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VOL. 71 NO.5

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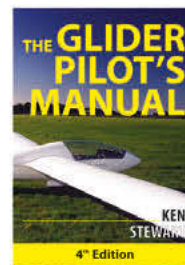
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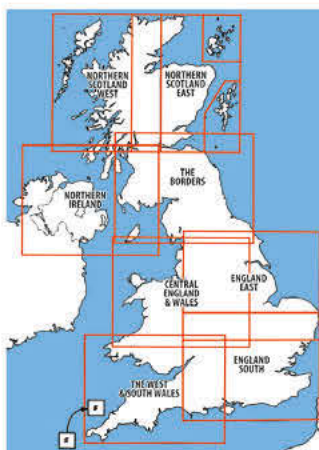
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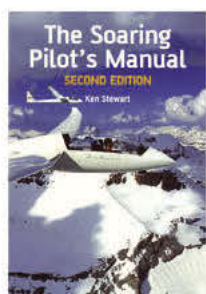
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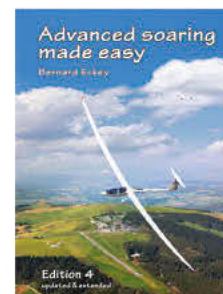
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Adrian Emck revisits the 'secret' behind his regular long K-6 flights, but predicts many of you will ignore the advice given

17 A PIMPED LS8

Bernt Hall flies the LS8-e neo and reports that, with or without FES, this easy-to-fly sailplane has the edge over an 'old 8'

38 RIETI LUCK!

With UK nationals cancelled, **Phil Jones** realised that this was the ideal opportunity to take part in a legendary Italian comp

66 SAFE ROTATION

Glider pilots perform what's akin to an aerobatic manoeuvre every time they rotate into a winch launch. The BGA safety team reminds us of the vital importance of understanding the detail involved



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 **THE MAGAZINE OF
THE BRITISH GLIDING
ASSOCIATION**
OCT/NOV 2020 VOLUME 71 No 5

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COVER STORY
Taken on 28 July
from Denbigh's
DG-1001M, flown
over Snowdonia
by Chris Gill
and Tom Smith.
The glider in the
photograph is
Matt Davis' JS1
'802'
(Chris Gill)

DEADLINES

Dec 20/Jan 21
Articles, Letters, Club News: 5 Oct
Display advertisements: 21 Oct
Classifieds: 6 Nov

Feb/March 21
Articles, Letters, Club News: 4 Dec
Display advertisements: 18 Dec
Classifieds: 6 Jan

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› Congratulations to new UK record holders: Paul Fritche has the Standard Class Free 3 Turnpoint Distance and 3 Turnpoint Distance records with his 819km flight from Lasham in an LS8-15 on 20 July. Liz Sparrow gained the Womens Open, 20m and 15m Class Triangle Speed records with her flight from Lasham in an ASG 29E 15m on 11 July; 107.76km/h over 400.2km.

› Deeside Gliding Club successfully held the UK Mountain Soaring Championship from 6-12 September. Congratulations to Robert Tait and Stuart Naylor in Duo Discus R1 for winning the 23rd UKMSC. The Height Gain was won by Graham Paul in JS1 C 8Q. Team DGC, flying the Perkoz, scored the most points during the competition, but were flying hors concours. Look out for a report in the next issue.

› The first self-launch of Schleicher's AS 34 Me took place in early September. Schleicher designer Paul Anklaam's conclusion following the first self-launch is that the '34' is a completely uncomplicated fun aircraft, in which one feels immediately at home and that also includes very simple operation of the electric propulsion system. Schleicher's AS 33 Es is now in full production. www.alexander-schleicher.de

› DG Flugzeugbau presented its DG-1001e neo at the E2Glide competition in Grossrückerswalde, Germany.

› The Air League Soaring to Success initiative in 2019 resulted in gliding taster days delivered for 200 students at Yorkshire Gliding Club, Wolds Gliding Club and York Gliding Centre. The programme was a huge success and opened the minds and aspirations of the young people to careers in aerospace and aviation, as well as hopefully trying out something completely new and different. A second Soaring to Success initiative for 2020-21 is under way. www.airleague.co.uk/soaring-to-success/

› *Managing Flying Risk*, the BGA publication that captures in one place good practice guidance on all aspects of gliding, has been updated to include specific guidance for pilots of self-sustaining and self-launching sailplanes. The guidance was developed with the help of very experienced pilots. See: <https://members.gliding.co.uk/library/>

› The BGA Covid-19 guidance been updated to include Government guidance for quarantining on return to the UK from certain listed countries. In addition, the various CAA exemptions relating to pilot licensing and medicals have been updated. The details are available on the BGA's Covid-19 guidance webpage.



Gliding has wiings?

HAVING retired from air racing, three-times Red Bull Champion Paul Bonhomme is considering gliding as a new challenge. The photo above was taken by Paul at Aston Down on completion of an out-and-return flight to Lasham with John McWilliam in July.

John said: "I heard lots about Paul when I was at gliding pal Steve Noujaim's birthday gathering at our old RAF haunt Llanbedr, North Wales, last year. It was there Paul led an aeros pair THROUGH the hangar we had our gliders stored in for the party! (See www.youtube.com/watch?v=OGCFWKB0V7E)

"Red Bull champ Paul had mentioned to Steve that he was interested in trying gliding, so Steve asked me to fly him in the Nimbus.

"After take-off I climbed up to cloudbase and gave control to Paul. He was amazed how rapidly we climbed to 5,300ft without an engine (OK, it was a good day!) – and how intensely busy I had been doing it.

"His impression from watching gliders had been that we gently wafted about eating sandwiches and admiring the scenery. That idea changed as he flew us for the next hour and a half and was stunned by how much was involved in gaining height, going fast and navigating.

"Paul really enjoyed the flight and is now planning to get into gliding properly. That we averaged 111km/h for the task at a glide ratio of 63:1 shows how well he handled the big glider. He will make an excellent glider pilot, I have no doubt, and it was my great pleasure to fly with him."



The Birdy high-performance motorglider in the 120kg Class; wing profile by Loek Boermann

Birdy takes flight

WE FIRST saw the 'Birdy' at AERO 2019. It's a high-performance motorglider in the 120kg Class from Klenhart Aerodesign. Birdy is due to complete the test programme for microlights and its co-founders are both keen to get their own aircraft. A ready-to-fly glider will cost €75,000 and an assembly kit will cost around €50,000. See: <https://e-birdy.com>

TIGER MOTH RETURNS

ON 6 August 1940, at the height of the Battle of Britain in WW2, a new Tiger Moth aircraft G-AOBX was delivered from the Morris Motor Works at Cowley, Oxford, to RAF Aston Down, now the home of the Cotswold Gliding Club. It was to be used for training fighter pilots before they migrated to Spitfires and Hurricanes. This training would have taken place at Aston Down itself or the aircraft would have been ferried to other RAF bases for the same purpose.

