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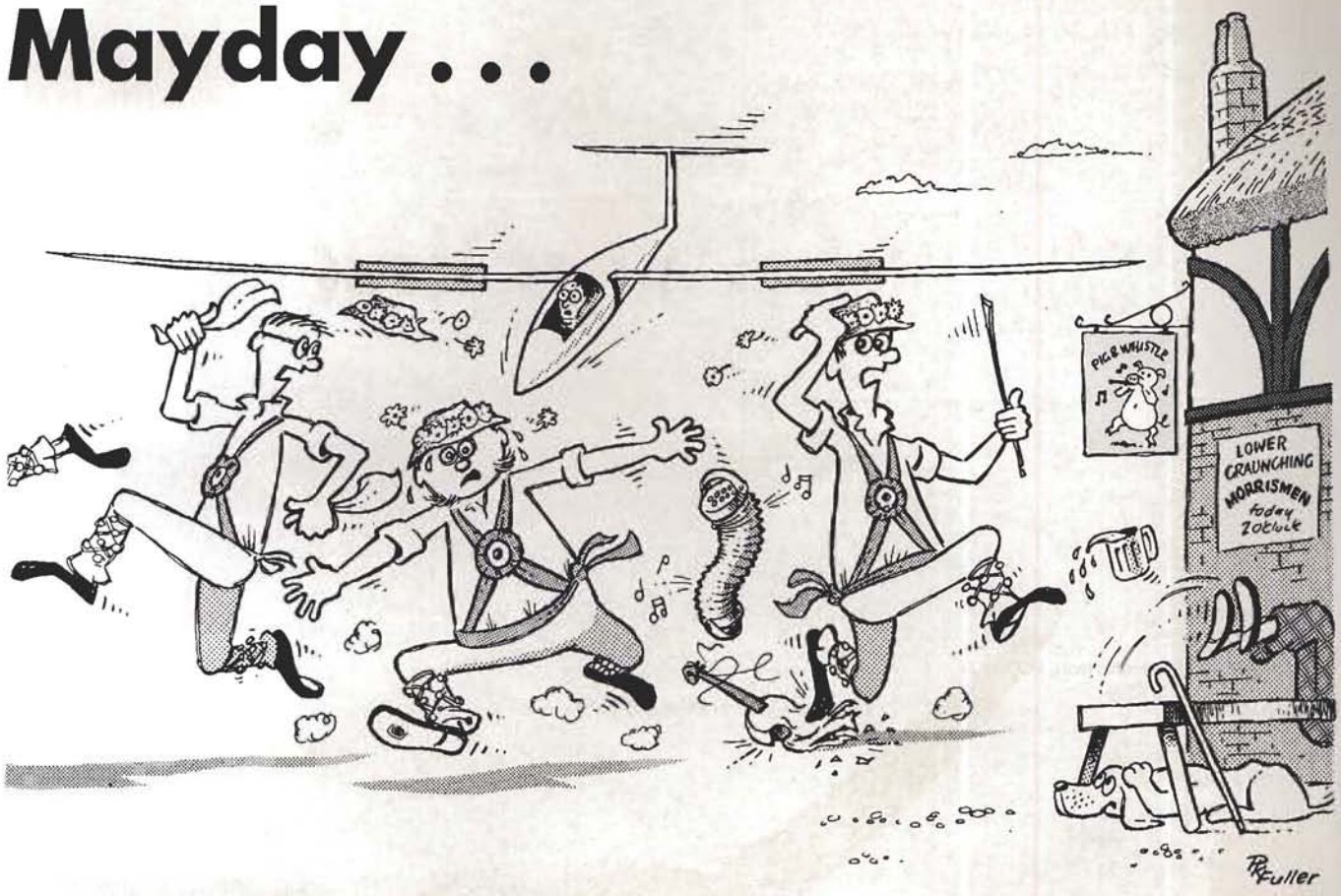

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SAILPLANE AND GLIDING

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Cover: William Malpas in his Ventus near La Motte Du Caire in the southern Alps (see the February issue, p21) taken by Jacques Noel, the CFI of La Motte, from the back seat of the club K-13.

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YOUR LETTERS

IMPORTING A SECOND-HAND GLIDER

Dear Editor,

A Customs and Excise leaflet has been published recently which explains the circumstances and conditions by which goods can be imported to the UK without incurring a payment of VAT, or at least a reduced amount. This will be of interest to people who are not registered for VAT who want to buy a second-hand glider from someone in another country of the European Community. The key points from the leaflet are:

1. If you import goods into the UK you must normally pay VAT on their full value at the time of importation. However, if you are importing the goods from the EC and you can show that VAT has already been paid on the goods in the EC country the VAT on importation may be reduced, or in some cases obviated altogether.
2. Before you can claim a reduction in VAT (on import):
   (a) The goods must not be for use in the course of any VAT registered business (*eg* a VAT registered club).
   (b) You must present evidence that VAT has already been paid by the previous owner in an EC country.
   (c) Customs need to be satisfied that the VAT already paid *(eg*, by the previous owner) has not been and will not be repaid.
3. The leaflet sets out the documentation requirements to satisfy a claim.
4. The leaflet gives two worked examples where the EC country's VAT rate is different from that of the UK, and in one case the purchase price by the UK person is less than the price paid by the seller, in the other case the price paid for import to the UK is greater than the original price.

If you wish to study the leaflet in more detail, write to your local HM Customs and Excise Office and ask for VAT leaflet 702/1/88 dated August 1, 1988, and called "Importing goods on which VAT has already been paid in the European Community".

I'm sure that many pilots are not aware of these regulations which would be to their advantage, financially. To be absolutely clear, it does not apply to the importation of new gliders from the manufacturer as in that case the manufacturer is exporting the glider without VAT and therefore VAT has to be paid on importation to the UK, and cannot be recovered by a private individual who is not VAT registered.

DAVID ROBERTS, *Cotswold Gliding Club*

THE REAL TRUTH ABOUT MY BEARD

Dear Editor,

It all began in February 1979 when I took the DCFI's job at Booker (see the December issue, p271). C. R. called me into the office and laid down the terms of my three month trial. He said "Grow a beard by May or you're out!" C. R. is a great traditionalist and generations of Booker CFIs and DCFIs have had the full set. Also, similar looking staff confuse the members and committeee as to who is on duty, leave, sick, at Comps or "out to lunch".

Of course I didn't want to lose this stimulating and well paid job so I struggled and struggled to grow my beard, but at the beginning of April there was still no trace. The end of April approached and I was seriously worried. Then three months of living in the damp old bunkhouse began to tell and some facial fluff appeared on my chin.

Now that the future was secure, I used the extra money to get Ron (special effects man) to make a lovely female mask for those "off the airfield" occasions. You can imagine how hot it gets in the cockpit on an English summer's day (fantasy) wearing a rubber mask. I usually take mine off on a good day and lose it somewhere down in the seat pan. Must have been like this when the SS photographer secretly snapped my Discus and made me a cover girl.

By the way, here's a tip for a young aspiring Nationals Champ. Wear something that would make you desperately embarrassed to knock on a farmhouse door. You'll be amazed how much better your scoring gets and how frequently you complete the task. The beard worked for me, and half a beard did something to C. R. In fact, if you contact his Leicester office C. R. would suggest just the most painfully embarrassing personalised outfit to misfit your requirements.

SALLY WELLS, *née* KING, *Booker GC*

NEWS, NOT ADVERTISING

Dear Editor,

I feel I must complain about the blatant advertising article in the December issue, p278, on behalf of Black Mountains GC.

While Talgarth is an excellent soaring site and many of the assertions made in the article are no doubt true, I feel that advertising features such as this ought to be labelled as such - and paid for!

However, I do grudgingly admit that the quality of the magazine is now at an all-time high (as, I believe, is the circulation) and I am amazed that the price remains so low.

M. F. CUMING, *London*

(While we are sorry the article offended Mike, we felt it was of general interest, which is the only way of assessing potential material. We did just that last February, p36, when we gave Booker GC 3¼in of free space when they "advertised" their plans for the season, and were happy to do so. If a site is being developed in an imaginative way, then we like to hear about it so that we may pass on the news to our readers. Ed.)

AIR DATA COMPUTERS FOR GLIDERS

Dear Editor,

There is a surfeit of equipment and articles about air data computers for gliders but they all have the nature of solutions looking for problems rather than the other way about. Most of them answer problems which are unimportant or give false answers as they reply on airspeed rather than groundspeed as an input.

The police now posses instruments which measure car speed using radar so a device fitted to a glider should be able to measure groundspeed and possibly vertical speed as well so that final glide calculation will be more reliable.

If you circle to the right the compass flicks back at a SE heading; if you circle to the left it will be SW. A solenoid wound around the compass will register a current pulse as the compass flicks back and this could set a clock in a computer which registers the average rate of climb every five seconds and displays the four sectors separately (assuming one does a 20 second circle). The pilot can then see at a glance which is the best sector and centre accordingly.

This removes the need for constant concentration while circling which during an eight hour flight causes a good deal of fatigue. If the electronic wizards who abound in the gliding movement can address these problems we might find their solutions useful.

BRENNIG JAMES, *Marlow Common, Bucks*

COMMENTS ON ARTICLES

Dear Editor,

The December issue contains much of interest. I would like to comment on two items in particular, p286 and p288.

The figures quoted about glider tugs show just how inefficient they all are. To raise the mass of the tug and glider at typical climb rates and allowing for prop efficiency needs only about one third of the power so expensively provided. One might well wonder where the rest of it goes, apart from the small amount needed to drag them along at modest speed.

The ideal layout might be typified by the Evans VP.1, or VP.2 if you must have two seats, but made in metal. With a Marsden high lift section on wing and prop, a 10lb/sq ft wing loading, empty weight about 1000lb, prop and engine gearing optimised for full rated bhp at climb speed, and powerful airbrakes, Trevor Foxen's aims are easily realisable. As only about 100bhp is needed for a typical 1000ft/min climb, 180bhp gives a good margin for all the other bits - drag, tug downwash, heavy gliders, etc. We should wish him well.

A second item underlines a pretty obvious point. Glider instruments are mostly out of the Ark, lagging far behind the microlight world. Advanced technology is being applied to producing variometers even more complicated than contest scoring systems, but I don't think this will benefit a majority of glider pilots. The constituents of Andy Smith's design are sufficient to provide all the instrument functions needed in a glider - ASI, altimeter, basic vario and compass, with a simple accelerometer added for completeness. I know a large avionics company not far from Rochester with all the skills needed to design such an electronic instrument package, with custom chips for a range of basic to advanced capabilities.

If such a firm were to consider sponsorship of gliding, it might think that its money could be well spent in the development of such a system and licensing its manufacture by a ➡

maker with lower overheads. If the cost is less than the typical collection of mechanical contrivances huffing away, it would ultimately benefit all glider pilots. The export potential might even make it seem a better use of its money than to encourage the import of foreign technology by some other sponsorship scheme.

As to the last issue, David Roberts ("I Wish I Could Go"), belongs to a different world if he thinks £4 is a normal winch launch fee. So competition benefits all of us? Perhaps he hasn't noticed the activity since 1986 by the CIVV (now IGC, see p41) to promote a new one-design Class for your average low-time pilot for whom competition has produced nothing but unsuitable gliders.

This is intended to cost around £9000, built by anyone who wants to, not endlessly driven to costly higher performance, and left unchanged for at least 20 years. In 1960, the Olympia, 463 and Skylark 3 cost about £800, £1000 and £1240, or at today's index around £7000, £9000 and £11000. Today's gliders at £20000 to £55000 have not done much for me.

JOHN GIBSON, *Lytham St Annes, Lancs*

ANOTHER REASON NEEDED FOR CRACKS

Dear Editor,

George Thelen, in "How High, How Fast' (last issue, p29), starts by saying "... it is fairly clear that whatever damage was done to the glider occurred because it was flown above the handbook recommended speeds for that altitude ..." In fact, it wasn't, and much of the article is invalidated by confusing true airspeed (TAS) and indicated airspeed (IAS). This confusion may serve to conceal the real reasons for the gel coat damage and may cause some owners of modern sailplanes to wonder if they have misinterpreted the flight manual.

It is apparent from the photograph of the tailplane and some of the quoted limitations that the aircraft mentioned in the article is a DG-400. This has a never-exceed speed of 270km/h (146kt) IAS from sea level up to 2000m (6600ft). The never-exceed speed then decreases with increasing height until it becomes, as Mr Thelen says, 218km/h (117kt) IAS at 6000m (20000ft). In the flight manual, figures for the never-exceed speed, in terms of IAS, are quoted at height intervals of 1000m from 2000m to 6000m. These decreasing values of IAS correspond to a constant true airspeed of 297km/h (160kt), assuming negligible errors in the airspeed system.

The figure of 270km/h IAS at heights up to 2000m is associated with manoeuvring and gust loads, which depend on IAS, not TAS. At greater heights, the TAS limitation ensures that the machine is always flown at speeds well below the critical flutter speed. However, since the pilot would probably find it inconvenient to convert TAS into IAS, the TAS limit is expressed in the flight manual as a table of IAS vs height.

In the case quoted by Mr Thelen, the glider was being flown at 25000ft. With some confidence, we can say that a TAS of 297km/h at this height corresponds to an IAS of 199km/h (107kt). Mr Thelen says "... about 108 or 109kt true airspeed ..." This is quite incorrect: these values can only relate to indicated airspeed.

If, as Mr Thelen says, the pilot opened the airbrakes at 150km/h (81kt) - a figure which can only be IAS - he was well within the 107kt limit. He was also well within the rough airspeed and manoeuvring speed, both of which are 103kt IAS. The fact that he was flying at a true airspeed of 224km/h is of no particular interest.

To summarise: when flying at 150km/h at 25000ft, the pilot was well within all the relevant speed limitations. Mr Thelen therefore has to look elsewhere to explain the gel coat cracks.

More generally, airspeed limitations in flight manuals are always expressed in terms of IAS (See JAR 22, Appendix H) and the pilot simply has to stay within the relevant limitations by reference to his airspeed indicator. Any conversions from TAS to IAS have already been done for him by those nice people who wrote the flight manual.

Finally, pilots who habitually go to very great heights might prudently add to the cockpit placarding the table of never-exceed IAS as a function of height.

F. G. IRVING, *Imperial College*

MISSING TIP EXTENSION

Dear Editor,

I trust that the pilot of the Nimbus 3D shown on the cover of the October issue is deliberately assessing the handling characteristics of the aircraft *sans* port tip extension - or did he just leave it in the trailer?

J. A. K. Millar, *Milton Keynes, Bucks*

(Keith is right, it does look as though something is missing! Ed

GRASS ROOTS GLIDING

Dear Editor,

I feel that Simon Parker (letter in the last issue, p5) totally missed the point of the film which never was intended to show the basic side of gliding, but was, like the books by Phillip Wills, intended to show the dream.

Most people realise with their own common sense that they too may experience a lot of fun in gliding with much cheaper material. A visit to any club will reveal this, perhaps especially the Vintage GC.

Further, and I am sorry about this, the "plummy Queen's English tones" comment ➡

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TOM COLEMAN

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was, in my view, a crack at one of Britain's greats.

When one thinks of the ability of that man and how much help he has given to early cross-country pilots in his capacity as one of the few pilots with both the skill and the instructor know how, mockery is just out of place.

ANGUS MUNRO, *Oslo and London*

LET'S SHOW GRASS ROOTS GLIDING . . .

Dear Editor,

I rite to fank you for publishin' the wunnerful letter abart grass roots glidin'.

S'all that Phillip Wills fort init really, all that proppergander abart glidin' avin summink t'do wiv avin' good gear 'n flyin' cross-country, 'n awl . . . can't be fun cannit.

So . . . I've wrote to the Beeb, 'n they agree . . . next time it's gonner be a two hour docermentry wiv,

1. Riggin' the Grunau in the rain, lotter larfs.
2. Cuttin' the airfield grass, well . . . s'grass roots stuff init, togever wiv a special bit abart 'ow I went solo on the tractor wiv some grate muddy field bits . . . grippin' stuff really,
3. A bit of 'igh performance stuff to give us summink to dream abart . . . well, at least, a cupple of personal interviews in our bar, and,
4. A visit to our amatcher work shop wiv 'ow I 'elped repair a Blanik wing, rivetin' stuff really.

'N I bet you that arter all this effort for a truly appealing film, some berk'll rite in 'n critisise it.

NUGAS ROMUN, *Scandinavia*

THE TUG HOOK PROBLEM

Dear Editor,

As a sometimes tug driver, I was re-reading with considerable interest John Gibson's articles on aertowing in the February (p10) and April (p74) 1988 issues and Bill Scull's "A Further Look at Aerotowing" in that February issue (p12). It emerged quite clearly that a major step forward towards the safety and peace of mind of the tug pilot would be the design and installation of an upward releasing hook on the tug.

My mechanically illiterate mind suggests to me that we already have a perfectly well tried and tested backward releasing hook on gliders. Perhaps one of the mechanically literate members of the gliding fraternity could explain - in simple terms - why this same mechanism couldn't be turned round a bit (backwards) so that it became an upward releasing mechanism and then stick it on the back of the tug.

TOM ARMSTRONG, *Ripon, N. Yorks*

Dick Stratton, BGA chief technical officer, replies: Research in the UK (and elsewhere) has failed to find a simple and reliable solution to a very complex problem. Pitch attitude is not the critical perameter. Typically with a K-13 or K-18 on a belly hook, the drag of the glider climbing too steeply immediately after take-off will stall such a tug as a Super Cub 150 or similar!

KEEP IT SHORT

Dear Editor,

I know from personal experience of writing articles for *S&G* and from time to time a club news report that the editor wields a sharp knife in cutting copy but I still think we should all be encouraged to keep our contributions down to a minimum. That is if we want to be read.

We are living in a world where the written word has to compete against so many other distractions and it is up to all writers to learn the skill of getting information across in the minimum of space.

I find as I grow older I become bored more easily with tedious articles. I have read so much in my life that I now need to be captured by the first paragraph and encouraged to read on with clear, concise text.

I want even briefer club news reports (and I can hear the editor commending this bit), technical articles that put across the information with extreme simplicity (and that's asking a lot) and short letters. We should all try and follow this principle if we want what we have written to be read.

"WORD TIRED"

THE FAMILY CLASS

Dear Editor,

I would like to propose the introduction of a new Class of multi-seat glider - the Family Class. A minimum of three seats (the "small" family) with open - or Catholic - families of up to six or seven seats.

A wingspan of 35 or 36m would be required but this can easily be built with modern materials such as stryofone and balspo. To keep the wing loading down a second pair of wings might be needed - again, nothing new to aeronautics!

I do perceive, however, an environmental problem since gaggles of such machines might frighten flocks of migrating birds. However the new Euro-material featherex™ could be applied to the upper surfaces as camouflage, and there is evidence from recent wind tunnel tests in Uganda that turbulent re-attachment of the boundary layers might be obtained - as a sort of bonus - by this means.

I would like to know why we have heard so little from the BGA Technical Committee to date about this plan, which I believe **was** reported at the 1979 TIHSL/LUB conference. The point of course is that, with up to seven seats, the cost/km/seat/hr would be drastically reduced and this would open up gliding to many more impoverished youngsters.

OVE CAPITA

A Technical Committee spokesman replies: Since $L=\frac{1}{2}\rho V^2 C_L S$ and by Bernouillis equation we know that $Cl^2/\pi A$ and also $\tan\alpha = L/D$ - and making a couple of allowances for induced drag, off the cuff, clearly the idea has some merit. However, the new material remains unproven and we do know that the German manufacturers are having trouble painting it.

BRITISH STANDARDS

Dear Editor,

Recently, in time for all those out of season Cs of A, the BGA issued a reminder to all BGA inspectors that the BGA No. should be displayed on the port side of the rear fuselage or tailboom. This is presumably in addition to other proper registration marks being displayed on the underside of the port wing and on each side of the fin/rudder, *ie* the corresponding BGA three letter registration of the aircraft or the alternative pilot-related BGA Comp No. (1-999).

Since a number of gliders fly in the UK bearing unauthorised markings (*eg* unregistered Comp Nos., pilots' initials, foreign registrations, other previous owner markings or no markings at all), perhaps the CAA and BGA should give some thought to the adoption of a new standard. It would seem sensible, at least, to do away with the redundancy between the BGA No. and the three letter registration.

I propose that the following modification of the German practice be adopted:

Our national registration letter G followed by the four digit BGA No. should appear on each side of the fuselage with enlarged third and fourth digits prominently displayed under the wing and on the vertical tail surfaces.

In the unlikely event of two aircraft bearing the same prominent two digit markings being in competition they could be distinguished by type, or by the use of the second digit of the BGA No.

The above would result in each sailplane with a current British C of A being uniquely identifiable without recourse to the three (unintelligible) letters or unnecessary Comp Nos. Perhaps we should adopt compulsory Union Jacks (or Air Ensigns) on the fin too? Just a thought.

J. A. K. MILLAR, *Milton Keynes*

PAM'S 1000KM FROM WAIKERIE

After four years of preparation, planning and practice Pam Hawkins, a Booker and Talgarth pilot who loves flying Open Class gliders, started the year by becoming the sixth British pilot and our first female to gain a 1000km diploma with a flight in Australia

If you think I'm going to tell you about fantastic cumulus and 10kt averages then please read on, and you won't be disappointed, but I'm also going to tell you about how to get ten hours of soaring out of the day - using the weak bits at the beginning and end as well, which can be the most critical and challenging parts of any long flight.

Pilots who receive the 1000km diploma must all have stories to tell of perseverance, devotion, excitements and disappointments, joy and elation. I once saw a successful ASW-22 at Tocumwal coming home in the almost dark throw a loop with water dumping - not recommended procedure but I do know how the pilot felt!

It took me four years of preparation, planning and practice on trips to Waikerie Gliding Club, South Australia, directing most of my gliding towards that one goal. I became very familiar with the weather and terrain, and with Waikerie's ASW-17, so as to maximise my chances on the day, when it came. There isn't much time to assess the Met, select the task, declare and get airborne.

"What we are looking for is a day which will start early - can we soar at 9am?"

The biggest enemy is fatigue. You plan on a ten hour flight, launching at 9 or 10am, which means being on the airfield at 7 every morning, so no late nights, even on New Year's Eve, unless the forecast is hopeless. What we are looking for is a day which will start early - can we soar at 9am? It doesn't have to go high, but cumulus would be a great help. There may be a solid overcast of grey stratocumulus when you wake up, but that may be breaking up into cu at 3000ft by the time you launch.

Or it may be blue. What temperature do we need? What is it now? How fast is it rising? The temperature flight is usually done around 8am and we phone Adelaide for the Met and look at the Satellite picture. The gliders are already washed and ballasted and ready to tow out.

If it's off, we can relax and plan a smaller task for later. It is useful to do O/Rs to various TPs to get to know the terrain, but it's no good just flying in the best part of the day. You need to find out what its like to launch in the morning into a blue sky, to 4000ft, dive to a 1000m start, pull up and glide off on track above the inversion, hoping to keep a heavily ballasted glider airborne in the first weak thermals.

Waikerie does a temperature flight every morning throughout the summer (don't expect this at other sites) and you can realistically assess whether this sort of early start is possible. Conversely, some of the best cumulus days start late, 1100 or 1130, and without decent forecasting you may have set off too early and already landed out when the first thermals push cu straight through to 12000ft.

You need to know what it's like to fly very late in the day. The thermals are still working up to 8pm if the skies are clear and the temperature not dropping too fast for any reason; the river banks and scrub areas are the best late thermal sources. A sea breeze often reaches Waikerie at 8 or 9pm, and may be useful to come home along if your last leg is from the south-east, but in a blue sky the clues to its position may be just a change in the haziness of the air or the stronger south-westerly wind picking up sand from the surfaces of ploughed fields.

The exhilaration of a 1000km. Pam photographed after her flight.

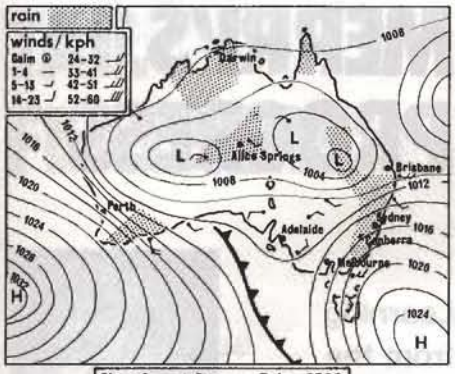
What time is it dark? We could usually land comfortably at 2030, but if the sun was setting behind thick clouds it was quite difficult even to find the airfield without the lights on at that time.

It's reassuring to have a good base radio so you can talk to the office when still a long way away on a late flight. Once this year they actually sent the tug in my direction before I'd landed; I didn't expect another climb and the sun was low. I expected I could glide another 60km and Waikerie was 120km away. The tug landed in my field a few minutes after I did, the farmer held the wingtip and we were airborne again and landed at Waikerie 20min later at almost last light. I'd flown 942km having been caught out in the morning, launching at 10 when it had been perfectly soarable with cu at 9.

It is best to break off the task if falling behind schedule, and fly home, rather than risk an all night road retrieve from 200km away. You will not be fit for a big task the next day.

On Sunday January 1, after an excellent and well attended New Year's Eve party organised by members, it was good to see the morning routine going ahead as usual. The forecast wasn't brilliant but we declared a 1000km FAI triangle *via* Hay and Beulah. I glid straight into the ground 35km out and watched a heavy Nimbus 3 struggle to stay airborne and disappear down track. I was aerotowed home in no time; the Nimbus came home after flying 800km, having broken off the task as he was behind schedule and the weather was poor towards the second TP. My undercarriage had been damaged in the field landing and would not retract, but was repaired that evening. The forecast was very good.

Monday January 2, dawned clear, with a light north-easterly and 34°C forecast. Four gliders were on the pad at 0830 with 1008.91km declared over a zig-zag course, first leg east to Bannerton silo, 260km, 2nd leg west to Burra silo, 374km, 3rd leg east to Yarara silo, 244km, last leg west to Waikerie, 131km.



Situation at 3pm on 2 Jan 1989

Local pundit David Jones in his ASW-22 launched first; Gerrit Kurstjens of Holland launched next in his Nimbus 3, I launched third in Waikerie's ASW-17, at 0952 and Anders Olsson of Sweden followed in Waikerie's Nimbus 2. I have made a detailed analysis from my Aerograph trace, and combined it with notes from my diary and some vivid memories.

I could hear the two ahead struggling and I was soon down to 1600ft, nearly in tears with frustration trying to make the early thermals work and dreading a repeat of the previous day's straight glide into a field. I took 12min to gain 1200ft, 9min for 1700ft, then 4min for 1300ft. After 1hr 20min between 1800 and 3600ft I had a good 4kt climb to 4300ft and could relax a little; the air was beginning to really feel alive. Excitement now as I caught glimpses of the two big ships ahead and the Nimbus behind.

Then after 160km the first cumulus drew us together like a magnet and we climbed at 6kt to 5000ft. After this it was still difficult to find good climbs under the cu and we spread out again, the Nimbus 3 beginning to open up a lead. With cloudbase at 5500ft we all turned Bannerton between 1330 and 1341. Less than 75km/h on the first 260km - not an auspicious start.

"... what we didn't know was that the weather was going to go through the roof."

Calm acceptance of this. I'd been to Bannerton and back before now on days that just hadn't come good and, anyway, it was good practice... what we didn't know was that in just over an hour the weather was going to go through the roof!

I felt a glimmer of hope as the clouds became easier to use and the base rose to 6500ft. I had an excellent run of cloudstreets for 130km, then came to a blue patch 50km across. No worries - the cumulus beyond the blue were looking magnificent.

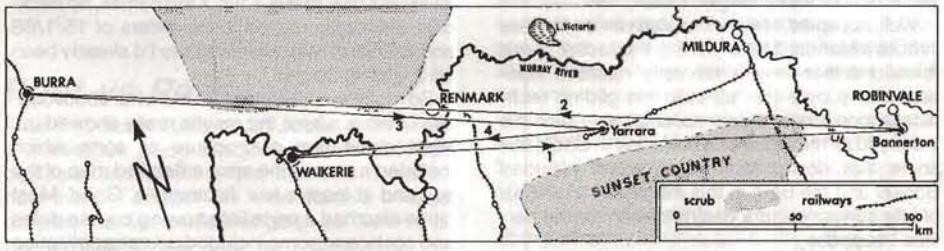
I pushed it too much and was down to 1800ft in the blue before finding a mediocre climb to 5000ft, then another to 7500ft and I was across.

