

# GLIDE ANGLE



**MIDLAND  
GLIDING CLUB**

FLYING THE LONG MYND SINCE 1934

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**90**  
this year

MIDLAND GLIDING CLUB MAGAZINE  
JULY 2024 EDITION





# NOTES FROM THE EDITOR

**I**t has been a busy spring for the club with not only our usual course activities getting underway, but expedition visits from several BGA gliding sites around the UK; hosting of a national event; and a dedicated members' development week. Peterborough and Spalding Gliding Club turned up in February bringing their lovely Slingsby Capstan, and Nene Valley Gliding Club brought a Slingsby Dart and an L-Spatz. Great to see these vintage gliders flying from our site. The club is staging its own expedition southwards to the Bath, Wilts and North Dorset Gliding Club in September – details at the end of the magazine.

Midland Gliding Club played an active part in the national Women Go Gliding weekend organised and run by our own club members and instructors. Sarah Platt reviews this successful event below. An MGC member-focused event was the club's annual cross-country development week, however, the weather once again interfered with ambitions as although each day was flyable (and some good long ones were achieved) low cloud base and poor visibility meant local flying was the norm.

The MGC annual presentation awards dinner was held in the clubhouse in March and, as well as our usual awards for gliding achievements, the Maxim Trophy was awarded jointly to Mark Sanders and Geoff Dailey for their exceptional work during the past year in respectively, managing the club's flying operations and keeping our airfield vehicles and winching run smoothly. In addition, the club awarded well-deserved lifetime honorary membership to long-standing members who have served the Midland Gliding Club throughout their gliding career: Howard Bradley, Peter Clare, Chris Ellis, Paul Fowler, Chris Harris, Nigel Holmes, Colin Knox, Hazel Turner, and Peter Turner.

Look out for a feature on the Midland Gliding Club in the Club Focus section of *Sailplane and Gliding* next month (written by yours truly). Its firmly aimed at attracting gliding visitors and new members to the club as it is in this way that we secure our future. Finally, please don't forget to keep sending in ideas and articles for *Glide Angle* – it's your magazine.

*Rob Kronenburg,*  
*communications@midlandgliding.club*



# SAVE THE DATE

DATE	TYPE	DETAILS
13/07/2024	PARTY	Golden Anniversary Sue/Nigel and Hazel/Peter
17/08/2024	Flying	Start of Task Week
24/08/2024	PARTY	Task Week Party
28/09/2024	PARTY	Dave's retirement party
19/10/2024	PARTY	Founder's Day party





# FROM JAPAN TO THE MYND IN 13 MINUTES

*We all know our location on the Long Mynd is very special, but did you realise that the specific topography of the area has some exceedingly far-reaching benefits?  
Richard Bennett investigates.*

Having trained as a geologist and spent all my working life involved with drilling oil exploration and production wells, you might think that in my time off I would have had enough of geology. It seems not, as when I learned that our club hosted a seismogram (a seismic activity recording station) I was naturally just a 'little bit'



Seismometer Station April 2024

curious. Asking around, no one seemed to know much about it. Some knew it was there, somewhere out on the hill and that it recorded 'things', that there was a box on the wall in the hanger with flashing lights, and the British Geological Society (BGS) paid us to host the equipment...and that was it. What more was there to know?

Thinking back to my early years in the club, I recalled that on April 2nd, 1990, the village of Clun (7km SSW of Bishops Castle) experienced a 5.1 magnitude earthquake. Nothing like the miniscule tremors attributed to fracking, this was a large one by UK standards. The quake was felt as far away as Ireland, Newcastle and Cornwall. Electrical power was lost in areas served by substations situated 17 miles from the epicentre. Residents of the worst affected areas, including parts of Shrewsbury, reported lateral shaking and swaying of their house walls, together with a

rumbling noise that gained strength over a period of 15 to 30 seconds, before reaching and sustaining peak intensity during the most severe shaking.



Seismic Intensity Map for Bishops Castle 5.1 M Earthquake April 2, 1990

Nothing like this has occurred recently, but a few weeks ago I had several emails from the BGS telling me they were not receiving the data stream from the MGC seismic station, and would I investigate on their behalf? If I could find an obvious fault, it would save them a long journey down from Edinburgh to repair it.