G-AOBX is now owned by the Dave Ross Flying Group, which consists of seven former Concorde flight crew who bought the aircraft from the widow of Dave Ross, also a Concorde pilot. The group continues to fly it in his memory. Two of the group, Trevor Norcott and Peter Sinclair, decided to celebrate the delivery flight by repeating it 80 years to the day it happened, but taking off from White Waltham airfield in Berkshire where the Tiger Moth is now based.

On the morning of 6 August, the weather did not look promising as there was low cloud and intermittent rain at Aston Down and flight had to be delayed. The situation was further complicated by a temporary flying restriction in the area when HRH Prince Charles decided to fly from and to nearby Kemble Airfield, but

eventually the landing took place in good visibility at 15:15. After being interviewed and photographed by the press, Trevor and Peter were taken by members of Cotswold Gliding Club to the clubhouse for a socially distanced well-earned cup of tea before they departed Aston Down.

Sadly, the delay meant that *BBC Points West* had to send their camera crew elsewhere. However, the pilots were interviewed live by *BBC Radio Gloucestershire* after they had returned to White Waltham. The event was also covered by the local press and by news website *Gloucestershire Live*, where a video of the landing can be seen.

Chris Cooper



After landing at Aston Down: pilots Trevor Norcott (left) and Peter Sinclair (Chris Cooper)



Winner Matt Scutter in Diana 2

Matt takes eGlide title

CONGRATULATIONS to SkySight's Matt Scutter (above) on winning the 2020 E2Glide competition. Held in Grossrückerswalde, Germany, 29 August – 5 September, this was the second time for this contest dedicated to sailplanes with an electric means of propulsion.

Matt said: "The competition was very interesting. If it was a normal competition it would have only been possible to fly one or two days out of eight. However, with judicious use of the electric systems we could launch and fly tasks even when the wind was too strong to return in thermals, or the conditions near the airfield were too poor for a start line. We had enough energy allowance each day to climb -2,000ft or to glide -40km, so enough to get you out of trouble, but not to complete the task alone. Most days the task was 100-200km.

"I think this format has great potential for extending the season one or two months earlier and later each year. It's also fun to plan on being able to fly almost every day, rather than risk having a competition lost because the weather was poor."

See: www.soaringspot.com/en_gb/e2glide-grossruckerswalde-2020/results

DATES

NATIONALS, REGIONALS AND OTHERS

Standard Class Nationals	Lasham	29/5-6/6/21
15m Class Nationals	Lasham	29/5-6/6/21
Open Class Nationals	Lasham	29/5-6/6/21
Club Class Nationals	Hus Bos	17-27/7/21
Worlds	Germany	18-31/7/21
Open, 18m and 20m multi-seat Classes (Stendal-Borstel)		
Worlds	France	7-22/8/21
15m, Standard and Club Classes (Montluçon)		
Junior Nationals	Aston Down	21-29/8/21
18m Nationals	Lasham	21-29/8/21
20m multi-seat Nationals	Lasham	21-29/8/21
UK Mountain Soaring Champs	Aboyne	5-11/9/21
Competition Enterprise	POSTPONED UNTIL 2021	
10th SGP World Final	St Auban, France	1-30/9/21

BIDFORD REGIONALS

26/6-4/7/21

HUS BOS CHALLENGE CUP

7-15/8/21

GRANSDEN REGIONALS

7-15/8/21

COTSWOLD REGIONALS

21-29/8/21

* Dates correct as we go to press.
Please check club websites.

■ **BGA Club Management Conference, Sunday 22 November 2020. This year's conference will be a virtual event online. See details in advert on page 9.**

■ **The BGA is reviewing options for the 2021 Sporting Conference and awards dinner, including an online AGM.**

Glide Omarama

BUREACRATIC wrangles, a global pandemic and airfield operational issues have combined to end the 22-year operations of Glide Omarama. Unable to find someone willing to operate the venture, they have begun selling off the operation's \$2 million dollars worth of assets. The end of an era.

SAILPLANE & GLIDING



Andy Davis
Competition flying



Paul Whitehead
SLMG



Howard Torode
Airworthiness



Derren Francis
Tugging



Mike Fox
Instructing



Dr Frank Voeten
Medical



Andy Holmes
Winch operating



Steve Noujaim
Airspace



Alison Randle
Development



Bruce Stephenson
Vintage gliding

S&G is privileged to be able to call on the advice of some of gliding's leading experts. If you have a question for our experts on any of the subjects listed above, contact the editor (details p3).

EXPERT ADVISERS

Turning wisdom on its head

KEVIN Atkinson has written articles in S&G about humidity and thermals that turn conventional wisdom on its head.

As Weatherjack, I not only provided online forecasts, but often 'live' at competitions. I recall only too well a forecast I made that was seriously wrong. An active cold front dumped huge quantities of rain and left the ground sodden. It was not, according to conventional ideas, going to heat up and produce thermals. So we cancelled the competition that day. Within two hours, the sky was full of gorgeous cumulus. It wasn't until Kevin started writing about humidity, etc, that I appreciated that hot spots are not the whole story.

Psychrometric Calculator: www.kwangu.com/work/psychrometric.htm shows quite clearly that humid air is less dense (only slightly) than dry air.

Example (non-scientific!):

Consider a day where, generally, the temperature is 20°C with dew point 10°C. If a local spot has a dew point of 11°C, the air density there is approx 0.1 per cent lower than elsewhere. I am not a good enough scientist to work out what that 0.1 per cent lower density would imply for buoyancy, but this would seem to be a valid corroboration of "Atkinson's Law".

During my last few years of gliding, I did numerous experiments taking temperatures (digital probe) at the same pressure altitude inside and outside thermals. Surprisingly, it was often lower in the thermal. But this had been hinted at many years earlier from some measurements by Peter Purdie. I assumed (maybe partially correct) that the higher temperatures outside the thermal were simply because the air had warmed

adiabatically during the descent away from the rising air.

Remote detection of thermals has not so far been very successful, perhaps because the detectors have been wrongly looking for higher temperatures. Better would be to detect lower air density (this is apparent when developing shower/storm clouds often have a lower cloudbase at the most active parts). Maybe an even easier approach to remote detection of rising air would be to measure the humidity. Might that be possible – a parallel to tried-and-tested cloud analysis from satellite?

So – wearing a different forecaster's hat – the co-pilot in the future might have a more active role: remotely detecting lift on a screen and navigating the pilot accordingly. Indeed, this could even be fed into a flight director.

