

FINAL GLIDE

Clubhouse: 01869 343 265
Fax: 01869 343 403
Launch point: 0836 773210

Issue 15 : March 1996

Edited by Phil Hawkins

Good News if you hate CASHING UP!

You will not have to after March 23rd. But why not?

flights taken from the log sheets will be entered into the computer. Each flight entered will appear on the arrears. To pay for your flights, and to stop any surcharge being applied, put your payments into an envelope. On the outside you should write your name, membership number, date of each flight you are paying for, the flight numbers and the amounts.

Also include membership fees and/or facility fees, if they are due. Write clearly and include your membership number to avoid confusion. The bottom part of the envelope is used for detailing how you are paying, i.e., cash, cheques or launch vouchers. Total up the amounts you owe and the amounts you have paid (both figures should be the same). It's easy.

But if that's too difficult, then try this. If you enclose money in the envelope and leave the top part blank, except for your name and membership number, we will pay off the oldest flights that are on arrears automatically, and give you credit balance for any money left over. This means that if you decide to pay, say, £20 we will pay off any flights automatically until you use up your credit. Flights are paid off in sequence, so if you have a long flight then your credit balance will have to reach the cost of this flight before any more recent shorter flights are paid off.

This will not cost you any more - all money left over will be added to your credit balance. You can also set up a standing order paid directly to OGC - this way you don't even need to write a cheque and could cover your membership sub as well.

Completed envelopes should be posted into the bar letter box or into the safe inside the launch point vehicle. The computer will issue reminder letters for arrears older than four weeks. Any arrears that become older than six weeks will have a surcharge applied automatically by the computer, so don't blame me, you have been warned.

All log sheets since October 1st are now computerised, so if you want a printout of your log book, structing hours or arrears etc, let me know. A sample paying-in envelope is shown overleaf.

Howard Stone

In this issue

How do they do that? -
GPS

New emphasis for
Friday evenings

InterClub League Final

League meetings '96

A tale of penny buns,
reindeer and golden
eagles

So you think you're a
good climber?

AGM report

CFI's Turn

Committee news

Name : Howard Stone		
Membership No.: 297		
Date:	Flight No.:	Amount:
12 Jan 96	3	£3.00
19 Jan 96	5, 9, 14	£19.20
Subs:		£ 0
Facility Fee:	DRP	£35.00
TOTAL:		£57.20
Cheques :		£44.20
Cash :		£10.00
Vouchers (£3):		£3.00
Total Enclosed:		£57.20

Good News if you hate cashing up

(continued from front page)

Here is a sample of the paying-in envelope which will be used from 23 March 1996. You are going to have to use them whether you like it or not, so you may as well get used to them! Any queries please see Howard Stone or Chris Buck.

These Totals
should be
the same.

Editorial

At this time of year everyone is hoping for another season as good as last year. I had a lot of fun last summer, particularly as it was my first active year doing advanced training in the Acro. For some time I had been getting fed up with flying on my own, and it was a rewarding experience to be able to pass on a few bits of knowledge to other interested pilots.

As I do not instruct in the normal sense, I didn't have much previous experience of assessing other pilots' abilities. Surprisingly, I discovered that there was a common factor to many of the dual cross-countries in which I flew last year, which was simply this: *the pilot in the front seat was better at cross-country flying than he/she thought*.

This reinforces a view that I have long held - assuming that the basic cross-country skills have been acquired, cultivating a positive mental attitude is more important than anything else when it comes to further improvement.

More important than speed-to-fly theory, more important than height bands or reading the clouds or fiddling with the electronic stuff on the panel.

The last thing I want is to encourage pilots to be over-confident. But if I had to put my finger on one single thing which separates the best cross-country pilots from the rest, it is just belief. They *believe* that the next thermal will be there. They *believe* in their field selection skills, etc.

Another vital thing is to visualise a thermal as an object in three-dimensional space. Thermal centring can be done in various different ways, and they all work to some extent, but to some pilots it is a mechanical exercise, like painting by numbers. Imagine you are flying through a squirming, wriggling object which is alive and has a specific size and shape. Thermal centring to me is an intuitive process of discovering the outline of the object and fixing it in your mind while you adjust your circles.

Well, that's enough of that. Here are two little gems from the past. I once overheard a former OGC instructor refuse to take a former female member on a dual cross-country appar-

ently on the grounds that she was wearing a tight T-shirt. I'd like to put on record right now that I do not suffer from any such prejudice! As one of the few OGC pilots to have had the pleasure of a lady instructor singing to me in Latin from the back seat of a K-13 (she was wearing a bikini at the time) I can honestly say that sex and gliding mix quite well as far as I am concerned!

So if you want cross-country instruction this year, grab me! T-shirts and bikinis are optional but are not grounds for refusal.

