

FINAL GLIDE

THE MAGAZINE OF THE OXFORD GLIDING CLUB

Issue 5: Christmas 1991

Edited by Phil Hawkins

GOOD TURNOUT AT AGM

Outgoing Chairman Graham Barrett sensationally revealed that he had tried voodoo to put off Ladder Trophy rival Cris Emson.

A packed meeting on 23rd November heard Graham laughingly claim that he had stuck pins in a model of K-6e "577" in an attempt to foil Cris' 300km flights. However this had been unsuccessful; moreover it had apparently backfired onto Andy Barnes later on, causing him to bend the trailer on the motorway.

Thus began a good-humoured AGM. Graham noted that the weather had been poor in the early part of the season, highlighted by a big gap in entries in the launch point diary. However later in the summer things improved markedly, with amongst other things a higher than average tally of first solos, four on a single day on one occasion. Following this, there had been a proposal to limit first solos to a maximum of two per flying day, on the grounds that it was not possible to drink more than two beers and drive home legally afterwards!

Graham also announced that a winter refurbishment of the K-13s was planned, including fuselage re-covering, new instrument panels and audio varios. There were other projects on the drawing board including a new barbecue and improvements to the briefing room in which the AGMs are held.

Treasurer Neil Swinton reported that the Club was now paying the increased site rent of £4,500 per

year, which had contributed to the Club making a loss this year. However the site rent is fixed for the next four years, and we should be back in profit by that time. Insurance premiums on the Club fleet had been reduced by 10%.

He also thanked the Friday night teams for helping to raise £4,000 this year. Our total cash funds excluding the Site Trust Fund were over £15,000 and net assets were in excess of £40,000. Now that the threat of VAT has receded the Treasurer works out the transfers from the Club to the Site Trust, which is a lot simpler for everybody except the Treasurer! The Site Trust fund stands at £8,000.

Members then voted to increase the annual subscription to £110. After the election of Committee members and the re-election of existing Honorary members, Graham then proposed a new Honorary member: John Gibbons. John has been a member of the Club for 40 years and his long service is much appreciated. He was duly elected an Honorary member, but then revealed that he had not joined the Club until February 1952 and so his first 40 years service was not yet quite complete!

Steve Evans then presented the Club Trophies:

Ladder Trophy: Cris Emson, despite the Chairman's efforts with the pins etc.

Dennis Farmer Trophy: Donal Meehan. This trophy is presented to the pilot making the first Silver C 5hrs flight of the season.

Malcolm Laurie Trophy for the best flight in a Club glider: Martin Cooper. He had claimed all three

Silver C legs on one flight to Lasham.

Simpson Cup for the best flight from Weston-on-the-Green: the CFI noted that there were several commendable flights which *nearly* won, but in the end Mick Moxon was the recipient for his 300km Gold Badge flight to Nympsfield and the Long Mynd.

The Flying Brick: Amidst some laughter this was also presented to Mick Moxon, for his landing in rape stubble two fields away from the airfield.

Deep Breath Cup: As usual, this cup for the highest achieved altitude went to Martin Hastings, who is now practising holding his breath for next year.

Two-Up Trophy: presented for the first time this year. Donated by Steve Evans and made by Peter Brooks, it consists of a glass K-13 in a showcase. It will be presented by the CFI to the Instructor of the year, and this year Steve was pleased to give it to John Gibbons.

Graham Barrett then gave bottles of wine to certain members whose sterling efforts he thought should not be forgotten, including Dave Weekes, Brian Payne, Lynne Jones and Roger Pitman. He also made a small presentation to Colin White who will be leaving us soon.

Former Chairman John Giddins then thanked Graham for his services to the Club during the past few years, and made a presentation to him.

The meeting then adjourned to the somewhat warmer situation of the bar down below, where an excellent buffet had been prepared by Lynne Barrett and Betty Shepherd.



EDITORIAL

A long time ago now, a member once said to me "Gliding is very much like fishing". I must have looked a bit blank at this bald statement, for he continued:

"Well, sometimes you come here, have bags of fun all day long and the hours just whizz by. Then, other days, you get nothing."

For some reason this comparison remains at the back of my mind. I used to think he had a point, up to a point (if you see what I mean). Soaring weather is notoriously unreliable. There are days that promise so much and deliver so little.

But perhaps that member had a very blinkered view about why he came to the Club every weekend. On any flying day, the members at the launch point get the kind of operation they deserve. At Committee Meetings it is discussed under the somewhat clinical heading "operational efficiency." In plain language it amounts to this: if members want to stand around chatting,

perhaps with the occasional half-hearted flight thrown in, then that is the kind of day they will have. Club funds suffer, but they know the day isn't going to be any good, they help this prophecy to fulfill itself, and they go home empty handed.

But there is that elusive something which some pilots have, which makes all the difference not only to their own flying but to the enthusiasm they impart to others. Rhoda Partridge once described it as the X factor: you can't define it, but it's pretty easy to divide pilots into two groups – those who have it and those who don't.

