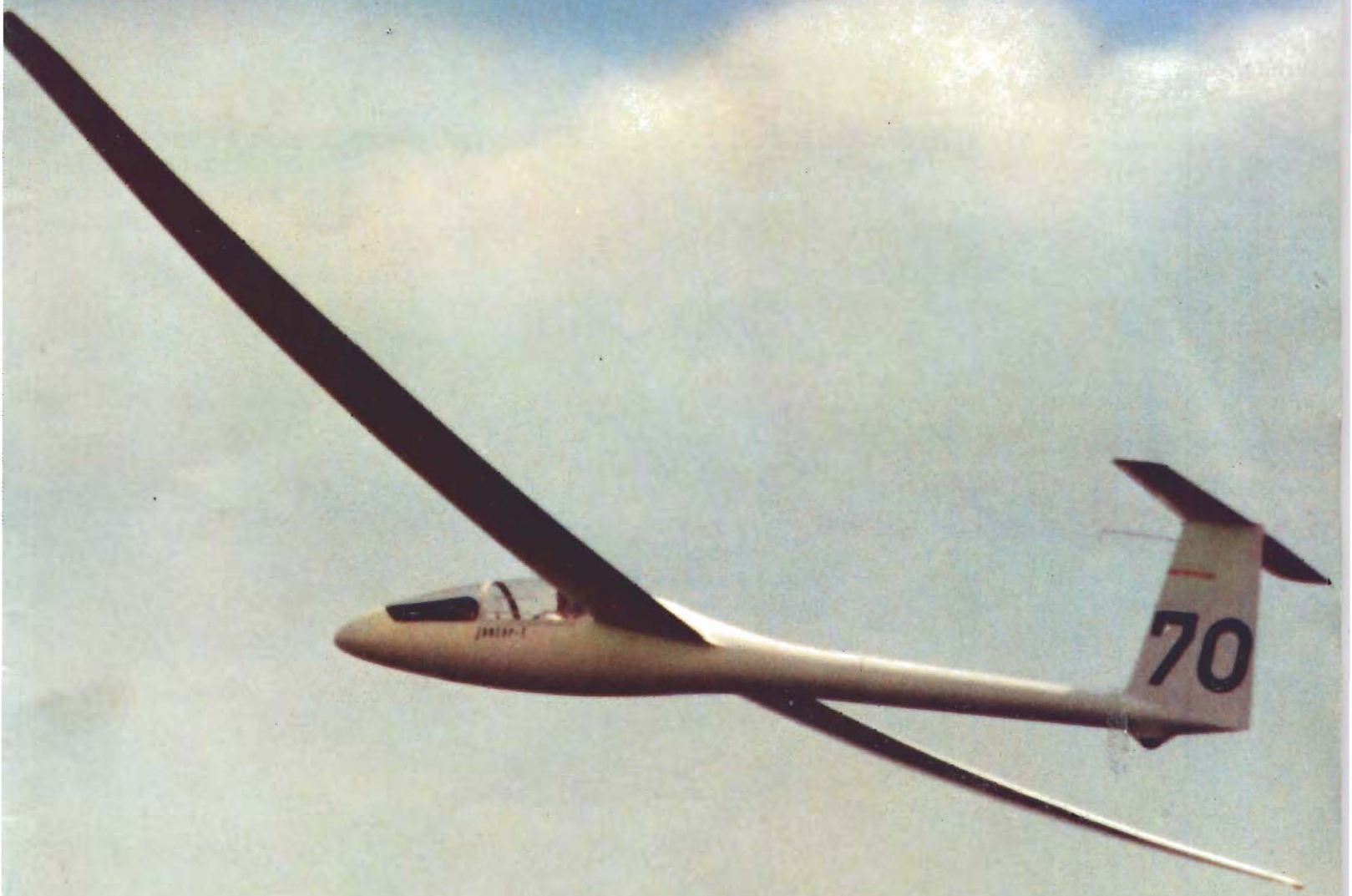
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JUNE – JULY 1979 75p



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SAILPLANE & GLIDING

Magazine of the BRITISH GLIDING ASSOCIATION

BGA 50th ANNIVERSARY YEAR, 1929-1979

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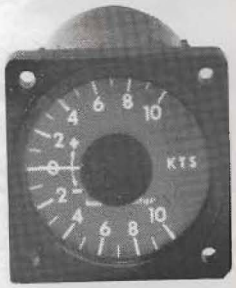
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Mike Osborne confers with Rod Witter while Gary Feeley dons his parachute.



Rod Witter and Mike Osborne check the wind speed.



The Blanik and Dort ready ot the launch point.

COLD CLIMB OVER CLWYD

The Wrekin GC (RAFGSA) recently organised a sponsored flight, from an expedition bungey site on the Clwydian hills, for the benefit of the BGA Philip Wills Memorial Fund, and raised £528. ROD WITTER tells the story.

The BGA Fund in the name of Philip Wills honours the memory of a man whose achievements for our sport cannot be overstated. All British glider pilots enjoy a degree of freedom, largely won by the efforts of Philip, which is the envy of pilots in other countries throughout the world.

We felt, at Cosford, that a special money-raising activity for The Memorial Fund should be carried out – preferably in a way that would be in the spirit of everything that Philip stood for in gliding – namely the adventure, challenge and enjoyment of "the most absorbing sport in the world". We decided to organise a sponsored gain of height attempt from an expedition site we had discovered in North Wales.

Our club pilots regularly make the long, and often frustrating, trip to Scotland in search of wave. However, we knew that probably better conditions existed in North Wales, if only a suitable site could be found. The stories of Bill Creases' old site at the Clwyd Gate near Ruthin (from where the Cambridge University GC and others flew) gave us the clue we needed. The range of the Clwydian hills is some 15 miles long rising to 1800ft asl and perfectly shaped for ridge soaring, running north/south with a wide safe valley at the bottom for landings. Much more important, however, is the position of the ridge; 30 miles directly in the lee of a stable westerly flowing over the Snowdonia range which rises to 3500ft asl. It didn't need any Caswell calculations to tell us that here could be a soaring paradise. Any glider pilot living in the area will tell you of the lenticulars which regularly appear, seemingly applied by broad strokes of some celestial whitewash brush to the Clwydian sky.

The only problem of course is a suitable launch site. We eventually discovered the original Clwyd Gate bungey point, but either the pilots of earlier years were made of sterner stuff or the local geography has changed. Clearly the requirements of the older gliders were different from today with their much lower take-off and landing speeds. Looking at the site we were in awe at the stories of Bill Crease landing back on the site (a 1 in 3 field) downwind and uphill! We decided the site was not for us and extended our search along the hills.

After much tramping we finally came upon the perfect field, 900ft up the side of the hills, clear of trees, with good access and a flat top where the gliders could be rigged in safety and accelerated by autotow or bungey to the point where the hill drops away at a steep angle. Moreover, the farmer was particularly co-operative over this strange new use of his sheep field.

The first launch was achieved on Easter Sunday, 1978, when 3hrs' soaring took our syndicate Blanik in ridge lift to 7000ft in a 20kt westerly – which certainly proved the hill, but did not locate the wave which we knew had to be there.

We determined to try again, but this time to make money for the Philip Wills Fund by inviting sponsorship from pilots of so much per 1000ft gain of height on the next launch.

Weather system upside down

In mid-December we positioned our syndicate Dart and Blanik at Queensferry, near Chester, in instant readiness for the hoped for westerlies. However somebody saw us coming and promptly turned the weather system upside down. For the next ten weeks a constant procession of highs tracked across Iceland with lows across Europe. This was exactly the opposite of what we wanted and caused the Clwydians, along with the rest of the country, to disappear under a curious white powdery layer, which was most unhelpful for gliding.

We used the delay to collect as many sponsorship pledges as possible – and such is the charisma of Philip Wills that we met with only one or two refusals amongst the gliding fraternity. By the beginning of March sponsorship pledges from 141 people had been collected totalling £44 for each 1000ft gain of height.

On Thursday, March 1, it was beginning to look as though the isobars might arrange themselves obligingly for the weekend and the initial stages of the plan were put into operation. This involved ringing round the maximum number of local gliding enthusiasts in the hope of gathering together a sufficiently large team prepared to make the expedition up the hill with only a possibility of the right conditions occurring.

On Saturday morning the cold front, which had been forecast to clear during the night, had not even begun to arrive. Thick stratus covered the area with constant drizzle. The attempt would have to be deferred to the Sunday –

although we had the use of a borrowed Land Rover (essential for getting the trailers to the top of the field) for the Saturday only. Hopefully enough bodies could still be motivated on the Sunday and if necessary the trailers could be winched to the top of the hill.

Sunday morning dawned bright and clear without a cloud in the sky. A phone call to Gloucester Met gave us a forecast of ground level wind speeds increasing to 20kt, gusting 30, at 250° during the day. Cloud cover was forecast at 3 to 4 oktas cumulus with the possibility of showers. Although it was obviously an unstable airflow we decided to have a go in the hope that the wave would appear in the evening as the convection ceased.

By 11.30am the team was assembled at the bottom of the hill and, by careful driving along precarious sheep tracks, soon had the two trailers at the entrance to the launch field. Now the problems began as the previous day's rain had left the field entrance impassable to cars. By great fortune, however, a party of soldiers in a Land Rover arrived in the opposite direction on the sheep track at this very moment. Finding to their surprise the track blocked by two glider trailers they very kindly used their Rover to help us into position. By this time the farmer had also arrived with his Land Rover, so we were thankful to be spared an exhausting manhandling session.

A check of the wind strength and a quick conference decided that we would first launch the Blanik, with Mike Osborne and Gary Feeley as pilots. Due to lack of experienced people we decided on an autotow launch rather than bungey. The field is shaped such that a 30 yard run can be achieved on the flat by the glider before the ground starts to drop away. Thus by using some 30 yards of cable between the car (Triumph 2500) and the glider, the towcar starts on its run immediately on a downhill slope which helps to accelerate the combination. On getting the all out signal the Triumph only required to accelerate to some 15-20mph and the Blanik was very quickly flying (using full flap).

Those remaining on the hill left the Blanik to its ridge soaring and turned their attention to launching the Dart, which was intended as the glider for the sponsored flight since it carried oxygen. Unfortunately, however, the Dart launch failed - the glider overrunning the cable and back releasing. The subsequent ground loop put a small hole in the wingtip and an end to any further launch plans for that day. Disappointed, we radioed to the Blanik that the sponsored flight was now up to him and he should go for a maximum climb.

We had launched the two-seater at 3.00pm, and he flew in ridge lift up and down at a maximum of 3000ft for the next hour and a half - constantly pushing out over the valley in search of a wave. At 4.30pm it was clear from the ground that convection was reducing and the cumulus cloud was beginning to line up across the wind. On the next push out into the valley Mike and Gary contacted the wave at a steady 3-4kt, rising at times to 6kt. They beat up and down over St Asaph and were soon at 13 000asl where the lack of oxygen made them prudently decide to break off the climb. At this point the Blanik was still going up at a steady 2kt.

An 80kt braked descent rapidly placed them in the circuit of the ATC Gliding School at RAF Sealand, where the surprised instructors quickly made them welcome - in true gliding style.

At the end of the day we totalled up our achievement to discover that the gain of height of 12 000ft would bring in £528 from the sponsored pledges for the Philip Wills Fund. Only one problem now remained - collecting the money!

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MODELS OF THERMAL STRUCTURE

BRENNIG JAMES

THERE is a fair amount of agreement between competition pilots about their experiences in thermals from which a picture can be built of the thermal structure. All right, let's start with the "facts".

1. "I found a thermal coming off a corn field." Probably wrong if it is not on fire. Thermals average about ten per square mile so at 1/10th of a square mile it would be a very large field.

2. On a good day about one cumulus in three works well. About one in five gives nothing (on a very dry day they all work).

3. If there is a good thermal going into a cloud, the cloudbase is more definate, lower or higher. Depending on circumstances all may be true for as water vapour makes a thermal more buoyant, vertical wisps of condensation going into cloudbase is the most reliable sign.

4. Almost always there is lift above and below another glider circling in lift, even though it may be a thousand feet away. It is unusual to fall out of the bottom of a thermal. This all adds up to a picture of a thermal which is an unbroken current of rising air from the ground to the inversion.

A guide to the shape of thermals

5. The thermals rising from stubble fires are not unusual in anyway, apart from being rendered visible by smoke, and the cumulus cloud which may sit on top of it is typical in appearance. From this may be concluded that what one observes from the shape of smoke is a fair guide to the shape of other thermals.

6. Climbing in cloud is very rapid until the top is reached when one climbs in rougher air at about half the previous speed. This suggests that the top of the cloud is burrowing up into the still air above and although the air comes to rest at the top, the air rising from below causes the top of the cloud to accumulate at about half the speed of the air rising in the middle.

7. In windy conditions the thermals tend to be stronger to windward and when you lose lift you often find it again by flying to windward. From observation of dust devils, sometimes they are static but usually they move downwind at about half the wind velocity.

8. In windy conditions thermals are often small and broken, whereas in calm conditions they may be relatively smooth and stable so that re-centring is unnecessary.

9. Blue thermals, thermals under cumulus or thermals within cumulus all seem to have the same characteristics so that one can draw the conclusion that the shape of the cumulus extrapolated to ground level gives a fair idea of the shape of the invisible part of the thermal. This fits in with smoky thermals such as those from stubble fires.

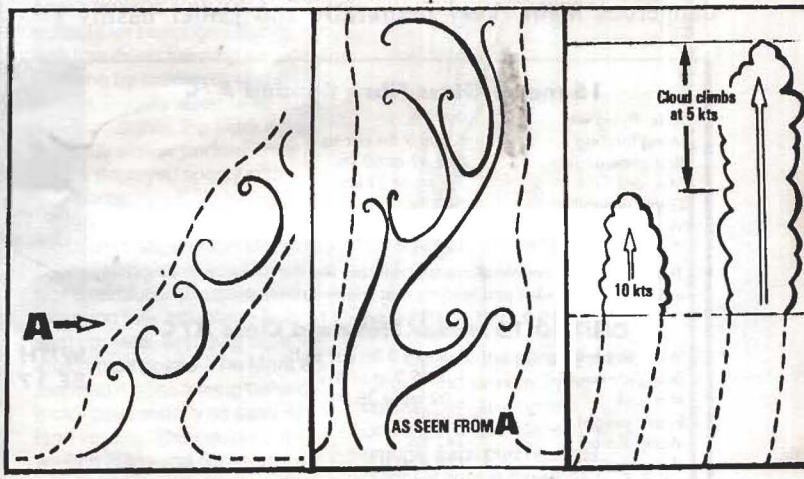
These findings, as I have stated, are generally supported by glider pilots; however I am open to further suggestions. I think the view that thermals have an appreciable rotary velocity is nonsense; certainly changing the direction of circles never makes any difference which cannot better be accounted for by a difference of position in the thermal. If you fly over to one side of a thermal to look for lift it is generally difficult to find the lift you left in the first place. When most pilots feel that they are reasonably centred they don't like to drift about much more than one circle radius at a time since if the strong part does not materialise., getting back may not be easy.

Putting it all altogether

A superadiabatic layer builds up on the ground which may be up to 100ft thick. This may be thrown into waves by the wind or piled against an obstacle. It will tend to take-off as a thermal at its thickest part, *eg* when it is piled against a hill. Buoyancy may be due to a rise in temperature or water content, or both. Thermals have had their temperatures measured at less than the surrounding air near cloudbase, since on these occasions the buoyancy was largely due to water vapour content.

If the production of more superadiabatic air keeps up with its loss into the thermal the flow will attain a steady state, but this will be broken up into inhomogeneities produced by turbulence and mixing. Thus the centre line of the thermal column which is tilted over by the wind will tend to erode the windward edge because it is more buoyant. Once it gets to the edge it loses buoyancy by mixing and slows down allowing the parts left behind to become relatively more buoyant and become secondary billows which follow suit.

Viewed from upwind these will tend to alternate from one side to another so the lift to a certain extent gets dispersed. However many of these billows will be too small to circle in. The glider pilot just sees them as a series of bumps so that the circling technique is directed more to collecting numerous bumps per thermal than getting inside one of them. This attempt to get inside a bump sometimes leads to over-centring where hard work just leads to worse results. Often the secret of success is to be content with a reasonable rate of climb rather than the futile pursuit of excellence.



Notice on the middle drawing how billows tend to alternate from left to right in a fairly random manner. On the drawing on the far right note how the thermal tends to straighten up on entering cloud due to acceleration. The thermal also narrows for the same reason.

This model of thermal structure is proposed as a first approximation; other pilots are invited to express their views and suggestions as to its modification.

FIFTH TIME LUCKY



HELEN GEORGESON describes the multi-seater world record goal and return flight she made with her husband Dick in a Janus on January 10 when they covered 801.77km in New Zealand. Dick also holds the world single-seater goal flight record which he shares with two other New Zealand pilots (see S&G, April 1978, p54).

Last Christmas Dick and I decided to spend part of our holiday at Blackwood Bay in the Sounds and then, if the weather became suitable for gliding, we planned to go to Hanmer where the Canterbury Club was having its annual camp.

Phil Howell had sent us a battery-powered radio and after ten days told Dick it was time he got off his ... and made an attempt on some serious gliding. (Phil's words, not mine). So within 24 hours Dick set off for Christchurch to prepare the Janus for an out-and-return flight from Hanmer to Alexandra and back, should the weather become suitable. I sent up a silent prayer that the nor-wester would not blow until after the holidays, but little did I realise the hectic activity that was about to come.

Dick first rang me in the Sounds on January 6 and said: "It looks as though tomorrow is the day for the out-and-return. Could you come immediately to Hanmer?" This meant I had to travel by boat the nine miles to Picton where my car was and then the 170 miles to Hanmer.

I duly arrived later on the 6th at Hanmer with promising lenticulars in the sky and a good forecast for the following day. However the westerly did not develop and the day was fine and calm. The north-westerlies were still prevailing and so I decided to stay and see what the next day would bring. I should not have waited as the following day, January 8, Dick and I were towed into a nor-west sky and for the next two hours had a most unpleasant, turbulent and at times dangerous flight. Very thankfully and rather hastily I returned to the peace of the Sounds and prepared to settle down for the rest of the holiday.

Less than 15 hours after arriving at Blackwood Bay another telephone call came from Dick to suggest that I returned to Hanmer as tomorrow was **the** day. To let anyone think that I was thrilled by this news would be wrong. I was appalled at the prospect of going back, but I knew I had to. My transport to Hanmer this time was by boat and aeroplane and so just 24 hours after my departure from Hanmer I arrived back. There has to be a happy ending to a story and this is it.

Once again we wrote declarations, made lunches, drinks (soft) and the hundred-and-one jobs required for a record flight attempt.

John Goddard and Dimitri Zotov offered to help us get off in the early morning and with this great assistance we were airborne at 6.30am. We then floated round the Hanmer basin for two hours in beautiful smooth lift. This was a contrast to the wild ride we had had two days earlier. Unfortunately the lift was very weak and the sky looked very disappointing so we decided to land and wait to see if the conditions improved.

Just as we had made the decision to land we found that the 2kt lift had increased to 4kt and then 6kt and soon we climbed to 17 000ft and started flying south. For the first 100 miles we used patchy wave and as the wind was approximately 260° we had in effect a 60kt head wind.

We had a marvellous climb in the Mt Hutt area and

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climbed to 21 000ft and then forward to the Two Thump Range. We pushed forward into the Mackenzie over Lake Tekapo and ran along the leading edge of a series of lenticulars. Near Omarama the volume of cloud began to worry us and with the addition of smoke haze from Australia the visibility at our altitude was poor. We felt isolated and lonely and I felt that the loneliness of a long distance single-seat sailplane flight would be hard to endure.

We were getting through oxygen at a great rate and this added to a list of anxieties on this part of the flight. There was so much cloud about and visibility was so poor we thought that a front might be affecting the weather as we could also see heavy rain to the west and were concerned our turning point might be under cloud.

To reach our turning point, which was the bridge over the Clutha river at Clyde, we flew one valley upwind and flew along a gigantic lenticular which lay from Tarras to Cromwell. It was a cloud of spectacular beauty and lay ponderously along the valley with its bottom sitting heavily on the tops of the Dunstan range. We were worried that it might block the narrow Clutha gorge over which we had to fly downwind to our turning point. However, we were lucky and the gorge was clear and we could see our destination. We climbed to 17 000ft over Cromwell and flew down the gorge to photograph the Clyde bridge. At the end of our run in to the bridge and our subsequent photographing of it, we were down to 11 000ft and to our great relief saw another huge lenticular lying parallel in the Manheurikia valley, a twin sister to the one in the Cromwell valley. These giant lenticulars were of such awesome beauty that to me they were the visual highlights of the whole flight.

Immense brooding power

We flew at 100kt along the leading edge of this benevolent giant, starting our run at just under 11 000ft and at the north end of the cloud we were at 21 000ft. I shall never forget the feeling of immense brooding power which emanated from this cloud mass. It was quite oppressive and made us realise yet again how puny man is beside the forces of nature.

It was a relief to be free of the cloud and out into the more open environment of the Mackenzie country, but as we now had a good tail wind our ground speed was approximately 200 miles per hour and the scenery altered rapidly. Over the Two Thumb Range we decided to fly downwind onto the next wave system and, in fact, flew downwind three systems and in so doing very nearly flew out of the wave altogether.

At about 14 000ft we felt it was time to "top up" with more lift but we could find none. Even a watery lenticular in the lee of Mt Hutt produced nothing and as we were now at 10 500ft we tip-toed across the Rakaia into a sky which looked empty of cloud and opportunity. There was no indication of where to go except there was a small roll cloud in the lee of the Mt Torlesse range. Dick and I now had our first difference of opinion as he wanted to try this cloud and I wanted to fly upwind onto the face of Mt Torlesse and, if necessary, try to hill soar to Hanmer. I reasoned that if the roll cloud did not work we would be on the ground very quickly as we would have no alternatives. We were down to 8000ft and the situation was becoming serious so Dick decided to fly into the face of Torlesse and hill soar if possible. We had to go forward to achieve this and I just prayed that it would work. It seemed ages before we got upwind onto the face of the mountain but we did and we started to climb again at two knots. What a relief.