Seriously though, if you were one of the pilots I flew with last year and I haven't seen you since the AGM, thanks very much for helping me to win the CFI's two-up trophy. It was an unexpected pleasure.

With this issue of *Final Glide* I have decided to redesign the format slightly, and to update my computer with some whizzy new software. I hope you like it. I'm now using GST Pressworks, which incidentally supports colour. Perhaps we are some way from producing full colour issues, but you never know!

Phil Hawkins

CFI's TURN...

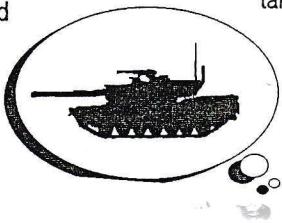
Bronze C Cross Country Endorsement

First of all, since the season will soon be upon us, I would like to give a quick outline on some changes to the Bronze C requirements. It is well understood that to gain Bronze C, it is necessary (among other things) to sit a written exam, and have flight checks. These flight checks include simulated field landings into a marked area of the airfield.

This year a major change has been introduced, to emphasise that a Bronze C does not entitle you to fly away from the home airfield. There is now a Cross Country Endorsement to the Bronze C, which must be obtained before XC clearance is given. The requirements for this are: one 1 hour flight and one 2 hour flight, navigation, field selection and field landings (the non-soaring flights are to be carried out in a motor glider), and CFI approval.

Bronze C Weekend: Sat/Sun 30/31 March

Last year I spent a weekend giving a tutorial for the written paper, and I plan to do the same this year. I propose to spend Saturday 30 March (from 10:30am) giving a quick tutorial, answering questions arising from the course syllabus and sample questions. The paper can be taken that afternoon. For those that wish, I will then spend Sunday going through the flight checks necessary for Bronze C.



As last year, we will try and get a motor glider to Weston for one weekend, for people to get the requirements for the Bronze XC endorsement, or simply to have a bit of fun. Dates will be advertised on the notice-boards, so watch this space.

Cross Country Course

This year, during the flying 2 weeks, I plan to hold a XC training course at Weston. It is open to all Club members. I hope that we will start by getting a tug over for the week, to allow aerotows for anyone wanting to get current (or learn). Various tasks will be set, depending on the weather of course. These will range from 50km for those without Silver yet, 100km for those wanting their diploma, and longer tasks for anyone wanting to practice their XC skills.

I intend to run the longer tasks as "lead and follow" where one glider sets the pace and another is dedicated to keeping the tail enders up with the rest. The ACRO will be available for the tasks, and as many other gliders wishing to take part.

If the weather is not in our favour, I propose spot landing and aerobatic competitions. This will be open to all members of all levels - the aerobatic manoeuvres set will depend on the individuals experience, and all will be marked by an instructor present in the K13, again taking into account the pilots experience.

The dates are yet to be finalised, but will probably be the first week of the flying 2 weeks at Weston. Come along - it should be fun!

Cris Emson

Friday Evening Flying

As you may know Peter Awcock has "retired" from the organisation of Friday Night flying after four years and yours truly, having nothing better to do, volunteered (how did I do that?) to take on the task. (NB. Beware any Committee member who sidles up to you and says something like "I hear you're going to be the new").

My first requirement then is some crew - please come and help - add your name to the list in the Club room, see me at the airfield or call me at home (01865 63366). Even if you are a new member you can help and as the "regulars" will tell you it's a lot of fun. Special inducements available for regular rostered attendees!

This year we are trying to change the emphasis of the evening slightly. It seems that some of our visitors last year were unaware of our barbecue and Club room facilities, hence this year we are

promoting a "flying evening" which will consist of a Trial Lesson and a prepared barbecue supper at an inclusive cost of £20 per head. The culinary part will be supplied by Fiona and Clare who, I guess, were also sidled up to by a Committee member. The objective is for our guests to enjoy themselves, to show them what a nice crowd we are, what good facilities we have and perhaps persuade a few of them that they should join up. We will, of course, provide just the flying and DIY barbecue if required.

If you know a group who might like to book an evening let me know and I will get in touch with them to arrange the details.

Finally why not make Friday night a Club night? Even if you are unable to help on the airfield why not come across later for the barbecue, a drink and a chat - but beware of sidling Committee men!

Norman Hedge

A tale of
mushrooms,
golden eagles and
reindeer

(and some flying)

Feshiebridge

Pick any Saturday morning in September or October, and you will find about half the UK population of glider trailers on the M6 either going north or south.

Our turn to wear out the northbound carriage-way came on 23rd September when 16 assorted members and their families took 6 gliders to the Cairngorm GC at Feshiebridge for a week.

Feshiebridge *the village* consists of a bridge, a phone box and three houses, about 6 miles south of Aviemore. Feshiebridge *the airfield* is situated at about 800ft above sea level, surrounded by pine forests, at the bottom of an impressive steep ridge about half a mile away which rises 1200ft above the site. The single grass strip, oriented 20/02 is level and firm with no tendency to get muddy (and it had every chance to get muddy during the week we were there, believe me).