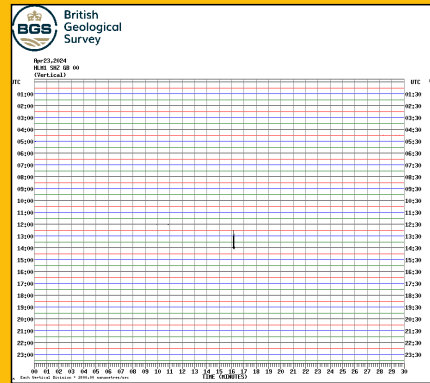
To help me with their request they provided a schematic, but they did not know much about their routers or modem. If they didn't know, what chance would I have of fixing the fault? A few days later, BGS updated me to tell me that they were now getting some data, but it was very broken and suggested an intermittent cable or internet fault. Clearly, this was not going to be easy.

Meanwhile, Mynd activities continued as normal. Dave Crowson was just finishing installing the office insulation that our successful Marches Energy grant had allowed us to buy. Little by little, the furniture and office equipment was being returned to their usual places, ready for the next working week. We discussed the BGS data problems with Martin and he suggested we turn on one wall switch that had been missed... but not much happened. Next morning, another email arrived from BGS telling me that data was now being received. It looked like this complicated problem had been solved. The fault was simply no mains power to the modem!

Now very interested, I decided to view the real time MGC online seismogram data (which can be accessed at: [earthquakes.bgs.ac.uk/helicorder/heli.html](http://earthquakes.bgs.ac.uk/helicorder/heli.html)).

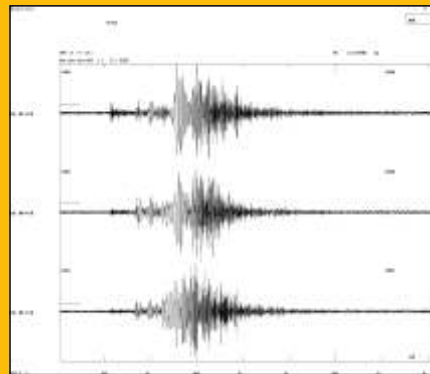
Not very exciting I thought as it just consisted of several straight multi-coloured horizontal lines. Was the seismogram really working? I decided to visit the station on the hillside and do a little experiment. About a couple of meters away from the manhole covering the

seismometer, I jumped up and down a couple of times. I thought little more about it, but the next day when I looked at the online data, I could easily see that the earth really had moved for me.



*Helicorder chart for MGC showing my jumps up and down*

I let the BGS know that all appeared good at this end and that I was surprised how sensitive the instruments were. They commented that the Mynd is an ideal location as the sensor sits buried below ground level and firmly fixed to the bedrock, well away from sources of seismic noise like roads, railways, pylons,



*This graph shows the MGC seismograph data in Up/Down, East/West and North/South orientations for the magnitude 7.6 earthquake that occurred at 0710 (UTC) on January 1st, 2024, in Noto, Japan*

telegraph poles, rivers, oceans and so on. They showed me data from a magnitude 7.6 earthquake that occurred in

Noto, Japan on January 1st, 2024, roughly 10,000 km away. It took a mere 13 minutes for the first waves (P Waves) to travel from Japan to the Long Mynd. As is normal for such a big earthquake, detectable ground shaking at the Long Mynd lasted for another 30 minutes, as the different wave phases refracted and reflected through (and around) the planet to reach us. I don't think we would have felt anything as the vibrations were well below the level humans can detect.

From the unexpected task of troubleshooting for the British Geological Society it has been fascinating to see how a seemingly ordinary box on the wall and a manhole cover can lead to a deeper understanding of the Earth's movements, and the realisation that the Long Mynd plays a pivotal role in monitoring seismic activity. The revelation of the seismic waves traveling from Japan to the Mynd in just 13 minutes serves as a testament to the interconnectedness of our world and the remarkable sensitivity of the instruments we rely on. So be careful what you are doing near the seismometer. Any vibrations will be there for all the world to see!

*Richard Bennett*

# VARIOMETERS - Club Fleet

The club regularly updates our fleet's equipment. In this article John O'Reilly explains the types of variometer installations in our training and solo aircraft.


The variometer is an instrument that is so important that each fleet glider panel has two of them. Perhaps surprisingly, however, the variometer is not a mandatory instrument, and it could legitimately be argued we could save space, money and complexity by just having one, but two it is! This article is not a detailed description of how variometers work, or how to use them; rather it is a summary of what we have in the club fleet, and a review of some of our instruments' capabilities.

As our CFI has stated (in a view that is backed up by several other instructors): 'All we really need is to know is how fast we are going up, or down, some sound so we can keep our eyes out of the cockpit, and, yes, an averager would be good.' In most cases of local soaring and early cross-country flying, that's more than enough! So that is essentially what we have.