Now we get into the realms of pure fantasy (with a touch of humour). Not just to the flight director, but to an autopilot. But why then would there be any need for a human pilot at all? Gliding would be – a parallel to motor racing – a competition between the software/hardware engineers.

I had conveniently forgotten that just being in the air in a glider is usually fun!

Indeed, with soaring and cross-country flying being autonomous and needing no human input to make long flights, why not big passenger-carrying gliders? I'm not sure, though, that 100+ people in an Airbus A 1020 going round in circles without a human pilot would be all that popular! But maybe it could be a cheap and eco-friendly way to carry freight.

Did somebody mention wave? Maybe an easier challenge!

Jack Harrison, Nairn, Scotland

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Photo: Alastair Mackenzie

FORGOTTEN DISCUSSION

I HAVE read numerous articles, in S&G as well as in countless other gliding magazines, contemplating the sense and non-sense of flying with water ballast. When do you need it, what benefits does it have, how much do you need to take with you...? The list goes on.

However, what seems to be overlooked in all of these articles is the question whether we should use this large amount of potable water, put it in our wings to then just empty it again when getting low, or in the best case after completing our circuit and returning to our home field.

Is this use of, for convenience let's say 100 litres, of water really necessary? For a sport which prides itself in being one of the most green and sustainable air sports that exists, shouldn't we also consider the sensible use of potable water? One hundred litres of water – that is more than a two-month water supply for an adult consuming roughly 1.5 litres of water a day.

Even more so considering that water will become our most precious commodity

in the coming decades, with dry spells and heat waves becoming ever more frequent.

I have to admit that I did not ask myself this question before the conflict of interest was pointed out by the president of a gliding club in the south of France, whose opinion I value greatly.

On a nice summer morning, he became engulfed by fury when he noticed that two of his veteran cross-country pilots were in the process of filling up their water ballasts when, at that time, the municipality had enforced strict regulations on the use of water due to its scarcity. He got into a heated argument with these pilots and blamed them of foolishly wasting precious

water, which could be used for many other good causes rather than to improve one's average cross-country speed and overall distance.

It is from this point on that I have always been carefully considering whether to use water ballast or not. And most of the time I fly empty, but boy do I have just as much fun and I'm able to realise my own cross-country goals.

Of course, there should not be a complete ban on the use of water ballast, it forms an integral part of our sport and has its proven benefits. All that I am saying is that maybe, just maybe, we do not need to fill up our wings on every day that looks promising. We could also just enjoy some nice cross-country flights at a slightly lower speed, with a slightly reduced overall distance – but with most surely just as much fun!

A little thing to consider next time you plan on ballasting your glider...

Enjoy your flights and happy landings.

Christof Defrancq, Belgium

Please send letters (marked 'for publication') to the editor at editor@sailplaneandgliding.co.uk or the address on p3, including your full contact details. The deadline for the next issue is 5 October

Search continues for Ghana T-31s

I AM a gliding enthusiast/photographer (spotter) and a subscriber to your excellent magazine and have been for a number of years, although I do have copies of all the magazines going back to the 1950s.

I try to maintain a register of British gliders, both BGA and G- registered examples, and also try to keep up to date with competition number allocations.

I would like to say how much I enjoyed Jan Forster's story of *Where Are The Missing T-31s?* (pp42-44, Aug/Sept 20. It was a very interesting read, especially the part where he is confronted by the officer (a scene familiar to me on a few occasions in the past). Unfortunately, I don't know much about what happened to the gliders and certainly do not know anyone in the photos. I do have a list of gliders which were on the Ghana register and, like Jan, would be interested in finding out more information.

Only one can be found in existence, Slingsby T-21B Sedburgh BGA1085

"Spruce Goose" (the former 9G-ABD), which is on display at the aviation museum at Old Sarum airfield in Wiltshire.

Alan Preece, Bedford, UK

Jan Forster comments: After my article in S&G about T-31s in Ghana, I received some response about the glider; Raymond van

Loosbroek, who sadly died in the second week of August, phoned me with the information that there is a long list with all the gliders built and their registrations in Norman Ellisson's book, *British Gliders and Sailplanes 1922-1970*.

I also received emails from Alan Preece and Ged Terry, with a list of Ghana registered gliders. Thanks a lot for that. That does not mean that there were no other gliders in Ghana, for example under BGA registration, so I need still more info. Until now I still have no information about PG Burgess, there must be something, possibly in the archives of the BGA. Can anyone help please?



The T-31b of the Accra Gliding Club is the middle glider, with the registration '9G-AAP' visible on the upper wing (photographer unknown)

GLIDING... DESPITE EVERYTHING

As the sun and soaring conditions come out to play, **Andy Perkins** reports that some epic flights have been achieved – despite the restrictions – and that the situation has sharpened the focus of the BGA to remain fit for the future.



B

OOTHS ran an advertising campaign (2010), which depicted the entire nation watching for the arrival of summer. When it finally comes, there is a frantic application of Boots' sun cream and a mad panic as everyone runs outside, runs to the beach, etc, to enjoy what turns out to be a brief glimpse of summer sun. It highlighted how, as a nation, we all enjoy and need that fix of summer sunshine to get through the year.

Thankfully, the sun and soaring conditions came out to play this summer. I appreciate that some had to self-isolate for long periods, but I hope that however much or little gliding you managed this year, you have been able to get your necessary fix.



The Women's World Gliding Championship 2022 squad recently took part in a coaching week spread over nine days and five gliding sites (Rebecca Bryan)

Despite the restrictions, there have been some epic flights over the past few months – long may that continue. This has brought some welcome relief to the dire straits occurring across the world. You would normally expect these pages to focus on the contests of summer, with plenty of 'How I did it' stories from across the competition scene. Despite the change this year, looking online at the OLC (On-line Contest) and Ladder it is possible to see some tremendous flights have been achieved.

So, what next? If you ignore the obvious issues, we have a lot to look forward to....

This is certainly not the way I envisaged the 90th year of the British Gliding Association to look, but the situation has sharpened our focus and determination to ensure that the BGA is ready and able to continue assisting glider pilots. By working together, engaging within and externally, I am certain that the dedication and drive shown in 2020 across gliding clubs will ensure this ambition is realised.