Club facilities are basic - portacabin clubroom, trailer park and mobile caravan for launch point control. The hangar and workshop near the southwestern end of the strip are currently threatened by erosion from the river Feshie. The river, a tributary of the Spey, was a 200-yard wide strip of bleached stones and sandbanks during our stay, but in full flood it must be a raging torrent carrying trees, boulders and everything else in its wake. We were told that in some winters the river bank can move 20ft closer to the hangar, which will inevitably be lost, perhaps within 5 years. Club members are currently constructing new T-hangars at the other end of the airfield in preparation for this unique event.

I stayed with John Hanlon and his family, Richard Hall and Keith Ross in a timber bungalow overlooking the airfield, less than 10 minutes walk from the launch point. It was

very convenient to have breakfast whilst checking the wind direction in relation to the hill and looking out for any rigging activity. The rest of the OGC

group stayed at various houses in Kinraig and Kingussie (which is pronounced *King Ussie* and not *Kin Gussie*).

Low pressure remained closely to the east of Scotland during our stay, and the weather was locked in showery mode with strong west or northwest winds. At first we thought this might create problems for crosswind takeoffs and landings, but the surface wind on the strip seems to be overwhelmingly influenced by the presence of the hill nearby, and tends to blow more or less along the runway in either direction, sometimes changing without warning.

There was some wave most days, but typically it would get temporarily squashed by the next line of showers to come through, and if you weren't already established above the cloud tops you were back on the ground very quickly. In this situation the Aboyne pilots certainly had a slight advantage because the showers were dumping on us and the air was much drier by the time it reached them further east.

Best heights in the local wave were achieved by Graham Barrett and Steve Evans who reached about 11,000ft. Dave Weekes almost made it to 5 figures in the Skylark and Brian Payne's best height was around 8,000ft. With some early snow dusting the hill tops the scenery was wonderful, when it wasn't obscured by cloud.

I flew John Hanlon's Cirrus EEN and my best effort was 6,600ft followed by a prolonged descent through cloud on artificial horizon and GPS. I had sunk gracefully into the cloud tops about 5 miles from the site, and arrived back overhead according to the GPS still in cloud with showers of ice crystals coming through the air vent and settling onto my lap. I set up a gentle turn on the horizon and continued to circle down for a further 2000ft until Loch Insh appeared like magic below (local pilots recommend you don't program the airfield co-ordinates into the black box because it is a bit too close to the hill). A surprising amount of ice had accumulated on the wing leading edges, which began to melt off in lumps.

Richard Hall's experience in wave soaring paid off as he was willing to venture further afield to the southeast reaching 17,000ft and 19,000ft on separate days. On the second

occasion, after his borrowed GPS failed less than 5 miles from home, he became disorientated after breaking through cloud, found that the engine would not re-start and landed in a field at Insh about 3 miles from the site. At least a dozen people turned out to help retrieve him across a ditch and through a fence, which was accomplished just at nightfall. Condensation in a micro-switch due to the extremely low air-frame temperature was thought to be the cause of the starter failure. Richard bought the beers at the Royal Hotel in Kingussie that evening.

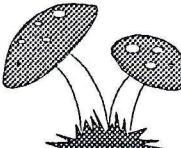
Bird life tended to be a bit thin on the ground at this transitional stage of the year when summer breeders have gone and winter visitors haven't yet arrived. Greylag geese were arriving on migration from the northeast every day, in straggling vee formations which often seemed to be making very little headway against the strong westerly winds. We visited the RSPB reserves at Insh Marshes and Loch Garten. Although the ospreys are gone from Loch Garten at this time of year, we saw hen harrier and merlin at Insh. Golden eagles were spotted through Richard's telescope from the airfield, as they soared along the local hill amongst buzzards and ravens.

Lynne Barrett and the other fungus hunters also had a good time poking about in the woods. Lynne's tastiest find was a Tawny Grisette (*Amanita fulva*) and I found a rare Cauliflower Fungus (*Sparassis crispa*) which is also edible. Penny bun mushrooms and other boletus species were everywhere, but sadly no chanterelles. Better luck next time, Lynne.

We took Sorrel (5) and Amber (3) to see the reindeer herd which graze a 1000-acre paddock of heather and boggy grass on the lower slopes of Cairn Gorm mountain. The day we went it snowed and the children got very cold, but the scenery was magnificent. The reindeer have a supplementary feed at 11am every day, and will take food from your hands, but do take care to keep their antlers out of your face! The children also liked the Highland Wildlife Park near Kinraig, where you can spy on otters and badgers dozing the daylight hours away in their dimly-lit dens. The park also has semi-tame Red Grouse which cluck at you like chickens, as well as arctic foxes, highland cattle, bison, red deer, rare sheep and horses, and much more.