The pleasure was indescribable as I caught the first really good climb at 3300ft north-west of Renmark under those fantastic cu. I climbed to 8300ft, 5000ft in 6 min, and spent the next 45min between 6500 and 9000ft, which was cloudbase, occasionally taking a few turns in cores of 10-11kt. The 374km leg took 2hrs 53min at 130km/h.

With good climbs reported ahead Pam pressed on, burning off too much height

There was a fleeting worry as the cu petered out 40km before the second TP. Gerrit 50km and David 40km ahead reported good climbs in the blue so I pressed on, burning off too much height. Anders appeared. I hadn't seen him since the first TP and he was just behind as we turned Burra at 1634.

Panic as I flew out of Burra in heavy sink. I was down to 4000ft over 1500ft terrain with the cu too far ahead. I was convinced I had blown it. Then bliss as I found a good climb after turning crosswind to get out of the sink - panic paralyses the most basic decisions.



Pam's route.

I was soon back under the cu which were now huge flat plates with several cells active under each. It needed unremitting concentration to work only the best climbs of 7kt - in these wide thermals it was easy to climb outside the core and miss the best lift.

As I passed Waikerie, knowing what time it would be dark and that the cu went all the way to the third TP, I hardly dared to admit to myself that I had caught up on my schedule and had a real chance.

But I was still cautious, bred of long experience, at the first sign of the climbs beginning to weaken about 30km before the last TP. I had one last decent 5kt climb, then one of 4kt just before the TP. The Nimbus 3 had raced ahead and was already on final glide, finishing way ahead of us three. I knew the ASW-22 was 20km ahead but had not heard or seen anything of Anders until he appeared just at the turn. The third leg of 244km had taken 2hrs 19min at 105km/h and I turned Yarara at 1853.

The cu began to look ragged, climbs were weak and I decided the most vital thing was to stay high. After dumping my 150 litres of water, the next climb was only 3kt from 5500 to 7000ft with 120km to go. I could make it with one or two such climbs. I saw a glint ahead - Anders was also dumping water.

Tension! I realised I wasn't breathing as I concentrated on thermalling. I had to force myself to take deep breaths. I went a little south of track to stay with the only cu that weren't dissipating too fast.

Caution again - all I had to do was to keep going and get on the final glide, conserving my height. Speed no longer mattered, there was enough daylight and final glides are always fast as there is no thermal at the end of them. I took a very weak climb 60km out, 1.5kt to gain 600ft and had 1000ft to spare at best glide, but there was still enough activity in the air to rob me of it if I blundered into sink, so I curved south of track again to avoid the irrigation below and the backs of some dying cu.

The sun was now so low that if I hadn't been used to the area I would have had difficulty in navigating: it is worst heading towards the setting sun. I could see glints of light reflecting off the river.

I was committed now as the sun sank behind cirrus having given no warmth for a while. Flying best glide, still 1000ft in hand, no wind, I had nothing to do but tick off the kilometres and listen to David getting in with 500ft to spare.

I realised 20km out that I was still spot on for the final glide with 1000ft to spare. Now people on the ground knew I was coming in and Anders was 10km behind me on the same glide.

At last I could speed up and use my spare height to do a beat up, seeing lots of people standing in groups around the clubhouse, cheering and waving. It was 2002 with half an hour of light left. I still had to pull off a neat circuit and land after more than ten hours in the air. No problem, then handshakes and finally the grin! Anders later summed it up when he said if it hadn't been for his ears the grin would have gone all the way round!

It had been quite a day - four 1000kms; Sue Geytenbeek had flown a 760km FAI triangle to match her husband's achievements while he stayed on the ground minding the baby; one 500km, two 300km and three people had flown 750 to 800km of our 1000km, having taken off later.

Thank you Australia and thank you Waikerie GC and all the members who gave so much help and support, especially the tug pilots who gave us early launches and prompt retrieves. In fact, Lloyd Baum pulled me out of so many paddocks this year people were beginning to wonder ...

* * *

Footnote: George Lee flew a 1000km triangle from Waikerie on January 25 and is claiming the British National 1000km speed record. Also the Australia Nationals at Waikerie became the first competition to set a 1000km triangle which was completed by Gerrit Kurstjens, a Dutchman, flying a Nimbus 3 on Day 6.

(See Annual Records, pp86-87.)

MIKE CUMING

HOW EFFICIENT IS YOUR CLUB?

Does it reply promptly to inquiries about courses so that you get the full value from advertising? Mike Cuming, former secretary and now manager of Booker GC and on the BGA Executive, has been finding out as well as testing his own club and the BGA Office on their alacrity in answering letters.

In January 1988 I did something rather naughty.

I'd been doing it for a while - regularly to my own club and intermittently to the BGA office in Leicester - but suddenly I couldn't control my wider curiosity any longer: I spied.

Well, not spied, really - inquired rather. You see I wrote a standard letter asking the sort of dumb questions that only a mentally retarded non-scientific yuppie (or *"ab-initio"* in gliding technical jargon) could dream up; and then I sent this inquiry to all the clubs that advertise in *S&G* (and some that don't). Naturally, I again included Booker and the BGA in this mailshot - a mixture of idle curiosity and a desire to monitor the service I suppose.

Both exercises (the long term Booker and BGA monitoring and the more recent mailshot) have been very rewarding. I am happy to report, for example, that the BGA has a 100% track record (to date. . .) of replying promptly with the right information.

My stray inquiries led me to the discovery of their (their? . . .our!) excellent glossy brochure "Introducing Gliding" and the simpler but none the less worthwhile "Something about Gliding" (both available by the 1000 - at cost price - from Leicester). I also discovered the lovely "Go Gliding" poster which, of course, has been well known to other club secretaries for about a hundred years.

Before proceeding further, I feel I ought to say that the BGA service is sufficiently good that no one else needs to repeat the test just yet, otherwise I'm likely to get some equally prompt and accurate comments from Barry and his team in the office! If you do wish to test the service, then let me urge you to look closer to home and try out your own club first: I can almost guarantee that this will offer more than enough material to work on.

What about the mailshot though? What happened? Did anything happen? Well, about half a dozen of the 19 clubs polled (17 of which had placed ads in *S&G* inviting inquiries) replied by return of post. About half a dozen replied between two and three weeks later and about a half a dozen didn't reply at all!

What a waste of money, I thought, so I wrote a second letter three weeks after the first - pointing out that I'd had no reply previously but saying that I was still interested. Since these clubs were all selling (or trying to sell) course places I was delighted to find that all of them replied to this second letter (although they all took two weeks) - all except one, that is. Club X (no names, no pack-drill) eventually replied to my letters of 15/1/88 and 4/2/88 in May. I wrote to say I'd already been on a gliding course by then . . .

So much for promptness - but what about content? This is where the results really showed up. Most clubs had a brochure of sorts which included a map of the area, a detailed map of the site and at least a few illustrations. Good. Most clubs also had a price list showing course dates and costs, and some included course application forms. Some even included a complimentary copy of the BGA pamphlets (both well produced and attractive and a bargain at 4p and 15p each, I might add) explaining our peculiar sport.

Brightly coloured bits of paper

Unfortunately most clubs couldn't contain their enthusiasm and filled the envelope with numerous other brightly coloured bits of paper. One bulging envelope contained no less than nine separate leaflets and most were poor photocopies of draft quality word processor print outs.

Now while it may be very thrifty to rip off a hundred copies one lunchtime on the works' copier, I can't help wondering just what sort of impression this bumf creates . . .

So one asks ones workmates to scan through a few samples and fill in a simple questionnaire. But they were confused and, I regret to add, not mightily impressed. It transpires that (in the 1980s) we are well able to differentiate between a crisp clear attractive photo of sailplanes (found on only three of the 19 brochures) and blurred, grainy blow ups of family snaps (as found on the rest). I personally like Lasham's cover shot the best even though it pains me to admit this.

May I recommend a critical look at your clubs bumf.

MERRI HEAD

MERRI'S PROGRESS

Learning from the Astir

Most of my flights in the Astir seem to have been in rain. I know this isn't quite so, but certainly a great many have rain/turbulence written next to them in the remarks column. So, given the time of year and the weather, what am I drawing from the Astir?

Well it occurs to me that flying in a glider some uncharitable souls have nicknamed "the concrete swan", the key to achieving maximum performance is accuracy. I refer to accuracy in terms of speed to fly for the conditions, cleanliness of control movements and getting to know how the glider will respond at different speeds, so that when the thermals revive in the spring I'll know any difference in handling responses is lift influenced and not just sloppy flying.

To this end I'll use each flat, calm day as a blank blackboard. For example, I'll fly a series of figure eights using a line feature as a reference point. It's interesting to mimic tightening up in sink and widening out in lift by varying the airspeed to about 48kt at the outside of the circles and fly min sink at the inside. The inclusion of a line feature as a reference is a refinement I owe to a Bicester pundit - cheers.

You can learn so much on dull flat days in a new glider type when conditions aren't good enough to attempt your longest task. Instead you can draw as much as possible from each flight regarding cleanliness and accuracy.

On the rough, turbulent days it's great fun to use the bumps and fly them properly. I suppose when it's done properly it's called "gust soaring". Now is the time to have a go for the longest flight: if you fly at the appropriate speed and time pulling up correctly, you'll be surprised at what you can do with a concrete swan. Magic!

My long-suffering husband has given me a Silver badge PPL conversion for my birthday. It is a super present (if I pass) and I'm realy excited about it. He's even timed it to co-ordinate with the non-thermic weather so that it doesn't interfere with gliding too much. But, you know, I can't help missing those figure eights!

TAIL FEATHERS

Plume Fatigue

I've had enough. I am going to give up writing this silly column for *S&G*. There are lots of good gliding writers about, and it's time I had a holiday

A holiday.

from it all. It's time *you* had a holiday from it all. However, I thought I shouldn't stop just like that, but should do a sort of farewell scribble; though if it goes on like Dame Nellie Melba's positively last tour, the farewell could stretch out some while, of course, like the final glide on an ASH-25 . Hell, you say, it's only six times a year and some newspaper columnists write every week, or every day even. True, but they would starve if they didn't write (that's *not* a hint to the editor) and besides they can write about anything that occurs to them, not just about one topic. There are more things to life than gliding, believe it or not; they aren't worth a row of beans, but at least they give a writer some extra scope when hunting for a subject.

The thing I envy about professional journalists, apart from their ability to take on board gigantic quantities of free booze (that *is* a hint) and still write lucidly the next day, is the fact that any irritation, personal or public, can be turned into copy and thus into bread. If you are stuck at an unair-

£1 a word.

conditioned, strike-bound airport for three nights, and if when you eventually get airborne the engine falls off your Boeing, the only passenger who looks cheerful throughout this catalogue of suffering is the hack whose reservoir of ideas was on the point of drying up, but who now has something to whinge about publicly at £1 a word. You can settle scores with all your enemies and get paid for your spleen. Parking wardens, litter louts, local government bureaucrats, mothers-in-law, Mrs Thatcher's voice, other people's dogs and children, the things the rest of us citizens simply have to put up with: all are grist to the journalist's mill. They said of Chicago's stockyards that every bit of the pig was used except the squeal. Fleet Street uses everything *including* the squeal.

Perhaps I missed my vocation. On the other hand I am gravely handicapped for such a career, nay disqualified, by a deep love of the truth. Even if that love is often unrequited.

So I have been looking through *S&G* to see if a writer - or a syndicate of writers like the *Daily Express's* William Hickey - could replace Platypus, flippers, bill, the lot. Talent abounds.

Poet vs Peasants

In *S&G* (October 1988, p222) **Justin Wills** wrote a marvellous piece attacking modern rat-race contests, and extolling the individual. I realise now that the contest No. 1 on Justin's fin also denotes the first person singular, so Byronic is his worship of the lone hero disdaining the crowd. I wonder how many retrieves he has done for others since he inherited that noble digit, or if he has ever had to enter into the give-and-take of a syndicate? Never mind, he has provoked others to write to *S&G*, both for and against. That is a good test. *The* test, indeed. (The only time I get any response is when I write about overflowing, freezing and bursting pee-bags. It wasn't the letters that amazed me, but the free samples . . .).

A Wills would raise the tone, and Lord knows we need it.

Peasant vs Poets

Then we would need someone to lower the tone again. Step forward, **Mary Meagher**. A bit of pruning, if I dare advise, MM. When it comes to reading, the average glider pilot has all the attention-span of one of those bugs that immolates itself on a leading edge on a hot July afternoon, if you can remember such a day. ("Boy, if I'd only known at two o'clock what I know at five o'clock" sighs the mayfly.) I don't write long pieces 'cos my brain hurts. It's the same with our growing band of subscribers so far as reading is concerned. It's not lack of IQ - I'm alienating enough people as it is - but a fact of life today: too much to do, too little time, too much to read, etc etc.

Alienating enough people.

Glass war, or Shut mah mouth

Talking about journalists, one of their less endearing habits - and they have lots of those - is stating the value of someone's house in what seems a completely irrelevant context, usually with a figure vastly higher than the real price. I suppose it is designed to make the envious reader say smugly "Rich bastard, deserved to have his home burgled and his wife beaten up . . ." I proposed a solution to this sleazy practice to a Fleet Street editor, namely that the newspaper could be legally compelled by the subject of the story to buy his house at the price the newspaper said it was worth. The editor looked as if he had been hit by a sickbag jettisoned from a two-seater at 5000ft. Not pleased.

I was reminded of this by another candidate for all or part of my column, quite nifty with a pen and with a good turn of invective, who criticised the Equinox TV programme on gliding for not showing gliding like it really is, mud and frustration and all. (Thank God, I say.) **Simon Parker** added that our syndicate's ASH-25 was an £80000 glider. He can have it for that price tomorrow, or rather less after the 1989 Nationals has taken its toll. Check with John Jeffries, who imported it and piloted it for Channel 4, what the real price was. You'll recognise his "plummy Queen's English tones" on the phone. JJ is sending round a couple of Sumo wrestlers to sort you out, Simon. They'll arrive in an £80000 glider - I hope the Wolds GC have a longish runway - and you'd better have the cash ready in used tenners. Alternatively you can write for this column. The choice is yours.

S & G CLASSIC

CHOSEN BY THE ARM-CHAIR PILOT

REDHILL TO BRUSSELS BY SAILPLANE

(Reproduced by courtesy of "The Aeroplane")

The first soaring flight across the English Channel was made by G. H. Stephenson on April 22, 1939, just before the war. He flew his Gull 1 from Dunstable to a point ten miles east of Boulogne, landing without having encountered any thermals on the French side.

On April 12, 1950 the first cross-channel flights to use thermals on the far side were made, one by Flt Lt L. A. Miller from Detling to Coxyde, just inside Belgium, and a much longer one by Lorne Welch from Redhill to Brussels in a Weihe. Lorne's account of his flight appeared in the second issue of *Gliding* dated July 1950, p95 to 97.

Note the way in which the pilot describes his flight (very typical of gliding writing in the post-war wooden era) and the way in which he was quite free to dart in and out of cloud anywhere between London and Brussels!

A glider pilot's approach to flying is essentially different from that of the aeroplane pilot. Unless the weather is bad, the light aeroplane pilot is usually able to fly direct to his destination. On the other hand, the glider pilot who wishes to fly across country must choose his route and time his flight so as to make the best possible use of the weather conditions; if conditions are bad or he makes a single wrong decision he will come straight down.

Since most upcurrents are quite small in area it is necessary, when going across country in a glider, to gain height by circling and then glide straight in the required direction until it is time to look for more lift. Gliders are usually flown at an airspeed of about 40mph, but since so much time has to be spent circling, cross-country speeds are slow. In still air it is difficult to average more than 25mph, so that it is an advantage to have a following wind.

From Redhill it is impossible to use the unstable westerly and north-westerly winds without crossing the Channel. As this direction holds the only possibilities of a really long trip, I had for some time wanted to get across to see what could be made of conditions on the other side.

When I got up on April 12 I had no intention of going across country. I thought that it would be another day for instruction in the two-seater and doing an aerotow or two. However, by 0900hrs the sky was covered with wonderful-looking cumulus, and this, together with a west-north-westerly wind made me think that it might be a possible "Channel day."

Owing to the lack of AIRMET the only weather information that I was able to get quickly was from *The Times*, and, of course the ordinary aerodrome weather report. These, however, looked very good and, as the other members of the club said that they would cope without me, I decided at about 0940hrs to have a shot at it.

The next half-hour was frantic, as it was obvious that unless I could get airborne soon a wonderful day would be wasted. We collected the glider, tug, tow rope, barograph and all the rest of the junk on the far side of the aerodrome, and I took off at 1008hrs behind our Auster, piloted by Bob Garnett. The sky looked excellent with good cumulus in all directions.

I had asked to be towed a couple of miles upwind of the aerodrome. Four minutes after take-off, I released at 1500ft in a good thermal (all heights, incidentally, are above sea level, all times are GMT). Six minutes later I reached 3000ft and turned downwind, soaring without any difficulty, following the railway line towards Ashford. Cloudbase was about 4000ft. Shortly after passing the town I entered cloud for the first time, reaching 8500ft and the glide from there brought me at 1130hrs near Lympne at 7000ft.

Wasted time fumbling around to no good purpose a mile or two out to sea

The next hour and a half was maddening. I decided that, in view of the fact that the wind was very westerly, I would not attempt to cross the Channel unless I was at least 8000ft over the coast. There were great masses of cumulus drifting out to sea. I tried one cloud after another and, although I could get into them without any difficulty, I never got more than 6700ft before the lift faded.

Each time I came out of the clouds on a north-westerly heading I found myself a mile or two out to sea. The clouds were in very large masses, and when among them it was almost impossible to see their structure and to find out which were the good bits. After wasting this hour and a half fumbling around to no good purpose over Folkestone and Dover. I realised that it was a waste of time, and that if I wanted to get any height I should have to go inland and catch a good cloud before it died out.

Finally, just after 1300hrs, I entered a decent looking cloud about three miles north-west of Dover.

The base was 5200ft, and this time it really had some lift in it; at 1312 I reached 8500ft. According to my reckoning, I was then over Dover, so I decided that the time had at last come to set course.

Turning on to a compass course of about 150° I carried on through the cloud. I had expected to

A photograph of Lorne in a previous issue in 1950 when he was praised for raising the standard of British soaring.

sink but it was much worse than I had feared and height was lost surprisingly rapidly.

During the cloud flying around Dover I had been above freezing level all the time, and had accumulated ice on the cockpit cover as well as a strip along the leading edge of the wing. This was only about two inches high and an inch thick, but it obviously affected the performance considerably. Ice had blocked the pitot about three-quarters of an hour previously, and although a glider is quite easy to fly on sound and feel, it is difficult to keep the speed exactly right without an airspeed indicator.

The rapid loss of height from 8500ft down to 5600ft in some six minutes was due mainly to flying in sinking air. The ice and inaccurate flying, however, must have contributed to this to some extent.

At 5600ft I emerged through the southern edge of the bank of cloud, to find myself about a third of the way across the Channel. Looking back, the coast of England seemed surprisingly far away, but the coast ahead seemed infinitely farther. There was an awful moment when I felt that it would be impossible to reach France and that it would be better to attempt to return. However, a little thought showed that this also would be quite impossible and, therefore, there was nothing for it but to go on, and hope that my calculations were right.

The view was wonderful. Ahead and on the right was Cap Gris Nez under a completely blue sky. There were some small cumulus a few miles inland from the French coast, and to the east of

Calais these clouds were much larger and appeared to lie along the coast. There were some ships below in mid-Channel.

After cloud flying, everything appeared extremely bright, and the strips of white ice glistened on the red leading edges of the wings. From my drift the wind appeared to have a westerly component and so I kept aiming for the nearest land.

It seemed almost impossible that we should ever reach land, so I concentrated on flying as steadily as possible, although the airspeed indicator was still not working. However, when down to about 3000ft, I realised with relief that there really would be quite a lot of height in hand, so I turned a little to the left towards Calais, as that seemed to be the nearest place where lift might be expected.

The coast was crossed at 2000ft, 22min after setting course and, shortly afterwards, when down to 1400ft, I found my first French thermal. This was not much good, and a few minutes later, when the cloud shadow covering Calais drifted away, I moved over to the town and caught quite a reasonable thermal which took me up to cloudbase at 4000ft.

While circling up I had time to consider the position. The surface wind appeared to be west-south-west, while at that cloudbase, as shown by the movements of the cloud shadows, was almost due westerly, Inland there were small cumulus not more than 1000ft thick, but along the coast the clouds were larger and looked much better. It was then that I decided to drop the idea of flying south-east into France, and instead to see if I could work my way along parallel to the coast into Belgium.

Keeping on the southern side of the almost continuous belt of cloud that stretched along the coast. I found good lift, and one hour after setting course from Dover I was a few miles south of Dunkirk. The cloudbase rose gradually and was soon at 4800ft. The amount of cloud to the north increased and I edged gradually towards the south in order to keep over country which was still in sunshine.

Everything seemed to be going very well, but near Roulers I got down to 1300ft before I found any lift at all; and then spent an agonising quarter of an hour circling over some wretched little market town without gaining any height at all. Up to this time I had not been really worried about finding a good landing place, but now the fields were divided into tiny strips and there seemed so many power wires I could not see anywhere suitable for a landing. During the interminable circling in this patchy lift I kept altering my position slightly to try and find better conditions, and eventually, by shifting continually downwind, I found stronger lift and was soon up to 3000ft.

Ahead, the line of cloud which I had been following was much more definite, with dark black underside and a fairly clear cut southern edge. The main base looked about 5000ft, but underneath it, at various places, were curious small wisps of cloud, some as low as 3000ft. I flew through one at this height, and although the air quite close to it was still, inside the wisp the lift was more than 1000ft/min, and a few circles soon took me up to cloudbase, the wisp moving up with me.

"I did not go into the main cloud, but carried on flying in the bigger wisps"

As I approached cloudbase the wisps grew until in effect they formed an extension of the main cloud at a slightly lower level. I did not go into the main cloud, but carried on flying in the bigger wisps. As a result of being able to fly straight, instead of circling endlessly, I was able to make good time, and the 25 miles from Roulers to the Scheldt, which I crossed near Audenarde, were covered at an average speed of 50mph.

At 1557hrs, when near Ninove, the conditions altered slightly, as the great bank of cloud which I had been following became less well defined, with more broken cumulus on its southern side, so I decided that it would pay to get as high as possible while lift was available, instead of continuing underneath. I managed to work my way up to cloudbase, and reached 8200ft before the lift faded out.

Coming out on a south-easterly course, I found great tangled masses of cumulus, most of which looked fairly dead, but ahead and on the left the outline of this amazing bank of cloud could still be seen, so I flew along parallel to it. After a little puzzled map reading I decided that I was about 12 miles west of Brussels.

The bank of cloud stretched on to the east-north-east and appeared to go about five miles north of Brussels. Its outline was well defined and, judging by the shape of the top, which I estimated to be between 10000ft to 12000ft, it was still fairly active. However, its lower edges were much more ragged than they had been previously, and I felt that it would be pretty dead underneath.

The time had come to make a decision, and there seemed three possible courses: (1) To glide straight ahead over Brussels and land at one of the aerodromes marked on my map – Evere or Melsbroek – which I should obviously reach with plenty of height in hand. (2) To fly north and see if I could make any more of this bank of cloud, knowing that if I failed there would probably not be enough height to get back. (3) To glide on straight ahead and land in a field.

The decision was influenced by the fact that there was no very great object in attempting to go farther unless I stood a reasonable chance of going an additional 40 miles, and thus beating Philip Wills's British distance record. Also a retrieve from a Customs aerodrome by aerotow would be much simpler than a sea and road retrieve from some field.

In view of all this I decided to land at one of the aerodromes near Brussels. The middle of the town was crossed at about 4000ft and after having a look at Evere, which appeared to be a military aerodrome, I decided to land at Melsbroek, which, from the size of the control buildings, was obviously civil. I reached there at 1630hrs at 2700ft, and after doing a vast circuit at about 100mph with the dive brakes open, I landed on the grass in front of Control at 1635hrs.

The aerodrome authorities were extremely helpful, after the initial consternation caused by the fact that I had neither engine nor radio, and I was looked after very well for the next two days. The tow back was made by an Auster brought out from England by Ann Douglas*.

*Now Ann Welch.

A number of contributors are still wasting valuable time and missing deadlines by sending articles to the BGA office instead of to 281 Queen Edith's Way, Cambridge CB1 4NH.

SOMETHING SPECIAL

Two exciting flights in 90 minutes

Julian, a plant and engineering consultant, started gliding in 1985 at the Midland GC. He has a Bronze C and 40hrs.

One dark November Wednesday on the Mynd, I arrived at 9am to be greeted by long faces from the other course members. Obviously there was no need to rig my Sport Vega, cloudbase was under 1000ft and solid grey as far as the eye could see. A fairly strong south-westerly was blowing on to the ridge and it felt cold and wet. There would be no flying today, we all thought.

The previous evening we had managed to shoehorn the visiting tug, a Pawnee, from Hinton in the Hedges, into the already well packed hangar, even though its wingspan was much larger than the door opening, and it looked like remaining there for the day.

At about ten, John Stuart asked us to unpack the Pawnee, one K-21 and one K-23, "just in case". We thought it futile, but they were unpacked, DI'd and taken over to the launch point.

All I could see was black cloud

About mid morning, John told me to get strapped in to the K-21, as he thought he could "see a little lightening in the clouds out to the west". All I could see was black cloud overhead, and a narrow strip of grey-black a long way out to the west.

We took off to the south, and past the clubhouse the Pawnee rapidly turned west and pulled us up towards cloudbase, levelling out and speeding up a little just below the cloud. I was glad John was in the back as it was as turbulent as hell, and we do not do a lot of aerotowing at the Mynd.

Quite soon it was obvious that John was right, as always, and there was a sizeable gap in the clouds past Bishops Castle. As we reached the gap, the turbulence disappeared, and tug and glider started climbing smoothly at 8kt.

At 2000ft or so John told me to release, and pulled the stick back suddenly to remind me to make a *climbing* turn off the tow to avoid any possibility of contact between the flailing end of the towrope and £3000 worth of canopy.

After that it was all smooth wave lift, about 2 to 3 up, and we climbed and climbed in gorgeous sunshine, reaching just under 8000ft in what seemed like no time, but we kept an eye on the gap below us which was tending to close up from the Mynd end.

The view was magnificent in the sunny blue sky, looking down on a carpet of white and, nose to wind at 40kt, we scarcely moved as we climbed. Tiny movements of the stick were all that was required to explore the lift.

When John judged the gap below was getting dangerously small, which was some time after I had come to the same conclusion, we dived steeply at about 110kt with full airbrake, using Bishops Castle as a reference through the gap and aiming for its east end.

As soon as we were through the cloud layer, we shut the brakes, pulled the stick back and shot along the base of the cloud at 100kt at first, slowly peeling off speed and trading it for height, finally arriving above the Mynd without loss of height at about 45kt.

This was enough for a normal circuit and landing so John asked Alan to get strapped in for a repeat performance, and at the same time asked me to get ready in the K-23 and listen out for instructions on the radio. I asked if I should get a barograph, but he said that by the time it was ready it might be too late. He was right again.

After 20 minutes or so the gap opened up again and John went off with Alan, calling up base when he was climbing in wave. He asked me to follow them up and keep in radio contact.

I took off as soon as the Pawnee returned and went through a repeat of the first flight, releasing at about 2500ft and climbing steadily with John's reassuring words coming over the radio every few minutes or so as he kept watch like a good shepherd.

Soon there were three at different heights

Soon afterwards John, the second tug pilot, asked on the radio if he could join us in the Astir and soon there were three of us at different heights.

