a few comments.

Value of Aircraft. I support Bill's suggestion that clubs should ask for "agreed loss values" for hull insurance on total loss of club aircraft which are difficult to replace. Clubs will normally be required to justify to underwriters their reasons for requesting agreed loss values and to explain the computation of the requested sums to be insured. However, brokers should be able to find underwriters to respond to a well reasoned request.

As Bill suggests, the cost of replacing an aircraft can be substantially higher than the so-called "market value" because of a scarcity of aircraft of that particular type (eg K-8, K-13 and K-18). Furthermore, recent experience of the Southdown GC following the loss of a K-8 has demonstrated that substantial revenue can also be lost whilst a replacement is sought. Hull underwriters will not respond, of course, to requests to provide cover for loss of revenue.

As you might expect, insurance premiums will inevitably be higher by opting for increased sums insured for Agreed Loss Values. However, hull rates usually reduce with increased values, so a 10% increase in the sums assured will not necessarily result in a proportionate increase in premium.

Liability Insurance. Typically clubs maintain two sorts of aviation liability insurance: third party legal liability insurance and passenger liability insurance. I support Bill's suggestion that clubs should seek a combined single indemnity limit to cover both these risks, so as to provide maximum flexibility in meeting any claims. I further agree that £500 000 is the *lowest* figure that should now be considered for such cover, as it should be remembered that a claim following an accident occurring today might not be settled for several years. Damages for a light aviation fatality have already exceeded £200 000.

In the context of Passenger liability Insurance, it is important that the word "passenger" is interpreted liberally by insurers, as clearly clubs will want this cover to extend to include pilots under instruction. In the normal course this might be categorised as a further class of insurance, known as Aircrew Liability Insurance. The proliferation of "air experience days" as a way of generating revenue and new members should also not be overlooked when arranging passenger liability insurance in view of the obvious connotations of a pilot ever being held as flying for "hire and reward" — whatever the current legislative inconsistencies in this area.

Clubs should also remember that inadequate liability insurance may result in not only the club suffering financially — perhaps irretrievably — but also in the pilot or instructor concerned suffering too. Bill mentioned the exposure of club officials where a club was not constituted as a "limited liability" company. The moral here is principally to ensure that all liability policies include a "cross liability" clause covering members, instructors and officers as individuals and further for "member to member" claims to be covered. However, it is still possible, even when the members themselves may be protected by the back-stop of "limited liability" for officers to be held personally liable if they had been, for example, negligent. Failing to arrange reasonable insurance cover comes to mind!!

Any club which is unsure about the adequacy of its liability cover is advised first to discuss the matter with its insurance brokers and secondly to ensure that the policy documents accurately reflect the terms of the cover required.
P. N. ATKIN, *secretary Southdown GC.*

50 YEARS AGO

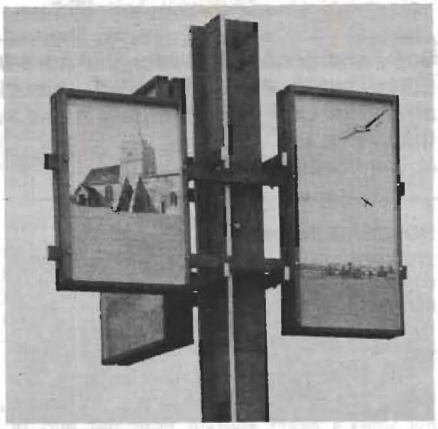
A. E. SLATER

In early 1935 all seemed at first to be going well. Rules for the subsidy were drawn up: a club, to receive it, had to have at least 25 flying members paying a subscription of at least £2 per annum each, rather than a lot of it being frittered away on clubs which only did ground-hops across fields. Here we must introduce L. Howard-Flanders, a leading figure in early British aviation, but a quarrelsome one. He was in at the beginning of the BGA, acting as its unpaid secretary. In this position he produced a banner headline across the page of a Sunday newspaper saying "ANOTHER GOVERNMENT BLUNDER" and making out that a young boy could not afford £2 per annum, etc. But J. R. Ashwell-Cooke, chairman and a founder of the London Club, attended the Royal Aero Club bar every day before lunch where the many newspaper aviation correspondents congregated to pick up the news, so he saw to it that Howard-Flanders' campaign was soon closed down. He also sent gliding news to the various air correspondents' private addresses so that they got the credit from their newspapers for being in personal touch with aviation affairs.

But preparations for distributing the subsidy did not go smoothly. The secretary of the Kent Club worked up a campaign among "the smaller clubs" claiming that they should get the greater part of the subsidy because they needed it most. and a Member of Parliament was briefed to suggest that the greater part of the subsidy should go to "the smaller clubs" to bring them up to the standard of the larger and "wealthier clubs", as if this could be done by pouring in money.

In S&G for March 1935 Philip Wills wrote at last on "Advanced Soaring", articles on sailplane construction were promised, and I, having obtained a textbook on sea waves, wrote on how soaring birds used them, a subject which no ornithologist seems capable of understanding to this day.

The Village Sign



Public Relations is a frequent topic these days. Nikki Campbell has been taken on by the BGA to publicise gliding and to advise clubs on how to advertise their activities and attract members. The Nationals have been sponsored by GEC Avionics. Clubs are being advised to make contact with their local MPs and newspapers in case support is needed with airspace or similar problems. All this can perhaps be thought of as active PR. But passive PR is just as important — the old-fashioned term was "being good neighbours". Examples include the code of practice for field landings, observing airspace regulations and recognising the feelings of people living near gliding sites.

When our club started aerotowing at Duxford we were pleased that it would be easier to avoid causing a noise nuisance than at our other site (which has houses on two sides) but nevertheless we planned our routes to miss the villages in the area. Duxford villagers are used to aircraft using the airfield, but we felt that this did not necessarily diminish our responsibilities. And we knew that the local councillor was more than usually active in guarding her constituents' interests! So, over the past ten or so years we have done what we can to be good neighbours, and we like to think that we have been reasonably successful.

Now it so happens that in recent years many of the villages in East Anglia have decided to erect a village sign. Most are of carved wood or wrought iron, but the recently-installed Duxford sign is in a more modern style with a multiple post and three panels depicting local views. We were surprised and delighted to discover that one of the panels shows gliders over the CIBA-Geigy adhesives factory on the edge of the village. Perhaps this is an indication that our activities are an acceptable feature of the neighbourhood, as well as providing another "first" for our club, which celebrates its 50th anniversary in 1985.

The artist is Anne de Bruyne, who lives in Duxford and is the daughter of Dr de Bruyne, the pioneer of chemical adhesives such as Aerolite and Redux for aircraft structures.

We hope that the sign symbolises a continuing good relationship between our club and our neighbours.

