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Editor:
Gillian Bryce-Smith, 281 Queen Edith's Way, Cambridge, CB1 4NH. Tel. Cambridge 247725.

Consultant Editors:
Alan E. Slater
Rika Harwood, 66 Maisemore Gardens, Emsworth, Hants. Tel. 024-34 4580.

Subscriptions:
Jenny Rolfe. Tel. Market Harborough 67084.

Committee:
A. W. F. Edwards (Chairman), R. Q. Barrett. M. Bird, F. G. Irving, B. Rolfe.

Advertisement Manager:
Peggy Mieville, Cheiron Press Ltd., 7 Amersham Hill, High Wycombe, Bucks. HP13 6Q. Tel. 0494-442423.

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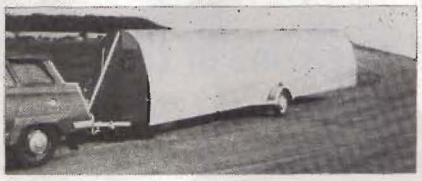
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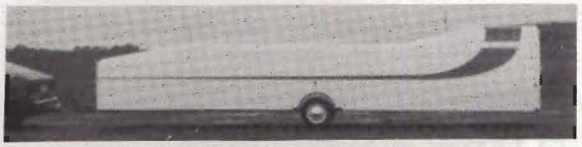
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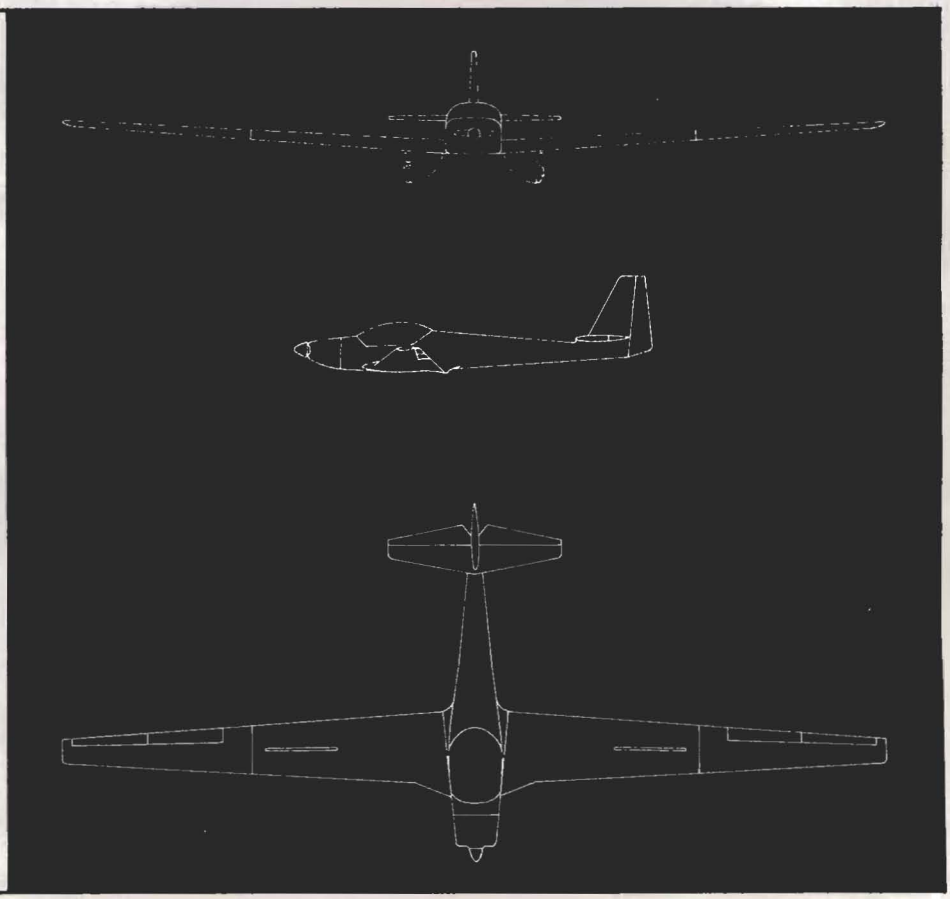
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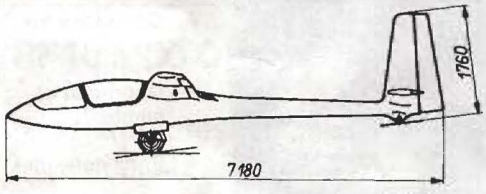
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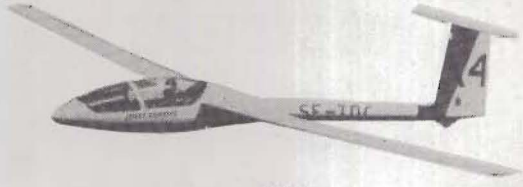
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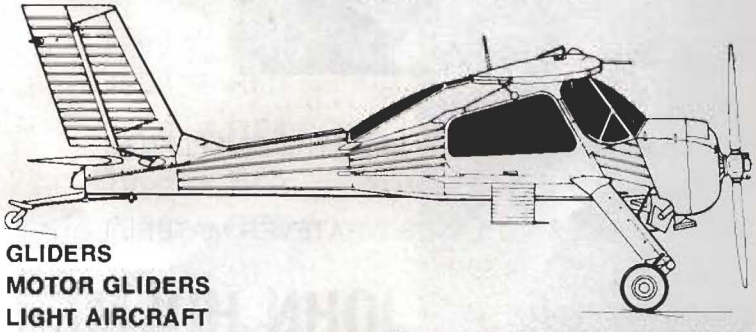
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AN INTRODUCTION TO COMPETITION FLYING



Photo: Gerd Schäfer

Part 1 — Preparation

GEORGE LEE, World Open Class Champion, has some thoughts on that first competition and devotes this article to the preparation

Illustrations by Mike Spencer

Generally speaking, glider pilots who decide to try their hand at competition flying can be divided into three categories. The first group comprises those who are competitive by nature and, knowing it, can't wait to achieve the minimum entry qualifications. The second category consists of those pilots who are not sure whether they will like it or not but who are interested in giving it a try to find out. The final category is made up of pilots who do not have strong competitive aspirations but who may wish to increase their cross-country experience, with the additional benefit of sharpening their soaring skills by flying with some pretty capable pilots.

Preparing yourself and equipment

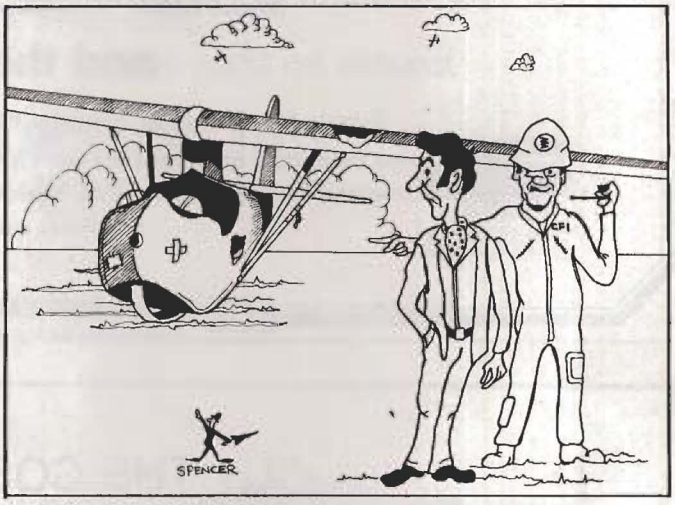
Whatever the reason, you've decided to take the plunge and, in spite of a number of doubts and worries, you're already looking forward to the event. As anticipation constitutes at least part of the overall enjoyment, let us do a little scene setting by establishing the season as winter with your Regionals entry for the following July already accepted. That gives a lot of value for money on the anticipation stakes but, of even greater importance, it gives an adequate amount of time for the drawing up of plans and for the preparation of self and equipment. It also offers a reasonable period for the cultivation of some additional financial fat!

The actual financial requirements during a competition depend to a large extent on the number of retrieves and the daily demands of your crew members. The former is impossible to predict and you will need reasonable reserves to cater for the worst case, but it should be possible to make some economies in the area of living costs (select the right moment to tell your crew that they may have to make do with steak every other night!).

Should get on well together

On the subject of crew, it is most important to be careful in your selection. One crew member is just about sufficient for a Standard/15 Metre machine, but life is made that bit easier with a two-man crew and it is essential if you are flying an Open Class ship. You should all know each other fairly well and get on well together, but to my mind the most important qualities a crew member should possess are enthusiasm, dependability and resourcefulness.

Someone who is there because he or she is really keen to help you do as well as you possibly can and who is well-endowed with commonsense is likely to produce better results than the triple Diamond holder of a degree in micro-chip technology! Having agreed the composition of your crew it is important that everybody should start feeling part of a team and that spirit can be fostered by involving your crew as much as possible in the plans and problems during the months before the Big Event.

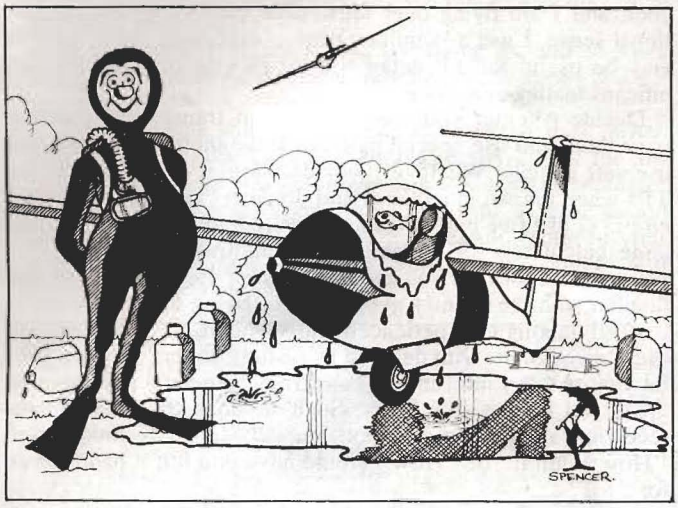


If relying on the club fleet . . . !

It is now time to consider the aircraft. If you are a private owner your choice of aircraft is probably decided. If you are trying to decide which aircraft you should persuade your CFI to let you have from the club fleet, I can only put on my Handicapping Committee hat and say that it should make no difference as all the handicapping indices have been meticulously calculated to raise or reduce all performance curves to a common base. Seriously, it all depends on your experience level and I recommend that if you have a choice you should fly the type of aircraft you feel most at home in.

Be it a club or privately owned machine, the winter months can be used productively to get it into competition fettle. How much you do depends on your keenness/knowledge, but it is a mistake to bite off more than you can chew.

As far as wing surfaces are concerned, it is generally sufficient to ensure that both wooden and glass ships are smooth and in a good state of repair. For glass ships, work on the wing profile can be beneficial but expert knowledge is essential and a lot of man-hours can be expended in return for only modest gains in performance. The climbing performance of flapped glass ships can be improved by careful sealing of flaps and ailerons and by fitting a simple "scraper" blade onto the root end of the flaps — all designed to inhibit the drag-producing flow of air from the high pressure lower areas to the low pressure upper areas. On all gliders it is important to have airbrakes that fit properly — it is better to have the external airbrake surfaces slightly concave than to have them protrude in flight.



Ensure the waterballast functions correctly

If any corrective action is required, it may be possible to achieve the desired effect by adjusting the control linkages. If that proves to be insufficient, it may be necessary to sand down the surfaces by the required amount, but do seek the advice of someone "in the know" if you have any doubt about your ability to carry out the work.

As for the fuselage, the three main areas to concern yourself with are the canopy, release mechanism and the undercarriage. They all need to be sealed using, individually or collectively, tape, foam and bathroom caulk. The main object of this exercise is to seal these areas to prevent the drag-producing flow of high pressure fuselage air to the free airstream at points other than where it should be exiting — at the rear of the fuselage. A word of warning, don't seal the canopy so well that it cannot be freed, if necessary, in flight. General wing root to fuselage sealing for all gliders is achieved by good external taping, but the benefits to be gained from extensive sealing of control rods and rudder to fuselage junction tend to be more imaginary than real. If the glider is capable of taking waterballast, ensure that the system functions correctly and there are no leaks (if you have not flown much with water I recommend that you forget it for your first competition and take the 2% handicap bonus).

Having surprised yourself with the progress you have made in completing the basic aircraft fettling requirement, you should now consider the instrumentation. It has been said many times but I really do believe that simplicity and reliability are the key words in this area. Of course "simplicity" can mean different things depending on experience level, but I suggest that the following list is a reasonable one for someone entering their first competition:

a. One mechanical variometer (with speed-to-fly ring).
b. One electric variometer (with audio).
c. Altimeter.
d. ASI.
e. Turn-and-slip indicator.
f. Magnetic compass.

The layout of the instrument panel is not critical, except that the compass needs to be mounted some distance away from both the turn-and-slip indicator and large amounts of metal. Most pilots find it best to have both varios mounted next to each other and positioned in a relatively high position on the panel so that the indications can be absorbed quickly and easily. In our simple layout the mechanical variometer should be used for the cruise and the electric variometer for thermalling. A further inexpensive refinement would be the addition of a Netto system to the mechanical variometer, with the climb/cruise switch mounted in a convenient position near to the instrument and the speed-to-fly ring recalibrated to make efficient use of the information on airmass behaviour during the cruise.

If you will be flying a flapped aircraft you may want to "colour code" the ASI as a flap-position reminder. On the subject of airspeed, a good total energy system is of fundamental importance and a properly installed fin or fuselage-mounted probe will be perfectly adequate. If your instruments are to give you accurate information consistently, it is essential there are no leaks anywhere in the system. As I said earlier, don't be afraid to ask for help from one of the more experienced members of your club if things do not go according to plan.

One of the most important instruments is also one of the least expensive — I strongly recommend flying with a carefully calibrated length of wool, suitably mounted on the canopy with a small piece of tape so that it flows back from the front of the tape. Finally, if things seem to be working well (you might wish to get information from a more experienced pilot that this is the case), resist the temptation to change things for the sake of change.

Secure the barograph

And so to another few points of fundamental importance relating to the aircraft. First check the battery for condition and arrangements for stowage. If possible plan on taking a spare and a battery charger of the correct type. Next ensure the barograph is secure when installed and that spare foils and a valid calibration chart will be available when you finally set off.

If you are not too familiar with the aircraft you will be flying it is a good idea to put on the parachute you will be using and check out the comfort level of the seating position whilst ensuring that all instruments and radio controls can be easily reached. I cannot over-emphasise the importance of cockpit comfort — the smallest of projections on the parachute pack can have a disproportionate effect on one's concentration after a few hours of a competition flight.

Next consider how you are going to manage your cameras in the cockpit. I say cameras because I consider it essential to carry two — even Instamatics have been known to jam! I recommend the construction of two simple brackets, one for each side. They can then be permanently secured to the cockpit and the cameras held firm in them by bungys.

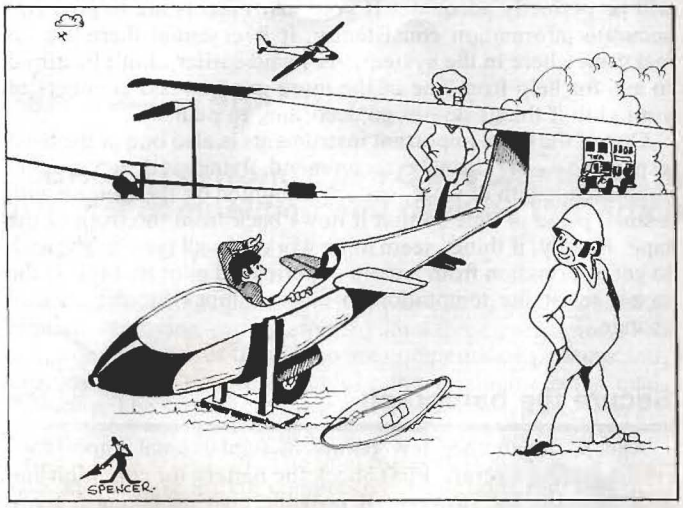
Advantages of a fixed camera

If you will be flying a club aircraft and there might be some objection to this course of action, an alternative idea is to construct a box from aluminium which is large enough for both cameras "bottom to bottom" and again secured with bungys. Four kitchen rubber suckers can be screwed onto the face of the box and these will guarantee a secure grip onto the lower side of the canopy. Shutter release can be direct or I have found twin remote release leads to be effective (they need to be securely attached to the box). Whichever method you use, a fixed camera arrangement offers the advantage of being able to use the wingtip as a sighting aid. Consequently the aerobatics normally associated with taking TP photographs using hand-held cameras, and the attendant height loss as you slip/skid towards earth, are at worst reduced!

The final point concerning the aircraft is that it is worth carrying out a compass swing (wings level, canopy closed) — it's amazing the number of experienced pilots who have cruised off on a wrong track, brain in "neutral", believing an inaccurate compass.

Two other very important items of equipment are the trailer and the retrieve car. The trailer needs to be basically sound with two good tyres and a spare. Both the plug and the wiring

should be in good condition and all light indications should be checked using the intended retrieve car (it's worth carrying a couple of spare bulbs). The fittings are most important and they should be simple, strong and reliable — a late retrieve from a difficult field constitutes a most searching examination of their virtues/vices!



Worth briefing your crew on rigging

It is worth going through a couple of rigs/de-rigs with your crew to ensure complete familiarity with the aircraft and trailer (I recommend that each person has the same job each time in the interests of safety and efficiency). The retrieve car is an often neglected but nonetheless important item of equipment, as both you and your crew will have plenty of other things to occupy your thoughts during the competition rather than having to worry about the dodgy starter-motor, alternator etc! Also, check how the loaded trailer performs behind the selected vehicle, both for towing characteristics and to check the effectiveness of the trailer brakes. Finally, consider what tools and spares you should take to cater for the *basic* maintenance and rectification needs of the glider, trailer and car.

Fettling good for the soul

It is apparent by now that all of the foregoing represents a considerable amount of work. Without wanting to put too much of a strain on friendship, the team spirit I referred to earlier can only benefit from your crew members being involved in at least some of the preparatory work. The scenario I painted is an ideal — you may well have a lot less time and it would be a mistake to carry fettling to the extreme limit of foregoing needed practice flying. On the other hand a certain amount of fettling during the winter can be good for the soul and it should have a beneficial effect on the all-important motivation level.

Other areas that merit attention during the winter months are physical condition and flying equipment. For the former, I mean one's own condition as opposed to the aircraft's! If you have been used to a life of convenience and self-indulgence for a number of years, the effects may be showing. Although most things are relative, as far as competition flying is concerned the effects will not be restricted to physical appearance. Mental agility has a direct relationship with physical fitness and the ability to concentrate for hours on end in difficult, cycling weather conditions can play a key role in the achievement of consistent results. The message is clear — if you are serious about giving yourself the best chance of doing well in your first competition, get in shape!

As for the equipment, make sure that you have ½ million and ¼ million maps to cover the likely task area. If the visibility is good and I am flying over reasonable country in the navigational sense, I use a ½ million map — otherwise the ¼ million may be useful for TP detail and for picking out the less significant features *en route*.

Decide whether you are going to put transparent sheeting over them and use special pens, or leave them uncovered and use soft pencils. Whatever your decision, it is worth marking TPs when known in advance and drawing "range from home" circles (I like five mile spacing). Ensure that you have two final glide calculators of suitable representative performance for your aircraft (one for you and one for your crew). If you are not familiar with the country over which tasks are likely to be set, it is worth talking to experienced pilots who are: try and combine these discussions with detailed map study so that you can mentally store away information concerning generally good soaring areas and known sink holes. Such sessions can lead to your receiving a lot of information and advice on technique and "How I dun it" or "How I would have dun it if it hadn't been for . . .!"

Excellent books on soaring

If you are a generally experienced cross-country pilot you will be able to sort the wheat from the chaff; if not, you should consider to what extent the individual's achievements qualify him to speak authoritatively on the subject. Finally, there are some excellent books available covering the whole spectrum of performance soaring, that will not only expand your store of knowledge but keep the fire of enthusiasm glowing during the winter evenings.

Before you know what has happened the days are getting longer and the welcome warmth of the early spring sun is giving rise to the first usable thermals of the season. Now is the time to make a start on polishing the basic soaring skills that acquire a light covering of rust during the winter months. You should not be in too much of a hurry to go cross-country at this stage — conditions will rarely be good enough and, anyway, you can gain a lot from properly planned local soaring. Don't always wait for the strongest part of the day — try and stay up sometimes as soon as it is soarable.

If you will be flying a club glider in the competition, it is very important to get the maximum benefit from your duty hour's local soaring. As conditions improve during the early part of the season, draw up a list of exercises that you can apply yourself to whilst local soaring. I offer the following items as suggestions:

a. Practise entering, centring and leaving thermals — use as many as possible during the flight.

b. Get used to interpreting thermal indications — clouds, other gliders, birds, ground sources on the blue days. Estimate what the lift strength will be under the next cloud you intend using and see how the reality compares.