Do you have the X factor? Are you prepared to sit around all day and let nothing happen? Or are you an *optimist*? Think about it.

Spare a thought this Christmas for Christine, our Chairman's wife, who has to stay in hospital for the next six weeks or so until her baby is born. Happy Christmas to you all, and especially to her.

Phil Hawkins

Letters



"As a presently non-active member *Final Glide* provides a link with the past through invoking memories of pleasurable hours spent at Weston. The account of the flying three weeks had me cheering for all those 300km and 500km attempts and successes. It was good to read of so many old friends, pushing to their personal limits and extending them! Your editorial on stubble fires was a real nostalgia provoker – it was the remains of a stubble fire that kept me afloat (at 700 feet) to exceed 5hrs at 7.00pm at Berinsfield to give me the final leg of my Silver C. However you forget to mention how the lure of a far away burning field can ruin your judgement on penetration with the result that you never reach those potential 15–20 knot climbs and find yourself in an adjacent field. Or perhaps this only happened to me!"

Stephen Druce

GLIDER HIRE RATES

Prices for hiring Club gliders are to remain unchanged for yet another year, and are ridiculously cheap. If you fancy to take a glider away for a few days, first of all you need to obtain the CFI's permission, then put in a request to the Committee.

The winter rates (October to March) are only £7.50 per day, except K-13s on weekend days which are £15 per day.

Summer rates are £7.50 per day for weekdays, £20 per day for weekends. Shared between a small group this becomes an attractive proposition. How about a team of two taking the Astir to a Regional Competition?

The Club also offers an insurance excess waiver fee which is £10 per hiring.



On the airfield in winter, especially around the trees near the hangar, watch out for Fieldfares and Redwings. These are both members of the thrush family, and both have the spotted chests associated with thrushes.

The Fieldfare tends to be slightly larger than the common Song Thrush, with a slate-grey head, chestnut brown back and a dark tail. Its winter voice is a harsh repeated "chak-chak."

The Redwing is smaller, having a distinctive pale stripe over the eyes. Its name comes from the reddish colouring on the flanks and under the wings, which can be seen either when the bird is flying or perched.

The Redwing has a weak chirpy song and a thin lisping "peep" which can sometimes be heard at night during mass migrations.

Generally speaking both species only visit this country in winter, where they spend most of the time on open farmland and hedgerows, eating berries and fruits. This is why they like the old orchard trees near the hangar. Redwing will also visit back gardens to take food, but Fieldfares are usually more cautious.

The Redwing breeds mainly in Norway and Sweden, whereas the Fieldfare extends its coverage to eastern France, Germany and other European countries.

NOTES FROM COMMITTEE MEETINGS

1992 Committee

John Hanlon (Chairman)
Chris Reynolds (Vice Chairman)
Tony Boyce (Secretary)
Neil Swinton (Treasurer)
Neil Turner
Norman Machin
Phil Hawkins

Club Officers

CFI	Steve Evans
Technical Officer	John Gibbons
Safety Officer	Graham Barrett
Workshop Manager	Graham Barrett
Ground Equipment	Chris Reynolds/ Neil Turner
Parachutes, Radios, Instruments	John Hanlon
Instructor Rota	Colin White
Promotions	Neil Turner
Inter Club League	Chris Reynolds
Publications	Phil Hawkins
Club News in <i>Sailplane & Gliding</i>	Tony Boyce
Friday Evening bookings	Peter Awcock

News Notes

Attempts to sell the K-6CR were again discussed. There were two similar machines advertised in the Dec/Jan issue of *Sailplane & Gliding*, both cheaper than the price we had intended to ask. We shall now advertise in the Feb/Mar issue at £5975 (with closed trailer).

The Committee have authorised a budget for replacing the winch engine, as a first step to the next round of winch improvements proposed by Chris Reynolds. The favoured type is a Volvo F10 tipper engine, although a V8 Cummins might be considered as a slightly less powerful alternative.

It was pointed out that our existing winch engine and its associated hardware is re-saleable to the tune of several hundred pounds. By next season we may have winch that arouses interest amongst potential developers.

The Committee are concerned at the apparent lack of winch drivers, and the lack of instructional standards in winch driving. The "winch instructor" scheme is to be revived. Traditionally, pre-solo pilots have never been asked to drive the winch, but recently several new members had expressed an interest. The Committee feels that individual cases should be judged on their merits.

It was thought that some new members find difficulty in integrating with the Club operation, and feel intimidated by cliques which they cannot approach for information or reassurance. Two ideas were put forward to combat this problem. One was to make a training video which

could be loaned to new members for a returnable deposit. The other was to allocate an existing experienced member to "look after" new members during their first few months.

A new key list for 1992 has been lodged with the RAF guard house. Please make a point of signing the list when next you come to the Club. The key list consists of all Instructors and Committee members, plus a number of other members who are either regular early starters on flying days, or who require access for other reasons, such as Sue our wonderful cleaner.