John Deakin, *chairman of Cambridge University GC and a BGA Executive Committee member.*

CLUB NEWS

Copy and photographs for the April-May issue of S&G should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, telephone 0223 247725, to arrive not later than February 5 and for the June-July issue to arrive not later than April 5.

November 30, 1984 GILLIAN BRYCE-SMITH

BORDERS (Milfield)

We continue to have some excellent wave soaring which has been sampled by our new members. Work on our new site has been curtailed recently — more than 6in of rain in a week turned the lower lying parts into a lake.

The BGA Twin Astir is with us for a few weeks and to take advantage of it we have a full week's flying starting from the end of November.

Our latest arrival is an Eagle brought in by pilots from the now closed Sunderland Airport.

T.P.

BURN (Burn Airfield)

At the AGM Vic Fielding and Ken Brown stood down and were replaced by Martin Ellis and Bill Shaw — our thanks for the work done by the retiring members.

At the dinner-dance our guests of honour were Mr and Mrs John Webster and Mr and Mrs Gordon Holmes who both lease land adjoining our runways and upon whose goodwill we depend so much. Mr Holmes, a parish councillor and a Selby District councillor, was the main speaker and it was pleasing to hear that the original fears of the village and farmers have been completely unfounded with the exception of the tug noise, and that an excellent relationship exists between the parish council and our committee.

Mrs Webster presented the following trophies: special merit award, Sue Webster; Jack Bower cup (fastest 100km triangle) and the Pennine cup (longest flight, 530km), Nev Spencer; Chairman's cup (greatest gain of height), Martin Ellis; longest flight in a club glider, Neil Roberts and the Muggins' cup, Helen Fielding for running the Saturday teabus.

We hope the clubhouse will be ready for Christmas and then we will be cleaning up the site and completing the landscaping.

Congratulations to Rose on becoming our first Burn female solo pilot.

V.F.F.

CONNEL (Connel Airfield)

We have once again had a very successful season financially showing the tremendous potential in a tourist area for air experience flights. Our magnificent scenery, a readily accessible airfield and relentless enthusiasm by a few club members are our main assets. It is hoped that the funds raised from the tourists will help to finance a hangar which is now becoming a priority following pressures from our landlords. Its final size is likely to depend on how much grant aid the Highlands and Islands Development Board will provide.

Robert Rothrie, whose job has taken him to Aberdeen, has resigned as CFI and we hope to recognise his pioneering work five years ago when he founded what is now a successful club at a dinner later in the year. His resignation has resulted in a general committee shuffle. John MacGilvray, who recently obtained his full rating, is now our CFI, Frank Walton is the treasurer and Mike Rayworth our secretary.

Congratulations to Billy McLean and Gill Lister on going solo and to Mike Gregory, Alex Flemming, Barry Kerr and Helen McLucas on obtaining their Bronze Cs.

M.G.R.

CORNISH (Perranporth)

When our winch permits we fly a Blanik, K-13, K-6CR, K-6E and a Motor Falke from our cliff-top site at Perranporth.

Following a very successful course season, reverse pulley launching is coming to the rescue of our weary winches and our chairman, Barry Wallace, and team are taking the strain with our Rallye 180. Soaring traced peaks and troughs throughout the season. Arni Lamb (PIK 20D) claimed Gold height and followed with a flight using our ridge and thermals for seven hours, never exceeding 2500ft!

Vintage types at Perranporth include the French 1942 AVIA 40P in an extended C of A, a Grunau Baby soaring again after several years trailer bound and treasurer and Spit/Typhoon pilot Pip Phillips, with his DFS Meise, the early German Oly 2.

Colin McKenzie flew to Devon to become our first successful "escapee" for several years, and congratulations to Dave Puttock, our top K man in 1984 for his performance in our wooden ship at the North Hill Comps. Ken Reid came ashore to collect the Peninsula pot and Early Bird trophies for soaring to Land's End (St Just) Airfield. The year's other happy events include a SLMG PPL to Brian Dye, 5hr legs to Dave Clouder and Dave Hughes and a first solo for Dave Rich. On the training circuit father and son team Nigel and John Davey collected cups for flying efficiency and determination (in the air) at our annual dinner-dance in October.

So you see we do it — quietly — at Perranporth, but we are much concerned for our future tenure here as following a change of ownership, and despite our attempts to purchase, it seems our site may be sold from under us.

B.C.

COTSWOLD (Aston Down)

We operated virtually full-time throughout the summer with well-attended courses and task weeks and had a very successful year.

As reported in the last issue, p265, our pilots won the Inter-Club League final — well done to Tim Macfadyen, Ed Johnson and Jonathan Beard. Congratulations also to Stephen Young, David Mayo, Simon Lucas, Pam MacEwan, Vanessa Mayo, Mark Mackay and Simon Housden on going solo — special arrangements were made for Simon to solo on his 16th birthday as it wasn't normally a flying day.

Ruth Housden has been awarded the O. P. Jones cup by the British Women Pilots' Association for ten years' service to gliding (while managing also to sit accountancy exams and play hockey for Stroud).

The open days in September attracted many new members, besides raising much needed income to help pay off the loans for the airfield purchase.

We intend to keep the momentum going through the winter with a series of fortnightly talks and social events which are well supported.

L.M.B.

Obituary — Vernon Bradbrook

It is with great sadness that we report the death of Vernon after a year-long fight against cancer.

Before joining Cotswold, Vernon was instructor in charge with the RAFGSA in Cyprus for a number of years and he continued to do sterling work as an instructor when he joined us.

Those of us who knew Vernon during his three years at Aston Down will remember his quiet, reassuring way of instructing and his hard work. We extend our sympathy and continuing support to his family.

Linda Breeze

COVENTRY (Husbands Bosworth)

Despite only occasional winter flying our newly-painted clubhouse is a hive of activity most weekends. Assistant instructors had a two-day seminar prior to the full Cat examination with lectures by John Williamson. On another weekend 15 CFIs attended a "Spinning Symposium" when the spinning characteristics of different gliders were discussed from firsthand experience and guests flew our K-13 and new Puchacz. It was directed by Lou Franks, senior examiner for the eastern region.

The manager's wife, Elsie May, was given a surprise party and presentation on her retirement and we thank her for her much appreciated efforts over the years.

Congratulations on going solo to Lou Ravenscroft, Gerry Graves, Neil Stainton, Jan Lee, Martin Garlick and Anne Wildman, who achieved this five months after starting to glide, and John Tempest who soloed on his 16th birthday.

Construction of the new hangar is well advanced with volunteers soon needed to lift the hangar doors which should be quite a riveting event — our last door lift was filmed and is shown on wet afternoons!

N.B.

DEESIDE (Aboyne Airfield)

The autumn wave season was short and sharp. A disappointing September was followed by an excellent October with a new record of over 1000 launches. November was a disaster with a different sort of record, over 10in of rain.