Evening meals at our cosy house were provided by Christine, who actually likes doing more cooking on holiday than she would do normally. We also tried the food at the *Topsy Laird* in Kingussie and the *Winking Owl* in Aviemore.

How does Feshiebridge compare with other mountain clubs? Like ourselves, the Cairn-



form club are winch oriented and usually operate at weekends only. At this time of year, however, Barry and "Mo" Meeks stay for a month and provide aerotows with their Rallye tug. Like Talgarth the club is small, friendly and informal, the complete opposite of Aboyne which we visited a year ago. During the annual wave camp the prices are similar to those at Talgarth but for the rest of the year would be cheaper since winch launches are more usual. As well as the autumn wave camp there is apparently a 2-week summer camp when launches would be available every day. The ridge running is not as good as Talgarth but the wave is probably better, and the site is generally easier to handle for inexperienced pilots.

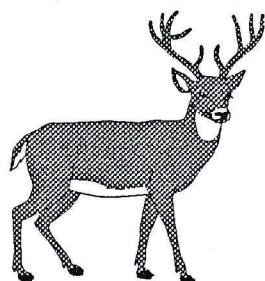
The drive to *Glen Feshie* is easier than to Aboyne and although nearly 100 miles further than Portmoak it seems no worse. Somehow when you have already done 400 miles on the motorway another 100 makes no difference. It can be done towing a trailer in about 9 to 10 hours with minimal stops. The A9 north of Perth is a very good road, and the traffic is much lighter than that which we take for granted in the crowded south of England.

We are likely to make a return visit in September 1996, possibly for two weeks, so if you would like to try friendly Feshie for yourselves, don't miss it.

As we were driving home Steve and Sheila were moving to Aboyne to meet Rick Under-

hill and stayed another week. Rick had good wave conditions on two days with 15,000ft and 18,000ft climbs and a gold height claim which is "well in." He was only about 1,000ft short of a diamond. On the day he drove back, the UK height record was broken at Aboyne and now stands at 38,000ft.

Contact Fiona Buck or Christine Hanlon if you want information about accommodation for September 1996



INTER CLUB LEAGUE FINAL

The Final last year was held at Aston Down. There are at least 8 leagues nationally, but the winners of the East Anglian, Northern and Yorkshire leagues didn't turn up, leaving us to contend with the hosts Aston Down, Dunstable, Booker and Sandhill (south-western league).

Saturday: drove to AD for an early rig. The forecast had been dull and drizzly but they got it wrong and it was a nice morning. Tasks were to the south and east but the delayed front arrived in the afternoon and prevented any of our boys getting back. Haste (pundit) and Jack (novice) both landed at Little Rissington in the middle of a microlight rally, and Tom Lamb landed at Northleach. Jack came second in the novice class (good effort, Jack) but later heard that he had a photo penalty (groan). Barbecue at the club on Saturday night - steak and bangers with salad and puddings.

Sunday: Phil was flying pundit (see *Ramblings from the Log Book* in the last issue of *Final Glide*), John Hanlon was intermediate and Chris Buck novice. It was very windy and Chris decided wisely not to leave the safety of Aston Down airfield. John nearly got round his task, landing

near Cirencester at the end of the day after a losing battle against the fierce headwind. Phil obtained the best result, coming third in the pundit class. Evening meal at the Weighbridge Inn on the Nailsworth road in order to experience the 2-in-1 pies. Wonderful

Monday: Weather was much bluer with only small cloud tops visible from Aston Down, mainly to the north. Tasks were again to the south and east, however, ranging from 270km down to 150km. John Gordon flew pundit, Howard Stone was intermediate and Simon Hogg novice. Simon won his task today (leading from the front, most impressive!) Howard came second and John had a tough time, coming last, but no retrieves today. Tom persuaded the organisers not to make such a harsh penalty on

Jack for his photo *faux pas* on day 1

Dunstable won the cup this year, with the previous holders Aston Down second and ourselves third beating Booker into fourth place. Once again it was noticeable that the winning "team" consisted of only 3 different pilots for the 3-day event, whilst Sandhill used 6, AD used 7 and both Booker and OGC used 9.

Now that GPS receivers are fairly commonplace in our glider panels (or on our laps) we are taking this newfangled technology pretty much for granted when it tells us where we are to an accuracy of about a wingspan and how many miles to anywhere to 2 decimal places.

When connected to a smart vario the possibilities are seemingly endless. But have you ever stopped to consider how it works? I've tried, and as I learn in words of one syllable, that's how you read it here!

Global positioning system (GPS) has been around for many years since its conception when the US system Navstar was derived from the best features of the USAF 621B system and the US Navy Timation system in the 1970s. The first Navstar satellites were launched in 1978. Eleven were in orbit by 1988 with plans for a total of 18 with 6 spares to complete the "constellation." However with modern processors and radiation resistant circuits the satellites are exceeding their 5 year design life making a 24 satellite constellation possible.