Just before I reached 7000ft John told me to follow him closely as the gap was closing again. He peeled off into the same dive as before, and I followed in what felt like a formation attack from "A Piece of Cake".

"Don't lose me and don't run into my tail" came over the radio as we dived for the dwindling hole in the cloud. The same routine as before brought us back to the Mynd in no time, again without loss of height, and we landed within a few seconds of each other.

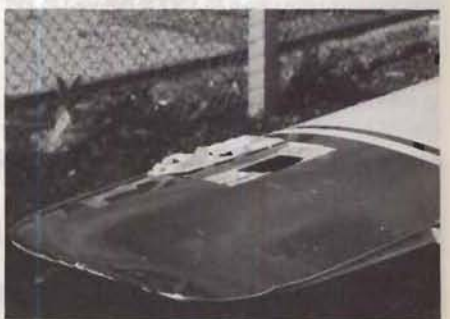
I must admit that I was shaking with the excess adrenalin after I got out. John in the Astir landed out.

It was now about midday and the gap did not open up again, but by taking advantage of the short opportunity we had had some wonderfully exhilarating flying, and yet again I had failed to produce the required proof of a Silver height gain.

Checking my logbook I see that the first flight took only 35 minutes and the second half an hour. Short they may have been, but well worth the effort. I feel sorry for the other course members who missed the chance to fly, but listened to it all on the radio. ■

LIGHTNING STRIKE

Top view of damaged left hand aileron.



Left hand wingtip showing damage due to debonding.

These photographs show the damage to a LS-4 from a lightning strike last summer on Sunday, July 31. The pilot had an electric shock from the control column but managed to land. There was severe delamination of the port wingtip and aileron and delamination of the trailing edge of the elevator. The starboard wingtip had many holes in the paint work of several millimetres in length aligned with the ply direction and looked as though debris had splattered up from inside the wing, breaking fibres and bursting out of the surface of the top glass-fibre panel.

Gerry Odam, Lightning (Standards) Group Leader of the Royal Aerospace Establishment, and Dick Stratton, BGA chief technical officer, inspected the aircraft and in a report Dick says that it would appear the LS-4 sustained a wingtip to wingtip lightning strike.

GOING FOR GOLD

And ending up with a Diamond although Andrew Cluskey has little practice as he now only glides during holidays at Le Blanc

It all started half a lifetime ago in 1969. After a first year at Sheffield University reading dentistry, enough remained in the coffers to go on a gliding course - £24 10s full board for a week at Camphill! A never to be forgotten experience, but one which was not to be repeated until studies were over.

I went solo at Church Broughton in 1974, had a share in an Oly 2B then an immaculate K-6CR, Silver badge, instructor rating from the formidable Brian Spreckley and then the difficulties of reconciling family and professional life with the time demands of gliding, especially at a distance. So in 1978 I decided to stop gliding at a high point rather than become dissatisfied with what I could achieve.

And that might have been it except for the fact that Brian had become one of my patients so that at six monthly intervals over the next eight years I updated my contacts with active gliding.

Realised it was possible to progress even in these short periods

When Gill and Brian started their operation in Le Blanc it seemed the perfect opportunity to return to the sport in a manner which would give me tremendous satisfaction and yet be concentrated into a short period. After a couple of dual flights to familiarise myself with the area and approach techniques I was off in their K-6 as if there had been no interruption. Three days later he set me a 140km task which I went round in 3hrs 20min and when I got back the conditions were still so good I did it again, this time in only 2hrs 40min. A distance of 285km! I suddenly realised that given the right situation it was possible to progress even in those short periods.

The weather did not perform again that week and so I had to wait until last summer before I could return. The plan was the same, to fly in the K-6 with the possibility of a first attempt at a 300km.

Andrew at Le Blanc.

However, after one flight in the K-6 came a remarkable offer. I could join the French club thanks to the co-operation of their chairman, Jacques Benoist, and fly their Pegasus.

I arrived on a day which saw 13 300kms, four 500kms and two just failed 600kms and this really whetted the appetite, but the next two days were non flyable. The Wednesday briefing was for blue 4kt thermals to 5000ft and a 140km task was set. I succeeded in that, but it seemed hard work without the clouds to mark the lift.

The next day had a similar forecast with Jacques promising mostly blue conditions, but this chance of some "cumulus ephermes" (very small transient feathers of cloud) for part of the day and the end of convection at 1830hrs.

The task set was north to Amboise on the Loire and return. At the end of the briefing Brian said that as the task was the first leg of one of their 300km routes I should declare a 300km and if it seemed possible, to go on from the first TP.

With take-off at 1300 the conditions were just as forecast and the barograph trace shows I must have circled in every bit of lift I met with the result that it took me till 1530 to reach Amboise. A quick calculation showed that at this rate I was not going to get back by 1830 if I tried the 300km, but as this was my first attempt and maybe the last of the year I was not going to give up in the middle of the afternoon and set off for Bourges.

Five minutes later I was down to 1600ft, but a friendly French buzzard marked the spot to be and I was soon 3300ft higher and feeling slightly happier.

The flight path lay near to the Chateau of Chenonceaux which is built on a bridge over the river Cher. From the air it looked absolutely magnificent. During the last war this river marked the boundary between occupied and Vichy France and according to the stories escapers were smuggled over the river through the attics while the Germans held court in the magnificent rooms below.

Bourges was reached at 1730. It was obvious I was not going to get back, but every mile shortened the retrieve and Issoudun with its gliding club would be a safe and friendly place to land out. The thermals softened and a gradual descent began and then in the distance appeared a series of stubble fires being lit in the calm of the evening.

Determined not to land until it was inevitable, I pressed on towards Chateauroux, dog legging from one fire to the next and kept up for another 45min although only covering 28km. As my height increased to 4950ft I realised that it just might be possible to glide the 56km to Le Blanc.

I cleared the hedge by 50ft, 7hrs 3min after setting off, with a Gold distance and Diamond goal, tired, sunburnt but incredibly elated.

My thanks to Gill and Brian for their help and encouragement.

HUNGRY FOR DIAMONDS!

Bob Rodwell goes to eastern Europe in search of elusive Christmas and New Year wave and to a country which is almost certain to feature in the World Championships and will host the International Vintage Glider Rally. This is a follow on from Louis Rotter's article in the last issue, p11.

The little Suzuki Swift was finding it very difficult to make it up the frozen track to the field but we negotiated the steepest 15 yards which had defeated it twice before. So it was with indignant surprise that we slithered to a halt on a level stretch of polished glass which offered zero friction to the wheels. With an icy wind adding rapiers to the ambient −8°C we stumbled through the darkness towards the site. It was damned odd to be climbing a frozen Hungarian hillside at 0520 on Christmas Day, I reflected, as my breath condensed before my face and I vainly tried to keep my feet.

* * *

Louis Rotter started it with a small ad in *S&G* which told of 73 Diamond climbs being made in five days at the 1987/88 Christmas camp at Gyöngyös. This seemed like better odds than Aboyne in March and worth skipping a family Christmas for so, through Louis, I arranged to be the first Brit to sample the Gyöngyös wave.

Brian Dawe, who flies a Skylark 4 at Lasham and Talgarth, had also booked; Louis put us in touch and we arranged to share a hire car. Brian's BA flight out was already full so I preceded him, by Malev, on December 20.

A modest massif of gently rolling beech and pine-covered hills

Pronounced *jeunjeush*, the slightly sloping site is atop a 390m hill on the southern side of the Matra, a modest massif of gently rolling beech and pine-covered hills about 70km north-east of Budapest and a small-scale winter sports area. Only 7.5km NNE of the field is 1014m Kékestető, Hungary's highest peak. Much further to the north, in Czechoslovakia, are the Carpathians and the high Tatra mountains. Winds between 270° and 330° give the best wave but the Matra is so compact that southerlies can also be used for wave, gliders simply being towed out to the north, lee, side where there are perfectly good fields for landing out.

Every winter since 1979 Hungarian soaring pilots have foregathered at Gyöngyös, all the country's other 23 mainly flatland sites closing down. This year no fewer than 279 nationals had their names down, together with two German visitors bringing their own Astir, and us. The normal Gyöngyös fleet of six sailplanes was greatly supplemented for 17 Pirats, one IS-28, two huge Gawron tugs and a Wilga were shoe-horned into the stone-built hangar, complete with a fearsome mobile Soviet fan-drive furnace which blasts out air at 110°C for engine start-up in Siberian conditions.

The equipment was all in superb condition. Every Pirat had a Soviet diluter-demand oxygen system with enormous bottles, and a 360 or 720-channel radio. Not knowing what provision to expect I took my own barograph and earned odd looks from baggage searchers at Belfast airport with my hair lacquer too.

I need not have bothered for when György Szentgyörgi and Anna Domonkos, two professional instructors from other sites who were on hand with their excellent English for my arrival, led me into the clubhouse on the first morning, the first thing I saw was a rack of 37 barographs, with cans of lacquer ranged along the top. The baros were a mix of Soviet-made Winter clones and Swiss Paravias; each Pirat flies with one of each.

Galya-tető: at 966m the Matra massif's second highest peak, 11km upwind of the field. Photo: Bob Rodwell.

The briefing by Anna and György was thorough in the extreme, including a requirement to copy, freehand, a map of the whole operating area and a run-through of some excellent graphics which lined one whole wall.

In overall charge was the ever-smiling Willi Kóré, CFI, with whom all communication – beyond the smiles – was through interpreters. The efficacy of the map-drawing exercise in making one familiar with the area became evident when, with Willi flying and György translating, I had a 50min navigational familiarisation flight in a Gawron, landing in two of three designated emergency fields and making low passes over the third.

* * *

It was that icy Christmas Day before we were airborne in gliders and even then Brian and I were the only visiting pilots to fly, once it was established that the expected wave was very weak and wasn't going really high. With gas-guzzling 260hp tugs, they simply don't operate unless there is a real chance of the objectives being achieved.

Nonetheless, the hangar was largely emptied and the aircraft moved to the launch point by 0700, after an 0600 briefing, and they were then manned, uncomplainingly in the bitter cold, for hours before Willi scrubbed flying in the early afternoon.

By then I had logged just over an hour on a check flight in the IS-28 with trainee airline pilot Laszlö Nagy in the back, towing through rotor for about 15min to find any lift, releasing at 800m,

and unable to get above 1700m in lift which rarely touched even 1m/s, above the western slopes of Kékes and its deserted, thinly covered *piste*.

"Take the Pirat and fly a simple circuit" Laszlõ said as the wind moderated and the other aircraft were being put away. Broken ice fragments pounded like the hammers of Hell on the underside as I was towed off to 600m. Nine minutes later I was on the ground again, approaching through severe curlover at 140km/hr. "That was a perfect landing" said Laszlõ in hesitant English but impeccable judgment. With an instructor's compliment like that - rare enough during my 20 gliding years - I could well put up with the lack of any other Christmas presents today.

* * *

"The Hungarians are very willing and hospitable and take flying very seriously, if with some regimentation at times" Louis Rotter - himself Hungarian-born - had written in answer to my first inquiry.

Like that on any wave day, Boxing Day briefing was at 0600. If you're not there you don't fly, for among the topics which Willi swiftly dispatched was the allocation of aircraft: Brian and I had Pirat HA-4383 to share.

But if what followed was regimentation, let's have more of it, say I. Hangar unpacking began at 0612. As each de-tipped Pirat was rolled forward on a castoring dolly its outer wings were attached, a freshly charged battery and two barographs were clipped in place and a parachute stowed, its oxygen system was replenished to 28 bar from a hand trolley rolled to the cockpit, it was DI-ed, signed out and parked.

The first launch not long after the first rays of the rising sun

By 0640 the hangar was empty; all 18 gliders were either at the launch point or in the process of being moved there, the fearsome furnace was exhaling dragon's breath over the engine of the first tug and it wasn't even dawn. The first launch was at 0722, not long after the first rays of the rising sun had lightened the eastern sky.

I followed, several launches later, at 0803, releasing at 700m to climb, ultimately, to only 2950m in weak wave coming off Kékes, in what was to be the only real solo soaring flight of what was a hugely enjoyable but ultimately unfruitful trip.

It is distinctly odd to look around at a sky full of gliders, above, level and below, and find they are all of the same type - a brutally frank display of comparative performance, such as dinghy sailors must experience in One Design racing. Try as I might, I couldn't coax mine past 3000m.

The Hungarian radio chat was interrupted by the occasional call from Laszlõ, in English, checking on my height and position, or those of Brian who had been sent off in another Pirat in the hope of gaining at least his Gold height today.

It wasn't to be, Brian failing by 200m or so. I broke off and landed after 3½hrs, with exceedingly cold feet. But I'll long remember that flight for the golden beauty of the Matra and, eastward, the neighbouring massif known as the Bükk, a national forest park, and the high, snowy peaks of Czechoslovakia glinting an infinite distance away to the north.

The forecast was fog tomorrow (no 0450 reveille, thank God) but definitely promising for two days hence.

* * *

But in Budapest, like Bracknell, they get it wrong. "Gold, but not Diamond, is probable today" György said after conversing with Met, so Brian, who needed his, went first, only to encounter nothing but turbulence and landing after 15min. I was waved off at 600m, quickly gained 80m but then lost it and plummeted in a desperate search.

The Gyöngyös Pirat. Photo: Bob Rodwell.

Honour was partially regained on my third attempt. I failed to connect - and was setting up my approach when I encountered small convective bubbles at 200m. I was able to play these for nearly half an hour, never gaining more than about 50m, immediately above the field, watched by a crowd gathered at the hangar door. Brian defined scratching for György as "staying airborne but not getting anywhere in very weak lift", correcting adding that it was something pilots reared on Irish thermals have to do a lot.

* * *

Pressure was building and it built and built as the days wore on - an enormous high over most of the continent which stayed there, unmoving, through all of January. The freezing fog layer got thicker and thicker. On some days we were able to walk above it, in champagne air, on the Matra's higher slopes. But all the snow had gone.

The natives were wonderfully hospitable and full of suggestions for other things to do. We were taken to Hármas Határ Hegy (HHH), Hungary's first gliding site, in 1922, in the suburbs of Buda, below a splendid ridge and the home of one of the largest gliding clubs. On a sub-zero night, in thick fog and with ice underfoot, we bathed in a volcanic stream, discovered about 15 years ago when some hapless oil prospectors struck very hot water instead.

We ate and drank like kings, a stream of excellent meals coming from the Gyöngyös kitchen, including a birthday lunch for me, and for which we were never charged a single forint.

* * *

In May Hungary will virtually co-host, with Austria, the World Championships and it is likely that

Pilots in the World Championships likely to fly in Hungarian airspace

the majority of tasks will be set in Hungarian airspace for the venue, Wiener-Neustadt, is only a few miles inside Austria from Hungary's western frontier. The Hungarians are sending a sizeable contingent of tugs, with pilots, to help mount the show.

To see something of what contestants, and other summertime pilots visiting Hungary, can expect we drove on New Year's Day to György's club at Szekszärd in the south. Sharing a huge grass airfield with an agricultural fleet the club has a PIK 20D and Foka 4 in addition to Hungarian Gobé trainers, an IS-28 and the ubiquitous Pirats. The Buda club at HHH has 14 sailplanes, including two Jantar 2Bs, two Cirrus, a PIK 20D, an IS-29 and a Foka 5. So with tales of summer temperatures of 30°C, cloudbase at 2500-3000m and average thermal strengths of 2.5-3m/s, together with those endless prairie fields, the mind turned to the possibility of a summer trip to Hungary in search of a 500km Diamond too.

* * *

In the forefront of liberalisation as the last vestiges of the iron curtain come clattering down, Hungary has only recently geared itself to hosting visiting glider pilots from the west. All are welcome. Talk first with Louis Rotter on 0244 326555; he knows all the right people and set things up so well for us.

We booked our journeys and car hire through Danube Travel Ltd (01 493 0263) whose service was excellent and who fixed visas and London - Budapest return by air for £175. Prices in Hungary are like going back through a time warp into the early 1960s - one can dine and drink well on £2.50 and very memorably indeed for £5. We stayed in a very comfortable three-star hotel near the field, complete with indoor pool and sauna, for about £11 per night, B&B. Car hire, with unlimited mileage, was £106 per week.

Our flying bills, including the very lengthy power flights for geographical familiarisation, were only £94 each while the warmth and hospitality were, simply, beyond price. It would be a sin not to go again!

GRAHAM McANDREW

TEACHING AEROTOWING

An easy to understand guide to teaching how to deal with the glider getting out of position laterally

There have been some excellent articles in *S&G* on aerotowing, the most recent being the first class effort by John Gibson in the last April issue, p74. It is full of very well thought out conclusions and is essential reading for instructors and pupils.

It describes very well an easy technique for keeping the tug in position in the vertical sense and provides very good reasons for using longer tow ropes.

What I thought might be a useful addition is an easy to understand explanation of why a glider will get out of position laterally and what we can do to correct it. We need a similar technique that is simple to use, effective, convincing and easily understood, that instructors can use to teach a student how to deal with the tow.

Teaching aerotowing has never been easy and never will be. It requires time and patience and is made much more difficult, both to teach and to learn, if short ropes are used. It seems that no sooner does the pupil take over than the glider is wildly out of position and the instructor needs to regain control to retrieve the situation.

This problem is usually two-fold. The first and predominant reason pupils find aerowing difficult is that in an effort to give value for money, instructors normally attempt to teach them to fly the tow much too early. This is certainly true of the all aerotow clubs where a student can't get airborne any other way.

Generally as soon as he has been shown the basics of turning the glider he is asked to balance on the end of a piece of rope and fly in formation when he is in essence still trying to come to terms with the shock of being in the air. It is fundamental to training of any sort that a pupil will not be receptive to information if he is apprehensive, and what pupil isn't after only possibly three or four flights.

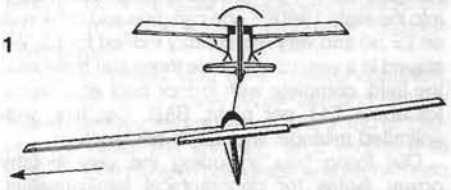
However this is only one of the problems encountered if you try and teach too early. It is impossible for the student to correct a situation if he does not first understand what is happening or perceive a problem. It is also very difficult to teach if the instructor himself does not understand what is happening to the glider during the tow.

What we need to do, therefore, is look at why the glider gets out of position, what the pupil will do in an attempt to correct this situation and finally what we can do as instructors to help our student.

First of all let us consider what would happen to the glider if we made no control inputs at all and the glider was allowed to fly itself. For clarity the diagrams show the glider below the tug; it would normally start from the normal or high tow position.

1. If the glider becomes banked, even slightly relative to the tug, it will move towards the lower wing.

1

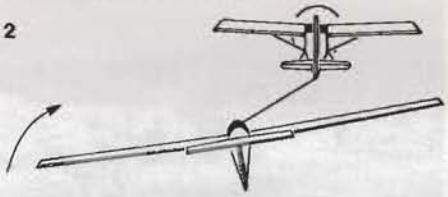


In this case the glider will move out to the left. The rate at which it will be displaced will depend upon the angle of bank of the glider relative to the tug.

Because the wings have lost some of their vertical component of lift the glider will descend relative to the tug and again the rate of descent will depend upon the angle of bank.

2. The glider is now out of position to the left and slightly below the tug.

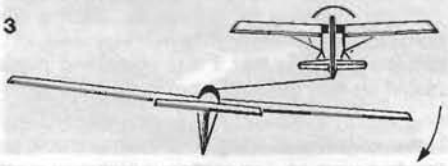
2



Because of the pull of the tow rope there is a strong tendency for the glider to yaw to the right. The outside wing will develop more lift due to its increased speed and as a result the left wing will begin to raise. As it does so the component of lift will become more vertical and the glider will climb slightly.

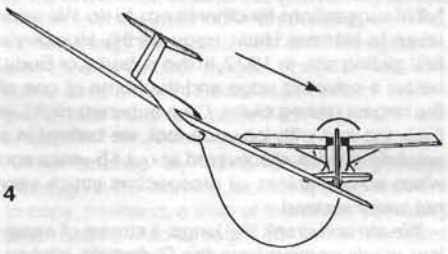
3. Although the wings are now level, the rope is still providing a yawing force because the glider is still displaced to the left and the glider will continue to roll to the right.

3



4. We now have the glider out to the left and rolling to the right. Remember that the pilot is not trying to correct the situation at this stage; we are simply seeing what will happen if no control inputs are made.

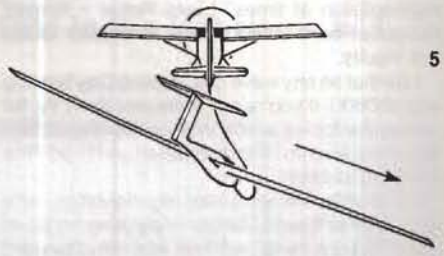
4



Because the right wing is now going down the glider will begin to move to the right, descending as it does so. The rope continues to supply a yawing force and the glider continues to roll and descend as we return to the centre position.

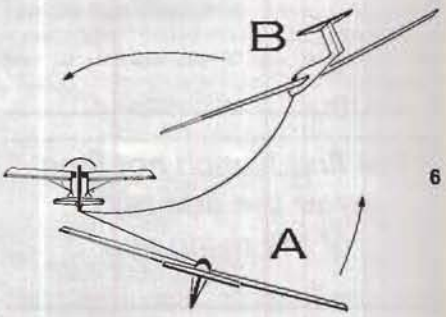
5. The glider is now back in the middle. Because it has been descending its speed has increased and therefore the rope has gone slack. The glider is still banked and continues past the centre line still descending.

5



6. The glider is now some way out to the right and lower than the tug.

6



The rope pulls tight which provides a powerful yawing force to the left (unless the rope breaks). The glider rolls very quickly to the left and as the wings come level it will climb quite quickly.

If the first cycle was small then a second cycle may begin in the other direction, although with a lot more vigour. More usually, however, either the rope will break or the tug or glider pilot will release when they realise the situation is out of hand.

What has been described is what will happen if no control inputs are made. If the glider is displaced it will return to its original position, but then continue past that position to become even further displaced on the otherside. In other words the glider's displacement relative to the central position is divergent. The situation is dynamically unstable. All very well. Now we see the problem let's look at what the student will normally do in an attempt to retrieve the situation. Again let's break the process down into individual events and analyse what the average student will try and do if we do not give any prompts.

In stage one the left wing is going down, but the student's perception is not far enough developed

to perceive this. He does not realise the wing is going down and therefore does nothing.

Stage two sees the glider out to the left. The student can see this as it is obvious he is out of position. He may even realise the wing is down. He will try to correct the situation by moving the stick and rudder to the right.

With this control input the glider will roll to the right and level its wings slightly more quickly than it would if no input was made. However, the student, seeing he is still out of position to the left, keeps the control on and may even increase it.

Stage four has been reached rather more quickly than it would have done if left to its own devices. Because of the bank applied by the pupil, the glider is now moving to the right and the student is happy with this state of affairs, so therefore makes no further control inputs.

Stage five and the glider is now back into position behind the tug, albeit a little low. The students, seeing no significance to angle of bank, ignores the fact that the wings are not level and therefore makes no effort to level the wings.

Stage six and the glider moves rapidly out of position to the right. The student's application of left stick and rudder reinforces the glider's natural tendency to move back into position which makes the swing to the left much more violent than the first.

Either the instructor takes over or the rope breaks.

So how can we as instructors prevent these ten second fumbles by students before we need to take control? What can we do to help? Again let us consider things a stage at a time.

What we need is a set of prompts suitable for each stage that will help the pupil decide what to do or tell him what to do if necessary.

"If he cannot see the angle of bank has altered then there is no point in saying anything . . ."

Stage one: The left wing is low and the student, who does not place any relevance to the angle of bank, does not do anything about it. This is either because as we have said he does not think it matters or he does not realise that the wing is going down. If he cannot see the angle of bank has altered then there is no point in saying anything, so no prompt is necessary at this stage.

Stage two: The glider is out of position to the left and the right wing is about to go down of its own accord. The pupil's response will be to apply right stick and rudder and do something that the glider is going to do anyway. This is what we need to prevent so we can warn him that the wing is going to go down by saying something like, "The right wing will go down, don't let it."

Stage three: As the wings come level we need to reinforce what we have just said and be a little more positive if it has gone unheeded, so a second prompt of, "Don't let the right wing go down," should be sufficient.

Stage four: If by this stage we have not prompted or the student has not responded to our prompts then we need to tell him exactly what to do, so a prompt of, "Pick the right wing up." would be appropriate.

Stage five: If things get to here without the pupil responding then, "I have control", is the best option.

Stage six: Probably better to release.

It is very important to specify **which** wing needs to be picked up during these prompts. Remember that the student is having difficulty because he either does not realise the significance of the bank or he cannot perceive the small changes in the angle of bank.

If he does not realise the significance of the bank, which he probably will not if he has not seen what happens, then it is important to demonstrate the above sequence of events, even as a standard demonstration when introducing aerotowing. Show what happens if a small angle of bank is applied and what will happen if nothing is done to correct it, *ie* the glider will attempt to achieve the correct tow position but will overshoot the centre line. If we try and interfere then things will happen a lot quicker. So as an introduction to aerotowing we should show how the glider gets out of position as well as how we get back into the normal tow position.

All of this is a complete waste of time if the pupil does not know when the glider is banked, even a small degree. It is impossible to teach aerotowing if the pupil cannot fly straight and level off tow without the glider wandering off a predetermined heading. A lot of people cannot and this is due to not enough emphasis being placed on this skill. The time to teach the tow is when the pupil can correct for small changes in the angle of bank and not after a set number of flights. Pushing a pupil to learn towing too early will result in a much longer period of tuition and a corresponding lack of confidence. It will almost certainly lead to an inferior quality pilot as the instructor responsible does not understand the process. It certainly is not giving value for money.

Learning aerotowing is a demanding, physically draining and frustrating business for both pupil and instructor. Initial attempts should be confined to the latter part of the tow, say the last 500ft after the initial demonstration. This is as much a safety aspect as a fatigue consideration. You can gradually increase the length of time the student has control when he can perform the exercise reasonably well until you can give him control as soon as you cross the airfield boundary. The next flight should obviously be the take-off.

Because of the demands on the pupil, it is advisable to take over control after release and fly the glider yourself for a minute or two until the pupil has relaxed and settled down before starting another exercise or expecting him to fly. Failure to do so may result in the pupil becoming mentally overloaded and produce poor results in his flying, or be unable to absorb new information.

It is worth bearing in mind that people who have learned to fly on the winch, and some exceptional individuals whose perception develops quickly, may not experience the problems described here. Having always been able to keep the wings level with the tug's wings they may be totally unaware of the yawing forces generated by the rope if the glider gets out of position. Indeed they may never have had to correct an out-of-position situation.

Before being allowed to fly solo on aerotow such individuals should be placed in a number of out-of-position and banked situations, contrived by the instructor. This is also a very good check to budding solo pilots that what you have taught them has actually sunk in and they can cope with a quickly diverging situation.

The test is an easy one to perform and an instant lesson and yard-stick both to the pupil and instructor alike. Take control of the glider at safe altitude, one that will not be an embarrassment if the rope broke or you were forced to release from, and fly the glider out to one side. After you have told the student that you want him to take over and correct the situation when you tell him to, fly the glider back to the centre using too much bank and descending slightly. Give the pupil control with the glider banked when it passes the central position.

Hopefully, if the student has been taught correctly, he should simply level the wings and allow the pull of the tow rope to bring the glider back in line. More usually, however, he will attempt to fly the glider back into position with stick and rudder and end up with a huge bow in the rope - they are normally so big that the only remedy is to release.

It is worth practising the diverging demonstration yourself first in a two-seater with another instructor so you can both see what is happening, compare notes and split the cost of the launch. Be warned, however, that it may not be a very long tow if you let it get out of hand, and believe me it does so very quickly. One oscillation is usually plenty to get the point across. Any more than that and you stand a very good chance of breaking the rope.