There were perhaps fewer Diamond

heights than usual — they all seem to have them nowadays. Sixteen year-old Stephen Jones was delighted to get his while his more famous Dad struggled at 6000ft and below. "Practising for Reiti" was his comment, adding something about having to do *his* Diamond the hard way in a cu-nim before wave had been invented.

The Super Cub has a new 180hp engine. This, together with the second runway due to be in operation by next summer, should result in a substantially increased launch rate.

K.A.H.

DERBYSHIRE & LANCASHIRE (Camphill)

The treasurer's sums show that 1984 was a good year, largely because of an increase of around 50% in both launches and hours compared with the last few seasons. Two pilots in particular help to see out the old season on a good note; Bob Peck, who only finished his Bronze C in late August, completed his Silver C in just five weeks and in October Dave Salmon gained Diamond height over Sheffield on a miserable looking SW wind day when no other private owner even bothered to rig.

With membership steadily increasing after the recession we look forward optimistically to 1985, the 50th anniversary of our club's formation.

J.R.H.

ENSTONE EAGLES (Enstone Airfield)

Peter Bailey and Keith Freshwater have gone solo and the autumn has brought a good run of weekend weather. On November 18, when a cloud street sat over the site all day with 2kt to a 1200ft cloudbase, there were three flights of more than an hour and many others just under.

We are planning to paint our hangar this winter and improve the clubhouse. More syndicate changes are afoot. The Foka 5, which has been with us a long time, has been replaced by a DG-100. The private fleet has changed considerably over the last four years from mainly Oly 2Bs and Skylarks with just one Libelle and a Kestrel to well over 50% glass-fibre.

G.D.

ESSEX (North Weald)

At long last our new hangar is completed and was formally opened on November 3 with a party and barn dance that evening in the hangar when more than 150 enjoyed a pig roast, fireworks and free beer. The hangar has been dedicated to the memory of its designer, Robert (Bob) E. Brown, who gave unstinting service to our club as an instructor and committee member. Special thanks also to Eric Neve who was the architect.

This year we have had more and better courses than ever and hope to see John Mitchell flying with us again in the spring. We held an open day in September for the public to try gliding.

This season we flew 42 792 cross-country kilometres including two 500km O/Rs to Leeds, one of which gave Mike Jefferyes a UK record with a speed of 93km/h.

S. Griffin, C. Osbourne and J. Baker have gone solo and we have had a good selection of badge claims, too many to mention.

P.W.B.

ESSEX & SUFFOLK (Whatfield)

Recent waterlogged runways prevented flying from Whatfield but our friends at Rattlesden have allowed us to use their long hard runway — many thanks.

Congratulations to John Carver on his first solo and to Paul Rice on his instructors' rating.

Unlike many clubs looking for a youthful membership, we have a very large *ab-initio* contingent from Essex University. We are able to offer a strong instructor team to match them with the K-21 and K-13.

R.C.A

HEREFORDSHIRE (Shobdon Airfield)

We again welcomed the London GC for a week's good flying in October and look forward to their return in the New Year. Their visit coincided with the start of one of those bad patches when technical problems culminated in every aircraft being out of action one weekend; the weather co-operated and wasn't particularly good. We are back in top gear again and our thanks to Howard Bradley for the loan of his Condor tug.

The AGM in November was the most optimistic for some years with new blood on the committee including at long last Ken (if it says still repair it) Martin. Retirements include Phil King who has served us diligently for many years as an instructor and thinker. However he will be involved again next year in such events as the Inter-Club League.

Julian Hughes has his Bronze C which included several memorable flights in the club Vega and Nigel Frost went solo after ten weeks, as did Ossie Vaughan who took ten years — off and on!

D.J.

INKPEN (Thruxton Airfield)

We have a lot of planning and work to do to get ourselves ready for 1985. An EGM was held in November to put some of the more controversial, needless to say monetary, points to the members. We expect to enter the new season leaner and fitter.

We plan to progressively increase midweek flying through early 1985 with the intention of operating seven days a week if the demand exists in the season.

Mike Thorne, our secretary, is moving away and we thank him for all his hard work.

I.D.

KENT (Challock)

The autumn brought reasonable weekend weather with ridge and thermal soaring. Our Jodel is having extensive maintenance after a gruelling season when we flew some 1650 passengers, mostly during specially organised evenings, in addition to the normal club and course flying.

Alan Garside, organising the winter overhaul programme, has had no shortage of help.

The fireworks party went off with a bang, a clone of the CFI appearing on top of the bonfire as a sacrifice to the weather gods.

At our very enjoyable dinner-dance the following trophies were presented: League One (task week), the 988 team; League Two (task week), the EKM team; the League One trophy, the Gook cup, the Chairman's trophy and the Best Flight cup, Tony Moulang; the League Two trophy and the Ladies' trophy, Julie Williams; the tankard for the best flight from Challock, John Hoye for his 518km Diamond distance to Hinton in the Hedges; the trophy for the best Silver distance, Phil Holliday; the Two-seater cup, Mike Moulang and Dave Moorman; the *Ab-initio* shield, Paul Aitken and the Instructors' bowl, John Reeves.

J.H.

KENT MOTOR GLIDING & SOARING CENTRE (Manston)

We are very excited about our move to our new permanent home in Waldershare Park, near Dover. When we were unable to secure the lease of our present site with the MoD last summer we began looking in earnest for a field of our own and have been particularly fortunate in that Lord Guilford has offered us a lease of a 15 acre strip in part of his beautiful estate. The newly-sown strip is some 6/10ths mile long which will give us higher launches, and the location offers good soaring and cross-country potential that we have not enjoyed before. We shall be converting an old barn into a club workshop and clubhouse — a luxury after living out of a coach for the past two years.

When we move we shall be changing our name to the Channel Gliding Club.

E.S.

LAKES (Walney Airfield)

At the annual dinner at the Farmer's Arms, Sparkbridge, the Dodd trophy (best progress) was awarded to Mike Sadler; the Alsford trophy (best gain of height) to Peter Craven; the Duddon trophy (for service) and the Leighton-Hall trophy (the year's outstanding flight) to Peter Lewis and the Lonsdale trophy (longest flight from Walney) to Ray Jackson and Peter Redshaw.

Peter Lewis and Keith Butterfield gained Silver Cs on the same day, Peter with 5hrs on Black Coombe and Keith with a 5000ft gain in wave. Dave North also gained 5hrs on the Coombe in the club's Astir.

E.K.

LONDON (Dunstable)

We have just taken delivery of the first K-23 to arrive in the UK. It is currently being extensively test flown and evaluated by the BGA and ourselves before being given a full C of A.