**THE SITUATION
HAS SHARPENED
OUR FOCUS AND
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TO ENSURE THAT
THE BGA IS
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GLIDER PILOTS**

Gliding aspirations

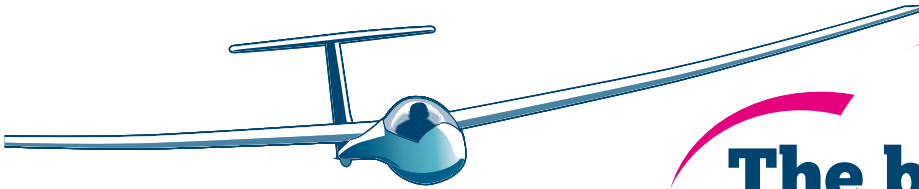
Our sport interests and excites people in different ways. Yet the common bond unites us all. This autumn we will publish some broad aspirations based on the BGA Strategy to help us all drive the sport forward and overcome some of the big challenges that lie ahead.

The Women's World Championships in 2022, at Hus Bos, is another golden opportunity for us to promote the diverse nature and appeal of gliding and to show the UK what opportunities are on its doorstep. Department for Transport support of gliding through charitable projects such as The Air League's Soaring to Success offers another avenue to grow participation and awareness. This, of course, is in addition to our existing home-grown Junior Gliding, Vintage, Aerobatics, Inter-Club and National Ladder, which are all great ways people enjoy our sport. Encouraging others to be part of this is essential for our clubs going forward.

So, what does all of this mean for gliding and what can you do to help? Continue to participate and go flying, encourage others from outside the sport to give it a try and, as ever, this is your sport so if you have ideas/suggestions, please contact any of the Exec. We would love to hear from you.

Andy Perkins
Chairman

British Gliding Association
September 2020



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Tim Macfadyen
reflects on what
might be the first
two-seater 750km
in the UK flown by
husband and wife

THE editor asked me to write an article about Geryl's and my 750km two-seater diploma flight. The only remarkable thing about the flight was that it was, I believe, the first time a husband and wife have flown 750km together in the UK. Perhaps this article can encourage others to try this!

In 1990, my first 750km in my ASW 20, EEE, was only the eighth in this country. I needed almost the best day of the decade to slowly get round (10½ hours). It was five years before I did it again, the next time with a camera that worked. Anyone who thinks loggers are unreliable should try cameras and barographs. At the time, we owned two time-recording cameras; Geryl had the other one that day, which functioned correctly for her first 500km in her Sport Vega. It was the luck of the draw. Those awful Mickey Mouse cameras had a single-ratchet system that you wound frantically to click as you rounded a turn point. A perforation in my film split, so all my TPs were on one frame. I still have the filmstrip, if any whizz kid wants to decipher it with modern technology!

We then bought another two cameras, so now we each had two of the wretched things to play up. With all that winding and clicking, it was easy to take photos just before you entered the sector and then immediately after, despite having obviously been inside the sector. Geryl held many UK women's records in the 1990s and always said: "Eric Smith is such a splendid chap, he must use a thick pencil." (Eric was the BGA's FAI

G&T:*



Above: Crossing the Solent and, facing page, Portsmouth Harbour with both of the Royal Navy giant aircraft carriers visible – fun to fly to from Nympsfield, but not ideal for 750km badge flights

Certificates Officer at the time.)

Geralyn and I are not racing pilots. We fly long distances quite slowly and the secret is to take off early on the right day, with the right task set. After 50 and 40 years respectively of “pure” gliding, mostly in our ASW 20s, I bought an Arcus T and gave Geralyn a surprise birthday present. No sane pensioners would fly 12 hours’ drive from home on a dubious day without an engine. Even if you rarely use the engine, having it there means that even on not particularly good and reliable days, you can happily enjoy a grand day out to much more exciting places.

UK 750kms used to be rare, but with modern gliders, good forecasting and recent better weather they have become common. On the best day ever in the famous summer of 1976, I flew a 500km triangle in my K-6CR, taking 9¾ hours, but 750km in a K-6CR is impossible. A challenge for you, David Masson? Better performance than your old K-13.

Another major factor now is training. Before about 1990, most of us weren’t even

taught to soar, never mind fly cross-country. Good training will take many years, even decades, off the cross-country learning process. If your club offers two-seater cross-country training, whatever your experience, I strongly recommend grabbing any chance you can to fly with a more experienced cross-country pilot. If the club does not, paying to go somewhere else is well worthwhile and good fun, which, believe it or not, is why we play this game. Even with a 40:1 Club Class glider, 750km is now practical for many pilots. It is just much easier with around 50:1 in an 18-metre ship, or an Arcus as in our case, and cheating with 60:1. Anyone who says that a turbo doesn’t change your gliding life is lying.

The definition of “a long way” also changes. From Carreg Cennen Castle TP, you can see the Gower Peninsular and catch a glimpse of the Irish Sea in Cardigan Bay. The ruin is at the far west end of the Brecon Beacons, past Pen-y-Fan, the highest peak in South Wales, where you can wave at the

I STRONGLY RECOMMEND GRABBING ANY CHANCE YOU CAN TO FLY WITH A MORE EXPERIENCED CROSS-COUNTRY PILOT



Cerne Abbas Man is both entertaining and affords good views of Portland Bill

* G&T = Geralyn and Tim



Carreg Cennen Castle is within the Brecon Beacons National Park

GREAT MIX

YOU DON'T NEED TO BE ABLE TO FLY 750KM PARTICULARLY FAST, BUT YOU NEED DETERMINATION AND STAMINA TO CARRY ON AND NOT GIVE UP

Below: St Austell just visible in the distance beyond Gribbin Head during another flight from Nympsfield. The lighthouse (the turning point) is just in front of the wing

Below, inset: St Catherine's Point Lighthouse is a favourite sight

✍ walkers above you. Cerne Abbas Man is both entertaining and affords good views of Portland Bill. Another regular favourite is St Catherine's Point Lighthouse, on the Isle of Wight. Geralyn won Nympsfield's miniscule trophy for the last person of the previous year round the St Catherine's lighthouse – because she was sitting in the back seat!

There's also Gribbin Head Lighthouse (near St Austell) and Great Yarmouth, all of which get a rousing chorus of "Oh, I do like to be beside the seaside!". Lake Bala, in North Wales, is very scenic but Geralyn usually makes me fly after Montgomery. Looking up at the train on Snowdon while hill soaring is a novel experience, even more worrying last year in my ASW 20 than in our turbo.

Often, whichever of us is not flying will tell the one flying off for circling in 2½kts,

"Stop messing about, this is a 4+kts day, get on with it!". A bit later when the other is flying, the comments are exactly the same, but with the roles reversed. When it looked a bit difficult on a leg home recently, Geralyn straightened up momentarily (to centre) in a very welcome 2kts and I panicked: "You aren't leaving this are you?" only to be told, "Of course I'm not", but in rather more colourful language. A little later, the actions and comments were exactly repeated, but with me flying.