To help training we have tried to standardise installation across the club fleet, and, to date, have been partially successful. However, new gliders and advances in technology make that objective a constant challenge so there is by necessity some variation. By way of introduction, there are three 'classes' of variometer currently fitted in the club fleet:

**A-** Every panel has a **manual**, non-electrical variometer, either a Winter, or PZ, with a range of -10 to +10 kts on a linear scale. These have no sound, no sensitivity adjustment, no averager. Simple - they just work! None of our fleet variometers have the classic MacCready/Speed to Fly ring.



**B-** Stand-alone **electrical** variometers are in most of the club fleet panels. These have a single pneumatic connection and no electronic connectivity. These include the **XK10**, **Tasman**, **LxNav S3(D)** and the **Borgelt B40**. With these you will get some audio and a bit more functionality. The XK10 gives a dead/quiet zone (0 to -2 or -3kts) as does the Tasman V1000 and the S80/S100D. The Borgelt can mute the sound when not in lift (that  switch) but



unfortunately the LXNav S3 doesn't have a dead/quiet zone. Different types of averager (20, 23, 24 secs) are available on all the variometers but these are accessed in different ways. The XK10 averager will also show total over the thermal (TAV), useful for calculating 'speed-to-fly' for cross-country tasks. Similarly, all can be set to higher sensitivity (typically 0-10, or 0-5 kts), but only the XK10 averager can be adjusted easily in the air.





Overall, the XK10 with averager is the best of the electrical variometers in the fleet single seaters and its switches are normally set to their centre position (24 second averager, 10 kts range).

**C-** A multi-functional variometer with some connectivity is fitted in the new K21b (MYN), an LxNav S80/S100D, although because we specified the 'club' version,



its capabilities are more limited than the most advanced instruments in this range. However, they do have multiple pneumatic inputs, connectivity to a GPS source (PowerMouse, FLARM), and some additional functionality. With more complex capability comes two press and rotate knobs and three buttons, plus a remote, panel mounted Vario/SC button. Consequently,

there is a need to understand how this all works. Initially, this variometer has been set up to be suitable for local soaring and training, but it also has a thermal assistant and even a final glide display to destination. At the moment these are all disabled or hidden but if demand exists, and it is agreed with the instructors, these features can be re-enabled. It is a standard 80mm display, so not ideal for navigational purposes (airspace, task information will be too detailed to be read adequately), but members can connect their own devices, via Bluetooth to the PowerMouse GPS and igc logger.



Across the club fleet all the variometers are connected to a single Total Energy (TE) probe, usually on the fin. None use the static/pitot ports, together with electronic compensation.

What does all this cost? Basically, instruments are expensive, but you get what you pay for – In today's retail market the simple pneumatic variometers are £6-800; the S3s are £6-700, and the S80/100D would set you back £1,200 each (and that is just for the 'club' version – its £2,650 for the full version), although I'm happy to say we've never paid that much.

These prices do not even include the installation cost.

Regardless of its level of sophistication the variometer is, however, just another useful 'tool' in the cockpit. Many of our members have done a 100k, or more, with just the basic electrical version. Just remember: 'It's not the plane, it's the pilot'.

*John O'Reilly*



# A NIGHT IN THE SNOW – A STRUGGLE FOR LIFE

by Reverend E. Donald Carr

We all know how extreme the weather can be on the Long Mynd - that's why we have our Ozee suits! Eddie Humphries has unearthed a fascinating story about a traveller without that benefit who crossed this landscape on a dreadful night many years ago.

Some of you, I am sure, will be familiar with the above publication and, if not, I think you might enjoy the opportunity to read this wonderful description of a harrowing journey on the Mynd on January 29th, 1865, by the Reverend E. Donald Carr. For those of you not familiar with his story, I can wholly recommend spending an evening immersed in this short book. Having flown from the Midland Gliding Club and having spent time on the Long Mynd you will recognise much of the terrain discussed and, if you have been there during the winter months, you will immediately appreciate the gravity of the situation in which the reverend found himself. The following paragraph, taken from the introduction to the

book, serves well to give you a flavour of what is to come.

*“My preservation through the night of the 29th of January last was doubtless most wonderful, and my experience perhaps almost without precedent, in this country at least; for, though many people have at different times been lost in the snow, scarcely anyone has passed through the ordeal of such a day and night as that undergone by myself and lived to tell the tale. Still, I should never have thought that the matter was of sufficient importance to justify me in printing an account of it, had I not discovered that my adventure has created a public interest, for which I was totally unprepared. I have been so repeatedly*

*asked to write a detailed account of all the circumstances connected with my wanderings on the Long Mynd in the snow during that night and the following day, and to have it published, that I have at last (though, I must confess, somewhat reluctantly) consented to do so, and with that view have drawn up the following account”.*

Access to this book can be found at no cost via the Gutenberg project website:

[dev4.gutenberg.org/files/20287/20287-h/20287-h.htm](http://dev4.gutenberg.org/files/20287/20287-h/20287-h.htm)

I hope you enjoy it.