NEW PARACHUTE FOR GLIDER PILOTS

The latest edition to the Irvin Great Britain Ltd range is a Civilian Emergency Parachute, Type EB80, which is suitable for use in gliders and light aircraft, helicopters and balloons. The RAF have ordered 244 for the ATC and an optional extra to the combined pack and harness is a fleece lined comfort pad and a padded lumbar support.

Its slim design is ideal when space is at a premium and its smooth contours and flexible structure gives comfort, but most important of all it enables a fast, clean bale out. The Ministry of Defence testing agency said its performance is far superior to that of any previous emergency parachute.

It is used at a maximum 115kg AUW (when the descent rate is 17.7ft/sec) and can be operated safely up to 10000ft asl at speeds of up to 150kt. It embodies a new block construction, is steerable and has an extended skirt and net-filled drive panels for excellent stability and a low rate of descent.

After pulling the ripchord, the parachute is deployed with a "pop-top" auxiliary for rapid deployment - this eliminates the need for pack opening bands. The three point closure harness is robust, simple to fit and quickly adjustable. It weighs 6.5kg is 580mm long and 360mm wide and costs £625.

GLIDING AND UK AIRSPACE

This article by Chris Garton, chairman of the BGA Airspace Committee, follows the format of previous surveys, but the text has been extensively revised to reflect changes in the legislation and the option to use radio to gain access to certain categories of airspace.

Aerodrome Traffic Zone (ATZ). The following categories of airfield are protected by an ATZ: government aerodromes, licensed aerodromes with two-way air/ground radio, and aerodromes with an Air Traffic Control (ATC) unit or Aerodrome Flight Information Service (AFIS) unit. An ATZ is only active during the notified hours of operation of the airfield.

An ATZ comprises the airspace extending from the surface to a height of 2000ft above the level of the aerodrome and within a radius of 2 or 2½nm of the centre of the aerodrome, depending on the length of the main runway. An aircraft is not permitted to take off, fly or land in an ATZ without the permission of the controlling authority. This should be obtained on the notified radio frequency from the airfield's ATC or AFIS unit or, for non-radio gliders, by an advance phone call.

It should be noted that some civil airfields are listed in the **UK Air Pilot** as "PPR to non-radio aircraft" or even "not available to non-radio aircraft." All military airfields are effectively PPR (Prior Permission Required) and will not permit other than pre-arranged landings by civil aircraft, except in an emergency.

At airfields without ATZs, including most gliding sites regardless of how busy they are, an itinerant aircraft may legally penetrate the airspace near and over the airfield, providing the pilot conforms to the traffic pattern or keeps clear of the circuit airspace, and observes the normal rules of good airmanship to avoid collisions.

Military Aerodrome Traffic Zones (MATZ). A standard MATZ comprises the airspace within a 5nm radius of the centre of the airfield extending from the surface to 3000ft above airfield elevation. In addition, projecting stubs 5nm long and 4nm wide extending from 1000ft to 3000ft above airfield elevation are aligned with the approach to the main runway at one or both ends. Some MATZ may lack stubs, or form part of a combined MATZ (CMATZ).

The rules applicable to the penetration of a MATZ are not compulsory for civil aircraft and the same applies to the **Honington Military Control Zone.** However, inside every MATZ there is an ATZ, the rules of which must be observed. (see above)

Controlled Airspace (Rule 21). Where Controlled Airspace is notified as subject to Rule 21 of the Rules of the Air and Air Traffic Control Regulations, then that airspace is subject to instrument flight rules, whatever the weather may be. In order to fly IFR in controlled airspace a flight plan must be filed, the aircraft must be flown strictly in accordance with ATC clearances on a specified route or under radar control, and there is a specified standard of radio and navigational equipment fit. Since gliders cannot comply with these requirements, a glider pilot is not entitled to request entry clearance from ATC to any Rule 21 airspace (unless, exceptionally, the flight is the subject of pre-arranged permission or a Letter of Agreement).

Rule 21 airspace comprises:

Daventry CTA
Worthing CTA
London TMA
London Heathrow CTR
Manchester CTR
/Airways

The dispensation permitting gliders to cross all airways in VMC was withdrawn in December 1987, and replaced by a new Rule 21A, which permits gliders to cross specified airways below certain flight levels, and specifies the manner of crossing, as follows:

1. The crossing is to be carried out in the most expeditious manner and, as far as is practicable, at right angles to the airway centreline.
2. The crossing must be carried out in VMC, by day.

The **UK Air Pilot** contains a map showing the crossable airways, with maximum permitted crossing levels. In summary, these areas are:
Crossable below FL245: A25, B2, B3 (NW of Manchester), B226, G1, R1, R14, R39.
Crossable below FL95: A1, A2
Crossable below FL55: B3 (NW of Luton), R8 (west of Midhurst)

Other Controlled Airspace. The **Manchester TMA, Scottish TMA/CTR and Belfast TMA below 6000ft** permit aircraft (including gliders) to fly in these areas without ATC clearance subject to maintaining VMC. Some Special Rules Zones are also designated as Control Zones, the two designations applying to the same volumes of sky. In such cases it is the "special rules" that affect glider transits, and these are considered below.

Special Rules Airspace. Special Rules Airspace is of a less restrictive nature than Rule 21 Controlled Airspace, being accessible, subject to various weather limitations, to any aircraft fitted with a radio capable of contacting the designated ATC unit.

The "Special Rule" of interest to glider pilots is Rule 36, which requires a pilot wishing to enter the nominated airspace to:

1. Contact the ATC unit and pass details of the flight.
2. Obtain entry clearance
3. Remain on the frequency whilst in that airspace.
4. Comply with ATC instructions.

While all Special Rules Airspace, in theory, is available to glider pilots who are able to follow the above procedures, some SRAs and SRZs are notified as allowing an exemption to these provisions to gliders, provided that they maintain VMC.

Special Rules Airspace which gliders may penetrate in VMC without ATC clearance:

Aberdeen SRZ & SRA
Bournemouth/Southampton SRZ & SRA
East Midlands CTR/SRZ & SRA
Leeds/Bradford SRZ & SRA
Lyneham SRZ & SRA
Newcastle SRZ & SRA
Southend SRZ
Teesside SRZ & SRA
Scottish TMA/SRA above 6000ft (Rule 40)
Cross-Channel SRA (Rule 38)

(Note: Rules 38 and 40 are similar in their effects on gliders to Rule 36.)

Special Rules Airspace in which gliders need ATC clearance at all times

Belfast CTR/SRZ
Birmingham CTR/SRZ and SRA
Blackpool SRZ
Bristol SRZ & SRA
Brize Norton SRZ
Edinburgh SRZ
Cardiff CTR/SRZ and SRA
Glasgow SRZ
Liverpool SRZ
London City SRZ
London (Gatwick) CTR/SRZ and SRA.
Luton CTR/SRZ and SRA
Prestwick SRZ
London/Stansted CTR/SRZ and CTA/SRA
Manston Cross-Channel SRZ

Visual Meteorological conditions (VMC). To comply with VMC in order to cross an airway in accdance with Rule 21A, or for the purposes of using the exemption described above to fly in certain Special Rules Airspace, a glider shall remain at least 1000ft vertically and at least 1nm horizontally from cloud in a flight visibility of at least 5nm.

Local Agreements. A number of local agreements exist which modify the effects of

some of the airspace listed above. Letters of Agreement (LoAs) between a gliding club and a nearby airport can make airspace either more or less restrictive than described above, depending on circumstances. These arrangements are too numerous to list in full, but the principal ones are:

Luton - A large segment of airspace in the north-west of the Luton SRZ is delegated to London GC, up to 3500ft in summer and on request in winter, to permit gliding operations at Dunstable, London GC should be contacted for full details (See *S&G*, June 1987, p141.)

Stansted - Arrangements for glider transits of the Stansted area are the subject of a LoA between Stansted and the Essex and Kent GCs. See *S&G*, June 1987, P141.

Brize Norton - Glider transits of the Brize Norton SRZ are the subject of a LoA between Brize Norton ATC and the BGA. See *S&G*, April 1988, p89, for details.

Airway Bravo 2 - At weekends, the section of this airway between Glasgow and Aberdeen may be de-regulated on request from the Scottish Gliding Union to permit wave soaring from Portmoak to proceed unrestricted within the confines of the airway.

Advisory Airspace: A Radar Advisory Service Area is airspace in which a pilot may, if he so chooses, avail himself of the services of a radar unit. There is no requirement to do so, and a glider pilot should not assume that other aircraft are being separated from him, nor even that the radar unit is aware of the glider's presence.

An **Advisory Route (ADR)** is a route used by airline type traffic, but without the full protection of an airway. Gliders may cross an ADR without restriction, but care should be exercised.

Airspace above FL245. Above FL245, most of the country is covered by the Upper Airspace Special Rules Area (Rule 39), which is not applicable to gliders. The same is true of the Hebrides UTA, which covers western Scotland. The upper airspace contains Upper Air Routes and Military Training Areas. Glider pilots intending to fly at high altitudes would be well advised to acquaint themselves with these areas, since jet aircraft speeds are much greater than at lower altitudes, and their pilots may not be aware of the presence of gliders.

Upper Heyford Mandatory Radio Area (UHMRA). On weekdays gliders may only penetrate the UHMRA after establishing radio contact on 128.55Mhz, must listen out during transit and must call again on leaving or before landing within its confines. Gliders should not be issued with ATC instructions while within the UHMRA, unless they appear likely to enter the Upper Heyford ATZ.

At weekends and on UK and USA public holidays there is no requirement to contact Upper Heyford. Gliders based within the UHMRA are covered by special procedures defined in LoAs with the clubs concerned.

Purple Airspace. Purple Airspace is established from time to time on a temporary basis to protect Royal Fights in fixed wing aircraft. Full details are promulgated by special NOTAM. It is important that gliding clubs receive and publish this information, because gliders are not permitted to fly within Purple Airspace, even by contacting ATC. Royal Flight NOTAMs also cover royal helicopter flights. These are not protected by Purple Airspace, but all pilots are required to look out for and keep well clear of the royal helicopter.

Prohibited and Restricted Areas. Apart from certain security areas in Northern Ireland, **Prohibited (P)** and **Restricted (R) Areas** are established around atomic energy establishments and some similarly sensitive military installations. A Prohibited Area is prohibited to all aircraft, whereas a Restricted Area permits limited access by aircraft under certain circumstances, such as landing at a nearby airfield. Some Prohibited Areas have been redesignated Restricted Areas for this reason, but for gliding purposes they must be considered as "prohibited". It is most inadvisable to place oneself in the position of having to land in these areas.

"... the restriction is solely for protecting the Red Arrows display training ..."

The only Restricted Airspace established on a permanent basis that can be entered by a glider with ATC permission is **R313 Scampton**. The controlling authority is ATC Waddington, and the restriction is solely for the purpose of protecting the Red Arrows display training - normally not more than two periods of 20-30 min/day. The area is a circle of 5nm radius extending to 9500ft amsl and active only during Scampton's normal operating hours, which are weekdays and as notified by NOTAM.

Other Restricted Airspace is often established on a temporary basis, for example for the duration of major air displays, such as Farnborough. Local gliding clubs usually negotiate limited access routes to and from their sites to enable non-radio gliders to continue operating, but a glider equipped with suitable radio may fly in the area if it contacts the ATC unit designated by the NOTAM as the controlling authority.

Danger Areas. The UK is covered with Danger Areas of many types, shapes and sizes. They are active part-time, permanently or when notified by NOTAM. Full details will be found in the **UK Air Pilot,** RAC Section. The chart of UK Airspace Restrictions is also useful.

The **UK Air Pilot** lists only the type of activity most likely to be encountered, but in practice various hazards may be encountered in one area simultaneously. Furthermore high performance military aircraft may be encountered manoeuvring outside of the confines of the Danger Area, especially, if it is a Weapons Range Danger Area.

Many Danger Areas contain areas over which flight is prohibited at times within the period of activity of the Danger Area by reason of bye-laws made under the Military Lands Act 1892 and associated legislation. It is also worth noting that the **UK Air Pilot** does not list Danger Areas with upper limits 500ft or less above the local surface, to which prohibiting bye-laws may also apply.

With these exceptions, flight through a Danger Area is not prohibited, but may be foolhardy.

For Certain Danger Areas, a **Danger Area Crossing Service** is available, most notably for Salisbury Plain. A **Danger Area Activity Service** is available in other cases: this should be viewed as a means of establishing the state of activity of a Danger Area at a particular time, not as a clearance to cross it. A convenient summary of these two services and the ATC units to contact is printed at the foot of the 1:500000 series CAA charts.

Other Hazardous Areas. Other types of hazard include **free fall parachute sites.** The airspace is contained in a circle radius 1½ or 2nm from the centre of the drop zone up to a maximum of FL150. It may not be apparent to a glider pilot, observing the drop zone in flight, whether or not there is parachuting in progress; parachutists normally free-fall down to 2000ft agl and are extremely difficult to see. Beware!

High Intensity Radio transmission Areas contain powerful radio emissions which may cause interference with glider radios and electronic variometers. In particular, Fylingdales is so powerful that prolonged exposure may be injurious to health.

Areas of Intense Air Activity (AIAA) An AIAA is airspace which is not otherwise protected by regulated airspace, but where the activity of civil and/or military flying is exceptionally high, or within which aircraft regularly participate in unusual maneouvres.

Gliders may penetrate these areas, but in view of the hazards, a sharp lookout is essential.

Military Low Flying System. Low flying by high performance military aircraft takes place in most parts of the UK up to 2000ft agl, with the greatest concentration between 250ft and 500ft. A chart is available denoting the system **(UK Air Pilot,** RAC Section).

All gliding sites are notified to MoD, which affords them the status of a Military Avoidance Zone, radius 1½nm.

The Low Level Civil Aviation Notification Procedure (CANP) enables civilian aircraft operators to give advance warning to MoD of any activities that could conflict with low flying military aircraft. In the case of winch launching permission this is done automatically, but clubs planning to make use of a temporary aerotow or motor glider site, especially midweek, may wish to take advantage of CANP.

The Airmiss System. Glider pilots are accustomed to flying in close proximity to each other and may not appreciate that it can be quite alarming for the pilot of powered aircraft to suddenly encounter a glider at close quarters. An airmiss may be filed by any pilot who considers his flight has been endangered by the proximity of another aircraft. All airmisses are investigated by the Joint Airmiss Working Group (JAWG), whose ➡

A FIRST LEAD AND FOLLOW

And some practice for the Junior Nationals

The 1988 Junior Nationals were approaching. My training schedule had been devised by the most fiendish brains at Booker to thrust me at peak performance into the fray, with countless dashes round the Bicester/Didcot triangle at ever increasing speeds under my belt. I should have been brimming with confidence. Unfortunately our summer had put paid to all the plans, and the Bicester/Didcot triangle might just as well have been the Bermuda triangle as far as I was concerned. But things were looking up as, with desperate measures now called for, my CFI and I planned to do a lead and follow.

Holding the correct position as a follower was carefully explained to me, whereupon my leader, with loins girded, flung himself into the air. Twenty long minutes later, after a solicitous inquiry from aloft as to whether I'd finished my cup of tea, the Booker launch machine galvanised into action and flung me after him. Not an auspicious start.

Seriously though, this first lead and follow was quite traumatic and possibly not only for me! I was always slow, or low, or heaven forbid, low and slow. We would be in the same thermal and I would be reading 2kt while Graham would find 4kt. We would inevitably drift apart. We would be together in a thermal. I would be happily circling in my eternal 2 up and hear, "Karina, please straighten up after the next turn". Graham, thinking this was a lead and follow exercise, had left the thermal. Checking his wing mirror he had noted with some amazement that I had decided that he had left a perfectly good thermal far too early. I followed, by now too far behind to play the game properly and with more than just a sinking feeling in my stomach!

One of my greatest memories of the flight which actually led to putting pen to paper, went something like this:

"Turn tighter Karina, turn tighter."

"How can I turn tighter when there's nothing to turn into," I muttered to myself. Oh, definitely to myself!

"Turn tighter - Karina, what are you getting!"

"Fed up" said the little devil in my head.

Karina, an 18 year-old student, soloed on her 16th birthday and now has a total of 195hrs. She usually flies the club Pegasus and works in the Booker GC office at weekends to help pay for her gliding.

"Two down" I replied sweetly

A second's deathly silence; I cringed.

"What are you doing turning into 2 down? It's rising air we want."

"But you told me to turn tighter" I whined.

Another voice broke in.

My White Knight coming to the rescue

"For heavens sake Graham, give the girl a chance." Dave Watt, flying nearby, was my White Knight coming to the rescue. Graham came waltzing down from his eagle like perch in the sky, took me in tow, marked the thermals and waltzed upwards and onwards again, until he was once again a tiny dot in the firmament.

"Karina . . .!"

Oh no, hear we go again. I decided strong, independent action was required. Whatever he was finding wasn't for the likes of me. I headed for new, improved lift.

"Karina, where are you going? Come back to this thermal, Karina."

I was getting desperate and maybe even Graham was getting desperate. Time was running out as the weather deteriorated and my mental image of a triumphal return to Booker with our beautiful white Pegasus line abreast (in recognition of my performance) was starting to look distinctly unlikely. A planned (of course) landing at Dunstable was decided upon.

Graham said, "I'll go in first, so watch carefully what I do and follow me in. Don't land short or you'll roll back down the hill."

He dived away, spiralling down on full airbrake to high key, landed immaculately, got out and stood watching as, with this demonstration of perfection imprinted on my mind. I attempted a carbon copy. My spiralling was copy-book, my high key was somewhat lower than his so my circuit, although safe, was that bit lower and I had a prickly feeling on the back of my neck as visions of "rolling back down the hill" promised the perfect end to a perfect day. Thankfully my faithful Pegasus perched on the brow and stayed put. As Graham approached, whatever was in his mind (murder perhaps) was interrupted by rain, tons of the stuff. Well at least we'd timed it right. Oh all right then, **he'd** timed it right!

SAILPLANE NEWS

Ingo Renner, four times World Champion and current Open Class Champion, has decided to fly the new DG-600 in the 15 Metre Class at Wiener-Neustadt.

The DG-600 features the latest thinking in aerodynamic research with its slender wings and aft fuselage. The 17m wingtips are supplied as standard equipment.

By the end of January 16 DG-600s had left the factory and it is thought that of these a large number will be flown in the World Championships.

SOARING THE CONVERGENCE

The convergence is a meteorological phenomenon which is just beginning to be understood and has a big application in long distance gliding

If you consider a range of mountains running north to south the eastward facing slope heats earlier in the morning and a thermal rises up its slope. Later the whole mountain heats up so there is an easterly wind on the eastern side and a westerly wind on the western side and these winds converge to give a line of lift over the mountains. Depending on the humidity and instability of the atmosphere there may be cloud, even thunderstorms, or it may be blue.

The airmass on either side may be different so that the cloudbase could have a step of 1000ft where the two combine. Often the wind is stronger on one side than the other so that the massive cloud street which is formed is displaced 20 miles or more away from the mountains.

In a northerly wind at Fuentemilanos, Spain, the convergence can break into two main lines running north from Almanzor and Penalara, the two highest mountains. The trick of flying a fast Yo Yo (an extended triangle task developed by Ingo Renner) is to decide where the convergence is going to be and then plan your task so that the track runs under it.

Last July 19 there was a southerly wind and the convergence lay about 20 miles north of the airfield. It was like a thunderstorm complete with anvil about 200 miles long and two miles wide. Everywhere else was blue.

I caught wave at Riofrio lake and got to 19000ft with Ingo who was in the Janus with a pupil. He went downwind to Riazza, 50 miles away, losing 2000ft. I went north and flew alongside the cloud to Villatoro, got under the cloud and came home. While flying alongside the cloud I found it had a broad base with a narrow neck blossoming out to an anvil with mammatus below.

I was able to fly along in this tunnel surrounded on three sides by cloud like a surfer under a breaking wave. As I did so, some cloud tadpoles about 50m across broke away from the main mass of cloud below me like little mushroom clouds.

I don't care for the idea of bubble thermals but here was my refutation! On August 1 I caught the Riofrio wave to 8000ft then went north to find the convergence where the cloudbase was 15500ft. I flew to Ayllon through part of the line which was raining heavily and was knocked down from 13000ft to the ground in less than ten minutes and had to land out. The next day I had my revenge.

Brennig took this photograph flying beside the convergence at 13000ft.

A map of the area.

I tried to find the Riofrio wave but over the northern end I discovered weak lift which took me to 9000ft - wave or thermal I don't know but I went north to catch the convergence which had a base at 13000ft. I messed about for half an hour trying to get higher without success and gave a glance to the south to check my position. I looked again and realised that what I thought was La Granja was Somosierra.

At this height a gale was blowing and I had covered 40 miles to the north-east. I was in clear air and made for a good cloud north of Ayllon even further away, but by the time I got to it, it had died. I had 60 miles to go to get home in blue against a very strong wind.

James, I said to myself, you're going to have to fly with great sensitivity if your're ever going to get home. Just then I ran into strong sink and rejoiced because I knew that just upwind would be wave, and so it was, 4kt from 8000 to 11000ft and wave by wave I clawed my way back home.

The mass of the convergence was looking very nasty

About 20 miles out was a barrier of mountain and to the right was the mass of the convergence looking very nasty. To the lee of the mountain was down and I was down to 5000ft, less than 2000ft above unlandable territory. Then I got to the edge of the more inviting part of the convergence and found a 10kt plus thermal which took me to 16500ft. I bored on upwind and soared the shear wave on a cumulus to 17000ft, seeing to the south a stack of saucers over Penalara. I flew on upwind at 90kt which at this altitude must have been about 120mph and slowly made progress against the wind. At 11000ft I ran into extreme turbulence when one layer of air ground against the one below. Slowly I got to Avila, then streaked home with the wind behind me.

When I arrived I saw the field was deserted. What a fool I had been I thought thinking of the stack of lenticulars and the others at 30000ft in wave.

I asked where they all were and was told that they were afraid of a storm and had put the gliders away.

Ingo and I had often discussed that if the World Championships were at Fuentemilanos and there was a blue convergence someone who knew about it could make a stunning flight while those who didn't wouldn't achieve anything. On August 27 Ingo did in fact achieve this, flying a fast 750km in blue and using the convergence most of the time. Nearly everyone else, including me, had difficulty just staying up.

CASUAL FLYING

Phil Phillips, manager of Lasham Gliding Society, says it is the dirge of gliding

Every gliding club to a greater or lesser extent provides casual flying. Sometimes it consists of an unco-ordinated, unplanned "Who's next?" and the loudest to shout wins. It can, if slightly more organised, commit some members to 40th place on the list with a possible chance of flying at 6pm if the weather, launching facilities and the instructor all hold out. What an unsatisfactory way to hold the interest of the student and the instructor.

From the instructor's point of view it means a new face every two or three flights, all day long. There is no chance of planning the day to give best value, of staying with students to maintain continuity or giving collective briefings.

From the students' point of view, they don't know who they going to fly with until their turn comes up with no opportunity of choosing a particular instructor to reduce the number of people teaching them. Why not slip away until 3pm? After all they won't get any flying until 3.30 at the earliest. Why even stay with gliding if it's this inefficient and frustrating?

Don't complain about lost members and falling income

The message is clear. The old idea of making it difficult to sort out the keen types is just not good enough in today's leisure scene. Don't complain about lost members, falling income and death by slow strangulation if your club has not tried to address this problem. In fact, the larger the club the more important the need to rethink the organisation.

There is no doubt that students progress quicker if they have only two or three instructors and fly regularly. What is the solution? As a generalisation, the more courses available the lesser the need for casual flying. Many clubs have, dare I say it, followed the lead of Lasham and introduced the dedicated evening, early morning and weekend courses. These are popular at Lasham and over 120 students each year are trained this way. Of course there are some problems. Other members cannot come to Lasham after 6.00pm and expect to get a training flight on the casual list. Members trained exclusively in the evening are probably weak on gusty and thermic conditions etc but this can be remedied quickly and easily at a later date.

After a lot of thought, Lasham has now organised its weekend flying training up to at least Bronze badge level into mini one-day courses. At weekends the airfield is run by a group leader, an experienced full category instructor, who has a team of instructors, air experience instructors, launch point controllers and retrieve car drivers. There are six groups and therefore each group is on duty one weekend day every three weeks. Experience has shown that most instructors are willing to devote this amount of time.

Students arrive before 8.45am and put their names on a list with an indication of their level of experience and whether they require aerotows or winch launches. Some groups even have a chance to say which instructor they prefer. At around 8.30am the group leader is briefed on the availability of gliders - typically out of our fleet of ten, nine or ten are available. We allow one on hire and one on a weekend course and seven to eight go to the group leader, who will sub-allocate one for trial instruction flights and one for check flights. Working from the list, four or five students will be allocated to each remaining glider with a nominated instructor for the whole day.

Efforts are made to match the experience level and requirements of students in each of the groups and the flying order is then up to the instructor but will normally follow the allocation order. However, given a five minute chat with the students, the instructor can allocate the flying in the most efficient manner. For instance, the winch launch requirements first, then moving over to the aerotow as the cloudbase is likely to rise, then back to the winch.

What are the advantages? The students know they will have the same instructor for the whole day therefore continuity is maintained and less flights are wasted while the instructor gets to know their ability. The whole group have a vested interest in returning the glider to the launch point as quickly as possible.

Generally the system works well. If the flying list is full and it is unlikely they will be able to fly this gives them the choice of doing something else for the day. This removes one of the worst situations in our sport, that of pushing gliders all day then not being able to fly.

The late arrivals can be added to a group if numbers permit, but never allowing more than four or five students per glider. It is better to have 28 to 30 satisfied and well trained people than 45 to 50 frustrated, badly trained ones.

It is recognised this sort of organisation is necessary only in the larger clubs but it is quick and easy to organise, well worth the effort and group leaders have more time to fly.

How about trying it at your club? Obviously modifications to suit your organisation may be necessary but the fruits for the whole membership are worth the effort.

(Continued from p75.)

deliberations are confidential, except where a commercial airliner is involved, when the details are released to the press under new arrangements announced in 1988.

A glider pilot wishing to file an airmiss should initiate action as soon as possible after the incident, reporting it to the nearest ATC unit by radio, or by telephone after landing. The more accurate the detail and the sooner the report is made, the greater are the chances that the other aircraft will be traced.

A pilot who finds himself on the receiving end of an inquiry from JAWG should not be unduly concerned (assuming he has not committed some transgression), since the purpose of the investigation is to determine what lessons can be learnt, not to take punitive action. JAWG is well aware that random conflicts occur between aircraft in unregulated airspace as a matter of course.

References. The airspace situation is complicated and changing all the time. The following publications collectively provide a thorough and up to date information on UK Airspace.

Laws and Rules for Glider Pilots (BGA)
UK Air Pilot, RAC Section
NOTAMS
General Aviation Flight Guide
Air Navigation Order 1985 } Available as CAP 393 from Her Majesty's Stationery Office
Rules of the Air and Air traffic Control Regulations 1985 } Available as CAP 393 from Her Majesty's Stationery Office

Aeronautical Information Circulars, available FREE from Aeronautical Information Service (AIS 2c), Tolcarne Drive, Pinner, Middx. HA5 2DU.

Chart of UK Airspace Restrictions } both FREE from: CAA Chart Room, Room T1120, CAA House, 45-49 Kingsway, London WC2 B 6TE
Chart of UK AIAA's and Military Low Flying System } both FREE from: CAA Chart Room, Room T1120, CAA House, 45-49 Kingsway, London WC2 B 6TE

LOW-DOWN ON THE ALPS

William Malpas, who lives in France and spends much of the season mountain flying, continues his advice to British pilots who are taking gliding holidays abroad

My first mountain flying article in the April 1988 issue, p66, was concerned mainly with thermodynamic lift in the Alps, particularly with the question "How to find it?" This second part suggests what to do when you have found it.

For "plainsmen" the basic skill for successful cross-country flight is exploitation of thermals. For the Alpine pilot the corresponding skill is efficient utilisation of thermodynamic lift. The average British pilot has no problem with other forms of lift which occur in the Alps, but if he wishes to fly long distances during the summer, it will be largely thermodynamic lift that he will use.

How close?