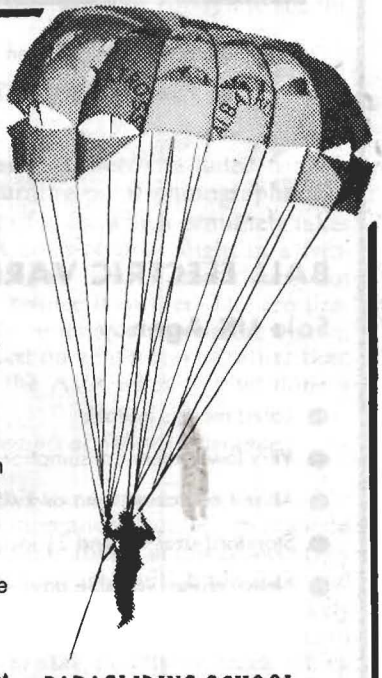
After a while I said to Dick that I thought we were in wave, but Dick said "No, it is hill lift." However, 40 minutes later at 17 500ft he commented on the excellence of the hill lift.

From this point to Hanmer was a long final glide and it was very exciting to get nearer and nearer to our goal. We arrived over Hanmer high and on landing had a marvellous welcome from friends and gliding enthusiasts who were at the Christmas camp.

I felt very privileged to have been on this flight with a pilot of Dick's flying experience and ability and now have a much greater understanding of the difficulties of the turbulence, the loneliness and the isolation the long distance, high altitude pilot has to overcome.

A footnote from Dick: While heights of 8000ft may seem relatively high to a thermal pilot, they are relatively low to a wave pilot as we were experiencing losses of around 2000ft/min and at times up to 3000ft. Incidentally on the previous attempt, which Helen skates over fairly lightly, we had an extraordinary rough ride and one of the most unpleasant I have had for years, the main problem being that we were unable to keep our straps tight and I was hitting my head continually on the canopy. I really was frightened I was going to damage my neck or become incapacitated. Helen was unable to fly the aircraft, having to hold her shoulder straps tight.

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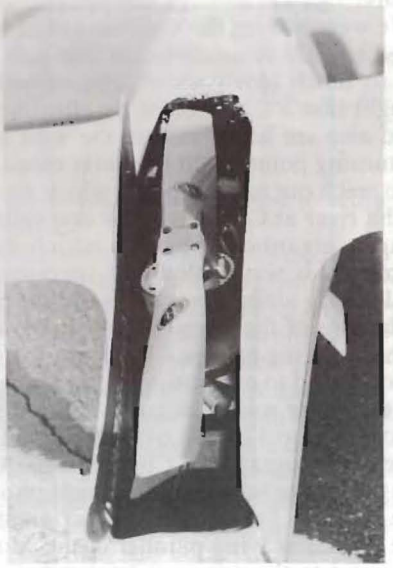
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Postscript: The above record was broken on April 7 by Tom Knauff and Robert Towse, USA, with a flight of 829km. (Glider unknown).

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AND OF COURSE: Cs OF A, REPAIRS, TRAILERS, SPARES AND INSTRUMENTS

JOHN HULME

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Advanced Training

In previous issues we have had articles by John Jefferies on cross-country soaring courses and by Brian Spreckley on the Instructors' Task Week. The use of high-performance two-seaters has not been considered. Here Bill Scull (BGA Director of Operations) looks at it from the pilots' point of view and considers the respective merits of the various methods.

How one defines advanced training depends on your club's stage of development and levels of achievement in peformance terms. Taking this into account any training which helps the solo pilot achieve more or reach a particular standard (say 300km) sooner, qualifies as advanced. It may help him with navigation, soaring technique or give confidence about field selection or landing; if he has the latter then he will go cross-country anyhow and teach himself the rest, although there might eventually be need for some coaching to help him fly faster.

Advanced training should be closely related to the individuals' needs; often the problem is not a lack of skill but a lack of confidence - over-confidence is rare!

Experience with the task weeks bears out the need for the identification of the individuals' problems; case histories illustrate the problem areas. One of the first, and perhaps the most interesting, was a young man attending an instructors' course who did not have the requisite number of PI hours (35 at that time). He hoped he would be able to get the three hours required during the course itself. However it transpired that he had done his Silver C distance and one other cross-country flight - a 300km in a straight line; a flight of some seven hours in a K-6 if I remember rightly. Obviously no one had told him it was difficult and it was particularly interesting that the flight was from a club which did very little cross-country flying. Although an advance training scheme might have taken such a pilot and, perhaps, who can know, have turned him into a National's standard pilot, we need to concern ourselves with more basic problems.

Case histories

1. *A pilot who has become an instructor before getting a Silver C or flying across country at all.*

The number of pilots in this category is steadily decreasing and should do so further with the introduction of Silver C as a qualification for an assistant instructor. The problem afflicting such an instructor is a psychological one of turning his back on the airfield; the more circuits he does the more difficult it becomes. The remedy lies in the hands of his CFI who must make him go away (cross-country) to break the "umbilical cord". It is probable that such a pilot will always suffer a reluctance to turn his back on the airfield.

The best remedy may be a task week environment which provokes him into going away. One instructor without a Silver C (or previous cross-country experience) on last year's task week made 49km into wind in poor conditions and landed successfully in a field at the end of the flight. Any de-briefing should have left him in no doubt about how great an achievement this was. The only query might be whether a little more preparation for the flight would have enabled him to make the 50km. (In fact he rounded the TP for preference.)

2. *Instructors who have a Silver C but have not landed in a field and have no further significant cross-country flying experience.*

Their problems are again psychological; the worry of a possible field landing and perhaps a lack of credibility in a cross-country orientated club. While they may have carried out one or two small closed-circuit tasks one does sometimes wonder whether they only went far enough to see the turning points.

A failure and a success

To help this pilot there are two needs; a failed triangle and a successful one with turning point photographs. The successful triangle should be of a size which genuinely takes him out of gliding range. A cross-country flight in a two-seater as P2 may overcome the lack of confidence but could, and probably would, reduce it further. The requirement is the task week environment or a progress system within the club which is based on achievement rather than experience, *eg* you can fly the Astir when you've done a 100km triangle in the K-6.

3. *Pilots who make many attempts at Silver C distance before achieving it.*

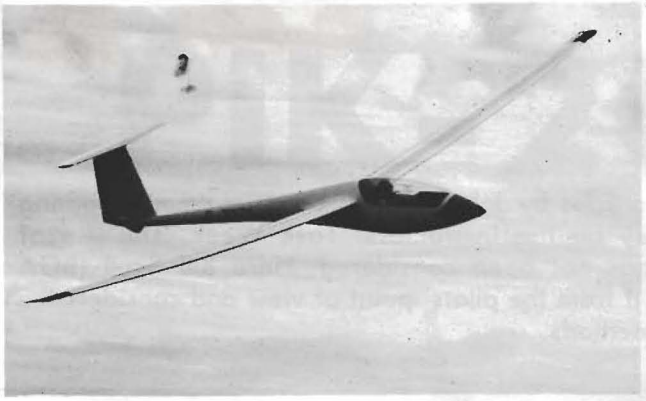
Pilots in this category aren't too common nowadays but they suffer from a pre-occupation and concern with the field landing. Despite evidence of their ability in this respect they choose a field, or perhaps only an area, much too soon and neglect soaring considerations - choosing the next likely cloud. Failure to soar may also be due to an element of "track fixation" attempting to stay exactly on track which may indicate a lack of navigational ability or confidence.

On the credit side is the confidence he should have about field landings. When he eventually gets his Silver C his experience is much greater than that of his counterpart whose first cross-country was to a declared airfield goal.

* * *

Beyond these basic problems the training need extends to improving cross-country performance. A pilot who is unable to make his 300km in the K-6 may achieve this flight by buying a better glider; his weaknesses are only exposed in his failure to achieve the 500km.

I'm not sure that it is relevant but many pilots do their first 300km on a 500 day or what would be a 500 day if they



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had less deficiencies in their soaring technique. It perhaps doesn't matter that you get the badge in the best glider money can buy on the best day of the year but the sense of achievement of pilots who get their Gold C or even three Diamonds in wooden gliders is understandably greater.

It is, however, a training aim for more pilots to do better at an earlier stage of their experience and case histories again serve to make the point.

4. *pilot unable to complete a 300km triangle or out-and-return.*

Factors which contribute may include:

a) Poor weather forecasting and interpretation and little or no help in choosing the right tasks. The choice of task itself will be influenced by the location of the base airfield; for airfields near the coast a dog-leg or straight flight may stand a much greater chance of success than a triangle or out-and-return.

b) Inability to achieve an adequate speed; if you can't guarantee to get away as soon as it's soarable and be sure how long the day will last, then it is essential to average at least 50km/h. If time is to be allowed for at least one low scrape, then 60km/h is a better target speed. It is more economical to work up one's speed on small triangles rather than repeatedly fall short on the 300km attempt (see S&G, August 1977, p150, "Try the Tiny Triangle" by A. D. Purnell). Inability to achieve a good speed will also be related to the faults acquired in the local-soaring stage of training (see S&G, February 1976, p14, "Cross-country Orientated Basic Training") and these may be difficult to overcome without the help of an instructor.

c) While improved performance may lie in dealing with the factors above, there may be psychological problems. The first may be the sheer size of the task (*ie* 300km) – it's certainly a big step from 50km. The remedy may lie in sending your pilot off on a downward or dog-leg task – a 15kt wind behind you for five hours represents half the ground to be covered.

The second psychological effect depends on the club environment; if it is an active cross-country orientated club then the pundits will be completing the tasks they set themselves, "touring" on unpredictable days, or abandoning the task when the weather proves (or seems) unsuitable, *eg* turning back rather than landing out. The influence of the latter is to create an environment where landing out is regarded as "failure" and so the pilot who aspires to a 300km triangle abandons his attempt after his first "low scrape" or if he isn't going fast enough after two hours. It is incidental that his real psychological problem is a serious doubt about his ability to do the task at all.

d) The only other fault which may make it impossible to go fast enough is serious navigational weaknesses. It's probably true to say that a pilot on his first 300km attempt is teaching himself to navigate. He may pay too much attention to detail – trying to map read every inch of the way or perhaps he gets lost which may consume a lot of time; tasks should be set to avoid controlled airspace infringements if a pilot's navigational ability is in doubt.

Building up both confidence and experience can be helped in the preparation for the 300km by setting out-and-returns which go along the first and final legs of the possible/probable triangle going as far as the turning point at the second attempt. Four such flights would only put the pilot over unfamiliar terrain for the second leg.

Having examined in broad terms the problem areas, let's consider ways in which appropriate training can be given. There are three; cross-country flights in two-seaters, escorted cross-country flights and task weeks or weekends. Instructors without practical experience will probably regard the former as most effective but this will not necessarily be the case. The escorted cross-country flight has been dealt with comprehensively by John Jefferies in his paper "Cross-country Soaring Courses" (published in the CFIs Handbook and S&G, December 1977, p243). This would seem to be the province of the very expert pilot/instructor although there is probably scope for an experiment in training some instructors to undertake this task.

The requirements for two-seater cross-country flights.

Some of the considerations regarding the glider were dealt with in "First Impressions" (S&G, February 1978, p14). One consideration is "do we need a high performance glider?" Ask this question in Germany and the answer will almost certainly be "no". The answer might have been the same in England in 1976 but now I'm not so sure. Last year's task week seems to prove this point. The other important factor is how quickly can a pilot of average experience settle down to fly the glider well; in this context ease of handling and lack of complexity are important.

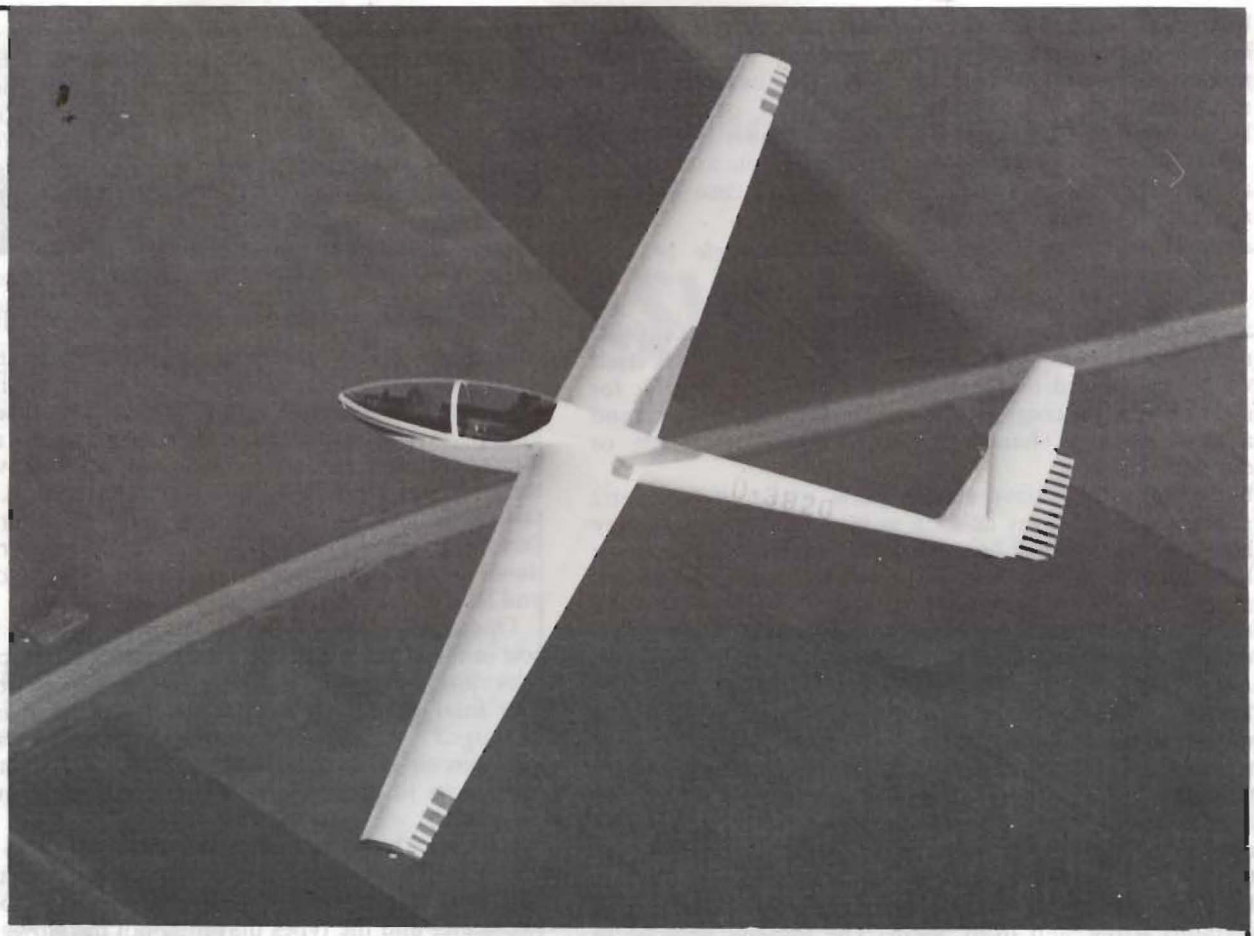
Operating costs for the modern two-seater, which will cost in the order of £12 000 by the time it is equipped, could prove to be a problem – £4-£5 an hour would be realistic. The final point if the glider is to be used in the rôle envisaged – cross-country and performance training rather than circuit bashing – is whether your club has enough instructors to do this? Which is a rhetorical question for many clubs.

A factor which had to be taken into account in choosing a glider for the BGA's coaching operation was the ease of handling. While some similarities are desirable between the two-seater and the types that the pilot has flown, it may be equally desirable that it has sufficiently different handling characteristics to make initial flying challenging and interesting. If speed control proves to be difficult because the pilot has no previous experience of high-performance gliders which accelerate readily and therefore need more attention to the ASI, this could be remedied by providing better club gliders to broaden the pilots' experience rather than having an easy-to-fly two-seater (which may not be the best available). The lack of decent single-seaters at many of the bigger, and so-called better clubs, is an indictment of their fleet planning and management policies.

Summary

To keep your ideas in perspective while contemplating buying a high-performance two-seater for advanced training at your club, answer the following questions:

1. Is your club big enough to get sufficient use of the glider in its proposed rôle? (Bear in mind that it may not winch launch too well due to its weight nor will it earn its keep doing winch launches at current rates).
2. Have you got enough instructors with adequate cross-country experience and the enthusiasm to provide cross-country training?
3. Will you club members tolerate (or afford) radical increases in soaring charges to meet the operating costs?
4. Is your club so committed to an *Ab-initio* training treadmill that it would be better off getting another T-21, K-4 or similar?
5. If it is difficult/impossible/inconceivable to go cross-country on a club glider then is advanced training likely to be of much value?



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I LEARNT ABOUT GLIDING FROM THAT

DEAN CARSWELL'S third article is on —Keeping a Good Lookout

A few summers ago I was staying with friends in the middle of Wisconsin, USA. Having watched the cumulus clouds developing artistically shortly before noon for a couple of days my thoughts inevitably turned towards using them, and after lunch one day I borrowed a car, excused myself from hosts and family and set off for the nearest glider rental location a few miles away. It had just happened that the week before we had been near a Federal Aviation Administration local office and I had taken the opportunity to obtain a Temporary Airman Certificate Private Pilot (Glider).

The airfield was the local county airport well equipped with hard runways, approach lights, but no air traffic control, and inhabited by around 100 privately-owned light aircraft of a myriad of varieties. The local fixed base operator was also an accredited Schweizer agent, and provided sailplane rentals. I quickly established an easy going relationship with the operator and, not more than half an hour later, I was off on a dual check in the front seat of a Schweizer 2-33 towed by a Citabria. After a pleasant 20 minutes local soaring we returned to the airfield and at once accepted the suggestion that I should fly one of the operator's Schweizer 1-26.

With most of the day's soaring over, we walked smartly over to where a 1-26 was tied down, and dragged it across to the launch point. For those unfamiliar with the type, I should explain that the 1-26 is the most widely used single-seater in North America (over 550 built). Indeed there are annual championships held just for 1-26s. It is a mid-wing all-metal aircraft with a span of a little over 12m and modest performance with best L/D of about 1:23. The cockpit is large and comfortable taking a generous maximum load of 255lbs and the ship is in general pleasant and viceless to fly, although perhaps its responses are (to use a power flying analogy) more akin to those of the Cessna 172 than the Chipmunk. This particular aircraft had already been checked and flown that day so my instructor, followed by me, looked only briefly round it before explaining the basic cockpit layout.

As I climbed in, my modest weight (around 140lbs) caused the aircraft to rotate from a tail down to nose down attitude. I strapped in carefully, looked around the cockpit, checked the placards and tried to recall my briefing. Cockpit weight was within although close to the aft limit. The day was drawing in, the lift no doubt diminishing and the tug waiting so I carried out the standard preflight vital actions, had the rope attached and shortly thereafter was accelerating down the airfield. Once the 1-26 became airborne I held the nose down to await the tug unsticking, and gingerly tried the ailerons and rudder for control response.

The Citabria unstuck and quickly started to climb away and I let the glider drift up into the high tow position. Then suddenly it happened. The tug disappeared smartly below what appeared to be a remarkably high instrument panel and cockpit edge. I was taken completely by surprise, while away in the depths of my mind I recalled my instructor remarking that the seat cushion was in his office as the first pilot to fly the aircraft that day had been about 6½ft. Being a normal (at least as far as height is concerned) 5ft 9ins I had paid little attention. At this point I came to my senses and remembered my training. If sight of the tug is lost release at once. I then realised that while my mind had been idling in neutral, the combination had crossed the upwind boundary of the airfield and was now flying low over the large wood which surrounded that part of the airfield.

Instinctively snatching my hand back from the release knob (what would people think of this Limey pulling the plug and landing on the treetops, or worse, on his first solo from the field?), I quickly looked around and attempted to assess my situation. The wings were level; the speed remained around 70mph, there was little turbulence – the *status quo* appeared to be being maintained, at least until the tug started its first turn. I loosened my shoulder harness, sat up as high as possible and there was the tip of the fin of the Citabria just above the bottom of the cockpit edge. Ease the nose down gently and there were the wings. The rest of the tow was, relatively, uneventful, and I managed to keep the tug in sight until I released in a gentle late afternoon thermal.

Problems of an unfamiliar aircraft

My heartbeat was getting back to normal and I was beginning to enjoy myself soaring over the pleasant Wisconsin countryside when I started to consider the problems of landing what was still an unfamiliar aircraft. There was a 10kt 20° crosswind, there were substantial sodium lamps sticking up close to either edge of the runway, a large proportion of the local fleet of private aircraft on tie downs were only a short distance from the upwind edge of the runway and a large portion of the ground I most wanted to see right ahead of the glider was going to disappear from sight as I rounded out prior to touchdown. I considered improvising a seat cushion, but quickly discarded the idea as the 90° heat on the ground meant that my most substantial garment was my Bermuda shorts. I tried to recall what I had read in World War II flying books about Spitfire curved approaches, and after considerable deliberation I decided that the best plan was to land close to the downwind side of the runway from a gentle slipping approach, and keep straight with rudder by reference to the runway sides visible to the left and right of the instrument panel.

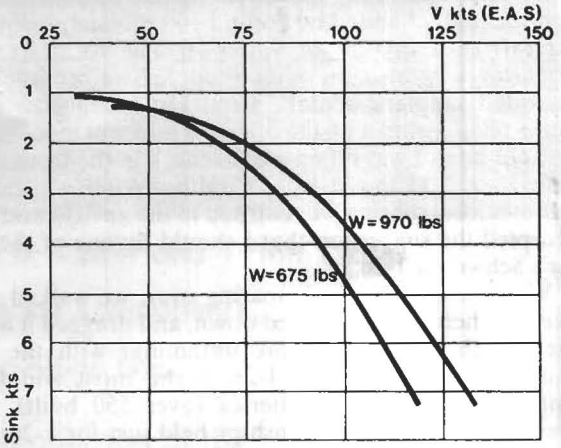
Approaching and lining up carefully, selecting an aiming point well down the runway past most of the parked aircraft, I made a good landing keeping almost to the edge until the speed dropped and I was able to lower the nose to

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reveal a welcome unrestricted view ahead. As helpers came running up I mopped my brow and the other exposed parts of my body hoping that they would put it down to the hot afternoon. Having expressed my thanks, paid my flying fees and shaken hands all round, I drove back slowly pondering over the lessons of the afternoon.

The two most basic were clearly that I should never be rushed into getting airborne again (by the way, have you ever taken-off and discovered you have left a strap undone, the canopy unlocked or completely forgotten to carry out your checks?) and particularly not in a strange aircraft. Secondly I should be prepared for an emergency at any time – one is not less likely to occur just because you are at a strange airfield in a strange aircraft. Finally, there is a clear responsibility on instructors and other pilots giving briefings on conversions to type not just to give a comprehensive briefing but also to check that the aircraft is fit in all aspects for flying by the new pilot.