Guy Fawkes at Dunstable has become a pyromaniac's delight as various forms of rocket powered model gliders compete to immolate as many onlookers as possible. Those who escaped the same fate as the Guy on the bonfire included Geoff Butt, whose design enabled him to recapture the Buttox trophy for the second year.

Shobdon put up with us again during October. The only badge claim was by Martin Blake who then blew it — literally — by blasting the trace off his baro foil with an over-enthusiastic aerosol hairspray!

We gave our resident tug pilot, Duncan McPherson, a leaving party which he and the clubhouse barely survived. Talking of which, photos showing eminent members of the gliding world having lost their trousers are in the club album; orders supplied in plain wrappers from J--n J------s if you are over 18.

D.S.

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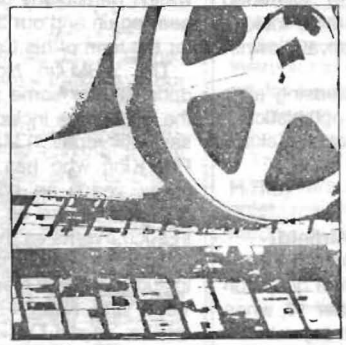
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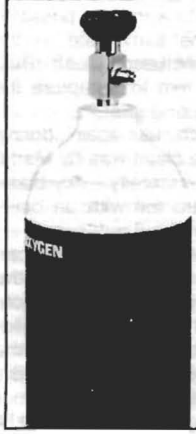
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MARCHINGTON (Marchington Airfield)
When we bought our site a year ago we said the only way to success was to increase the flying and we have had more launches in six months than for the whole of 1983. This has enabled us to drop the launch cost by £1 until next March and to start paying off some of our debts. We've also nearly finished the temporary hangar and have fully fenced our land.

During the season we gave 250 air experience flights and had ten courses. Next season we plan four club weeks and ten courses which means we will be flying three weeks out of four between April and September.

M.S.

NEWARK & NOTTS (Winthorpe Airfield)
This has been a good year with many major projects completed. The less experienced are trying their hand at cross-countries and we are generally getting more enthusiastic about having a go.

For the first time we managed a full team in the Inter-Club League final and gave the favourites, Trent Valley, a run for their money with Novice pilots Dave Prosolek and Dave Sharp winning days on their first cross-country attempts. Fred Mann did well in the Intermediates (even after a five-year break from gliding) and has since bought a Kestrel 19.

Our pilots going solo for the first time normally buy a round in the bar and Derek Heapey, Pete Mitchell, Christine Marriott, Mick Medland and Des Clarke are all out of pocket — cheers lads.

The bonfire party was well attended in spite of the rain and the rocket powered model glider competition proved entertaining.

D.P.

OUSE (Rufforth Airfield)
The onset of autumn saw the windsock well exercised and water was all that landed on the airfield for days on end. However Lawrence Brown went solo, dodging between the raindrops.

Our chairman, reviewing the year at the annual dinner-dance in November, said there had been one of the best increases in membership and there were plans to buy another glider and to expand the hangar and workshop. He thanked Andrew Batters for his 4½yrs as treasurer — Richard Thomson is to take over the finances.

The CFI, John Mawson, presented the following trophies: Anthony Foster trophy (most promising pilot under 20 years), held jointly by Robert Lewis and David Watson; Alan Simpson rose-bowl (longest Silver distance), David Bullock; winner of the club ladder and the Coulsey trophy (longest handicapped distance), Mark Thompson; the Buck trophy (greatest gain of height), John Taylor; Spanner award (unluckiest member), Audrey Boddy and the chairman's award (service to the club by a non-committee member) Richard Thomson.

Work has already begun on levelling and reseeding the airfield to expand the runway.

R.T.

OXFORD (Weston on the Green)
We were all pleased to hear at our AGM that a record year has been achieved and look forward to our double winch operation during 1985.

Congratulations to trophy winners Chris Emson, Phil Barlow and Phil Hawkins, the latter having started his own collection. Also, this year saw the additional "Flying Brick" award, duly presented to Alf Barnes for his extended hangar flight, *via* a field near Middleton Stoney (rumour has it that someone switched his glasses!).

N.T.

PETERBOROUGH & SPALDING (Crowland Airfield)
Winter has seen the usual flurry of off-season activities. Our CFI, Dave Feneley, has successfully twisted a number of instructors' arms to take full rating tests and our instructor and tug pilot contingent has never been bigger. Even Brian Crowhurst has finally been checked out!

Rachel Martin took the Skylark 4 to Portmoak and gained her 5hrs.

K.R.D.

SCOTTISH GLIDING UNION (Portmoak)



Obituary — Andy Penswick
It is with great sadness that we report the death of Robert (Andy) Penswick in a tug accident at Portmoak on October 25.

An extremely capable and experienced pilot, Andy's life centred on aviation. He was an RAF pilot, principally on Lightnings, and came to SGU in 1980 on leaving the Services where he had been very active in the RAFGSA. He is remembered as a popular member of Four Counties and admired for his enthusiasm in helping the younger pilots. While there he organised several expeditions to the Borders GC at Milfield where he recognised their wave potential and eventually became a member, helping them search for an alternative site.

At Portmoak he was an instructor, BGA inspector and a source of knowledgeable and friendly advice with a nice blend of ability to organise, motivate and express his views.

As a pilot Andy had a zest and flair for getting the most out of his flying. He flew a DG-200 and having gained All Three Diamonds was exploring the possibility of achieving 750km.

At the time of his death Andy was deputy CFI and resident instructor at Portmoak. He was a man of considerable stature and achievements, popular and respected and his loss will be keenly felt by his many friends in the gliding world. It has been suggested there should be a memorial to him and we are giving thought to the most appropriate way this can be done.

Our heartfelt sympathy is extended to Andy's parents, Ralph and Chrissie Penswick.

Angus Napier

SHALBOURNE (Nr Hungerford)
It was decided at the AGM to raise the launch fee to £1.75 in line with inflation with the soaring fees and membership unchanged. Wilf Sheppard, Don Scarfe and Monty Hine have been made vice-presidents in recognition of their contribution to the club since its formation.

The club shield (the fastest 100km milk run triangle) and the club ladder trophy was awarded to Richard Swallow with Carol Pike second on the ladder and Ken Porter third. The evening concluded with a curry supper.

Derek Piggott started off our series of winter lectures in November and will be followed by John Williamson and John Delafield.

The clubhouse has been repainted, we are going to convert an ex ATC twin drum petrol driven winch to LPG and Robin May has acquired a cable retrieve tractor to replace our old one. Cs of A have begun on club aircraft and our thanks to Ken Mackley and John Dabill who have done the bulk of the work, also to Angi Coupland for arranging our first Christmas dinner.

J.S.