Gossip

An easy, straightforward soaring flight is an opportunity for a good chat. One day last year, we were heading into Wales and having a particularly scurrilous gossip about certain fellow club members. A voice came over the radio saying someone had an open mike. We checked but there was no "tx" in either cockpit. We continued casting aspersions, but conditions ahead were now looking grim. Geralyn did a rendering of "It looks like trouble ahead..." though substituting a few swear words for the lyrics.

A voice came over the radio: "Yep, BW, it's definitely you two!"

Novelty turnpoints are great but they don't get you badges, as we learned to our cost. Turning points miles from home or in unlandable country slow you down, even with a turbo, and make any sensible person without one very careful and slow. On the best day of this year so far, 11 July, we declared a two TP 750km, Carreg Cennen Castle (CCC) – Bungay (near Norwich) from Nympsfield, it being "more fun" than a three TP flight.

CCC was very slow with a low base, big hills that weren't producing lift and nowhere to land. Geralyn refused to touch the controls west of Crickhowell and kept saying that the sheep had legs and "now they've got



pretty faces too!". We got as far as Mildenhall on the second leg, but, unfortunately, it was unsoarable for the last 60km to Bungay, so we turned back and failed to fly 750km on a day when many other people did.

The further away from base you go, the greater the risk that you will find an unsoarable area. For any badge flight, using three TPs, or for Ladder flights four TPs, means that you can fly in a much smaller area with a far higher chance of success because you can fly in the best weather without the anxiety of being a long way from home.

You don't need to be able to fly 750km particularly fast, but you need determination and stamina to carry on and not give up. I find it much more enjoyable and easier to do long flights in a two-seater. Geralyn does most of the flying when we are at a comfortable height and is adept at finding the good lift quickly under those big spread-out clouds towards the end of the day, where most of us climb for ages in 1-2kts and then run into 4ts on the way out. It is normally my turn to fly if we get very low, or when the hills look big, so it is good to be rested to do the battle.

Picnic

Nutrition is important and we always take lots of picnic to last for our epic hours. I take peanut butter sandwiches and a stash of apples and bananas and Geralyn has peanut bars and oatcakes. It's like kids on a school trip, we tuck in straight away. The ventilation in the Arcus does strange things and malodorous air always seems to travel forward from the back seat. You must stay well hydrated too, though Geralyn tries not to use her rather noisy battery-powered comfort system if I'm cloud-flying. My 25-year-old suction "shewee" design for her still works well, unless a cockchafer climbs into the outlet tube (the beetle was a perfect plug), as happened once in her ASW 20.

Our 20 July 750km Diploma flight was straightforward: 95 per cent of the difficulty is getting launched early on a viable task on a good enough day. A high tow (at 9.45am – thank you, Andy Smart) and a long glide out to the first useable thermal is nerve wracking, but gets you going 30 to 45 minutes before a winch launch, so is worth about 50km. It costs £40 more than a winch launch but on days like this, we consider it good value.

After much debate, we had decided to go crosswind: Nympsfield, Bury St Edmunds, Grosmont (with a fine ruined castle near Abergavenny), Bedford and home. The



Above: Tim and Geralyn enjoy flights in their new toy, an Arcus T (Seb Smaka)



Left: This photograph appeared in S&G's Club News (Oct/Nov 1981), stating Tim and Geralyn celebrated by leaping into a Bergfalke for their first married flight in full nuptial rig (Tony Housden)

disadvantage, we thought, would be not having streets to run up and down, but the northern TPs of our alternative north-south task had looked to be in dubious weather. Later that evening, the north was reported to have been impossible.

The oddest and luckiest thing about the day was that the streets ran crosswind, exactly along our tracks! Andy Davis has a theory that with the NW 8kt wind, the cloud shadows covered their thermal sources, killing normal streets and causing crosswind ones, but you will have to go on one of his Master Classes to get him to explain why. The theory is beyond me but the streets were incredibly useful.

After a little over eight and a half hours flying, and only topping up a mere 1,500ft above final glide (just in case), we raced home without difficulty. There was 1½ hours of soarable day left. Further next time. Must take more picnic!

■ **Geralyn and Tim Macfadyen met through gliding and married in 1981. Tim soloed in 1967, has three Diamonds and first flew 750km in 1990. He flies comps in his ASW 20, EEE, which he has owned since new in 1980, and has been on the British team. Tim was CFI of Nympsfield for 10 years. He worked as a design engineer at Rolls-Royce Aero Engines and is vice-chairman of the BGA Technical Committee. Geralyn was an art teacher and started learning to fly while working in Kenya. She went solo in 1980, got her three Diamonds in 1990 in her Sport Vega and held many UK Women's Records in it, and later in her ASW 20F. Geralyn is also a tug pilot. She has just finished writing her book *A Lion Stole My Toothbrush*, mainly about their adventures and mishaps driving a safari-equipped ancient Land Rover across Africa over many years, though aviation does creep in.**

BUT WHY DON'T PEOPLE LISTEN?

Adrian Emck revisits the 'secret' behind his regular long K-6 flights, but predicts many of you will ignore the advice given



Spine protection: photo courtesy of FAI www.fai.org/page/harnesses-and-back-protectors

■ Adrian Emck posted two consecutive flights in a K-6 totalling 1,000km on 20-21 July 2020, two of his three that total 1,500km this season. He has flown 100,000 K-6 kilometres cross-country, with 39 flights over 400km, 22 500km, two 600km and a 760km – all made possible by applying research findings.

IT IS extraordinary how often I've been asked over many years: "How is it possible to fly the K-6 as you do?" My average flight time for the past four seasons is over the five-hour duration and I always explain that I can fly the K-6 on long flights entirely due to applying cockpit research findings that have been proven to enhance pilot performance through comfort/safety and can provide pure enjoyment for all. This has improved the K-6 cockpit comfort and also safety, vastly extending the pilot's range, speed and flying duration. Very few pilots adopt these findings. In fact, few believe me. I'm always being asked "the secret", I

tell them and then, months later, I get asked the same question again. Believe me, I'm telling you the real "secret"!

Since publication in 2005 of the Pilot Survey at Lasham (196 pilots reporting on 818 cockpits), and subsequent papers, very few take the profound findings on cockpit safety

design seriously enough to take action. Glider manufacturers overlook published technical evidence and continue to provide dangerous unsafe cockpit cushions and anatomical support, and provide cockpits that can transmit impact energy directly to the spine.

Despite the many articles, presentations and technical papers, there is as yet no national or international gliding organisation willing to champion, fund and push through the action necessary to ensure glider cockpits safely fit the adult population, and the simple inexpensive fixes that make existing cockpits safer and more comfortable at the same time.