Getting used to competition gaggles

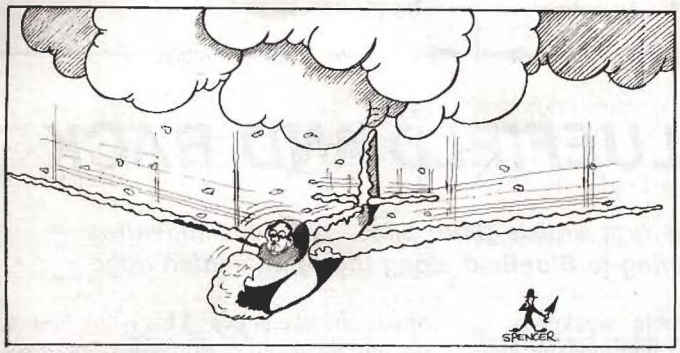
c. Concentrate on achieving the best rate of climb you can manage out of every thermal you use, getting used to your instrumentation in general but particularly the audio (competition gaggles take a bit of getting used to, particularly if you come from a small club!).

d. When you're satisfied you are climbing as well as you can, try timing some climbs over a height gain of at least 1000ft. Begin timing from the moment you start to roll into the lift and stop the watch as you roll the wings level to leave the thermal. Estimate what your achieved rate of climb was before you look at your watch to calculate the reality! Try this exercise under different soaring conditions (smooth, easy

to use thermals *versus* choppy, broken lift) — you may be in for some surprises!

e. If the conditions are good, try flying around a 50km triangle, the principal aim being practice in navigation and TP photography.

f. Try practising starting and final glide techniques. When practising final glides, start by aiming to arrive over the airfield at 2000ft until you get the measure of using a calculator in both smooth and thermic air. The rate of progression towards final gliding at lower altitude should relate to your experience level and the performance of the glider — it should be closely supervised.



Icing problems

g. Practise cloud flying on suitable days (reasonably high cloudbase with light to moderate winds), paying particular attention to coming out on the desired heading. There can be competition days when it may be tactically sound to fly in cloud (crossing of gaps/dead areas) — however you usually lose more than you gain, due to factors such as difficulty in coming out on the desired heading, subsequent problems in navigation and degraded performance in the glide due to moisture/ice accumulation.

If you are having problems in any of the above, don't be too proud to request some advanced two-seater training!

Cross-country flights important

No matter how useful such exercises may be, there can be no substitution for properly planned, pre-declared task flying. Even if you are flying a club glider you should try and achieve one or two cross-country flights before leaving for the competition. If you are not very experienced get some assistance in selecting and planning your task, bearing in mind the weather forecast for the day. Try and talk other pilots into flying the same task as it will provide some yardstick to assess your performance, bearing in mind differences in pilot experience and glider performance.

WINTER BAROGRAPHS

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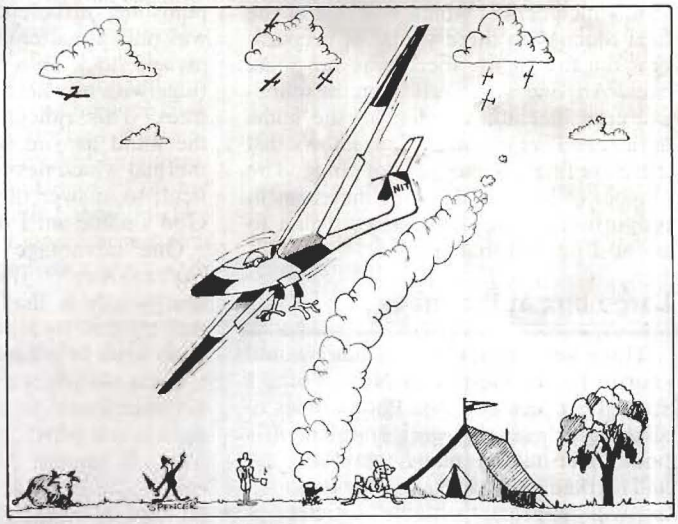
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If possible involve your intended crew in these flights, perhaps developing a simple position code for use in the competition. Keep your radio transmissions to a minimum and concentrate on achieving the best possible performance for the weather conditions. Try to work in the best height band for the day — high average speeds are not usually achieved by continually going low looking for "The Big One". On the other hand be selective in the thermals you stop for — just how selective depends on your experience level and the performance of your glider. Conditions will rarely be consistent throughout the route — work at assessing the weather ahead and "change gear" in good time. Finally, the best "energy route" rarely lies directly on track. Be prepared to deviate off track by up to 30° to follow the best line of clouds, but always be aware of your position relative to track and don't leave the "cut-back" too late.

Most of the above advice is intended to develop your decision-making ability and to avoid the gaggle mentality. There are times, such as blue conditions, when gaggle flying can be tactically sound, but it is very important to have confidence in your own judgment and a group of circling gliders doesn't always indicate the best lift in the area. The single most important factor during your training is that you should *always* be self-critical.

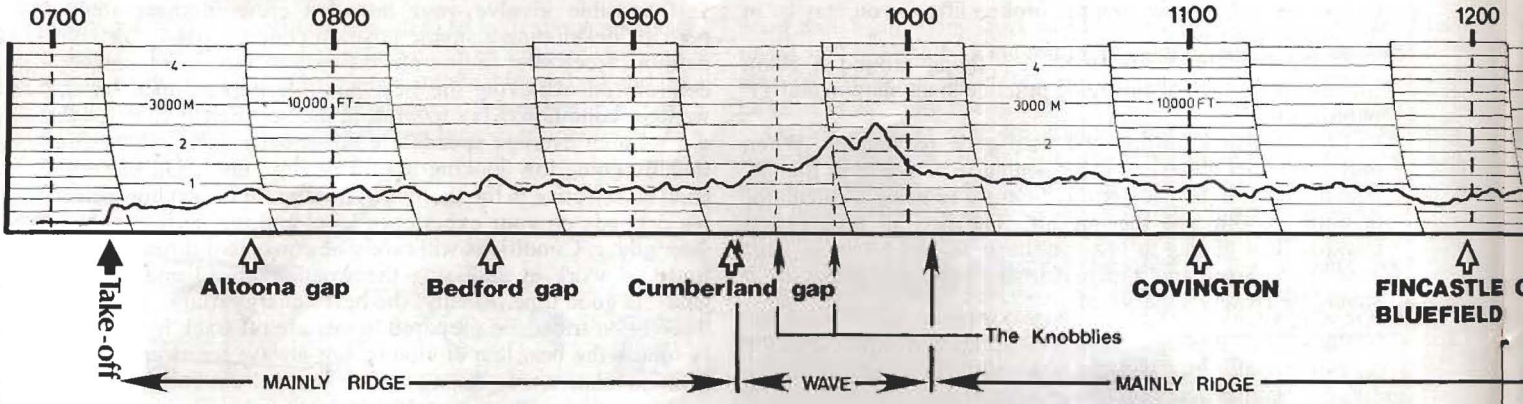
Obviously you should be careful not to over-do it and shatter your self-confidence, but it is important to realise that progress along the road of improvement is primarily made by critical analysis of each flight, not only by yourself but also by other experienced pilots whenever possible. For those of you who are young with a lot of natural ability and even more determination to succeed in competition flying, the Squad Training Scheme, run by John Williamson, represents the ideal avenue towards the fastest possible progress to Nationals flying.



Looking for "The Big One"

Having got to the end of this article I am conscious of having an ideal sequence of events. Many factors such as club aircraft utilisation, lack of club instructors, bad weather etc will often preclude the achievement of much of what I have suggested. However, even with the pressures and frustrations, it should be possible to use it as an outline, a framework of preparation. I am also conscious of having left out a lot of information concerning technical detail and flying techniques. I did this for two reasons: first, I was writing an article not a book, and secondly such information is readily available from soaring books and magazines, not to mention the experienced club pilot or instructor.

This article was intended to take you to the point of arriving at the competition site at the start of the practice week. The second and final part will deal with how you should tackle events from that point.



RIDGE SOARING TO BLUEFIELD AND BACK

WILLIAM MALPAS, who on September 28 became the first British glider pilot to fly 1000km, writes about his ten-hour out-and-return flight from Ridge-Soaring to Bluefield along the Appalachian ridge

If you are naturally idle and need spurring into attempting a badge or record or whatever, consider the PUBLIC ANNOUNCEMENT. My article in the June 1981 issue of S&G, p110, on Appalachian ridge-running came as near as is decent to announcing a forthcoming attempt at 1000km. After the "announcement", which was one of the final touches to three years' of preparation for the flight, there was no going back. Anyone who has broken the umbilical cord that attaches him to the home airfield and set off on a 50km knows that there are fifty excuses for not going. The number of possible excuses increases in proportion to the distance you plan to go, so I needed that spur.

Large box at the ready

Three years ago, learning that I would shortly be transferred to New York, I started my preparations. Photocopies of all the articles in *Soaring*; Tom Knauff's book; half-million maps, carefully cut and marked (this was nearly my undoing, as will appear); suitable articles of clothing; barograph; declaration; lots of useful telephone numbers and radio frequencies, etc, were slowly collected into a large box which stood ready for instant departure in our house in New Jersey.

Ridge-Soaring airfield is more than a five hours' drive away from home, so initially I based my Mini Nimbus at Blairstown, which is only one hour away and close to the trailing edge of the Appalachian ridges. There, during 1977 and 1980 I followed the advice of Karl Striedieck and Tom Knauff and practised assiduously. I put in about 150 hours of ridge bashing and covered about 6000km in the process, including three flights of over 500km. This period also included two enjoyable weekends at Ridge-Soaring, which featured one full-scale early morning false alarm. We got as far as the end of the runway as dawn was breaking, but the wind failed to blow.

My first reaction to ridge-running was not very positive. First, there is the punishing turbulence; and secondly, it was only a matter of time before I found myself stuck on a nasty little stretch of ridge with nowhere to go except into the trees. This ridiculous posture clarifies the mind as you wait for the rescuing thermal which never comes; and it is difficult to answer the question, "What in God's name am I doing here?".

One advantage of the "Allegheny expressway" from Ridge-Soaring southwards is that it has already been well charted by Karl and Tom and there is no need to get into such a pickle.

I was already well accustomed to violent turbulence from many summers in the French Alps, but this was something new. It cannot be avoided, but the effects can be made endurable by a combination of waterballast, a foam-lined hat and limiting air speeds to the degree of pounding which you can take. For safety it is essential to be well strapped in and everything loose must be carefully stowed.

The final phase of the countdown was hectic:

9pm (Sunday evening). Call Philipsburg Flight Service. The Met man sounds unusually well informed and encouraging. (Tom Knauff called earlier and his enthusiasm is infectious.) It seems that the cold front is presently over the Alleghenies and will be well through the whole route by morning.

9.05pm. Break the news to Evelyn that apparently tomorrow is THE DAY. She is already in bed! This is the first of the one thousand reasons for postponing the adventure to another day. To her eternal credit she does not hesitate for a moment and starts gathering her things, including my breakfast.

9.10pm. I examine my 1000km box and find two items forgotten; money and antifreeze. We will have to manage without them.

2.30am (Monday morning). Arrive Milesburg and check in to a motel for two and a half hours' sleep.

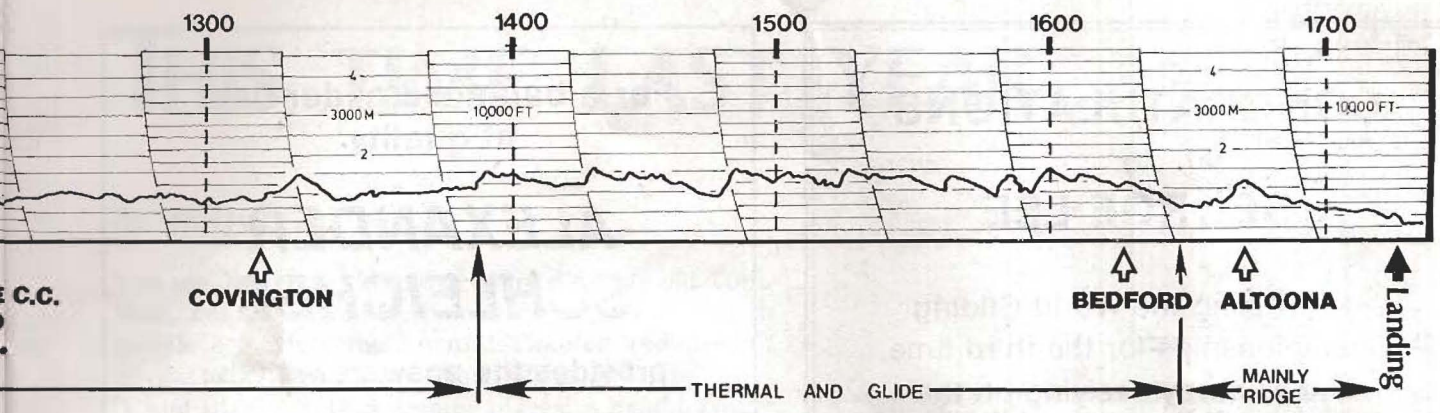
5.30am. Arrive Ridge-Soaring at about the same time as Tom Knauff. His first briefing is brief indeed. "Get rigged." (It is raining gently and we rig in the dark.)

7.00am. Tom takes-off in a new Grob with a journalist as passenger, but I haven't had time to find out what task he has declared.

7.10am. I take-off, turn left into ridge lift and release immediately at about 500ft agl. No time to mess about because Doris Grove is waiting below in an Open Nimbus to take-off on (I assume) an attempt to regain her world record.

From here on the barograph tells most of the story, but it should be added that I was very lucky in selecting a day which was just about perfect. It was early in the ridge season, so the day was long and quite warm. The famous autumn colours were just beginning to show in the trees. The hawks were migrating southwards. Bluefield was about the right place to turn for home, because beyond this point the ridge was not working well. (Doris turned about 25km further and reported problems there.)

At the five major gaps, each of which must be crossed twice, there was either wave or thermal waiting. I was never





The map showing William's ridge-running route.

behind schedule, so on the way back I was able to indulge in thermal and glide, simply for the pleasure of staying high and admiring the view. I even had time, just after turning for home, to call Ingalls airfield near Covington, to ask the controller to telephone Ridge-Soaring and tell Evelyn that I was on schedule. They actually taped my conversation and played it back to her, so she was reassured more by my tone of voice than the message itself.

Regretted loss of water

There were three little difficulties. First, I had not faced up to the obvious problem of photographing my declaration in the dark. Neither of my old Kodaks was fitted for flash cubes. Later, as I climbed up in the wave over Cumberland and the Knobblies, I had no idea how high or how long it would last, so I dumped the waterballast. Of course I immediately lost the wave and once back on the ridge I regretted the loss of water.

At Covington I discovered an enormous lake which was not marked on my three-year-old map, and I thought (like others before me, as I later learned) that I was lost. It is a confusing spot, with ridges and high ground in every direction, so while I was climbing and wondering what to do next, providentially, I spotted Tom Knauff's Grob, so I followed him from Back Creek Mountain to Lick Mountain, assuming that he, of anyone, knew where he was. He did not have radio, so I just had to assume he was going my way — something of a risk, because he has recently taken to doing long triangles.

So that was it. Not very difficult in the execution, since all the hard work had been done in the preparation. A very enjoyable flight which I will not hesitate to try again if I ever get the chance.

Tom returned about an hour after me, having been obliged to take the back ridge at the Altoona Gap. He achieved a two-seater out-and-return world record. Doris regained her out-and-return world record and I became, I think, the first Brit to do 1000km. The documentation (no less than 57 separate pieces of paper) is in orbit somewhere between SSA, NAA, BGA and FAI. Perhaps it will reappear one day.

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THIS TIME LAST YEAR...



By MENTOR

You see, there are these three blokes. Dear old Tom. Well, not so old really, but he came into gliding in middle age. He's the Earnest Plodder and doesn't always think all that far ahead of his glider.

And Dick. Ah! Dick's going places! A bright Young Thing, aiming for the top. But he trips over his bright ideas sometimes!

And Harry. He's a Dedicated Person. He instructs dutifully — has done for years — so much so that nothing new is ever likely to happen to him! Except that it does. Occasionally.

There you have them. Tom, Dick and Harry. And we shall see what happened to them . . . This Time Last Year!

★ ★ ★ ★

Harry was **not** having a good day. Perhaps it was his biorhythms, or the slightest tinge of hangover — he really wasn't used to hangovers, but he had **had** to accept those drinks his two pupils thrust on him after they had soloed yesterday. Whatever it was he wasn't his usual self. On top of that it seemed to be cable break day!

Harry prided himself on his patient understanding of his pupils' problems, his ability to gently nudge a new fledged pilot into the correct decisions without overtly prompting and to explain afterwards the options that had been available and whether a different decision could have been wiser. But on this day — a day with a fresh nor'wester blowing aslant the narrow strip — Harry had had more than his share of inept decisions. Inept, that is, in his slightly jaundiced view. **And** his lunchtime relief as K-13 driver hadn't shown up. Harry is no nine to five pilot. No relief instructor means no lunch to Harry so by four o'clock on this February afternoon he was getting rather tired, very hungry, and a little testy. Time to quit, said the small thin voice of common sense. But Harry is no quitter!

"Next pupil, please!"

★ ★ ★ ★

The frayed and bristly cable rolled off the drum as the old tractor trundled into the distance towards the launch point. There had been eight cable breaks already that day and the winch driver mused that the K-13 seemed to be the chief culprit. Stood to reason really. Heaviest glider, poorest pilots. Bound to happen. But he also thought that he had never seen the cable in such poor nick. Surely Sam didn't usually let it get into such a state? But Sam had been ill, away for over a month. As self-appointed and truly zealous winch master Sam had found his niche in the club. He made it his private responsibility to check the cable assiduously and often alone, each Friday, renewing worn knots, trimming frayed ends and cutting out the worst sections. His pride was that his hard, often unsung work saved the club pounds and pounds in cable costs. But Sam was ill and when the one man was away the band stopped playing. So there were cable breaks.

★ ★ ★ ★

Colin was nearly solo, or so he hoped. This would be his 43rd flight in the K-13 and his first that day. He strapped in, cold fingers struggling with the buckles. Harry clambered in behind. It was his 4854th flight in the same K-13, and his 18th that day. He did up the straps quickly and listened as the easy ritual of cockpit checks was carried out. CB SIFT CB — E. The club had adopted the E to remind pilots of Emergency procedure.

Colin said "Emergency — cable break, turn right, away from the hangars". Harry was sorting out his gloves. He thought "Cable break, turn left, to the downwind side." Which is what all the other pupils had said that day! "Quite a wind gradient, young Colin! Don't let it go up *too* fast!" "I couldn't stand **another** cable break," he said to himself.

"OK." "Bet he's going to pull the plug on me!", Harry thought.

The tractor arrived. The parachute was tangled and it was nearly five minutes before they were ready. Colin chattered cheerfully. Harry's feet were freezing and his irritation deepened.

"Up slack! ALL OUT!!"

★ ★ ★ ★

The winch driver watched the K-13 lift above the horizon. The diesel began to flog a little as the glider entered the wind gradient, and he watched a specially fuzzy bit of cable come closer towards the rollers. Suddenly it was there and with a clattering whirl the broken end was threshing around the drum. Sam's bout of 'flu was exacting its toll!

★ ★ ★ ★

Colin was a cool young man and when the cable broke — he could tell that Harry *hadn't* pulled the plug on him — he eased the nose down and quickly assessed his situation. Harry waited, said nothing. Colin reckoned he could get in by opening the brakes and landing ahead. How many times had they said it? *"If you can land ahead safely, then do it. Don't turn."* He opened the brakes.

At this Harry's composure finally cracked. He just **couldn't** stand yet another walk back the length of the strip.

"NO! Turn back! You'll do it easily!"

Colin hesitated and then remembered the E and started to turn right.

"I have her!" Harry grabbed the stick and banked more sharply right. And as he turned through 90 degrees, sinking fast and with the strip behind him he knew he was committed to go on turning right. There simply wasn't a hope of turning back to the left now. And he knew he wouldn't make it! They sank down towards the ground — Harry flying so accurately, so carefully — but nothing could save them — unless one of them thought to close the brakes.

Colin saw the grass loom close as the right wing brushed the ground and then there was a whirling of horizon, grass, nose digging in — and silence. He felt the pain of his smashed ankle creeping through the momentary numbness.

★ ★ ★ ★

Injury: P1 — Nil; P2 — Serious. Damage: Write-off.

★ ★ ★ ★

At This Time Last Year eight two-seaters were involved in launch failure accidents.

YOU'D THINK YOU WERE IN PARADISE

RHODA PARTRIDGE writes about an elegant French national centre where gliding is encouraged as a valuable leisure activity

September. Sisteron (mountain site, southern France). One of the few afternoons it was hard to stay up. An impeccable Janus came in, a girl in front, an angry instructor behind — from Saint Auban. The shame of it, to fall down at Sisteron! Another impeccable Janus came in later, also from Saint Auban. I asked the instructor, teasingly, "How many Janus's are there at Saint Auban? Shall we be visited by them all?" "I doubt it, we have thirteen". "Good Heavens! Is one allowed to come and visit you?" "Of course, but come in the morning or the place will be deserted."

The first impression was of elegance. The admin building modern and beautiful, some outside walls clad in enchanting cobbles (from the bed of the river Durance alongside the airfield), the inside airy and beautiful. I knocked nervously at a door marked, "*Chef du Centre*", and was welcomed by a cheerful young man — Monsieur Roucaries. "Could I see round? I'd love to write an article on the place." I'd never seen anything like it. There wasn't anything like it, and, yes, he'd be delighted to show me round.

We started in his office, where I found out what "The Centre National of Flight with sail" (literal translation) is about. I'd heard of it in the past. Highly dangerous. Housed in old barracks and under military discipline. How had the amazing change come about? Change of objective. Originally it had been government financed to turn out pilots, both civil and military. Now it was to encourage gliding as a valuable leisure activity. Money was being spent lavishly on a national centre which would set a high standard for the gliding movement.

Not a speck of dust

"What would I like to see?" "Gliders, please." So we drove round to the far side of the field, and there, in a new hangar, reposed all those gleaming Janus's — shiny like cars on showroom carpets — wing covers, canopy covers, not a speck of dust. Usual instruments, plus Bohli, radio, oxygen, modern vario systems; transporters not yet installed but soon would be. Still reeling, I was taken to the hangar for solo machines — spotless, of course. In order of progression, from the two-seater, three LS-1s, 11 Cirrus's, two LS-4s, four ASW-20s, one Nimbus 2, one ASW-17. In another hangar seven Rallye 235CW and one Robin 180CW, also two Fournier RF-9 motor gliders.



The admin block.