Eddie Humphries



# SOARING SUCCESS: A Recap of the National Women Go Gliding Weekend here at MGC

This spring saw an important event take place at our club with its active involvement in a national outreach project to attract more women to gliding. Here Sara Platt reviews the weekend's events.





The skies were buzzing with excitement as the very first National Women Go Gliding Weekend took flight on the 27th and 28th of April 2024. Despite a touch of unfavourable weather on the first day, the event proved to be a soaring success, showcasing the thrill and camaraderie of gliding to a diverse group of enthusiastic participants. With 21 eager ladies signed up for the Mynd event, the weekend did not disappoint. Although Saturday's weather posed a challenge, three intrepid ladies and family members braved the elements. Undeterred by the lack of flying conditions, they were treated to an immersive introduction to gliding, including a club and hangar tour, and hands-on experience on the simulator. This glimpse into the world of gliding set the tone for an unforgettable weekend.

Sunday brought clear skies and a perfect opportunity for 11 ladies and a few accompanying family members to take to the air. The feedback was overwhelmingly positive,

with participants raving about their experiences and five attendees immediately signing up for a one-day Introduction to Gliding



course - a testament to the event's impact and appeal. The essence of the Women Go Gliding Weekend extended beyond just flying; it



epitomised inclusivity, empowerment, and the joy of shared experiences. The event not only introduced newcomers to the wonders of our sport but also fostered a supportive community through platforms like the Junior Gliding online group, as well as the Women Gliding website, aimed at supporting women interested in learning and excelling in the sport.

The spirit of camaraderie and encouragement was evident throughout the weekend, with participants sharing stories, laughter, and a common passion for aviation. The event's success was not just in the number of flights taken, but in the bonds forged and the inspiration kindled among all who took part. We are making a concerted effort to keep in touch both with those who flew, and with those who couldn't make it on the day.

Furthermore, the National Women Go Gliding Weekend served as a platform for over 25 clubs UK-wide to unite in celebration of the soaring

spirit of women in aviation.





By showcasing the beauty and excitement of gliding to a diverse audience, the event not only promoted the sport but also paved the way for potential new members to join the gliding community.

The end results will, of course, remain to be seen over the next few weeks and months. However, given that the team, (ably led by Holly Harris, Mark Sanders, and assisted by myself, Ben Jenner, Clive Crocker, Denise Hughes, Nigel Lassiter, Laura Martin and many others) were creating a

new event from scratch, we targeted a wide variety of successes including raised local and regional awareness for our club, public relations via broadcast media, and trialling a focused recruitment weekend. There were also definitely several learning points which we will take away for the next time we create a similar event.

The resounding success of the National Women Go Gliding Weekend stands as a testament to the passion, perseverance, and unity of women in aviation, inspiring

all those who took part to reach for the skies and soar to new heights.


Our thanks go to everybody who helped make the weekend a success, and of course our valued sponsors: Transair Katherine Maloney AFE Jeremy Pratt and Jeremy Diack Tatenhill Aviation Paul and Zoe Shelton

Here's to many more successful future events.

*Sarah Platt*



# BUYING A NEW GLIDER ... the Paperwork



Now we are in our prime soaring season perhaps you have just got your BGA licence and are itching to use it, or for those more experienced pilots maybe you are considering upgrading your ride. Well, there are some unavoidable hurdles a new owner must go through once the difficult task of identifying the right machine has been done. Based on his own recent experience your editor provides a rough guide to what lies ahead.



There are several stages along the road to becoming a glider pilot. Most involve personal achievements (e.g. first solo, cross-country etc.) or attaining formal qualifications (Bronze, Silver etc.). However, an equally important one, and one that needs quite different expertise is buying your first glider. This article isn't about what glider to choose or how to make sure it's a good buy (that would need a much longer description and an author with much greater experience than myself), although I will state categorically if a mistake is to be avoided you must take advice from someone who knows both you and your abilities and make sure the CFI has approved your intended purchase.

thumbs up, it's time for the cash to change hands (or pings invisibly from your bank account to theirs). However, there is still a lot of work to be done before you can officially (and legally) sit in the pilot seat at the launch point. Assuming you have prudently made certain that your new glider has a current (and recent) ARC (and wood check if it's one of those), here is a short introduction to what is involved in glider ownership transfer paperwork.

in the aircraft. There is another reason for arranging your insurance first (see the next section).