Avoiding the dragon

VIC CARR, Chairman, BGA Instructors' Committee

Many gliding people see the National Air Traffic Service as something of a Dragon which has yet to be slain by a gliding St George. So when it was reported that two of our ilk had penetrated the Dragon's very own and exclusive territory there was considerable concern that the resulting fire might engulf many more of us, even the law abiding.

I regret to disillusion those of you who might have wished to hear that this was part of a courageous plan to slay the Dragon in his lair. The facts were that one tribesman was hopelessly lost and the other crossed the border on his way to a safe landing haven. Those responsible for our territorial integrity naturally react by calling for further training and perhaps some form of punishment; but I suggest there is a need for something more.

Balance the work load

Certainly we need to maintain discipline within the tribe. Certainly additional navigation training will be a help but that is not the whole story, nor will it altogether avoid further intrusions. I doubt very much if you were to test these or other failed navigators, whether, if given their undivided attention, they would make an error of these proportions. The real difficulty that early cross-country pilots have is to balance the work load.

First and foremost is the primary need to soar the glider. Done well this means maintaining an accurate 360° turn every 15 or 20 seconds with careful attention to attitude and speed control in what must inevitably be turbulent air. That assumes that the centre of the thermal is already located. Whilst circling, the area ahead must be scanned to determine the best route approximately on track. Check how far the glider is drifting with the wind so that compensating track adjustments can be made. Check the position the glider has reached and how that corresponds with the desired goal and the appropriate controlled airspace. If low, or getting low, some account will have to be taken of landable areas, particularly in summer months when so much of the countryside is covered with ripe unlandable corn. Unlike aeroplanes most gliders demand constant attention to maintain course and speed in the conditions of a thermal day. There may be the radio which needs attention in the context of other cloud flying gliders or perhaps retrieving crews who need to know what progress is being made.

With all those conflicting demands it is clearly necessary to balance one priority with another. Over-emphasis on one will certainly lead to neglect of others.

Local soaring aces often find that their ability to soar diminishes once the home airfield is out of sight. Power pilots with stable aeroplanes, steady speeds and courses are not beyond making wrong assumptions about passing landmarks or when flying reciprocal courses. That we have similar problems amongst our budding cross-country pilots should not provoke surprise. Recognition of the problem should cause us to do something to reduce the risk, not only of penetrating the Dragon's territory but perhaps avoiding some of the accidents which I believe are work load induced.

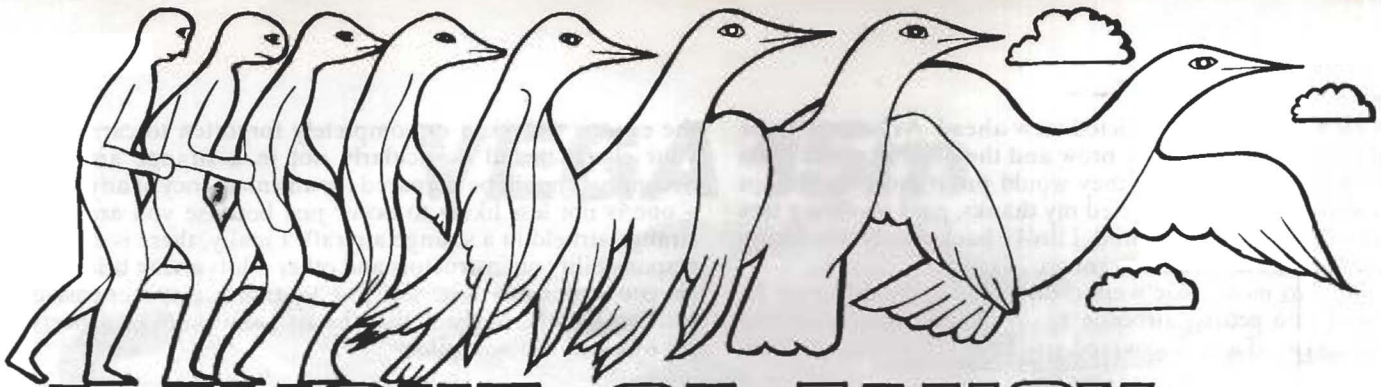
I once mentioned to a fellow pilot at the launch point that judging by the tone of the last radio message the work load in that cockpit was rather high this morning. What I did not know was that whilst I was busy chuckling the glider in question was spinning into trees just short of the chosen landing field.

So yet more navigation training? – but most clubs don't do any! By being better at it, it will take less of our valuable time. But more than that we must encourage pilots to make better use of their time in the air. Every flight should have an element of pre-planning which will help to improve the capacity to think and work. I do not have a monopoly of ideas but here are a few suggestions.

Recording airborne instructions

On non-soarable days tow to a pre-determined position and glide home *via* a series of points which will bring you overhead of the field with height to spare. Alternatively, when hill soaring you could calculate a series of final glides from the middle of which you could glide back into the hill lift. If you were an instructor you could work hard on putting your airborne instruction on to tape, replaying it later and improving. It doesn't really matter what you do just as long as it makes you work harder and more effectively.

Work load management is a very real skill in flying and it is often the factor which makes champions in competition flying. Its absence makes for heaps of useless glass-fibre and instant matchstick kits. Without it you could easily become Dragon fodder.



A FLIGHT OF FANCY

ROVI LIEKROC

It is always a pleasure, when walking or flying, to see birds soaring the cliffs or riding a thermal. Like us, some do it for food whilst others do it for fun.

The simpiest form of bird flight is gliding which makes little demand on muscle power. In addition to utilising soaring techniques used by glider pilots, thermal, ridge, front and wave, birds also dynamic soar, slope soar waves at sea, use trailing vortices when flying in vee formation and may be seen soaring cliffs in the curl over from an off-shore wind. Birds are phenomenal creatures, one moment diving at 150mph and the next landing on a cliff ledge. How do they do it and how does their performance compare with modern sailplanes?

The flight feathers, which are basically an extension of the skin, are light and form a very efficient structure. A feather consists of a spine, called the rachis, with barbs making up the vanes on either side. By preening, the barbs hook together to form a continuous looking vane. This allows the feather to absorb a certain amount of damage with no lasting effect. A feather split by a blow is merely zipped up again by the bird. The feather is not quite airtight and a controlled seepage of air through it is thought to be responsible for some of the high lift properties. Birds' wings are flexible and do not stall easily. Both form and skin friction drag are kept to a low value by contour changing of the surface. Part of the wing may be stalled whilst the rest is kept unstalled. Near the stall the wing area is increased whereas at high speed the area is decreased, the tips being swept back keeping the best angle of attack. A large proportion of the drag comes from the wingtip vortex which increases further still during flapping. The wingtip vortex is lower with long narrow wings and reduced further still by using wingtip slots.

When the wings of birds of prey are fully expanded the outer feathers on the tip, called primaries, are emarginated resulting in slots or notches. Some big eagles have seven primaries resulting in deep noticeable slots with square bases. These reduce tip turbulence and help prevent stalling. Each one acts as an individual aerofoil bending by varying degrees under load. In level flight the longest primaries lie fractionally one above the other, with a bi-plane effect, so increasing the lift at the extremity of the wing. This produces extra lift without having long wings like an albatross. The bataleur has long pointed primaries and about 25 secondaries which form the wing trailing edge. This makes the wing appear long and slender with swept back tips resembling a swept wing aircraft. This allows continuous gliding at a high speed of 50mph over 240 miles in a day.

Projected to create slot

Stalling may be delayed on some birds by using the "thumb" to create a leading edge slot. The thumb, called the alula, is a tuft of feathers which can be projected forward of the wing to create the slot.

It was once thought that a bird swam through the air. However, the inner wing and secondary feathers provide the lift whilst the "hand" controls the primary feathers which provide the propulsion. On the down, power stroke the feathers fold flat against the air. The primaries may be seen to bend and propel the bird forwards. On the up stroke the primaries twist open allowing air to pass through them and the wing is rotated about the shoulder to increase the angle of attack and maintain lift.

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Trim is generally accomplished in gliding birds by a fore and aft movement of the wings. The long fan shaped spread tails may be used to brake and steer. When soaring they are spread to increase lift whereas when descending they raise and lower their tails to slip air to control the rate of descent. The spread tail sometimes acts as a slotted wing flap to increase lift at slow speeds.

Legs and feet are also used to produce high rates of descent and act as airbrakes to reduce speed when landing. The auk uses its feet to increase the tail area when flying slowly.

The lower the wing loading the slower the bird can fly. The harrier flies slowly to use its specialised searching technique. The blunt bodied swift falcons, with their high wing loading, are better suited to fast diving than buzzards and harriers. With a lower wing loading the smaller Egyptian vulture can soar using smaller thermals earlier in the day, than the larger vultures which usually can't soar until around 9am. Vultures may have to travel up to 100km from their nests for food. 1500 - 3000ft climbs are followed by 6 - 12km glides. However, they are good at finding lines of thermals which enable them to dolphin distances of 30km or more with little or no loss in height. Although the vulture's best glide angle is only about one-third of that of a good sailplane, its turning radius is also about one-third of sailplanes. Hence it can soar more often and over more hours each day.

Some birds of prey make a long low swift attack from distances up to 5km whereas others attack from the hover. Some birds can descend rapidly with a high lift wing shape controlling break away so that its approach is silent and the prey not disturbed. Attack from the downwind position has the advantage of quietness whereas attack from upwind is swifter.

Storks and pelicans, sometimes in flocks several hundred strong, may be seen to spread out horizontally when gliding to find thermals. Once the thermal is located the whole flock quickly centre on the core.

When migrants take-off they may well contain up to 50% of their weight as disposable fuel. This gives some small migrants a range of 2000km taking up to 60hrs. A typical journey time from England to, say, Uganda, may take 160hrs of flying with at least two refuelling stops. Some of the long range Pacific crossings include stages of over 3000km. The highest flying birds occurring in this country are migrants which may be found as high as 23 000ft. Kestrels may be found up to 7000ft whereas swifts often climb to 6000ft at night to sleep on the wing. However most birds are found below 500ft.

Whereas the albatross has an aspect ratio of up to 25, some 15% less than many Open ships, the glide angle of 25:1 is half that of the same glider. With a weight of 25lb and a span of 11ft there is a vast difference in size.

The griffon vulture often thought to be a good soarer has an aspect ratio of only seven with a glide angle of up to 15:1.

If there is to be a life hereafter it is quite obvious that glider pilots are already in training to be the birds of tomorrow. George Lee and Bernard Fitchett, supreme in the world, will be albatrosses. John Delafield and Steve White, consistent in this country, will be fulmars. Ivor Shattock will be an eagle, champion in the mountains. You've all seen the skylarks going up and down over the site – never to fly away; the cuckoo pushing "his" to the front at the start of a new season and the swallows seen only during the warm summer months. There are the field fares, the rooks noisily building away, the gooney birds, the love birds, and the ubiquitous secretary bird. Let us hope the interesting Mrs Partridge will always remain a colourful bird. You might think the CFIs will be mother hens, but for all their hard work they must be given free choice.

The question is, how will you return?

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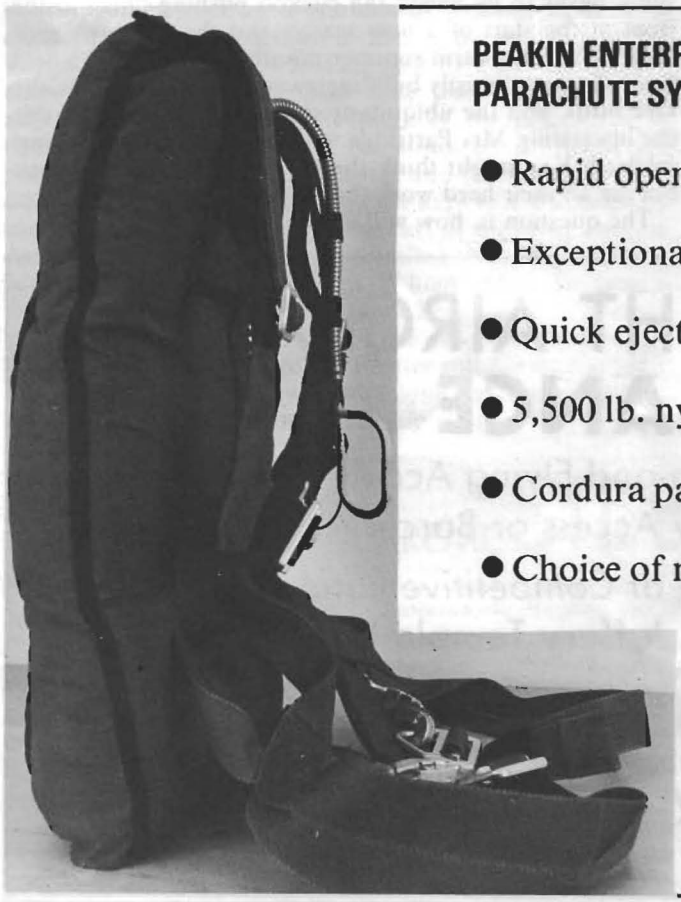
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THE DAY I CHICKENED OUT

We can allow ourselves a little nostalgia from time to time during this 50th anniversary year and the following account brings back the intrepid quality of the earlier days.

J. C. RIDDELL

For me the Secret Society has always had a fascination, but not as something in which I can see myself taking part. Not for me the exclusive tie of I Zingari, the academic superiority of a fellowship of All Souls, or the discreet conviviality of the Bath Club. It was Phil Lazenby who reminded me that once, just once, I was a member of an exclusive group, the Burley in Wharfedale GC.

I had returned in that summer of 1955 from the heat of the equatorial Mynd to the home county. Out there I had met Peter and his Kite. As we sat, the sun going down, sipping our Ansell's, he told me of his dreams and doings in his valley, for it was on his estate that Peter had established a gliding field. All that winter, in the off season, he had his men construct a winch.

The evening was humid, overcast with stratus undulating to a slight wave from the west as I drove up to the gatehouse, then along the drive to the stables, where we met. I shall always recollect with nostalgia the illuminated sign at the gate – *Twisters Wanted.* There were three of us there, Peter full of confidence in his enterprise and Carry, broader and taller than either of us. His great energy and ability was channelled into an enthusiasm for fast cars and aeroplanes that reached (Messianic) proportions.

Carry elected to winch. Peter had had the glider taken out earlier – it was a Cadet – and I offered to assist Carry to tow the immaculate machine to the designated spot on the western end of the flying fields below the pines. Carry said to me: "Peter built this winch but the gear ratio isn't quite right. I have to slip the clutch and snatch you to get you going, but once in the air you're all right." Then he added as an afterthought, as I started to tow the cable to the waiting glider, "Leave the gate open."

Reluctant Crew

The Cadet lay with one wing resting in the shade of a beech tree that marked the other end of the launching run. Peter took the cable from me and motioned to a lugubrious character in a crumpled blue suit, who joined us. "That's John" he said. John was the tackman from the home farm who, having a slight interest in things mechanical, was called out to make up the numbers. Peter was authoritative. "John, go and signal," and, turning to me: "You can hold the wingtip."

Peter mounted the Cadet with great style. Somehow these Bradford men always seem to invest an occasion such as this with an importance and exictement that few can equal. "Hook on," he said. I held the wings level and with my handkerchief signalled to John, now astride the fence

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between the two fields. It was with relief that I saw him repeat my signals.

Deep in the west Carry coaxed the eight cylinders of the Ford engine to a higher level of activity than ever before experienced. A column of black smoke rose above the line of distant trees like a Pontiff's signal. The wingtip was snatched from my hand and the Cadet rose like a startled bird from the lush meadow. The cable fell away at 800ft above the trees. Peter turned abruptly across the field to the main road through the village, to turn south above the thoroughfare. Another right turn to the gatehouse, to crosswind to the final turn at 200ft over the cricket match, and side-slip to pass between the upper levels of the beech and its neighbour. Then he kicked it straight into a spot landing. It was a masterly performance, but you could expect no less from a Bradford man with many hours as a naval aviator.

But now it was my turn. My years in the arid plains of Cambridgeshire were to be put to the test. This was an initiation ceremony. Would my qualities of character and self-control stand the strain? My mere paper qualifications of a Silver C were of little help in this situation. Could I slip between those trees like that? I was up against it. This was it.

The cockpit was familiar enough. ASI, altimeter and cosim were there, promising the application of alien technology. The foliage above me was unusual. True the winch was some way off, but there was a gate in the fence at the half-way mark. Still, Peter had cleared it. I could do the same.

I remember Peter's briefing as if it were yesterday. "The Cadet hasn't got a wheel, so remember to hold the stick hard back or the snatch won't get you off."

The ritual was as before. The scream of the winch embraced us. We were snatched forward. But no matter how hard I grasped the stick to my tummy, we were unable to leave the ground. I remained in this rigid position in the cockpit for some moments, when I noticed the gate come rapidly towards me, slightly above my line of sight. I then resolved to take an active part in this exercise. I released the cable. The Cadet stopped some ten feet from the fence. The winch just did not give me enough power to get airborne.

Peter was civil enough when he approached, but there was a certain mocking note in his voice, a coolness was evident – there would be one more attempt allowed, but no more. Again I took up my position in the cockpit beneath the tree. This time there would be no failure. I knew what I had to do. We men of Leeds might be slow to start, but in the end we lick them all. The stick was held in a grip of iron.

For the third time that night the winch emitted its banshee cry in homage to the sky. I steeled myself for the awful acceleration. Then came a monstrous report. Frame one, a good deal of flooring and the Otfur hook shot across the turf like a hare on a dog track. The glider, however, remained calm and very static.

It was some moments before Peter and I spoke. As we drove to appraise Carry of the situation, we resolved that this was the time for decision. We went and had a drink.

But that was not the end of the story. The Cadet was fixed later that week and next time it flew it sported a dropable dolly wheel undercarriage. These men of Bradford let nothing deter them from their purpose.

First published in the September 1978 issue of the Yorkshire GC's magazine, *The Horses' Mouth.*

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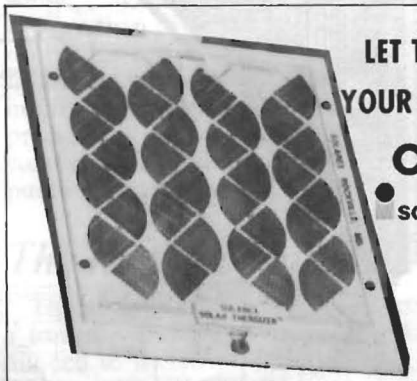
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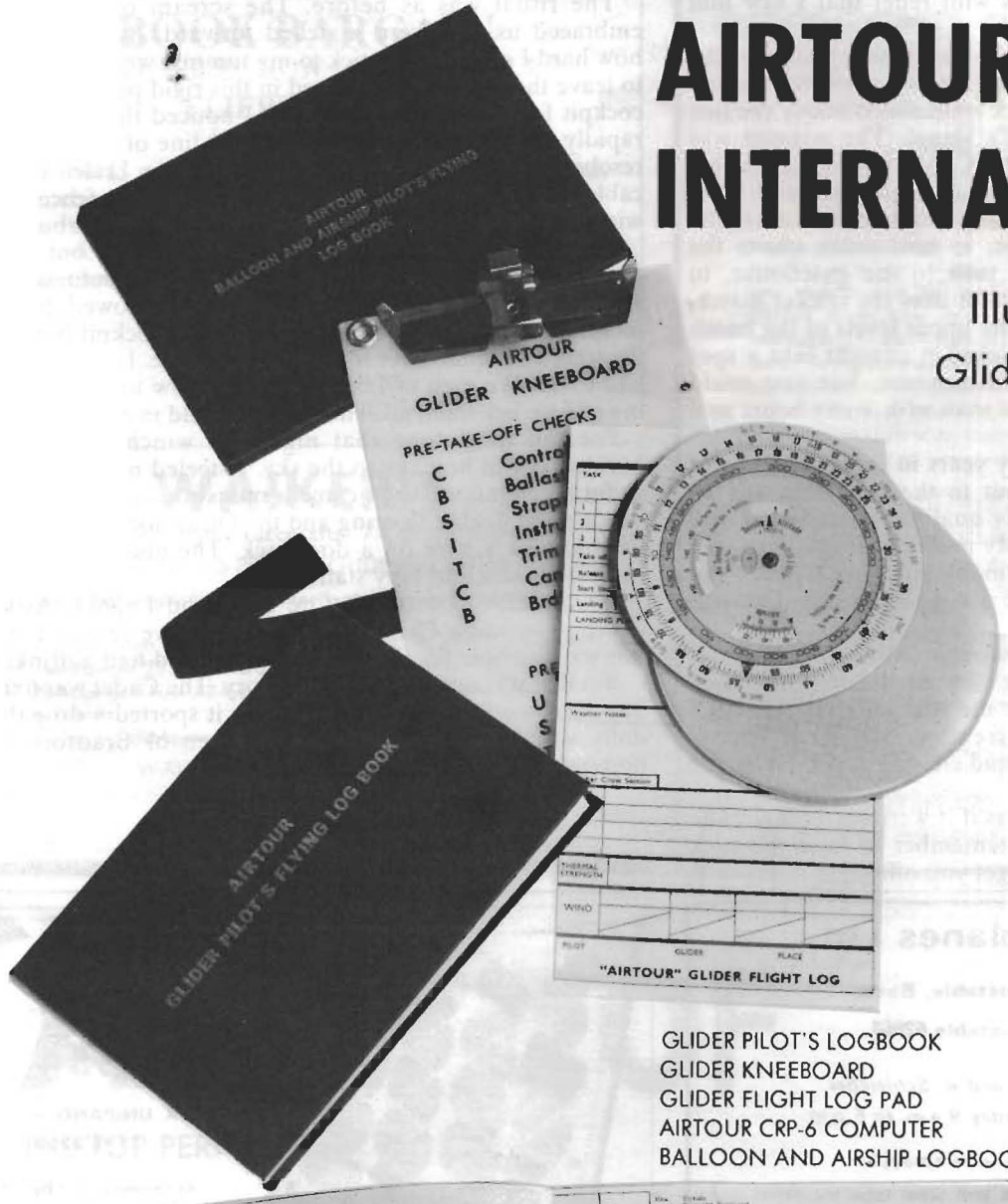
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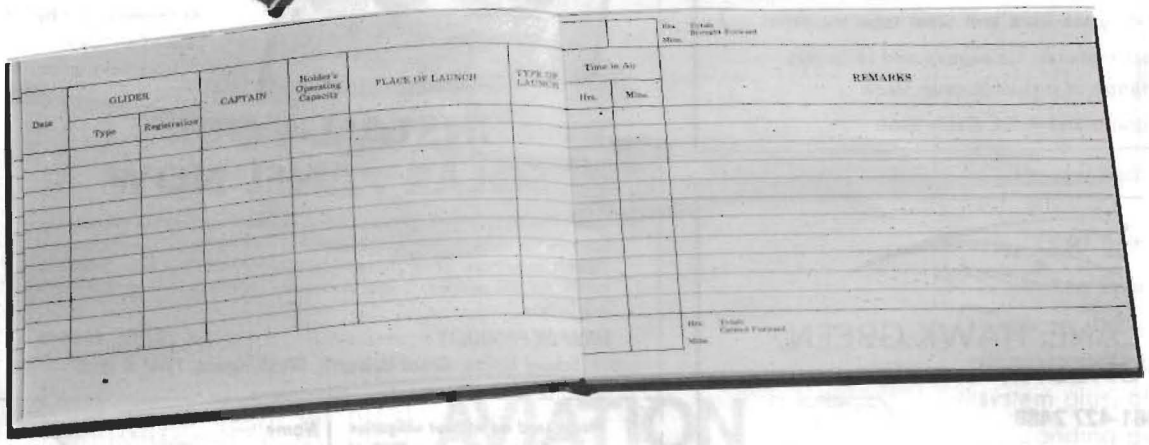
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Every Club has got several

RUTH TAIT

Note carefully the mood and number of verb and pronoun in the title. It is not a matter of whether or not a gliding club should have one, but a hard fact that wherever five or ten glider pilots are gathered together they will have one, and pretty soon another, then another, to keep company.