Decades ago, Dr Teddy Stedtfeld, former Me 109 pilot and team doctor of the German

National Gliding Team, recommended that spine shells be worn by glider pilots.

Today, manufacturers of certified paragliding spine protectors number nearly two score. Gliding none. The glider pilot's spine is left incredibly vulnerable to glider accident injury. So, what is it that makes gliding think it can ignore the laws of gravity?

Because competition flying interests always come first, manufacturers squeeze the cockpit cross-section to be as tiny as possible to reduce drag to win competitions that, in turn, sells gliders. This leaves no room for simple basic devices and elementary cockpit mods that would instantly transform the cockpit into a significantly safer fit for the adult population. If you have a gliding accident injury it is very likely to be to your spine. I demonstrated an example to the BGA Conference where the pilot's coccyx was cracked from a normal field outlanding, without damage to the glider.

Significant danger

Glider cockpits typically have difficulty in absorbing impact energy, which can often then be transmitted directly to the spine. Gliding has yet to introduce the structured approach to forcefully address this significant danger, in direct contrast to paragliding: "According to the decision of the CIVL Bureau on June 27, 2019, the paragliding harness rule, FAI Sporting Code Section 7A and C § 8.5.1, was modified as follows: All pilots **must fly with a harness and back protector combination that has been tested to LTF09 or EN1651:2018 E.** CIVL publishes an indicative list on its website." (See FAI spine protector photo, left.)

If this safety is good enough for paragliders, why are we glider pilots not given this level of protection too?

I've presented the subject abroad. Once an attempt was made to cut me short. I retorted my presentation on cockpit safety cost me 40 Euros a minute to deliver and I would finish – which I did. This embarrassment led



"Load of old firewood" 36 ready for ignition on the Lasham grid (Adrian Emck)

to the intervention by a world-famous glider designer, who insisted the cockpit safety presentation be repeated two weeks hence – and it was. Recently, someone said I was a nutter. Well, at least I'm a safer and more comfortable nutter. This comment made me pause to remember the names of the tiny handful of people who have concerned themselves with glider cockpit safety, who are ignored and conveniently forgotten.

Gliding prides itself on being high-tech super advanced, but when it comes to cockpit human measurement, it resides firmly in the year 1926 mindset. See my BGA Conference presentation: <https://members.gliding.co.uk/2020/08/04/cockpit-comfort-and-safety-presentation/>

Regulation

Enough on "the secret", but I'll bet that you'll ignore it. On to regulation. As well as introducing as many cockpit comfort safety features as possible that significantly increase my flying stamina and flying performance to fly further, better and faster, what *else* is standing in the way?

Answer: *Get the BGA to take windcapping seriously!*

Let me expand on why I and others believe the BGA should take windcapping seriously.

"When are you going to move your load

of old firewood up to the launch point?" was the kindly meant bantering comment from a Super-Ship Pundit.

I am not sure whether 1,000km flown over two consecutive days, 20-21 July, in the load of old firewood is a record, but the most significant factor for both flights was that the WIND WAS LIGHT, conditions rare as hen's teeth in the windy UK!

With so much airspace lost and so much more under threat, much more care has to be taken the night before in planning task routes, as old firewood is blown up against airspace like butterflies in a gale. Old firewood penetrates into a strong wind with an L/D of 7 to 15:1. Reaching the next thermal very low down for scrappy, weak broken lift – that is a real handicap, whereas, high performance gliders reach better formed and stronger thermals at higher altitude. As a result they have far more reach and a greater choice of thermals to select. My big-span glass friends (yes, I do actually have them) say they don't even notice wind until it reaches 20 knots!

A K-6 thermals once every 8km or so in the UK. High-performance glass manages 18km or so and the effort of thermalling at 45deg bank circling in wood is more prolonged, particularly in windy weather, where your leg and body weight increases in proportion to 1.6Gs with your leg

■ To find out the real reason why Adrian Emck hasn't followed the mass migration from wood to glass, you need to see his narrated presentation at the BGA Conference on the BGA website YouTube link: <https://members.gliding.co.uk/2020/08/04/cockpit-comfort-and-safety-presentation/> and find out about the current state of glider cockpit design and tried and tested fixes that make your own glass and wood cockpits more comfortable and safe.

MUCH MORE CARE HAS TO BE TAKEN THE NIGHT BEFORE IN PLANNING TASK ROUTES, AS OLD FIREWOOD IS BLOWN UP AGAINST AIRSPACE LIKE BUTTERFLIES IN A GALE

SUGGESTED READING:

- Matthew Syed *Rebel Ideas. The Power of Diverse Thinking* 2019 p210-216.
- Stephen Pheasant *Bodyspace, Anthropometry, Ergonomics and the Design of Work*, 2nd edition, 1996.
- Buckle David and Kimber *Flight Deck Design and Pilot Selection: Anthropometric Considerations – Aviation Space and Environmental Medicine* Dec 1990.
- Steven Pinker *Enlightenment Now. The Case for reason, Science, Humanism and Progress*, Chapter 12 Safety, p168-190. Penguin 2018. (A book to cheer us all and Bill Gates' "favourite book of all time")
- S&G cockpit impact and comfort safety articles – published since year dot.

I FOUND MYSELF AT 23,000FT AND, ENTIRELY BY ACCIDENT, WINNING THE DE HAVILLAND CUP: A FIRST IN OLD FIREWOOD IN 40 YEARS



Adrian Emck is a member of the OSTIV Sailplane Development Panel. He flies a K-6e from Lasham

✎ weighing not 20lb, but nearer 30lb. So, with such extra effort and odds so hopelessly against it, it's of little surprise that pilots don't enter wood flights on the Ladder on windy days (or at all for that matter).

The perfect example of how wind speed significantly affects flight outcome was in Aboyne. With long Scottish days of 15 hours of thermals a 500km was declared. What could *possibly* go wrong? Well, going upwind for a start – unable to even escape the 'Aboyne Box'. However, thanks to Roy Wilson opening up the height with ATC, I found myself at 23,000ft and, entirely by accident, winning the De Havilland Cup: a first in old firewood in 40 years.

Over decades the counter-arguments have been advanced, oddly enough, only by high-performance glider owners. Here are just two of them.

"Windcapping is not needed on the Ladder as handicapping takes care of it."

If so, why do BGA competitions have windcapping and not the Ladder? They cannot both be right. From Ian Strachan's history of handicapping from S&G (pp45-47, June/July 11): "Earlier handicapping systems had made no allowance at all (for wind).

This was manifestly unfair, particularly for low-performance gliders. Now that BGA Handicaps were defined as relative XC speeds, it was possible to allow for wind on a mathematical basis. By this yardstick the Ladder is "manifestly unfair".