Caravans - all applications for 1992 are now with the RAF and we hope to have permission to return caravans to the site before Christmas.

Estimates for improving the upstairs room in the hangar were put forward. To extend the existing end walls with two side walls and a suspended ceiling would probably cost in the region of £800 including electrics and basic decoration, but with no windows. There was some concern that the inside of the hangar roof should be painted before this project begins.

The covered barbecue project was also discussed. There is no decision yet on whether wood or metal construction is preferred, but basic designs have been drawn up.

There have been recent occasions when hangar security was lacking. One Committee member had found the hangar doors open after dark on a weekday evening. It was also reported that the workshop doors and the side door have been found either unlocked or open. A new hangar door hasp was proposed. When locking up for the night, all members should be aware of the need to check the workshop door and side door.

Club charges in 1992

A decision on launch fees and flying fees was deferred to the next meeting, but the following charges were fixed for 1992:

Air Experience Flight (trial lesson): £15, and £7.50 for second flight on same day.

Once again there was considerable discussion about "birthday" flights. We don't get a great many of them, but they do have the potential to upset existing members by what they see as queue-jumping. The price was increased to £25, which is an incentive to book a mini-course instead since these are better value. The Secretary reports that most casual enquirers plump for the latter anyway. Mini-course fees will be increased from £30 to £35.

The next Committee meeting will be on Wednesday 12 February 1992.

TALGARTH 1991

Saturday. We have a convoy on the A40. Flat calm - no flying. Parked the trailer. Explored cottage near Mynydd Troed. Walked to the foot of the hill. Looked up the hill. Consulted watch. Only 6½ hours until sunset. Walked back to the cottage.

Sunday. Flat calm - no flying. Trudged up Mynydd Troed. Gentle breeze on the summit but not enough to bring Glenn's model back to the top after he had launched it off the edge. Went rowing on Llangorse lake. The surface was mirror-like.

Monday. Flat calm - no flying. Shopping in Brecon. Anybody tried Welsh wine before? Terminator 2 was not on at the pictures. Late lunch at the cottage. Three buzzards circling overhead. The Welsh wine was diluted cough mixture.

Tuesday. Flat calm - no flying. Visited Dan-yr-Ogof show caves near Sennybridge. Caves impressive, music thunderous, plastic dinosaurs tacky. Picked mushrooms. Drove home for 2 days work in London.

(Wednesday/Thursday: howling gale - no flying).

Friday. Breezy and heavy showers but flyable. Hurtling along the ridge. Weak wave to 3,500ft, alongside some soggy looking clouds. Landed in rain, towards low sun. Where's the ground? Bump. Oh yes, there it is. Carefully dried off the glider. Then it rained again.

Saturday. Similar conditions. Shopping in Hay-on-Wye. Antiques, teddybears, jigsaws, books, books and more books. Bought fish and chips, drove up to the common below Hay Bluff. Very small Cirrus directly overhead. Switched on the radio: "579 approaching nine thousand." Washed sheep duds off the glider before derigging. We have a convoy on the A40.

You can prove anything with statistics...

The safest way to fly? Airlines with no accidents on scheduled flights during the past twenty years include KLM, Finnair, Air New Zealand, Aer Lingus, Qantas and Dan-Air. The worst accident record in the same period was held by Air India.

Statistically, air travel is now 20 times safer than car travel. The aviation insurance group AISL reports one death per five million passengers carried. If airlines had the same fatality rate today that they had in 1950, however, the annual death toll would be 50,000.

SPREADSHEET POLARS

Many of you will use *Spreadsheet programmes* (Lotus 1-2-3, Aseasyas, Excel etc) on your personal computers, either at home or at work, for financial calculations (e.g. can I afford that *Nimbus 4*?) Did you realise that spreadsheets also are an **ideal tool** for quickly calculating and plotting glider performance curves?

The theory is well established, and you only need a few equations to plot the polars etc of **your glider**. They can be found in, for example, *New Soaring Pilot* by Welch and Irving, a book I thoroughly recommend. It turns out that, except near the stall, most glider polars can be fitted to the **Universal Polar Equation**:

$$\frac{V_{si}}{V_{sio}} = \frac{1}{2} \left(\left(\frac{V_i}{V_{io}} \right)^3 + \frac{V_{io}}{V_i} \right) \quad (1)$$

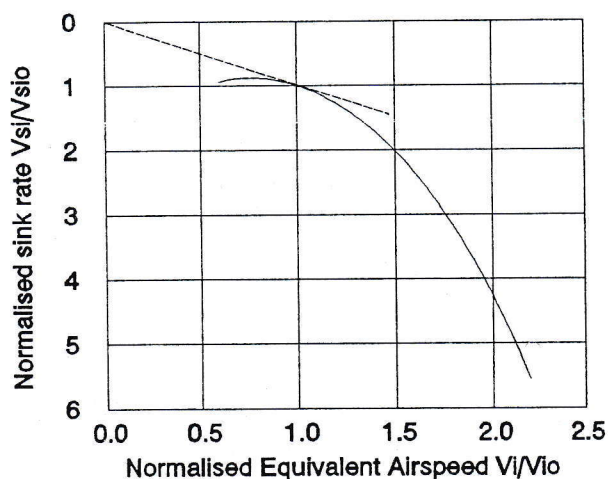


Figure 1. Universal polar curve

where V_i and V_{si} are the indicated airspeed and rate of sink, respectively, and V_{io} and V_{sio} are the values of these at maximum L/D . As expected, L/D_{max} occurs at (1,1) in Fig.1.