SOUTHDOWN (Parham Airfield)
Since autumn gliders have been given Cs of A, ground equipment overhauled and the clubhouse has been repainted and given a new floor covering.

With our flying membership hovering at 209 (up by ten per cent on last year) the signs are good for a healthy start to 1985 when we shall be able to use our new, very smooth landing area.

A soon to be opened farm shop car park near our launch point could well provide more experience flights and possibly new members.

R.A.W.

STAFFORDSHIRE (Morridge)
The miserable end of season weather which restricted our flying did not deter the supporters of our winter lecture/social evenings, the slide/tape programmes presented by Tony Knight and Barry Gilman being well attended by members, family and friends.

Membership is still growing with a healthier contingent at the youthful end of the spectrum making a valuable contribution to our operations without revealing any signs of the dreaded "generation gap!" Sadly, we lack female support and Pauline Gwinnett is still our only female flying member.

Our experience of operating a hired K-7 to support our K-13 has encouraged us to pursue a more permanent additional two-seater to use for more advanced instruction and on the additional youth courses planned as part of the Sports Council's "Ever thought of Sport?" campaign.

Club News Contributors: Please note that the next deadline is February 5 and for the June issue, April 5. Regrettably we can't accept reports arriving after those dates.

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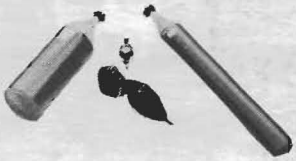
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All of our mid-week, air experience flying evenings for 1985 have been fully booked since the end of October.

B.G.

STRATFORD UPON AVON (Long Marston airfield)

A somewhat difficult season compounded by the decision of the airfield owners to plough and crop the grass areas between the three runways. However, we are still flying and ever hopeful of satisfactory alternative arrangements for the future. Visiting pilots please note operating restrictions with landings only on runway in use plus the peri-track at the Northern "23" (Stratford) end.

Congratulations to Paul Ingram on going solo and special congratulations to Mike Coffee on his Gold C complete with a Diamond goal in August. On a sad note we regret to record the death of Fred Haines, one of our early founder members, after a short illness. Fred was for some time a member of the K-2 syndicate and will be sadly missed with his enthusiasm for keeping the towcars in pristine conditions.

H.G.W.

STRATHCLYDE (Strathaven)

At our AGM Graham Carson, Graham Sturrock and Des Tait agreed to continue as chairman, treasurer and CFI respectively.

The exceptionally fine summer produced 1234 launches, the highest for at least five years, and the Falke in particular proved its worth. The club fleet also includes a Skylark and two K-2s.

The old hangar has survived two ferocious gales and the new hangar is now taking shape with total costs by October 31 of £3877.

We are hoping to launch a publicity drive in the spring to encourage new members and extend a welcome to all who are interested.

A.G.F.

SURREY & HANTS (Lasham Airfield)

The Portmoak pilgrimage proved successful with most people doing a good deal of flying. There were six consecutive wave days in the middle of the three weeks, five giving 10 000ft or more. Diamonds went to Steve Bicknell, John Taylor, Ray Partridge and Tony Norris and Golds to Paul Davis, Annabel Lucas and Graham Gilkes. The weather was generally rather cloudy and not conducive to cross-countries.

An expedition to Talgarth also had its fair share of wave and produced one particularly spectacular westerly ridge day with several pilots making the jump to the Brecons and beyond under unexpectedly good thermal streets.

The club has sold an Astir and replacing it with a new DG-101 (club) to ease the pressure on the Sport Vegas.

C.G.S.

TRENT VALLEY (Kirton in Lindsey)

1984! Not an Orwellian nightmare after all: in fact quite a good year for gliding. We have seen John Williams completing his set of Diamonds with a flight to Perranporth and Mick Ward missing his 500km in a wooden ship by just 15km.

We won the Northern Inter-Club League

again and put up another good show at the Northern Regionals.

The club K-8 was damaged by a visiting member and our lovely K-13 badly damaged in a most unnecessary accident.

Bob Baines is our new CFI, Dick Hannigan is a full Cat instructor, Bob Kmita has his instructor rating and Viv Marchant has a passenger rating.

We seldom award life memberships but this year they have gone to Peter Holland, our treasurer "forever" and without whose hard work and dedication we couldn't function; to John Swannack, retiring CFI who moved us from circuits to Diamonds and Lt Col Ian Johnson, our landlord and friend who has served us well.

R.H.

ULSTER (Bellarena)

Retired mariner James McLeod was alone in the wheelhouse on November 18 when he soloed the Capstan at the age of 71 — 51yrs almost to the day since he soloed on power in a Gipsy Moth III at Renfrew. James soared for 25min in weak wave on his maiden solo, gaining 700ft.

A few days earlier the marginally younger David Curran, a Shorts flight-test engineer, also soloed and immediately became a founding member of a new K-6CR syndicate.

We made a modest profit in 1984 and have established a site-purchase fund with some of the surplus. We're entering 1985 with a major presence at the four-day Festival of Youth in January at the King's Hall in Belfast where we'll have a 20ft stand and will surmount the show once again by hanging our Twin Astir from the roof.

We're planning four residential courses in 1985 and our traditional nine-day Easter camp and task week will feature a BGA national coach complete with Super Falke. Mainland GB participants are warmly invited — phone me on 0232 790666 if you'd like to come.

We were very saddened by the death on November 22 of our landlord, Jim Allison, who had been an unfailing source of encouragement and a generous friend since he first invited us to "prospect" his farm in 1977 and to move in at Easter 1978.

R.R.R.

VECTIS (Sandown Airport, Isle of Wight)

Before an eventful and thoroughly enjoyable season came to a close the local press paid us a visit and enjoyed their flights. The publicity was worthwhile and thanks to Nikki Campbell, BGA publicity officer, the article published was both informative and humorous.

We held our first dinner-dance on November 24 which was most successful and optimism is running high for 1985.

S.M.

VINTAGE NEWS

Last year saw the return of Ted Hull's Kite 1, beautifully restored after 3½yrs' work, as well as the immaculately restored T-21B by a Blackpool & Fylde GC syndicate.

It was a good cross-country season with the 310km from Husbands Bosworth to Plymouth by Lou Franks and Norman James being the best flight ever in a T-21. Tony Smallwood (Gull 1) flew 1065km in 36hrs during Competition Enterprise to come 10th, his longest flight being a 250km. Geoff Moore (Mü 13D-3) achieved 198km, Ron Davidson (Petrel) 160km and C. Wills (Rhönbussard) two 120km O/R on the same day.

The Rendez Vous Rally at Münster/Telgte Airfield in July had poor weather but the 12th International Rally at Terlet, Holland in August had strong thermals with soaring on all of the eight days, though fresh winds allowed only one task to be completed. With 52 entrants, this was our largest Rally and many beautifully restored gliders were seen for the first time including the replica Hungarian Cimbora two-seater, a 1941 Rubik design; Werner von Arx's Swiss Minimoa 36; Hans Dijkstra's Goevier 3 and a Norwegian replica Grunau 9 primary which we bungy launched.