No, I'm not referring to gliders: I mean children, those ubiquitous spoilers of father's sleep, mother's figure and the colour and quantity of the CFI's hair.

Unfortunately, in these days of women's lib, a man can no longer go swanning off to the gliding club at the weekend leaving the little woman at home to look after his offspring. If she is not already half-way round her 300km (having risen at dawn, leaving him to get the breakfast), she has other hobbies and is likely to say, as he tries to slip out of the house: "For heaven's sake take the kids with you to the gliding club whilst I dig the garden/catch up on my Open University course/attend a concert/have flu." And father is left holding the baby instead of a wingtip.

Most people would agree that a gliding club is no place for children, but they come nevertheless, sometimes in large numbers: in our club, for instance, we can muster regularly only ten-20 adults, but we have eight to ten children under 14 out every weekend!

Child minder the perfect answer

Ideally, every club needs a creche, a fenced off area, (with barbed wire, sentries and dogs, perhaps?), and a child minder, but such Utopias don't come cheap. The best we can do is a fenced off area at either end of our 70 yard strip and a rule that no child goes beyond the fence.

Infants and toddlers, of course, need constant supervision, and parents have to bear the responsibility, taking it in turns with other parents to do the minding. Flying fathers and mothers soon learn to block their ears to the infant screams that always arise when the glider is about to take-off. Many were the times, before I learnt better, that I abandoned a glider on the launch point when the familiar shrieks of distress told me that yet another child had bit the dust.

Older children, from seven to eight upwards, present an altogether different problem. Hotter for their rights than any Trade Union militant, they are quick to strike against the endless, boring weekends spent at the gliding club, and a group of bored children on the rampage can represent a danger to people and equipment. As the architect and co-builder of our new clubhouse observed gloomily, watching the juvenile members scattering muddy wellies and potato crisps all over the new 10p carpet: "There's one thing we overlooked in planning this place – the Destruction Factor of children."

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Adults more destructive!

There is more to solving this problem than saying "Don't . . ." Children learn very quickly, often a lot more quickly than adults, where they may or may not go, or what they may or may not touch. Indeed, we have never in our club had any damage inflicted on gliders or equipment by a child. Adults have been far more destructive.

As children get older, depending on how sensible they are, they can be trained more constructively, though admittedly this is easier in a small club where all children are known to everyone. They can learn under supervision and in the right conditions how to put on a cable, hold a wingtip, signal, do the log, and they all *love* to push, which is more than can be said for their elders. They can be very useful on retrieves, being very observant, and can be trained to soften the heart of any outraged farmer who might be thinking of impounding father and/or his precious glider. They are, alas, quick to pick up and comment on mistakes, to the embarassment of the club pundits who thought they had got away with it.

The kudos of gliding

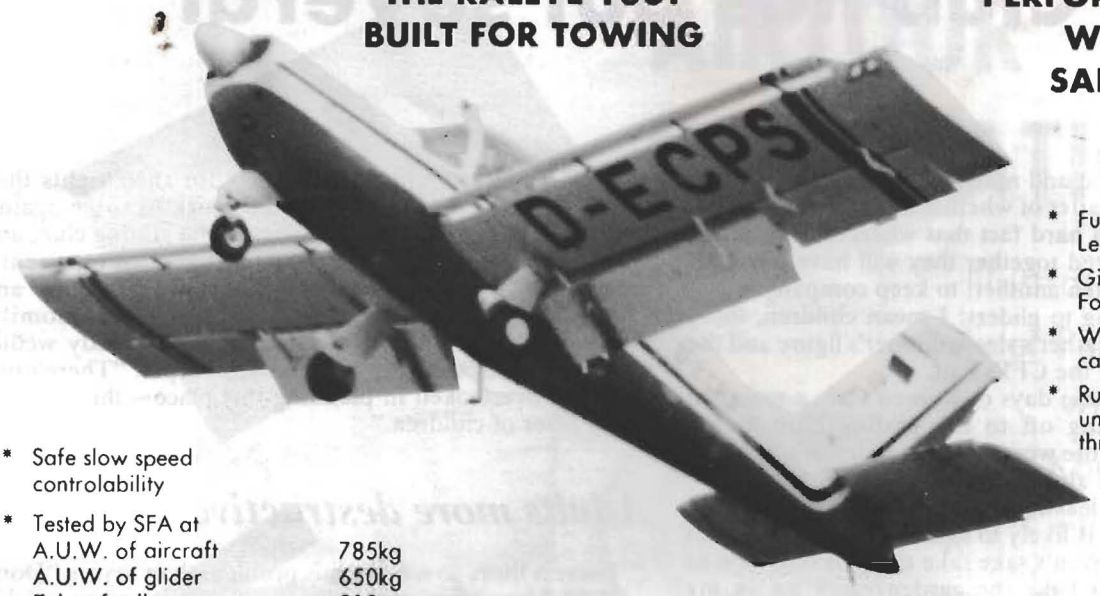
The rewards for hard work and good behaviour are easy: a trip in a glider every now and then and, for those not minded to fly, vast quantities of all those dreadful sweet things most gliding clubs seem to sell. And, of course, they have the added bonus when they go to school of boasting about their flying and baffling their teachers with words like Boshun, or Kay 6, or Upslack.

Why go to all this bother? you may ask. Because the gliding club children of today are the pilots of tomorrow. By catching them young and training them so that ground-handling and flying are as natural to them as playing in the garden or going to school, we are providing a continuity and a stability for the next generation of pilots.

So if next time you are around the sea breeze zone of the Moray Firth you see a Bocian in some rather unusual attitudes, you will know that Robert, aged nine, is trying his hand at the controls (his feet don't reach yet) and wishing he was 16; and if you have plucked up the courage to drive onto the strip you may be met by a small, worried-looking girl, and you can be sure that your children will be well-looked after by Catriona, self-appointed Child Safety Officer.

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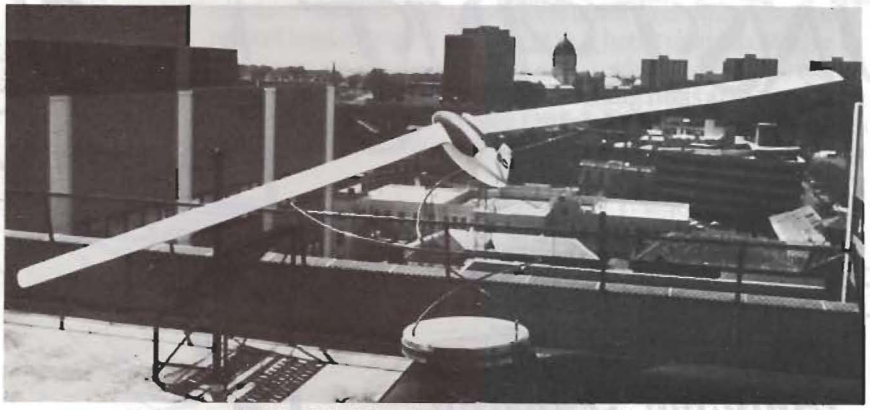
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GRANT FOR TAILLESS GLIDER



Above, a model of the glider. Below, John is photographed working on the full scale mock-up.

John Buchanan, who represented Australia in the last World Championships, hopes to be flying a tailless glider which he has designed himself in a future Championships. His government has given him a $A10 000 grant to help develop this radical glider which he describes as "just a pod big enough to fit the pilot, with a wing attached".

The fuselage is 3.7m long with a 15m wingspan and this is claimed to be the first serious attempt at a tailless design for 20 years.

John, an aeronautical engineer with a master's degree in aircraft design from the Cranfield Institute of Technology and a former pilot-engineer with the Royal Australian Air Force, said there have been several developments which have made this design possible.

"Computer design techniques enabled us to double the aspect ratio and we have a wing width half that of old tailless gliders. New materials also enable more slender wings to be built while avoiding structural and stability problems. This glider is made from carbon-fibre and glass-fibre."

John added: "I have been able to eliminate the ancilliary controls which were part of old tailless gliders. For example, they had control devices on wingtips. My glider will have none of these."

At current world prices, John estimates that the glider when manufactured would sell at $A17 000.



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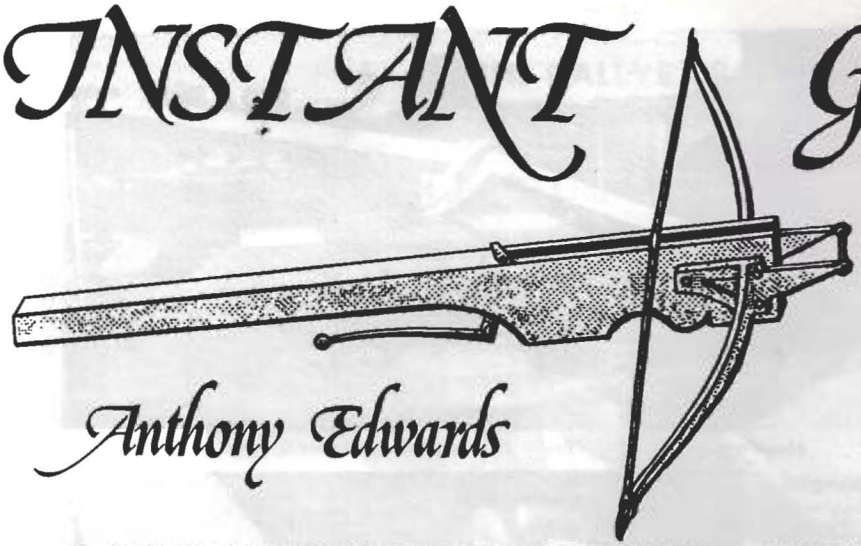
HAVE YOU ANY SWOPS?

Paul A. Schweizer, President of the Schweizer Aircraft Corporation, is trying to collect a complete set of *Sailplane & Glider* – he has all the copies of *Gliding* and *Sailplane & Gliding* – with the intention of donating them at some later date to his country's National Soaring Museum. He lists below the issues missing in the hope of swopping or buying to fill the gaps. He also has a good supply of back numbers of *Soaring* if anyone should be interested.

If a reader is able to help, please contact Paul Schweizer at PO Box 147, Elmira, New York 14902, USA.

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INSTANT GLIDING



Anthony Edwards

Everybody who has ever had a bungey launch agrees that it is the only way to get airborne; everybody, that is, except those who started gliding in the hand-launching era, who maintain that bungeying is but a crude imitation of the real thing. I cannot say about that, but I do know that winch launch, autotow and aerotow are rude mechanical processes that violate nature's laws and succeed by brute force alone and, when that force hesitates, one is left dangling, suspended, clawing at the very air one has tried to cheat, in some infernal attitude or above some eternal wood.

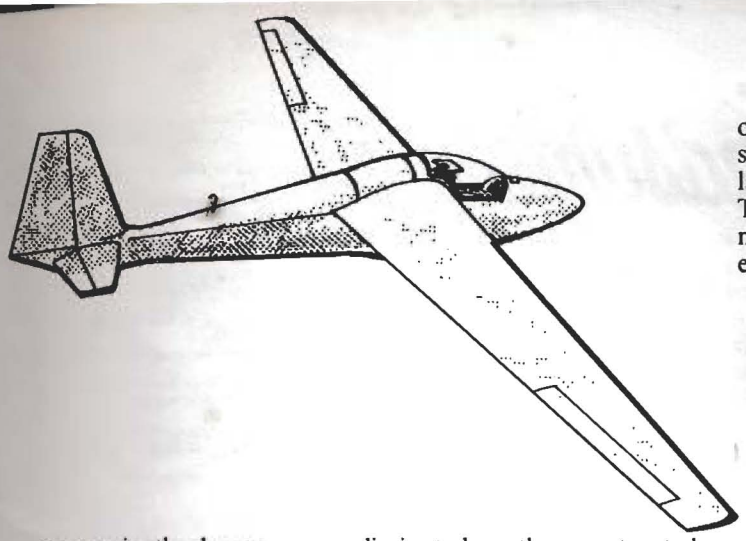
The bungey launch is different. One is either on the ground, or one is not. If not, then the launch is a Success; if one is on the ground, but moving, there is still a chance of Success, but also a distinct chance of Failure. Failure, therefore, always takes place on the ground and this accounts for the fact that, small though the pieces of wreckage may be, the pilot usually remains intact.

For some, bungeying is a **means** and not an **end**, but to the true enthusiast it is an **end** in itself, a **way of life**, as was pointed out by David Carrow in his article: "Some thoughts on bungeymanship", (S&G, December 1958, p312). (As a matter of fact, that issue contains all manner of good things besides David's article: there is "Priest's Crag – being an account of the travels of four gentlemen and a Skylark from the University of Cambridge amongst the Cumbrian mountains"; an article about the Slingsby Swallow and an advertisement for Olympia 2s, both excellent expedition machines; a picture of the Southdown Club bungeying their T-21; and, in the Cambridge Club news, mention of the fact that I have entered into a legal contract with my once and future crew, Catharina.) Of course, the fact that the launch is an end in itself does not mean that the ensuing flight (if any) is not enjoyable. A flight, after all, is a flight; but a bungey launch is a glimpse of Heaven.

Time passes. Twenty years, to be precise and here I am, stuck in the Fens, my last hope being that metrication will cause the contractors for the Cambridge Western By-Pass to make their embankments ten times too high. Too late! The bungeys have gone to Scotland for Pete Whitehead to use, the Land Rover was exported to Iraq and Cockles, the best of all the Olympia 463s, has a new owner in Birmingham (she never fully recovered from Catharina driving her around a 316km triangle – not kind treatment for a mountain bird). I did not give up without a struggle; last winter I pored over the maps of Cambridgeshire looking for the least unsoarable slope in the county. I found it in the very south-west corner and it really is called Anthony Hill (you can check it on the map yourself). From the 250ft contour it rises in one magnificent sweep to 451ft plus a clump of trees. The village of Heydon lines the ridge, which faces north-west and is nearly 1000 yards long. One afternoon in late November, on aerotow from Duxford, I noticed smoke streaming from a bonfire on Anthony Hill. The lure was too much. My original sin took over and Cockles and I crept away from the circuit. We settled down to practising beats along the hill, too high to feel the lift, too low to get back home. Inexorably down we went but each turn was smoother, each beat more perfect. Soon we were down to the ridge – of the roof of the end house. Next beat it was the bedroom, then the dining room, then – Oh! Help! – we're not going to get over the trees this time! I turned that beautiful little aeroplane on a sixpence and let her find her own way down the slope, inches above it. Thus she flew, until she could fly no more. We shed a tear together in that wide Cambridge field and knew that the time had come to part. The Arm-Chair Pilot is reduced to half an Astir and to amusing himself by seeing if his theories of cross-country flying work. But it won't be the same.

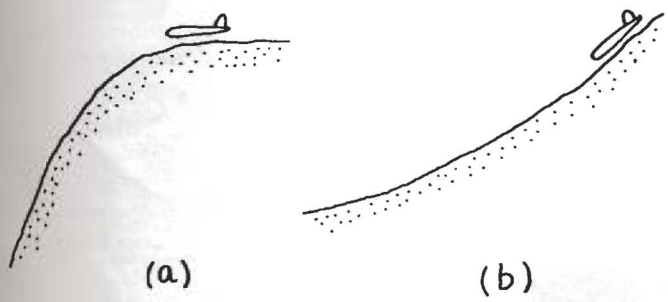
Fear of mindlessly following instructions

For many years I have resisted editorial pleas for an article on expedition bungey launching on the grounds that it might encourage some misguided enthusiast to behave like the German officer in **Those Magnificent Men in their Flying Machines,** mindlessly following instructions. But now that the equipment has been dispersed, a new dimension has been added to the plea: commit your experiences to the archives before the memory of them fades. So here, in brief outline, is a description of the equipment I used between 1967 and 1974 to launch Cockles – and various other gliders – from out-of-the-way places. Some of the expeditions have already been described in S&G "The Freedom of the Hills" (August, 1967, p294); "Huish Revisited" (August, 1969, p274); and "How we Bungeyed to the Bottom of Bincombe Bumps" (June, 1973, p174). Other expeditions were in April, 1968 (NE Scotland), April, 1971 (Huish) and March, 1974 (Lake District), besides isolated launches in Herefordshire (to soar the Black Mountains) and near the Long Mynd. I do not know how many launches were done all told, but only two were a bit on the marginal side. The first was of John Brenner in his Olympia 463 from the Black Mountains above Pandy and was caused – we realised afterwards – by the convex shape of the hill. Although the surface was grassy and smooth, some of the



energy in the bungeys was dissipated as they contracted because the convex surface meant that they were firmly in contact with it. The second – of me in Cockles from a Scottish hill – was a bit slow because the site was not very steep and covered with thick short heather which slowed the bungeys an unexpected amount.

The perfect launching site is a slightly concave grass slope, facing into wind, unobstructed at the bottom and with landing fields to hand. The slope does not need to be very steep, so long as it is concave with the result that the stretched bungeys accelerate the glider rather than heat up the ground. Those who know the Long Mynd naturally think of it as the perfect bungey site, but in reality it is too convex at the top. We soon learnt to stop looking for Mynd-like edges at the tops of hills and started to seek out sloping fields near the bottom of hills – but high enough to soar from. Let the wind do the work of taking the glider to the top!

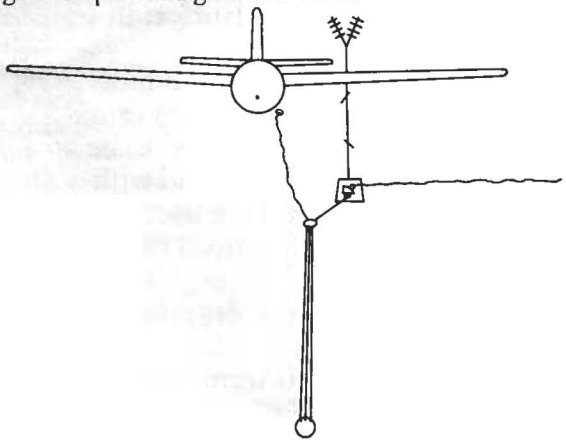


Hill profiles for static bungey launches (a) unsuitable (b) suitable.

By 1967 I had stopped using the "autobungey" launch described by David Carrow in his 1958 article in favour of the "static bungey" derivative developed by a number of Cambridge members, but especially Laurie Vandome. It is more reliable and, if the actual stretching is done by Land Rover, can be operated by one person. By this means Catharina launched me from several Scottish hills unaided.

Three (preferably) 30-yard strands of bungey are laid out in parallel and secured together at the ends. At the bottom end it is convenient to have a large ring. From the top end run two ropes; the shorter is about one foot long and ends in launching rings, whilst the longer is about 15ft long, of braided nylon, also with rings on the end. Starting at the top of the slope, first there is a land anchor from which runs a wire rope perhaps 15 yards long to a steel plate on which is bolted an Ottfur hook (facing down the nill). The rope, and the steel plate, are pegged to the ground to stop them lifting, but the restraining force is of course supplied by the land anchor. From the Ottfur's release runs a light rope along the contour of the hill.

The launching rings on the short rope attached to the bungeys are inserted in the Ottfur and the triple bungeys laid out down the hill. Thirty yards on down from where they stop a second land anchor is placed, with a hook ready to receive the large ring on the end of the bungeys when they are stretched. The glider is placed so that the launching rings at the end of the nylon rope just reach its own Ottfur. It should be chocked just enough to stop it rolling down the hill.



Arrangement of the equipment prior to stretching the bungeys.



Now the pilot can get in, the bungeys can be stretched onto the bottom land anchor, the glider hooked on and the ground Ottfur released by pulling its attached rope. Ping! And it is all over! In order to stretch the bungeys, several short pieces of rope can be looped through the large ring and used for pulling, if there are enough strong men around. Alternatively the strands can be stretched one at a time, or a Land Rover used.

If there is ample space it is possible to stretch the bungeys by Land Rover acting through a long wire, long enough so that the Land Rover can remain in position during the launch, thus obviating the need for the bottom land anchor. A very long wire is needed, however: on both the marginal launches referred to earlier the Land Rover was being used in this way and did not improve matters. It is of more use sitting quietly at the top as a



Another facet of the Arm-Chair Pilot on the right of the picture by Kenneth Mason of the *Daily Telegraph*. Anthony, a member of the Cambridge University GC and the University's Senior Proctor, was walking along Whitehall on his way to the Privy Council's office to revive the old custom when Proctors came to plead with the Crown for changes in the University Statutes. Anthony was with David Maudlin, the Cambridge University Marshal. Reprinted by kind permission of the *Daily Telegraph*.

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substitute for the first land anchor! (Laurie once managed to stretch the bungeys up the hill after I had been launched, but I noticed he used my Land Rover, not his!)