To plot the universal polar for your glider, you only need a value for the maximum L/D and the corresponding IAS V_{io} . The sink rate is then $V_{sio} = V_{io}/(L/D_{max})$. In practice, the best fitting universal polar may come from values of L/D_{max} and V_{io} which are slightly different from the

advertised values. For example (Fig.2), the Astir CS polar curve in the flight manual is better fitted by a glide ratio of 36 at 50 knots than by the book value of 37.3 at 51.3 knots. [OK, so you knew it wasn't that good!]

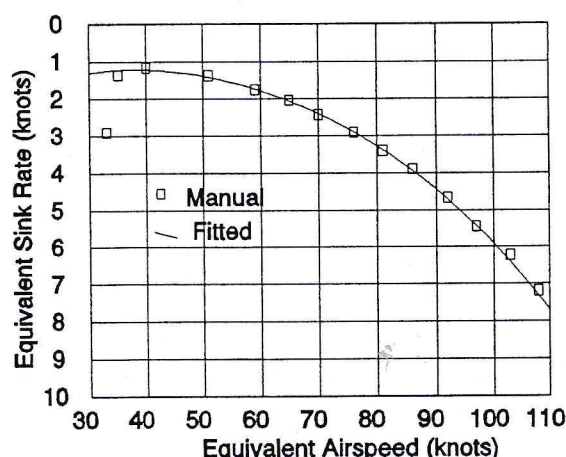


Figure 2. Comparison of Astir CS fitted polar (36 @ 50 kts @ 770 lb AUV) with curve in flight manual.

You will notice that I have slipped into the usual displaced V_i axis, just to make it difficult to draw the best glide tangent!

You can use a spreadsheet programme to draw fitted polars for any glider by the following procedure:

- (i) Set up a range of speeds V_i (e.g. 30 – 110 knots), and cells with values of L/D_{max} , V_{io} and hence calculate V_{sio} .
- (ii) Use Equation 1 to calculate a column of sink rate V_s values and plot them against V_i .
- (iii) If you have a measured polar curve, enter and plot it, and fiddle the values of L/D_{max} and V_{io} to give a best fit.

The polars for the OGC fleet, plotted this way, are shown in Fig.3. You can see immediately why the K13 doesn't scratch as well as the K8, but gets to the next thermal; also why the out & return to Oxford in the T21 this year was heroic!

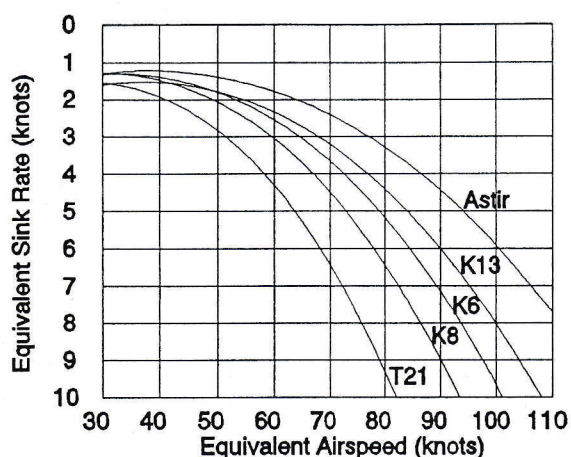


Figure 3. OGC club fleet polars at the following best L/D and speeds in knots:

T21: 21 @ 37 K13: 28 @ 48
K8: 27 @ 39.5 K6CR: 29 @ 43
Astir: 36 @ 50

Now we have the polars in the spreadsheet, you can now calculate more, such as the glide ratios in Fig. 4. You can also check out what happens when you fly at a different weight W , such as when you add water ballast. Since both V_{io} and V_{sio} both vary as $\sqrt{W}$, but L/D_{max} is unchanged, all you have to do is scale V_{io} by $\sqrt{W/W_0}$. Fig. 5 shows the effect of adding 220lb of water to the Astir.