Then we visited the huge repair shop; spotless, wonderful tools, paint shop, parachute packing bay, radio repair shop. A large (spotless, need I say?) garage with five Citroen trucks for retrieves; tractor with runway brush, two trailers for each type of glider (except when there was only one glider of that type, obviously). Am I boring you? Such a list. It was like a dream, seeing such perfection.

Only experienced pilots

Over lunch in the attractive restaurant (I'll spare you details of the delicious menu), I asked about their courses. Only experienced pilots — 100 hours and over 18. In summer 36 course members, in winter 24. Twelve instructors. Training for competition, cross-countries, mountain cross-countries (in March two of the Janus's had done 600km to Carcassone in the Pyrenees and return). Training of instructors. (Belgian instructors are trained at Saint Auban.) Three pupils per instructor in summer, two in winter, under his supervision throughout their course.

The first three days in the Janus, no matter what experience; soloed in the Janus, then given a single-seater, whatever glider the instructor decides. Once solo a radio conversation every half-hour to the personal instructor. Another instructor in the tower and all radio conversations taped. Accidents? Same as for the rest of France. But far from satisfied with that — would improve — were working on it, Hard. Would I like to see the "Hotel?" Beautiful bedrooms with showers, but only for use of course members; families to find accommodation in local hotels. Games rooms, TV room, lounge. I specially loved the restaurant. Picture windows framing a sun-drenched Provencal hill village: and the admin building with offices, projection room, lecture theatre (two-hour lectures every morning), Met room, first aid. Both buildings with central spiral staircases and rooms curved round a two-storey well.

Better in a group

I talked with some course members: they'd only had four days and already they were learning a lot. A girl explained that here you were "a pilot", never mind what age or sex. French would be a help: five of the instructors are English speaking, but a lone English speaker might miss out on the social scene — which is good. Better, perhaps, for non-French speaking Brits to come in a group. Did it matter that the place shuts on Sundays? Well, the staff needed time off and one was not sorry to rest a bit. They provide bikes, and surf sailers to use on the local lake — for free — and what a district! It's tough, if the conditions are superb, but one can understand it.

I asked Monsieur Roucaries about discipline. "Suppose you get a noisy quarrelsome drunk?" "Well, the first day we give the course members a talk: we explain that we provide perfect facilities — we only ask in return that they should be serious about gliding and look after the equipment. Each instructor and his group is responsible for the gliders they fly." "And if they don't co-operate?" "Then their course is at an end." The ultimate sanction — the angel with a flaming sword: outer darkness where there is wailing, gnashing of teeth, long queues for take-off and dirty canopies! It had happened only once in two years. And undisciplined in the air? Back in the two-seater to sort out the problem. And who would want to spend all the course in the two-seater? The short and curlies.

Now a bit about mountain flying. UK pilots who've done it are inclined to try and scare you. Eyes blazing, they tell of the horrors of twenty down caught in a rocky valley — the hairy tows straight at cliffs — the casual French. It's nonsense! I'm an anxious, experienced rabbitish pilot and here's how I see it. Sure, one's alarmed by looking down on rocky peaks instead of green fields. Sure it's scary being towed straight at a cliff, but the tug pilot will hit first and he doesn't want to — so you won't.

Certainly you have to be on the lookout for ways home and you mustn't get caught below the rim of a bowl. It's funny, too, having no horizon, but the locals really know their sites and their safety rules are excellent, well thought out and conservative. If you take the trouble to learn the names of the mountains, the low points to leave them, the high points to move further afield, you won't get into trouble. There's always someone with a smattering of English who will help you. 100 hours and some ridge soaring, I'd have thought, and you'll never forget those mountains.

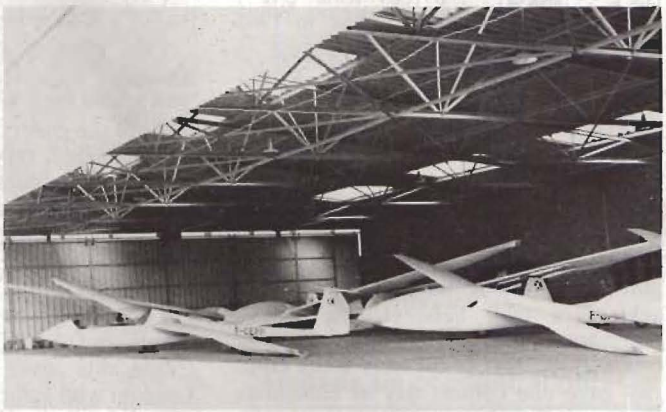
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They're disappointed not to have had more British inquiries — but I didn't know about the way the place has changed — did you? ■



The solo machine hangar.



The Janus hangar.

All photos by Rhoda.

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INTER-CLUB LEAGUE 1981

MIKE JEFFERYES

The Inter-Club League started in 1980 with the Northern and Eastern Leagues. The main objectives were to give encouragement and experience to the early cross-country pilots, to promote co-operation between clubs, and mostly for fun. After a very successful first season, reported in the December 1980 issue of S&G, "Novices Rule OK", p276, the League went public in 1981 with three new groups participating — the Southern, Midland and Rockpolishers' Leagues.

Who needs reminding that the 1981 weather proved more a test of patience, persistence and ingenuity than of high speed or record distance? Messengers waded through from the far west with reports that scarcely a weekend had gone by without another attempt to achieve a task between the Rockpolishers.

The three days of the May Bank Holiday gave one contest day at Husbands Bosworth for the Eastern League. An ambitious 300km produced one finisher, the task setter. Such tactics have become a feature of the Inter-Club rivalry — well done Claud! Our next two weekends gave only one further contest day.

Our fourth weekend, at North Weald, produced one more day — memorable for the following achievements:

..Four novices (one in a K-8) completed the 140km triangle, largely in the blue.

..Two Intermediates (pre-Gold) completed a 300km triangle.

..Two pundits gained valuable field-selection experience after exceeding 300km and then taking up to ten days to retrieve the gliders from fields of cut, but not harvested, rape.

All five Leagues struggled through to produce contestants for a closely fought Inter-League final on September 5/6 at Dunstable — our thanks to our hosts the London GC.

The scoresheet shows Lasham (Southern League) to be the winners by a technicality over Dunstable (Eastern League) who achieved the same score — tactics again — with the Long Mynd taking third place for the Rockpolishers.

Congratulations Lasham — sorry we don't yet have a trophy for you, but the whisper around Vaughan Way suggests that this year . . .?

Commiserations Dunstable — a valiant effort and may we assure you that the 1982 Eastern League finalists will put up as vigorous a performance on behalf of the League.

1982 Season Changes

1. It is rumoured that Booker might join in!
2. East Sussex, Southdown and Kent are discussing a sixth League.
3. Any other club who would like to set up new Leagues are invited to write for copies of the rules and for suggestions on how to get started to Mike Jefferyes, 15 Sycamore Way, Chelmsford, Essex, CM2 9LZ.

1981 Leagues

Eastern: *London,* Essex, Coventry, Buckminster; **Midland:** Bicester, Enstone, Aquila, *Stratford;* **Northern:** Doncaster, Wolds, Yorkshire, Trent Valley; **Rockpolishers:** Cotswold, *Midland,* Herefordshire, South Wales and **Southern:** Wycombe Air Park, Lasham Gliding Society, Bristol & Gloucestershire, Swindon. (Inter-League finalists in italics.)

Final Results: Inter-Club League Fly-Off

Day 1

Pilot	Club	Glider	Pts
Pundit Class, 170km ▲			
1. C. Garton	L	Ventus	1000
2. J. Jeffries	D	ASW-19c	590
3. P. King	M	ASW-19	686
4. D. Findon	S	Nimbus 2	584
Intermediate Class, 134km ▲			
1. P. Ross	L	SF-27	781
2. W. Kay	D	Libelle	978
3. C. Alldis	M	Cirrus	1000
4. M. Coffey	S	Libelle	424
5. J. Sentence	N	K-6CR	386
Novice Class, 80km ▲			
1. R. Gibberd	L	K-6E	1000
2. A. Coates	D	Weihe 50	922
3. N. Clement	M	K-6CR	0
4. C. Roberts	S	K-6E	258
5. V. Fielding	N	K-6CR	908

Day 2

Pilot	Club	Glider	Pts	Total	Inter-Club score
174km ▲					
1. C. Garton	L	Nimbus 2c	1000	2000	4
2. J. Jeffries	D	K-18	716	1306	3
3. A. Brierly	M	Vega	550	1236	2
4. D. Findon	S	Nimbus 2	609	1193	1
138km ▲					
1. P. Ross	L	SF-27	821	1602	3
2. W. Kay	D	Libelle	1000	1978	5
3. C. Alldis	M	Cirrus	804	1804	4
4. G. Kelly	S	Libelle	436	860	2
5. D. Foster	N	K-6CR	247	633	1
79km ▲					
1. R. Gibberd	L	K-6E	1000	2000	5
2. A. Coates	D	Weihe 50	834	1756	4
3. S. Houghton	M	K-6CR	317	317	1
4. C. Roberts	S	K-6E	233	491	2
5. V. Fielding	N	K-6CR	785	1693	3

Final scores: Lasham 12, London 12, Midland 7, Stratford 5 and Northern 4. Lasham being declared Champions with greatest day points. *L = Lasham; D = London; M = Midland; S = Stratford; N = Northern.*

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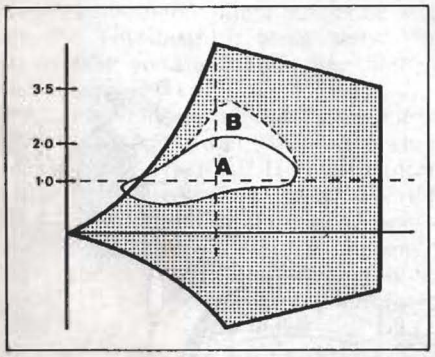
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Work-Load Management and Flying to the Limits

BILL SCULL, BGA director of operations, feels that while these two factors perhaps warrant separate consideration, it seems they are often closely related in serious and fatal accidents.

Flying to the limits

Most pilots never fly their gliders to the limits, the point being best made by looking at the flight envelope (See Fig 1).



The combination of speeds and *g* represented by the area marked (A) represents the spectrum for most pilots and the additional area (B) is appropriate for anyone who indulges in basic aerobatics.

This means that anyone experiencing flight loads/flying speeds outside his previous personal "envelope" may encounter circumstances which are disconcerting, alarming or frightening. A frightened pilot may not react correctly or at all. Dick Stratton's letter in the August 1980 issue of S&G, "Gliders that Go 'Clonk' in Flight", p202, has considerable relevance in this respect.

Small scale effects

Perhaps one reason for pilots getting a fright when flying in unexplored parts of the envelope is a lack of knowledge or imagination so they are unable to envisage the circumstances likely to arise. This same lack of imagination can extend to other aspects of flying, such as weather. Here I'm not concerned with weather in its large scale effects (everyone is aware of the hazard of strong winds but need the occasional reminder with a blow-over) but more with the small scale effects such as turbulence. The height above which the ground is not considered to influence the wind, with the exception of wave, is 2000ft. Below 2000ft there is turbulence. Pilots at hill sites are usually more aware of low level turbulence than their flat-site brethren.

In thermal soaring, especially at low level, the preoccupation is with rising and descending air. However air in motion may have gusts in any direction and the consequences of horizontal gusts are not usually considered. Actual circumstances may serve to emphasise the point. "Scratching" away from low down (we each have our own limit for this) will usually mean using weak lift, at least to start with. The desperation to establish this lift depends on such things as weather, other launches available or the likelihood of failing to complete a cross-country. The risks are that the speed will be too low to allow a margin for a horizontal gust. Even flying into heavy sink may be sufficient to bring the glider to the point of stall.

This may occur all too easily and the only real protection is to fly with an adequate margin of speed (a well-known competition pilot flies his Nimbus at 60kts). Despite advice to the contrary many pilots may attempt to centre lift after only a few turns and while still uncertain where the core lies. A decision to shift circle should only be taken if you can live with the consequences of flying into heavy sink. **I suspect that some of the low scrapes don't have a margin for such eventualities.**

A good imagination may be the only protection against such a situation. Having flown into sink at 800ft (or 600 or 500 or . . .ft!) what is your natural reaction? To turn away from it by tightening the turn? If so there is the risk of stalling from the turn (especially if the stick force/*g* is very low). One other risk is reinforced by hang gliding accidents, the "downwind stall". It is nothing to do with the wind of course but rather the relative ground speeds when turning downwind from an into wind heading. The hang glider may change from a ground speed of zero to 35kts in half a turn and evidently the pilot's instinct is to slow down. While the respective speeds of a glider are unlikely to change by so much, I believe this factor to be significant and it may add to the effect of turning away from the sink.

How does all this bear on the other part of the title?

Work-load Management

Most pilots will have had some experience of getting their priorities wrong. A simple example is concentrating too much on navigation to the detriment of soaring/sky reading or a preoccupation with field landings with the result that the glider falls down on a very soarable day.

In any situation where there are additional pressures, even self-inflicted, the management of the work-load is critical. At or below a certain height — a height below which recovery from a spin with any chance of an organised landing is unlikely — virtually the only safeguard is to fly accurately whether to land in a field or to climb away. There is still the basic airmanship requirement of "lookout" but in sheer terms of survival, *ie* not crashing, even this may be regarded as second priority.

Demands on concentration

Envisage then the low scrape from the critical height previously considered. The demands on one's concentration include (in addition to flying accurately);

1. Keeping an occasional eye on the field in which you may have to land.
2. Centring in the lift.
3. Eventually deciding how much height you will need for the final glide, which includes measuring the distance to go and working out the height.

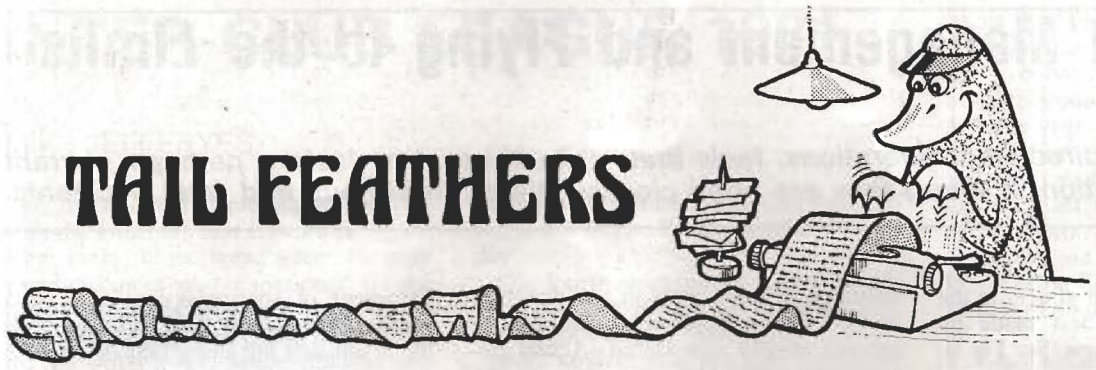
Such a work-load is considerable but the mind can only concentrate on one thing at a time. The risk is that the pilot may fixate on one particular aspect to the detriment of flying accurately.

The work capacity may be reduced by other factors, for which we don't make due allowance, such as tiredness, physical discomfort from cramped cockpit, heat, effects of sun, lack of food (a low blood-sugar content) and even dehydration.

There is no short answer to avoiding accidents other than an increased awareness of the risks and the human factors so that whatever the pressures a pilot will always fly at a safe speed ■

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TAIL FEATHERS



by PLATYPUS

GLIDING AS MASS ENTERTAINMENT

(Chapter IV from the **Centenary History of British Gliding**, published 2029AD)

In 1999 the British National Gliding Championships achieved for the first time the distinction of the highest TV rating of all sporting events on the medium. Wimbledon had long since degenerated into a crude form of combat between players and officials, the FA Cup the same between spectators and spectators and Test Matches even worse between players and players. While initially this drew big audiences, the public soon grew tired of the violence and foul language ("I can get all that sort of thing at home"observed a typical citizen) and turned to sports offering genuine grace, skill and spectacle. However the alternatives were shrinking. Motor racing for instance collapsed when the oil began to run out and petrol reached £75 a gallon, far beyond the reach of ordinary wage-earners on £1000 a week. Silverstone was empty of spectators and TV viewers found

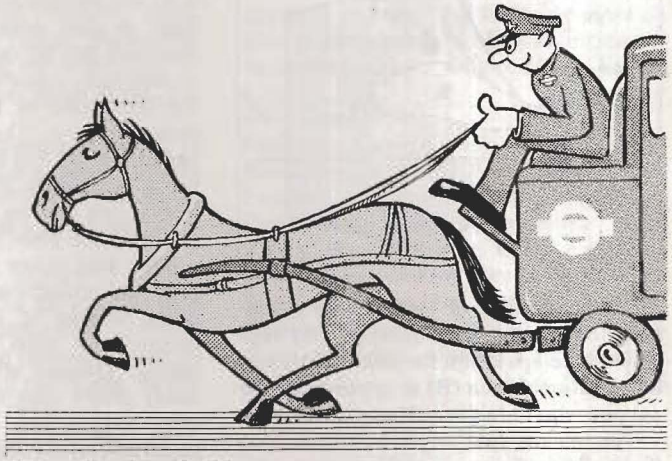


Crude form of combat.

little excitement in watching cars travelling at 25mph all day in the fuel-economy marathons which were the only form of competition the government permitted between internal-combustion vehicles on land, sea or air.

The New Sport of Kings

The technical problems of conveying the thrills of gliding to the lay public were at first thought insuperable, but one magic ingredient quickly solved them — money. When in the late 1980s advertisers, desperate to sponsor shows that were popular without bringing their prestigious brand names into disrepute, offered the BGA ten million pounds on condition that an audience of ten million could be reached, the now Lord Rolfe of BGA-TV promptly hired a shy, retiring genius — of whom no proper record now exists, but whose name in some old manuscripts has been deciphered as P. Latipuss — to use all modern



Nationalisation of all horses.

techniques to capture the masses for soaring. Ladbrokes soon matched that sum: The Grand National and The Derby had been abolished after the nationalisation of all horses by the Ministry of Transport. Betting money soon poured into the Totternhoe Tote.

A transcript of a 1999 TV broadcast conveys some of the flavour of those early attempts to bring soaring into the homes of ordinary gambling people:

"It's a beautiful day here at Dunstable Downs, viewers. You can see the giant double-skinned solar-heated launch balloons gently swelling in the noonday sun — and yes, there goes the Barclays Bank balloon and dangling beneath it the ASW-37 of Air Marshall Sir George Lee, five times World Champion and known as the Bjorn Borg of soaring. Because of his bold decision not to use waterballast his glider is the first to leave the ground. Remember first back round the course is the winner, regardless of when he starts, so Sir George has quite an advantage provided the day doesn't hot up too much! Look at the Tote board in the top left hand corner of your TV wall. Odds against Barclays are whistling down from 5 to 1 to near evens. Any of you wishing to bet on a glider, just key in the contest number and your stake. It will all be placed instantaneously at the current odds and your winnings will be paid directly into your bank account the moment the race is over.

"Now there's general panic! Many contestants are leaking like mad as they jettison ballast, desperately trying to get away. Odds against white-haired veteran Ralph Jones are soaring — excuse the pun, punters — as he sits there, grimly holding onto his water. He's a rank 200 to one outsider. All the others are away and today's Paris-Brussels triangle is a pretty short task. But hold it! Just use the split-screen facility and you'll see the latest satellite pictures on the right half of your wall. Yes, it shows ground-heating 2°C above forecast and the strato-cu is



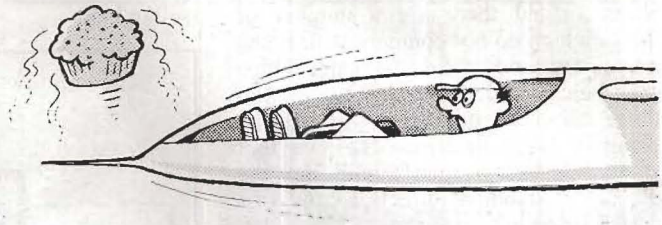
Leaking like mad.

breaking up into some pretty nice streets. Wily old Ralph must have installed a miniaturised satellite link in his cockpit; that wasn't carborundum-fibre repairs he was doing last night after all. The Tote board is going crazy! Watch the odds tumble. Remember, you can bet any time till the first glider crosses the finish line.

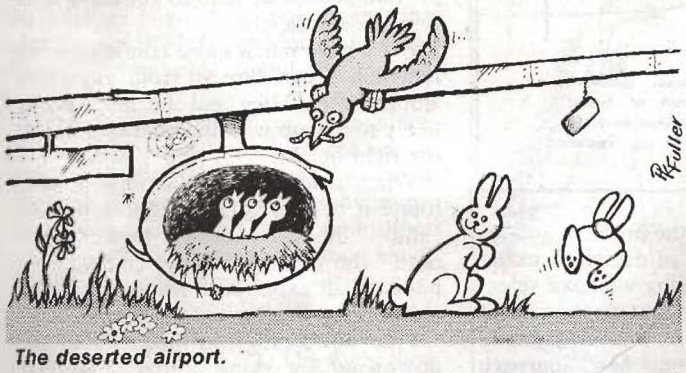
"Lee has to make another big gamble soon. Should he release from his balloon now at 300 metres or should he wait till he's sure of contacting a thermal? He's got to drop 150 metres in a dead stall before he gets flying speed. There have been some nasty accidents with some of the eager types — especially when they forget about the Hill! If *that* happens today, viewers, we'll bring you action replays courtesy of Lloyds (remember the motto 'Disasters we deal with immediately, Catastrophes take a little longer') so stay tuned.