The instructions for the wingtip holders are "Don't run, just let go," and for the pilot are "Fly down the slope until you see the bungeys slacken, then release and pull away." Latterly I declined to take 18m gliders on my expeditions. Though we always managed to launch them satisfactorily – even in no wind – the extra weight made handling them and their trailers so much more of a burden. The Olympia 463 might have been designed for expedition launches, being light, slow and with an exceptionally short fuselage with good ground clearance. It even has its wings stuck on at a sensible old-fashioned angle so that it leaps into the air almost instantly. I shudder to think where my half Astir would end up.

Restoring confidence

And what of the flying? Never a dull moment! Let me end with an account of a flight of superlative enjoyment that could never have happened using orthodox procedures. The day after we had launched John Brenner off the Black Mountains a bit too gently I determined to restore everyone's confidence by launching from a sloping field near the Mynd in no wind. It turned out to be one of those stable summer days with the inversion below the top of the hill during the morning. If one wanted to soar, one had to get down to it. Just beyond Bishop's Castle there is a slope called Aston Hill which rises seven hundred feet in a mile and faces north. Near the top is a suitable launching field and here I rigged Cockles, throwing out all unnecessary equipment so as to keep her as light as possible.

I waited until one o'clock in case a wind sprung up, which it did not and then launched. I immediately turned into one of two gullies on the hill and found to my delight that there was just enough thermal puff wafting up it to keep me airborne. Hill soaring is much easier in no wind because you can judge when a turn towards the hill will be safe so much more accurately!

Farmer's reaction

It is customary to do a beat up past the launching crew as soon as possible after a launch, but it was half-an-hour before I could pay this debt and then only at 35kt! Round and round the gully I went, keeping to within 100ft of the top of the hill but never quite reaching it. After a while a farmer drove into the field right on top and started waving to me. I waved back; he waved harder; I waggled my wings at him as I went past; he replied by gesticulating wildly. I therefore took-off my hat and waved it vigorously out of the window, which resulted in him running for his car and driving off at high speed. As I later discovered, the kind man, thinking I was in distress, was signalling to me to land in his field and when I failed to respond to his entreaties he had rushed off to telephone the Midland GC to report my predicament and to ask if they were in radio communication with me. Alas, his name was not taken, so I could never thank him.

Eventually the thermals developed enough puff to shift the inversion and after an hour flying round that gully I climbed past hill-top height up to the level of the Mynd itself. It took another hour to cover the eight miles to the Mynd and complete a most exhilarating goal flight, at the giddy speed of 6km/h. In the clubhouse they were having tea. No one had soared all day.

BGA AND GENERAL NEWS

COMPETITIONS, BADGES AND RECORDS

New Badge Qualifications. The present system of A, B and C badges dates back to the days when straight hops and bungey launches predominated and no longer sensibly reflects modern performances and training methods. Taking effect at the start of the new decade on January 1, 1980, the badges which are the prerogative of the BGA (*ie* before FAI Silver badge) will be structured as follows:

A badge – one solo circuit in a glider (or a motor glider in unpowered flight after launch).

B badge – soaring flight of at least five minutes at or above previous lowest point after launch (*ie* as for present C certificate).

Bronze badge – as for present Bronze C.

To distinguish the new A and B qualifications from the present ones, the new badges will still bear one and two gulls respectively, but will have the laurel leaf currently used on the Bronze badge.

These changes will be included in a new edition of "Notes for Official Observers" which will be issued simultaneously with the new FAI Sporting Code, also due to take effect from January 1, 1980.

British Team Selection. The precise method of selecting the British Team for the 1981 World Championships in West Germany will be made known towards the end of 1979 when full entry details should be forthcoming. Meanwhile, however, a British Team squad will be formed at the end of the 1979 season.

The squad will comprise the pilots finishing first and second in each of the three FAI Classes of the 1979 National Championships and Euroglide (*ie* 12 names less any duplications), plus six or more additional pilots elected by vote, but further pilots voted if necessary to bring the squad to a minimum of 15. The voting panel will be the top 30 pilots on the Priority List of the Nationals Entry Scheme for 1980 and the vote will take place in September 1979.

The 1981 British Team will be formed exclusively from the 1980 squad.

Records. The following British National records have been homologated: Single-seater 500km goal and return speed, 121.54 km/h, B. J. G. Pearson (Nimbus 2) on December 14, 1978, in South Africa; Multi-seater records, all by Calif A-21S in South Africa in 1978, 100km triangle speed, 137.22km/h, M. R. Carlton and L. R. Lawson, on December 27; 300km triangle speed, 93.32 km/h, M. R. Carlton and C. M. Greaves on December 18; 500km triangle speed, 108km/h, M. R. Carlton and C. M. Greaves on December 21; 300km goal and return speed, 105.44 km/h, M. R. Carlton and C. M. Greaves, December 19; 500km goal and return speed, 113.08 km/h, M. R. Carlton and C. M. Greaves, December 23 and goal and return, 629.02km, M. R. Carlton and C. M. Greaves on December 23.

Gordon Camp,
Chairman, BGA Competitions Committee

UNIGLIDE - '79

Uniglide – '79, a glider "meet" for university and college students plus recent graduates, will be held at Camphill, home of the Derby & Lancs GC, from September 23-28. It is a low cost fun event with the idea to test and improve flying (see S&G, December, p283).

Non-solo pilots are also welcome and there will be several tasks for two-seaters as well as a series of informal lectures.

For further details contact Ken Gerber at 217 Albert Drive, Pollokshields, Glasgow G41 2NB.

NATIONAL LADDER'S POOR START

Most of the entries for the National Ladder during the disappointing start to spring result from wave climbs and Mike Randle, National Ladder Steward, says he only knows of about two cross-country entries.

But he is pleased to welcome the Royal Aircraft Establishment and Aquila, who will be taking part for the first time and Swindon who come back after a long gap.

OPEN LADDER

Leading pilot	Club	Pts	Flts
1 G. Corbett	Essex	3310	2
2 M. Throssell	Essex	3090	2
3 D. Appleby	Essex	2880	2

CLUB LADDER

Leading Pilot	Club	Pts	Flts
1 C. S. Baker	London	225	1
2 D. Richardson	London	132	1

GLIDER RADIOS AND 720 CHANNEL SPACING

Inquiries continue to come in concerning obsolesence of glider radios consequent upon implementation of 720 channel spacing in the aeronautical frequency band. This subject has been written about more than once in S&G but for the benefit of new readers and also the old ones who may have forgotten, the short summary of the situation is that virtually no glider nor retrieve car equipment is either obsolete or will be rendered so in the legal sense of regulations introduced by the CAA or other UK regulatory authorities.

Thus, since glider radio comes under the heading of non essential usage so far as aeronautical control and safety is concerned, the only requirement placed upon gliding usage is that interference shall not be caused to other users. Channel spacing is now half what it was previously and hence it is now necessary to ensure that the transmitter frequency is held closer to the nominal than heretofore. Thus, the previous requirement of .005% transmitter accuracy has been tightened up to .003% for airborne equipment and .002% for ground based sets.

The majority of glider/retrieve car sets either meet this requirement or are capable of being made to meet it by relatively simple adjustment. Hence there should be no grounds for concern on this point.

The above deals with what may be called the legal requirement implied in the 720 channel plan. There is, of course, an implication that users of old equipments may experience interference from users on a channel adjacent to the gliding channels. If such interference should occur and if also it is found to be troublesome, then the first action should be to get the glider equipment checked because it may be that its bandwidth is such that interference must be expected. Again, however, this is unlikely because the typical glider radio receiver has always been designed with a narrower bandwidth than that of the typical aircraft radio.

all pilots can read – but the BEST PILOTS read

Sailplane & Gliding

The magazine can be obtained from most Gliding Clubs in Gt. Britain, alternatively send £5.50 postage included for an annual subscription to the British Gliding Association, Kimberley House, Vaughan Way, Leicester. Single copies, including postage 90p.

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The last thing that should be done is to complain to the regulatory authorities. To do so will only encourage further unnecessary regulation of what we may legally be permitted to do. It is much better to suffer a little radio interference than to cope with even more unnecessary bureaucracy. **Terry McMullin**

OBITUARY

JOHN SCHOLES AKED



Jack Aked, Founder and President of Blackpool & Fylde GC died at home on February 24. Club members and all the older members in the BGA who knew him so well extend their sympathy to his wife Barbara - who incidentally was taught to fly by him.

His father formed a gliding club in the 1930s at Blackpool. Jack was determined to follow suit and after his ATC gliding school he reformed the Blackpool & Fylde GC in 1950. Unusually the full members were non-flying and the glider pilots were associate members, and Jack supported the gliding from profits of the former whose splendid clubhouse was known far and wide as the Kite. He operated with a single-seater Cadet and Dagling until 1954 when he bought the T-21 which is still at the club.

Jack set high standards of basic flying skills and airmanship which the club has tried to follow. He was a skilled and dedicated instructor and never seemed to lose his temper, though he had a way of letting you know he was displeased. Jack was very conscious of the importance to a gliding club of owning the airfield and for very many years whilst the club operated from Squires Gate, Blackpool and BAC Samlesbury, he searched for a suitable location which could be purchased. He had the satisfaction of seeing the club reformed into a limited company and buying the present site at Cock Hill, Chipping. Unfortunately he did not personally benefit because in recent years ill health forced him to give up flying, but his interest in the club remained as high as ever. He continued to donate funds from the Kite after the glider members formed a separate club and was to be seen almost every weekend at the club. Also from 1965 he was the gliding representative on the CCPR.

There can have been few nicer characters than Jack in gliding, and few others who have been connected with it for so long and given so much time and effort to it. He was surprised and delighted to be awarded the BGA Diploma in 1973 for services to gliding, but in truth it was well deserved.

J.C.G.

An appreciation by Bill Scull, BGA Director of Operations: We share with Barbara the memory of a man who undoubtedly made a significant contribution to gliding. To my mind the names of Blackpool & Fylde GC and Jack Aked are synonymous. That the club is secure in its new site is largely due to him, his foresight and determination. It will remain for ever as a tribute to those qualities - I doubt whether he would have asked for any other memorial.

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Correction: We apologise to Tony Hanfrey for the printing error in his advertisement on p74 in the last issue though we doubt anyone really thought he was selling 70m gliders.

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During September

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DIAMOND GOAL

No.	Name	Club	1978
2/888	G. M. Chinn	Four Counties	24.9
2/889	J. J. T. Taylor	Clevelands	11.3.79
2/890	W. E. Goldstraw	Benalla	19.1

DIAMOND HEIGHT

No.	Name	Club	1979
3/404	P. F. Whitehead	Clevelands	11.3
3/405	K. B. Smith	Clevelands	11.3
3/406	S. Fraser-Beck	London	11.3

GOLD C COMPLETE

No.	Name	Club	1979
696	J. J. T. Taylor	Clevelands	11.3
697	W. E. Goldstraw	Benalla	19.1.78

GOLD C HEIGHT

Name	Club	1979
A. Kennedy	SGU	4.10.78
H. M. Gordon	Thames Valley	24.10.78
A. W. A. Kay	Thames Valley	24.10.78
J. G. Leishman	SGU	4.10.78
N. G. Evans	South Wales	24.9.78
J. Hough	Bicester	6.10.78
R. N. Parry	Four Counties	23.10.78
K. Morton	Clevelands	11.3
R. L. Fox	Wolds	23.2
B. Stott	Wolds	23.2
P. F. Whitehead	Clevelands	11.3
C. A. Baker	In USA	5.1
J. Illidge	Derby & Lancs	17.9.78
P. K. Milner	London	7.3
A. J. Southord	London	7.3

GOLD C DISTANCE

Name	Club	1979
J. J. T. Taylor	Clevelands	11.3
W. E. Goldstraw	Benalla	19.1.78

SILVER C

No.	Name	Club	1979
5193	B. V. O'Neill	Wolds	23.2
5194	K. B. Smith	Clevelands	25.7.78
5195	P. Morgan	Fenland	28.2
5196	R. J. Rebbeck	London	9.2
5197	T. I. Robinson	Enstone	12.3
5198	D. Foster	S. Yorks & Notts	13.4
5199	C. Boston	Bicester	16.4
5200	A. A. Black	Angus	15.4
5201	P. R. Gammell	Surrey & Hants	15.4
5202	F. W. Chapman	Bicester	16.4
5203	S. R. Nash	Swindon	15.4
5204	J. M. Alexander	Bicester	15.4
5205	P. A. Haig	Phoenix	29.3
5206	I. M. Gill	E. Midlands	14.3
5207	R. D. Negley	Fenland	14.3
5208	C. R. McEwen	Swindon	15.4
5209	A. Cooper	SGU	15.4
5210	M. A. Johnson	Kent	14.4
5211	P. C. Jones	Thames Valley	16.4

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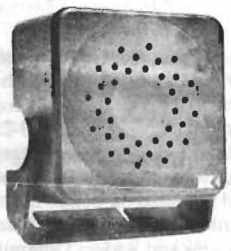
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INTERNATIONAL GLIDING COMMISSION (CIVV) MEETING

IAN STRACHAN, BGA Delegate to CIVV

The 1979 meeting of the Commission Internationale de Vol a Voile (CIVV) was held at the headquarters of the Fédération Aéronautique Internationale in Paris on March 23-24. Having been briefed on the BGA view on agenda items by the Executive and Competitions and Badges Committee, I attended on behalf of the BGA in company with Gordon Camp, (Chairman of the Competitions and Badges Committee). This account is a condensed version of my full report which is circulated to the Executive and Competitions and Badges Committee.

Twenty-nine countries sent representatives to the meeting and a delegation from the Peoples' Republic of China was welcomed for the first time.

Lilienthal Medal. This annual award is voted at CIVV from a list of candidates put forward by member countries. This year there were six candidates, including Derek Piggott who was proposed by the BGA. After the vote, the distinguished West German competition pilot Helmut Reichmann was awarded the medal for 1979.

1981 World Gliding Championships. The most important item for the BGA was our bid to run the WGC at Cranfield in 1981. Our bid was also valid for 1983 and had been formally submitted to FAI in October 1978. Other bids had been received from Argentine, West Germany and the USA. The Argentine bid was withdrawn and so presentations to CIVV were then given on behalf of West Germany, UK and USA. The German site was at Paderborn and the American at Reno, Nevada. It was apparent that the German bid included a large element of financial subsidy whereas the American bid opened the prospect of consistent strong thermal soaring up to 15 000ft in magnificent terrain. My view had always been that Cranfield stood little chance of acceptance for 1981 but a good chance for 1983. The BGA case was presented using slides and vufoils to back up previously circulated details and was generally acknowledged to be a good presentation. It was, however, no surprise and in accord with what I had predicted to the BGA Competitions and Executive Committees, that after voting the choice went to the Paderborn site in West Germany for 1981. The site is a grass airfield 1500m long, some 2km south of the town centre and 120 gliders can be accepted in the three Classes, Open, 15 Meter and Standard. A vital BGA decision which is now under active consideration by the Competitions and Badges Committee is whether to modify team selection procedures, and the policy to be adopted on entry to Classes and short listing of pilots before the team is finally selected. (See p134).

1983 World Gliding Championships. In BGA negotiations with Cranfield, 1983 had always been a possibility and airfield rental charges had been negotiated for that year as well as for 1981. Our strongest bid at CIVV was therefore to hold a WGC in 1983, which amongst other things would give more time to arrange commercial sponsorship (virtually a necessity these days). I therefore made the strongest possible case for Cranfield to be provisionally selected. We could then make definite financial commitments and also be in a much stronger position in approaching sponsors. Unfortunately (for us, anyway) CIVV took the view that a decision would be taken in 1980 when other countries would have a chance to bid – indeed Australia, USA (but not for Reno) and the Argentine indicated a willingness to bid for 1983. The BGA will obviously have to pull "all the stops out" to succeed and any members who have contact with potential major sponsors should contact the Competitions and Badges Committee Chairman through the BGA office as soon as possible. Our updated bid has to be with FAI in Paris by September 30, 1979 and voting will take place at the next CIVV meeting on March 28, 1980. Members with access to cheap colour printing and good pictures of Cranfield and relevant turning points showing good cu development, should also contact the Competitions and Badges Committee, as should anyone with ideas on how we can best "sell" our bid.

European Club Class Competition. This event is being held in Sweden from June 11-23 and the winner will be declared a European Champion. The BGA is entering a full team of four, although they are not being subsidised by BGA funds in the same way as for our World Team. Chris Rollings is "player/manager" for the event.

1981 WGC Rules. For Paderborn in 1981 it was decided that unless pilots made a correct starting line crossing for speed tasks, no speed points would be scored. This was opposed by the BGA who prefer a revision to take-off time in the event of a mistake at the start line. A long discussion on turning point photography was held. The BGA view is that there is little wrong with the present CIVV system and the BGA penalty zones, within reason, work well and encourage good photography without over-penalising small errors. Other nations wanted different systems with photographic points as well as turning points and a decision will be taken in 1980. The USSR put forward a proposal for a team classification to be included in WGC and the Hungarian delegate made the point that in "socialist" countries more state support would be forthcoming if there was a national team classification as well as an individual one. This in the past has been opposed by the BGA on the grounds that it would lead to more politics being introduced and would discriminate against nations who could not enter a full team. A decision here would also be taken in 1980.

1980 Edition of the Sporting Code. The gliding Section of the Sporting Code will be revised and become valid on January 1, 1980. A draft had been circulated before the meeting and was discussed page by page.

Sporting Glider Definition. In previous CIVV codes a special definition of a "Sporting Glider" has appeared. The BGA view is that this should specifically exclude hang gliding but include motor gliders where the engine was not used during the claimed performance. The problem is that as from January 1, 1979, FAI have introduced a new "General Section" Sporting Code which gives the master definition and procedures which apply to the 15 Classes of aeronautical sporting machines from which FAI makes rules. The present definition of a glider in this General Section is Simplistic, including hang gliders but excluding motor gliders. This anomaly has been pointed out by the BGA and a revised definition of a "sporting glider" proposed. Unless this is sorted out we could find ourselves obliged to certify achievements by hang gliders, taking authority away from the BHGA and its international body, CIVL, and entering an area where we have no real knowledge or expertise.

More Versatile Distance Rules. It has long been the policy of the Competitions and Badges Committee to make the rules under which long

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flights can be carried out as versatile as possible, on the basis that where free distance or a downwind goal flight is still valid any course involving turning points is more difficult and sometimes unusual shapes are needed to get round controlled airspace or awkward topography. Gordon Camp therefore advocated that the 28 per cent rule for triangles of 500km and under should be replaced by the more versatile 45/25 per cent rule that was originally proposed by John Glossop and is in the 1975 Code for large triangles. There was, however, no support for this. Nevertheless a decision was made to allow triangles to be started from points other than at their corners, the distance to count being the periphery of the triangle and taking no congnisance of extra distance flown to and from the start/finish point. This should be a major improvement for some sites. I also proposed, as agreed by the Competitions and Badges Committee, that for badges, a two turning point zig-zag should be valid and quadrilateral distance should be introduced. A postal vote will take place on these matters and the Competitions and Badges Committee have also suggested that any failed goal flight shall be eligible for distance badges, to encourage pilots to declare long flights and to give recognition to distances actually flown when goal declarations conform with other CIVV badge rules. Whether this will appear in the 1980 Gliding Code is problematical because it has been said that amendments to the Code are not allowed between publication dates and so anything not appearing in 1980 cannot be valid until the next edition in 1985. The BGA view is that this is too rigid, although constant small amendment is obviously not desirable. This matter is therefore being raised by Roger Barrett, BGA Chairman, in the Royal Aero Club for transmission as a general point to FAI.

Governing nature of the new General Section Sporting Code. As mentioned this master document has all the basic definitions and rules for the conduct of all aeronautical sport. Copies are available from the BGA office and it is emphasised that it is a separate document to the Gliding Sporting Code (FAI Section 3, Class D Gliders).

Next CIVV Meeting. The Bureau meets on October 26, 1979, and March 27, 1980, with the full Plenary meeting of CIVV on March 28-29, 1980. The bureau is a non-decision making body composed of the CIVV President (Bill Ivans, USA), the six vice-presidents (voted each year and currently the delegates of France, Italy, Norway, Poland, Switzerland and West Germany) and the CIVV Secretary (Netherlands).

BGA Members' Questions or Suggestions. CIVV is our international governing body for matters of badges, records and competitions. Please send any questions or suggestions to the Chairman of the Competitions and Badges Committee, through the BGA office.

BGA WEEKEND - March 24-25, Post House Hotel, Leicester

RIKA HARWOOD

Perhaps it was the excellent cross-country day on Friday, March 23, on which ,many of those present enjoyed their first cross-country of the year . . . Or perhaps it was that Barry Rolfe, BGA Secretary, had the mixture exactly right in organising the various sessions . . . Or, thanks to Ralph Jones, the unexpected pleasure of having Klaus Holighaus of Schempp-Hirth in our midst - but probably it was these ingredients mixed with the unsoarable weather on Saturday and Sunday which gave the BGA weekend its relaxed atmosphere and made it the success it undoubtedly was - or so I was told by those who had taken the trouble to attend.

Roger Barrett entered his last year as Chairman of the Association at the AGM, with Keith Mansell re-elected as Vice-Chairman. The only newcomers to the Executive were John Holland of the Cotswold club and John Ellis from Booker. Those retiring were Eric Wilks and Frank Irving, the latter having served the Association for no less than 30 years. Roger thanked him especially for his contributions over this long period.

The motion that "in future BGA general funds should be used to top up British Team funds if necessary" was discussed at length and accepted without dissent. The reason behind this is that the BGA can no longer be certain that a Sports Council grant or subsidy would be forthcoming in future.

During the weekend we heard that the next World Championships are to be held at Paderborn, West Germany, and that our own bid had failed. (See CIVV report).

Although not necessarily everyone's "cup of tea", the audience appreciated the talk by Mike Russell on the preservation of vintage gliders. This was the first half of a session under the title of "The last 50 years, and the next 50 years". Roger Bull, of Vickers-Slingsby, spoke in the second half of this session. He drew attention to the fact that despite all the delays and problems with the Vega, this machine was in production. Its finish was now as good as that of its competitors.

Paul Thompson, Chairman of the Magazine Committee, introduced a short session on *Sailplane & Gliding* by outlining its history and its aims, inviting comments and criticisms from the audience. Of the latter (criticisms not audience) there were very few. The meeting felt that the Editor (Gillian Bryce-Smith, who was unavoidably absent) was to be congratulated on doing an excellent job.

Dick Stratton, the BGA's Technical Officer, spoke in his own inimitable way of the work done to get tug Cs of A and maintenance sorted with the CAA for the benefit of all tug users and operators.