The National Rally at Sutton Bank from August 24-September 1 was well organised, as were the other two, and held in remarkable conditions which allowed hill, wave and thermal soaring on every day, though strong winds during the second half of the week kept us on the ground while on two days a Nimbus flew to 29 000ft asl. D. Jones flew his excellent King Kite for 6½hrs and for the first time we had a flying wing at one of our Rallies, the AV 22 which made a good impression. On Wednesday Robin Traves flew the Gull 1 to 10 000ft in wave. We believe the Vintage Club now offers the greatest variety of sailplanes in different forms, colours and sizes ever seen.

A Gull 3, BAC 7, Dagling and Falcon are being restored or built as replicas and we have 15 important vintage sailplanes to be restored by their owners. In Germany, the Münster Minimoa will be flying this year having been restored mainly by Rainer Willeke who rescued it from Montargis, France in 1972, and the Klaus Heyn Rhönadler and Wolf replicas are being worked on.

The 13th International Vintage Rally will be at Amlikon, Switzerland from July 20-28 and the Rendez Vous Rally will be at Blumberg, Germany from July 13-20.

C.W.

WELLAND (Middleton)

Congratulations are due to Vincent Conn, John Larkin, Ray Marriott and Ken Wells on going solo; to Barry Chadwick and Ray Farmer on resoloing after long lay-offs; to Keith Scott and Phil West on completing their Bronze Cs and to Alan Bushnell on his 5hrs.

Our L-Spatz is a welcome addition to the club fleet.

R.H.S.

WOLDS (Pocklington)

Congratulations on going solo to Joe Ramsden, Steve Maxwell, Phil Heaton, Gordon Basey, Pete Holmes, Len Nicholson, Chris Mowthorpe, Denis Pardoe, Sally Debono and Bob Holroyd.

The summer courses went so well we are again looking for a course instructor for the coming season. The club fleet and syndicate gliders have been increased and we continued to improve our site, including the planting of a large number of trees as a contribution towards nature conservancy. The local council have erected several strategically placed signs to the site so no excuses for not being able to find us.

Gareth Jones, our hard working treasurer, became an instructor and congratulations to Bob Fox on his Diamond distance.

The annual dinner and prizegiving was enjoyable and to echo the sentiments expressed there, our thanks to everyone for all the hard work this year.

T.H.

YORKSHIRE (Sutton Bank)

During the late autumn yet more wave was exploited by members sufficiently with it to recognise the opportunities. Dick Stoddart completed a 200km O/R in wave to add to his 26 000ft gain of height a few weeks earlier.

Occasional bright westerly days provide welcome soaring opportunities but generally winter days at Sutton Bank are for reminiscing.

Come and see us in 1985, with or without a glider, partner, kids etc. You will be very welcome.

P.L.

SERVICE NEWS

BICESTER (RAFGSA Centre)

Our annual October expedition to Aboyne proved to be yet another classic giving us nine Gold and eight Diamond heights. We took our own tug which helped significantly during the rush to get over 20 gliders airborne at dawn. Our thanks to Alan and Chalky for their hospitality.

Back at home we have eight going solo but on one occasion flying came to a stop because of a waterlogged airfield.

John Hull has been posted from the staff to Lyneham, but is still flying with us.

We look forward to our Christmas party on December 15 and our AGM in January.

S. & J.

CLEVELANDS (RAF Dishforth)

Chris Sherlock and Phil Shambrook have returned to civilisation with tales of Falkland's lift peaking at over 20kt! Closer to home there have been height claims by John Dobson (Diamond), Neil Claughton (Gold) and several eminent visitors.

Our AGM saw trophies presented to Colin Walker (CFI's cup), Tom Eagles (Wave pot) and Y.T. (yet another failed 500km). The demise of the Blanik on a failed winch launch has left us without a basic trainer for the time being.

P.W.

CULDROSE (RN & RMGSA)

The country's most south-westerly gliding club is still hanging on grimly to the gale-torn cliffs of the Lizard peninsular.

Despite a setback early in the season with the club's much loved Pirat, 1984 has been a fairly good year. A strong contingent waved the White Ensign at the Inter-Services Regionals and our summer course was almost its usual financial success. An increase in insur-

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B.G.A., C.A.A., P.F.A. APPROVALS

ance has raised costs, rather dampening some spirits but, with considerable assistance from the Sailors' Fund and the Fleet Amenities Fund, we were able to buy a Pegasus to replace our Dart 17R. Any prospective buyers should write to the club secretary.

George Kosak has handed over the task of CFI to John Smith, prior to joining a front line squadron and disappearing to sea. Our thanks to George for all his efforts in recent years and to his long suffering family.

This year's annual dinner in December will have Rear Admiral Michael Livesay, a naval glider pilot of renown and the vice-chairman of the RNGSA, as the guest speaker.

C.E.M.

FOUR COUNTIES (RAF Syerston)

Club fortunes are on the way up. Our accommodation and bar are undergoing long overdue facelifts and we have a pleasing increase in *ab-initio* membership. We welcome Jenni and Tony Duignan from Phoenix GC and Tony Povey from the Penguin GC (Falkland Isles).

Our annual Scottish trek resulted in one Diamond height for Mike Baker and Gold heights for Geoff Phillips and Lorainne Richardson . . . what a waste of a honeymoon Lorainne.

The recent AGM was well attended and the various items of silverware went to Ben Benniston (two, the greedy man), Martin Goodwin, Lorainne Richardson, Graham Chinn, Jed Edyvean, Sue Phillips and Bob Spiller, whom we also congratulate on becoming

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DCFI. Despite a generally lower membership than in previous years the overall annual statistics are within the same totals.

We look forward to the RAFGSA sponsored instructors' course at Christmas and New Year when prospective assistant Cats from Wrekin and Cranwell join our trio of Martin Goodwin, Trev Gourley and Jenni Duignan.

A.F.M.D

FULMAR (RAF Kinloss)

We did not have as much wave over Kinloss in the autumn as we would have liked but the club expedition to Aboyne in October raised morale with over 200 flying hours in a fortnight, a Diamond height for Eddie Shotton and a Gold height for Robin Willis-Fleming.

Carol and Mick Simmonds are posted to Coningsby, a southern club's gain and our loss.

We have successfully completed our hangar move to the south side of the airfield and the winter months have been spent getting the hangar into shape.

We almost broke our launch record last year; given the luck with the weather this year should be one of our best ever.

W.G.

PEGASUS (RAF Gütersloh)

We had a record and accident free year with 6000 launches and 1200hrs, with lots of money spent on new equipment.