The Navstar system is divided into three parts known as segments: the Space Segment, the Command Segment and the User Segment. The latter is the thing you buy. The manufacturer gives you a handbook so you already know all about that! Basically if a satellite is higher than 5° above the horizon its signals of 1Ghz and 1.5Ghz (1,500,000,000Hz) are received, decoded and the data used to do hard sums. The Command Segment consists of stations at Ascension Island in the South Atlantic, Hawaii in the Pacific, Diego Garcia in the Indian Ocean and Kwagale (not in my atlas) all controlled from the master station at Falcon Air Force Base, Colorado.

The Command Segment processes tracking data from the ground stations and transmits a "navigation message" which keeps the satellites informed of their precise location, correcting it if necessary and keeps their atomic clocks, 2 per satellite, at the correct time and in precise synchronism.

HOW DO THEY DO THAT? - GPS

The Space Segment consists of the constellation of satellites. These are in 12 hour orbits spaced every 60° around the equator and inclined at 55° to 63° (i.e. one passing overhead from south to north is heading for Scandinavia). Coverage is reckoned to be such that only 3.3% of the Earth's surface experiences degradation for longer than 5 minutes. The spares can be "re-phased" from parking to operational positions should a satellite fail.

So how does this wizardry work? Well, like most great ideas it's rather simple, *in principle!*

First consider two stationary transmitters in known positions with identical clocks transmitting "the time is....." to a receiver also with an identical clock. Their received times will be different from the receiver time in proportion to the receiver distance from the transmitters. Given that we know the speed of the signal (the speed of light) we have 2 equations with 2 unknowns so we can calculate the position of the receiver in 2 dimensions.

However we don't have fixed transmitters, nor do we fly in 2 dimensions, so we need 3 transmitters, each transmitting "the time is...." to enable us to calculate our position in 3 dimensions. Furthermore we have a crystal clock, not a synchronised atomic clock, in our GPS receiver so we now need to correct its own time error which requires a fourth transmitter. This is why your GPS will tell you absolutely zilch after "acquiring" 2 satellites, will offer you 2D information with 3 satellites and is best pleased having acquired 4 satellites or more.

Now that your receiver has acquired these 4 or more satellites it knows where it is. Since it receives satellite signals every second it can calculate how fast it's moving and in which direction. Armed with a database of BGA turning points (or any others you care to enter) it becomes a simple matter to calculate heading, bearing, ground speed, distance and time to reach someplace and much more. Current GPS units have moving maps, their data can be stored to

replay "where you've been" on your PC and it won't be long before they tell you where the best lift is, given that you've flown through it!

As will all fancy gizmos there is fancy jargon, such as:

EPE: Estimated Position Error, usually given on your display in feet. The best you can get without military decoding is 49ft. With less than optimal satellite positioning it can be much bigger.

DOP: geometric Dilution of Precision, a number between 1 and 10. For best (small) EPE, DOP also has to be small for all satellites being used.....got it?

Ephemeris: this is data transmitted to all the satellites from the master control station giving precise position and timing information. It includes an "almanac" of all satellite positions which is why your GPS knows which satellites to expect at any given time.

Differential GPS: Glider pilots may not care where they are to 49ft (or even half a mile) but airline pilots do! Accuracy can be enhanced to 1 metre or less by having a ground "reference station" at a known location which re-transmits data corrected for errors to (say) aircraft on a runway approach which is also receiving direct GPS data. This may replace the familiar ILS (instrument landing system) in future.

Brian Payne

Brian also writes:

....as there's only Graham and myself inspecting Club aircraft this year, it would be of immense help if Astir and Acro pilots were to wash, polish and hard wax these aircraft before the season gets under way. In fact I have it in mind not to apply for C of A until this gets done!

All interested pilots please note!

NOTES FROM COMMITTEE MEETINGS

The first floor office has now been completed to a very high standard. Keys will be held by committee members, Brian Payne, Paul Rogers and Graham Barrett. Now that the new office is complete, work is to start on providing a dark room facility so that turning point photographs can be processed. Once operational, the facility will be funded by the OGCSC under the control of John Gordon.

The new payment system for flying fees is ready for implementation. Details of the system can be found elsewhere in this issue. A new clip board will be obtained, which will accommodate the new log sheets in A4 format, together with a clock and ready reckoner. A secure posting box will be installed in the launch point vehicle so that cash and temporary membership forms from trial lesson flights can be posted. New trial lesson vouchers have been designed and printed by Howard Stone.