Klaus Holighaus, who had too modestly declined to speak from the platform, was persuaded to say a few words from the floor. He mentioned the 2½ years work his firm had devoted to carbon fibre research and development, and was pleased to announce that this had paid off. The first German Cs of A on the Mini-Nimbus C and Nimbus 2c with all carbon fibre wings had now been issued.

No chance of complacency!

Sessions on security of sites, planning, cross-country flying and techniques, competitions, coaching, *etc*, were all well attended and discussed without causing any "aggro". This one could translate into the majority being fairly happy with the objectives the BGA is pursuing at present, maintaining a reasonable stable period in which it can develop. As we have never been short of members to speak out or "stir it up" it is unlikely that the Executive will be given the chance to become complacent.

About 175 members and their guests sat down to dinner on Saturday night. Our guests of honour were our World Champion and his wife Maren, who, however, had to work for her dinner by presenting the annual trophies. Ian Scott-Hill, Royal Aero Club Chairman, and his wife Jean, were the other official guests.

The main after-dinner speech, brilliantly delivered and enjoyed by all, was by Michael Bird. It was equally eloquently replied to by George Lee. Doc Slater's performance on his penny whistle brought him a standing ovation which should not leave him in any doubt about the great esteem in which he is held.

The impromptu visit by a well-known joker in the form of a Sheikh, accompanied by his camel, or was it a dromedary?, achieved what it set out to do - hilarity! The magnum of champagne, raffled before dinner, brought in a welcome £120 towards British Team funds.

On the Sunday the visit to and the lunch at the BGA office were a great success with more people turning up than had booked. The office staff made a surprise presentation to Naomi Christy on her retirement as Development Officer . . . After this we all drove home in abominable weather.

Are You Interested?

Having observed how interested people were at the presence of Klaus Holighaus, and how keen they were to hear him talk, I have the following suggestion:- that next year's BGA weekend should include a symposium or forum inviting English-speaking designers/manufacturers, or for that matter anyone else who can present interesting, stimulating talks (and I can think of quite a few names), to come and tell us about their techniques and developments. I think many more pilots would attend such lectures and would be willing to pay admission fees towards the costs of such a venture. (It should be held in early, rather than late, March).

It was after all the foresight of the original BGA members who got people like Robert Kronfeld, Wolf Hirth and Carli Magersuppe, to come over and impart their know-how. Their contribution at the start of our first 50 years was invaluable.

It seems to me a good way of launching our next 50 years of gliding in an interesting way, quite apart from the, no doubt nostalgic, anniversary dinner on November 30.

If I am right, and if readers are interested, I suggest that they write to the BGA now, suggesting possible names of speakers they would like to hear and subjects discussed, as well as the willingness to pay admission fees.

OVERSEAS NEWS

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

FLYING AMONGST THE PYRAMIDS

JOHN E. LOWE (Thames Valley GC and 373 Std Libelle syndicate member)

Egypt is a long way from Booker but at least there's a Gliding Institute so it can't be that bad.

Naturally, like any self respecting glider pilot, on hearing that my company was moving me to Cairo instead of Coventry the first thing on my list of priorities was to get the details on local flying. The Egyptian Gliding Institute has three locations, at Embaba Airfield, Cairo, Alex and Assyout. Embaba seemed ideal for it is only ten minutes from where we live.

On my first visit in January '78, I received a very courteous welcome and even managed a circuit in a Bocian. Now Egypt for some time has had problems with "red tape" and the wheels of officialdom grind exceedingly slow! Of course I could join they said but as the military were using the field I had to get clearance from security. This involved submitting five photographs (of me) and my life history.

Back to the beginning again

Time went by and still no news. The club had told me it would be months rather than weeks. I had assumed security would send me a pass; no such luck. I eventually talked my way past the guard on the main gate to find yes, I had been cleared! Hooray I thought, now I can fly again - but no, the clearance was for three months only and it had expired the day before my visit. OK, so now we start again, five photographs as before and this time a supporting letter from the General Manager of the club.

Another two months went by and great news. I had been given clearance for a year. On arrival at the airfield I found the military had pulled out and I no longer needed a pass to get in - never mind I could fly. But no; a little earlier there had been an unfortunate fatality during a launch. The official inquiry (with no glider pilot included) decided the winch driver had deliberately killed the pilot by pulling her into the ground! The result was no flying for three months and proceedings against the winch driver who, thank God, was acquitted.

A year later and the wait had been worthwhile. Three metre thermals to cloudbase at 4000ft in February, a super view of the Pyramids and a BA 151 departing for London at the same height a couple of miles away.

The club fleet consists of two Bocians, two Pirats and a Cobra. We fly on Thursdays and Fridays and members are spoiled by being looked after by a full-time staff consisting of a general manager, CFI, two secretaries, a winch driver, retrieve car driver, chief engineer, carpenters, rigger and a couple of hands to clean the gliders and hangar. Flying for the locals is subsidised at 10pts (8p) per launch and for expats 50pts (40p) which includes the first half-hour. The first 500km out and return has been completed and a Diamond height in thermal had to be aborted a few metres short when the canopy shattered. This could be a very good year.

NEW ZEALAND NATIONALS

A December anticyclonic drought continued into February for the first six days of the 16th New Zealand Nationals before the usual rains came. The number of entries, 57, was the biggest ever, made up of nine in the Open, 39 Standard Handicap (biggest ever in a single Class - 12 of whom were also classified as plain Standard) - and nine in the Sports Class, including a Skylark 3F and a Dart 15B which, in the hands of B. Penhey, won a 178km triangle race on Day 4 starting with long ridge-soaring along the Kaimai Ranges. A Cobra pilot this day reached 16 000ft in a wave. That night a cold front went through, followed next day by a 6500ft cloudbase and 10-12kt thermals.

Visiting pilots included once again Ernst Peters from West Germany; also two Swiss pilots. Hans Naegli and Fred Herbert, invited in return for the hospitality they showed to the New Zealand team during last year's World Championships at Chateauroux: this was their first sight of New Zealand and they found the soaring conditions unfamiliar.

The contest ended with several days of poor weather, two of which were soarable but with devalued scores. Final winners and their scores were:

Open Class: I. Finlayson (ASW-17), 6430pts; Standard Handicap: T. Timmermans (ASW-20), 6003pts; Standard: A. Cameron (ASW-19), 5192pts and Sports: A. van Dyk (K-6E), 5581pts.

R.M

THIRD NEW ZEALAND AERIAL DERBY

After a rainy night as guests of the Kaikohe Club at Hangi, ten starters were launched on Sunday, February 25, into a sky with cumulus based at 1800ft. Of ten starters four landed back in rain, three landed out, three got past the hills on the way to Hobsonville and two reached it; but Finlayson (ASW-17) got stuck on the wrong side of a cu-nim after going 72km. Peter Lyons (Mini Nimbus) won at 36.52km/h and M. Rix (LS-1) scored 937pts with 32.5km/h.

Next day, with a better looking sky and higher cloudbase, the course was 286km from Ardmore to Kawerau *via* Te Kuiti, and in even better weather than forecast, all got away easily, though Doug Hazlett had such trouble with his $1700 VHF that he landed and installed a portable instead. Fastest speeds: D. Hazlett (LS-1) 72.22km/h, M. Rix (LS-1) 62.09 km/h and L. Stephens (LS-3) 59.83km/h. Overall order: M. Rix, P. Lyons, D. Hazlett.

The following day the course was against a 15 to 20kt wind to Rahetihi, 196km by direct route but actually much further to avoid Lake Taupo and the mountains. Thermals started early but were broken by the wind; cloudbase was 4000ft but convention had little depth. Weather improved but remained fickle, so that Peter Hobhouse (Hornet) did well after two poor days, whereas M. Rix was brought down in a difficult patch. Leading scores for the day:

I. Finlayson (146km), 1000pts; 2. P. Lyons (133.5km) 976pts and 3. P. Hobhouse (176km) 770pts.

There followed three days of rain at Raetiki. The final day was fine though with low cloudbase and it was midday before thermals became reliable. The route, Raetiki to Upper Hutt, was 184km direct, but pilots tended to drift to Ruahine Range for lift. Peter Lyons landed out twice and damaged his glider: two others landed out and five got there.

Final leading scores: Open Class: P. Lyons, 2790pts; Standard: M. Rix, 3054pts and 15 metre: P. Lyons, 2907pts.

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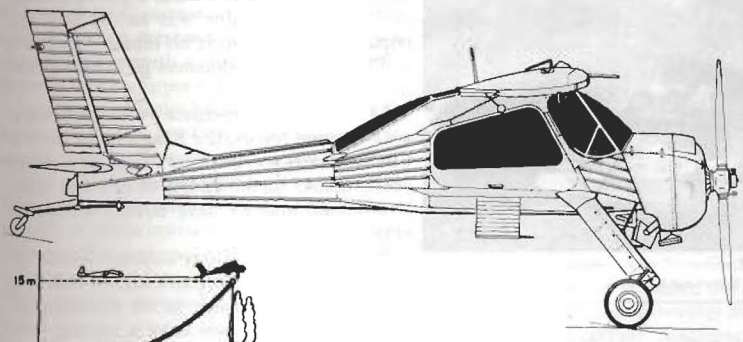
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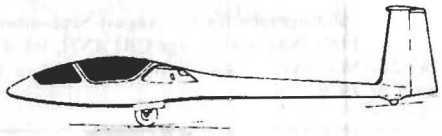
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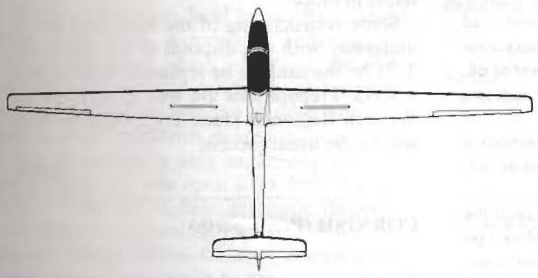
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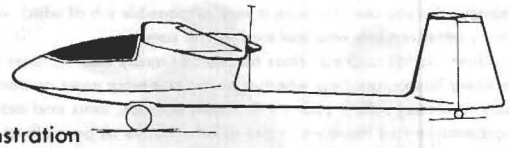
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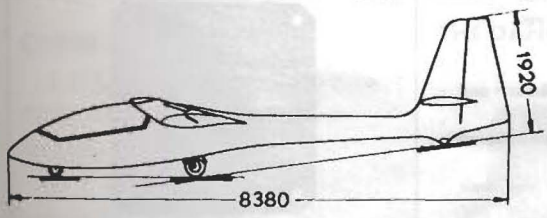
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Our photograph, taken at Yorkshire GC's annual dinner, shows, from left to right, Geoff Crawshaw (Chairman), Carol Woodhead (Secretary), Henryk Doktor (CFI), Dick Stratton (BGA Technical Officer and guest of honour), Nina Benson and Mike Benson.

CLUB NEWS

Copy and photographs for the August-September issue of S&G should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, tel. 47725, to arrive not later than June 12 and for the October-November issue to arrive not later than August 14.

April 20, 1979

GILLIAN BRYCE-SMITH

Sailplane & Gliding is the only international gliding magazine in the world that regularly devotes a number of pages to Club News. We hope to continue to do so for the very good reason that the clubs are the backbone of British Gliding – without them the movement, as we know it, would soon disintegrate to the detriment of all.

Without club correspondents this section of the magazine could not exist and the Editor wishes to thank you all for your contributions and hopes you will continue to keep up the good work.

However, at the recent BGA weekend, during a short session on the magazine, it was felt that perhaps a few general guide lines might be of help to some of you who write for it already, or are newly recruited as club correspondent.

It might surprise you to know that one well-known overseas world class pilot recently told me he read the Club News with the greatest of interest – when it was up to standard. So what is up to standard? Before I go into this I might explain that he reads it because it gives him an insight into what we in Britain are about in our approach to gliding. He is interested in the way we run our clubs and our affairs and he likes our sense of humour. So you see you have a very responsible job of which you can be justly proud. Like him there must be many other readers who feel exactly the same.

Now "up to standard" does **not** mean literary masterpieces every time you write Club News, or appearing in every issue regardless whether or not you have news or worthwhile items to record. Apart from the flying side, it should reflect your current club policies, aims and achievements, innovations or even specific club problems; in fact items which are as informative as possible and of general interest. Reflect the things which make your club what it is and makes you proud to belong to it. Here are a few ideas to bear in mind.

- Make notes of news items as and when they happen, or arrange to have them passed on to you.
- Keep yourself informed of what is happening in your club at all levels.
- Remember your notes take about six weeks before they appear in print.
- Study what other club correspondents write about. Make a note of what you like and dislike about it and keep this in mind when you write your own piece.
- If you are really stuck and don't know what to write – miss an issue rather than being accused of being a bore.
- Try to submit the odd photograph or cartoon, or ask your fellow members to show you their photographs.
- Weigh up what is of general interest and what should be on the club's notice board being of interest only to your own club members.
- Don't write five lines when one will do.
- Mark the paragraphs which you least mind being deleted if the Editor has to do so for any reason.
- Always mark your copy with your name and address and (if possible) with your telephone number and please use one side of the paper only. Whenever possible please type your copy, treble spaced. If handwritten, print the names.
- Always try to make your next contribution better than your last one.
- After you have written your piece, sleep on it before posting. It is amazing how often you can improve it.
- Above all remember that what you write today becomes the history of tomorrow.

We know people in general like to see their name in print and it does help to sell copies. This is perhaps the reason club correspondents often mention every single badge or leg flight – but we could consider having a separate column say for C, Bronze C and Silver C legs. This would then leave more space under your club heading for more general news and achievements. Please let us know what you feel about this and let us have any other suggestions which could make Club News even more informative and stimulating.

RIKA HARWOOD

BRISTOL & GLOUCESTERSHIRE (Nympsfield)

It was with deep regret that members read of the death of Gordon Dorward in a gliding accident in California. Gordon was an energetic and popular member during his time at Nympsfield and our sincere condolences go to his wife and son.

The annual dinner-dance on March 10 was at a new venue for us, the King's Head Hotel at Cirencester. It was the most successful for many years, thanks to the efforts of Eric and Mavis Drummond and we have already booked for next year.

With summer holiday courses rapidly approaching, we have engaged a local builder to finish off the rebuilding of the clubhouse accommodation. We now have a meeting room and bedrooms on two levels. Although an expensive project, we are sure it will make the club much more attractive and comfortable.

Our AGM was at the club on March 17 when the treasurer, David Barker, reported a reasonable financial result, although the bad weather and rising fuel costs did little to help. Very moderate price increases for 1979 were agreed. Owen Harris is our new Chairman, Keith Aldridge standing down after several successful terms in office.

Some restructuring of the two-seater fleet is underway with the disposal of the Blanik and T-21 on the cards to be replaced, we hope, with a K-13. Preparations are well in hand for the Western Regionals (June 2-10) which we hope will be the usual success.

R.A.R.

CORNISH (Perranporth)

First a correction - John Eaton didn't do his Silver distance from Davidstow to Culdrose as I reported in the last issue but to Predannack airfield.

On June 24 we will be ready to fly at first light and for as much of the day as possible to achieve

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the maximum number of launches – last year we managed 146.

After a lot of perseverance, Fred Toms has at last soloed and a few more pilots are near this stage. We are hoping to take our aircraft to Land's End airfield for a weekend as our last visit was a great success. Apart from gaining aerotow practice there we should soon have a chance at Perranporth as Bill Hosie has offered to tow us with his Super Cub.

Ian Pilling and Colin McKenzie are going on instructors' courses but Don Jones didn't get in enough flying on his course due to the weather.

At the AGM thanks were given to Tony Turner for his marvellous service over the last ten years as course instructor. We are selling our Olympia 463 to make way for an improved fleet.

We are looking forward to the visit from 200 Army cadets as well as other clubs during the season.

A.L.J.

DERBY & LANCS (Camphill)

Winter memories of ten foot snow drifts, impassable roads, dead sheep in our hangar and water burst epidemics in the clubhouse are beginning to recede, but will form bar topic for the next decade.

We owe a lot to our local heroes Pete Gray, Mike Gray, Mark Ashton, D. Jefferson, J. Haverly and many others who held the club together under Siberian conditions and most to Sam and Kate who survived it all to welcome us back when the bulldozers cleared the way.

Stan Armstrong is ably organising our big event of the year – the open week from August 5-11 – which will include aerobatic displays, cross-country competitions as well as entertaining the Vintage Glider Club. A marquee for beer and refreshments will be near the car park and spring cleaning has already started.

The sharp end of our private fleet now boasts two Vegas and an ASW-20F. Bar challenges from our Kestrel and PIK pundits should be very interesting on a decent cross-country day.

G.P.

DEVON & SOMERSET (North Hill)

Since we last appeared in S&G there have been many changes at North Hill. At our AGM in December, Dave Minson was voted Chairman on the retirement of Roy Hodges, who has served the club so ably for many years. Then in January, Gerry Leat, our CFI for many years, decided to step down and Mike Fitzgerald took over in March. We thank Gerry for all his hard work both on and off the field and welcome Mike, who has instructed at North Hill for some time.

The club fleet has changed too. Our trusty Dart 15 is up for sale and in its place we are expecting delivery soon of a Club Astir. Also a very pretty K-6CR has joined the fleet, giving us three single and two two-seater aircraft.

We have run several "functions" for members over the winter and one tangible outcome of funds raised is a pool table which now graces the clubhouse, earning yet more money to subsidise our flying.

As with other clubs, our annual pilgrimage to Portmoak wasn't as successful as recent years, but Derry Reaney did achieve five hours, whilst back at North Hill, Tony Thomas has gone solo. The winch has been rebuilt and we hope will last until the new winch, in the process of being designed by Nick Jones and Terry Jenvey, is built.

Soaring has started, including a memorable Sunday in early March when: "You couldn't come down!"

M.G.P.

DONCASTER & DISTRICT (Doncaster Airfield)

The snow of winter gave way to the rains and floods of spring. The airfield became so waterlogged that winch launching was temporarily suspended in favour of aerotowing.

Some soarable weather has blown through. Nev Spencer continues to land in a different field from the one he takes-off from. Eric and Mark Hamill took the Bocian to 10 000ft in wave and then landed out when their last hole filled in.

Dave Brookes and Clive Bruce have gone solo; Mike Joyce gained another Bronze leg; Nev Spencer and Keith and Sally Dudley are now flying the Falke and Mel Morris is checked out for tugging.

The first Diamond goal of the year was declared on Easter Monday but over convection stopped Bob Fletcher at Saltby airfield after 80km. Ray Hufton flew his Skylark 3 to Syerston but forgot about the 1 per cent rule.

Our tea-bus is a great success – thank you Edna, your hard work is much appreciated.

J.A.S.

DUNKESWELL (Dunkeswell Airfield)

Our soaring season began on February 25, followed by continuous thermal conditions throughout the Easter period – a great morale booster after the perpetual winter grot!

The good weather has brought a flux of new members and, to parallel our active *ab-initio* training scheme, much attention is now being given to the encouragement of early soaring and cross-country flying. To this end we are running a "soaring-cum-cross-country" week during the Spring Bank holiday. We are also greatly increasing the number of aerotows and utilisation of club aircraft.

We welcome two new instructors, Tony Eastelow, who has just completed a most enjoyable course and Barry Dixon, who arrived at Dunkeswell complete with Motor Falke, which is a popular feature with members.

B.H.F.

ESSEX & SUFFOLK (Whatfield)



Ron Wood and 16-year-old Neil Sheath are among Essex & Suffolk GC's newest solo pilots.

We are hopeful that our planning appeal to the Secretary of State will be successful and confidence in the continued use of the site is evident amongst our members. The award of a BGA Diploma for servies to gliding to our very active Chairman, Eric Richards is well deserved and his long awaited Vega now graces the Whatfield skies.

Despite the incliment weather a number have gone solo including Neil Sheath (at 16 years) and Ron Wood (of more mature years).

After much hard work our clubhouse is ready and resplendent with fitted carpet and comfortable furniture. Both tugs are fully operational and we have an increased number of instructors.

W.H.

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HEREFORDSHIRE (Shobdon Airfield)

Since the beginning of this year we have become part of the Hereford Sports Centre Ltd. With the parachutists and the Aero Club we each have autonomy and the umbrella organisation looks after the airfield, clubhouse etc, thus we have security.

We have remembered how to fly gliders again after a long, cold lay off. Easter weekend found the air round Shobdon full of happy pilots. Excellent thermals on Saturday and Monday saw members and visitors up in wave for hours with sparkling visibility.

There is the usual spring syndicate ring-a-roses going on. A Vega has arrived with another expected, plus a carbon Mini Nimbus. A group of early solo people have bought a K-6CR and the new club K-8 is delighting everyone with its ability to outclimb the exotics and its charming docility.

Our next excitement will be hosting Competition Enterprise from June 16-24 when we look forward to showing off an exceptional site.

R.P.

INKPEN (Thruxton)

With the exception of July 8 we should have a clear run of weekend flying until September 9 (unless BARC have other ideas), which gives plenty of opportunity to emulate Bill Murray. He kept the Oly 2B aloft for over two hours on Easter Sunday to complete his first Bronze leg. He also soared to over 6000ft, but alas no barograph and so no Silver height.

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After several years of static prices we have had to revise aerotow and soaring fees, but the reciprocal day membership is reduced to £1 for the benefit of all those lovely visitors.

B.J.E.

KENT (Challock)

Following the snow, the first weekend in March produced some good soaring. We were again lucky at Easter when there was thermal soaring, including a couple of sea breeze fronts, on all four days. Easter Monday was the best cross-country day and Ray Smith achieved Silver distance to Ringmer on the first attempt in his Syklark 4.

Terry Bramfitt has transferred from being course instructor to the workshop as assistant to Peter Kingsford, his former job being taken by John Downes from the RAF.

We welcome Ron and Wendy Goodyear from West Kingsdown who have taken over the catering and bar from John Wise who left in March to work in the engineering industry. Our thanks to John for his efforts.

The annual club expedition to Portmoak was alas unsuccessful in terms of Golds and Diamonds but we understand an enjoyable time was had by all.

D.H.

LAKES (Walney Airfield)

The severe wintry weather has restricted flying. However, behind the scenes our highly valued "hard-core" members have been busy rebuilding the winch on a recently bought lorry chassis so that it can once more move under its own power.

A lot of work has also been done on the Super Cub – new control wires, new prop, new Pawnee disc brakes and the struts sonic-tested. It is now one of the best tugs in the country!

E.G.A.