"No, he's hanging on, drifting away at about ten knots; he's got to come back over the steward's cameras to start or his flight is void. Someone's started! Dave 'Stubble' Watt,* releasing at only 200 metres, plummets down the curve of the Bowl, pulls up into a chandelle then tiptoes at 250km/h along the ridge to Dagnall. Press the button for Channel 17 which will give you the view from his cockpit and a full readout of all Dave's instruments. Yes, his infra-red telescope is registering heat from a field just this side of the deserted airport at Luton. Just as well the other pilots aren't allowed to see each other's readouts and of course crews cannot talk to their pilots — all available channels are used by the bookies and the entertainment media. The Lee and Jones crews are tearing their hair and pummelling the ground — with a £100 000 in prize-money at stake who can blame them? Remember folks for those stressful moments nothing calms the nerves better than (strains of Bach's Air on a G string) a Hamlet cigar . . .

"Four o'clock and all's well viewers. On the giant display board in the hangar you can see the update on each pilot. Fitchett has averaged 6.752km/h rate of climb and 213km/h ground speed and has arrived back at Folkestone first but at only 200 metres. There's £5 million in bets riding on the Spiller's cake-mix (It Doesn't Just Rise, It Soars!) glider and he won't be popular if he lands out now. Those reinforced cockpits aren't just for heavy landings — it's to keep out the disappointed punters till the cops arrive. If there *is* a lynching, viewers, watch for action replays by courtesy of your friendly local underwriters — our motto, You Can't Take It With You, So Why Not Leave It All With Us?



It soars!



The deserted airport.

"The special attraction this year is the huge three-dimensional holographic display which represents the whole of Northern Europe, or any chosen section of it enlarged. This occupies the new Joe Coral Geodesic Dome and projects the position of each glider as a spot of light, green if climbing, red if descending, suspended over the ground. The gaggles look like little revolving Christmas trees, while tiny red lights streak between one green cluster and the next. Talking about Christmas trees folks, remember there are only 152 shopping days left and if you press the keys for the electronic shop window . . .

"They're neck and neck at seven o'clock, viewers. As they sweep past the Goodyear Solar blimp over Tower Bridge we all get a splendid view of the setting sun, and the vari-coloured plumes of ballastwater from the quadruple vents — see the Green-Red-Yellow-Green for the Watney-Schempp Nimbus 9 — bringing cheers from the masses who dash from their sitting-rooms to see their heroes streak overhead. The odds on Lee are narrowing to 1.12677 to 1. And the winner —"

At this point these spectacular images of vintage gliding at its best are suddenly replaced by a message to viewers about bad breath. When it comes to entertainment it seems that, then as now, there is no substitute for *being there*.



* A nom de guerre *believed to derive from the practice of Booker pilots of refusing to shave till they had won three contest days.*

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An Alternative Approach

Landing in a field is inherently more dangerous than returning to one's own site but the chances of an accident can be considerably reduced by correct decision making and clear thinking. In this article BRIAN SPRECKLEY, BGA national coach, looks at the decision making involved.

In the light of my experience and in order to improve our technique when landing out, I believe we need to rethink the basic circuit planning method as it applies to a field landing.

When flying circuits around one's home airfield there are a number of things which do not compare with flying a circuit around a field, the major difference being the decisions left to you and those normally made for you. If we compare these decisions the two that stand out like a sore thumb are the choice of landing direction and the choice of circuit direction.

When learning to fly circuits we are taught to select the high key point upwind and to one side of the airfield, the choice being dependent on the wind strength and direction, the field length and the glider's performance. The landing area is known to be satisfactory and which side to fly the circuit is often decided for us, but our biggest and possibly only decision is when to turn from the downwind to the base leg — and we don't always get that right.

All this is done in a known environment with a low level of stress and normally no emotional problemsto cloud our judgment; not so the outlanding.

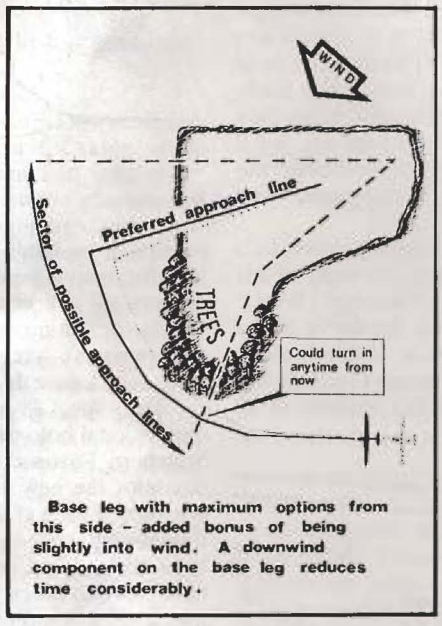
Fear of the unknown

The stresses involved will vary with pilot experience. I remember my first outlandings when I was simply terrified by the whole business, particularly the fear of the unknown. Now I am subject to different stresses such as the frustration in a competition flight of landing early.

Whatever your level of experience, there will be different stresses which may cause you to rush and make silly decisions and in my experience this is when things start to go wrong.

It is necessary to organise oneself mentally for an outlanding and to develop a technique that will support you even if you leave your field selection a little late.

The training we receive and our early solo flights do not encourage the development of a good outlanding technique. We do not have to make the critical decisions often enough and can rely upon large margins for error in comparison with the outlanding. We are taught to plan our circuit starting at the beginning with the high key point and although this may be satisfactory for circuits at home, I feel it is inadequate when planning an outlanding.



Base leg with maximum options from this side - added bonus of being slightly into wind. A downwind component on the base leg reduces time considerably.

We should look at the problem and try to formulate a series of decisions in the correct order. Assuming we have selected a **suitable field** and that we are sure of the **wind direction,** the first decision to make is regarding our **best approach direction.**

Considering the wind, obstructions on the approach, slope, field length and furrows, we should decide which is the most suitable direction for landing. The order of priority is very difficult to determine as all of these factors are inter-related. However the wind slope and field length combine to give one a general direction, with the obstructions and furrows possibly refining that.

In a lot of cases the direction is obvious, as indeed is the choice of a field, and you need to consider very little, but if the field is of a peculiar shape with some obstructions at the downwind end, there is usually some scope for a little original thinking. My technique is to first choose a basic landing direction (like westerly) and then try to select an actual line of landing and approach. I am usually influenced by trees, power wires, etc on approach and if possible select an approach line with no obstructions, even if it is a little out of wind.

I believe it is easier to control both the speed on the approach and the position of the final turn if I have only a hedge to approach over and not a forbidding row of English elms.

Having selected the line of approach, I will then select from which direction I should approach the final turn. **The base leg direction is critical for a successful landing** and should satisfy three criteria:

Base leg

1) Long enough to give you time to alter height/position before the final turn and to assess wind strength.
2) On the side that gives the best option for an early turn in should the ground be higher than you thought.
3) You should be able to get there with sufficient height.

I find I have much more confidence if I feel that I can turn in from anywhere along the base leg and am much more likely to end up with the final turn at just the right height.

When teaching field landings I have found it best to get the student to look "into" the field rather than "down onto" the field. It is very common for pilots of all experience levels to get too close to the landing area at this point.

I do not worry too much about the downwind leg being a true downwind leg. The important criteria for the time immediately prior to the base leg is to position the glider for the best view of the field whilst flying towards the start of the base leg, and to prepare the glider for landing with one's prelanding checks etc, which I must say does not include trying to tell your crew where you are on the radio. Concentrate and if the field is at all difficult, switch the radio off.

Whilst flying locally, one can practise all manner of things except actually landing in a field. How about selecting fields close to your airfield, deciding on the best line of approach and the best base leg direction and then as you descend you can confirm your decisions? It is easy for you to go and look at the field from the ground and stand in the field where the glider would have stopped.

Look back at your line of approach, compare what you see with the alternatives and maybe you will broaden your thinking on the subject.

In six years of teaching field landings in Falkes and gliders, and after 12 years of landing in them, I have come to at least one certain conclusion. Whenever you leave the decision too late or start to rush, the drama builds up.

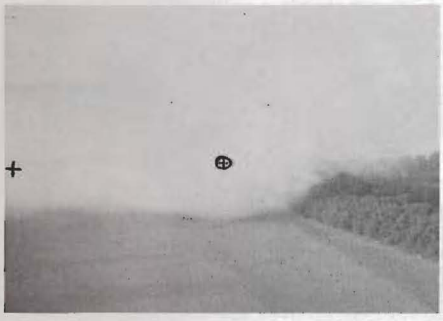
There is an overwhelming desire to get the whole beastly business over with. This needs resisting as it will make you fly too fast and stay too close. Slow down, think clearly, monitor your speed and take your time; after all by rushing you may only be hastening towards your accident.

★ ★ ★

In the next issue Brian talks about selecting a suitable field.

Orographic Cloud

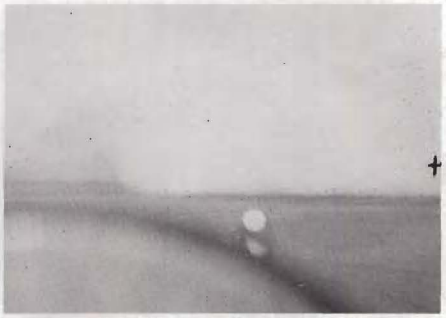
DENNIS WRIGHT describes a classic example of orographic cloud development he experienced and photographed at the Kent GC's site, Challock Ridge.



Top of the Launch. I had to approach quickly as the airfield was rapidly becoming covered.



Only half the airfield was left when this picture was taken.

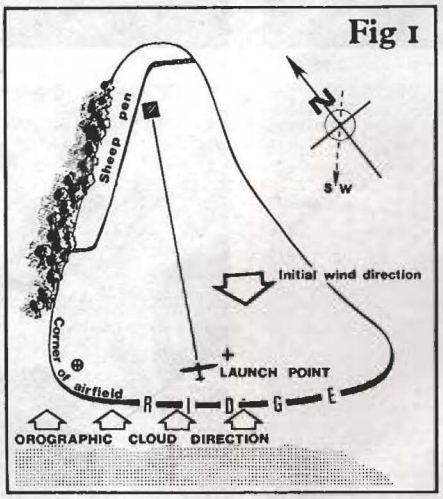


A quick landing. By this time the launch point was in cloud. The wind changed through 180° in about 25 seconds.

We have all heard of orographic cloud and some have had the interesting experience of instantaneous development of orographic round the aircraft during flight. We have seen orographic lingering menacingly over ridge sites, playing a game of "now you see me — now you don't." One thing is for sure, it demands greater respect from the uninitiated and should be ranked with other nasties such as cu-nims, clutching hand, squalls and cable breaks.

The classic orographic development I experienced was in October, 1980, after a winch launch in a T-21. The flight time was one minute. It was pure chance I had my camera with me and so can illustrate its rapid development. As a professional gliding instructor I have often encountered orographic development, but this was a text-book example.

Fig 1



To appreciate the layout of the airfield, see Fig 1.

The first photograph shows the orographic rolling over the airfield. I knew I had to land as soon as possible; the second photograph shows its rapid progression. The third picture illustrates how the cloud was sweeping across the whole airfield. At this stage I was just rounding out and seconds later, just as I was landing, I was in cloud. The flight ended with me consoling my *ab-initio* passenger and stopping the retrieve tractor from driving over the T-21's wing.



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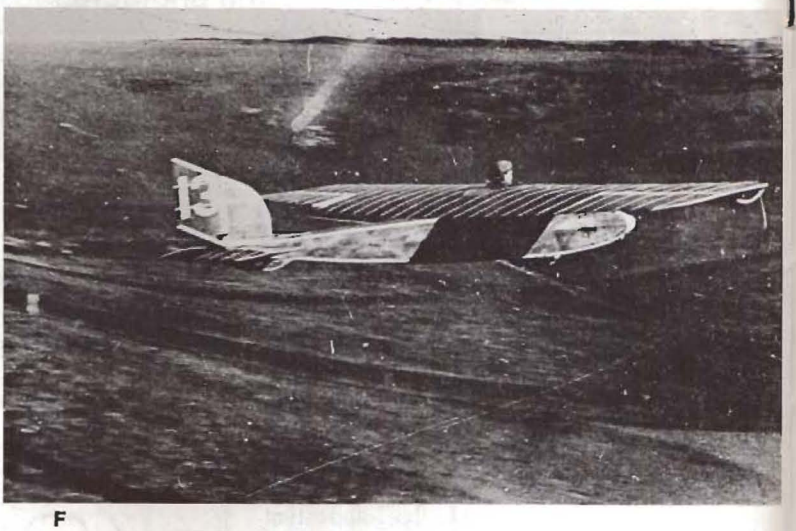
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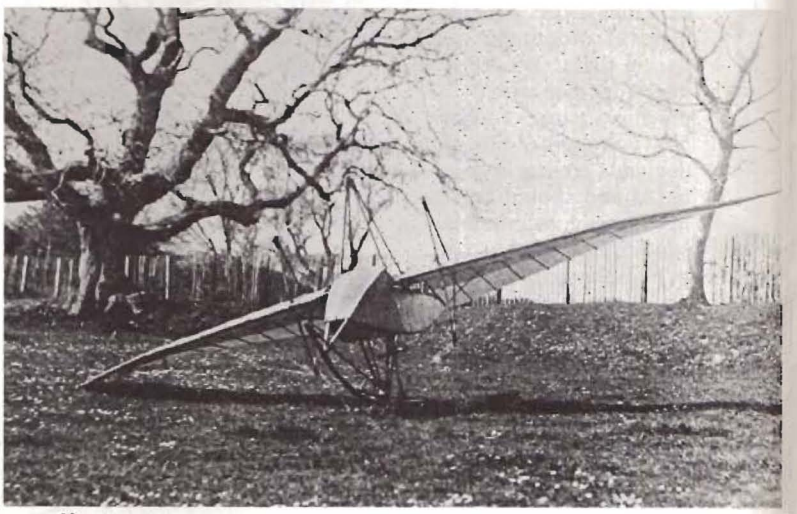
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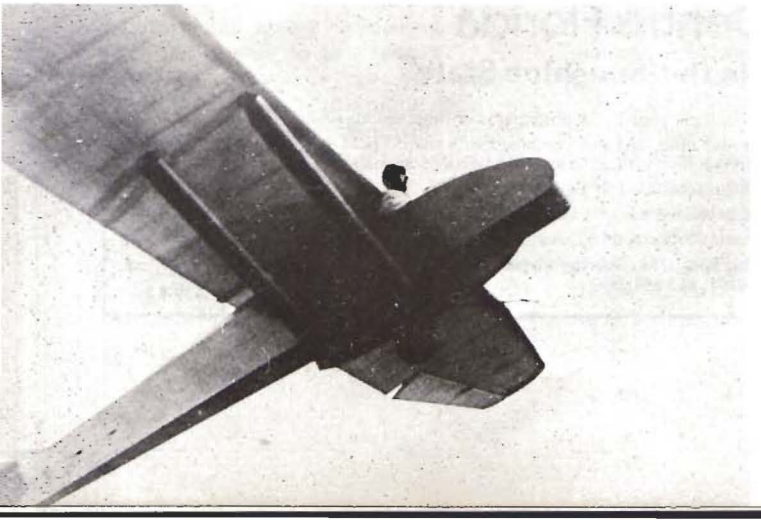
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I↑ M↓



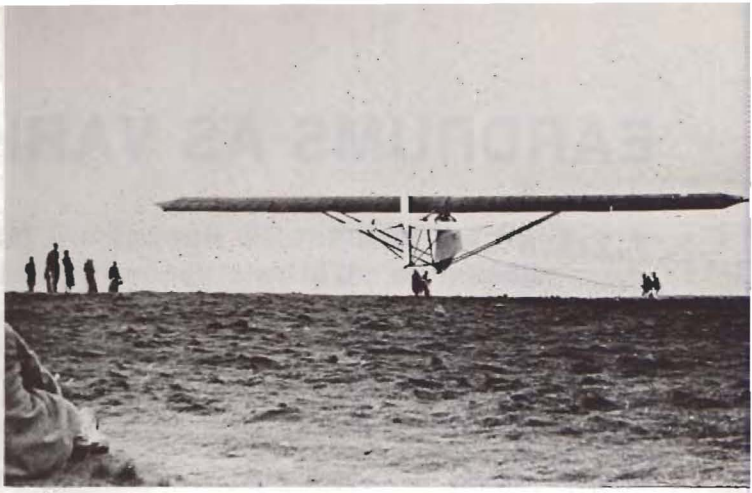
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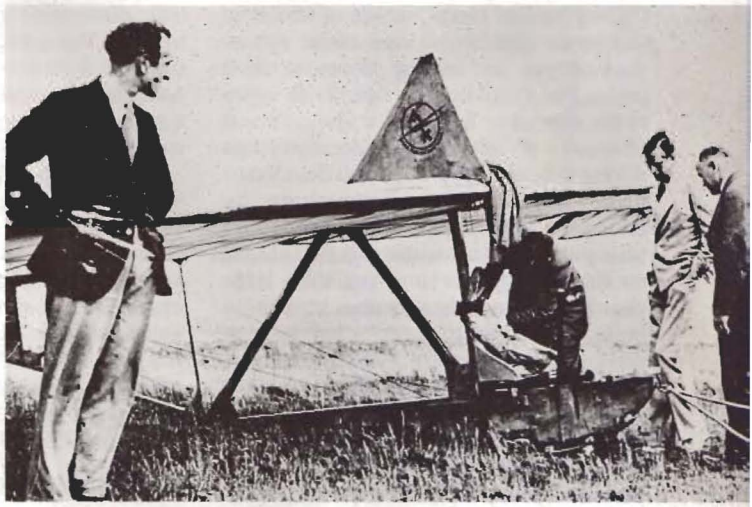
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NOSTALGIA I

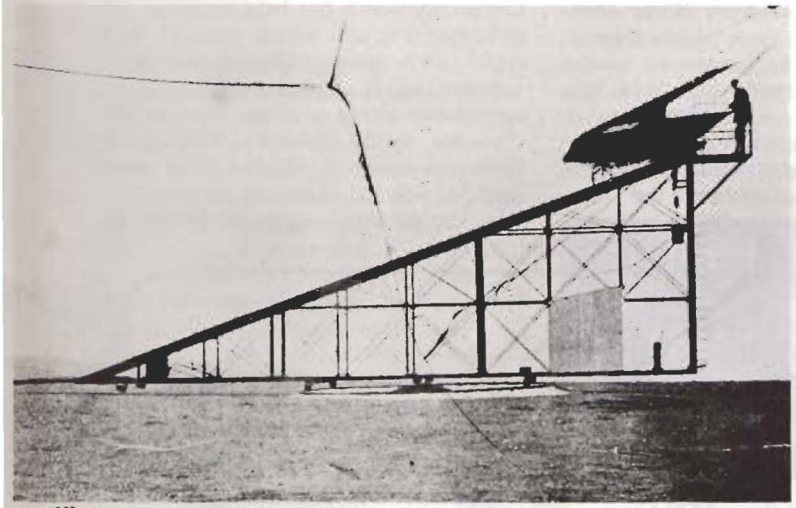
Uncaptioned photographs unearthed when the BGA moved their office to Leicester. Can any reader identify them for us?



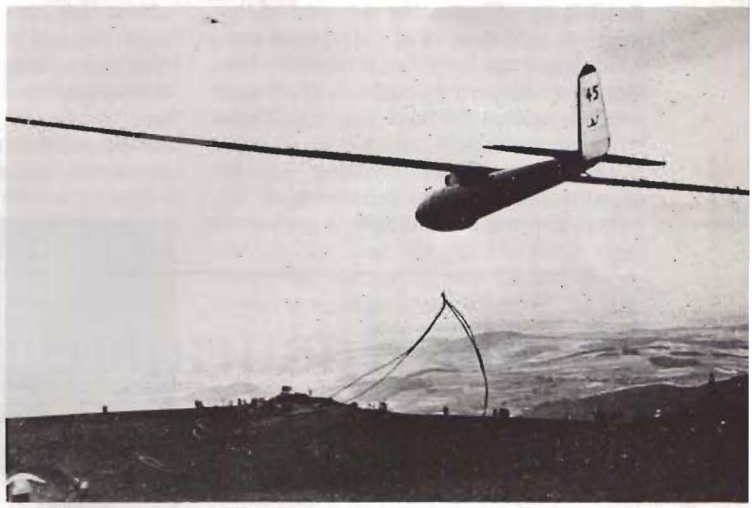
G



H



K↑ O↓



L↑ P↓





EARDRUMS AS VARIOMETERS

A. E. SLATER

How a bubble statoscope could act as a variometer during a journey in a London tube train was described by J. D. Campbell in the October issue, p244, where he stated that the undulations of the tube track were registed by it.

Years later, in 1932, C. H. Latimer-Needham started a series of articles on "The Flight of Birds" in one of which he suggested that birds' ears might act as variometers in helping them to find thermals. On reading this I at once remembered having experienced changes of tension in the eardrums during tube train journeys and decided to make quantitative measurements by taking my aneroid barometer on tube train journeys. It was the sort that stands on the mantelpiece and registers large changes of atmospheric pressure without human aid, but to learn what is happening during short fractions of time you have to keep tapping it. So I took the thing for a ride in a tube train and tapped away. Sure enough the undulations of the line showed up, as Mr Campbell said; but the most violent change of all, registering strongly in one's eardrums, was felt by sitting at the rear end of the train just as it stopped at a station: the air which had been following it since the last stop was suddenly brought to a halt and piled up against the back end which was still in the tube.

The object of the exercise was to measure the minimum sensitivity of the human ear to quick changes of pressure, and therefore height. I found that gradual changes in either direction gave rise to no sensation, but that discomfort in the eardrums arose whenever a sudden increase of pressure reached some value between 0.04 and 0.06in of mercury, corresponding to a sudden drop through the lower atmosphere of 40 to 60ft; discomfort in the eardrums was felt at once. But a fall in outside pressure had to reach 0.06 to 0.10in, corresponding to a sudden climb of 60 to 100ft, to produce a rather vague sensation forward of the ear which passed off at once.