The first-time pilot in the Alps is sometimes confronted with the problem of flying close to mountain sides while still on tow for his first flight! The tug pilot is trying to save him time and money and will be very unhappy if the glider pilot tries to "rudder" away from the rocks. This will tend to pull the tug even closer. And here we have the first question: how close is close?

If you refer back to the illustrations in the previous article, you will see that lift is represented by arrows which hug the mountainside. So the logical answer is: As close as possible, since the closer to the mountain the stronger the lift. However, logic can be taken too far! If a group of experienced Alpine pilots is asked "How close do you fly?", the answers will always start with the qualifications. Smooth ridges are much safer to approach than jagged ones and if the ridge is unfamiliar the approach should be gradual.

The question is also complicated by the subjective nature of how to appreciate closeness and answers such as one or two wing spans are often misleading.

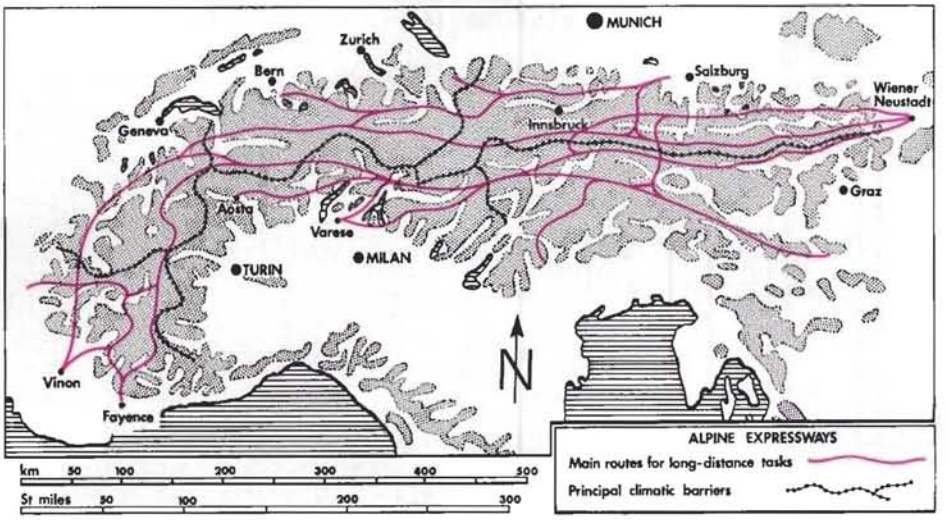
Some pilots find such closeness hard to sustain and until they have become accustomed to the situation, it is better to stay farther out, especially if, by yielding to the natural tendency to "rudder" or bank away, they are flying inefficiently.

Thermodynamic lift

In case the term is unfamiliar, please note the Oxford Dictionary definition: operating by the transformation of heat into motive power - which is already not a bad description. But more appropriately, the word neatly joins together the familiar ideas of thermal lift and dynamic lift, or hill lift, and that is what happens in the Alps.

How fast?

Exploiting thermals over flat country we have learned to fly as slowly as possible, even in steeply banked turns. If you do the same thing close to Alpine rocks, you are living dangerously. Depending on the glider, and depending on the degrees of turbulence and gustiness, speed should be maintained at a level where the glider is **instantly responsive** to all controls. This may mean flying at 70kt or more - there is no safe rule of thumb. It is a question of the feel of the controls. In any case, you will not be looking at the ASI because of the proximity to the rocks, so waggle those ailerons slightly to make sure that you can turn sharply and instantly when you need to do so. Neither is it any use looking for the horizon to check the attitude of the glider. If you are below the top there is no horizon! Even if you know a ridge, each time you return you must "re read" the indications; the angle at which you "crab" along the face, and the locations of sharp turbulence and wind shear.



The map shows the main Alpine expressways from Wiener-Neustadt in the north-east to Vinon and Fayence in the south-west. Notice how they tend to parallel the main climatic barriers rather than crossing them, and how they follow the mountains either side of the main rivers: Enns, Mur, Drau, Salzach, Inn, Add, Rhein, Rhone, Isere, Drac, Durance, Verdon. From Wiener-Neustadt to Fayence is approximately 1000km.

Ridge flying

So there you are, (say) two wing spans from a rock face. What do you do next? Flying on the hill at home you would wait for a surge of lift, check for other gliders, turn sharply 180° and beat back along the hill. In the Alps you will do the same, and you will be constantly on the search for a surge which you can turn into a real gain of altitude instead of a beat which merely holds the gain. The difference is only a matter of frequency at which the good surges occur. Whereas at home the good thermal off the ridge is reserved for certain days, in the Alps it is a daily phenomenon.

If you are well below the top of the rock face, the lift may be weak. It will be necessary to anticipate the surge by picking a spur or a ravine which is well exposed to sun or wind, or both. Don't wait for sight or sound of the vario. If you do so, it will already be too late. Turn immediately the surge is registered by your bottom. You turn towards the valley as tightly as you can without weakening your control over the machine and with a good look out for other gliders you are faced with a **decision** - to straighten up for another beat or to continue the turn. If in doubt, straighten up. If subsequently you decide it would have been better to thermal, you can always come back to try again. In the Alps, the lift will usually still be there! If you are fairly new to the Alps you are unlikely to have the "stomach" for thermalling close to a mountainside so no decision will be necessary.

Thermalling close to the mountain

Having completed 180° of the turn, if there is plenty of room, if the surge continues all the way round and if you have adequate airspeed you may continue the turn. But remember, you are now in the most vulnerable configuration in mountain flying. You are steeply banked, facing the mountain. If a gust now tries to modify your turn and you do not have the airspeed to resist it, you may not live to make another.

(Continued on p 83.)

"Close to the mountainside while still on tow". Ph

Above: "Crossing wide valleys". Photo: J. R. Faliu. Below: A shot from the film "Les Portes du Ciel" by A. Bouchardon.

FLYING IN T

Photo: J. R. Faliu.

THE ALPS

"Ridge height or slightly below" by A. Bouchardon.

Above: K-13 near Barcelonnette. Below: "Tree-climbing". Both photographs by J. Noel.

Going up

Assuming that you are making beats with 180° turns over suitable spurs – a very common situation - the next question which arises is: Are you going up?

You may be going up so slowly that it does not register with any certainty on the altimeter. Look at the trees or rocks as they "go by" on each beat. Pick a particular branch or rock and if you are just a little higher on the next beat, continue "tree-climbing" it is much more satisfying than tapping a reluctant instrument. It is a great confidence builder and keeps your eyes out of the cockpit.

Often you will climb all the way to the top by making beats or "eights", but as soon as you can dominate the mountain, make a few turns. This gives you a well-earned chance to relax (a little), look at the map and decide which mountain to attack next.

Other types of lift

Wave and rotor

With the abundance of mountains and valleys running in all directions, wave can occur in any wind direction. For most of the Alps northerly winds are more favourable than others and winter wave more frequent than summer. Wave can occur in clear blue sky, sometimes rotors are visible sometimes lenticulars, sometimes both. Other times the only visible manifestation is a Foehn gap. One particular situation which surprises a visitor to the southern Alps occurs on the day when he floats around a 300km triangle entirely in wave and discovers on returning that other pilots have done essentially the same task mainly or entirely at lower levels in thermodynamic lift.

Hill lift

Purely dynamic lift is obviously present everywhere, but it usually plays only a small part in cross-countries. It may be the key to a low save.

Convergence

A relief map of any part of the Alps shows at a glance many possibilities for two airmasses, coming from different directions, to meet and give a zone of lift. For example, two valley winds meeting at the divide which marks a climatic barrier, or the valley wind meeting the gradient wind at the head of a valley, may produce large cumulus with a high base and strong lift which lasts all day.

Restitution *(Late thermal sources)*

Many pilots in the Alps fly until nightfall and they discover that restitution takes many forms. Typically it will occur over the lower wooded slopes of the valleys and sometimes in the centre of the valley directly over the river.

Thermals

On days with high cloudbase everyone enjoys getting high and staying high. It is an excellent way to get to know new areas and the view is spectacular. It is not normally, however, the quickest way to complete a task, and on many days it is not possible to fly high above the mountains.

Moving on

In the general direction you wish to go you select a mountain you calculate you can reach at a reasonable height and which, having read my previous article, you think you will have a good chance of working at that height. Suppose that the mountain has a ridge which increases in height from one end to the other, which end do you aim for, the lowest part of the ridge or the summit? All other factors being equal, you go for the part you can dominate, which may be in the middle. If it is working well, you will probably be able to turn towards the summit and climb towards it without circling. If it is not working, you may have to run the other way towards the lower end until you find a zone which is working.

Line of maximum energy

This little exercise illustrates an important general principle. Over the flat country, if you are in a hurry, you are always looking for the line of maximum energy. Of course you are doing exactly the same thing in the Alps. Vertically, this line often turns out to be somewhere between the tops of the mountains and cloudbase, (say) halfway between. In the southern Alps of France it will probably be somewhat lower; at ridge height or even slightly below. Horizontally it will follow the ridge if the mountain is steep-sided, or slightly displaced towards the valley over mountains which have been rounded by erosion.

Although the last paragraph started by drawing a parallel with thermal flying over flat country, you will have noticed a significant departure in selecting the operating altitude. You will no longer be trying to stay within a certain altitude band. You will instead be trying to stay at a certain height relative to the tops of the ridges.

Speed to fly

It is principally the last consideration which will dictate how fast you fly. The first priority is to keep going at the right altitude without circling, and this may mean flying slower than the normal MacCready setting. It may also mean slowing down when crossing wide valleys or snow covered areas, and circling in the last bit of good lift before embarking on the crossing, unless you have heard radio reports of fabulous lift low down on the other side.

Getting low

You have pressed on and the fabulous lift which you anticipated is not *au rendez-vous*. You are now much lower than you would like to be and are approaching the point where the nearest landing field is not more than a 20:1 glide away. You no longer have any choices. The pressing on must stop and you change to survival mode. You will almost certainly not be able to see your field, but you start to move in its direction.

Since you are flying a high performance glider and have allowed for a 20:1 glide, you have a margin. Therefore, you can indulge in the luxury of visiting every likely ridge or thermal-producer en route, no matter how low they may appear compared with the high mountains which now tower menacingly on all sides. If you have already come some distance by thermodynamic lift and if the weather has not significantly changed, you will almost certainly be rewarded by a low save followed by some patient "tree-climbing". If not, the story of your Alpine retrieve will outrank any ordinary retrieve stories in the club bar next winter!

Radio reports

Periodic radio reports in the Alps have two principal functions. First, they keep other pilots informed as to your position - in case you eventually get lost or worse. Secondly, they give information to others coming along behind about the conditions which you have encountered and also any notable hazards. Because it is the practice of many pilots to make such reports, it is essential that they should be brief and if possible follow a standard pattern. Something like:

"Echo Charlie. Leaving the Grand Morgon at 2400m direction St Crepin. The west face of the Morgon was working well at 1700m."

This means that the British pilot should have already done his homework on two simple exercises:

1. Fit either a second altimeter registering metres or a card on the panel giving instant conversions.

2. Learn the names of the principal mountains.

If you insist on working in feet you will be isolated from the rest of the international gliding world, and you will find it necessary to change all the spot heights on your maps into feet. Altitudes are asl, of course - there is no need to say so each time.

THE ROYAL AERO CLUB AND THE FAI

(Tom Zealley was elected chairman of the RAeC in May 1988 and has attended the last five General Conferences of the FAI as part of the British delegation)

Although man's first flight in balloons had occurred in 1783, I suppose the pursuit of ballooning as a relatively widespread sport (albeit confined to wealthy gentlemen) had to wait until the ready availability of town gas at the end of the nineteenth century. The formation of an Aero Club in Great Britain was proposed by Vera Hedges Butler in a balloon on September 24, 1901. It was only a few years later, of course, that the Wright brothers did their thing and so for the first half of this century the Royal Aero Club (it became Royal in 1910) has been primarily devoted to power flying activities.

A significant change in the Aero Club's constitution in 1973 owed a great deal to two glider pilots - Philip Wills and Chris Simpson. The Aero Club as a place for pilots to frequent in central London had been declining for a number of years and in 1973 it went into voluntary liquidation with its then partner - the United Services Club in Pall Mall. Philip Wills was the RAeC chairman at the time and Chris Simpson as a Council member and lawyer, was deeply involved in drawing up the constitution of the new Royal Aero Club that emerged following the demise of the old.

The new structure became a federation of independent air sport associations

The essential feature of the new Aero Club structure was that it became a federation of independent air sport associations (of which the BGA is one), with a ruling Council comprised of one representative from each member association. Individual pilots can still join the Aero Club but they carry no vote on the Council. Five years ago a further modification to the constitution was introduced which involved a small increase in voting strength for the larger member associations - justified by their larger subscriptions to the Aero Club. Thus the BGA along with the parachutists, modellers and hang glider pilots all wield three votes on the RAeC Council. Some intermediate sized organisations such as the balloonists and microlighters each have two votes and the smaller, more specialist bodies such as the Formula Air Racing Association and the Precision Pilot's Association each carry one vote.

About half of the RAeC budget is absorbed in paying the UK subscription to the FAI. Of the remainder the largest part goes to the BGA office in Leicester which provides a basic administrative and secretarial service for the RAeC. Barry Rolfe is the secretary of the RAeC.

The RAeC has three (main) committees reporting to its Council. One of these - the so-called Parliamentary Committee, deals with the problems caused to air sport by the various official regulatory authorities. On this committee, representatives of all the different air sport associations compare notes on the various problems with which they are struggling, such as pilot licensing, airworthiness or airfield planning permissions. On some subjects, such as the "Hire and Reward" legislation, agreement may be reached for the RAeC to make representations to CAA, MPs or Ministers on behalf of all UK air sports. Needless to say, airspace is also a very important topic on this committee's agenda.

Another RAeC committee deals with annual awards - medals, trophies, certificates - granted to individuals or groups for outstanding achievements or services to air sport. This committee also has representatives from all the member associations.

The third main committee, the FAI Committee, is attended by the UK delegates of all the various FAI air sport commissions, such as our own CIVV or International Gliding Commission (IGC) as it is now called. This committee is chaired by the UK delegate to the FAI Council and provides an opportunity for information exchange on all FAI matters of common interest and on the activities of the FAI Council and General Conference in particular.

The FAI itself was founded in 1905 by the National Aero Clubs of Belgium, Britain, France, Germany, Italy, Spain, the Swiss and USA. A feature of the FAI constitution is that there can only be one member from each country. It is not possible for an organisation representing a single individual air sport in a country to become a member of FAI in its own right.

The Council of FAI is composed of delegates from each of its full member aero clubs (currently there are about 60) and this body carries overall executive powers. Ultimate authority rests with the FAI General Conference where there is graded voting power according to the level of subscriptions paid: The USA and USSR are in the top two membership classes paying the largest subscriptions and wielding the most votes. Britain is in class four along with France, Australia and Canada, amongst others. Full member classes range down to class 12 which includes such countries as Cyprus and Iceland.

Not all member countries participate in all the different air sports, of course. Britain claims participation in all except astronautics. Parachuting is the most widespread air sport with 60 participating countries; gliding is the third most widespread with 48 countries participating.

In practice, each FAI Air Sport Commission, such as our IGC, has been acting pretty well independently, looking after the rules and arrangements for its own sport. However, the formal position is that the Air Sport Commissions are subordinate to the FAI Council. Recent moves by the FAI Council to get involved in the sponsorship of all international championships and in the organisation of multi-air-sport championships, has provoked serious dissent and debate within FAI. Most of these problems in my opinion arise from poor communication. Whereas in Britain, through the RAeC, we have a good means of keeping our FAI delegate well-informed of the views of all British Air Sport Associations, this does not apply in many other countries where communications between the different disciplines in an aero club and its FAI delegate can be very poor. Indeed, in some countries such as USA and France, the National Gliding Association is not even a member of the National Aero Club which selects and briefs its FAI Council delegate. I'm glad to say, however, that the situation is changing: Canada now has a National Aero Club structure similar to our own and Australia is also contemplating change.

In any organisation such as air sport, which depends heavily on the time and efforts of part-time volunteers, maintenance of good communications is vital. Nearer home, we are aware of poor communications, sometimes, between our gliding clubs and the BGA. It needs constant effort to keep everyone informed and consulted, and *S&G* plays a vital role here.

When I first started gliding at Dunstable in 1959 there were two large grafiti messages painted on the side of one of the winches. The first said "Ground George" and the second said "Down with the BGA". Things can't be too bad: I'm glad to say that George only gave up flying (for health reasons) a year or so ago and Dunstable (the last I heard) is still a member of the BGA.

ANNUAL RECORDS

INTERNATIONAL GLIDING RECORDS (as at 20.2.89)

SINGLE-SEATERS

Height Gain	12 894m	P. F. Bikle, USA	SGS 1-23E	25.2.1961
Absolute Altitude	14 938m	R. R. Harris, USA	Grob- 102	17.2.1986
Straight Distance	1460.8km	H-W Grosse, W. Germany	ASW-12	25.4.1972
Goal Distance	1254.26km	B. L. Drake, D. N. Speight, S. H. Georgeson, New Zealand	Nimbus 2	14.1.1978
Goal & Return Distance	1646.68km	T. L. Knauff, USA	Nimbus 3	25.4.1983
Triangular Distance	1362.68km	T. L. Knauff (Nimbus 3), L. R. McMaster, J. C. Seymour K-H. Striedieck, (USA) (ASW-20B); R. L. Robertson, Gt Britain (in USA)	Ventus A	2.5.1986
100km Triangle	195.30km/h	I. Renner, Australia	Nimbus 3	14.12.1982
300km Triangle	169.49km/h	J. P. Castel, France (in South Africa)	Nimbus 3	15.11.1986
500km Triangle	164.11km/h	J. P. Castel, France (in South Africa)	Nimbus 3	10.12.1986
750km Triangle*	158.40km/h	H-W. Grosse, W. Germany (in Australia)	ASW-22	8.1.1985
1000km Triangle	145.32km/h	H-W. Grosse, W. Germany (in Australia)	ASW-17	3.1.1979
1250km Triangle	133.24km/h	H-W. Grosse, W. Germany (in Australia)	ASW-17	9.12.1980

MULTI-SEATERS

Height Gain	11 680m	S. Josefczak and J. Tarczon, Poland	Bocian	5.11.1966
Absolute Altitude	13 489m	L. Edgar and H. Klieforth, USA	Pratt Read	19.3.1952
Straight Distance	993.76km	S. H. Georgeson and Helen Georgeson, New Zealand	Janus C	31.10.1982
Goal Distance	993.76km	S. H. Georgeson and Helen Georgeson, New Zealand	Janus C	31.10.1982
Goal & Return Distance	1052.74km	E. Müller and K. Senne, W. Germany (in Australia)	Janus C	26.12.1983
Triangular Distance	1379.35km	H-W. Grosse and H. Kohimeyer, W. Germany (in Australia)	ASH 25	10.1.1987
100km Triangle	177.26km/h	E. Sommer and I. Andersen, W. Germany (in USA)	Janus C	26.7.1984
300km Triangle	158.47km/h	H-W. Grosse and W. Grosse, W. Germany (in Australia)	ASH 25	21.1.1987
500km Triangle	155.14km/h	H-W. Grosse and H. Kohimeyer, W. Germany (in Australia)	ASH 25	9.1.1987
750km Triangle	147.98km/h	K. Holighaus and R. van Tonder, W. Germany (in South Africa)	Nimbus 3D(T)	8.1.1988
1000km Triangle	138.07km/h	K. Holighaus and R. van Tonder, W. Germany (in South Africa)	Nimbus 3D(T)	10.1.1988
1250km Triangle	143.46km/h	H-W. Grosse and H. Kohimeyer, W. Germany (in Australia)	ASH 25	10.1.1987

SINGLE-SEATERS (WOMEN)

Height Gain	10 212m	Yvonne Loader, New Zealand	Nimbus 2	12.1.1988
Absolute Altitude	12 637m	Sabrina Jackintell, USA	Astir CS	14.2.1979
Straight Distance	949.7km	Karla Karel, Gt Britain (in Australia)	LS-3	20.1.1980
Goal Distance	748.37km	Joann Shaw, USA	Nimbus 2	17.8.1983
Goal & Return Distance	1126.68km	Doris Grove, USA	Nimbus 2	28.9.1981
Triangular Distance	847.27km	Joann Shaw, USA	Nimbus 2	5.8.1984
100km Triangle	139.45km/h	Susan Martin, Australia	LS-3	2.2.1979
300km Triangle	138.71km/h	Inge Müller, W. Germany (in SW Africa)	Ventus B	8.12.1984
500km Triangle	133.14km/h	Susan Martin, Australia	LS-3	29.1.1979
750km Triangle	110.53km/h	Pamela Hawkins, Gt Britain (in Australia)	ASW-17	17.11.1984

MULTI-SEATERS (WOMEN)

Height Gain	8430m	Adela Dankowska and M. Mateliska, Poland	Bocian	17.10.1967
Absolute Altitude	10 809m	Mary Nurr and H. Duncan, USA	SGS 2-32	5.3.1975
Straight Distance	864.85km	Tatiana Pavlova and L. Filomechkina, USSR	Blanik	3.6.1967
Goal Distance	864.86km	Isabella Gorokhova and Z. Koslova, USSR	Blanik	3.6.1967
Goal & Return Distance	649.63km	Tamara Sviridova and V. Toporova, USSR	LAK 12DP	24.5.1986
100km Triangle	126.28km/h	Adela Dankowska and E. Grzelak, Poland	Halny	1.8.1978
300km Triangle	123.33km/h	Inge Müller and C Müller, W. Germany (in SW Africa)	Janus C	7.12.1984
500km Triangle	95.72km/h	Daina Vilne and V. Toporova, USSR	LAK 12DP	16.5.1986

BRITISH NATIONAL RECORDS (as at 20.2.89)

SINGLE-SEATERS

Height Gain	10 965m	D. Benton	Nimbus 2	18.4.1980
Absolute Altitude	11 500m	H. C. N. Goodhart (in USA)	SGS 1-23	12.5.1955
Straight Distance	949.7km	Karla Karel (in Australia)	LS-3	20.1.1980
Goal Distance	859.20km	M. T. A. Sands (in USA)	Nimbus 3	23.4.1986
Goal & Return Distance	1127.68km	M. T. A. Sands (in USA)	Nimbus 3	7.5.1985
Triangular Distance	1362.68km	R. L. Robertson (in USA)	Ventus A	2.5.1986
300km Goal and Return	153.3km/h	M. T. A. Sands (in USA)	Kestrel 19	10.5.1983
500km Goal and Return	152.7km/h	M. R. Carlton (in South Africa)	ASW-17	24.12.1980
1000km Goal and Return	105.79km/h	M. T. A. Sands (in USA)	Nimbus 3	7.5.1985
100km Triangle	143.3km/h	E. P. Hodge (in Rhodesia)	Std Cirrus	30.10.1976
300km Triangle	146.8km/h	E. Pearson (in South Africa)	Nimbus 2	30.11.1976
500km Triangle	141.3km/h	B. J. G. Pearson (in South Africa)	ASW-20	28.12.1982
750km Triangle	109.8km/h	M. R. Carlton (in South Africa)	Kestrel 19	5.1.1975
1250km Triangle	109.01km/h	R. L. Robertson (in USA)	Ventus A	2.5.1986

MULTI-SEATERS

Height Gain	9836m	T. J. Wills and B. Iggulden (in New Zealand)	Twin Astir	13.1.1982
Absolute Height	10 607m	T. J. Wills and B. Iggulden (in New Zealand)	Twin Astir	13.1.1982
Straight Distance	472.43km	M. R. Carlton and M. French (in South Africa)	Calif A-21	18.12.1979
Goal Distance	472.43km	M. R. Carlton and M. French (in South Africa)	Calif A-21	18.12.1979
Goal and Return Distance	709.35km	R. C. May and S. G. Jones (in Finland)	ASH 25	11.6.1988
Triangular Distance	825km	B. T. Spreckley and P. Jones (in Australia)	Nimbus 3DT	7.2.1987
300km Goal and Return	118.75km/h	B. T. Spreckley and Gillian Spreckley (in Australia)	Nimbus 3DT	5.2.1987
500km Goal and Return	113.08km/h	M. R. Carlton and C. Greaves (in South Africa)	Calif A-21	23.12.1978
100km Triangle	137.22km/h	M. R. Carlton and Leonie Lawson (in South Africa)	Calif A-21	27.12.1978
300km Triangle	138.37km/h	B. T. Spreckley and P. Jones (in Australia)	Nimbus 3DT	6.2.1987
500km Triangle	108km/h	M. R. Carlton and C. Greaves (in South Africa)	Calif A-21	21.12.1978
750km Triangle	114.18km/h	B. T. Spreckley and P. Jones (in Australia)	Nimbus 3DT	7.2.1987

SINGLE-SEATERS (WOMEN)

Height Gain	9119m	Anne Burns (in South Africa)	Skylark 3B	13.1.1961
Absolute Altitude	10 550m	Anne Burns (in South Africa)	Skylark 3B	13.1.1961
Straight Distance	949.7km	Karla Karel (in Australia)	LS-3	20.1.1980
Goal Distance	528km	Ann Welch (in Poland)	Jaskolka	20.6.1961
Goal & Return Distance	545km	Anne Burns (in South Africa)	Std Austria	6.1.1966
Triangular Distance	814.01km	Karla Karel (in Australia)	LS-3	9.1.1980
300km Goal and Return	107.5km/h	Karla Karel (in South Africa)	ASW-15B	1.1.1975
500km Goal and Return	102.6km/h	Karla Karel (in Rhodesia)	ASW-15B	16.10.1975
100km Triangle	110.8km/h	Karla Karel (in Rhodesia)	ASW-15B	2.11.1975
300km Triangle	125.87km/h	Karla Karel (in Australia)	LS-3	12.2.1980
500km Triangle	120.69km/h	Karla Karel (in Australia)	LS-3	20.2.1980
750km Triangle	110.53km/h	Pamela Hawkins (in Australia)	ASW-17	17.11.1984

* Subject to homologation

UNITED KINGDOM RECORDS (as at 20.2.89)

SINGLE-SEATERS

Height Gain	10 065m	D. Benton	Nimbus 2	18.4.1980
Absolute Altitude	11 031m	D. Benton	Nimbus 2	18.4.1980
Straight Distance	827.9km/h	T. J. Wills	LS-6	29.5.1986
Goal Distance	579.36km	H. C. N. Goodhart	Skylark 3	10.5.1959
Goal & Return Distance	801.3km	C. Garton	Kestrel 19	22.7.1976
Triangular Distance	770.5km	C. C. Rollings	Jantar 2A	28.5.1985
300km Goal & Return	114.5km/h	D. S. Watt	ASW-22	18.8.1983
500km Goal & Return	93km/h	M. B. Jefferyes	DG-202	12.5.1984
100km Triangle	123.2km/h	R. Jones	Nimbus 3	13.8.1983
200km Triangle	108.6km/h	R. Jones	Nimbus 3	14.8.1983
300km Triangle	117.14km/h	R. Jones	Nimbus 3	28.5.1985
400km Triangle	114.3km/h	R. Jones	Nimbus 3	1.8.1984
500km Triangle	106.9km/h	R. Jones	Nimbus 3	31.5.1975
600km Triangle	88.8km/h	C. Garton	Kestrel 19	10.6.1976
750km Triangle	77.98km/h	C. C. Rollings	Jantar 2A	28.5.1985
100km Goal	150km/h	T. J. Wills	LS-4	12.5.1984
200km Goal	127.1km/h	A. H. Warminger	Vega	12.5.1984
300km Goal	132.8km/h	A. H. Warminger	Kestrel 19	24.4.1976
400km Goal	73.8km/h	T. J. Wills	Std Libelle	7.6.1976
500km Goal	90.7km/h	H. C. N. Goodhart	Skylark 3	10.5.1959