LONDON (Dunstable)

The club's spring expedition to Shobdon was a success in terms of Gold heights gained by Tony Southard and Peter Milner (SHK) and Bob Christey (ASW-20). Best height went to John Cardiff at 18 500ft.

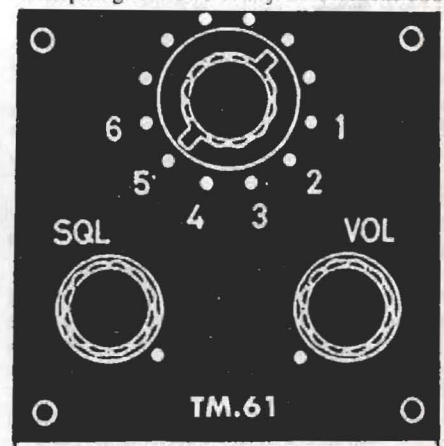
Dunstable's Easter Comp promoted a number of people to start their season's cross-country flying, resulting in a number of tasks successfully completed and rather more interesting, or frustrating, outlandings. The ever-active Bob Christey, however, had already been to fetch the Lasham plate and this was collected on Easter Monday by a nice Lashamite in a BG-135 who promised to clean it for us.

F.K.R.

MIDLAND (Long Mynd)

The end of a long hard winter was finally celebrated (we hope) with the annual dinner-dance. Trophies were presented to John Stuart, Addie Brierley, Heather Stephenson, Chris Ellis and Tony Jones. All the other trophies were won again by either the CFI or his syndicate partner, with the exception of the Maxam trophy for long and valued service which was awarded to Ron Hayes. Many thanks to Pam Allsop for her excellent organisation.

More recently one of our retrieve winches was transported to Portmoak where our winch driver, Peter Salisbury, and ex-course instructor, Gary Polkinghorne (who is shortly taking an instructor's job in Vermont, USA), demonstrated its use. (See Scottish Gliding Union's report). Despite a very rudimentary main winch and uninspiring weather, nearly 50 excellent and



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fumble free launches convinced those on the site that our winching system would admirably solve their launching problems.

The cross-country season started with Bob Scarborough completing Tim's triangle (Ironbridge, Ludlow) in 1hr 25min. On the same day Anne Crowden gained her Silver height.

The following day members were faced with the unfortunate problem of de-rigging a K-8 which was 20ft up in the trees. I'm happy to report that the pilot was uninjured and the aircraft sustained much less damage than would be expected.

Finally congratulations to Malcolm Allan, Addy Brierley and John Stuart on successfully completing their instructors' courses.

D.L.W.

NEWCASTLE & TEESSIDE

Norman Revell, CFI, reported at the AGM in March that the number of gliding hours was the highest since 1964. There was a total of 452hrs (not 352 as reported in the Annual Statistics in the February issue, p24) which, despite the poor weather, reflects the success of revamping the club fleet a year previously. A record average flight time over the year was 17.5min and Alan Henderson also reported record profits.

Bill Irving has taken over from Geoff Turner as Secretary. Our thanks to Geoff for his enthusiasm and energy during his three years in office. Geoff, together with Mark Stokeld and Ken Cutty have acquired a Skylark 3F. Ken receives our congratulations on completing Bronze C and our thanks are again due to Don Harker and Peter Lloyd for their immense amount of work in doing the club fleet's Cs of A.

Norman Revell's course last June was a great success but the remaining courses were disappointing due to the poor weather. There were several very enjoyable social evenings in the clubhouse during the year.

W.R.I.

NORFOLK (Tibenham)

Nearly 150 members and friends enjoyed our annual dinner-dance which was the usual great success. Mike Watson collected the President's trophy, the Chairman's cup and the Whisky cup (always mysterious in its newspaper wrapping) for cross-country flights during 1978. The James Stewart book prize and the Geriatric cup went to Shirley Evans and Evan Harris respectively, as youngest and oldest first soloists of the year. Ron Brown and Ivan Esgate received well-earned cups for hard work done for the club.

Robin Combe's beautiful mill and fish farm at Glandford were again the scene of our Easter two-day fund raiser. This year two K-13s and the Superfalke provided many passenger flights over the picturesque North Norfolk estuaries from nearby Langham airfield, giving us all a change from Tibenham. Many thanks to Langham's owner.

Each year the club ladder rules are tightened up a bit in time for our task week in May. It's 350km to Rouen, our sister club in France – could anyone get there? *Peut-être.*

Saturday, April 28, is Sport for All Day and we expect to give 70 or more air experience flights. This event is an excellent source of new members which are needed to keep our two dozen instructors busy.



Finally, if you would like details of how we installed our underground fuel tank, they may be obtained from the BGA.

M.T.B.

OXFORD (RAF Weston-on-the-Green)

The use of our airfield for sport parachuting at weekends is on the increase. There are now two Cessnas operating in relays and this hits our launch rate badly, particularly since we operate alongside our friends the Chilterns Club and share the available launch slots with them. The winch has been the only launch method allowed to us for some years and now we find that because of the parachute DZ we are sometimes restricted to a fairly small sector of the circuit in which to search for that elusive first thermal.

The Easter weekend weather was very good for a change and the first entries appeared in our cross-country log. The most notable success was David Haigh's Silver distance and duration flight to Lasham in the K-8.

P.H.

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RATTLESDEN (Rattlesden Airfield)

Now that full planning permission and all the legal aspects of our new hangar have been sorted out we hope to get the building erected during May. The odd weekend that has produced some fine weather has brought our first solo this year, Ron Westrup. Eighteen-year-old Sarah Lee (daughter of our Hornet pundit and ever calm instructor Mike Lee) obtained her C certificate. Steve Kiddy finished off his Bronze at the Norfolk GC and Mike Moyes completed his at Rattlesden.

M.R.M.

SCOTTISH GLIDING UNION (Portmoak)

Despite the below average weather, we have at least had frequent hill soaring and the odd spot of thermal and wave. We were fortunate in early April to have use of the Long Mynd winch retrieve system at Portmoak for a weekend trial which went splendidly. Implementation of our own similar system is now going ahead at full speed. The Board are grateful to the Midland GC for their help, co-operation and advice.

Work will start soon on the final stages of the new runway in the north field. When the strip comes into operation later in the year it will significantly increase our operational flexibility and help to alleviate erosion problems.

Our new self-service catering system, offering a wide range of meals and snacks, appears to be very popular.

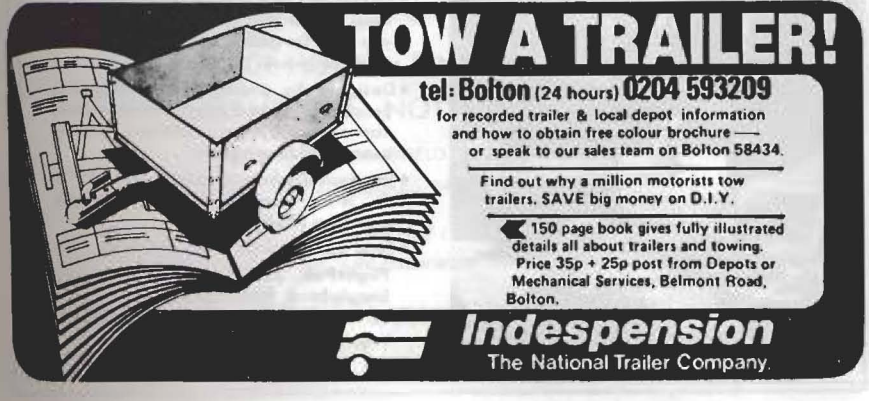
R.H.

OBITUARY

THOMAS ARNOTT MOFFAT

Tom Moffat was killed in a light aircraft accident near Shoreham on March 11. Typically, at the time, he was helping out by ferrying the aircraft which crashed.

From the time he was an ATC cadet in Scotland during the war, Tom was fascinated with flying, starting in earnest by learning to glide in Germany with the RAFGSA. He was not satisfied by just flying: he required to know not only how, but also why, and why not. It is not surprising that he became involved in instructing, both with the ATC and with the various clubs with which he was connected over the years – he was a precise pilot and a demanding taskmaster, but more importantly he was a sympathetic and helpful instructor. He was not a clubroom pundit, but he was always willing to explain and justify his techniques to the most basic beginner – and they worked. He



never forgot where his interest in flying was really kindled and perhaps his greatest pleasure was to encourage a similar interest in the hundreds of ATC cadets whom he sent solo over the years.

Tom was, however, much more than that – he was worker, helper, enthusiast and above all friend and companion to those he glided and flew with. There was almost no effort to which he would not go to help those around him, particularly when the going got sticky, and regardless of the fact that he had probably started work in his bakehouse at 4am the morning before appearing at the airfield.

We will not just remember Tom for that – he was an individual, a character, a personality. We will miss the wide grin below the glasses and moustache, whether in the two-seater, the tug or through the smoke near the bar. His death has left a gap which won't be filled. Never again will we see the Moffat caravan near the clubhouse with two empty bottles of Glenmorangie by the step, and a small note "only 1 pint today please".

Our sympathy goes out to his wife and two daughters and all those whose hearts are heavy at his going.

R. D. Carswell

STAFFORDSHIRE (Morridge)

The last two winter lectures were "Starting at the Bottom" by Barry Gilman about his holiday at Cairngorms GC and "Soaring at Morridge" by Ken Whitton. We sold our Swallow to Peter Skinner who soloed last year and gained his PPL recently. Our request for a loan from the Philip Wills fund was granted to enable us to develop our site.

Even with the problems of a smashed retrieve winch, worn main winch and damaged K-13, our Easter was the best we have had at Morridge. Eddie Willis flew the K-8 for the first time and Cedric Meir (Olympia 419), Ken Whitton, Joe Yarwood (K-8) and Peter Foster/ Bill Hughes (K-13) all managed about an hour on the Monday.

P.F.

STRATFORD ON AVON (Long Marston)

Only the odd flying day was lost due to the bad weather this winter but the launch figures look pretty sick. However certain members have worked enthusiastically on the clubhouse which now only needs a lick of paint and the water connected.

The first cross-countries of the season were by Gerald Kelly and Eric Gould who whilst practising field landing checks were forced to turn it into a reality near Stratford, followed by Geoff Knight in the adjoining field. Peter Gaunt flew to Nympsfield for Silver distance over Easter, only to find his barograph was not recording.

Roy Williams has his five hours after a number of years, Fred Haines (K-2) has two Bronze legs, John Dutton passed his instructors' course and Richard Newton and Graham Blower have gone solo. Our congratulations to them all.

We have a flush of new members to start the season. Non-residential courses are being run in July for the first time and we welcome camping or caravan enthusiasts on these with prior notification necessary.

The AGM was well attended in March when Nev Skelding took over as Secretary and Tony Edlin replaced Bob Abel on the Committee.

H.G.W.

STRATHCLYDE (Strathaven Airfield)

At first you may think this is a new club. After many years of a very happy and successful co-operation on the same site the Lanarkshire GC and the Universities of Glasgow and Strathclyde GC have overcome the technical difficulties and on November 21, 1978, they amalgamated to become the Strathclyde GC.

We operate from Strathaven airfield and although we are a small club by some standards our friendship and enthusiasm more than make up for our lack of material assets.

We have a modern centrally heated clubhouse and a fleet which is very successful for the site – a Motor Falke, T-21, Prefect and Swallow. This year we hope to extend the runway and who knows where this will lead!

M.E.

STRUBBY (Strubby Airfield)

Congratulations to Tony Staton on going solo and our thanks to the rope for giving over 460 towcar launches.

We have Sports Council courses organised during May, June, August and September. Incidentally, if you want to know where we are try 53° 19′N 00° 11′E.

M.B.

SURREY & HANTS (Lasham Airfield)

The snow drifts were replaced by floods and rain. However, Easter did us proud. Our fettling team of John Davies, Richard Thorley and Keith Lines, fresh from their ice encrusted expedition (moderately successful) to Portmoak, are now leading the club in experimental circuits and bumps in their new Mosquito and the Kestrel 19. All four Easter holiday days were very soarable with all the fleet active.

The longest flights were, of course, by Hugh Hilditch and Alan Purnell who went to Saltby and Coalville and return, about 350km each. The more local good weather brought many Silver legs including a 51.7km to a hill near Upavon (!) and a height gain of 5900ft with local cloudbase at 7500ft asl.

Weekend tasks are now a feature with a special briefing room equipped by "COMPASS", the local cross-country promotion team of Chris Garton, Paul Thompson and others – a very good idea.

C.L.

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ULSTER

Any flying we lost during a bad February and March was more than made up during a very successful nine-day camp at Bellarena over Easter week, in which Dublin visitors with three aircraft joined. It began warm and sunny though only marginally soarable but developed into some days of excellent ridge soaring with some weak wave in which Mike Miskimmin achieved both his Silver C duration and height with an ascent to 5700ft.

Very welcome visitors were the Coventry GC's CFI, Ron Davidson, who Austered in for a few days; a ridge buff from Camphill, Dave Baldwin; and, for the last four days, BGA Director of Operations, Bill Scull, who came to put our instructors on the grill and whose visit we very much enjoyed.

Bill was able to witness the first solo of perhaps our quickest-ever learner, Jerome Connolly, whose persistence in rousing tug pilots, instructors and manhandlers from their tents in the grey light of dawn, to beat the others on to the flying list, paid off. He made his maiden solo on the last day, having begun the week with only five launches logged. Other soloists during the camp were Diane Foster and Conly George.

Our project to erect a small hangar has encountered a slight planning hitch and instead of our beginning work at Easter, as we had hoped, it is now likely to be late May before it is



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erected. Nonetheless, we are grateful to the British Light Aviation and Gliding Foundation for a loan of £2250 to match a Sports Council grant for the other half of the cost.

R.R.R.

WOLDS (Pocklington Airfield)

This spring five gliders were taken to Portmoak for some good ridge soaring and several members achieved badge flights. Bob Fox and Brian Stott gained Gold height and Heather Norrison, Grant Johnson and Byron O'Neill their five hours. Moni Chana, flying with Brian Spreckley in a Twin Astir, reached 16 500ft, the best climb of the visit.

To encourage more cross-country flying from the club we are again having a task week, from May 28-June 2 and four gliders are entered in the Northern Regionals. A club K-7 has also been entered in Competition Enterprise to be piloted by an instructor and navigated by solo pilots.

The AGM was in March and our thanks to the retiring members of the Committee, Byron O'Neill, Brian McFadden, Bill Young and Dennis Oxenham, for their hard work in past years.

A.J.B.

YORKSHIRE (Sutton Bank)

We were privileged to have Dick Stratton as guest of honour at our annual dinner in early April and a capacity crowd of 112 enjoyed the evening immensely. The snows retreated only a few days earlier, but have since rapidly vanished.

It has been very poor flying weather and this has slowed down training in particular. Congratulations are due, however, to John Shanley, one of last year's course members, on gaining Bronze C.

Club Chairman, Geoff Crawshaw, together with Board Member, John Hayes, will be retiring at the AGM, Geoff after nine years in various posts on the Board. We thank them both for all the work that they have done for the club and wish good luck to their successors.

E.S.

Service News

ANGLIA (RAF Wattisham)

At last we have a K-8 on the field again. On the first flying day since its arrival Andy Queen gained his first Bronze leg.

Our T-21 (238) is 21 years-old on June 19 and along with our midsummer madness we will be celebrating this happy event. Anyone who has flown this aircraft at Anglia or its former homes – Windrush (Bicester), June 1958 – February 1965; Bannerdown (Colerne), February 1965-July 1967 – will be very welcome to attend.

John Sullivan and Mike Taylor joined the Fenland expedition to Portmoak. They didn't have any wave but some good ridge and thermal soaring.

M.T.

BICESTER (RAFGSA Centre)

Despite the poor winter and early spring weather it has been flying much as usual at Bicester with some rewards for those who braved the arctic conditions. About a dozen pilots gained A and B certificates; Steve Brownlow joined the select company by qualifying for his on his 16th birthday in mid-December. Occasional soaring days in March and April have allowed some Bronze duration flights, mainly by visiting pilots on Joint Service Adventure Training courses. The first cross-country flights in early March suggest better things to come.

Don Loucks Snr, a family member by virtue of his son (an American Air Force F1-11 pilot who also flies at Bicester), showed all the younger pilots how to cope with weak wave on February 3 and made the longest flight of the day to complete his Bronze C. His other one hour duration was a flight on December 30; again the day's longest!

There was no autumn expedition to Aboyne in 1978 but six pilots with two aircraft made the long hauls separately. Their rewards were around 40hrs of good wave flying and Diamond height gains for Paul Bolton, Nick Murphy and Ken Stephenson. Nine members made a March expedition but this was much less successful with only one flight to 10 000ft in the fortnight.

The ridge expedition to Nympsfield in late March also had poor weather. Frank Chapman braved rain and snow showers for a duration flight. Despite the difficult conditions, including a 30kt crosswind on one of the three flying days, around 30hrs flying were enjoyed without incident by the 14 members who took part.

The newest arrival, in time for Easter, was the long awaited Vega. It had been rumoured that the Easter party was to celebrate its coming.

J.W.

CLEVELANDS/HAMBLETONS (RAF Dishforth)

Our last write-up had some negative thoughts and low morale in its make-up but one good day's wave on March 11 after long periods of bad weather has changed that, giving us four Diamond heights, three Gold heights and the club's first 300km wave flight from Dishforth when John Taylor achieved Gold distance and Diamond goal. Eric Roberts also completed his Silver C with a 70km flight from the same wave.

This year we have the highest ever number of people entering National and Regional competitions, one of which is our CFI, Roger Crouch, flying the ASW-20 in the French Inter-Services. We wish them all good luck.

The main runway is to be re-surfaced in June which will close the station to "Jet Promises". To take advantage of this we hope to run *ab-initio* courses during that period.

We were hosts to the Vintage Glider Club over Easter and although we didn't have as many old machines as expected, it was a success. The weather was fine and we flew every day of the holiday. We were pleased to have Dick Stratton, BGA Technical Officer, with us over the Easter holiday and his hard work in getting the Tug Maintenance approval scheme settled is good news.

J.A.S.

EAGLE (Detmold)

Although we didn't reap many rewards on our trip to Issoire in February (one Gold height) we had an extremely interesting and enjoyable time. Several of us flew the Wassmer 28 Espadon and the Siren Silene (the one shown in S&G, February, p6). We were given a tour of the Issoire Aviation factory and toured the countryside, skiing and mountaineering.

We flew at Detmold for the first time this year

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on April 8 as the airfield was waterlogged during the winter. We now have a full fleet again after a very extensive servicing programme and our thanks to those who turned up on cold wet weekends to help. The Falke looks especially smart after being revamped and resprayed. Our Swallow is on temporary loan to Gütersloh after an unfortunate incident with their K-8 at Vennebeck.

Our future here is looking a little uncertain. The authorities have nearly completed the 7ft high security fence round the airfield which will hamper our operations when flying from the east end. They have also threatened to close the workshop which is soon to be demolished. We have started looking for another site, Hildesheim seeming to be the best so far, but we hope a move won't be necessary for a while yet. The BFG Comps are being held here from May 24 to June 7.

Finally congratulations to Alan Thompson on passing the instructors' course at Brüggen recently.

J.F.B.

EAST MIDLANDS (RAF Wittering)

The year started promisingly with weak wave in January and strong thermals in February, interspersed with blizzards. Four members completed their Bronze, Pete Butt, Dick Cadd, Nick Marsh and Jeremy Parr. Easter saw better weather, during which Ian Gill completed his Silver with a flight to Four Counties at Syerston.

Work on the ground equipment continues at the same unending pace, with the second winch almost ready and the aircraft being prepared for the Inter-Services Regionals.

We have had to say goodbye to Pete Carr, one of the harder working members of the club, on his move to Germany. His expertise will be sorely missed.

I.M.G.

FULMAR (Kinloss)

We managed a mini expedition to Portmoak in March, thanks to Ben Benoist letting us tag on to his Marham expedition, but the weather prevented us from achieving much. Unfortunately our Astir trailer was slightly damaged on the journey home after it jack-knifed in the snow. Luckily, after we mustered enough courage to put a saw through it, the repair was quite easy.

Eric Smith and partner are having a last minute panic to finish building their Astir trailer in time for the Inter-Services Regionals.

We were glad we had just finished rebuilding our spare winch engine when the trailer winch sheared yet another cam shaft and timing gears.

We wish Alan and Sue Mellor the best of luck with their posting - they will be flying at Dishforth. Congratulations to John Long and Chris Kingshot on gaining the first Bronze legs of the year and belated congratulations to Jan Everet who achieved her A and B in September.

R.G.H.

PHOENIX (RAF Brüggen)

We have had a crop of early badge achievements: first Bronze leg of the year went to our musician, Andy Jenkins, and since then Bronze legs have been accomplished by Jenny Wilcox and Paul Guthrie with Silver heights by Steven Wall, Al Stacey, John Harriss, Benny Herbert and Andy Smith. A number of 50km attempts have been made, all of them interesting but lacking in success!

We ran the first ever RAFGGA instructors' course under the guidance and extremely close control of CFI, Kev Kiely, in two long weekends at Brüggen with mid-week flying at Venlo: KK was aided and abetted by Phoenix instructors and John Jenkins and Al Eddy from Gütersloh. The course was very successful with professional lectures each evening and the RAFGGA gained six Assistants Cats, Oscar Constable, Liz Kiely, Jim Nash, Alan Thompson, Phil Willsher and Mick Wilson - congratulations to them all.

Our expedition to Sisteron, although missing out on the Diamonds, was extremely successful - we flew 239hrs with four aircraft on ten flying days and badge achievements were: Carol Simmonds (Gold height), Derek Ballard, Pete Haig and Colin Davey (duration) and Pedro Parent and Danny Peterson completing all three Silver legs. We had super thermal, ridge and, on the last day, wave conditions. In addition to the high utilisation of aircraft we achieved 2030km of cross-country mountain flying - a most exhilarating experience. Wave climbs in excess of 4500m were made by Kev Kiely, Bill Tootell and Roy Thompson. The Sisteron Club instructors were extremely co-operative and took Pedro Parent and Danny Peterson to 5000m amsl and Ian Macfadyen and Derek Ballard round a 120km circuit of the mountains on a check ride! Our thanks to the Sisteron Club and our gratitude to Eddie Wright, Neil Stagg, Dick Hunt and Michele Tootell for looking after the shop while we were away.

We welcome glider and Jaguar pilot Nigel Demery as the new O i/c Gliding at Brüggen and we say a sad farewell to two hard working members, Dick Hunt (Ass Cat and MT) and Colin Davey (Bar and Social) and wish them well on their return to the UK.