Wolf Hirth, having read the article, wrote (see S&G, May 12, 1933 p105) that one day in March, after releasing from tow at 650ft and losing about 150ft of height, he "heard another sound in his ears", began circling and in 20 circles gained 1800ft. He repeated the performance twice and was in the air for 48 minutes "with no variometer except his own ears."

Blocked by membrane

Now for the anatomy. Some way down the ear tube it is blocked by a membrane called the eardrum, about 7mm across. Just beyond this is a cavity, the "middle ear." As the drum is a hearing organ, it must be kept tight so as to respond to sound vibrations, and this is done by a little muscle called the "tensor tympani" which pulls it inwards. Consequently any increase of air pressure from outside, such as when one falls through the air, puts it on the stretch, whereas climbing will cause it to relax. Its main use as a variometer is therefore to help its owner to avoid downcurrents.

Outside air pressure

In 1940, while doing a job in the neighbourhood of the Zoological Society's library, I made a startling discovery. The tensor tympani muscle of a bird, starting from its anchorage in the middle ear, by-passes the bird's eardrum and is then led round a little bony hook and comes back at the drum from the outside. So the drum is put on the stretch by a reduction of outside air pressure such as when the bird enters a thermal.

Birds and mammals are both evolved from reptiles, so which way does the ear of that flying reptile the pterodactyl work? Unfortunately authors of books on vertebrate anatomy seem to consider such a trifling matter beneath their notice. If that brilliant group at Reading University which has been studying the pterodactyl is still active, perhaps they could tackle the animal's ear — if any.

Pterodactyls are known to have soared low down over the sea like the albatross, as the skeletons of flying fish from the Gulf of Mexico have been found inside the skeletons of pterodactyls. But did they soar in thermals? ■

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NOT WHAT IT SEEMED

The advert of a reversed pulley system at Dunkeswell GC reminds the CFI, MIKE FAIRCLOUGH, of an unusual experience he encountered in the early 1960s

During the 45 minute drive to the airfield that Saturday I was dreaming of soaring up and away in the club's beautiful Swallow to which I had recently converted, but the less romantic part of my mind knew that the flying list must by now be a mile long and I would be lucky to get a flight before dark.

I parked the car and walked over to the launch point at the runway end. The towcar was just rattling to a halt having retrieved the cable from the far end, and the Swallow sat impatiently awaiting the next pilot. I was surprised to be offered a flight and was hurriedly ushered towards the waiting glider. My feeble protestation to the effect that I had only just arrived and was at the end of the list were either unheard or ignored, thank goodness.

Still marvelling at having stepped straight from my car and into the Swallow — a rare occurrence indeed — I strapped myself in. Up slack — all out and off I went, pulling gently into a steepening climb. The never failing thrill of being airborne flowed through my veins.

Something very wrong

Halfway up the launch and correcting for drift I looked down at the runway to check my positioning. There was the towcar, but something was very wrong; instead of travelling down the runway ahead of me, the car was going in the opposite direction — TOWARDS ME! I shook my head and blinked hard but this was no illusion. A glance at the ASI and altimeter confirmed what my senses conveyed to me, I was climbing well on a perfect launch. Oh well, no need to worry I thought and laughed at my stupidity on realising that there must be two cars in use and the second was returning down the runway.

The launch was crystallising into a really fantastic one — I still could not see the car but by now I was exceeding the usual launch height by well over 300ft. The airspeed was creeping up and so I increased the pull on the stick a little to maintain a good climb. 1500ft! The highest wire launch I had ever had, surely the car must be at the end of the runway by now and the speed will fall away.

In a few seconds I realised that quite the reverse was happening. I was pulling back hard and the speed was up to the maximum permissible with the glider's nose being pulled DOWN. As I reached for the release there was a sudden bang, and the glider careered upwards and all was quiet and normal again. The weak link must have broken.

A prolonged float

I had been somewhat shaken by the last few seconds, never having experienced anything like that before, but did not allow this to mar my enjoyment of a somewhat prolonged float around the circuit.

On landing, I was puzzled to see some rather disgruntled looks on the faces of my retrievers. "Is anything the matter?" I innocently inquired of the nearest "Didn't anyone brief you?" he asked. "No" I said, "why?" "Anyone using the new pulley system should have been briefed" he exclaimed. With the sudden shock of realisation, all became clear.

The scene for the second part of this tale is set at the far upwind end of the runway, and news of events there arrived by way of an appalled eye witness a few minutes later. Hank, one of our more notable members had been posted there to observe the behaviour of the brand new pulley system, which was still very experimental, being used for the first occasion that day. Now Hank was a very good chap although well known for his rather wild appearance and short temper. He had just bawled at the towcar driver to "wake up and get a move on" as the up slack was being given. The glider was climbing up towards him when it gradually dawned on him that the glider was continuing further up the launch than appeared to be safe. Indeed, by now it was way up, nearly above his head!

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Like a man possessed

His next course of emergency action had been carefully pre-planned. A large chopping axe was lying a few yards away and he must quickly sever the cable. Hank was almost transfixed by the sight of the Swallow that now seemed to be diving down on top of him, still attached to the cable. He transferred his gaze to the chopper and ran towards it like a man possessed. Grasping the axe and wielding it above his head he took one final look above. He was met with a sight which threw terror into his heart — a huge black cloud of writhing and twisting launching wire was cascading down, ready to engulf him. The words emitted from his grimacing face are best left to the imagination, his hair spiked out in all directions as he jumped around, brandishing the axe above his head. He finally did the only possible thing, he hurled the chopper away and ran as fast as he could with the cable clattering down at his heels.

Precisely what he thought!

An hour or two later the cable had been sorted out, the colour had returned to Hank's cheeks and he was letting it be known, in no uncertain terms, precisely what he thought of me!

A good twenty years later, from beneath an instructor's hat, I must conclude that the moral of this story from an instructor's point of view must be to ensure an appropriate pre-flight briefing when conditions are out of the ordinary, and a word of advice to pilots — never just jump straight into a glider without first assessing the conditions or circumstances affecting your flight.

MY JOURNEY TO AMERICA

J. C. RIDDELL

There are some among us who will have heard of the Slingsby Prefect: others will have flown the type, but few, I venture to say, who have travelled to America in one.

To me the Prefect has a particular attraction. Fred Slingsby's first post-war intermediate glider had borrowed much in the design from the classic pre-war German design; the Grunau Baby. By a refinement of line the Prefect was demure where the Grunau was aggressive and Teutonic. Perhaps those soft westerlies of East Yorkshire had washed away the forthright Yorkshire grit from Fred Slingsby to reveal unexpected sensitivity. Coming at the end of the pre-war design style, the Prefect revealed the touch of the artist.

Desperate measures needed

I was keen then. I had flown the Prefect for 21 hours. I was almost a pundit, for I had been allowed to fly the Olympia. However my Silver C was incomplete, for that was the accolade of the pundit. For with that cherished possession I would be asked my advice on the flying conditions by less fortunate mortals. It was now July and I could see that unless I took desperate measures I might become one of those sorrowful individuals without his Silver C in his second season with the club and would be much pitied as not one of them — the In Crowd.

I came back to the club for the July soaring week and took the matter seriously. I set aside a blissful seven days to pore over maps, measure distances, live with tephigrams and ponder charts. I selected routes in all possible directions, each one optimised to minimise retrieve cost and time. Many evenings were spent with languid members persuading first this one, then that, to come and retrieve me should the day come.

It was Wednesday. I was out early at the airfield. First I had to book the sailplane — the Olympia of course, and second to undergo that special Chinese torture known as "getting a tow from Marshalls." John had got there first for he had had the same idea. We traded favours for a while to establish who owed who most. I lost, so John got the Olympia. Out of decency and to gain another favour, I said I would arrange for the tow.

I went across to the other side of the airfield to see the power club flying instructor who had the gift of the launch in his power. The club was often reluctant to provide aerotows, for they interrupted their training schedule. I knew the persuasion routine well. First there was the bonhomie — old and dear friends reunited with just a touch of admiration in the voice. Then came the enthusiasm: "This is the day of days. We are going to break records and you can be associated." Then came the horse trading: "OK. When *CAN* you do it?"

"Sorry old boy, 4.30 is the earliest."

"Miles too late. No good at all. Let's see your bookings."

The instructor — poor innocent that he was — pushed the book across to me to justify his case. I knew I had him. One glance was enough.

"Surely you don't need **one hour** for lunch? From 1 to 2pm there's nothing happening. Can't you persuade someone to give us a tow then?"

The instructor looked at me for a moment. He smiled, an enthusiast himself. He just wanted to be persuaded.

"Two o'clock and not a minute later."

I was ready in the Prefect at 1.30pm. The sky was magnificent. Well formed regular cumulus were lined up in streets from horizon to horizon. The wind was a gentle caressing westerly. We took off and five minutes later I released over the town. The lift was fantastic.

Sound of jets

The lift died away as I neared cloud and I set off East. Near Newmarket I again found lift and I climbed up and into the cloud before it died. At Bury St Edmunds I got the big one. I entered cloud orbiting on the turn and slip quite gently. In that quiet intimacy I was deafened by the sound of jet aircraft — they seemed awfully close. The beautiful lift continued, smooth and firm as an avocado pear. At 8300ft I came out of the side of the cloud just below the top to see Suffolk lying neat and trim below me stretching to the sea.

The sight of the sea from the air on a cross-country never fails to thrill me. There is a sense of achievement for someone like me who lives inland and sees the land as permanent and invincible. At the coast the land falters and the sea is dominant: a new challenge to the pilot.

In the Prefect's cockpit I relaxed for the first time. I felt that close intimacy of the air that comes to you in the open cockpit of a sailplane. The clouds and the birds are close. I felt a welcome visitor to a new and intangible world of colour and force, and privileged to share those few brief hours that will last a lifetime of memories.

I was coming down. I looked east for a suitable place to land. I checked and rechecked my map to be sure that I had achieved the right distance for that elusive 50km. I cleared the perimeter of the big airfield by perhaps 200ft and came to rest on the grass beside the runway, quite close to a copse of pine trees. The wing touched the ground at the end of the landing run and I sat still in the cockpit after the tension of the last moments.

I became aware of a group of men standing in a semi-circle around the sailplane. We contemplated each other in mutual disbelief for some moments. One or two were in their vest and pants. Others wore civilian clothes while some wore uniform.

As often happens at moments of great indecision, no one moved. Then the sergeant, carrying a clipboard, stepped forward. He adopted an attitude of importance, for the pen being mightier than the sword he clearly intended to awe me with his presence. However his curiosity clearly overcame his sense of duty. He stared at me for a moment and then asked:

"Say! You got controls in this thing?"

My detailed and informative reply was cut short by the arrival of a jeep carrying two armed men. They motioned me to

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the front seat beside the driver. As we moved down the runway I made some suitable remarks about the weather and the flight. The driver spoke not a word. He stared straight ahead. His gear change was explicit: I was under arrest and I had better belt up.

We stopped at the terminal building and walked past a very new Royal Naval Supermarine Jet fighter parked on the hard standing. My American guards marched me up to the air traffic control on the first floor. The Major was immaculate, mechanically laconic and efficient.

"You got an ID?"

This was something I had not expected. There was not even a request for number, rank, and name. Normally I would have expected to be asked for my driving licence, but an ID was something altogether different. The brevity boggled the mind.

I was wearing my old RAF flying suit so I suppose I must have had a passing resemblance to a serviceman. I fumbled in my pockets as I thought the matter through. My volunteer reserve service card as evidence of my affiliation would do. I showed it. The Major softened perceptibly. I was after all, and in spite of my strange craft, one of them.

"Where're you from?"

"Cambridge."

"How are you getting back?"

"With your permission, I would like to be towed back by air."

"Want to use the 'phone?"

I nodded.

"Go ahead."

The ID must have done it. I rang Marshalls. It was agreed. The tow would come at 6pm.

A full Colonel of the USAF entered. He was a portly man, immaculate in his uniform, who carried a baton under his right arm. He addressed the Major.

"Is this the fella that's just flown in?"

The Major nodded to him. His manner was distant but correct. It was familiar as one that long serving officers adopt to their superiors in rank when they themselves have no further hope of promotion.

The Colonel came across to me. I came to attention. He eyed me for a few moments for any further signs of life.

"You just flown in?"

"Yes Sir."

Under close scrutiny

The Colonel seemed satisfied with this answer. It tallied with that of the Major. He continued to keep me under close scrutiny while a further question formed in his mind.

"That ship of yours — Handle well?"

"Yes Sir. Very well."

"What's the landing speed?"

"I come in at 45kts, Sir."

He seemed surprised, almost taken aback, but technology was advancing apace in those days. He exerted an act of will, and accepted my answer.

"What do you stall at?"

"At my weight, 35kts indicated, Sir."

Somehow I was not getting through to him for my last answer created some difficulty between us. Perhaps our common language was coming between us. His manner became abrupt, as one determined to get to the bottom of a highly improbable tale. Summoning all his resources of rank and personality, he thrust his face into mine for his last onslaught.

"What do you cruise at?" he snarled.

"On a good day, with the wind behind me, I can make 40 miles in the hour," I said with justifiable pride.

The result of this reply was unexpected. The Colonel's face began to swell, his cheeks puffed out. Its colour turned very red. He swayed back and forth on his feet. No word came. We were at an impasse, but I could not speak being his junior.

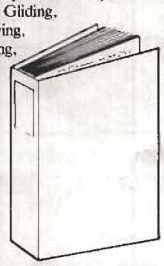
My gaze passed over his shoulder to where the Attacker lay on the tarmac. Could it be, I wondered, that the Colonel was referring to this aircraft, and was totally ignorant of my heroic flight in the Prefect? I banished the thought. It was too horrible to contemplate.

The situation was saved by the arrival of the Royal Navy.

It was a pleasant tow back to Cambridge behind the Tiger Moth in the evening stillness. The USAF had given every assistance with the launch. I thought over the events of the day and reflected that the Major had won on points.

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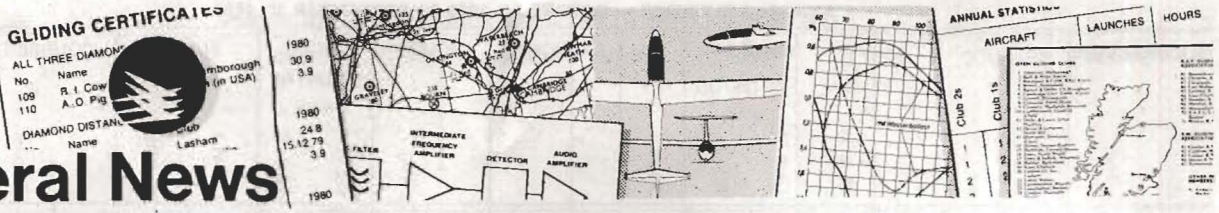
ANNUAL STATISTICS — OCTOBER 1, 1980 TO SEPTEMBER 30, 1981

GLIDING CLUBS	AIRCRAFT				LAUNCHES	HOURS	CROSS-COUNTRY Kms	FLYING DAYS		COURSES		MEMBERSHIP	
	Club 2s	Club 1s	PO	Tugs				Total	Soaring	No.	Pupils	Flying	Non-Flying
ALBATROSS	1	1	2	0	655	69	0	31	9	1	10	26	13
ALTAIR	1	0	2	0	649	66	0	38	7	0	—	12	2
ANGUS	2	2	4	0	3859	544	517	98	32	0	—	70	15
AQUILA	2	1	9	1	2068	573	2000	94	39	1	5	35	2
AVON SOARING CENTRE	1	2	8	2	1930	1361	6145	172	116	0	—	33	—
AVRO	4	1	0	0	4104	474	—	112	33	0	—	96	19
BATH & WILTSHIRE	2	2	22	2	4196	1574	7000	122	76	0	—	100	10
BLACKPOOL & FYLDE	2	3	20	0	3259	1242	—	93	52	0	—	126	4
BORDERS (Milfield)	2	3	7	0	6416	1303	—	246	112	0	—	62	5
BRISTOL & GLOUCESTERSHIRE	3	3	28	3	6494	3572	4146	217	142	21	142	302	51
BUCKMINSTER	2	2	16	2	3408	1345	9800	170	114	19	65	84	0
CAIRNGORM	2	0	4	0			400			6	36	25	10
CAMBRIDGE UNIVERSITY	3	4	28	3	7355	3394	39 143	188	103	10	55	197	94
CONNEL GLIDING CLUB	3	0	0	0	2150	440	20	96	66	—	—	38	0
CORNISH	2	2	8	1	3407	657	1485	167	70	21	119	76	14
COTSWOLD	3	2	22	0	7146	1904	9989	157	95	1	14	145	64
COVENTRY	4	3	47	4	5717	4371	37 882	200	85	20	116	266	37
CRANFIELD	2	1	7	2	1036	507	1500	65	39	0	—	107	0
DEESIDE	3	2	7	2	2241	1800	2000			1	10	109	—
DEFFORD (RSRE)	2	1	2	0	1744	155	132	62	14	4	40	32	8
DERBY & LANCS	3	3	28	0	6968	2424	5950	179	128	22	168	164	65
DEVON & SOMERSET	2	3	16	1	6607	1764	2150	91	86	6	37	172	56
DONCASTER	NO STATISTICS RECEIVED												
DORSET	2	3	8	2	1099	342	1145	47	39	0	—	129	18
DUMFRIES	2	0	4	0	652	133	298	76	42	—	—	18	3
DUNKESWELL	2	1	3	2	3000	26 730	500	103	56	5	47	40	3
EAST SUSSEX	2	3	10	1	3786	884	3000	111	68	2	12	103	46
ENSTONE	2	1	14	0	6320		7860	81	32	—	—	63	
ESSEX	3	2	23	1	9289	1191	14 243			21	126	194	7
ESSEX & SUFFOLK	2	2	8	2	1922	853	3700	108	79	0	—	80	0
GLAMORGAN	NO STATISTICS RECEIVED												
HAMBLETONS	2	4	2	1	3335	1178	9400	140	120	0	—	126	0
HEREFORDSHIRE	3	1	19	2	3292	2398	13 000	212	128	24	77	90	—
HIGHLAND	1	3	3	0	2756	401	1224	103	54	—	—	34	0
IMPERIAL COLLEGE	0	3	0	0	360	200	4000			4	24	85	
INKPEN	3	1	5	1	1961	976	2650	111	39	8	24	60	0
KENT	3	4	22	2	9140	8723	5100	270	90	31	240	227	40
LAKES													
LASHAM	6	0	110	4	25 585	7112	114 431	315	N/K	70	230	690	200
LONDON	4	5	76	6	14 137	7986	N/K	N/K	N/K	32	236	341	84
MARCHINGTON	1	1	8	1	946	542	2965	124	59	0	—	59	3
MIDLAND	3	3	15	1	10 873	3891	11 500	207	161	26	342	192	71
NENE VALLEY	1	0	2	0	721	135	0	46	23	0	—	16	0
NEWARK & NOTTS	1	1	5	0	2602	423	2757	85	34	—	—	50	0
NEWCASTLE & TEESIDE	2	1	6	1	1687	562	500	92	69	—	—	60	5
NORFOLK	3	2	23	2	3897	2741	19 014	246	97	10	50	135	18
NORTHUMBRIA	3	2	22	1	3500	753	1750	138	69	5	30	120	34
NORTH WALES	1	1	2	0	1118	111	25	56	21	0	—	42	0
NORWICH SOARING	NO STATISTICS RECEIVED												
OUSE	1	1	6	1	1393	531	3500	98	42	1	6	80	10
OXFORD	2	2	11	0	3202	1021	10 000			0	—	98	4
PETERBOROUGH & SPALDING	NO STATISTICS RECEIVED												
RATTLESDEN	2	2	9	0	2495	439	2020	105	40	1	22	45	0
RIDGEWELL OATLEY	3	1	0	1	1666	150	0	91		0	—	32	2
ROYAL AIRCRAFT ESTABLISHMENT	2	3		0	4957	1366	5057			—	—	69	21

ANNUAL STATISTICS — OCTOBER 1, 1980 TO SEPTEMBER 30, 1981

GLIDING CLUBS	AIRCRAFT				LAUNCHES	HOURS	CROSS-COUNTRY Kms	FLYING DAYS		COURSES		MEMBERSHIP	
	Club 2s	Club 1s	PO	Tugs				Total	Soaring	No.	Pupils	Flying	Non-Flying
SCOTTISH GLIDING UNION	3	4	35	2	12 585	7167	10 681	292	190	26	222	282	28
SHALBOURNE	2	1	9	0	3712	629	N/K	119	28				
SHROPSHIRE	0	0	10	1	568	805	9500	86	69	—	—	29	2
SOUTHDOWN	2	3	18	1	6472	2294	8019	181	56	0	—	179	48
SOUTH WALES	2	2	15	1	3138	1514				3	25	92	3
STAFFORDSHIRE	1	1	5	0	2009	301	80	80	48	1	12	64	7
STRATFORD ON AVON	3	1	17	2	4965	1126	5000	143	26	4	46	125	26
STRATHCLYDE	2	2		1	904	134	355	58	20	0	—	46	0
STRUBBY	2	1	6	0	3454	455	412	84	40	0	—	49	4
SURREY & HANTS	0	9	110	4	4105	1699		315	N/K	70	230	301	—
SWINDON	2	3	10	1	3558	861	9413	N/K	N/K	0	—	83	8
TIGER CLUB			1		20	5	0	4	0			10	
TRENT VALLEY	2	3	17	0	6138	1482	7467	103	64	0	—	92	2
TYNE & WEAR	2	0	0	1	80	25	200	19	8	0	—	7	0
ULSTER	2	1	9	1	988	568	1000	105	70	0	—	32	0
UPWARD BOUND	3	0	1	—	1870	203	0	45	29	Cont Prog	10	26	0
VALE OF NEATH	2	0	9	—	2010	488	1650	105	81	2	20	36	0
WELLAND	2	0	3	0	713	96	—	23	17	—	—	25	6
WEST WALES	3	0	3	0	515	89		33	12	0	—	28	0
WOLDS	3	1	10	1	5207	1076	6000	147	34	2	20	108	14
WOODSPRING	2	2	8	0	4161	922	1080	129	71	0	—	70	—
WYCOMBE	6	7	46	6	10 877	8000	200 000	287		31	109	499	24
YORKSHIRE	3	5	45	3	11 000	2800	N/K	315	290	22	212	276	42
CIVILIAN CLUB TOTALS	162	140	1090	80	295 149	134 050	630 755	8236	3933	534	3189	8004	1252
ARMY GLIDING ASSOCIATION													
KESTREL	2	4	3	1	5713	1110	6605	120	45	—	—	85	35
SOUTH WEST DISTRICT (Wyvern)	2	4	9	2	7834	1475	8126	148	68	3	27	97	0
ROYAL AIR FORCE GSA													
ANGLIA	3	2	2	0	3300	405	4229	84	49	0	—	65	5
BANNERDOWN	2	4	5	0	10 911	2162	17 238	167	50	2	12	140	—
BICESTER	9	20	0	4	18 530	6587	48 374	228	111	12	300	352	
CHILTERNS	NO STATISTICS RECEIVED												
CLEVELANDS	3	5	11	3	3579	1561	9800	140	100	0	—		8
CRANWELL	3	2	10	1	6376	1530	6306	101	35	—	—	135	—
FENLAND	3	3	3	0	5504	1165	4152	130	49	0	—	95	—
FOUR COUNTIES	3	4	9	0	7535	2088	25 662	130	84	1	6	125	2
FULMAR	3	3	3	0	4480	602	1000	83	70	0	—	46	6
HUMBER	4	0	6	0	5940	1149	5319	110	23	0	—	65	5
PRESELI	NO STATISTICS RECEIVED												
WREKIN	3	3	9	1	4260	958	2846	128	43	1	4	39	50
ROYAL NAVAL GSA													
CULDROSE	3	2	2	2	2589	553	1627	88	17	1	14	60	0
HERON	NO STATISTICS RECEIVED												
PORTSMOUTH NAVAL	NO STATISTICS RECEIVED												
SERVICE CLUB TOTALS	43	56	72	14	86 551	23 381	141 284	1657	744	20	363	1304	111
GRAND TOTAL	205	196	1162	94	381 700	157 431	772 039	9893	4677	554	3552	9308	1363

BGA and General News



ROYAL AERO CLUB AWARDS

Our congratulations to Ann Welch, David Benton, Arthur Doughty and Vintage Glider Club on being presented with the Royal Aero Club medals and awards by HRH The Prince of Wales at a reception at the Royal Automobile Club, London, on November 19.