15m CLASS

Straight Distance	827.9km/h	T. J. Wills	LS-6	29.5.1986
500km Goal & Return	79.1km/h	J. D. Benoist	ASW-20	9.4.1983
100km Triangle	119.7km/h	T. H. Wills	LS-4	18.4.1981
200km Triangle	104.34km/h	T. J. Wills	LS-6	31.8.1986
300km Triangle	105.99km/h	A. J. Davis	Discus	5.8.1987
400km Triangle	95.88km/h	D. S. Watt	ASW-20FL	29.5.1985
500km Triangle	90.18km/h	D. S. Watt	ASW-20B	16.5.1986
200km Goal	127.1km/h	A. H. Warminger	Vega	12.5.1984

STANDARD CLASS

Straight Distance	718km	T. J. Wills	Std Libelle	1.8.1976
100km Triangle	119.7km/h	T. J. Wills	LS-4	18.4.1981
200km Triangle	104.87km/h	D. R. Campbell	Discus B.	9.9.1986
300km Triangle	105.99km/h	A. J. Davis	Discus	5.8.1987
400km Triangle	91.7km/h	S. J. Redman	Std Cirrus	31.5.1975
500km Triangle	79.61km/h	A. J. Davis	Discus	20.5.1988
100km Goal	150km/h	T. J. Wills	LS-4	12.5.1984
300km Goal	131.1km/h	T. J. Wills	Std Libelle	24.4.1976
400km Goal	73.8km/h	T. J. Wills	Std Libelle	7.6.1976

UK 750km DIPLOMA

1. Goal & Return	801.3km	C. Garton	Kestrel 19	22.7.1976
2. Distance	761km	D. S. Watt	ASW-20L	9.5.1980
3. Triangular Distance	770.5km	C. C. Rollings	Jantar 2A	28.5.1985
4. Distance	827.9km	T. J. Wills	LS-6	29.5.86

MULTI-SEATERS

Height Gain	7985m	M. B. Jefferyes and L. Sommersell	Silene	30.9.1987
Absolute Altitude	9009m	M. B. Jefferyes and L. Sommersell	Silene	30.9.1987
Straight Distance	421.5km	J. S. Fielden and Valerie Fielden	Bergfalke 3	14.8.1970
Goal Distance	421.5km	J. S. Fielden and Valerie Fielden	Bergfalke 3	14.8.1970
Goal & Return Distance	519.91km	R. C. May and P. Stammell	ASH 25	22.5.1988
300km Goal & Return	85.83km/h	R. C. May and M. Bird	ASH 25	5.5.1988
500km Goal & Return	74.49km/h	R. C. May and P. Stammell	ASH 25	22.5.1988
100km Triangle	106.25km/h	J. R. Jeffries and N. Foster	Calif A-21	17.8.1975
100km Triangle	106.25km/h	J. Edyvean and R. J. Crouch	Janus C	9.9.1986
200km Triangle	96.5km/h	R. Jones and M. Hackett	Janus C	10.8.1984
300km Triangle	91.72km/h	R. C. May and T. Stuart	ASH 25	11.4.1988
400km Triangle	86.6km/h	D. S. Watt and I. Hargrove	Janus C	1.8.1984
500km Triangle	88.4km/h	J. R. Jeffries and Gillian Case	Calif A-21	31.5.1975
100km Goal	132.36km/h	R. C. May and D. Brook	ASH 25	4.9.1988
200km Goal	113.3km/h	R. Miller and B. Tapson	Janus C	11.5.1984
300km Goal	107.4km/h	P. R. Pentecost and A. H. Pentecost	Janus C	7.5.1984

SINGLE-SEATERS (WOMEN)

Height Gain	7833m	Alison Jordan	Astir CS	8.10.1978
Absolute Altitude	8701m	Alison Jordan	Astir CS	8.10.1978
Straight Distance	454km	Anne Burns	Skylark 3B	10.5.1959
Goal Distance	309km	Anne Burns	Skylark 3B	12.4.1958
Goal & Return Distance	334.2km	Ruth Housden	Libelle	29.5.1982
300km Goal & Return	60km/h	Anne Burns	Nimbus 2	25.7.1975
100km Triangle	80km/h	Anne Burns	Cirrus	14.6.1970
200km Triangle	69.3km/h	Anne Burns	Std Austria	22.8.1964
300km Triangle	76.8km/h	Jane Randle	Kestrel 19	18.8.1976
400km Triangle	60.6km/h	Anne Burns	SHK	5.8.1967
500km Triangle	76.1km/h	Anne Burns	Nimbus 2	31.5.1975
100km Goal	89.3km/h	Vivien Haley	Pirat	4.5.1986
200km Goal	85.5km/h	Anne Burns	Olympia 419	2.6.1963
300km Goal	63.9km/h	Anne Burns	Skylark 3B	12.4.1958

MOTOR GLIDERS (+Also British National Record; †British National Record only)

SINGLE-SEATERS

Straight Distance†	652.7km	B. J. Wilson (in Australia)	PIK-20E	10.1.1983
Goal Distance†	415.1km	B. J. Wilson (in Australia)	PIK-20E	11.1.1983
Goal & Return Distance†	510.45km	T. J. Wills (in Norway)	DG-400	6.7.1986
100km Triangle+	76.5km/h	I. W. Strachan	PIK-20E	11.8.1984
200km Triangle	48.2km/h	I. W. Strachan	SF-27M	23.8.1976
300km Triangle+	83.1km/h	I. W. Strachan	PIK-20E	19.8.1984
500km Triangle†	71.75km/h	B. J. Wilson (in Finland)	PIK-20E	22.5.1980
100km Goal	85.7km/h	I. W. Strachan	SF-27m	16.7.1971
500km Goal & Return	93.09km/h	T. J. Wills (in Norway)	DG-400	6.7.1986

MULTI-SEATERS (†Also BRITISH NATIONAL RECORD)

Height Gain†	5882m	M. G. Throssell and P. Bartle	Janus CM	27.9.1988
Absolute Altitude†	6888m	M. G. Throssell and P. Bartle	Janus CM	27.9.1988
100km Triangle†	35.6km/h	P. T. Ross and H. Daniels	SF-28A	27.6.1976
100km Goal	76.2km/h	P. T. Ross and K. Winfield	SF-28A	22.8.1976
200km Goal	66.3km/h	P. T. Ross and P. Fletcher	SF-28A	18.7.1976
500km Triangle	78.45km	B. T. Spreckley and O. Pugh	Janus CM	16.5.1986

INTERNATIONAL MOTOR GLIDERS (as at 20.2.89)

SINGLE-SEATERS

Height Gain	9935m	M. D. Stevenson, USA	DG-400	25.10.1985
Absolute Altitude	10 408m	G. Cichon, W. Germany	Nimbus 2M	27.5.1979
Straight Distance	663.68km	D. Aitken, USA	??	25.6.1987
Goal Distance	655.07km	F. F. Ott, W. Germany (in USA)	PIK 20E	8.5.1987
Goal and Return Distance	1084.94km	O. Schauble, W. Germany (in South Africa)	ASW 22	9.1.1988
Triangular Distance	1089.98km	F. Rueb, W. Germany (in South Africa)	Nimbus 3MR	16.1.1987
100km Triangle	191.19km/h	B. Bünzli, Switzerland (in S. W. Africa)	DG-400	29.12.1987
300km Triangle	165.51km/h	B. Bünzli, Switzerland (in South Africa)	DG-400	22.12.1984
500km Triangle	170.05km/h	B. Bünzli, Switzerland (in S. W. Africa)	DG-400	9.1.1988
750km Triangle	150.81km/h	B. Bünzli, Switzerland (in S. W. Africa)	DG-400	17.12.1987
1000km Triangle	139.96km/h	B. Bünzli, Switzerland (in South Africa)	DG-400	28.12.1984

MULTI-SEATERS

Height Gain	5044m	M. L. Niebler and G. Kraus, W. Germany	G-109	26.9.1982
Absolute Altitude	6408m	M. L. Niebler and G. Kraus, W. Germany	G-109	26.9.1982
Straight Distance	952.53km	W. Binder and K. Heimann, W. Germany	Janus M	16.5.1980
Goal Distance	646.42km	G. Jacobs and G. Hüttel, W. Germany	SF-25E	28.4.1976
Goal & Return Distance	1017.17km	O. Wegscheider and O. Röder, W. Germany (in South Africa)	ASH 25	9.1.1988
Triangular Distance	1095.69km	E. Müller and W. Binder, W. Germany (in Australia)	ASH 25M	27.12.1986
100km Triangle	135.51km/h	W. Binder and M. Heide, W. Germany (in Spain)	ASH 25MB	13.7.1986
300km Triangle	152.53km/h	W. Binder and K. Senne, W. Germany (in Australia)	ASH 25MB	2.1.1987
500km Triangle	156.93km/h	O. Wegscheider and W. Schöfer, W. Germany (in South Africa)	ASH 25	2.1.1988
750km Triangle	127.57km/h	O. Wegscheider and Passenger, W. Germany (in South Africa)	ASH 25	25.11.1987
1000km Triangle	129.98km/h	E. Müller and W. Binder, W. Germany (in Australia)	ASH 25MB	27.12.1986

SINGLE-SEATERS (WOMEN)

Height Gain	8844m	Ingrid Köhler, W. Germany (in USA)	DG-400	12.6.1988
Absolute Altitude	10 245m	Ingrid Köhler, W. Germany (in USA)	DG-400	12.6.1988

New records have to exceed the old ones by: Distance 10km. Heights 3%. Closed circuit speeds 2km/h. Goal speeds 5km/h.
For records, no side of a triangle may have a length less than 28% of the total distance of the course, except that for triangles of 750km or more for International and British Records, or of 500km or more for UK Local Records, no side may have a length less than 25% or greater than 45% of the total distance.
Conversion Factors: Multiply km or km/h by 0.621 to get statute miles or mph. Multiply km by 0.54 to get nautical miles or kts. Multiply metres by 3.28 to get feet.

BGA & GENERAL NEWS

THE WORLD CLASS GLIDER

There is to be a competition to find a one-design World Class glider following a paper presented by Paul A. Schweizer at the 1987 OSTIV Congress. He felt there was a need for a simple, low cost glider and the International Gliding Commission (CIVV) approved the proposal in principle.

A group of experts will decide on the details of the competition and how they can ensure the production of the winning design, both by a manufacturer and in kit form.

The idea is to give pilots the chance to compete on equal terms as well as producing a relatively cheap glider suitable for clubs and private owners.

There was a similar competition 50 years ago when gliding was close to becoming an Olympic sport. There were five prototypes and the German Meise was finally selected, but the war stopped further progress.

The basic specifications are low cost, safety and ease of handling on the ground and in flight. The performance need not be very high - a best glide ratio of not less than 30:1 and a minimum sink of not more than 0.75m/sec are specified. The stall speed should not exceed 65km/h with a wing span in the range of 12 to 15m. It should also be possible to rig and derig the glider with only two people.

Final details of the competition will be announced at the IGC meeting in Paris this month (March) and we will have more information in the next issue.

THE PRIVATE PILOT'S LICENCE

In the last year or two there have been a number of changes in the requirements for the Private Pilot's Licence (PPL), whether for Group A aircraft or the self-launching motor glider (SLMG). There have also been changes in the "exemption route" to the PPL on the basis of gliding qualifications.

There are two documents which give the information:

Laws and Rules for Glider Pilots (10th edition) which gives a summary of the requirements, and

CAP 53, **The Private Pilot's Licence and Associated Ratings,** which is the definitive document.

Three changes are significant. The first was a requirement for some instrument flying instruction, 4hrs for Group A and 1hr for SLMGs and the second a navigational flight test. The third change is the replacement of spinning and recovery in the PPL syllabus with stall/spin awareness and avoidance training.

Problems

The particular problem was for glider pilots with a Silver badge who sought, on the basis of this qualification, to get an exemption from part of the requirements for the licence. Prior to all these changes the requirement for a glider pilot with a Silver badge was to get 3hrs pilot-in-command (PIC) time on the aircraft (Group A or SLMG), pass the General Flight Test (GFT) and the ground examinations. *An experienced, in-practice glider pilot might have qualified for the licence in as little as 5hrs flying.*

The changed requirements have imposed a need for several extra hours of flying:

- Two hours stall/spin awareness and avoidance.
- Four hours dual instruction in instrument flying in a Group A aeroplane or 1hr instrument flying appreciation in an SLMG.
- Approximately 1.5hrs for the Navigational Flight Test (NFT).

The minimum flying time to qualify for a licence is at least 11.5hrs for Group A and 8.5hrs for the SLMG, assuming conversion to type in only 1hr and no need for any navigation training.

The Exemptions

The particular problem for a glider pilot with a Silver badge was that it is no longer assumed that he or she has demonstrated any ability to navigate and the NFT is therefore compulsory. A further condition which the CAA imposed was that for a glider pilot to gain exemption from the full licence requirements he should be in reasonable flying practice, *a Silver badge gained 20 years ago with no flying since might not be considered adequate to be allowed the exemption.* As an example one glider pilot was required to get back to solo standard before being allowed the exemption entitlements, which is not really unreasonable!

It might be thought that assessments of an individual's experience in deciding how much training would be required to qualify for a licence could have been left to the flying training organisation to decide. They set the standards and would not put anyone up for test if they did not meet the standards required. But the CAA felt that there should be some control of the situation and so deemed otherwise. Before undertaking training for a licence it will be *normal/a requirement(?)* to submit details of experience to CAA (Flight Crew Licencing - FCL)

Other Exemption Possibilities

Given the additional requirements above it might be thought that these impose unreasonable restrictions on the individual. However, given the increasing complexity of controlled airspace the NFT certainly does not seem to be unreasonable. A glider pilot with a Gold badge and Diamonds for goal or distance is a different case altogether. He, in my view, should be exempt from the NFT and we, the BGA, would support his case.

Exemptions from part of the 4hrs instrument instruction and the stall/spin awareness requirements have also been given to suitably experienced applicants, usually instructors. Obviously there is a need for advice and assessment. The problem in getting due allowance made by FCL is that the person making the assessment may have little or no experience of gliding and a recommendation from the BGA would be generally more successful.

Bill Scull, *BGA director of operations*

JUNIOR CHAMPIONSHIPS

The Junior Championships will be run at Booker GC from August 26-September 3. The age limit is 25 years and application forms, available from the BGA office, must be in by April 30.

GLIDING CLASSIFIEDS

We are offering an extra service to our classified advertisers. As well as their advertisement going in S&G they will be repeated in the interim month on sheets to be distributed to all magazine subscribers and to clubs. For further details see the Classified Section.

It is also gratifying to report that our circulation has now risen to more than 8000 which means our advertisements are reaching a high proportion of the gliding community.

SLINGSBY WEEK

Yorkshire GC are hosting a Slingsby Week from August 26 to September 3 to commemorate the work of Fred Slingsby (who was ably supported by his wife "Fluff") and his services to gliding.

All being well "Fluff", who is now 93 years-old, will be present and owners of Slingsby gliders are invited - but the "fun flying week" is open to all glider pilots.

The organisers hope this will become an annual event and that the Kirkbymoorside Parish Council will play a part in the week in recognition of the employment Fred provided for the community.

Interested pilots should contact the secretary at Sutton Bank - there are no competition fees, just reciprocal membership charges.

USE OF 126 FORMAT CAMERAS

All users of Instamatic type, 126 format cameras are probably by now aware that the manufacture of black and white 126 film appears to have finished. Since many pilots, including competition pilots, use Instamatic type cameras as back-ups, the BGA Competitions Committee decided that guidance on the type of film to be used at competitions was required.

There were three basic options:

1. Allow colour 126 film to be used by competitors and require the organisation to process it. This makes it easy for pilots but would place a considerable burden on the organisation. Colour processing is complex and requires accurate control of temperature, time and chemical composition and, even when done properly, does not provide the same degree of contrast as black and white.
2. Allow colour film to be used by competitors but allow the organisation to develop it as if it were black and white film. This occurs from time to time by mistake and, although can work to a degree, would generally result in a haphazard standard of negatives; the resultant interpretation problems might well be excessively severe and lead to penalty points.
3. Exclude colour film from use in com-

petitions. This option would effectively exclude instamatic cameras and early Fototime cameras from competitions and force pilots to buy either a cheap 35mm camera (about £25) or opt for a time recording camera (from £50 for minute accuracy to £250 for second accuracy).

Option 3 is somewhat draconian and, since the larger clubs may feel quite competent to cope with colour processing, excludes a valuable local rule option to organisations. Similarly, option 1 could not be adopted by less well equippped organisations. Hence, as a compromise the following rule has been written into the **1989 Competition Handbook:**

The types of film which the organisers are prepared to develop are to be notified in Local Rules and pilots are responsible for obtaining and using only acceptable types of films.

If pilots feel obliged to use colour film when the organisation is only developing black and white film, do not be surprised at the results!

As a footnote, there is no evidence yet that a seconds-accuracy camera is due to appear on the market at a price similar to the cheapest minutes-accuracy camera which is believed to be the Konica Pop. If any readers do come across one there are lots of pilots who would be interested; perhaps they could then sell off their old 35mm cameras to instamatic owners?

E. W. Richards *on behalf of the BGA Competitions Committee*

AIR LEAGUE SCHOLARSHIPS

If you are over 17 and under 22 on May 31, 1990, and fancy the idea of power flying, you will probably be interested in applying for an Air League Educational Trust Flying Scholarship which gives 15 hours instruction. For more details and an application form, which must be returned by July 31, write to the Secretary, The Air League Educational Trust, Grey Tiles, Kingston Hill, Kingston-upon-Thames, KT2 7LW.

BGA ACCIDENT SUMMARY – Compiled by JOHN SHIPLEY, Chairman, BGA Safety Panel

Ref No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Injury	Pl/Hrs	Summary
106	IS-28M2A	M/G G-BMMX	S	4.9.88 1450	Winthorpe P2	0 0	N N	4500 +1750pwr ? +3.5pwr	On his second landing P2 flared rather too high off a full airbrake approach. The nose was raised too quickly and the motor glider stalled on to the ground from about 5ft. Initial inspection showed no damage so the aircraft was flown back to base where substantial damage to the undercarriage support structure was found.
107	LS-4A	3340	S	8.8.88 1340	Booker	22	N	670	The glider swung in a slight crosswind take-off and groundlooped around the left wing. The pilot failed to release due to his pulling the rudder pedal adjust knob instead of the release. The glider rotated in the air about the wingtip and was substantially damaged when it hit nose first.
108	Astir CS	2186	N	20.7.88	Usk	36	N	26	After rigging the pilot checked correct movement of the surfaces and positive aileron control checks in both directions. However, after take-off the pilot had roll control problems and severe vibration. With shallow turns the glider was landed downwind on the airfield. Non locked hotelier fittings were able to pass all checks. Safety pins now used.
109	K-21		M	18.9.88	Dunstable P2	35 22	N N	326 6min	After a previous cable break, where insufficient speed was gained, the student was briefed for a second try. The winch failed at 5-10ft and P2 pushed the nose into the ground before P1 could react. P1 had briefed the winch driver to cut power at 100-150ft and was not ready for a real failure. The club is reviewing this method of simulated failure.
110	Nimbus 2c	3159	S	22.9.88 1300	Nr Aboyne	53	N	384	Soaring in wave at 14000ft, the gaps started to close so the pilot descended into a gap upwind of the site. This closed and he let down through cloud on an easterly heading. The cloudbase was lower than expected and he made a hurried field selection, landed downwind and groundlooped to avoid a fence. (Luckily he broke cloud in a valley!).
111	Kestrel 20		N	3.9.88 1400	Parham	37	N	332	The glider appeared to be rather sluggish to control in roll but the ailerons seemed to move so the pilot thought they were connected. After soaring he landed and gently groundlooped. He found that his left aileron was disconnected. He had been interrupted during his DI, had failed to get a positive control check and rushed his pre-launch checks.
112	Pegasus	3107	M	14.9.88 1051	Parham	0	N	-	After release the winch cable drifted across the airfield and fell across a glider being rigged near the trailers, to one side of the field. There should have been no chance of such an incident but the winch had not been positioned far enough from the downwind side of the field. Briefing of winch drivers and instructors now improved.

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FAI YOUNG ARTISTS DRAWING CONTEST

The International Aerospace Education Committee of the FAI (Fédération Aéronautique Internationale) is organising a painting competition for young people on the theme: "My Dream - To Fly".

There are three age groups: (a) five to eight years of age; (b) Nine to twelve years of age and (c) thirteen to sixteen years of age.

Each country may submit three entries in each age group. A preliminary contest to select the British entries is being organised by AERO (the Air Education and Recreation Organisation). Entries are invited from any children and they should be forwarded to the BGA office in Leicester, to arrive by May 2. The rules are:

1. A3 format (297×420mm) only.
2. Watercolour, acrylic or oil paints, soft ball-point pens or indelible markers may be used.
3. Each painting or drawing to be marked on the back with the young artist's: full name, age, nationality, address and school's name and address.
4. The FAI will assume the copyright of prize-winning drawings.

ENLIGHTENED SELF-INTEREST

The elected BGA Committee is there not only to protect the interests of its members but also to do the forward planning necessary to ensure a vigorous gliding movement in the years ahead. The recent four year forward plan covered activities under the headings of: (a) Representation on Government bodies. (b) Coaching and Safety. (c) Development. (d) Competition. (e) Marketing. (f) Technical. (g) Membership Services.

It was considered that Development was of particular importance and that more resources should be allocated to achieve the objectives listed in the plan under that heading. These are:

1. Increase the total flying membership of the clubs.
2. Help clubs to increase their levels of activity.
3. Increase the number of clubs.
4. Increase the number of clubs with secure sites.
5. Improve the standard of club management.
6. Improve the ratio of club operated single-seater gliders to solo pilots.

The average age of glider pilots is increasing and unless positive action is taken to recruit young people to the sport then it will become an activity for geriatrics!

Throughout the country the age of the population as a whole is increasing and in some counties 50% of the population are over 50 years of age.

On the positive side these older people are being encouraged by Regional Sports Councils to participate in sport. They are more affluent and have more free time than many younger prospects. They are often very keen when they start gliding and are thrilled to be able to prove to themselves that new skills can be learned late in life. Recruiting older mem-

113	K-13	2610	M	7.8.88 1530	Challock P2	27 0	N N	260 -	After an approach by P2, who was practising his aiming point technique, he overflared and so P1 took over. He closed the brakes but failed to notice a large hole directly ahead. The glider clipped the edge of this, damaging the skid mounts. The hole was marked with white tyres and was visible from the air but long grass hid it when near the ground.
114	ASW-20	2650	N	3.8.88 1500	Challock	70	N	618	The pilot used both hands on the stick during the early stages of a bumpy aerotow ground run and he hit his head on the canopy. At about 35kt the glider dropped a wing and the pilot did not release before a groundloop started. Prompt release action by the tug pilot prevented a more serious incident.
115	K-6E	2099	M	28.8.88 1838	Long Mynd	42	N	157	After a 1½hr flight the pilot landed into the sun in quite turbulent conditions. The glider bounced about 6ft then landed heavily nose first and the foward fuselage was badly damaged.
116	Grob G109	M/G G-BMHR	M	7.9.88 1415	Old Sarum P2	56 49	N N	216pwr -	The motor glider was taking off when at about 40kt, just before rotation, the tail lifted and the propeller tip hit the runway surface. Power was cut immediately and the aircraft was brought to rest on the runway.
1	K-8	2839	W/O	1.10.88 1340	Aston Down	48	N	21	Returning into the circuit the pilot failed to appreciate the strengthening headwind. On finals he placed himself high but too far back considering the poor penetration of the K-8. At 150ft he realised he would not clear the fence so turned right to a field. This was full of cows so he turned right again and hit a wingtip and cartwheeled.
2	Jantar Std	2151	M	2.10.88 1730	Bryn-Gwyn-Bach	52	N	575	The instructor was asked to test fly the glider for a member. During the winch launch the drogue chute partially deployed then closed as the glider took off. At 20-30ft the chute again deployed and the driver cut the power thinking there was no load on the cable. The pilot was slow in lowering the nose and stalled in to a heavy landing.
3	DG-200	2368	M	8.10.88 1039	Aboyne	58	N	5545	At 1800ft on the aerotow the glider banked suddenly left and correcting action resulted in a steep right turn so the pilot released. He found he could not turn easily and fell out of wave due to no rudder control. He landed off a fast approach after some difficulties. The rudder had fallen off, having possibly slipped off the top hinge on take-off.
4	K-8	2718	M	12.10.88 1300	Challock	52	N	48	After a normal touch down the glider hit a rut and the front skid was broken off. The airfield was particularly rough in places making this type of damage inevitable.
5	Janus CM	M/G G-LIME	W/O	26.10.88 1510	Aboyne P2	20 21	M M	550 ?	The motor glider was returning to the airfield with the engine stopped when at 400ft the pilot realised he was too low. He attempted to restart the engine rather than land in one of several good fields. In doing so he undershot into a car park injuring both the crew and the occupants of several cars which were hit.
6	Jantar 1	2041	M	1.10.88 1705	Dishforth	69	N	390	The pilot was permitted to take off from the peri-track into a very slight crosswind. The tug pulled the glider forward with a jerk. The rope slackened, then was pulled taut again and as the glider moved forward the wing dropped and caught in the 12in long grass at the side of the track. The glider groundlooped and the fuselage was split.
7	K-6CR	1149	M	1.10.88	Brentor	56	N	30	After a bounced landing the glider drifted left in the 8kt crosswind. Just prior to stopping the left wing hit a fence post and was damaged. The club has now improved briefings and highlighted the fence with dayglow markers.
8	Falke	M/G G-BEGG	S	13.11.88 1245	Turweston	53	N	230 +pwr	After landing, the motor glider turned left to back track and in doing so the main wheel slipped off the edge of the grass strip on to the adjoining field. The 4in drop caused the propeller tips to hit the ground.
9	K-8	2083	S	26.11.88 0947	Portmoak	48	N	7.5	The pilot thought he had a normal winch launch but experienced a lot of sink on release. In fact it appears that his airbrakes had opened and he continued a circuit with them fully extended. In trying to complete a low final turn the wingtip struck bushes and a section was broken off.
10	PIK 20D	2535	M	7.8.88	Saltby	57	N	250	The pilot aborted the winch launch at about 50ft and went to land ahead. He decided that he would not need airbrakes and put his hand on the flap lever ready to use negative flap on the ground run. As a heavy landing looked likely he instinctively went to close the airbrakes. This raised the flaps and dropped the glider on to the runway.
11	K-6CR	-	M	30.10.88 1500	North Hill	57	N	54	The pilot failed to allow for significant curl over during his circuit and went too far back for the prevailing conditions. He realised this on final approach and tried to stretch the glide to get over the boundary hedge. The glider was stalled when at about 10ft and landed heavily.

S=serious; W/O=write off; M=minor; N=nil.

bers brings money into clubs which can be used to encourage young people to join by way of reduced subscription, reduced launch fees or other incentives.

Gliding still has the image of a minority, elitist sport. It is up to glider pilots all over the country to dispel this image and help with a public relations exercise which will help gliding as a whole and your own club in particular.

A relatively minor effort round your site would involve visiting libraries, sports centres, schools, colleges and universities and leaving literature and a poster with the name, address and telephone number of your secretary at the bottom. Many local authorities are setting up data bases to be used on Viewdata schemes. Do make sure that the details of your club are included.

Those pilots public spirited enough to sacrifice the time could prepare interesting short talks on gliding and volunteer to address the older classes in schools; enthusiastic reception is guaranteed. This is, unashamedly, a plea for help. Without it the Development Committee has no hope of achieving the objectives in the four year plan and gliding will be the poorer for it.

Please make a positive commitment by writing to the BGA or to me saying what you propose to do and following up with a report on results achieved. If you have ideas of your own **do please share them with us.**

Humfrey Chamberlain, *BGA Development Committee chairman*

WORLD CHAMPIONSHIPS FUND

Up to February 9 we have received donations to the World Championships Fund from the following:

Kenneth Bell, Humfrey Chamberlain, Gp Capt A. G. Cleaver RAF, Andrew Cunningham, R. Dixon, Basil Fairston, L. R. B. (Rowland) Greenhalgh, William Rice Johnston, Alan Jury, George Metcalfe, "Reekie", Peter R. Roubaud, David Smith, G. Upson, Rodney Witter.