W.T.

PORTSMOUTH NAVAL (Lee-on-Solent)

While the bad weather limited our flying it brought a bonus by enabling Fred Stephenson and his team to keep ahead with maintenance on the aircraft. A considerable amount of work was put into refurbishing the bar by Ray Lambourne, Kevin Bradford and their helpers, the improvements being completed in time for our Valentine Night dance.

During the last few weeks we have relied on our winch for launching as the Chipmunk went sick and is waiting for spares and both Austers are on C of A.

Congratulations to Les Groves on gaining his full rating and to Paul Groves on going solo only one week after his 16th birthday. Paul is our youngest solo pilot for some time.

At our AGM Dave Wadham joined the Committee and Keith Morton left. Patsy Dimock presented the club trophies to the following: the Goodhart trophy, "Nobby" Clarke; Corner cup, Richard Fox; Instructors' and Tug Pilots' trophy, Les Groves Snr and the Heyford trophy for the most alert pilot to Mac McCallum for a field landing at Blackbushe on a flight from Reading to Odiham.

H.C.

WREKIN (RAF Cosford)

A sponsored climb to 13 000ft asl by our syndicate Blanik in the Vale of Clwyd has raised over £550 for the Philip Wills Memorial Fund. (See "Cold Climb Over Clwyd", p107).

A successful soaring week in April gave Mick Davis, John Richardson and John Marriot the opportunity of cross-country flights, Steve Bunting gained Silver height and Paul Griffiths his Bronze leg.

We say goodbye to John Marriot who is joining the Fenlands GC.

P.G.

WYVERN (RAF Upavon)

This year we were hosts for the Army Gliding Association's AGM. It was a great success with a large attendance at both the meeting and party afterwards.

We are busy preparing for the Inter-Services Regionals. The K-6CR trailer in particular has been extensively restored, thanks mostly to Bill Bailey, trailer member, and Major Terry Colvert who is flying the K-6CR in the Comps.

Four of our members have formed a syndicate and bought an Olympia 2B from Bicester. Our main retrieve vehicle, which has been off the road since the cylinder head cracked in the extreme cold weather despite having antifreeze in it, is back in service again thanks to Ray Hornbuckle.

Congratulations to Colin Hornbuckle on going solo on his 16th birthday.

J.S.

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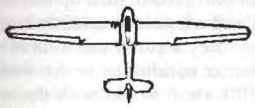
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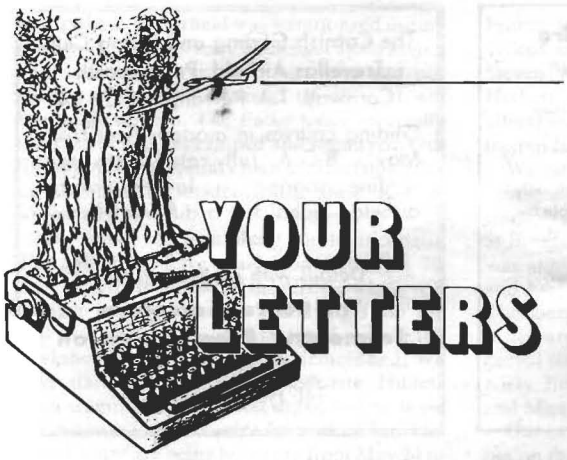
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NAOMI SENDS HER THANKS

Dear Editor,

Now I have handed over as BGA Development Officer I would like to thank publically the many club officials and club members who have, without fail, given me a welcome when visiting and have been so helpful over development matters. This has made my work so very pleasant for the last ten years and I will miss it.

Bill Scull will now be dealing with the operational side of development and Barry Rolfe with the administration. I am sure they will give you all the support you need.

I am continuing my connection with the BGA as FAI Certificates' Officer on a part-time basis. Again thank you all.

NAOMI CHRISTY

HOW ABOUT A USA GLIDING HOLIDAY?

Dear Editor,

Back again from another interesting visit to the USA, I felt I just had to write and tell you of some of the wonderful opportunities for soaring holidays in that country.

This year the Soaring Society's Annual Convention was held in Chicago and once again I was invited as a guest speaker to both the business and commercial operators and the instructors' meetings. Again I was almost overwhelmed by the hospitality and welcome I received.

Highlight of the Convention for me was the talk by Dr Eppler on future developments in sailplane design in which he compared the relative merits of various types of flap and area changing devices. In particular he emphasised the cost effectiveness of the elastic flap as used on the new Speed Astir and, of course, on the earlier Jantar designs. Dick Johnson once again had an enthusiastic audience as he explained his techniques for performance testing and it was great to be able to listen to these two real experts describing their work and experiences.

I was also able to make another visit to the Schweizer plant and to be the guest of Paul and Ginny Schweizer and of Jim Short, their assistant sales manager. Before leaving Elmira I attended a regional meeting of instructors from all over New York State, many of whom had helped with the 1968 Nationals at Elmira when I had flown the "tin tragedy" (T-53).

Chicago was in the depth of a cold spell with the remains of over three feet of snow around the Convention centre. This did not stop many distributors bringing their latest sailplanes hundreds of miles and in some cases over a thousand, to be rigged and on display in the Convention hall. It was good to see a very smart Slingsby Vega attracting a good deal of attention and, I hope, potential sales.

The four days of the Convention went only too quickly and we said our farewells and waved away the trailers on their long journeys home. In my case I was to move on to Caddo Mills near Dallas in Texas (where men are men and women are glad of it – so they say!). This is the home of a really active bunch of soaring enthusiasts which have included famous names like Dick Johnson A. C. Williams, Marion Griffith, Fred Robinson and many others.

At Caddo Mills, A. C. runs a large commercial soaring school and he had arranged instructors' seminars for the two weekends. This involved me giving lectures on instructing, sailplane limitations, spinning etc and answering the inevitable questions from the audience of pilots who had travelled hundreds of miles to attend. Between the weekends I had a go at the commercial glider pilots' licence and the instructors' rating in order to legalise my position if I should want to instruct at a commercial school in the USA.

This was my second visit to Caddo Mills and I was able to get to know the pilots I had flown against last October when I had been up in a 1-35C, Schweizer's club version of their high-performance 15m flapped sailplane. This is a really nice handling ship with a good performance but with only a powerful plain flap for approach control. On the day in question I had soared for almost 3hrs in super conditions. Cloudbase was low (they said) but I stayed between 5-6000ft using the 3 to 4kt thermals under every cumulous. Virtually no one had bothered to turn up let alone rig and fly on this excellent day when in England we would certainly have been trying for a 300km triangle! In the season, they assured me, almost every day has an 8000ft cloudbase with much better conditions to the west about 50 miles away. Normal thermal strengths are 6 to 8kt with the occasional strong thermal on good days and 300km in 3 to 4hrs is just routine in a good sailplane.

Silver C distance is just two airfields away with no excuse for a field landing. Anyway the fields are mostly very large and flat. It sounds like heaven doesn't it?

All this set me thinking and when I compared the costs with my trip to Chateauroux and Fayence last year I realised that there might well be some English pilots who might like to try a soaring holiday in Texas. Certainly if you compare it with a holiday in the Mediterranean or taking a glider across to France to get better soaring conditions than in England it is not really so expensive. At least you can be certain of being able to stay up all day and fly when you want to.

Considering a two week holiday at a place like Caddo Mills, first of all you will need medical insurance which costs £12 per person. The air fare will be about £180 if you book in advance or take a chance and go standby. Flights go direct from Gatwick to Dallas and are very comfortable with good meals. Best to go with another pilot or small group to make it economic to share a hire car as they cost about £7 per day plus fuel (about half English prices).

Food is not much more expensive than ours if you choose your restaurant and limit yourself to two good meals a day. (Allow about £5 per day.) Motel accommodation is good with all mod cons, colour TV etc in all rooms for about £8-£9 per night for a double room. Then the only other expense is the flying.

Aerotows are about £4 per 2000ft launch using 180hp Super Cubs. Hire of the sailplane is generally on an hourly rate with a maximum payment for 4hrs so that on the basis of flights of about 6hrs or more it is not unreasonable at between £6 and £10 per hour. Most of the schools have both 1-26 and 1-35s which are all metal and handle quite nicely. You certainly would not want to fly every single day in those fantastic conditions but you could guarantee weather for a complete Silver C, if you have a Bronze already, and 300km is quite possible on many days each week, even in the lower performance 1-26.

My syndicate members are already booked for their holidays, why not join them?

DEREK PIGGOTT

Lasham.

MORE ABOUT SITES

Dear Editor,

I was pleased to see in the last issue the letter from Mr Fox ("The Problem of Sites", p88) that indicates some members of the gliding fraternity not directly involved in the site problem are concerned at the present trend.

Our club is a typical example. We started in 1964 on a disused airfield site and never had any security. The airfield was sold in 1976 for £75 000 for hardcore; we are now operating in a very restricted way at another disused airfield. Even if we could have raised the capital to purchase the previous site we had no permanent planning permission and the combination of a planning permission and the opportunity to purchase a site is a very rare thing in our area.

We now have obtained planning permission, following a 16 month battle for a site at Marchington. This is part of a disused army camp and although it would need a considerable amount of work we estimate that a first class site with hangarage could be obtained for approx £70 000. The major difficulty is in raising sufficient pressure, either political or simply in weight of numbers, to persuade the Property Services Agency to move at more than snail's pace, the Sports Council to give sufficient importance to a grant application or even a bank manager to take our plans seriously.

Although the BGA and Naomi Christy in particular, have been extremely helpful over the years, I feel that the gliding movement suffers

from a very insular approach. An established club is not particularly interested in the problems of a small club at the other end of the country and, although in the short term this is understandable, the long term effect is to reduce the overall amount of gliding and this will affect all clubs. What I believe is needed is a national approach with a programme for a number of sites over the country with pressure from the whole gliding movement on politicians, men from the Ministry etc. It needs to be a BGA approach acting for all glider pilots rather than one small club with a letter of support.

I feel that once a site is purchased, finance for development can be found. It is the initial problem of raising capital, often for an auction without a fixed sale date or price that is the big hurdle. The Philip Wills fund is a good start but I see there is at present approx £2000 in the kitty. I feel this fund, or a similar one, should be restricted to the purchase of freehold land and we should aim to have £100 000 in the kitty. The aim should be to use this capital as a buffer for the time between a site being sold and a local club or group of clubs to organise themselves to raise capital and repay the loan.

Burton-on-Trent, Staffs. R. J. STEWARD (Burton & Derby GC)

CONTROVERSY ON COMPETITION NUMBERS

Dear Editor,

With reference to correspondence in the April issue ("Competition Numbering" p9), I would like to add my plea for a system of only two symbols for identification of gliders.

Using a combination of 26 letters of the alphabet with eight numerals (missing out I and 0) we have 34x34 = 1156 two-symbol identifications. Why should we be lumbered with three letters until the 1156 have been used?

Identification of gliders during competitions would be much more simple and this is so very important, as is also remembering the letters of personalised gliders on the ground and in the air. Most pilots would prefer to have their own initials and to transfer as new gliders are purchased, I am sure. Club gliders could be identified by Lasham L1-2-3, Army by A1-2-3, Naval by N1-2-3, RAF by F1-2-3 and so on *ad infinitum*.

Before Keith Mansell finalises the three letter system I think that he should give the whole of the competitors in this country the chance to vote on his system or mine. I hope that those who agree with me will make the request for this referendum to be held.

Gosport, Hants. HUMPHRY DIMOCK

AN EXCHANGE OF NEWSLETTERS

Dear Editor,

For some years now our club, Blackpool & Fylde, has been publishing a quarterly (more or less!) newsletter which not only carries the duty crew rota and news of meetings, work schedules and committee business, but articles by members on memorable flights, humorous incidents and instructional matters.

We occasionally get a copy of some other club's equivalent *via* visiting members, but are any other Newsletter Editors or club Secretaries interested in setting up a regular exchange? If so, please write to me at 14 Burnside, Parbold, Nr. Wigan, Lancs, and I will make an exchange list which each club can add to its mailing list, sending say two or three copies of each publication to be displayed in the clubhouse or circulated internally. There is always something to be learned, and the literary talent of some of our members surprises me.

D. W. SEED.

A CLASS FOR OVERSIZED BLOKES!

Dear Editor,

I was very interested to read the article on Ultralights by J. L. Sellars in the April (The Ultralight Enigma, p70) issue. This is the sort of gliding I have always felt I should like to end my days (not literally) doing.

However there are several points I should like to comment on. First it does seem rather parochial to base the specification for a new International Class on the length of the average British garage! There must be a better criterion than this. Even a glider of the size proposed by Mr Sellars is going to need a trailer for retrieves and could be stored in that.

Secondly I note that the design payload of the suggested specification is only 165lbs. Now I weigh considerably more than that and I'll bet a good many other pilots would, especially with warm clothing, gloves, helmet and goggles.

Thirdly the rather dismal performance of the specification does not attract me greatly. Surely some of the most advanced rigid wing hang gliders can achieve this now? And look what is claimed for the American Eaglet.

Finally I realise that a Class has to be defined in some way or other but what is so terrible about an empty weight limit or, say, a 12m span limit which would allow us oversize blokes to fly as well as those lucky few of 165lbs (clothed) or less?

Forest Row, Sussex NICK CRANFIELD

CAN ANYONE HELP?

Dear Editor,

I am an ex-Royal Air Force pilot now confined to a wheelchair through paralysis. My disability is very severe but I am quite mobile, fairly active and for the past 13 years have been driving automatic cars with the use of hand-controls.

In April 1978 I had some air experience flights with the London Gliding Club and fell in love with the K-13. I was even allowed to assist in a landing. Words are inadequate to explain the euphoria I found in those flights – just to get back into flying again! I'm seeking information on any pilot flying with the use of hand controlled rudders.

Perhaps someone in your readership has knowledge or the expertise to produce a control which would bring rudder function back to the left hand. All my thanks go to the London Gliding Club for "turning me on" once more.

Juniper, Old Brickyard Lane, Rye, Sussex TONY NORTHMORE



AEROTOWING

Dear Editor,

One day whilst under training at the London GC I was being towed towards the bowl on the north run. The down wash in the curl-over behind the hill dropped me to what seemed like 100ft below the tug. The instructor merely commented "ride her cowboy" and left me to get on with the recovery myself. There we were not allowed to aerotow solo until we had clearly demonstrated the ability to handle both a "normal" and an "exciting" tow.

This was excellent training for my recent trip to the wave at Colorado Springs where you aerotow through rotor to get to the lift generated by the peak 22 miles upwind. What made the rotor extra exciting was the glider I was flying - a Schweizer 1-35 with only trailing edge flap brakes like the PIK 20B. The tug pilot said my rotor was only moderate and told me the true story about the laconic radio message received one day. It simply reported: "Both tug and glider upside down in rotor." Now that's real turbulence.

As with anything else, good training and demonstrable competence are surely pre-requisites to going solo. It rather sounds as if Mr Hearne's Dart 15 pilot (S&G, December, p263) had neither.

Ontario, Canada. CHRIS A. BAKER

AN APRIL FOOL'S JOKE?

Dear Editor,

Heaven preserve us from citizens' band glider radio in particular and Mr Bibby's Association in general, (see the last issue "Citizens' Band Radio," p91).

It is questionable whether another air-ground channel is, in fact, justifiable on present utilisation. With the exception of a few weekend peaks during the height of the season in the Southern Counties, 130.1 MHz is quiet for a very large proportion of the time. An additional air-air channel using CB radio is surely a non-starter on the grounds of air safety? (Well it was like this God, I always use channel blankety-blank and didn't hear that other angel's cloud call on 130.4MHz!)

Once north of Preston Flight Information Region, it is a fact that even 130.4MHz is largely under utilised and in Scotland all traffic could at present be adequately handled on a single channel.

Regarding the problem of licensing such sets (we have to assume that HM Home Office will insist on this for our greater protection) - if radio amateurs, with their generally superior technical knowledge, are not allowed to operate whilst airborne then what hope have CB enthusiasts of doing so legally? Or is Mr Bibby trying to encourage the **illegal** use of radio for aeronautical communication? I make no personal imputation because I may not always he the perfect law-abiding citizen myself - but I do know as surely as Mr Bibby knows that CB radio operation in most of Western Europe is illegal - and I do **value most highly** the good repute and authority which has been earned by the BGA over many years. To condone the use of CB aeronautical radio would undoubtedly cause serious loss of respect of our Association in the eyes of the CAA, the Home Office and other such bodies upon whom the ultimate decision lies for being able to continue to enjoy our chosen sport.

On a more technical note, let us just assume - purely for the purpose of argument - that currently available CB equipment is to be allowed in gliders. It is a fact that almost all such equipment is designed to operate in the frequency modulation mode and is therefore totally incompatible with all other existing air-band sets (which are amplitude modulated) except by extensive (and expensive) modification. The implication is clear: a pilot must carry not one, but **two** radio sets together with **two** sets of aerials - one for each mode of transmission. No thanks, - one set can be trouble and expensive enough in my glider!

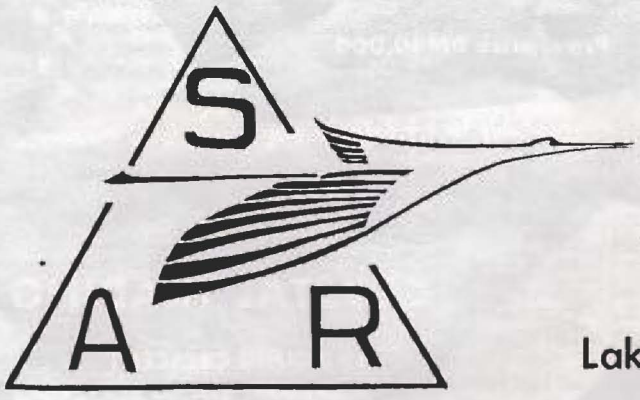
Accepting that available CB equipment was neither designed nor constructed with air traffic communications in mind, the spurious signal transmissions of some bands of CB tranceivers leave much to be desired. Agreed! - not all CB tranceivers are bad in this respect, but of the 200 plus types now available who is to say which are satisfactory and which are not satisfactory? Would the BGA? Would Mr Bibby's Association? Of course not. I will vouch that the Home Office, if asked, would answer "None!"

As most pilots are aware - transmission range is very dependent upon height. Even a relatively low power transmitter of less than ½ watt output can produce "loud and clear" signals many, many miles distant (typically 200 miles between two aircraft at 4000ft amsl or an aircraft at 10 000ft to a ground station). Likewise, any spurious radiations can and **will** produce interference with other transmissions at considerable distances. One would hope that no pilot would ever knowingly - or even unwittingly - hazard another aircraft by (say) making Air Traffic Control instructions unintelligible or unreadable.

If my recent experiences in the USA - where CB operation is rife - are any criterion by which to judge CB operation, then it is fair comment to say that the situation is chaotic and appears entirely out of control. I have no wish to attempt to communicate with my base airfield or my retrieve crew or anybody else over the incessant babble, whistles and other interference which is caused (typically) by two housewives carrying on an interminable "over the air" discussion about some new recipe and their children's ailments. (Sorry girls, no offence intended!) And remember too, if Mr Bibby's Association had their way, there would be thousands and thousands more CB tranceivers in the hands of untrained, undisciplined and often ignorant and selfish operators, in and around our towns and cities. At the greatly extended listening ranges afforded to all pilots by height - do they really want to "mix it" with such a babble?

No thanks, Mr Bibby! Please take your fight for the recognition of CB radio off gliding frequencies. I deplore your attempts to use the gliding fraternity in general as a lever to further the objects of the CB Association. Leave us free to indulge our own **two exclusive** and one shared channels and perhaps acquire by sound argument and other **legal** means a fourth channel as our need grows with our sport. It may be some small consolation to my fellow pilots to learn that since the American/Japanese CB on 27MHz is already allocated to other services in most of Western Europe, the "new channels" if ever allocated for CB use will of necessity be in the VHF/UHF spectrum. Thus, for "legal" operation, the immediate

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effect would be to make about 98 per cent of current CB radio sets redundant!

Glasgow — PETER G. BOWER

AN IRRESPONSIBLE ATTITUDE

Dear Editor,

What Mr Bibby fails to mention is the irresponsible attitude taken by many CB enthusiasts. At the moment there are thousands of sets being used illegally which cause havoc to many legal operators on the 27MHz band such as the radio control modelling fraternity. Several letters have been written to national newspapers by CB enthusiasts putting forward the argument that if enough people break the law by operating sets the GPO will have to allocate a band for them.

I am sure Mr Bibby and the Citizens' Band Association will be the first to agree that this is highly irresponsible. If you were to tune in to the 27MHz band you would be appalled to hear the idle gossip and obscenities transmitted. How could this be effectively controlled? I don't think it can. Even Mr Bibby suggests that you could inform other motorists of police radar traps, but surely any law abiding motorist need have no fear from these?

The gliding fraternity feel that their two channels for airborne communications are crowded. Imagine tens of thousands of CB enthusiasts on 40 channels – but then again don't! Let us save CB for the public and 130.1 and 130.4MHz for the glider pilots and may we feel privileged we can boast of our own private frequencies for sensible communications.

Skipton, Yorks — A. S. WALTON

A POTENTIAL MAJOR HEADACHE

Dear Editor,

I do not wish the pages of S&G to become another battleground on the subject of citizens' band radio, but feel that Mr Bibby's letter cannot go unchallenged.

I am neither for nor against a technically suitable form of citizens' band radio, but in its present form on 27MHz and used in the context suggested by Mr Bibby it can only, and will, lead to a situation which is now a major headache for many countries that have authorised the use of public radio communication.

Imagine, if you can, being interrupted halfway up a winch or auto-launch by a voice from the USA chanting typical CB chatter about "smokey bear" and "get the hammer down" etc. Yes, this is quite possible under certain conditions of anomalous propagation. Of course, if CB were ever given the go-ahead by the Home Office the likelihood of being able to use it in any form of aeronautical mobile situation is most unlikely.

The final point I wish to make against 27MHz CB is that many of the country's aeromodelling enthusiasts with radio control equipment are regularly losing very expensive models because of the illegal use of CB radio. I feel quite sure that no glider pilot would want to feel responsible for destroying several hundred pounds worth of model and radio gear through the irresponsible use of CB radio.

It seems that Mr Bibby is attempting to obtain signatures for his cause through the gliding fraternity which is adequately served by an efficient system on the VHF frequencies.

Horsham, West Sussex — JOHN R. MATTHEWS

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