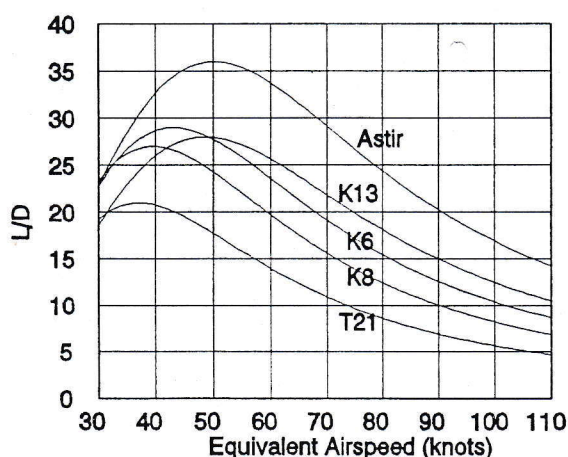


Figure 4. Glide ratios of OGC fleet.

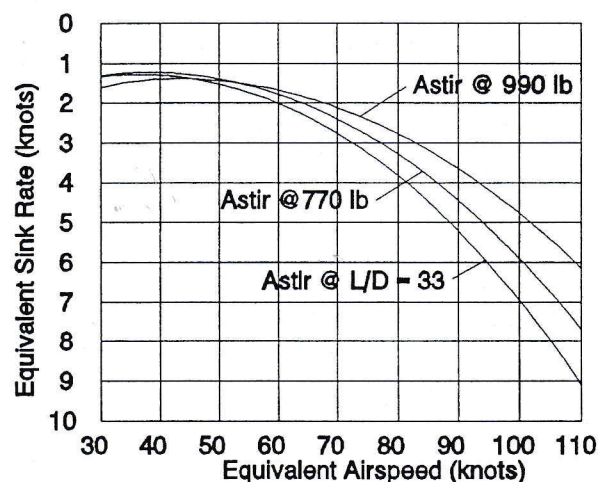


Figure 5. Effects of increasing weight of Astir CS from 770 lb to 990 lb and effect of reducing maximum L/D from 36 to 33.

Of course you might not believe the glide slope claimed by the optimistic manufacturer of your shiny new machine! Then note that the optimism is probably due to the assumed value of the 'profile drag coefficient' C_{D0} . Theory shows

that $L/D_{max} \sim C_{D0}^{-1/2}$ and $V_{io} \sim C_{D0}^{-1/4}$, so that $V_{io} \sim \sqrt{L/D_{max}}$ and may be scaled accordingly. So, if you consider that the Astir maximum glide ratio should be 34 and not 36, then $V_{io} \sim \sqrt{L/D_{max}} = 48.6$ knots, not 50. The effect is also shown in Fig. 5.

If enough readers are interested in using spreadsheets in this way, I will talk about 'speed to fly' and 'final glide' calculations in a future issue. If you want a copy of the spreadsheet worksheets used, in Lotus 1-2-3 IBM PC format, send me an unformatted 3.5" floppy disc (no viruses, please), and I will copy them for you.

Martin Oldfield

Now, you did understand all that, didn't you? Well, I tried it, and it works. It doesn't matter if you don't understand the equations, which is just as well since I failed maths at this level in the sixth form.
Editor



It was a promising looking day, one of the best in the season so far. Graham Barrett and I were the starters, Graham declaring 500km, but I was somewhat less ambitious, declaring Cambridge – Husbands Bosworth – Newbury (362km).

On track ...

It was a rather scrappy sort of start, never getting high, and not finding particularly strong lift. By the time I got to Winslow I was getting quite depressed. The buildings on Little Horwood airfield are very interesting when studied at close quarters. Eventually however I managed to get a little bit of air underneath me, so onwards again.

In fact it started to pick up after that. Graham had reported being low in much the same position earlier, but he was now quiet, and I could see why. Much better climbs in stronger lift. I could start racing a little. Even venturing into the odd cloud just to get that little extra help between thermals. In fact a nice run to Cambridge, about 20 minutes behind Graham.

From there I turned west towards H.B. More cloud climbs, with the highest to about 6000ft, a little above the inversion. This resulted in a long and very peaceful glide, extremely smooth, with a beautiful clear blue sky above and brown murk below. Eventually I managed to identify H.B. (but it was not easy – it definitely seemed to be getting murkier). I turned the club house, and then headed south, looking for my next thermal after 15 minutes or so straight flying.

I think I had become spoiled by then, because the small amounts of lift I found just weren't good enough! Approaching Daventry I was getting concerned, though. The motorway service station started to look attractive as a land-out venue, plenty of telephones and a nice cup of tea! But luckily I found a good thermal there.

I could start to hear radio chatter about how difficult it was getting around Towcester and Bicester. So I try to get high, and stay high, but it never works like that. Trying lots of clouds on the way, a little to the left, then to the right, but nothing worth staying in. Bicester starts to seem attractive, and looking that way, I keep thinking *can I reach the airfield?* But there, delight of delights, a rather lovely looking stubble fire. Well, reluctant though I am to cheat and use man-made sources of lift (well alright – I raced for it!). It was a good 'un too! Up to 7 knots on the averager for a while. Climbing to 5500ft I then pushed south.