Ann received the FAI Gold Air Medal for her work and devotion to the cause of aviation. David Benton was awarded the Bronze Medal for 1980 for his record breaking flight at Portmoak on April 18, 1980 when he reached an absolute height of 11 031m with a gain of height of 10 065m in a Nimbus 2 to claim the British National gain of height and the UK absolute and gain of height records. He bettered the previous UK record, which had remained unbroken since 1960, by almost 20%.

Arthur Doughty was given the FAI Paul Tissandier Diploma in recognition of his work on accident analysis for the BGA Safety Panel of which he was chairman for five years. In addition he undertook a considerable amount of retrospective analysis and as a result the BGA have formed a clearer picture of accident causes and trends.

The Vintage Glider Club was presented with the FAI Honorary Group Diploma for 1980 which was accepted by the president, Chris Wills.

GLIDER RADIO

Following negotiations with NATS we are pleased to announce that the restriction of two watts effective radiated power on glider radio transmitters has been raised to five watts.

This means we are now able to install and use many of the wide variety of standard 360/720 channel aircraft radio equipments presently on the market without the need for costly modifications or special variants.

The relaxation of the two watt transmitter power constraint does not mean existing equipment has been made redundant but rather that our choice of suitable equipment has increased considerably. Please note we are only permitted to use the existing four glider frequencies unless we hold a valid R/T operator's licence and in all other respects our licences remain unchanged.

C. Dews, *Chairman, BGA Radio Committee*

COMPETITION NUMBERS

Following a recommendation by the Competitions Committee, the BGA Executive Committee have agreed to raise the renewal fee for 1982 to £10, to make the use of competition numbers compulsory in National level competitions and to re-open the register of numbers as from January 1.

Individual reminders have been issued to all present holders of competition numbers and a list of available free numbers are available from the BGA office.

Barry Rolfe, *BGA Administrator.*



Joan Cloke, BGA treasurer, is photographed outside Buckingham Palace with Tom Zealley, BGA chairman, and Mrs June Zealley, after being presented with the MBE, awarded for services to British gliding, by her majesty The Queen.

A NOT SO CAUTIONARY TALE OF FRED

That 1981 was the "Year of the Disabled" holds a special significance for Freddie Login, of the Peterborough and Spalding GC. Freddie, who was born with a spastic disablement, started gliding in 1969, tuition being provided by somewhat more than sceptical instructors in view of his disability. His first solo flight in August of 1972 was expected to be the peak of his airborne ambitions. Not so.

The completion of his Bronze C in late 1980 following several bouts of illness in previous years merely enabled spirited and determined Mr Login to progress to "other fields". On August 2, 1981, a duration flight of 5hrs 24min in the Capstan was widely held in the club as an achievement of the highest standard, and one which many unhandicapped members had yet to attain.

Enthusiasm further kindled, Fred on a none too good day flew the Capstan some 64.3km for his Silver distance, having gained 4200ft previously for his height claim. To have achieved his Silver distance on his first cross-country attempt, merely confirms that the word "disabled" does not figure in Fred's vocabulary.

We feel that not only our members but also all other gliding pilots will agree the efforts of Freddie in 1981 have been justly rewarded.

Martin Clarke,
Peterborough and Spalding GC

KEMBLE RESTRICTED AIRSPACE EG R120

The CAA has agreed to our request that when the Red Arrows are either away from Kemble or inactive for significant periods of time, the details will be published by NOTAM.

For cross-country flight planning it is also worth considering the following:

1. In addition to the normal 122.1MHz, Kemble is now equipped with 130.1MHz which can be activated by prior arrangement.
2. Kemble closes at 1600hrs local time and is not open at weekends. Any variations to these operating hours will be NOTAMed.
3. The Red Arrows aerobatic training programme for the following week or so may be obtained by telephoning ATC on Kemble (std 028-577) 261. The Restricted Area may only be activated for Red Arrows formation aerobatic training. Thus, even for the departure or return of the Team, Kemble has MATZ status only. If any pilot experiences difficulties in connection with the above, will he kindly report the details to the Airspace Committee (*via*/BGA) so the matter can be taken up with CAA.

Mike Emmett, *chairman, BGA Airspace Committee.*

SLINGSBY STOP MAKING GLIDERS

Slingsby Engineering Ltd announce that they have ceased manufacture of the Vega and Sport Vega sailplanes. The decision was taken with great regret, since the company has been involved with glider manufacture for nearly 50 years.

It is unfortunately the case that the home market is too small on its own to support manufacture of a range of sailplanes — export is essential for survival. The relative strength of sterling and what amounts to dumping of sailplanes from Eastern Block countries are just two of the many factors which mitigate against success in this area.

It is also unfortunately true that the company has not made a profit on civilian glider production for at least 15 years, and the current recession has exasperated the situation.

It therefore became necessary for the company to broaden its product range in the aircraft business, and to this end the structure and size of the organisation was developed to enable the company to trade effectively in the general aviation market. The requirements of general aviation are very different from those of gliding.

The company will, of course, continue to

supply a spares and repair service for all its sailplane products.
Roger Bull, *Sales Manager of Slingsby Engineering.*

CHURCHILL AWARD
Nominations are invited for a gliding project to capture the Churchill Award for 1982. This annual award of £100 is available to individual pilots for organising projects of some kind of research into gliding or related subjects such as meteorology.

Full details and entry forms are available from the BGA office and the closing date for the receipt of entries is April 30.

Barry Rolfe, *BGA Administrator.*

INTER-UNIVERSITY TASK WEEK
This will again be at Duxford Airfield, Cambridgeshire, from June 28-July 4, and anyone interested in taking part should write for further details to Ashley Birkbeck, Gonville and Caius College, Cambridge.

DESIGN FAULT
Mr C. J. Chapman of Aston University has pointed out an unfortunate design fault in the "Cheap Cheep" audio monitor, published in the June 1978 issue of S&G, which can result in the destruction of the unit. His notes explain the fault and describe, with circuit diagrams, how existing circuit boards can be fairly easily modified.

Anyone interested in this information should write for a copy to the Editor, enclosing a sae.

NEW AVIATION CLUB
The Long Marston Aviation Club has recently opened at Long Marston airfield and is open to anyone interested in air sports. The ten acre site includes a hangar, club lounge, caravan parking and a club shop with a cafe and bistro opening shortly.

THAT LOAD OF BULL
There is a rumour going round that Chris Rollings, CFI of Booker, who was rash enough to take on Mike Carlton's extraordinary wager last November to eat a whole bull raw within one year, has failed.



Eat your hearts out all you 16 year-olds! Christopher Holliday is photographed after his first solo in a K-7 last July at the age of 14 years and 87 days. His father, an RAF Wing Commander, is stationed in West Germany and the solo flight was at the Luftsportverein Landstuhl GC's Essweiler hill site. Christopher, who first flew at the age of two in a T-21 with his father, is wearing his mother's family tartan hat and his uncle's squadron T-shirt.

If you remember, Chris landed in a Scottish field last autumn and was plagued by the advances of a bull which Mike bought the next day, packaged into daily portions and Chris started his raw diet on November 26.

The wager revolved around £500, Chris agreeing to pay that amount to the British Team fund if he failed.

We hope to get the final story by the next issue when Mike is back in the country.

AIR CHARTS CHANGED
To reduce the costly duplication of effort, the CAA have an agreement with the military mapping agency producing similar charts to jointly produce the 1:250 000 series of topographical air charts of the UK. CAA have also canvassed user opinion of the content of their series and the combined effect is a number of changes to the form and content of Air Information on the new joint series.

The major changes are as follows:

a) Graticule. National Grid replaces Latitude/Longitude as the prime graticule, though a Lat/Long graticule at 30' intervals will be shown, with 5' and 10' intervals additionally marked. An important point to remember is that Grid North and True North do *not* coincide, and to determine True direction only the Lat/Long graticule can be used. For users unfamiliar with the National Grid an explanation is included in the chart legend.

b) Airfields. Active airfields will be shown by a scale plan showing the actual boundaries of the airfield and, where it exists, the runway layout. To indicate user availability the letters (C) (M) or (J) adjacent to the airfield name will indicate Civil, Military or Joint use. Disused or abandoned airfields will be shown by a diagram of the runway layout within a pecked circle.

c) Power lines will be shown, and those 200ft or more agl will be so marked, though completeness of this information cannot be guaranteed.

d) Free Fall Parachute sites. A circle of 1½nm radius, centred on the site and marking the dropping zone (DZ) will be shown, with the current parachute symbol located at a convenient point within the DZ.

Other points of interest are that pictorial landmarks will be shown (generally those already shown on the ICAO 1:500 000 series) and hill shading will be incorporated.

The first of the series to show these changes is Sheet 18 Northern Ireland, published in December with Sheet 2 Ed.7 North-West Scotland, Sheet 3 Ed.7 Northern Scotland and Sheet 17 Ed.10 South-East England being published from January to April.

FURTHER AND FASTER IN 1982!

Don't miss the

BRITISH GLIDING CONFERENCE 13/14 MARCH 1982

The Rugby Post House, Crick, Northants

Principal Speaker: **GERHARD WAIBEL,** designer of the ASW-20 and ASW-22

Guest of Honour: **GEORGE LEE,** three times Open Class World Champion

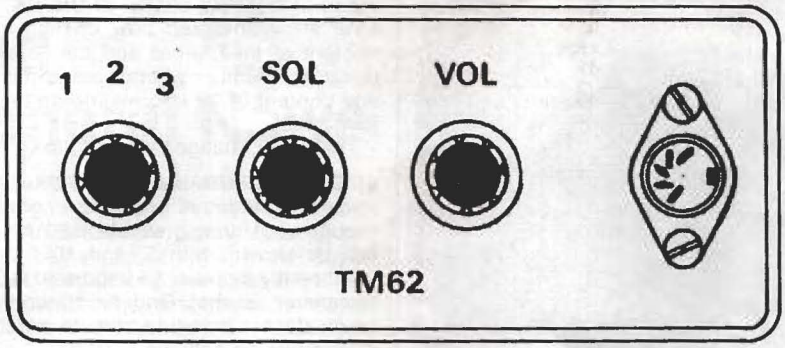
Our guests and a team of experts, champions and record-holders will give talks, slide presentations, demonstrations and take part in panel discussions on:

MODERN SAILPLANE DEVELOPMENTS
- ★ The ASW-22 and the latest generation of super sailplanes in the Open Class
- ★ Materials and structures: their effect on design
- ★ Future developments in the 1980s

FLYING TECHNIQUES
- ★ Planning distance and speed tasks
- ★ Other lift sources: wave, ridge, mountain, sea breeze
- ★ Contest winning tactics

PRACTICAL
- ★ Variometers: how to install, test, calibrate and debug them
- ★ Care and repair of glass fibre gliders

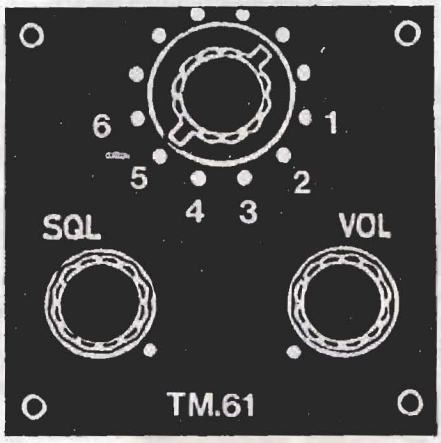
Conference organiser Mike Bird
Further details of speakers and subjects to be listed on the BGA 1982 Conference Application Form available from Barry Rolfe, British Gliding Association, Kimberley House, Vaughan Way, Leicester (Leicester 531051)



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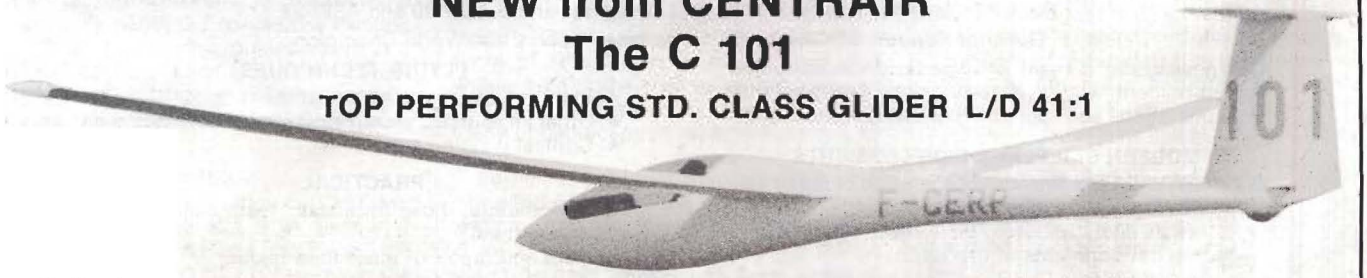
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GLIDING CERTIFICATES

ALL THREE DIAMONDS

No.	Name	Club	1981
118	A. T. Farmer	Four Counties	7.10
119	P. R. Pentecost	Surrey & Hants	11.10
120	J. M. Gentry	Imperial College	24.7
121	A. F. Gough	SOSA (Canada)	23.7

DIAMOND DISTANCE

No.	Name	Club	1981
1/180	P. L. Bisgood	Twinwood	16.8
1/181	D. G. Roberts	Cotswold	2.8
1/182	J. M. Gentry	Imperial College	24.7
1/183	A. F. Gough	SOSA (Canada)	23.7

DIAMOND GOAL

No.	Name	Club	1981
2/1076	R. J. S. Knight	Eagle	30.8
2/1077	A. Durbin	USA	29.8
2/1078	J. T. Winsworth	Norfolk	2.9
2/1079	M. A. Whitehead	Cambridge Univ	23.10
2/1080	S. N. Lawrence	Fenland	3.9
2/1081	D. C. Brown	Thames Valley	16.8
2/1082	B. E. Evans	Oxford	16.8
2/1083	P. E. Griffiths	Fulmar	16.8

DIAMOND HEIGHT

No.	Name	Club	1981
3/496	E. W. Lipski	Essex	30.9
3/497	K. S. Lines	Surrey & Hants	7.10
3/498	J. E. B. Hart	Yorkshire	5.9
3/499	A. T. Farmer	Four Counties	7.10
3/500	J. E. Gilbert	Surrey & Hants	7.10
3/501	J. G. Bell	Surrey & Hants	7.10
3/502	P. R. Pentecost	Surrey & Hants	11.10
3/503	J. J. Bailey	Essex	30.9
3/504	J. D. Holland Snr	Cotswold	11.10
3/505	G. O. Elliot	SGU	11.10
3/506	J. Healey	Essex	28.9
3/507	C. J. Bryant	Surrey & Hants	11.10
3/508	M. Grant	Lasham	11.10
3/509	P. F. Walsh	Norfolk	2.11
3/510	T. A. Joint	Bicester	28.10
3/511	S. K. Houlding	Bicester	30.10

GOLD C COMPLETE

No.	Name	Club	1981
833	A. Durbin	USA	29.8
834	R. G. Procter	Lasham	12.9
835	A. J. Southard	London	16.8
836	A. Kennedy	SGU	22.8
837	P. Reading	Hambletons	13.1
838	D. E. Barker	Bristol & Glos	7.10
839	P. S. Crossley	Thames Valley	16.10
840	J. J. Bailey	Essex	30.9
841	C. F. Whitbread	Kent	21.10
842	A. Townsend	Northumbria	2.8
843	S. N. Lawrence	Fenland	3.9
844	A. C. Swann	Cotswold	11.10
845	S. C. Bicknell	Surrey & Hants	7.10
846	D. B. Powell	Surrey & Hants	7.10
847	C. J. Bryant	Surrey & Hants	11.10
848	I. Smith	Fenland	29.10
849	B. E. Evans	Oxford	16.8
850	P. F. Walsh	Norfolk	2.11
851	T. A. Joint	Bicester	28.10
852	P. K. Goozee	Bicester	29.10
853	S. K. Houlding	Bicester	30.10
854	J. Duncan	Bicester	27.10
855	I. G. Bass	Bicester	2.11
856	D. Caunt	Bicester	25.10
857	J. F. Beringer	Bicester	27.10
858	F. K. Russell	London	3.11
859	B. Chaplin	Thames Valley	30.10

GOLD DISTANCE

Name	Club	1981
A. J. Southard	London	16.8
D. R. Brownrigg	Bannerdown	16.8
J. Swannack	Trent Valley	23.8
A. Kennedy	SGU	22.8
R. J. S. Knight	Eagle	30.8
R. C. Bridges	London	26.8
A. Durbin	USA	29.8
M. Peckham	Lasham	2.8
J. T. Winsworth	Norfolk	2.9
M. A. Whitehead	Cambridge Univ	23.8
D. Sharpe	Swindon	23.8
A. Townsend	Northumbria	2.8
S. N. Lawrence	Fenland	3.9
D. C. Brown	Thames Valley	16.8
B. E. Evans	Oxford	16.8
P. E. Griffiths	Fulmar	16.8

GOLD C HEIGHT

Name	Club	1981
R. G. Procter	Lasham	12.9
J. V. Eden	Yorkshire	5.9
P. Reading	Hambletons	13.1
A. Durbin	USA	24.5
N. J. Herbert	Anglia	13.9
D. E. Barker	Bristol & Glos	7.10
J. E. Gilbert	Surrey & Hants	7.10
P. S. Crossley	Thames Valley	16.10
R. J. Woodhams	Surrey & Hants	11.8
J. J. Bailey	Essex	30.9
C. F. Whitbread	Kent	21.10
G. O. Elliot	SGU	11.10
R. A. Dawe	Fulmar	20.10
R. Arnall	Fulmar	16.10
D. R. Stewart	Fulmar	16.10
A. C. Swann	Cotswold	11.10
S. C. Bicknell	Surrey & Hants	7.10
D. B. Powell	Surrey & Hants	7.10
Joan Powell	Surrey & Hants	7.10
C. J. Bryant	Surrey & Hants	11.10
I. Smith	Fenland	29.10
J. Armstrong	Fenland	20.10
Angela Saunders	Thames Valley	29.10
A. C. Garside	Kent	21.10
R. Hufton	Doncaster	1.11
R. Parsons	Thames Valley	30.10
R. J. Walker	Surrey & Hants	11.10
P. F. Walsh	Norfolk	2.11
T. A. Joint	Bicester	28.10
P. K. Goozee	Bicester	29.10
S. K. Houlding	Bicester	30.10
J. Duncan	Bicester	27.10
I. G. Bass	Bicester	2.11
D. Caunt	Bicester	25.10
J. F. Beringer	Bicester	27.10
V. S. W. Dawson	Bicester	27.10
B. F. Hughes	Thames Valley	28.10
F. K. Russell	London	3.11
B. Chaplin	Thames Valley	30.10
T. J. Satchell	Four Counties	16.10
P. Clarkson	Four Counties	7.10
A. L. Lindsay	Cairngorm	28.9

SILVER C

No.	Name	Club	1981
6051	J. M. Ley	Essex	23.9
6052	G. Rayner	Midland	16.8
6053	Josephine Rayner	Swindon	12.9
6054	D. G. Johnson	Enstone	12.9
6055	M. T. Day	Surrey & Hants	23.8
6056	E. G. Harris	Norfolk	2.9
6057	T. D. Stacey	Kestrel	16.8
6058	D. A. Hilton	Wolds	10.6
6059	P. D. Spencer	Surrey & Hants	9.9
6060	J. R. Warren	Airways	3.9
6061	M. Ellis	Doncaster	13.9
6062	C. S. Thorpe	Anglia	30.8
6063	W. F. Login	Peterboro' & Spalding	30.8
6064	A. G. Chatfield	RAE	23.8
6065	C. G. Buckner	Bicester	16.8
6066	W. A. Ross	Lasham	23.8
6067	E. K. Cooper	Anglia	10.8
6068	M. Hird	Newark & Notts	30.10
6069	J. E. Marshall	SGU	23.10
6070	D. W. Wakefield	Wrekin	25.10
6071	Sarah Lee	Norfolk	16.8
6072	G. Muir	Cairngorm	1.6
6073	R. J. Walker	Surrey & Hants	11.10
6074	Alex Robertson	Bicester	23.8
6075	P. E. Griffiths	Fulmar	16.8
6076	A. L. Lindsay	Cairngorm	28.9
6077	P. Butcher	Essex	22.8

BGA MAIL ORDER

GREY will be the "in" colour for glider pilots this year (after all, somebody has to make these arbitrary fashion decisions and we have just taken delivery of a large stock of GREY SWEATSHIRTS). These are top quality, American made garments of very smart appearance and do not lose their shape when washed. Light grey with a small glider motif on the left chest — and, if not fashion conscious, also available in dark blue. GREAT VALUE at only **£7.00** (plus 45p for mail order). Sizes S, M, L or XL.