The AGM in November saw the major prizes being won by Ian Smith (best progress); Ron Breezer (best flight in the K-13); Derek Jones (advanced achievement) and Al Stacey (member of the year) who was also awarded a year's free membership because we can't afford to lose his tireless efforts and enthusiasm.

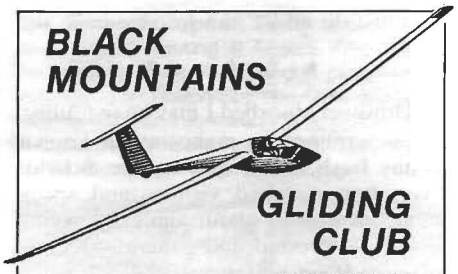
The poor weather in Germany meant a stockpile of K-8 pilots with Bronze legs all itching for the sun to shine to achieve higher badge claims, though it's doubtful if we can beat the 32 first solos produced from the efforts of five instructors.

In 1985 we hope to emulate 1984's expedition effort when we visited Bisperode, Vennebeck, Buckeburg, Achmer, Oerlinghausen and Weelde in W. Germany, Oostemalle, Belgium, Innsbruck, Austria and Romorantin, France.

We are sorry to say goodbye to Ian Gallacher, Derek Jones and our chairman, Keith Grumbly, and hope his successor, Iain Harvey, will be as popular.

M.V.B.

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(Continued from p9.)

story — pundits please note. Once upon a time there was a very short-fused Master of Foxhounds, who watched one day with horror as a mounted farmer galloped right across a field of wheat. "What the swear curse blaspheme do you think you're doing?" roared the MFH. "But it's my own field," replied the farmer. "So much the worse," came the reply, "Where's the force of example?".

(Continued from p17.)

more expensive subscriptions and cheaper launches, with a generous subsidy for the young on both counts. Lately I've got into the habit of only launching when I know there is at least a sound chance of an hour's flying. I personally feel the alarming accident level is partly because we aren't getting enough practice in landing.

★ ★ ★

7. With a low cloudbase and water on the airfield this is an easy one to make — but I'm determined to give the family a few summer outings when the sun is shining instead of only being around when the weatherman has guaranteed steady rain throughout the weekend. This one is really going to hurt and may be the first I'll break — another reason for staying undercover with the pen-name.

★ ★ ★

8. When acquaintances show an interest in gliding I'm going to whip out my diary and arrange for them to come and have an air experience flight, instead of the vague "you must have a flight one of these days". We need new members and we must do all we can to encourage the public.

★ ★ ★

9. However absorbed I may be in fettling, I'm determined to make myself known to any fresh face I spot on the airfield. I've often watched visitors and sprog members wander about aimlessly, trying to look interested and generally feeling left out. It's a nuisance socialising when you are anxious to play with your glider, but if every member gave a few minutes of their time gliding clubs would be friendlier places instead of tending to be split up into exclusive groups of enthusiasts freezing everyone else out — and we might not get so much criticism from newcomers.

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Overseas News

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

British Success in USA. We were pleased to hear that George Green, a life member of SGU, won the Region 4 Regional Championships' 15 Metre Class in the USA where he is now working. Flying an ASW-20, he was also awarded a trophy for having the highest points in the contest held at Fairfield, Pennsylvania.

George has flown in several UK Regionals, the 1976 Nationals and at Vinon in 1978.

The Trans-European Rally is from June 29 to July 15, starting at Angers, France with the following route — Besancon, Nuremberg, Valence, La Rouch-Sur-Yon and back to Angers. Further information is available from Aeroclub ASVV, 6 Bis Route Nationale, 49240 Aurille, France.



The PIK 20E flown by the Finnish Champion.

The 4th European Motor Glider Championships at Räyskälä, Finland from June 25 to July 7 attracted competitors from five countries, but alas none from the UK. The weather was less than favourable resulting in six contest days.

Horma, the Finnish pilot with the highest score, became the Finnish Champion with the leading results as follows: Open Class, 1 Binder, 1879pts; 2 Rueb, 1565pts; and 3 Abhau, 804pts, all from W. Germany; 15 Metre Class, 1 Dirks (W. Germany), 1938pts; 2 Horma (Finland), 1586pts, and 3 Kössler (W. Germany), 1447pts; Two-Seater Class, 1 Ulbrich, Kretschmann (W. Germany), 1348pts; 2 Hoffmann, Schmidt (W. Germany), 1203pts, and 3 Jaksland, Larsen (Denmark), 1000pts. — R. J. Clark.

Thoughts of a Pupil Glider Pilot

While I learn to fly as eagles do
I am spellbound at the breathless view.
To see the fields so green and neat
a world of wonder at my feet,
And hills that blend into the sky
are there to lift me when I fly.
A bird can fly on feathered wing
and perches high its song to sing,
But I must look for lift in wave
if any length of flight I'll save.
And surely I will never know
where swifts in depths of winter go,
And when I finally master flight
must I lay an egg each night?