Question: what is the biggest task ever flown from Weston-on-the-Green in a wooden glider? No, I don't know the answer either, but this flight must be in with a chance. Cris Emson learnt a valuable lesson from it, one which maybe more of us should heed.

Decision time ...

By now it was about 4pm but I felt that since I had declared, I was damn well going to continue. If nothing else, I needed land-out experience in the K6. So I called up Oxford base, informing them of my position and intention, only to be greeted by Colin Shepherd's dulcet tones, confirming I was homeward bound. What a cheek! No way, I was going for it.

To be fair to Colin, the weather by now was distinctly grotty. There was 8/8 murk, with the sun barely visible through the haze. Horizontal visibility was getting close to wingtips only. There were some darker patches of cloud, but generally they were rather an anticlimax.

A poor, slow climb near Oxford, likewise near Didcot, and by the A34/M4 junction I was down to 2000ft with very little to be seen. I headed over Welford airfield, but nothing there. Back to the junction to a darker patch (a cloud?) but nothing there. The corner field by the roundabout was large, an ideal landing field. A quick leap over the hedge, round the roundabout, and I would be in the service station for a well deserved rest.

I call up Oxford base – low, and probably landing out in my selected field. 5pm or so, and I start to find patches of zero, maybe $\frac{1}{4}$ knot of lift? About 30 minutes later I have climbed to the grand height of 1400ft. There is a stubble fire a few miles away (but with no guaranteed return to my very nice, inviting landing field). I edge closer and there is a glider circling higher. No excuse, I have to try it!

The fire works! It takes me to about 4000ft – enough I reckon to get to Newbury and back to the same fire. Oh well, no point getting this far and not even turning the final turn point. So off I go, but gently this time, in survival mode.

There are even weak patches of lift on the way, just to help out that little bit. I turn the racecourse and head back north. Well I know the stubble fire is that way – somewhere, but I certainly cannot see it in the gloom. But there it is, appearing in front of me. And I reach it quite comfortably too – that was lucky (I never trust my calculations!)

I enter at 2000ft, but the shape of the burning section has changed and the core is not so well defined, but the lift is certainly there. Gusting up to 6 knots lift, not very good for a stubble fire, but better than anything else that was around. Then that wonderful sight, a billow of smoke starts to rise, and I'm above it! Then 10+ knots lift, and better defined. I leave the

fire to set the horizon, then back in again. Then into cloud (or smoke) proper at 4000ft, but keep going. At 5500ft I reckon I can get home (the calculator says so!) – it's about 6pm by now.

So I head north, in cloud. Trying to follow a compass bearing, but that's quite difficult I discover, and I keep heading off track (to the left as I later find out). Eventually I clear cloud, or rather I start to see the ground below, but not in front and to the sides. A bit further and Didcot should appear in front – well maybe a bit further – hang on, where is it? I do a 360° turn – no Didcot! Oh heck (or words to that effect).

Keep pushing on, heading slightly east a bit because of Brize. There's a big airfield to my right – must be Benson (but how I got there I don't know). I head west a bit again – nice big reservoir ahead – that must be easy to identify. Oh yes – it's Farmoor. Whoops! That must have been Abingdon airfield. Oh well, still about 4000ft so I hadn't violated Brize zone anyway.

Now I know where Oxford should be (not that I can see it). I head that way, and yes, I start to see it when I am practically over it. I cannot see Kidlington of course, so the only answer is to follow the ring road.

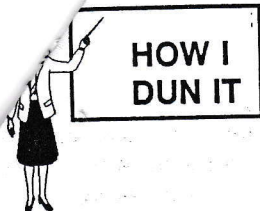
Another what seemed like an age, following the road – can I make it? (of course I can, but in that situation, nerves have a nasty habit of convincing you the opposite). I struggle to keep the speed down to a sensible value (this K6 seems to want to dash everywhere all the time!).

And so, eventually, after a great deal of nervous worry, the airfield comes into view, completely deserted, just the cars parked in front of the hangar. And of course, there is my trailer on the back of my car, patiently waiting to head off on what proved a nonexistent retrieve.

The moral ...

It was a very exhilarating flight, not because it was fast (at nearly 7 hours it wasn't), or particularly far (although for a K6 maybe not too bad). It was the feeling of having resisted the temptation to head home when things seemed to be getting tough, and to have actually stayed in the air long enough for luck to be on my side (for once) and enable me to get home.

The lesson I have learned from this flight is: it's no use turning for home, as you will not complete tasks that way. If you set out on a task, expect to finish it, or land out – not run for home!



Here's a "howidunit" with a refreshing difference – it's got nothing to do with flying! At the age of 18, Kate Machin went to Nepal for 4 months, teaching English in a rural area. Her account of Nepalese weather, and the conditions under which she had to work, makes fascinating reading.

I arrived in Kathmandu on a Thursday in April, and succeeded in contracting dysentery within three days of arrival. This was an unwelcome introduction to health care in Nepal – primitive to say the least, but it did get the most serious illness out of the way at the beginning.