GLIDING FOR THE YOUNG

In recent years there has been a lot of interest from young British pilots in the subsidised courses, mainly of gliding, run by the German Aero Club's youth organisation for 16 to 25 year-olds from all over Europe. They are held at Hirzenhain near Marburg. If you would like more details, write to *S&G* enclosing a sae.

STRUCTURE OF THE BGA

The membership structure of the BGA is now made up of 83 full members, three of whom have affiliated clubs as follows: Army Gliding Association - two clubs, RAF Gliding and Soaring Association - 11 clubs and the Royal Naval Gliding and Soaring Association - three clubs.

Operations. During the year ending September 30, 1988 (1987 figures in brackets), member clubs (civilian and combined services) flew 144 259 (151 308) hours and 770 358 (919 231) kilometres cross-country from 419 602 (449 468) launches from club sites. Club owned gliders total 508 (523) and privately owned gliders 1375 (1303).

Certificates. were issued as follows: A endorsements 1373 (1706), B endorsements 187 (223), Bronze badge 423 (433), Silver badge 204 (222), Gold badge 53 (59), Diamond goal 48 (45), Diamond height 36 (62) and Diamond distance 17 (16).

A certificates were applied for by 620 (726) holders of the ATC proficiency certificate.

GLIDING CERTIFICATES

Dishforth Christmas holiday gliding expeditions are more famous for drinking bars than wave bars, but Santa delivered on the last one! Special congratulations to Paul Mason of Clevelands GC who gained Gold height on Christmas Day.

Amongst those completing all three Diamonds is No. 255 Peter Hearne, ex Dunstable and latterly of Lasham, who is an eminent director of a major avionics company and a past president of the Royal Aeronautical Society.

It is with much regret that pressure of my "proper" job necessitates my retirement from BGA service after five years as the certificates' officer. It has been a great pleasure to "re-live" all the flights which are claimed for badge legs, and I would like to express admiration for the conscientious work done by our OOs.

Good luck to my successor, Mike Sinclair, a research physicist by profession, who has been gliding at Booker for 15 years.

Gordon Camp, *FAI certificates' officer*

ALL THREE DIAMONDS

No.	*Name*	*Club*	*1988*
253	Dawson, M. R.	Bannerdown	27.10
254	Lloyd, K. H.	Cotswold (in France)	24.3
255	Hearne, P. A.	Lasham (in USA)	29.5
256	Piggott, P. C.	Coventry	8.1.89

DIAMOND HEIGHT

No.	*Name*	*Club*	*1988*
3/860	Dawe, R. A.	Fulmar	26.10
3/861	Dawson, M. R.	Bannerdown	27.10
3/862	Goodwin, M. P.	Bannerdown	4.11
3/863	Pirie, M. A. M.	Cotswold (in France)	17.3
3/864	Lloyd, K. H.	Cotswold (in France)	24.3
3/865	Hearne, P. A.	Lasham (in USA)	29.5
3/866	Day, M. T.	Lasham	27.10
3/867	France, J. H.	Herefordshire	18.12
3/868	Hodge, B. J.	Fenland	28.12
3/869	Piggott, P. C.	Coventry	8.1.89

GOLD BADGE

No.	*Name*	*Club*	*1988*
1283	Jeffers, P. G.	Booker	14.10
1284	Green, P. A.	Lasham	27.10
1285	Gentil, P.	Cotswold	27.10
1286	Goodwin, M. P.	Bannerdown	4.11
1287	Pirie, M. A.	Cotswold	17.3
1288	Mason, P.	Clevelands	25.12

GOLD HEIGHT

Name	*Club*	*1988*
Vaughan, R. A.	North Wales	29.8
Baker, I. G.	Cambridge Univ	29.9
Holland, R. L.	Avon	29.9
Jeffers, P. G.	Booker	14.10
Marlow, A.	Booker	26.10
Smith, K. J. G.	Lasham	26.10
Gresty, M. L.	Cotswold	26.10
Williams, D.	Cotswold	27.10
Wilson, F.	Cotswold	27.10
Green, P. A.	Lasham	27.10
Gentil, P.	Cotswold	27.10
Goodwin, M. P.	Bannerdown	4.11
Kingsland, K. J.	Deeside	12.11
Pirie, M. A.	Cotswold (in France)	17.3
Milne, R. M.	SGU	6.12
Roberts, V. J.	SGU	6.12
Fall, D. A.	Herefordshire	18.12
Mason, P.	Clevelands	25.12
Astle, Lindsey	Coventry	28.12
Pitchfork, R. G.	Clevelands	29.12

SILVER BADGE

No.	*Name*	*Club*	*1988*
7816	Hornung, S.	Essex & Suffolk	3.9
7817	Loftus, A. B.	Wolds	28.5
7818	Johnson, D. L.	Cotswold	11.9
7819	Spiers, C.	Coventry	17.12
7820	O'Regan, A. J.	Booker	7.8
7821	Nuttall, K. I.	Midland	14.1.89
7822	Crabb, S. J.	Coventry	3.9

UK CROSS-COUNTRY DIPLOMA

Part 1

Name	*Club*	*1988*
McDermott-Row, H.	Ouse & Hambletons	16.8
Crabb, S. J.	Coventry	23.8
Curley, J. A.	Coventry	30.9

CLUB NEWS

Copy and photographs for the June-July issue of *S&G* should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH to arrive not later than April 4 and for the August-September issue to arrive not later than June 6.

GILLIAN BRYCE-SMITH
February 8

ANGUS (Arbroath)
Members were much saddened by the death of Ron Davidson in October. A highly respected and popular instructor, Ron was the first member to achieve his 300km from Condor. He is greatly missed by us all.

At a film night in November, Gordon Neill was congratulated and honoured on achieving his 50th year in flying. Gordon, a senior instructor, was presented with a Caithness engraved paperweight, a "This is Your Life" dossier and a fine painting of his wartime Spitfire by Guy Davidson, a fellow member, to commemorate his distinguished service in the RAF in World War 2.

Congratulations to Moyra Haxton and Julie Slater on going solo, Julie on her 16th birthday; Carole Horribine on her Bronze C and to Brian Morris, Dave Porteous and Ron Smith on their AEI ratings.

The AGM was in January and Mike Davidson continues as chairman with Jean Forbes and Francis Webster joining the Management Committee.
H.P.McK.

AQUILA (Hinton in the Hedges)
Our first autumn expedition to Sutton Bank was marred by strong winds although the visit to the Long Mynd was excellent with good wave on three days which we reached with the help of our Pawnee.

Our open day in May is to encourage new members.
J.R.

BANNERDOWN (RAF Hullavington)
Mel Dawson completed his Diamonds in the Cirrus at Aboyne in October, going to 27 000ft. Martin Goodwin also made Diamond height in the same wave in the Discus in which he was pictured on the back cover of the December issue of *S&G*.

Christmas Day saw the traditional pre-turkey flying in the T-21. The more adventurous went to Dishforth where Andy Smart gained Diamond height with 20000ft following three good climbs and Andrew Mills Gold height in the Astir. Keith Earnden flew 300km in a Mosquito at Benalla.

The AGM in February was followed by dinner with Ralph Jones as the guest speaker.
D.C.F.

BATH & WILTS (Keevil)
At our annual dinner-dance, ably organised by Jane Spencer, the Gordon Mealing trophy for services to the club went to Cyril Needham and the Cross-county Ladder trophy to Jim Gardiner.

Congratulations to Michael Chalmers and Greg Butler on going solo. Our thanks to Ron Lynch on agreeing to become CFI, yet again, and to Richard Marsh for his two years' hard work as CFI.

As a result of our superb cross-countries last year, we have applied to join the Inter-Club League.

Obituary - Jeremy Menzies
It is with regret that we announce the sudden and untimely passing in his sleep of Jeremy Menzies on December 10.

Jeremy came to us ten years ago from Tangmere. His real passon was vintage gliders and his many re-builds bear the testimony to his search for perfection irrespective of time spent on the project. Although something of a loner, anyone who showed any interest in the practical side of gliding was sure of endless assistance and advice. His wit and in-depth knowledge of aircraft of all types will be sorely missed.

Jeremy's ashes were scattered over Keevil Airfield where he spent many happy hours.
M.G.

BICESTER (RAFGSA Centre)
Ted Richards started 1989 well with a 1½hrs flight on New Year's Day as did Mu and Gru with more than 30min.

Jed Edyvean won the RAFGSA Emmett trophy for the highest placed service pilot in a Nationals and Paddy Hogg was presented with a huge photograph of his syndicate ASW-22 on his retirement as club manager after 30 years in the RAF.

Ian Smith has left for four months in the Falklands.
M.H.

BLACK MOUNTAINS (Talgarth)
We had a good start to our full time operation with a record number of gliders flying over the Christmas/New Year break and expeditions bring two-seaters from Nympsfield, Bedford and now Lasham.

We had a lot of flying and wave in January produced heights of 12000ft. Mountain flying courses are well booked and our 10th anniversary barbecue will be on August Bank Holiday Monday.
T.J.W.

BLACKPOOL & FYLDE (Chipping)
It's been a poor winter but we have bought two K-8s to replace the Oly 2B, now owned by a member. Congratulations to Gary Wynn on completing his instructors' course.

No one has ever visited our site by air (without an engine). Please regard this as a challenge!
V.H.

BOOKER (Wycombe Air Park)
We will be hosting a fair proportion of the national coach's instructor training courses this year - especially completion and full rating preparation courses - and wish to stress that these are not just for the copious Booker membership.

We have four more single-seaters than last year but only two more multi-seaters which reflects our boredom with routine training and a move to do even more exciting things.

In addition to the arranged BGA instructor completion courses, Booker are running a series on demand. If interested, contact our office or the BGA.
M.F.C.

BORDERS (Galewood)
Both our two-seaters, the Blanik and YS-53, had damaged undercarriages in heavy landings which meant buying a rather elderly Bocian as a stop gap. Since then three members went to France to buy a Bijave which is so popular we are buying a second. The Bocian is having a respray and C of A.

The annual statistics (last issue, p34) show our average flight time as one of the highest, which is probably because even the two-seaters regularly soar.
A.J.B.

BURN (Burn Airfield)
Our new Motor Falke is busy earning its keep and we are considering buying another K-8. Our Pawnee, bought 18 months ago, is a very worthy asset, complementing our two winches.

In January we entertained local residents in our clubhouse with an audio-visual display members recorded whilst flying in the Alps. It was very successful and good for public relations.

Congratulations to Alan Daegetty (re-solo) and to Alan Sample, Adrian Pinder, Brian Scothern, John Wilson and Colin Stoves on going solo.

We already have good bookings for our mid-week evening flying courses starting in April. Old members and visitors are most welcome.
M.T.

CAMBRIDGE UNIVERSITY (Duxford)
Steve Longland has taken over as CFI from Alan Dibden. Our thanks to Alan for all his work over the last few years.

Congratulations to Tim Moore who went solo shortly after his 16th birthday and to Mike Smith on his Gold height at Sutton Bank, which he did again a few weeks later on a return visit.

The series of winter lectures from cross-country flying to medical aviation have been well attended.

Our T-21, "Bluebell", is being restored and should fly this summer.

To raise funds for a video recorder, we held a curry evening in the clubhouse.
J.L.B.

CHANNEL (Waldershare Park, Dover)
Congratulations to Brian Partridge and David Turnham on going solo. Our dinner-dance was a great success with the best progress award going to Ron Wood; the Alan Hawkin's award for endeavour to Cliff Middleton and Dave Hellier won the club ladder.

A series of Bronze badge lectures by John Salt were popular and there was a good turn-out for the car treasure hunt.

The Falke will soon be flying after its rebuild as well as the Sky Ron Armitage bought from Cardiff which is now in the workshop.

Please send all contributions to S&G to the editorial office, 281 Queen Ediths Way, Cambridge CB1 4NH

Our latest batch of pilots to go solo on or just after their 16th birthdays.

Julie Slater of Angus GC with her instructor, Allan Black. Photo: Iain Wright.

Above, Kerry Lomas of Booker GC with her instructor, Dave Richardson, on a final check before her solo. Below, Joanne Lambourne of Portsmouth GC with her grandfather, Ray.

Rupert Wasey of Bristol & Gloucestershire GC.

Cambridge University GC's Tim Moore.

Ron and Nic have had a flying/gliding holiday in Florida and are happy to assist anyone wanting to escape to the USA.
R.A.

CLEVELANDS (RAF Dishforth)
Our Christmas/New Year week was a great success with some 40 visiting gliders going to great heights and over 1500km flown. Club stalwart Paul Mason started the badge claims with his Gold height on Christmas Day and for several days thereafter Andy Smart led the field to 20000ft plus. Paul Pitchfork gained his 5hrs and Gold height and visitors claimed one Diamond, four Gold and three Silver heights, two 5hrs and a Bronze leg.

January 29 was another good wave day when John Dobson set a site record of 30000ft and Tor Taverner (Pilatus B-4) claimed Diamond height. Fortunately many visitors had remained and they claimed four Diamond heights, five Gold and a Silver – and again 1500km were flown.

On February 5 there was another Diamond and the westerlies continue . . .

On New Year's Eve we said goodbye to Dave Stewart as CFI, though happily he will continue his unremitting work for the club by taking charge of the tugs, despite his posting south. Our thanks and appreciation for his time and effort and welcome to Martin Durham as CFI.
J.P.

COTSWOLD (Aston Down)
An expedition to Aboyne resulted in Gold heights for Dave Williams, Frazer Wilson, Malcolm Gresty and Paul Gentil, Paul completing his Gold Badge.

Congratulations to Stan Przelewski, Peter Day, "Whizz" Wheeler and brothers Chris and Nick Rodgers on going solo, the latter being preceded by their father, Jim, last year.
G.M.

Obituary - Ron Hurcombe
It is with great sorrow I report the death of Ron Hurcombe. He died suddenly but peacefully at home not long after returning from Aston Down on November 16. He was 66.

Ron was quiet and unassuming and not many realised he was a retired British Airways captain and that his flying career started in the RAF where he flew, amongst other things, the Mosquito. As a civil pilot he flew a host of aircraft including the Dragon Rapide and the Trident.

Despite his wealth of experience and many thousand flying hours he was always willing to carry out the more menial and unpleasant tasks essential to any gliding operation.

We offer our deepest condolences to his wife Frances and two daughters. Ron we will miss your company but hope wherever you may be you will have blue skies and fair winds.
Robin Atkinson

COVENTRY (Husbands Bosworth)
At our annual dinner presentations were made to Lou Frank/Harry Middleton, Nick Hackett, Jonathan Walker/Derek Westwood, Alan Kangurs/Diane Spalding, the Crabb twins, Sonia Hornby, Frank and Ray Stevens, Mick North and Ron Davidson and team.

Many members had good winter wave flying at Dishforth and height claims included Pat Piggott (Diamond) and Dave Booth, Lindsey Astle and Gary Wills (Gold).

We had a special flight in late 1988 when instructor Alan Kangus took 103 year-old Mrs Ethel Lee for her first flight in a glider - is this a record?

Our summer programme starts in May with *ab-initio* and advanced cross-country courses. The task week is from May 27-June 4. Visitors are welcome.
D.L.S.

CRANWELL (RAFGSA)
The Christmas migration to Dishforth was quite successful with some memorable wave flights. Our thanks to Clevelands for their hospitality.

Congratulations to Andy Gunn on going solo. Enthusiasm has grown this year with flying most weekends and a good launch rate.
B.S.

DARTMOOR (Brentor)
All the jobs planned for winter were major tasks for our small club and some involved heavy capital expenditure. We are laying a hard surface track for retrieve vehicles the whole length of our mile long main runway. Our shorter transverse runway has stood up better to five years' wear and tear. Our big hangar is being erected professionally with members as unskilled navvies.

We are hoping the lawyers will finally sort out our lease. Meanwhle Perranporth has kindly allowed us to fly there on fine winter days while our site is recovering from winter weather.
F.J.M.

Who needs a trailer! Coventry GC members demonstrate their retrieve technique.

DERBYSHIRE & LANCASHIRE (Camphill)
The last few months have seen some fabulous wave flights - climbs to 15000ft plus and 200km cross-countries. Meanwhile the west edge is providing long soaring flights until the spring thermals return. Congratulations to Peter Oliver on going solo.

We are under new management - John McKenzie is our first full time flying manager and we are introducing seven day week flying from Easter. Ring John on 0298 871270 for details. Clubs and visitors are welcome. New catering arrangements have been made with Sylvia as the manageress. Also we have a new Tost giving us six wires.
E.C.

DEESIDE (Aboyne)
Since the end of a rather disappointing wave season there has been wave every day and nobody to fly in it. Several flights have topped 20000ft but most weekend locals have stayed below 12000ft to avoid the hassle of oxygen.

The car-park has been transformed from a muddy swamp to a dry, clean area with the addition of umpteen lorry loads of stones.

We have sold our Rallye tug and hope to replace it with another Pawnee.
D.S.

DEVON & SOMERSET (North Hill)
At our well attended AGM in December David Minson retired as chairman after 12 years' dedicated, enthusiastic service. Les Hill has taken over. David Reilly took his usual clutch of trophies.

Our CFI, Tim Parsons, has a mysterious illness which has temporarily grounded him. Chris Miller, DCFI, is acting CFI. We wish Tim our good wishes and hope he will soon be flying.

The mixed weather has given such extremes as John Pursey gaining Silver height and Tim Gardner doing simulated cable breaks at 300ft. We await delivery of our K-13.
E.C.N.

DORSET (Old Sarum)
Congratulations to Brian Dalton on going solo. The winter was enlivened recently when the elusive Dorset wave appeared and every available glider was launched. There were several flights of about an hour with the last to land having the strip marked by car headlights.

There has been a lot of activity in the hangar with the winch projects almost completed and the glider fleet in top condition. Another K-8 joins the club fleet and we welcome the return of the Skylark 2 in private ownership. It hasn't been flown for several years but is in prime condition.
D.N.

EAGLE (Osnabruck)
Since our move from Detmold the membership is down to four but although there hasn't been any weekend flying since last April, we ran seven successful *ab-initio* courses.

Our hangar has been completed and we hope to have a clubhouse soon. Come on all you budding Army glider pilots, get a posting to this area and come and share with me one of the following - LS-3, Astir, K-8, Grob Twin 2, K-13 and the Motor Falke. We are going to start weekend flying again.
M.T.

ENSTONE EAGLES (Enstone Airfield)
Our membership is increasing, badge claims are better than expected and mid-week flying has greatly increased hours.

Congratulations to Tom Miller on becoming a full Cat; Pete Bailey on Gold height and Phillip Saffron and Jim Marbourger on going solo.

We have two more tug pilots, Gordon Camp expects to have his LS-4 this season and Keith Millar has joined with an ASW-22.

Our Regionals, from August 12-20, are the largest in the UK and there are rumours they will be well sponsored for the first time. Ken Sparkes is already taking bookings.

Everything now works in the control tower including the night storage heaters donated and installed by members.
R.J.P-B.

ESSEX (North Weald)
Our annual visit to Aboyne in September brought badge claims for height. David Callow went solo on his 16th birthday, his father Lionel, an instructor ➡

and tug pilot, being suitably impressed.

Our annual dinner-dance was in February at a Harlow hotel.

There will be no gliding at the site from May 13-14 for the Fighter Meet and the airfield is closed May 20-21, July 15-16 and 29-30 and September 9-10. We are visiting Tibenham, Sackville Risley and Nuthampsted (Barkway) over the closed weekends. North Weald power fly-ins are May 6-7; June 3-4 and 25, August 5-6 and September 30. If you have a motor glider or even a lowly spamcan why not visit us – phone Anthony Hutton, 01-499 0374 for a slot time.
J.A.R.

FENLAND (RAF Marham)
We have had lots of winter flying with Bruce Hodge gaining Diamond height and Steve Webster and Martin Pike going solo.

Sadly we say goodbye to Terry Ackerman, Dave Sharp and Ken Reeves, Ken being perhaps our longest serving assistant Cat. We welcome back Colin Elliott, an ex-CFI, after a lengthy rest from gliding.
N.J.T.

HEREFORDSHIRE (Shobdon Airfield)
John Hunt is now chairman replacing John Warby who becomes treasurer while Les Kaye and Tony Greatrex retire as treasurer and secretary. Our thanks to them for their past support. Mike Dodd is now secretary.

We flew throughout the winter with a number of wave days during which John France climbed to 21 000ft for Diamond height and Dave Fall gained Gold height with 14 000ft.

Congratulations to Mike Dodd on completing his Silver badge and Mike Jones and Brian Smith on going solo, Brian also gaining a Bronze leg.

Our tug has completed its three year C of A.
B.S.

HUMBER (RAF Scampton)
We had an incredible January with record launches and hours and wave over the site to 10000ft for the first time. Bruce Davidson and Gary White (K-13) climbed to 8200ft in 20min on January 15 and on January 29 Chris Gildea climbed to 2400ft in weak wave, staying airborne for over an hour at the end of the day, all contacted from winch launches. On the same day John Dobson went to over 30 000ft at Dishforth in the club DG-300 for a new site record (see Clevelands' report).

Gary White has gone solo and for the second time we have won the RAFGSA Founders' trophy for the ratio of most solos to membership.
K.M.G.

IMPERIAL COLLEGE (Lasham Airfield)
During our eventful 59th soaring season six went solo (three since October) and Nicholas Lay (captain) has a Bronze and Steve Brooker a Silver badge. We had expeditions to Gap/Tallard, the Inter-University task week (which we won) and the Long Mynd - our thanks to our hosts for their hospitality.
N.P.L.

KENT (Challock)
With the field staying drier than usual in the winter we have winch launched most weekends and on Wednesdays, making full use of south-westerlies on the ridge.

We have a new STD 51-1 Junior with a fitted metal trailer and welcome the return of John Harvey to supervise our courses and "Jim the Winch".
A.R.V.

KESTREL (Odiham Airfield)
A small party of keen pilots experienced good wave at Dishforth throughout the Christmas/New Year period. Our thanks to Dishforth for a well organised site.

We presented an engraved tankard to Bill Barnard on his 80th birthday in January. A retired Wg Cdr in 1956, Bill started gliding in 1966 at the Aldershot & District GC at Odiham. Bill still enjoys flying solo and is a much appreciated member of our club.
J.N.

LAKES (Walney Airfield, Barrow-in-Furness)
Our annual prize giving dinner in November was a great success and Lady Redshaw presented the trophies as follows: Duddon trophy (services to the club) Linda Dawson; Dodd trophy (for progress) David Hannah; Lonsdale trophy (best cross-country from Walney) Peter Redshaw; Leighton Hall trophy (best flight anywhere) and the Alsford trophy (best height gain from Walney) Peter Craven; Club Ladder, Neil Braithwaite and the wooden spoon, Peter Lewis (Peter Hassince redeemed himself by become a full Cat).

Congratulations and thanks to Rod Murfitt, Keith Butterfield, Roy Jones and David North on their AEI ratings.
M.S.

MARCHINGTON (Marchington Airfield)
Thanks mainly to the dedication of George Edge and Ray Steward we have a new winch based on a fire-engine and trial launches have been successful. More site work is now needed to make winching an effective alternative to aerotowing.

Congratulations to Jim Robinson, Jeff Heard

and Ian Walker on their Bronze badges and thanks to Sid Brixton for his expert tuition.

January 28 saw bars of wave clearly marked from E to W and Colin Harris with pundit Steve Hunt (K-7/13) and Ian Walker (K-6CR) climbed to 5000ft in steady 4 to 5kts.
P.A.W.

MENDIP (Halesland)
After the trauma last summer of losing our airfield at Weston-Super-Mare, we are settling in at Halesland, a hill site on the Mendips. This move was made possible by the hard work of John Boley, the generosity of the landowner and the co-operation of the ATC.

We congratulate Graham Taylor on his AEI rating and Bill Lowndes on being our first solo at Halesland.

Our Christmas party was a great success and introductory courses of six lessons have been very popular.
C.B.H.

Obituary - Arthur "Robby" Robinson
It is with great sadness we report the death of Arthur "Robby" Robinson, peacefully in his sleep on January 4 after a long illness.

During his 79 years he led a very active life. A school teacher, he was an enthusiastic musician and devoted an enormous amount of time to gliding.

The majority of his flying was with the ATC 621 Gliding School. He was their CO and awarded the MBE on his retirement for devoted service.

He then helped to form the Mendip (then Woodspring) GC and guided it through its formative years - very much the father figure, he readily gave advice and practical help. Our move to Halesland was a great pleasure to him - the site he established and operated for the ATC.

Countless pilots had the privilege of knowing and flying with Arthur and we are all richer for the experience. He was a truly splendid man who will be missed by us all.

To his wife Nancy and his step-children we extend our deepest sympathy.
Peter Turner

MIDLAND (Long Mynd)
Our recent wave expedition to Aboyne was successful with odd badge flights and stacks of flying.

Our extended season proved excellent for visiting clubs with plenty of ridge and wave soaring, numerous Silver legs and the occasional Gold height.

There was a record number at our Christmas lunch with perfect weather - flyable in the morning and rain by lunch time.

Some of our AEIs have their assistant ratings and Neil Clements his full rating.
R.D.

NENE VALLEY (RAF Upwood)
Congratulations to Len Dunster, John Taylor and Larry Bill on going solo. Our thanks to the Midland GC for their excellent hospitality last November.

Our second K-7 is nearing completion, thanks to Gordon Reece, Richard Meayers and other helpers.
A.H.

NORFOLK (Tibenham)
Using our new accommodation 100 members and families enjoyed a first class Christmas party with superb catering, an in-house band, a choir and a cabaret by CFI Roy Woodhouse.

We are happy to welcome back our chairman, Evan Harris, after his recent operation.

There are working weekends for glider maintenance and the substantial repair of the runways, the latter under the direction of Robin Combe. In anticipation of increased activity with the advent of winching, new AEIs continue to be trained by the CFI. However, aerotowing will remain our principal method of launching with the winch as an ancillary. But it is hoped that cheaper launching will attract more young people and, with earlier morning starts, increase utilisation.
G.H.H.

NORTHUMBRIA (Currock Hill)
Thanks to the generosity of Norman Crawford we have a double-decker bus as a launch point control centre. The fine December weather enabled a record number of aerotows with many fine flights during the Christmas holiday culminating in a 13500ft height claim by Kevin Clements on December 28.

The BGA ASW-19, collected from Aboyne, has been very popular, particularly with the younger members seeking experience of glass-fibre performance.

We had to suspend operations while the local hunt chased their quarry around the airfield.
R.D.

NORTH WALES (Bryn-Gwyn-Bach, Nr St Asaph)
We had a good season despite the disappointing summer. Congratulations to Eric Jackson, Robin Filer and James Barber (on going solo); Graham Mitchel (5hrs and AEI rating); Bill Grey (AEI rating); Dave Jones (5hrs); Robert Vaughan, John McCormick and Ray Ball (Gold heights) and Mark Roberts (Silver height).

Our thanks to Tony Knight for his services to the club and his hard work as CFI and we welcome his successor, Ray Ball. It is also good to see Ron Law back and recovering from his accident.
C.A.H.

OXFORD (Weston on the Green)
Graham Barrett succeeded Chris Emson as chairman at the November AGM. The annual awards went to Mick Broad (first 5hrs from Weston); Jack Miller (best flight in a club glider), Phil Hawkins (club ladder winner) and to Graham Daniels who won the Simpson cup for the most outstanding flight with a Silver distance at a handicapped speed of 94km/h. The flying brick went to John Gibbons who had the misfortune to get lost in cloud over the airfield, giving his pupil early field landing experience! Congratulations to them and to Peter Buchan on going solo.

We are running mini courses in the hope of increasing membership.
F.B.

PETERBOROUGH & SPALDING (Crowland Airfield)
This has been our most successful winter for many years. Membership has grown and we have flown virtually every weekend.

Tony Noble must have some inside information - he has fitted camera mounts to all the club aircraft, including the Bocians. Malcolm Brown has gone solo and Roger Gretton has a Libelle.
M.J.