**CAA Registration:** Your aircraft when you first see it will be registered to its current owner. Within 28 days of it passing into your eager hands you need to ensure that the CAA update their records. This requires you to complete a CA1 form which, quite recently, has moved to an optional online system. You will need to download your new insurance certificate with the completed form (ahh... now you see), and of course pay a fee (currently £88.00). The seller will also need to inform the CAA by completing and submitting a form CA71. In return you will, in due course, get a shiny new Certificate of Registration.



**Insurance:** This should be the first thing you sort out (you did check that you could get insurance for this model type with your experience before you bought it didn't you?). I would recommend going to several brokers to get comparative quotes, and anyway you may need to do this as some insurance companies may turn you down. You will have the option of buying either full risks cover or third party only, and unlike motor insurance there can be a major saving for the latter if you don't believe you will make a claim for your own loss (though weigh this decision carefully). Often insurance will value the airframe, parachute, trailer and even some instruments/radio separately so don't underestimate the cost of these. Remember to carry a copy of the certificate



Ever heard the phrase 'the job's not done until the paperwork is complete'? This certainly applies to anything involved in the world of aviation. When you finally find your new two-winged love interest, complete the negotiations with its erstwhile 'life partner', and have your revered advisor give you the



**OFCOM:** Does your new glider have a radio? I'm sure it does (or will do), either a panel-mounted radio or a hand-held. Then you need to acquire a licence to use that device. This is a relatively painless process, again achieved by filling out an

online form and (yes, of course) paying the required fee (currently £15 for a hand-held). In return you will get an OFCOM Aircraft Radio Licence or Aircraft (Transportable) Radio Licence if it's hand-held. The good news is this payment lasts for three years.

**BGA:** Does your glider have a competition number? If so, you will need to ask the previous owner if they wish to transfer it with the aircraft. If so (and they don't have to – perhaps it's their spouse's initials?) they will need to write to the BGA and confirm this in writing with both their address and yours. If not, then you may wish to acquire a new one for your aircraft. The BGA will give you a list of numbers you cannot use, and you can choose a new, different two or three letter/number combination yourself (and of course pay a fee for the privilege. This must be renewed annually with a repeat fee (£23) or every five years (£98).

Once you have done this lot your paperwork will be in order, and you are ready to go... for now. In a year's time it will start again when the glider must go in for its ARC (another fee to the BGA as well as your engineer's charge) and of course you will have to renew your insurance and competition number. Hopefully, your love will have only deepened over the past twelve months, and it will all seem totally worth it.





# MGC EXPEDITION TO THE PARK



## Bath, Wilts and North Dorset Gliding Club

Do you want to see what it's like to fly  
from another site?

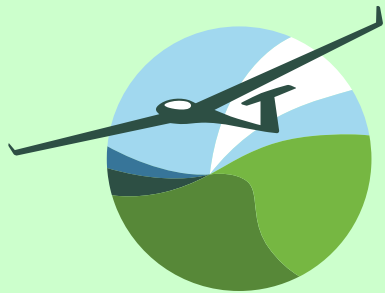
There will be an expedition for MGC members to this friendly club in the beautiful Wiltshire countryside at the end of the summer. We will arrive in the late afternoon or early evening of Tuesday 12th September. Friday's flying will be dedicated to MGC members only to get site checks or other experience (e.g. aerotow, spin straining), with Park members flying as well on Saturday and Sunday. Members can leave Sunday evening or Monday morning. There are good opportunities for cross-country flying from this club which has an emphasis on this aspect of our sport.

No MGC club gliders will be taken on the trip and training flights will be in Park gliders. It is recommended that participants bring their own gliders if they wish to fly solo, however, suitably experienced pilots will be able to use one of the Park's single seaters after satisfactory check flights.

**Accommodation:** Camping is possible on site and the club has toilets, showers and a members' kitchen. There is good local accommodation in pubs, hotels and B&B's. Further information will be provided to those who sign up.

**Flying Costs:** Aerotow to 2000' £28.00 (Eurofox 915IF), winch launch £10.50, plus a nominal fee for temporary club membership at the Park. Further information on costs, location etc. can be found on the BWND gliding club website. <https://bwnd.co.uk/>

The expedition is **restricted to a maximum of 10 pilots** (including Mynd instructors) and will be allocated on a first-come, first-served basis. To be part of this expedition express your interest to Nigel Lassiter [manorhousesurveyors@gmail.com](mailto:manorhousesurveyors@gmail.com)



# MIDLAND GLIDING CLUB

FLYING THE LONG MYND SINCE 1934



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