During 1995 the following projects have been undertaken and financed by the OGCSC: construction of bar store, new chiller cabinet, redecoration of the bar, cleaning & staining of picnic tables, raffle prizes and catering for the AGM, new towels, light bulbs, cleaning materials, BBQ coal, and part finance towards the fence project and the new computer. The following projects are planned for 1996: redecoration of clubroom, lobby and toilets, installation of sink for darkroom, clearing of grass area, and construction of a new barbecue, and upgrading the fuel tank blockwork.

A joint Recruitment and Social Sub Committee has been formed, with Paul Rogers as Chairman and Bar Manager, Chris Buck as Assistant Manager, Norman Hedge as Bookings Facilitator, Fiona Buck and Claire Thorne responsible for catering and Steve McCurdy responsible for publicity. The aim of the Sub Committee would be to make Friday evenings more memorable for guests in the hope that they would be encouraged to join the club. The Bookings Facilitator will be responsible for all bookings including Mini-Courses.

An incentive scheme for attracting new members has been introduced. Any member introducing a new member will be eligible for five launch vouchers, once the new member has paid for one year's subscription.

The club has registered with the Under 26 Discourter

Scheme, and now offers a 15% discount on trial lessons to cardholders. It was considered that the additional publicity generated by including the club in the Under 26 Directory and newsletter would be useful in attracting young people to the club.

The number of Friday evening crew members eligible for launch tickets is to be expanded to include Instructors and the Bar Manager. The current arrangement of one ticket for two evenings attendance still applies.

John Gordon is compiling a list of qualified First Aiders within the club. Two first aid boxes will be obtained, and a copy of the list is to be placed in each. One box will be installed in the Launch Point Vehicle and the other in the winch.

A letter has been received from the President requesting that the club seek a replacement as he intends to retire later this year.

The BGA have advised us that the Churchill Award Scheme of bursaries for pilots achieving the Bronze badge prior to their 18th birthday will continue during 1996.

A planning application has been submitted for a Ground Equipment building to be built on the side of the hangar, which, it is hoped, will be partially financed by lottery funds.

The newer Land Rover has become difficult to start, which is thought to be due to the injectors or pump. The committee are considering the purchase of a second hand 2.5 litre turbo diesel engine which could be fitted to the newer Land Rover to allow the existing engine to be refurbished and fitted to the old Rover.

A compass for the front cockpit of one of the K13s has been donated by Steve Evans, and refurbished. A similar compass is to be purchased and fitted to the second K13.

The Technical Officer has requested more assistance for Tuesday evenings.

The computer which was used for task setting has failed. The committee are considering the purchase of a replacement, and appropriate cross country software.

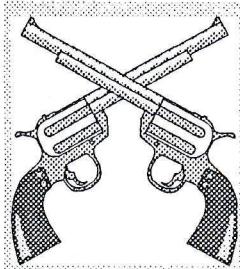
The BGA have received a refund of £150,000 from the VAT office and have asked clubs for suggestions on how the money should be used. The committee support the suggestion that the money should go to the Philip Wills Memorial Trust, which was set up to support clubs wishing to purchase their sites.

Club officers for 1996

Chairman	S Evans
Treasurer	H Stone
Secretary	B Taylor
CFI	C Emson
Technical Officer	B Payne
Safety Officer	G Barrett
Workshop Manager	G Barrett
Ground Equipment	D Weekes
Parachutes	J Hanlon
Radios	B Payne
Instruments	B Payne
Instructor Rota	C Emson
Membership Sec.	H Stone
Duty Pilot Rota	M Cooper
Publications	P Hawkins
Bookings	N Hedge
Inter Club League	S Hogg
S&G Club News	N Field

QUALIFIED FIRST AIDERS

John Gordon
would like to
hear from you!



PISTOLS AT DAWN

Fiona Buck

Summer is fast approaching and with it this years round of Inter Club League competitions.

In my experience the Oxford Gliding Club has excelled in this prestigious event. For the last three years we have "made it" to the Finals and had heaps of fun on the way. You will gather, then, that I am looking forward to this year's contest.

The rules state that the host club not only organises the flying for the weekend but also must entertain the visiting pilots and crew.

For the past couple of years the OGC Catering Crew have prepared a barbecue for the visitors. After everyone has stuffed themselves silly we have supplied entertainment in the form of games. This has worked very well and stories

are bandied around the other clubs about "Engine No. 4 etc. We hope that this years games are just as entertaining, and Claire Thorne is rumoured to be working very hard in that direction for us.

With all this in mind, the newly formed OGC Recruitment and Social Sub-Committee (*can't you think of a better name for yourselves than that - how about WOGBAR for Weston-on-the-Green booze-ups and recruitment? - Ed*) are organising a Summer Party for the evening of the Inter Club weekend at Weston-on-the-Green. There will be FOOD (lots of it, cooked on the new barbeques) and LIVE MUSIC!! All will be welcome. Tickets will be available nearer the date from behind the bar or from any OGCRSSC [WOGBAR] member.