"...Err... but windcapping is too difficult to do for the Ladder!" Gliding is very difficult and a main reason we keep doing it! Tasks downloaded already have wind calculations from the individual IGC flight files, so wind calculation is possible. Where there's a will there's a way. Lilienthal Gliding Medal winner Ian Strachan wrote to me in 2012: "It appears that what the BGA now do is use a wind at soaring heights for the actual task flown, rather than use the met wind. As a K-6 drifts in a thermal at the same speed as a Nimbus, the IGC file for any glider can be used in this estimation of wind speed and direction."

With UK households experiencing the biggest income shock since 1970s, the benefit of promoting cheaper seats in lower-priced gliders should now be self-apparent and the opportunity grasped.

The load of old firewood is set to keep us warm for some time to come.

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A PIMPED LS8



Bernt Hall flies the LS8-e neo and reports that, with or without FES, this easy-to-fly sailplane has the edge over an 'old 8'

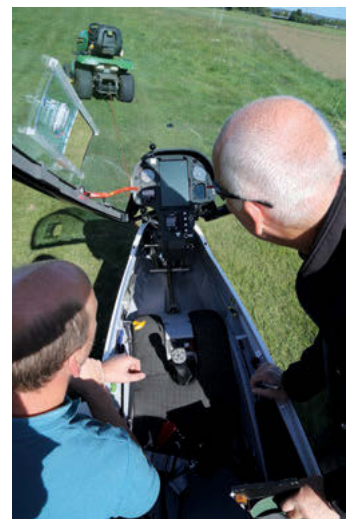
Above: LS8-e neo in the air. The longitudinal stability is very good and together it provides a very harmonious and easy-to-fly aircraft well suited even for infrequent pilots and beginners in club use

FOR 20 years, the LS8 and Discus 2 have had a monopoly on, and a constant battle for, the top places in the Standard Class. The LS8 has been in serial production from 1995. The Discus 2, from Schempp-Hirth, came in 1998 when the LS8 proved to be superior to the previous best-seller from Schempp-Hirth, "the old Discus", and Schempp-Hirth was forced to "do something".

Which is the better? That has been discussed ever since, which in practice means that they are probably both as good as each other. Among the top tier of hardcore racing pilots in the Standard Class, there may be a small advantage for the Discus 2, primarily in the a-version with the smaller cockpit. This is probably because this category of racing pilots want the aircraft that gives the "feeling" of squeezing out the most performance in both detail and overall design. There have

usually been more Discus 2s in the top 10, but there have always also been several LS8s there, and sometimes as winners. Schleicher's contemporary ASW 28 has never achieved any major international success. That does not mean it is bad, but it did get off to a bad start in terms of results and was then almost immediately "dissected" by the best racing pilots, just as the LS7 had been a few years earlier. With new winglets, however, the latter has received a renaissance lately as it won the European Championship in the "new" Club Class last summer.

But now there is the LS8-sc neo as pure glider and LS8-e neo with FES. At the European Championships in Slovakia last summer, LS8s took the top three positions, with 11(!) Discus 2s before the next LS8. Robert Schröder, who pushed the neo concept at DG, came second in the European Championships. Later on at the Junior



Above: Jelmer Wassenaar gives test pilot number three a brief system review. It probably cannot be easier to handle than that

Below: The control panel for FES at bottom left. It turns on at the same time as other avionics. The "throttle" is equal to the screw control. The instrument shows the remaining battery time, speed, power output in kW, voltage and current, as well as temperatures in batteries, control unit and motor. Actually, you only need to scan the instrument from time to time. The throttle and power take-off are the thing, along with the remaining battery life. There is a special light indicator for fire alarms



■ Photos by Jens Trabolt

Below: Here the larger angle of attack due to the five-inch wheel is clearly visible. Note the attachment of the tow line to the winch coupling located on the main body



✍ World Championships, his son Simon became Standard Class junior world champion in the same LS8 neo.

The LS8-sc neo and LS8-e neo will be manufactured in batches of five. The delivery time stated, at the time of our visit, was March 2021. But is it a good buy? The author thinks that, with or without FES installation, it is an excellent and simple aircraft with excellent performance even for club use and infrequent pilots. It also seems to have a small edge over an 'old 8' and D2. But FES is the thing. The resistance caused by a FES propeller has been measured and

it is at about 1.3 points. But if you are selected for the Worlds, it is easy to replace the nose that has propeller blades with one without blades. And if you want 18m tips as before, then you get very good performance even if it does not really reach the top level in the 18m Class. The price of the 15m neo at our visit was €84,000 + VAT. Add to that instruments, trolley and some "extras". If you want with the FES system, it costs €30,000 more.

The LS8's body, fin and tailplane come from the LS7.

With the neo winglet it has very good yaw stability. The neo winglet is not available for the 18m tips. The neo winglets were developed by one of Professor Loek Boerman's former star students, Johannes Dillinger, also known to be behind much of Concordia's design with Dick Butler. Another of Boerman's disciples, Jelmer Wassenaar, is our guide and has shouldered Wilhelm Dirk's mantle on the engineering side of DG.

Although a retiree, Dirks is still involved in the business now and then.

Rolling from 45 degrees inclination in one direction to 45 degrees in the other direction is a delight and takes about 3.5 seconds on average, measured with the smartphone chronograph since the test pilot's usual wristwatch chronograph was forgotten somewhere. The rudder is still not quite powerful enough to stay in balance with full roll applied, but how often do you need to do so? The longitudinal stability is very good and together it makes a very harmonious and easy-to-fly aircraft well suited even for early pilots. The launch is completely straightforward on the 600m-long grass strip behind a Dimona TMG. There's good directional control, although it has a slightly higher angle of attack, thanks to the larger five-inch wheel that came a few years ago when DG took over production.

Increased stability

It should not be necessary to use the airbrake during the initial ground roll with a lot of water on board, but it does help in this case with higher angle of attack. The seating position is slightly more horizontal than the equivalents from Schempp-Hirth and Schleicher, so the view ahead during towing is slightly worse, but it's good enough. Due to the FES installation with the propeller in the nose, there is only a winch hook. You notice increased stability with the new neo winglets; it almost flies itself and you can also release the stick during turns. The impression is of a slightly larger aircraft like the JS 3 or Ventus 3, rather than the 'old-fashioned' LS8 or LS7. In other words, it's restful and easy to fly, and familiar for old LS8 pilots.