At this time of year Nepal was basking in the sunshine of the last of the high pressure blown from inland Asia by a "land breeze" on a massive scale. The canals were parched dry after six months with virtually no rain. The soil had been storing this relentless heat until the land temperature began to exceed that of the ocean far to the south. The continent winds began slowly to reverse, bringing moisture laden air over the Indian subcontinent. This would produce the monsoon in May in Sri Lanka and about six weeks later in Nepal.

My job was teaching in a school in a village called Bisalnagar, two miles outside Kathmandu. The children were expected to work before and after school in the fields and there were often problems with them being too tired to do schoolwork as well. The emotions and the religion of the villages was centred on the weather – rather like glider pilots!

Outside the monsoon season, the rest of the year Nepal lies within the largest rain shadow in the world, that of the Himalaya. Consequently it receives considerably less rain and higher temperatures than other countries at the same latitude.

Rice growing here is even more precarious an activity than in the rest of Asia because the mountains make the seasonal shift even more pronounced. During the dry season the paddy fields dry out and the rice ripens in the sun before harvesting. Post-harvest the monsoon is eagerly awaited. As soon as it arrives the whole village is involved in planting out the seedlings as the beds flood. One of the largest festivals takes place at this time, *Rato Machendranath*. This means "red chariot" and is held to encourage the rain gods to do their job well.

The chariot is actually a pillar woven from bamboo and leaves which is mounted on a cart. At the pillar's base reside statues of the gods. The pillar is about 40 feet high and is dragged on the cart by teams of men from Kathmandu up to the valley rim. This is no mean feat when you consider that Kathmandu is already higher above sea level than anywhere in Britain and the valley hills are 1000m above the city at 2500m (8000 feet).

The chariot is then dragged around various villages and towns which feature in Hindu and Buddhist mythology, before being brought back down for the final knees-up before the hard work of rice planting begins.

It is not unusual for people to be injured or even killed in incidents when the pillar collapses. It does this several times on the journey. This year, having left Kathmandu at the vertical, it returned leaning at 40° to the horizon – rather like the participants of the festival – Nepalis, especially sherpas, being notoriously poor at holding their drink. This is mainly because they have alcohol so rarely, indeed many devout Buddhists and Hindus abstain. Obviously not a religion for members of OGC!

I was lucky to be teaching geography as well as English, and when it came to discussing "weather" it was easy enough to point outside. In a month the weather changed from high pressure induced stability to what must be the most unstable air in the world. Not only was there the energy in the air from its having been heated up on its journey across India, but also the Himalaya was producing the ultimate orographic rain effect. The result during May and June was at least one electric storm a day. The sky was permanently full of towering cumulonimbus of the sort of textbook perfection that geographers go into raptures over. There was so much electricity in the air that it made your scalp tingle and the hairs on your arms stand up. Unfortunately these storms, although very spectacular, resulted in the flooding of the school yard and classrooms.

Teaching was carried out in the open air, and in old farm buildings, the school being too poor to have its own building. These old cow byres had a corrugated roof, a full height back wall and the other walls were about 4 feet tall. There was a dirt floor, no door and the roof struts (bamboo poles) had every insect you can imagine living in them, and a few more besides.

As soon as the rains started all the local wildlife i.e. rats, mice, snakes, crickets etc took refuge in the classrooms. These would always contrive to a) bite someone, b) have babies, or c) die – possibly all at once. This would happen whenever everything else was going wrong e.g. the day I set a spelling test only to find that I'd no more idea how to spell the words than my pupils.

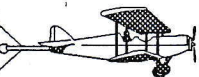
By July the weather had begun to settle down into the standard monsoonal cycle. There would usually be about 16 hours of torrential rain, followed by 8 hours or so of sun before it rained again. Not surprisingly, everything that could flood did so – this included the sewers which didn't improve the Kathmandu perfume.

Towering cumulus and circling vultures became a way of life. The vultures were not only circling because of the thermals but also because many animals, and people, fell victim to the floods.

The clouds over the valley built up to amazing heights. Cloudbase was often on the valley rim (8000 feet) with the clouds topping out so high above they looked like a second Himalaya. The birds would soar in what looked like 15 – 20 knots up. Unfortunately no-one has yet overcome the problem of an extreme shortage of flat landing sites. It could bring a whole new meaning to the term "a long retrieve".

It's tempting even for an inexperienced pilot like myself to dream of having an LS-7 at my disposal in those conditions, but to be honest I think I prefer to leave this soaring site to the eagles and vultures – the way it's been for millions of years.

NEW MEMBERS



During the summer we gave a mini-course to Radio Oxford for their charity auction. Pensioner Violet Turner of Ambrosden was the highest bidder, and visited the Club in August to claim her flights. She flew with Graham Barrett, including a loop and other aerobatics. She is now an associate member.

Mike O'Neill had his first few flights at Camphill about 5 years ago. He recently decided to take up gliding seriously and carried out detailed research on local clubs before choosing us – naturally! He has made about 50 instructional flights so far. An enthusiastic model-builder, he intends to write up his experiences for *Radiomodeller* magazine.