Let's make this year's Inter Club weekend one to really remember!

For the first time Bicester are joining our League. The important dates for your diary are:

4/5/6 May	Aquila
26/27/28 May	Bicester
8/9 June	Weston-on-the-Green
20/21 July	Bidford
3/4 August	Shenington
17/18 August	(reserve weekend)

SO YOU THINK YOU'RE A GOOD CLIMBER?

One summer night last year, sitting in my garden and gazing up at my old friend the sky, my thoughts as usual drifted towards the all-too-brief time I had spent circling above the earth. Sometimes under clouds, sometimes under burning sun.

How odd it was (I thought) that in pursuit of a gliding badge I had found myself stopping to take the best out of the best thermals and had hurried on in order to complete a flight in the best possible time. On my 100km diploma flight, I can remember quite clearly going for that badly needed last thermal, finding it to be potent and then staying in it too long for final glide. Consequently I missed my badge speed target by 0.5kph, largely because I was enjoying the thrill of centring a good thermal too much to want to leave.

The day before, flying in the Acro with Phil Hawkins, I was struck by the fact that even a veteran flyer like he could still get excited about being centred well in the core of a strong thermal. There's no doubt about it - for me and I suspect many others, it is the miraculous climbs taken on a good flight that endure in the memory. And it seems such a shame to leave them behind in order to make progress across country.

We are always being taught the importance of flying decisively to areas of good lift, centring quickly in

thermals and leaving them as soon as the next climb is spotted. At the same time we have fun competitions and give Club trophies for highest climb, best cross country, silliest flight etc. So why not have a competition to see who can achieve the best climb rate of the season?

By setting the barograph drum to quickest rotation, it should be possible to produce measurably different slopes on the barograph trace. At last we would have a competition in which even *Daisy* could (and probably would) excel. A competition in which a Bronze C pilot in a K8 could trounce a Silver C pilot in an Astir.

As the competition need only involve local flying, pilots of even modest experience would be able to participate. In fact, it is this category of pilot whose flying would benefit most from doing so.

Cloud climbs should be excluded, and the dangers of climbs even to cloudbase should be emphasized. The latter would in any case probably reduce the climb rate.

Wouldn't it be interesting to see what climb rates were actually being achieved instead of hearing second hand what rates instruments had reported? Anyone got any comments?

Mike O'Neill

Extracts from "The Eagle"

The October issue reports the death of Robin Pearce-Boby on 14th September. Many OGC members will remember Robin who acted as a liaison officer between the OGC and Enstone Eagles for some years. At Enstone he was very active in maintaining ground equipment, servicing radios, and helping to run their annual competitions. He won the BGA John Hands trophy in 1995 for services to competition gliding.

An article by Geoff Dixon reminds us all to beware of flying on days when the pressure is significantly below 1013Mb because the airway bases will be lower than marked on your maps. For example if it is soarable with the pressure as low as 980Mb the airways will have come down by a thousand feet, because each millibar is worth 30ft. Remember!

Another lengthy and fascinating article by David Carter has been printed, this time concerning the *Hotspur* troop carrying glider from WW II. Although originally conceived as an assault glider it proved too small and was relegated to a training role almost before it became operational. It could carry 2 pilots and 6 troops and the 45ft span makes it comparable in size to our modern gliders. Early Hotspurs were unique in having a tow hook near the tail, the idea being to tow several Hotspurs in a line tandem-fashion with one aircraft. However this configuration was demonstrated to be "longitudinally unstable."

Mark 1 Hotspurs had removable roof sections to allow access for both pilots and troops, the latter sitting face forward one behind the other in line with the pilots. The Mark 2 was different having two troop compartments with sideways facing seats, one in front of the main spar bulkhead, the other behind.

It was well liked by pilots apart from the rather heavy controls, but the lack of either air brakes or wheel brakes gave a long landing run (up to 450 yards in nil wind).

A total of 1,015 Hotspurs of various types were built but not a single complete example survives. The Army flying museum at Middle Wallop apparently owns some parts of a Mark 2 model.

David Carter has written a short history of Elliotts of Newbury with a checklist showing how many Olympia gliders of various types that they built, and also a short history of "Sigma".

The Eagle editor Steve Veness describes a diamond height claim by Neil Edwards at Feshiebridge in October (apparently Neil could not be persuaded to write it himself). His height gain was 18,800ft.

The Open Class National Championships will again be held at Enstone this year, from June 8th - 16th (the first two days of which will coincide with our Inter Club League meeting at Weston-on-the-Green)

Enstone Enterprises, the landlords to whom the EEGC pay rent, are apparently putting their property up for sale, the asking price being £2.5million.

Interestingly, EEGC are considering introducing a winch driving rota during 1996, organised around morning and afternoon shifts for Sat/Sun each weekend. With their current level of membership, shifts would recur about every six weeks.