This month only we shall also include a FREE car sticker with every BGA SWEATSHIRT order. So send us £7.45 (inclusive) before the end of February for your sweatshirt and sticker.

Whilst ordering don't forget the new CLOTH BADGES for "A" or "Bronze" for sewing on to flying suits, anoraks etc. Only **40p** each (plus 12p for mail order). And KEY RINGS made from leather with BGA motif for **45p** (plus 12p for mail order).

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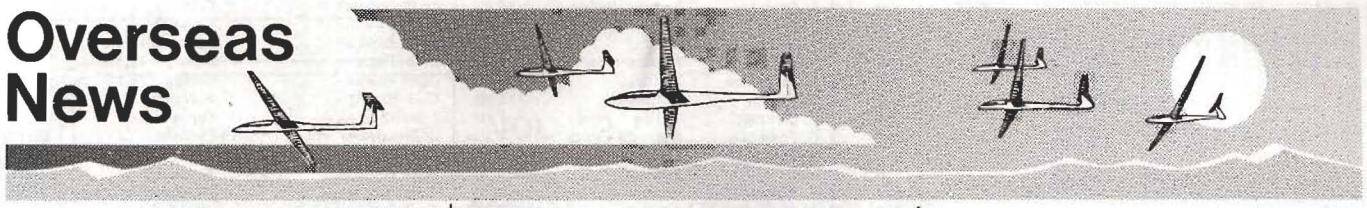
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Overseas News



France

Tour de France by Glider. Georges Welterlin, aged 25, with Diamond badge, had the idea of making a *Tour de France* by air and, like the famous bicycle tour, without a motor, though with daily aerotow launches. Starting from Nogarro in the SW corner of France, he went eastwards near the Mediterranean shore then north close to the eastern frontier, but kept well inland from the N and W coasts, spending each night in the glider to reduce luggage and being launched by aerotow each morning.

Starting from Nogaro on July 26 last year with 20 days available for the feat, he made 308km in 7hrs 15min including a climb to 4000m in wave. Next day he made 119km in 6hr 20min, again with a wave climb to 4000m. On the 28th he flew 71km from Les Alpilles to Vinon in 3hr 50min. Next day's flight was from Vinon to St Crépin, 124km in 5hr 10min in company with two other pilots. But the following day, after encountering a Mistral in the Rhône valley, he was back at Vinon.

Then came mainly thermal flying, starting with 124km in 5hr 10min to St Crépin. From there his route took him to Grenoble and the region of Challes les Eaux, well known to British visitors. Progress was then hindered by thunderstorms alternating with the thermals, but at Dole he visited his family and showed his grandmother his "means of transport": she had never seen a glider before.

From there his course took him to Hagenau where he turned west and made stops at Reims then Buno and Angers, and finally south to Poitiers and the starting point at Nogaro on August 17 after "by far the most difficult flight of all".

He had flown 12 276km in 64 hours' flying at an average of 35km/h.

Rallye Soaring. An interesting experiment combining competitive soaring with tourism was tried out in France last summer when 18 gliders, ranging from a Nimbus 2 to a K-13, set out from Coulommiers just east of Paris to fly to Vinon in the southern Alps. A fixed stage was set for each day and the route led *via* Troyes, Dijon, Villefranche-sur-Saone and Romans. In case of bad weather, all or part of the day's task would be covered by road and all competitors had to report each evening to the agreed staging post where the host club usually laid on a party. If the day was good enough for the flight to be prolonged beyond the day's staging point, a cat's cradle could be flown around prescribed TPs. Although the weather was not brilliant, the pilots all enjoyed themselves enormously and the experiment will be repeated this year. — *Aviasport.*

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

Germany

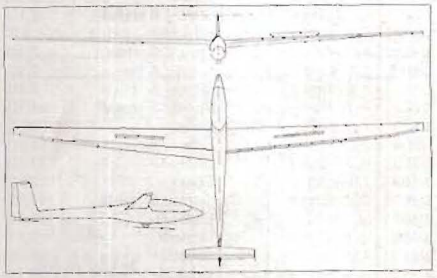
Third World Aid — Germans in China. A three-man delegation from the German Aero Club visited China in September to lecture to an attentive audience of 57 gliding instuctors from all over the country gathered at Anyang. There is a great thirst for knowledge about modern soaring amongst the Chinese pilots and they readily absorbed 80hrs of instruction on the MacCready theory, modern variometer systems, gliding meteorology and much else. They were particularly interested in anything to do with wave which was a completely unknown phenomenon to them — despite the appearance of large, well-formed lenticulars in the skies above Anyang.

The gliding school at Anyang is still recovering from the ravages of the Cultural Revolution when all professional gliding instructors had to revert to productive employment (!) and the glider fleet was broken up for firewood or building material. The fleet now includes a Twin Astir, a Janus, five Nimbus 2c and eight Chinese built Qian Jian single-seaters. Even more impressive is the centre's staff which numbers 140, including 20 instructors, three meteorologists, 55 repairmen (Ralph Jones eat your heart out!) and 40 ancillary workers, (nurses, cooks, farmers — the centre grows its own food). Despite this massive infrastructure, the centre's achievements are modest — hampered mainly by a lack of know-how. Hence the appeal to the Germans for development aid.

(GERHART BERWANGER — *Aerokurier.*)

Akaflieg Darmstadt Diamond Jubilee. As reported in the last issue, p285, this was celebrated with a big reunion on September 12. At present 20 students from the Technical University of Darmstadt belong to the group. Each puts in over 300hrs of research and development work per year (in addition to normal studies) in return for free flying. Since its inception in 1921, the group has been responsible for countless famous designs. In the early days of the Rhön contests on the Wasserkuppe, many world records were broken by Darmstadt designs (Windspiel, Darmstadt, Konsul and D-30 Cirrus). The designs featuring a high wing with a narrow chord and tubular fuselage came to be known as the "Darnstadt School."

Post-war, the Darmstadt group produced the first glider with lifting surfaces made out of synthetic materials (the D-34o), and the D-37 was among the first gliders to have a wing made entirely of glass-fibre. The D-36 was the work of Waibel, Holighaus and Lemke, now all well-known manufacturers, and Wilhelm Dirks (of DG fame) designed the D-38.



The current project, possibly destined to be equally influential, is the D-40, an experimental 15m glider with variable geometry. This uses a so-called "pocket-knife wing" in which a sort of flap mounted on a single pivot can be swung back from the trailing edge, thus substantially increasing the wing area.

How to Avoid Cape Canaveral Winch Launches. Diplom-Ingenieur Eduard Heil of Dannstadt in Germany has invented a cunning device to make winch launches safer, higher and more fuel efficient. Instead of being entirely at the mercy of the winch driver, the pilot can influence the progress of the launch simply by adjusting the amount of back pressure on the stick. The resulting changes in cable tension are displayed to the winch driver on an instrument, which also shows what the ideal cable tension should be at any given moment during the launch. By adjusting his throttle setting the winch driver tries to keep the ideal and actual indications aligned.

Aerobatics. The 4th German Glider Aerobatic Championships were held near Karlsruhe from September 2-5. Of the 13 competitors, ten flew Lo-100s and three

Saltos. The clear overall winner was Hubert Jänsch (Lo-100), one of the pair who astonished the crowd at the Paderborn World Championships with their mirror formation aerobatics. An aerobatic competition for novices was held concurrently with the main championships and was won by Horst Havrda. — *Aerokurier.*

Spain

Campeonata De España De Vuelo A Vela. As we freeze in the sub-zero temperatures of December (a situation I hope will have improved by the time you read this), I have been thinking about sunshine and gliding and Don Quixote. Not that he was into gliding — more tilting — but his old La Mancha stamping ground now sports a small grass strip at Mora (150km south of Madrid) and it is there that the Spanish Nationals are held. Mora offers excellent soaring (some days are on a par with South Africa), and the enthusiasm of the small Spanish gliding fraternity amply compensates for the somewhat unsophisticated air maps and extreme difficulty involved in identifying TPs. If you fancy a change of scenery, some reliable sunshine and a windmill or two, I recommend you seek participation in the 1982 Championships. — MICHAEL CARLTON.

Final results *of the 1981 Spanish Nationals in July were as follows:*
Open Class, 1. Angel Anglada Nieto, 3822pts; 2. Michael Carlton, 3755pts; 3. Pablo Ayesta Diaz, 2834pts; 15 Metre Class, 1. H. G. Peter (West Germany), 4000pts, 2. Antonio Lopez Bernaldo, 3332pts, 3. Wolfgang Knopf (West Germany), 2710 pts; Standard Class, 1. José Gresa, 3858pts; 2. Francisco Vidal Barraquer, 3692pts, 3. Antonio Martinez-Moneo Rico, 2871pts.

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SAILPLANE NEWS

RIKA HARWOOD



Taifun Motor Glider

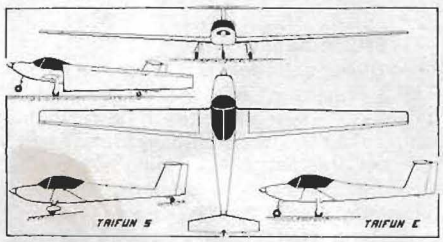
New agency for Mistral and Taifun motor glider

During their period as distributors for the French firm Centrair, Nine Four Aviation Ltd have imported 12 sailplanes of the ASW-20 series which were built under licence in France. They have advised Nine Four Aviation that Schleicher's service bulletin No 12, concerning inspection of ASW-20 flaps, does not apply to French built ASW-20s (Fs and FLs).

Nine Four Aviation has also been appointed sole UK distributor for the German firm Valentin of Königsbrunn who are currently producing the Mistral-C Club Class sailplane, and the Taifun series of motor gliders.

The Mistral has been around for some time and was completely re-designed in 1975 but owing to marketing and various other difficulties it never had the success it deserved, although interest in this robust glider remained high.

It is claimed to be both pleasant and docile to fly and has a measured glide angle of 37.5:1 and will accommodate the largest pilots.



The Taifun motor glider is available in four versions. Fifteen or 17m with either fixed or retractable undercarriages. All versions employ the same flapped Wortmann FX-6K 170/17 wing section, which gives the Taifun, it is claimed, a superior performance over its competitors. The wings can be folded by one person for easy hangarage. It is powered by a VW Limbach 80hp engine. The Taifun recently made a tour of the USA, and flew the north Atlantic in both directions with only two on route stops. Series production is due to start in early 1982, and this year's scheduled quota has already been sold out.

BOOK REVIEW

Jane's All The World's Aircraft 1981-82 edited by John W. R. Taylor. Published by Jane's Publishing Co Ltd at £45.

The very first page is most encouraging for the glider pilot as it is an advertisement for a "Thermal Imager". However, it turns out to be some improbable chunk of military electronics.

There are 37 packed pages showing the world's current sailplanes, plus an enlarged section for microlights and hang gliders, with an enormous total of 813 pages covering engines, balloons, home-built airships, rpvs, missiles and space-flight in addition to the main purpose of the book — aircraft.

The Editor, John Taylor, has written a foreword which has received much publicity in the press and on radio, and this alone is well worth reading.

If you have a shelf large enough to hold it and a friendly bank manager, it is a splendid investment and stays a valuable reference book for those interested in all branches of aviation. B. H. BRYCE-SMITH



Michael Erdman visited the Albatross GC and photographed Fred Sloggett, secretary, and Pete Holloway, technical officer, at the cockpit of the Blanik. The ex-RAF airfield, which is some six miles from the coast, is still owned by the Ministry of Defence. Michael reported that when the wind changes and members move to another runway, they have to re-erect the windsock. He enjoyed his visit and found it a very friendly club.

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, tel 0223 247725, to arrive not later than February 9 and for the June-July issue to arrive not later than April 13.

December 5, 1981 GILLIAN BRYCE-SMITH

AVON SOARING GROUP (Bidford Airfield)

For some years Ralph Jones felt that with the demise of Compton Abbas as a gliding site, a need of glider pilots was not being filled. The person who has a demanding job and therefore doesn't have a whole weekend to spare from early morning to late evening, is prepared to pay a little more for his flying and not have the obligation of being involved with the "nuts and bolts" of running a gliding club. Our operation is aimed at those people.

Training to solo is in the Blanik and pilots later convert to the Libelle or one of the two Std Cirrus. Because we fly seven days a week in the summer and five in the winter it is possible to give individual attention and progress is fast. We don't run courses for the general public as it is felt our resources are better spent on those wanting to glide seriously. New members are encouraged to do a continuous period of early training. All launching is by aerotow with our two Robins and a Super Cub. Don Carey is the CFI/manager and Richard Mitchell the tug pilot.

R.J.

BRISTOL & GLOUCESTERSHIRE (Nympsfield Airfield)

At an auction on November 19 our directors took a deep breath and successfully bid for a plot of land to the east of our flying field. The money has mainly been raised through generous loans from many club members and although we will have to tighten our belts for the next few years, the long term benefits are significant.

The land adjoins the existing east boundary fence and will give us an extra 200 yards of field length. With the ever soaring cost of fuel, it means that we should save nearly £1000 annually by virtue of the tugs being able to land straight ahead instead of doing the famous Nympsfield go-around after dropping the rope. There will also be a reduction in noise problems for the local inhabitants and a much faster turn-around time. We hope to take possession on January 1 so after some boundary levelling we should be ready to go.

Our Grob is back from the repairers after some heavy landing damage while the faithful Bocian is having a complete facelift.

Mike Mayo has left us for California, taking our faithful CYF (ex 750) with him.

R.A.R.

CAMBRIDGE UNIVERSITY (Cambridge and Duxford)

Having been just pipped at the post by Tibenham last year we'll be trying just a little harder in this year's Eastern Inter-Club League starting at Lavenham in May.

After 19yrs as course secretary Ray Haddon had handed over the job to April Martin. April is one of those invaluable assets to any club, the wife of a member who is only too pleased to organise/help/run almost any of the club activities.

The annual dinner is on March 20 at Jesus College.

P.E.B.

CHIVENOR (Eggesford)

After Chivenor airfield was reopened by the RAF a handful of ATC instructors started looking for a new site in North Devon in the spring of 1979. They eventually found a suitable flat area and a welcoming landowner at Trenchard Farm, Eggesford, who had developed a strip for his Tripacer.

The strip was then 600 yards, NW-SE with a Forestry Commission lane at one end. Fortunately permission was granted to cross the lane and to incorporate the next field which rises steeply at the NW end. This now gives a winch run of some 1300 yards and a landing area of 850 yards, albeit narrow at each end.

The club began on a Saturday only basis last summer with 20 members. John Fisher brought along his Bergfalke 2 which supplements the club aircraft on busy days. A syndicate Swallow is leased to the club for solo flying. This coming season we hope to have a tug and a hangar for the club Bergfalke. With many members temporarily out of work we are making use of the fine weekdays and hope to have four or five solo by the New Year.

Our thanks to all our members, especially our winchmasters Jeff Thain and Owen Hill and Mr Emerson Skinner, the landowner, for his tolerance when landing on his barley and swedes!

Visitors will find the site marked on the ICAO chart and the following telephone numbers may be useful: farm — Lapford 202; secretary — 0271 78204 and the chairman — 0271 3123.

B.P.

CORNISH (Perranporth Airport)

Last year we battled bravely against inflation and the weather and avoided damaging any of the fleet. The new two-drum winch was operated expertly by Colin McKenzie to give course members, under course instructor Don McQuillen Wright, much better launches.

The CFI arranged a series of lectures to PPL standard by Piers Smerdon of the Cornwall Flying Club for 12 pilots who passed their examinations. We also bought a Falke which we hope will help with the ever increasing outlanding problems. Clubs in the south-west have been invited to come and fly it at normal club rates if their CFI's think it might be of benefit.

We appreciated a visit from Bill Scull, BGA director of operations, and also John Morris who came to talk to CFI's in the SW region and also to fly the Falke for checks etc and the syndicate Robin.

We look forward to this season as a bit of a challenge but with the present spirit in the club it's one we can confidently meet.

G.T.C.

COTSWOLD (Aston Down)

The weekly pre-Bronze lectures are also popular with other members. The next guest speakers are members of the Red Arrows aerobatic team whose MATZ we share.

The November firework party was a great success. We were pleased to invite ten disabled children for air experience flights and our thanks to those who helped, especially Tony Morely who inspired the idea and put it into practice.

Congratulations to John Holland on his Diamond height and Chris Swann on Gold height, flown in wave at Portmoak, and to Margaret Kevern and Nick Jones on completing their Bronze Cs.

P.K.

COVENTRY (Husbands Bosworth)

The annual dinner-dance was well attended and, as usual, a great success. Nick

Hackett received the award for the best position in the National ladder for 1981 (2nd) and amongst other awards were: Roger Goodman for best position on the club ladder (10th) and Jim Cooper for the most meritorious flight. Jim set out for Plymouth and landed at Taunton.

A talk by John Williamson "Going Cross Country" will be followed in the New Year with "Racing Cross Country" by Brian Spreckley.

We express our deepest sympathy to our CFI, Peter Walker, and his family on the loss of Mrs Rita Walker in a tragic road accident. Rita was a very popular member who always gave freely of her time and energy for club activities. She will be sadly missed.

A.N.

DONCASTER (Doncaster Airfield)

While pleased with our victory in our section of the Northern League, it gave me greater pleasure to observe the spirit and friendship developed during these meetings. In my humble opinion these competitions are the best thing to hit gliding since glass-fibre.

Steve Wilson, who gained his Silver distance in August, married Debbie in September and as the couple left the local church we had a fly past with our Falke flanked by two tugs plus gliders.

We had wave on two Sundays in November which gave Gold heights to Roy Hufton and Joe Millward. Congratulations also to Paul Bucknal on going solo.

V.F.F.

HAMBLETONS (RAF Dishforth)

An autumn of generally pleasant albeit unspectacular weather has resulted in a good number of first solos and conversions to the Oly. Congratulations to Bill Jaques, Jackie Randerson, Mr Hurlston, Dan Myers and Richard Bateson on their solos, also to all new Oly pilots.

Towards the end of November our wave, which had got in the habit of flaunting itself uselessly mid-week, decided to put in a Sunday appearance. This was fortunate for two visiting Vega pilots from Kent, who carried off one completed Silver C and a pair of Gold heights. Our members didn't do badly either: Martin Cummins completed his Silver with a duration, and Terry Trolley claimed Gold height, both flying K-6s. The Diamond of the day was won by Clevelands.

J.P.

HEREFORDSHIRE (Shobdon Airfield)

Frank Pozerskis and Mike Costin have based their gliders with us for the winter and on October 9 Mike climbed his big Nimbus to 14 500ft.

The AGM discussed a replacement for our broken K-8 and it was decided to canvass members before a new glider was ordered. Bruce Hunter and Graham Mason agreed to a feasibility study for our guidance.

The Dunstable week had two wave days with a Gold height for Lofty (Francis Russell). On Friday, November 13, Justin Wills (who is not superstitious) climbed to 15 500ft, visited Wales extensively and landed at Enstone because it's nearer his home. On November 22 Anthony Maitland (Mini Nimbus) got 15 000ft and many of our gliders were floating about at around 6000ft.

R.P.



Glyn Richards (left) CFI of the Kent GC and Alan Smith with the Kestrel 19 they rebuilt after it had been badly damaged in Germany. Photo: Michael Erdman.

KENT (Challock)

As well as many ridge days, surprisingly we report several thermal days in November. Congratulations to David Mourman on going solo; to Bill Duck on his long awaited Bronze leg and to John Bailey and Becky Bramfitt on gaining their Bronze Cs.

Cyril Whitbread, Alan Garside and Hugh Colton obtained their Gold heights on an expedition to Portmoak, Cyril having waited some ten years to complete his Gold C.

Many founder members attended our very successful 25th anniversary dinner-dance on October 30. Laddie Lucas, the guest of honour, presented the League One and Best Flight trophies to Mike Kemp; the Chairman's and the Connolly cups to John Hoye; the League Two cup to Hugh Colton; the Gook trophy to Ron Cousins; the Best Silver Distance pot to Mike Moulang; the Instructor's bowl to Tony Goodman and the *Ab-Initio* shield to John Bailey.

We can assure any visiting glider pilots of a warm welcome should they wish to sample our ridge and thermals.

J.H.