PHOENIX (RAF Brüggen)
Our CFI Stu Mullholland has moved to Dishforth and we thank him for all he has done for Phoenix. Bob Brownlow has takenover in addition to being officer in charge.

An expedition to Innsbruck gave a lot of fun flying with views from 8000ft into Italy and southern Germany in visibility exceeding 100km in every direction.

Even at this time of year we have as many *ab-initios* as our two K-21s can cope with and hope to acquire a K-13 to relieve the pressure.

Congratulations to Chris Heames on his appointment as a regional examiner - he will be a great help to all the RAFSGA clubs.
P.J.H.

PORTSMOUTH NAVAL (Lee-on-Solent)
The autumn weather, although dull, gave occasional soaring days. The Pirat is having a major refurbishment and the K-7 some minor repairs, while the K-8 is resplendent in the new club colours, blue and white.

We are hoping for a new clubhouse having been without one for a very long time.

Our private owner fleet continues to grow with the purchase of a K-6CR by Graham Hibberd and Alan Clarke and a Jaskolka by Nigel Clark and Peter Brown.

Congratulations on going solo to Barbara Baker, Kiera Helmsley, Mike Budgen, Dave Williams, Joanna Lambourne and Alistair Murray, Joanna and Alistair within a few days of their 16th birthdays.
H.C.

RATTLESDEN (Rattlesden Airfield)
The restoration/improvement of our clubhouse continues with the roof covered and sealed and a ➡

kitchen being installed with a freezer, cooker, microwave and gas central heating.

The seed is germinating on our new cross strip which should be in use this season enabling a much increased launch rate and far less wear and tear on retrieve crews and instructors with us taking off on the main runway and landing on the cross.

During the enjoyable expedition to Feshiebridge Tony Fuller completed his Silver badge with a 5hrs. Congratulations also to Paul Jacob on going solo.
R.W.

Obituary - Ted Spurge

We are deeply saddened at the loss of Ted Spurge, one of our oldest and more colourful members. A veteran of World War 2, Ted always had stories to tell which often brought the launch point to a halt while we listened. He would turn his hand to anything and never had a cross word.

His big love were T-21s which matched his own character - big, full of personality and very forgiving. He was known around several sites, including Challock, where with his wife and constant companion, Theo, he enjoyed several flying weeks. His main aim was to soar a T-21 with nothing beside him but a flask and sandwiches and came close to achieving this when, after the demise of our T-21, he formed a syndicate with Ralph Brooker, who rebuilt a lovely lady called Buttercup.

This aircraft, which he allowed the club to use, gave many members a lot of enjoyment. Whenever Ted flew her his face said it all, every flight giving him immense pleasure.

We shall miss him greatly and extend our deepest sympathy to Theo and the rest of his family.
R. White

SCOTTISH GLIDING UNION (Portmoak)

Teething troubles with the new winch from J. Bourne will soon be solved and then after refurbishing the old faithful we will have four cables.

John Galloway and Colin McAlpine have a new LS-7 and we have bought a K-8 from Borders GC to replace one of ours which is temporarily indisposed, so we hope soon to have three and eventually four to encourage early solo pilots.

Congratulations to Allan Mackay on going solo. Our holiday courses have started and we have a busy year of task weekends, Air Cadet visits and a month of BGA soaring courses in the autumn.
M.J.R.

SHALBOURNE (Rivar Hill)

This mild winter we have maintained a high launch rate, fitted the winch with a new engine and finished cladding the hangar.

A Bergfalke 4 has joined the club fleet to provide more cross-country training and Duncan Adams has a Discus.

We believe we have found the true market value of trial instruction flights - two we donated at an auction in aid of Children in Need raised £100.

Congratulations to Paul Nickson on his Silver height and Bronze badge and to Steve Glasset, John Hewitt, Ted Shann and Neil Lloyd on going solo. Ken Reid is now DCFI.
S.C.O.

SOUTHDOWN (Parham Airfield)

Our new DG-300 Club Elan is proving popular and additions to the syndicate fleet include another DG-300 and a Nimbus 2 with a DG-202 soon to arrive.

Congratulations to Les Merritt on Diamond height and to Richard Hawkins and John Matthews on Gold height, all from Aboyne.
P.W.

STAFFORDSHIRE (Morridge)

We had a meeting to discuss the club's future with radical proposals from CFI Colin Ratcliffe. It was thought provoking.

Recent changes to airways to our west have given us a low level route and better access to our ridge, the Roaches. We know there is wave out there which we can now exploit.

Mike Webb and Cedric Meir flew Silver distances in September.

The mild winter has enabled us to keep flying although parts of the site are waterlogged.
M.P.

STRATHCLYDE (Strathaven Airfield)

Winching was failing to attract a enough new members and our Motor Falke had engine problems, resulting in a serious decline in interest, so

we bought a Tugmaster and changed to aerotowing. This has happily reversed the trend and we have a steady growth in membership and activity.

Our fleet consists of a K-2, K-2B, Skylark 3F and a Motor Falke with a number of privately owned gliders. The airfield is a 3000ft grass strip.

We have good hangar facilities and a small but comfortable clubhouse with a membership of around 40.

D.I.H.J.

THRUXTON (Thruxton Airfield)

Wing re-covering of our Citabria tug has forced a temporary suspension of gliding for the last two months but on going to press we are poised to resume operations. Our thanks to Peter Pykett for all his hard work on the tug.

B.L.

TRENT VALLEY (Kirton-in-Lindsey)

Our Super Cub has had problems but we should start aerotowing when it arrives from its C of A. We are now slicing winch cables instead of using ferrules, so apologies for any delays.

Congratulations to Mat Tierney on going solo.

Visitors beware. The landing area at the NE end of the tower run is restricted due to construction work so if in doubt please land on another part of the airfield.

S.C.

TWO RIVERS (RAF Laarbruch)

Congratulations to Dave Mayfield, Mat Gibson and "Speedy" Leaman on going solo and to Keith Curtis on his Gold and Diamond height at Innsbruck.

The trophy season saw Nigel Hobbs as the best *ab-initio*; Mike Foreman's 514km gave him the longest flight, most meritorious and club ladder laurels and his 21 000ft at Sisteron captured the Innsbruck cup. The 313km at 92.5km/h (handicapped) by Phil Jones gave him the fastest 100km closed circuit award with the cup for Silver duration going to Gurt Moers in a K-2. The first 100km and hog of the year prizes went to Ian Pettman. Val Sullivan received the CFI's trophy and Phil Hutchinson, who is leaving us, the citation for contributions to the club. Mike Foreman and Phil Jones also cleaned up the majority of RAFGSA silverwear, flying the furthest, fastest and highest. The club also gained the NATO cup for the best increase in badge flights.

I.P.

VECTIS (Sandown Airport, Isle of Wight)

Autumn turned out better than last summer with John Chape going solo and gaining his B, Mat Colnbrook and Jim Brittain going solo and George Hibbard cliff soaring for his B.

An ASW-15B has joined the privately owned fleet. This season started well with soaring flights in warm sea air.

At the annual dinner-dance Chris Bacon was awarded the trophy for the most improved pilot; Pete Tuppen the Chairman's cup, Tony Baker the CFI award and John Kenny the Optimist's cup.

J.E.P.

VINTAGE NEWS

Four gliders were restored in the UK last year, two EoN Olympias (belonging to Melanie and Steve Malcolm, Wolds GC), and John Kirsch (flying from Thruxton with his son), a Kite 1 (acquired by Phil Collins from Antique Aviation, Staverton, and exhibited in the Army Flying Museum at Middle Wallop providing Phil can fly it when he wishes) and a Grunau Baby 3 restored by Ian Hodge and flown from Shalbourne by its new owner, John Garrett. A S-21 was restored in Switzerland.

The longest flight last season was 293km by David Charles (Skylark 2) from Lasham into Cornwall with 170km by Richard Moyse (Sky) and 70km by Jane Ballard and Ian Smith (T-31). Werner Tschorn (Weihe) flew a 315km triangle from Frechen, near Cologne during Whitsun.

We only had good soaring weather on two of our five British rallies, at Dunstable and Sutton Bank, the latter being our National Rally when Roger Crouch took a 1943 built Mu 13d-3 to 12500ft in wave for the best height in a vintage glider during 1989.

But the weather was good for our International Rally in France during late July with 6000ft cloudbases. Jan Evert Vermeer (Holland) flew 200km and 280km triangles which we believe to be the longest distances in a Prefect. Richard Moyse (Sky) achieved a 170km O/R and Ian Smith (T-31) a 65km O/R. The first prize went to Claud Visse (1950 Breguet 900) for a flight of over 8hrs.

We are looking forward to the completion in the UK this year of the *Hols der Teufel*, BAC V11, Gull 3 and JS Weihe (Swedish 1950) and an International Rally in July at Farkashegy and Harmashatarhegy, near Budapest, Hungary.

We are going to create a Vintage Glider Centre at Lasham which may well be supported by a glider museum in future. Negotiations have started with the Brooklands Museum, which opens in 1992, for a National Gliding Archive of drawings, photographs, documents and films.

We are sad to report the deaths of two of our most valued members, Eric Rolph and Jeremy Menzies during December. Our deepest sympathy go to all their relatives and friends.

C.W.

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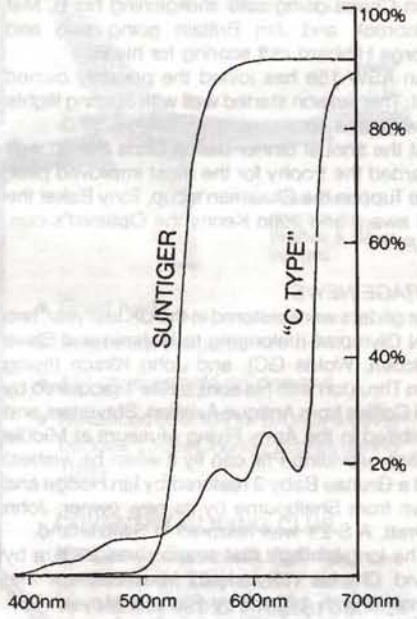

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WELLAND (Middleton)
Obituary - Don Martin
It is with great regret that we report the death of our former chairman, Don Martin. Don had been a committee member since our move to Middleton before becoming chairman.

Don was well respected by his fellow members and remained unfailingly cheerful, in spite of health problems in recent years. He was a skilled conciliator who gave of himself to both the club and the community.

His presence on the field will be sadly missed - he was involved in every aspect of the club and ever ready to welcome new members, visitors and spectators.

We extend our deepest sympathy to his wife Sheila, his family and colleagues.
R. Short

WOLDS (Pocklington)
Wave fever has struck with five good days this winter giving climbs to over 16000ft, some from the winch. Most pilots have been taken by surprise with many Gold and Silver heights flown without barographs.

The mild winter has meant launch records have been broken yet again. Our new Super Falke, G WOLD, is kept busy with field landing checks in anticipation of a better summer.

The workshop is fully booked with seven syndicate gliders being refurbished. Our second K-10 is back on line looking as good as new after its total refurbishment. Many thanks to all involved.

WREKIN (RAF Cosford)
In December we held a shortest day when a gallant effort by Al Marshall on the winches helped us achieve 126 launches.

At the AGM in January the trophy for the best flight went to Pete Evans for his Silver height climb to 9300ft in wave. Max Chapman was voted member of the year while Richie Toon won the Silver Swifty for the fastest completion of all three Silver badge legs.

Congratulations to our new baby instructor, Pete Evans, and to Andy Hubbard, Norman Potts and Mark Fielder on going solo.

We were recently given an SZD Club Junior to play with and managed about 28 conversion including some by departing members. We lose Pip Barley to Germany (our thanks to him for running the bar so efficiently), Stu Hodge to the Falklands and Helen and Geoff Matthews to Kent. A warm welcome to Jim Francey from Kinloss.
R.J.

YORK GLIDING CENTRE (Rufforth Airfield)
Flying statistics for this astounding winter have broken all club records with regular and consistent soaring in the Pennine wave. Not surprisingly our steady stream of new solo pilots are progressing well and we are planning Bronze badge courses to push them along. No rest for our instructors though because membership is growing with a constant and encouraging demand for *ab-initio* training.

Having completed the workshop and various site work, members are beavering away, to finish the new control vehicle which will boast signal lights, windstock, radio, parachute rack, colour TV, CD stereo and disco dancers!
C.R.

YORKSHIRE (Sutton Bank)
Congratulations to Steve Mann, Paul Foster and Keith Burneston on going solo; to Chris Clark for his excellent Silver height (a gain of over 9000ft) and to John McCormack on his AEI rating.

With several fine wave days over Christmas and in January we have had many good height gains and cross-countries, including Ian Stromberg climbing to 26000ft yet again and a cross-country flight in wave of over 400km. Next time there is a westerly wind come and join us. Visitors are always welcome.

The annual dinner-dance is on April 21 and the AGM on April 22.
C.L.

OVERSEAS NEWS

Please send news and exchange copies of journals to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, England

CORSICA

Two gliding operations started during 1988 on the island of Corsica. One, at Ghizonaccia on the east coast, is well placed to benefit from the westerly wave frequently set up by the stationary depression over the Gulf of Genoa. The second, at Corte in the centre of the island, is on a site reminiscent of the southern Alps. Local pilots are just beginning to open up cross-country routes on an island which has few landable areas but magnificent scenery and excellent soaring conditions.

SAILPLANE NEWS

Production of the Grob Twin 3 was due to start at Mindelheim - Mattsies at the beginning of January, and there are plans for a production run of about a hundred. The glider has a new wing, with tips similar to the Discus, and an improved cockpit layout.

1993 WORLD CHAMPIONSHIPS

France, Bulgaria and Sweden have put in bids to host the 1993 World Championships. Favourite at this stage seems to be Sweden, which proposes to hold the contest at Borlange, 100 miles NE of Stockholm, during the most favourable perod for thermal soaring (May/June). Cloudbases of 10000ft are not unusual there and a triangle of 816km was flown from the site in 1988.

AROUND THE WORLD IN ...

Peter Riedel, a well-known figure in German gliding circles, is planning a circumnavigation of the globe by glider. Starting in Austria or Switzerland, the route would pass through the southern Soviet Union (*perestroika* permitting) and northern China to the Pacific Coast. The pilot(s) would then fly the length of Japan from north to south, across Australia from west to east and traverse New Zealand from south to north, before attacking the USA from a start-point on the Californian Coast.

The final stage would extend from southern Portugal to the Wasserkuppe. Sea crossings would be by public transport! The expedition would use a high-performance turbo two-seater with an international team of top pilots in relay. One or more tugs and a fleet of support vehicles would follow the glider. Sponsors are being sought.

A AND B FOR PM

When receiving the French team selected for the 1989 World Championships in Austria, Prime Minister Michel Rocard revealed that he had gone solo in a glider and qualified for his B certificate during his national service in 1955. To mark the occasion, the French Gliding Federation presented him with a glider pilot's licence. He has promised to support the bid to have gliding recognised as an Olympic sport.

"OLD CROCKS" COMPETITION

The annual French veterans contest previously known as the "Vieux Criques", held last August at Brienne, was almost won by an Englishman.

CLASSIFIED SECTION

Advertisements, with remittance, should be sent to Cheiron Press Ltd, 241 Desborough Road, High Wycombe, Bucks. Tel 0494 442423. Rate 40p a word. Minimum £8.00. We can accept black and white photographs at £3.00 extra. Box Numbers should be sent to the same address, the closing date for classified advertisements for the June/July issue is May 4th 1989.

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DART 17R ¼ share. £1800. Full panel, Bara, A/H Radio, Oxygen, Parachute, Audio Vario, T/S. 2 Man rig, Metal Trailer. Based Long Mynd Contact 0939 250130.

KIWI glider/SLMG in a class of its own. Lightweight, low noise, excellent handling, easy to fly, reasonable cost. Retractable TOP engine can be removed in 5mins when not required. Price from £15000 + VAT. TOP engine £6000 + VAT. Details from Nine Four Aviation (Steve White), 0494 436888.

LIBELLE 201B, only 618 launches. In good condition. Competition instruments. Please phone evenings Amtti Jouppi 0380 870955.

CLASSIFIED CHARGES

As mentioned in the BGA and General News section, our classified advertisements will also be circulated in the interim month to clubs and S&G subscribers. The cost of the combined service will be £12, including VAT, for 20 words. Photographs will cost £5 extra and Box Nos. £2.50.

DIMONA MOTOR GLIDER. 300hrs, all mods, 80 litre tank, rigging trolleys, A/H, DI, T&S, 720VHF VOR transponder. Offers 01-458 2624.

MARIANNE 2. The best trainer for basic and cross-country flying on the market. Price from £25000+VAT. Nine Four Aviation (Steve White), 0494 436888.

ASW-20FL. Built 1980. 950hrs Complete Outfit includes instruments, parachute, barograph, fully fitted aluminium trailer. £18000. PO Box 001.

J-3 CUB. vgc. New permit. £10000. Tel 0283 63054.

LIMBACH SL1700 engine suitable for Super-falke etc. Tel 0283 75283.

L-SPATZ Good Condition. Performance almost that of K-6CR. Basic instruments, electric Vario, £2400. Winter Motor glider Barograph £175. Parachute (Irvin style) £140. 15m wooden trailer, ex-Skylark 4, £300. Stammo motor glider engine. Tel 0283 63054.

BG-135 with rigging aids, radio, oxygen, good panel with audio vario and accelerometer. All mods completed. Price to include enclosed metal trailer with spare wheel and jack. Professional C of A with purchase. £4450. Tel 0794 (Hampshire) 301505 with answer machine when out.

BREGUET 905 Fauvette: 15 metre Standard Class. Full panel recently fitted with new and reconditioned instruments including PZL vario, T & S and TM6 Radio. Good condition. Current C of A. Original Log Book. Complete with fully enclosed metal trailer £4275ono. Tel 0904 83653.

20m KESTREL: ¼ share, based Dunstable. Includes electric vario, AH, Oxygen, parachute, barograph, hand held 720 channel radio. Tel 04868 23352.

KESTREL 19, excellent condition, fully instrumented, oxygen, good metal trailer, wing covers, James Metcalfe 0273 600461/771115 or at Nympsfield.

1 NEW GRP 15 metre Twin Axle Trailer. Some fittings for ASW-24 £2500. 1 15 metre Delafield Trailer. Plywood base glass-fibre top. Offers. 1 Westerboer VW 920 NAV computer with VW 910 vario & speed command £800ono. 04974 583 (after 6pm).

SPECHT Vintage glider. 2 seater. Open trailer, basic instruments good condition. £600. Also, **Moneral** kit Main spar modification complete - Offers Tel 0202 709437.

METAL TRAILER. Complete fittings for 15m glider. Trailer will be towed to agreed venue for your examination, and Road test if required. Nearest offer to £1100 will secure. Work 0737 773202 Home 0732 452092.

K-6CR With trailer and instruments. Offers to 05422 7934 Delivery can be arranged.

£6000 will purchase a ¼ share in an immaculate Ventus B 15/16.6, full panel, 720 radio, oxygen, parachute, barograph, 2 man rigging aids, trailer. Tel Thornbury 417533.

STD LIBELLE 201B Very good condition. Includes basic instruments, T/S, A/H, TM6, parachute, oxygen system, aluminium trailer. £12000ono. Tel M Pocock 0225 702196 or S North 045 822 3507.

WINTER 12km Barograph £200. TR720 Hand held radio, C/W case, car & stand chargers £300. Pye Westminster car set, 6 channels, crystaled 130.1, 130.4, 128.6 £100. All good condition. Tel 0296 748102 Evenings.

STD CIRRUS. Modified airbrakes, full panel including director + 720 Dittel. New C of A. Glass trailer. Parachute. All vgc. £12950. Amberley 2740.

William Malpas, long resident in France, was only 5pts behind the eventual winner Rene Bernard (age not declared). The doyen was Rene Fonteilles (73) who has started competitive gliding again after a break of almost 30 years. He last flew in the French National Championships in 1959, and was at one time the holder of three world records and six French records. He represented France in three World Championships.

YOUTH RULES IN SWEDEN

Shades of Borg and Wilander: the Standard and Club Class Swedish National Champions in 1988 were Rainer Lainio (22) and Borje Gustavsson (26). A third rising star, Urban Hansson (22 and only 500hrs in his logbook), won two days at the European Championships and was placed 8th overall. - All items translated from *Aviasport* by Max Bishop.

37:1 STANDARD CLASS Swiss Elfe S2. Very pleasant handling. Full panel. C of A. Aluminium trailer. Parachute. Radio. Vgc throughout. £7500. 045387 2740.

KESTREL 19 1974. Only 500 launches. Full panel, radio, oxygen, tinted canopy. One man rigging and towing. Slingsby GRP trailer. Top class outfit for £13600. Ian Carruthers 0228 37044.

TRAILER METAL good condition, 15m. £950. Phone 01 851 5537 or 0375 383787.

UNIQUE KESTREL 19 with carbon spar for light rigging, good climb performance and good aileron control. Equipped and with Slingsby glass trailer. 01 878 1932 (evenings) 0438 814015 (evenings).

¼ or ⅓ **SHARE** in Pegasus. Based Talgarth. Fully equipped for competition, cross-country, wave & cloud flying. For more details contact Tim Hurn 0923 772222 before 7pm or 0727 43618 after 8pm.

LS-4, Third share at Enstone or Bidford. For details contact Gordon Camp on 0608 728149.

WINTER BAROGRAPH in excellent condition. Rarely used since new, sensible offers please. Box No 002.

SCHEIBE SUPER FALKE SF-25 E, 28:1, 80kts cruise, 2¼ GPH, 3 positioned feathering propeller, 720 channel radio, 2½ yr C of A, imported from Germany 1985. £17500ono. Tel 0224 641687 or 05402 885.

KESTREL 19, very well equipped, aluminium trailer. Could be based anywhere from Burn to Sutton Bank. ¼, ⅓ or ½ shares. Ring 0532 755576 or 0246 275531.

PIK 20B CARBON SPAR, Superb condition, full panel, radio, parachute, GRP trailer with all aids for two man rigging. £13750 ono. Tel 0732 848436 or 0233 34899.

SWALLOW Superb example, full instruments, parachute, trailer, fuselage & tailplane recovered at C of A June 88. £2500ono. Tel 0785 51570.

DIAMANT 18, Swiss all glass flapped sailplane, 40:1, excellent brakes, new canopy, solo rig. Includes Bohli, radio, barograph, oxygen, trailer. £9000ono. Ron Speer, Crawley 35046.

ASW-22 – Open Class Sailplane, 24m Comp. panel, Cobra trailer, all the extras. Nicer to fly than Nimbus 3. Consider part-exchange 15m in similar, pristine, un-pranged condition. Tel 0908 568171.

VEGA Good condition, full panel, TM6, A/H, T & S BOHLI, Oxygen, Tow out gear, metal trailer, Day 0204 493835. Evenings 061 764 5875.

ASW-24. Available Now – Why wait? Hull only or inclusive high specification instrumentation and Cobra trailer. T Stuart 0908 582701.

IS-29D, aluminium trailer, tinted canopy, barograph, parachute, oxygen. Recently resprayed. £7400. Wanted – BLANIK IS 28 or similar. Tel 0656 880395.

LONDON SAILPLANES LIMITED. TM 61 and 62 radios still available from sole agents. London Sailplanes Ltd, Tring Rd, Dunstable, Beds. Tel 0582 62068 for price details.

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JANTAR 2, 20.5m, 1978. Excellent condition with instruments and trailer. £12000. Tel Belgium 3/646 11 42.

MOSQUITO B, full panel including electric vario, speed director, a/h and new oxygen systems. Competition sealed. Excellent condition, with full C of A. Glass trailer and one man tow out gear. Tel 0602 333283.

PIK 20B, 15m flapped, immaculate condition. Full Panel including TM6 radio. Cambridge M Nav, vario/computer, oxygen, Sound wooden trailer. £12600. 0904 83653.

DART 17R, 4 panel, A/H, T/S, Audio Vario, Radio, parachute, barograph. Wooden Trailer. £6500. Tel 0225 706577.

JANTAR STD 2. No 215. (Photo page 186 August/September *S&G*). Complete with superb metal trailer, Dittel LX100 electric vario, parachute, tail dolly £11500ono. Contact Mike Woollard, 0453 828842 (home) 0452 713264 (work).

CLUB LIBELLE, 1976, PH-407, excellent condition, full instruments, 720 channel radio, Pfeiffer glass-fibre trailer. Hfl. 35.000. Tel Holland 078-411653 or 079-311351.

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ASW-20 Private owned since new, in good condition. German built, 1326h 511 starts. Competition equipment: metric basinstruments + Becker Ar 3201 radio + final glide computer VW 910-920 + parachute + oxygen. 3 years old alum. trailer made for ASW. All these £16500. Please contact: Pertti Laitila 62200 KAUHAVA Finland. Tel 010-358-64340490.

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HOLIDAYS

TRY IRISH GLIDING this year! Beginners courses in August. Further information from CFI. 1 Oakdown Road, Churchtown, Dublin 14.

OPPORTUNITIES

STARSHIP SYNDICATE FORMING Nimbus 3D (T?) Mainly North West/North Wales. Interested and able? Contact Rod Witter Chester (0244) 336353.

CLUBS

OPEN to new members. Sackville Gliding Club. Situated just north of R.A.E. Bedford. Launching facilities, winch and aerotow. Apply Tim Wilkinson 0234 708877.

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PAWNEE 235D T.T.A.F. 1350. Engine nil hours. S.M.O.H. New C of A £27500 + VAT. Additional aircraft also available early July. Avis 0953 453946.

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T-21 Please ring 0772 21948.

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PUBLICATIONS

SOARING PILOT MAGAZINE - "a breath of fresh air". Bi-monthly - published by Tom Knauff and Doris Grove. $28 annually. SOARING PILOT MAGAZINE, 1913 Fairwood Lane, State College, Pa 16803, USA.

SLOPE SOARING with radio control model seaplane is a fascinating pastime and a typical phase of aeromodelling. Read about this and other aeromodelling subjects in *Aeromodeller* and *Radio Control Models and Electronics*, the world's leading magazines published monthly. Model & Allied Publications Ltd, 13-35 Bridge Street, Hemel Hempstead, Herts.

NEW ZEALAND: "Gliding Kiwi" official Gliding Magazine of NZ Gliding Association. Printed October and alternate months. Write NZ Gliding KIWI, Private Bag, Tauranga, New Zealand. £10.00 Sterling for year's subscription (inclusive of postage).

AUSTRALIAN GLIDING, monthly publication of the Gliding Federation of Australia, Editor Allan Ash. A complete coverage of Australian Soaring and exclusive features of international interest. Subscription. Surface mail $A22.80, airmail $A49.20 pa (12 issues), payable in Australian currency or by international money order. Box 1650, GPO, Adelaide, South Australia 5501.

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WHAT'S NEW

The Schempp-Hirth Nimbus 3D has a newly designed fin and rudder. This, along with the new aileron/flap control system produces a 24.5 metre two-seat glider with 17 metre single-seat handling.

The RAFGSA have just taken delivery of a Nimbus 3D with turbo engine installed. One 3D self-launching Nimbus is due in for a Lasham based syndicate in early April and two more 3DTs are due in UK in the next twelve months.

Numerous Discus continue to arrive like migrating swallows – hopefully they will not leave in the autumn.

Discus were first, second and third in the 1988 Standard Class Nationals followed by other new standard class types.

The British Gliding Association felt that their Janus C was feeling lonely and have ordered a Discus to keep it company.

The Ventus C with its new control system and all the options – glider, turbo and self-launch – is much in demand, especially the 17.6 metre tipped version.

Did you know that every Standard Cirrus imported into UK except two are still flying here! Of these two, one emigrated to America and the other was lost in a mid-air collision.

Did you know that all the single seat UK triangle records are held by the Nimbus?

Did you know that the only reason we are writing this is because the editor is threatening banishment from the back page – or even worse – if our advertisement is not in to the printers on time. Pretty pictures next time, we hope.

Our workshops are continually being updated to enable us to give the after-sales service Schempp-Hirth customers expect.

Finally, what's a Nimbus for? Flying cross-country at new record setting speeds and winning championships apart from sheer gliding enjoyment.