Extracts from Aquila Flyer

Aquila have already introduced a new log sheet with membership numbers, and paying by envelope, which we are in the process of starting now.

Last July 22nd (yes, that day) saw the first 500km flight from Hinton-in-the-Hedges, by Tony Limb. This weekend happened to be an Inter Club League meeting at Aquila, and a total of 4,300km was flown by League competitors that weekend. Tony later became the first Aquila pilot to win all three diamonds after a visit to Aboyne. John Cooper, Dave Latimer and Mel Eastburn also have Diamond Heights. Mel achieved over 25,000ft.

Publicity: whilst we concentrate on public events for mounting static displays to promote interest in our sport, Aquila have tried Tesco's and Sainsbury's car parks. Response generally is reported to be good.

Did you know that Aquila pilots flew 36,000km across country last year, almost twice as many as we did, according to our clubhouse log book, that is. OGC cross-country pilots who claim to have forgotten how to write, please note! Aquila also had 5 new Silver C pilots last year.

There was also a minor influx of new members from the former gliding club at Cranfield which closed down.

We are reminded that Turweston just to the east of Brackley is now a licensed airfield with its own ATZ so keep out of their way, please.

The Club are setting up a fund with the income from AEI flights to purchase a second K13 to replace the K7.

Mike Gibbins recounts an expedition to the Bowland Forest GC in Lancashire. This club have recently purchased a Skylaunch winch for £35,000 + VAT to increase their chances of reaching the local ridge which is over a mile from the site.

Colin Allender reports on the refreshingly different methods of air traffic control in the western United States. He flew in a Cessna 172 around San Francisco, Alcatraz and the Golden Gate Bridge. The local controllers were most helpful. "Just keep to the west of the highway as you approach San Francisco International" was one memorable request. To use Colin's words, this is like being cleared to pass Heathrow making sure you keep to the north of the M4!

The BGA have selected Aquila as the venue for a cross-country soaring course on 20-24 June.

The club are also planning task weeks 7-12 May and 24-30 June.

AGM REPORT

At the AGM on 18 November, two new motions affecting classes of membership were passed after some debate. The most contentious was "Affiliated Membership", a new option intended for existing members of other BGA clubs. It will be offered at £110 (£20 less than standard full membership) and will provide all benefits of membership *except voting rights*.

The other motion was to change the status of temporary flying members. Previously temporary membership was offered at a weekly rate for up to 12 weeks per year, but this is now restricted to 12 occasions (dates) in any season at a rate of £5 per day.

The prospect of a possible hangar extension was raised, specifically for storage and maintenance of ground equipment. An application for a lottery grant may be considered towards this.

On paper we made a net loss of £2,000 last year but this includes £9,000 for depreciation on the advice of the accountants. Friday night flying generated nearly £6,000 which is a major key income for the Club.

Ladder Trophy: Howard Stone. **Dennis Farmer Memorial Trophy** for first 5hr flight in the season: Barry Taylor. **Simpson Cup** for the best flight: Steve Evans. **Malcolm Laurie Trophy** for the best flight in a Club glider: Graham Barrett. **Flying Brick:** Martin Cooper. **Deep Breath Cup** and the **Two-up Award:** Phil Hawkins.

FINAL GLIDE is produced using GST Pressworks 2.00 and printed on a Canon LBP-4 laser printer. Photocopying facilities kindly provided by Chris Woodcock.

Distributed free to members, ex-members and friends of the Oxford Gliding Club. Contributors to this issue were: Peter Awcock, Fiona Buck, Cris Emson, Phil Hawkins, Norman Hedge, Mike O'Neill, Brian Payne, Howard Stone and Barry Taylor.

Contributions and "Howidunit" stories always wanted, otherwise the editor will dig out more unpublished material of his own (he may do that anyway).

Replacing a cooker or freezer?

Please give your old ones to the Club kitchen!

OXFORD GLIDING CLUB

Clubhouse:	01869 343 265
Fax:	01869 343 403
Launch point:	0836 773210

High Flight

Oh! I have slipped the surly bonds of Earth
 And danced the skies on laughter-silvered wings:
 Sunward I've climbed, and joined the tumbling mirth
 Of sun-split clouds - and done a hundred things
 You have not dreamed of - wheeled and soared and swung
 High in the sunlit silence. Hov'ring there
 I've chased the shouting wind along, and flung
 My eager craft through footless halls of air.
 Up, up the long delirious, burning blue,
 I've topped the windswept heights with easy grace
 Where never lark or even eagle flew -
 And while with silent lifting mind I've trod
 The high untrespassed sanctity of space.
 Put out my hand and touched
 The face of God.

by Pilot Officer Gillespie Magee Junior, No. 412 Squadron RCAF, killed on 11 December 1941.

(suggested by Peter Awcock)