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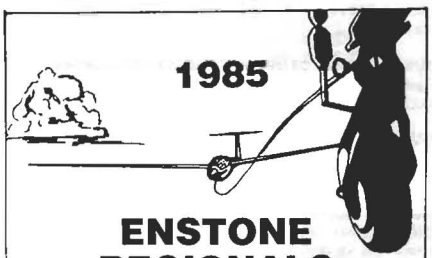
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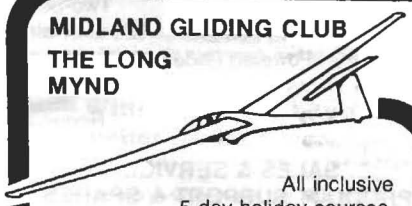
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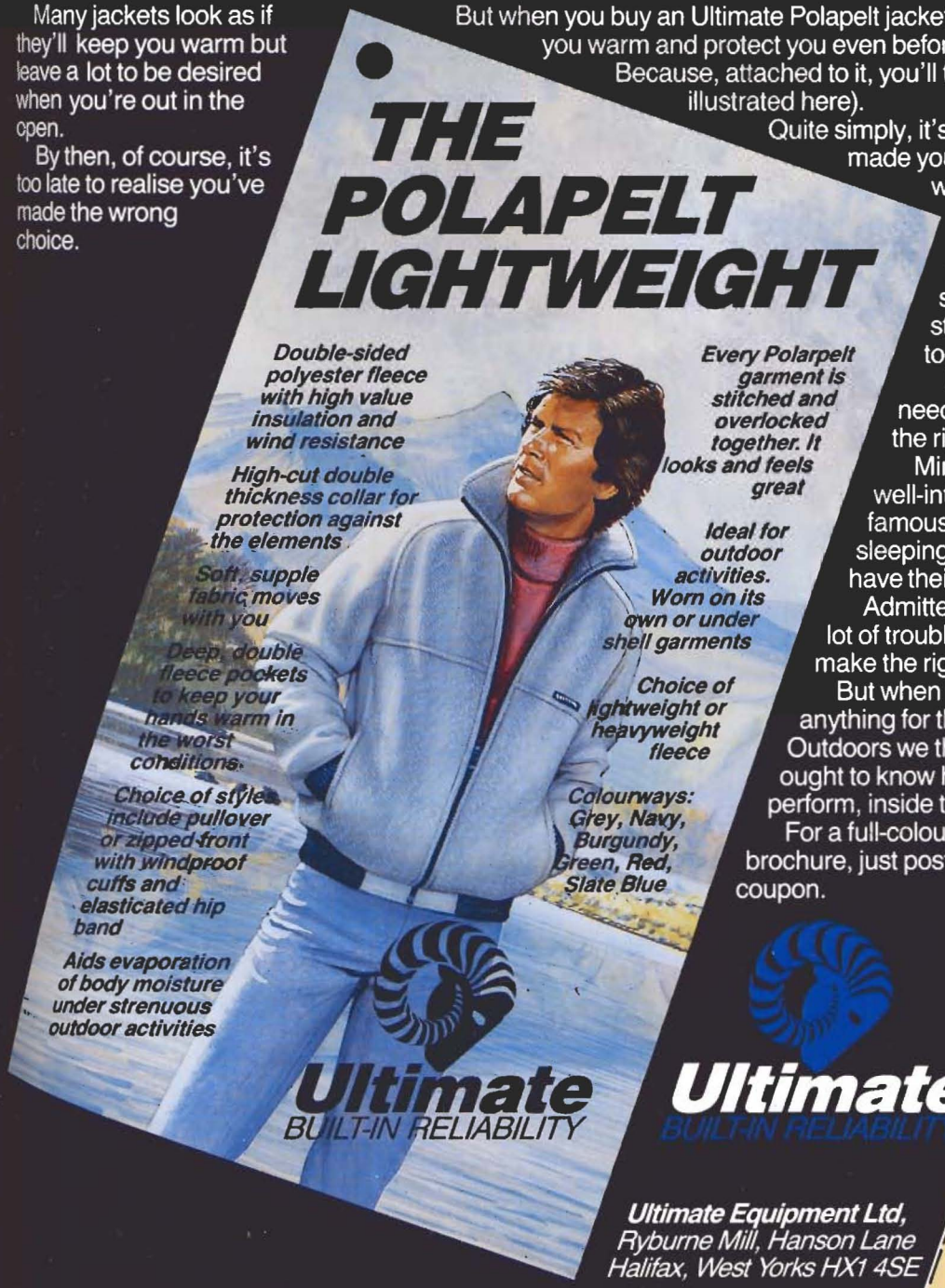
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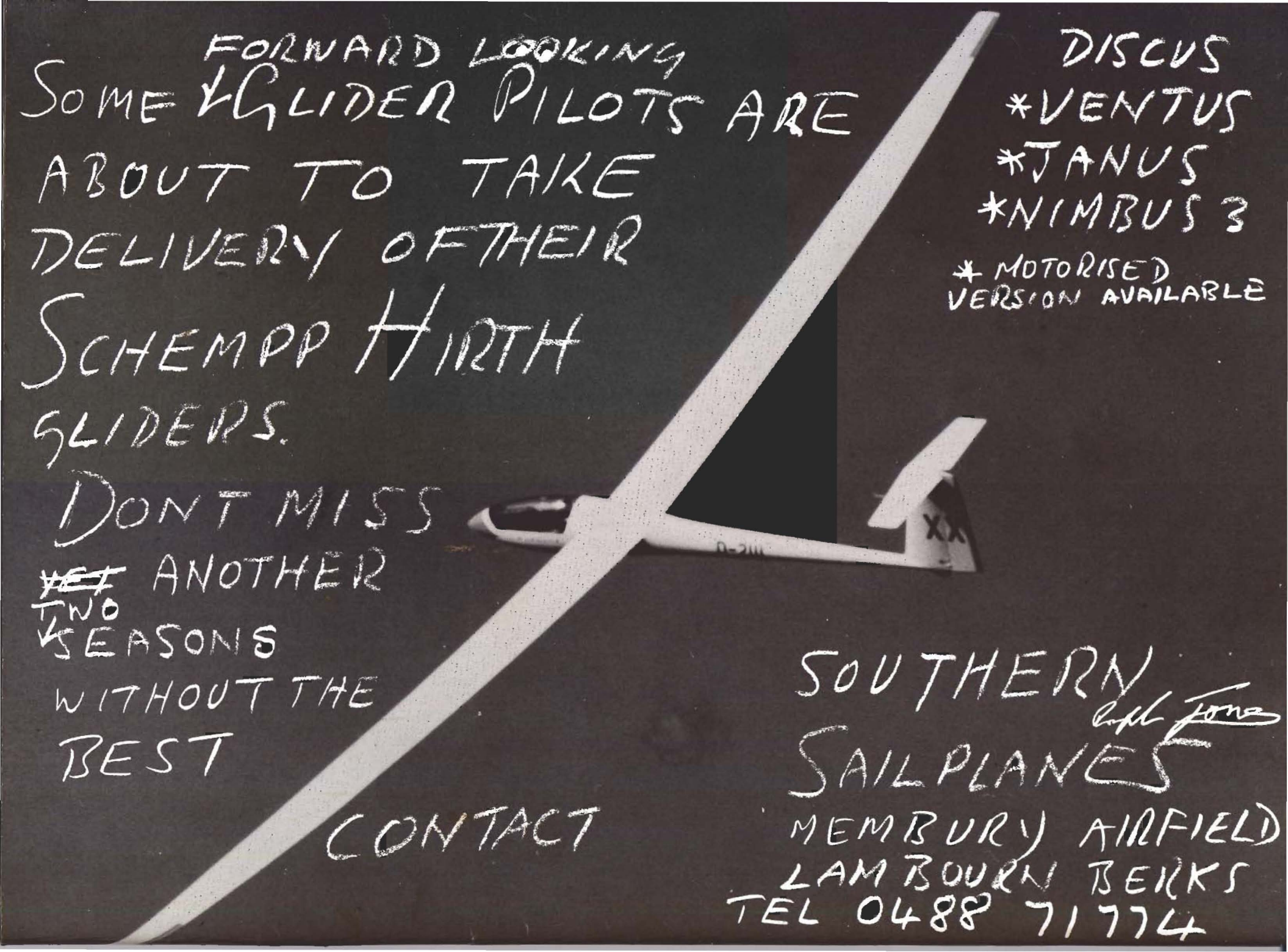
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