LONDON (Dunstable)

Once more we are indebted to Shobdon for putting up with us for a week's expedition which this year resulted in Gold heights by Vic Tull and Francis Russell, both in Kestrels, on November 3. (See also Herefordshire.) Congratulations also to Maurice Clarke on a similar gain obtained when he went with our advance guard a little earlier.

We held our bonfire party on November 7. This featured a rather perilous multi-stage rocket competition, won by Basil Fairston whose creation proved capable of vertical rather than horizontal flight.

Non self launching developments for 1982 include the rumoured arrival of two ASW-22s. The fact that clubhouse improvements under active consideration place particular emphasis on the loos is

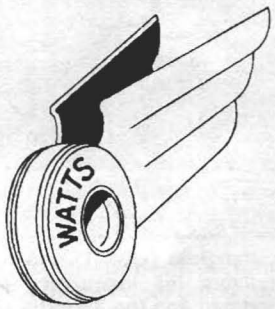


Brian Spreckley, BGA national coach, with the Nene Valley GC members, Judy Steward, Neil Scanlan and John Hipple, after presenting them with their wings. Photo: Geoff Garratt.

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purely coincidental: they should merely make for a more civilised 1982 15 Metre Nationals.

F.R.

MIDLAND (Long Mynd)

Having a tug based at the Mynd now there is great activity by potential tug pilots to get the necessary experience. On good west wind days the bungy rope has been in use, enabling several members to reach over 11 000ft.

The fancy dress party (saints and sinners) produced many laughs (and hangovers). There have been an excellent series of soaring lectures by Diana and Phil King and the CFI of RAF Valley and his colleague came to explain the importance of low flying activities.

The K-21 is a great success and the red K-13 has been bought by a newly formed club syndicate.

We have had numerous new members and fresh solo pilots. More advanced courses are planned for 1982 as well as a season of holiday courses.

M.A.

NENE VALLEY (Winwick)

We plan to refit the interior of our caravan clubhouse to give us a kitchen with two serving hatches, one for the clubroom and an external one for serving the model aero club members. The materials for the alterations are being bought from the profits made by our hardworking catering management, John and Margaret Fair. Dick Clark has already fitted new windows.

The last year has been very successful with our launch rate up by 40% and the hours almost doubled compared with the previous year.

Our congratulations to Judy Steward on becoming the first female member to go solo. With Neil Scanlan and John Hipple, she was presented with her wings by Brian Spreckley, a BGA national coach, at the club presentation night in November. Brian gave an entertaining slide show and the evening started with films produced and shown by Ray Smith of Buckminster. The evening was such a success, we plan to make it an annual event.

I.G.S.

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RATTLESDEN (Rattlesden Airfield)
After our superb flying week in September the elements switched off and we've sunk into winter circuit bashing. But we are well prepared for winter having installed an oil-fired heating unit in our ex-Second World War control tower clubhouse. Our hangar floor has finally been concreted all over enabling us to trolley our aircraft in and out with ease.

Our firework night was an absolute success. Congratulations to Dick Histed on completing his Bronze, Dave Cornish on going solo and special congratulations to Ruth Chamberlain who has soloed at the age of 67 years young.

R.W.

SCOTTISH GLIDING UNION (Portmoak)
George Lee, three times World Gliding Champion and an active member of the SGU while based at Leuchars, has been made an honorary life member of the club.

David Benton, who set the new UK altitude record in a flight from Portmoak when he reached a height of 36 190ft, has donated a photograph to Portmoak bar to commemorate the occasion. Thanks David!

Alan Kennedy and Peter Bower have completed their 300km triangular flights in wave from Portmoak. Who will be the first person to do it in thermal?

Many glider pilots, including visitors, had the unique experience on October 11 of looking down on Concorde while flying in wave up to heights of 22 000ft. Concorde passed below at 7000ft.

An order has been placed with a local engineering firm for a new cable laying winch to back-up the present system. All the bugs now appear to have been ironed out thanks to a combination of using professional winch drivers seven days a week and paying for professional maintenance of equipment. (Gone are the days — thank goodness — when early pilots had to "pass out" on the winch before they were allowed to take their Bronze.)

The two university clubs (Edinburgh and Heriot-Watt) flying at the SGU have now been joined by a third, Stirling University who claim a membership of 100 — that will test our flying system! They are an enthusiastic bunch and one of their members, as part of a project for his degree course, is studying "Stress in Leisure" and is busy monitoring all club members doing their first glider flight. We await the results with interest . . .

We're looking forward to a good holiday course season again this year. Last year's numbers were up on the year before and we had to run extra courses into October to meet the demand.

A.S.

SHALBOURNE SOARING GROUP (Nr Hungerford)



Michael Young who beat the snow to go solo on his 16th birthday.

We are now over 2½yrs old and fully established and thriving. Our planning permission and site leases are now secure, and launching delays are a thing of the past with new cables, a well maintained winch and a new twin-drum on the way: all we need now is a good north wind for the famous ridge to work . . . Even the new clubhouse is rising like the Phoenix. The only black spot is that aerotows are still forbidden.

Congratulations to Frank and Jane Adams, Rod Harris, John Thornton and John Sylvester on completing their Bronze Cs; to Jim Longshaw and Phil Jarvis for Silver heights; to John Price, Brian Greenaway and Jim Longshaw on their durations and to Brian Greenaway and Frank Adams for gaining Silver distances.

Our Winter gliding lectures will continue into March (Wednesday evenings in Newbury) with John Williamson and Dave Watt amongst the guest speakers. All gliding enthusiasts welcome.

B.C.M.

Michael Young went solo on his 16th birthday in early December against great odds. Steve Nash and Jane took the day off work to organise the flight, to find two inches of snow and fog. But fortunately the fog eventually cleared and conditions were perfect for 1½hrs.

STAFFORDSHIRE (Morridge)
Portmoak, we love you. We spent five days at the SGU in weather that would have grounded us at Morridge — high winds and orographic cloud. Although we did not sample the renowned wave it did not stop us ridge flying every day. Ten members flew five aircraft for 74hrs, raising £118 for our club funds. Silver seekers Cedric Meir (Olympia 419), John Golder (K-8) and Eddie Willis (Olympia 2B) obtained their durations and Frank Davies (Olympia 419) his height. The dynamic duo — Peter Foster and Colin Ratcliffe soared the Bishop Ridge in the K-13 to 4300ft for two hours.

We are grateful to Colin for running the course and to the CFI, tug pilot, secretary and canteen staff at SGU who made our stay so enjoyable.

Thank you Brian Spreckley for finding us a K-18 in Germany, inspecting it on site, bringing it back with you and putting it through its C of A — all this without its own trailer. We can now fly cross-country!

P.F.

STRATHCLYDE (Strathaven Airfield)
The poor autumn weather has curtailed our flying but one good point is the return of the Falke after its C of A. George Piggot, CFI, has moved to Yorkshire and been replaced by our ex chairman, Des Tait. Meanwhile Bob Petrie has become chairman.

Membership and flying fees have been increased but this was necessary as we have set our sights on a new hangar. It was rumoured at the AGM that our new Jaguar winch may be in service shortly after a few modifications to the cable drum.

The clubhouse now resembles its former

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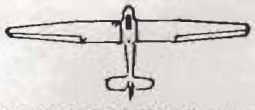
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P.A.

SURREY & HANTS (Lasham Airfield)

This autumn several pilots have visited wave sites. The annual trip to Portmoak was very successful with Diamond heights for John Bell, Keith Lines, Chris Bryant. Martin Grant and Roy Pentecost. Gold heights were achieved by Rob Woodhams and Denis and Joan Powell. Weekend mini-expeditions have visited Shobdon and Talgarth.

R.P.

ULSTER (Bellarena)

1981 brought us a substantial increase in membership, modest cross-country flying, a marked growth in club assets with a full-life tug engine, a retrieve tractor and a toilet block and two much-enjoyed visits by parties of soaring pilots from GB. The first people to come, from the Mynd, are repeating the safari this Easter for a continuous week's flying, bringing a larger party and some aircraft. Visitors from Hus Bos are also expected; we are inviting the Dublin GC and anyone else to join in and hope that it may become a tradition.

There was a run of good flying weather in the early winter with wave on successive weekends throughout November being ridden to heights above 12 000ft — which is only modest by our standards. Earlier, Dublin's autumn safari to Kerry, in which we always join, was marred by conditions which even Kerrymen — who are born with both webbed feet *and* galoshes — described as wet. Nevertheless, altitudes above 11 000ft were reached and a third beach, Rossbehy Strand on the south shore of Dingle Bay, with some marvellous hills immediately behind, was opened up with numerous Parafil autotows from there. Rossbehy expands the Kerry repertoire and with digs more-or-less equidistant from all three beaches, the options available on Kerry safaris are now enhanced.

We have double trouble with our latest soloist, schoolboy David Stewart, for his indistinguishable twin, Mark, is following on close behind. Among other personal achievements were Joe Irwin and David McIlroy's Silver C climbs in November.

The latest K-6CR to appear raises to three the number on the field, with a fourth being rebuilt in Belfast. Greater exotica is coming with the order placed recently by three members for a self-launching DG-400 after an evaluation trip to Germany on which they reported in the last S&G, and with the Monerai now taking shape in Louden Blair's garage at Larne.

R.R.R.

WEST WALES (Templeton Airfield)

We have moved from Withybush, Haverfordwest to Templeton, a Ministry of Defence airfield ten miles away. It is used infrequently for military exercises and we have permission to fly at weekends. We have rented a field adjacent to the airfield and last winter we erected a hangar for the aircraft and launching equipment. A large caravan serves as a clubhouse.

We started flying here on July 12 and have had only five non flying days due to the weather. September 13 was outstanding and a member went off in a K-6E for his duration and Silver distance, returning six hours later, not remembering if he had switched on his barograph.

The club has a T-21B, K-7 and a Motor Falke and there are three syndicate gliders. Since we are a few miles south of the Prescelli mountains and south-west of the Cambrian range, lenticulars are common during the spring and autumn but we have yet to discover whether we can pick up the wave from our winch launches. However, the Falke will be invaluable for wave searching this winter.

Why not visit us and combine your visit with a look at this beautiful area? Follow the M4 to Carmarthen, head westwards to Narberth and we are a couple of miles from there.

H.P.

SERVICE NEWS

BICESTER (RAFGSA Centre)
Over 20 people enjoyed a highly successful autumn expedition to Aboyne organised by Ken Stephenson, despite a set-back on the way up when an Astir trailer was pushed sideways and off the hitch by a juggernaut. Although the aircraft was all right the trailer was badly damaged. Our thanks to Bill Dempster for letting us use his as a replacement.

The best flights were by DCFI, Terry Joint, and Steve Holding who both reached Diamond height. Everyone else had at least one flight to Gold height with Gold Cs for Alfie Bass, Jeremy Berringer, Dave Caunt (who just missed a Diamond), Vic Dawson, Peter Goozee, Richard Lovell-Butt and Gerry Martin. About 4000km were also flown, mainly short cross-countries. The all glass fleet included a Twin Astir, soon to belong to the Oxford University club, which allowed the less qualified some wave flying.

Weekend flying still draws the stalwarts and the second last Joint Service Adventure Training week even had some local wave. First instructor to contact was Jeremy Berringer — with 30hrs at Aboyne he was well in practice!

J.W.

FULMAR (RAF Kinloss)
We had a very successful expedition to Aboyne in late October. Although the number of badge claims was not spectacular, the amount of soaring was exceptional. We achieved 174hrs 56min from 109 launches with a total launch height of 325 000ft, a total height gain of 276 900ft and a total absolute height of 601 900ft.

Gold heights were claimed by Rich Arnall, Dick Dawe, John Armstrong and Dave Stewart, Dave also claiming a duration. On most days wave was working up to 10 000to 12 000ft and the best we got was 16 500ft.

Oscar Constable is our new DCFI and Ron Jackson is going to learn to be a fighter pilot.

M.B.

PHOENIX (RAF Brüggen)
The summer and autumn has been poor with flying days much reduced by rain and very poor vis. However Taff Thomas, Ian Gorton, Jenny Wilcox, Phil Nix, Bert Jansen and Lars Lennart have their Bronze Cs; Lyn Norman Silver height and Bob Free and John Gee have gone solo.

At the recent AGM the following were "gonged" for their services to the club — George Barber and Dick Murray deserved the Man of the Year award and Andy Elliot romped home for the Hog of the Year award.

Suffice to say the annual drudge to Vennebeck ended up as a rating for sub-aqua standards.

A.F.M.D.

PORTSMOUTH NAVAL (Lee-on-Solent)
We have a new treasurer, Flt Lt Bert Keeling. Our expedition to Aboyne was successful with some good flights and Gold heights.

HMS Daedalus, our home base, lent us £1000 to buy a double decker bus to convert into a winch. We bought a tractor this November so our winch launching total should vastly exceed previous years.

J.M.D.

TWO RIVERS (RAF Laarbruch)
Winter arrived early and various combinations of fog, rain and wind kept us firmly on the ground for much of October. Several members took our K-8c and Astir on a mini-expedition to the Vennebeck ridge. The weather there was not good but the expedition was enjoyable.

From a recent influx of pupil pilots, Mark Butler has gone solo and converted to the K-8; several more are hoping to gain their wings soon. Dennis Standley is the new entertainments member. One of the club stalwarts, Pete Burns, has recently left us on posting back to England and takes with him our best wishes.

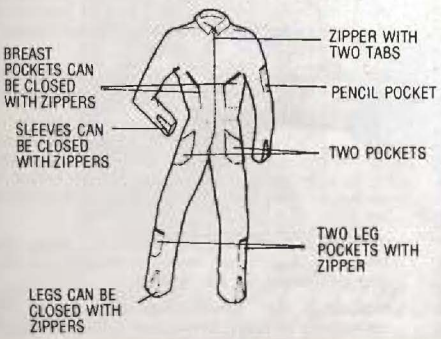
Planning has begun for the 1982 expedition which will probably head once more to France, and our winter maintenance programme is in full swing.

D.R.M.

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Your Letters



THE FALKE'S UNEXPECTED "NASTY"

Dear Editor,

It is now some years since the introduction of the Super Falke version of the Scheibe SF-25 and so I found it surprising to learn about an unexpected "nasty" with the handling characteristics. We all know it turns vicious in drizzle or rain but did you realise that this docile old trainer could bite you on a sideslip approach or crosswind landing?

Next time you fly the Falke take time to explore the handling. At a safe height set up a simulated approach with full airbrake and then try a sideslip. For an even more impressive result try simulating a crosswind landing with full airbrake using the crabbing method. Notice what happens when you kick off the drift with the rudder.

At both these times there is a massive nosedown trim change. Unless you react quickly the nose will drop twenty to thirty degrees. Almost all the available backward movement on the stick is needed to overcome the effect and if it occurs suddenly near the ground, it is almost certain to cause a heavy landing. Even slight yawing movements on an approach upset the attitude and speed control and may cause bad landings. While not seriously detracting from its value as a basic trainer, these characteristics add to the instructors' problems when teaching crosswind landings.

Some similar effects have been noted on the earlier models but were not considered significant at the time. However, whichever type you fly I would suggest you explore your Falke at the next opportunity. It could save you an embarrassing moment sometime in the future.

DEREK PIGGOTT, **Lasham.**

PROBLEM OF ASSESSING THE WEATHER

Dear Editor,

I write with reference to Brennig James's letter in the October issue, p244, in which he states that a flight simulater would help young pilots to become good cross-country pundits.

First let me congratulate Brennig for offering a radical approach — something that gliding is definitely lacking at present, and then take issue with him as to the feasibility of the project. Certainly a flight simulater will improve a pilot's ability to fly — however I feel this is not the problem, as we have an adequate and relatively inexpensive method of doing this already.

The problem as I see it is one of accurately assessing the weather, making a decision, then doing just as Justin Wills did — leave all of the fumblies and bumblies behind by jumping in a glider — any old glider, and GOING!

M. BOND, **Swinton, Lancs.**

classified section

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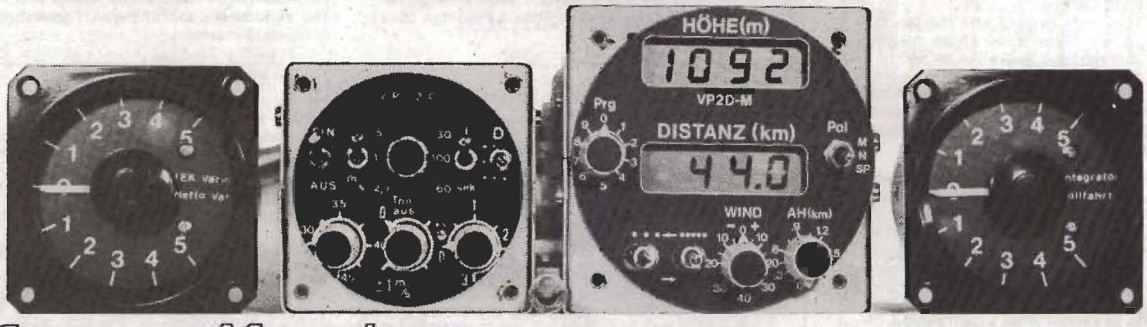
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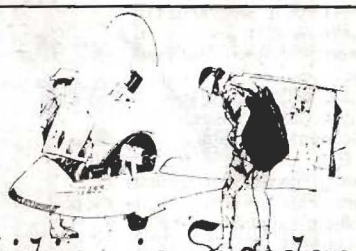
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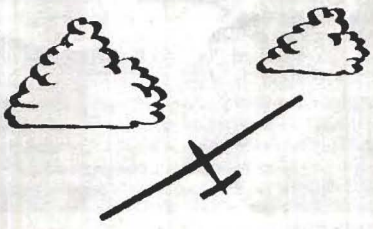
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Scotland

Telephone
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543

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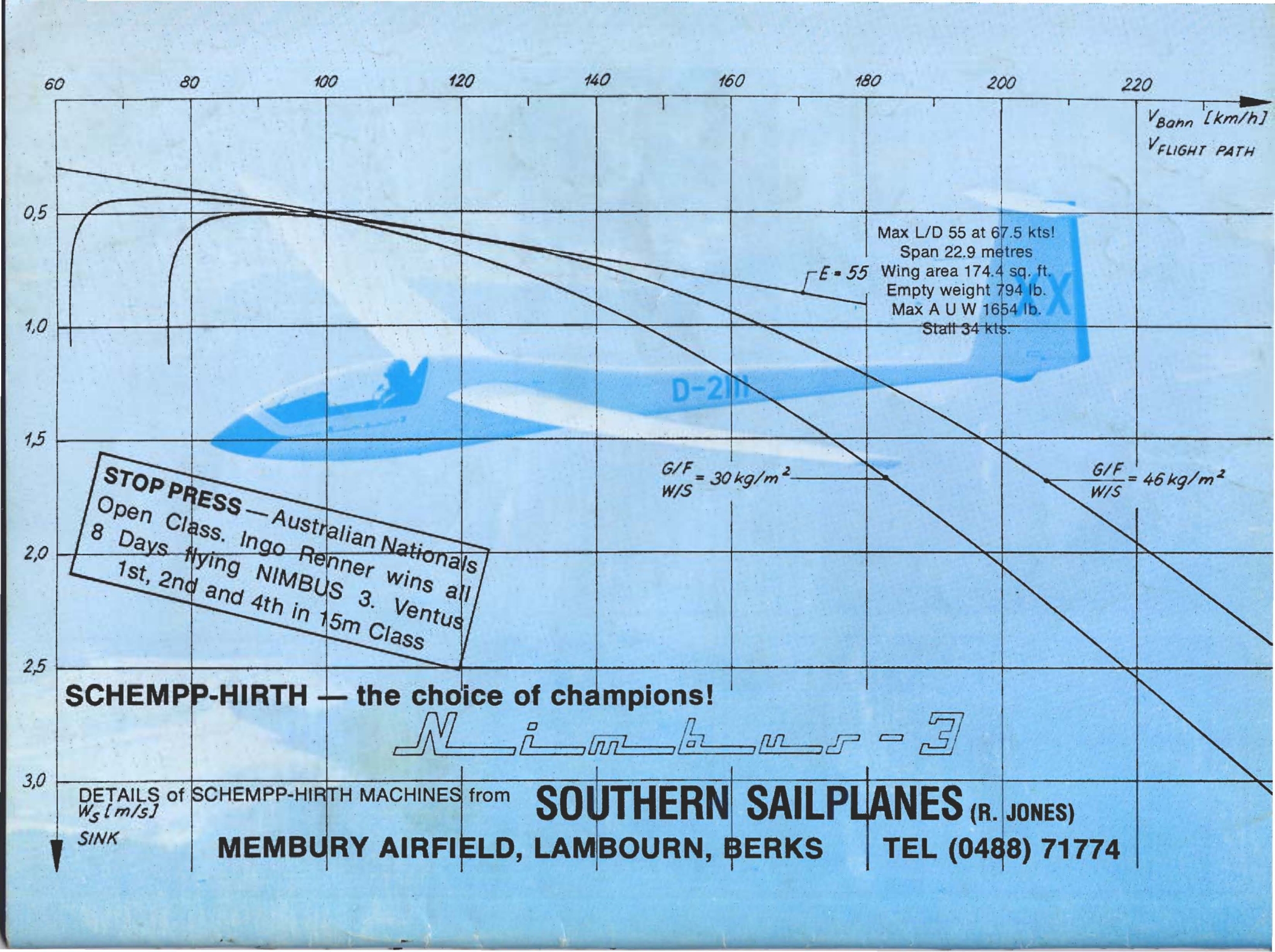
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60
80
100
120
140
160
180
200
220
V_{Bahn} [km/h]
$V_{FLIGHT\ PATH}$
0,5
1,0
1,5
2,0
2,5
3,0
W_S [m/s]
SINK
E = 55
Max L/D 55 at 67.5 kts!
Span 22.9 metres
Wing area 174.4 sq. ft.
Empty weight 794 lb.
Max A U W 1654 lb.
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G/F / W/S = 30 kg/m²
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