MORE PICS WANTED!

More interesting aerial pictures please for the "pixbook" in the clubroom. Have a browse through to see what's already there then go home and rummage through your folders for better and preferably new and different ones. Recent requests have been Old Warden and Aston Down, both silver distance goals. Maybe even Odiham!



The world's oldest flying joke: "Look at all those people down there, they look like ants." "They *are* ants, we haven't taken off yet." The world's oldest flying *practical* joke: surreptitiously put coleslaw into a sick bag, pretend to be sick into the bag, then eat the coleslaw.



Heard on the radio in July:
"I see the combine harvesters are out at last".
"Oh? How high are they getting?"
(contributed by Chris Reynolds and Brian Payne).



STARTER PACKS

OGC Starter Packs, which are given free to new members, are once more available. Any member recently joined this summer who did not receive a starter pack, please claim it now from behind the bar.

Starter packs contain: Pilot's Log Book, Pre-Solo exercises checklist, Laws & Rules for Glider Pilots, Modern Elementary Gliding (book), "Sailplane & Gliding" sample copy, BGA sales room catalogue, OGC information sheet.

CFI'S TURN



Well the year has been saved by August and September with lots of good weather and some very good flights completed especially in the flying three weeks. We now have lots of new fledglings with some changing their bronze plumage to silver. But remember, as the thermals die and the days become shorter, even beautiful birds need to exercise their wings, so keep current this winter.

Also remember that the hurricane season is almost upon us and things will get blowier and choppier, so if in doubt take a ride in the two seater. You never know you might learn something!

We now have three Air Experience Instructors (AEI's) who will be flying temporary associate members on their 'trial lessons'. This category of instructor can only give trial lessons and cannot run the flying field, so don't expect them to check you out on field landings and the like. Also don't assume that, as there is

someone in the back of the K13, there is an instructor around. For those who don't already know the AEI's are Alec Jenkins, Martin Oldfield and Brian Payne.

Recently I have noticed that our ground handling of gliders and general handling of winch cables has become poor. As the windier weather approaches, it is essential that gliders are handled properly on the ground. Always make sure that there is one person on the wing tip and another at the nose and that when rotating a glider the wing tip holder takes the windward tip.

With winch cables it is important not to stand near ANY cable when a launch is in progress and when picking up a cable make sure that you hold the end in a loop such that, if the winch should pull the cable, it would slip from your hand.

If you are uncertain about any of these procedures, speak to an instructor.

See you in the snow!

Steve Evans

BATTERY CARE

You will all have noticed by now that the Club gliders, batteries and chargers have been fitted with polarised connectors to make connections "idiot proof". Why bother? (you may ask). Well, apart from the obvious fact that connecting the battery the wrong way around can destroy expensive electronics in the glider, one can do several things to ensure a useful and reliable battery life. The sealed lead-acid type which we use are expensive (£29.21 from RD Aviation) and with appropriate care we might get as many as 1000 charge/discharge cycles. Here are some DOs and DON'Ts to help achieve this:

- DO keep batteries charged.
- DO charge after every discharge, even if not fully discharged.
- DO charge at constant voltage.
- DO charge with current limitation.
- DON'T place batteries close to a heat source. Best life is obtained if kept between 20°C and 25°C.
- DON'T discharge beyond nominal capacity. In our usage we cannot determine full discharge precisely but a terminal voltage of 10.5v is low enough. Discharge to 0v is usually catastrophic.

DON'T short circuit a battery.
DON'T connect to a charger the wrong way round.

DON'T overcharge. Constant voltage chargers with current protection avoid this possibility.

So how do you know if your battery is fully discharged? Mount an extended scale voltmeter in you panel. There is a cheap RS Components meter with red

and green segments which with a few (3) additional components make an accurate OK/discharged indicator. See me if you are interested.

Finally: charging. Voltage – for "float" use, as in backup power for a security system, batteries are charged continuously at 2.25 to 2.3v/cell (13.5v to 13.8v for a 12v battery). For "cyclic" use, i.e. fully charged to fully discharged cycles, batteries are charged at 2.4v to 2.5v/cell (14.4 to 15v for a 12v battery). Our usage is neither of the above, it's something in between, so a constant charging voltage of about 14v is appropriate. During the inactive winter months a permanent "float" charge 13.5v should be used. Current – a maximum initial charge current of 0.25 x battery capacity is recommended. For our 6AH batteries this is 1.5 amps.

The Club chargers are set to 14v, have 1.5 amp current limits and have polarised connectors so some of the DO's and DON'Ts are covered. The rest are up to the users. YOU.

Brian Payne

TOST RELEASE HOOKS

C of A time is approaching. If you've got a broken back release return spring you could get a reconditioned release hook, £101.16 from you know where. Alternatively you could ask Brian Payne to make you one – £5.

Phone 0235 832253.