The LS8-e neo is a delight in the thermals. The wing surface is relatively large at 10.5m². The Discus is slightly smaller at 10.16m². We have no water, but with just over 100kg of pilot and parachute, NOAH system and FES installation, we are still quite heavy. However, the glider climbs nicely and is easily centred in the slightly angular autumn thermal. Heavily loaded, the benefits of the new neo winglets are most noticeable, say those who have flown with water up to a maximum weight of 525 kg/m². We can turn down to 85km/h, but, at 95-100 km/h it feels like it will climb better. The LS8's profile is not particularly speed sensitive and it climbs well within a fairly large speed range. At low speed, both during a straight flight and during a turn, it gives clear buffeting signals if you fly too slowly with first vibrations in the tail

section and then the symptoms you'd expect.

Of course, on all modern aircraft fully fuelled to maximum weight, greater demands are placed on the pilot at low speed. Approach and landing are unproblematic; the brakes are very effective as on most modern aircraft today. And when it comes to extending the landing gear, although on the right side, the movement is opposite to Schempp-Hirth and most others, ie rear for down and with a slightly odd sausage-like grip. One could almost wish there was a design standard.

This is the same version as CEO Holger Back's own glider, but it is most often flown by wife Ilka Elster. At competitions Holger is now crew because he stopped active competition flying a few years ago and now offers a little back from all the competitions that Ilka was crew for Holger during his career. In addition to the neo winglets, there are several changes and gadgets besides NOAH. The wheel brake is moved from the heel brake in the side rudder pedals to the rear position of the air brake. The air brakes have a Piggott hook, which prevents them from accidentally moving if they are not locked. In addition, in the rear position there is a parking brake position. Of course, there is the usual Röger hook on the frame behind the head of the pilot, which prevents the canopy moving sideways in case of emergency, rendering the pilot unconscious.

Track wheel

The size of the track wheel has been reduced to 150mm diameter. The transition between fin and stabiliser has been optimised. The tail has a three-way adapter allowing the use of various probes, manufactured by esa-systems. However, the bug wipers cannot be integrated because of the hood's position near the wing leading edge. The only comment we had on the LS8-e neo that we flew was that there were some aerodynamically triggered sounds in the cockpit, even with the engine turned off. Some probably come from the fresh air intake that sits in the centre of the spinner or from a somewhat leaky hood or shutter. The lid of the batteries was also not completely taped. But this would be resolved.

This author is 187cm and 95kg and has no problems whatsoever in the length or width of an LS8. Two-metre tall pilots also usually fit. The fuselage layout is the same as on the LS1f, LS6 and LS7, ie, relatively narrow. So "wider" people may get a little cosy in winter, flying with a thicker jacket. The LS3



and LS4 have more space even on the sides, where "everyone" fits, summer and winter.... But performance has a price.

Nordic Gliding's Jens Trabolt, who is 193cm, got a nice and even seat, but the aircraft was equipped with a NOAH safety system which takes up some space much like a slightly thicker seat cushion. There was also no time for him to optimise the backrest and headrest. NOAH (NotAustiegsHilfe) simply means that you inflate the seat cushion much like an airbag, pushing you out at an impending parachute jump. It should be easy to get out of. The idea began at various Akaflieg groups, but was adopted and developed by DG in the mid-90s and there is a certified patent on the system. The principle is that an air-filled gas bottle of 200 Bar is activated manually via a yellow-black handle on the right side of the cockpit. It is not possible to activate until the hood is thrown. The seat harness then loosens automatically.

Not many of these have been sold, and that was the theme of DG factory owner Karl-Friedrich Weber's lecture at Billingham a few years ago: safety does not sell. Something Streifeneder also noted with its development of a certified parachute system where the entire aircraft lands under parachute. NOAH is primarily adapted for DG and LS aircraft, but neighbouring Bruchsal firm Güntert & Kohlmetz, which deals with repairs and modifications of gliders, SLG and motor aircraft, has also developed the system for some modern Schleicher and Schempp-Hirth aircraft. The requirement then is that the aircraft has a foldable instrument panel and backrest. ☞

Above: When you are low and the heat is on, it is good to have a reliable and easy-to-use engine. But the FES system also enables fun flying and good training at low altitude. The author recalls that in the early 70s he heard that the Polish national team, during a training camp on a good day with a high cloudbase, was commissioned to fly a 30-mile course. But they were not allowed to go over 600m! With FES, it's really fun to push limits and try to stay up while moving. If you get too low, you start the engine which responds with lightning speed and rises a little bit and continues to the next blow at low power output. Good and safe training to get up from low altitude.

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LOADED, THE
BENEFITS OF
THE NEW NEO
WINGLETS
ARE MOST
NOTICEABLE,
SAY THOSE WHO
HAVE FLOWN
WITH WATER UP
TO A MAXIMUM
WEIGHT OF
525KG/M²**



Under the red cover hides the main switch for engine start - activate and then just turn up the speed to the desired level on the control panel. The green lever disengages the trim to the position of the lever, but you sometimes need to help with the trim control on the left cockpit side. You have to trim more often than on a folding cart, but the lever forces are so balanced and low that you can accept a little lever pressure.

■ **With thanks to Nordic Gliding**

Below: CEO Holger Back pulls the LS8-e neo over the bridge to the glider field while chief engineer Jelmer Wassenaar holds the wing. DG is located directly by Bruchsal Flying Club's 600m-long grass tracks.



✍ Well, this article was really about FES (Front Electric Sustainer). But there is not much to write about the management – it's simple. Self-launching is not possible, mostly due to minimal ground clearance. The engine concept from LZ design and Luca Žnidaršič is well proven by now. It weighs about 10kg, including propeller and blade recess. The engine has been designed by the company itself. The Li-Po batteries (two) come from Kokam; about 40 Ah each and giving an output of about 22kW or almost 30hp. Both batteries provide 4.2kWh. The BMS (Battery Management System) has the charcoal on the batteries. The handling of the aircraft is remarkably simple compared with a “traditional” turbo.

The control unit, developed by LXNAV, is switched on already on the ground together with other power consumers and, if you then need a little power, you lift the red flap at the bottom of the dashboard and turn on the switch there. The clamp is designed to prevent accidental operation of the propeller on the ground or during towing. Then just turn up the power on a rotary potentiometer model volume knob on an old radio. The effect comes at the same moment; little difference compared with the more traditional “turbochargers”. The noise level in the cockpit with the engine running is quite low and we could hear the radio without headset during the photoshoot flight even when the engine was on. At start-up and shut-off, it “clocks” a bit when the propeller blades are folded in and out. If you run at low power below 3,000rpm, the engine does not shut down when you

reduce the power to zero; you must go above 3,000rpm before you can turn the power down to 0 as the engine stops quickly and the blades automatically adjust into position and fold back.

Then comes the interesting bit with some new thinking. Should one maximise and gain height as soon as possible, or are there other methods that are more energy efficient? With this engine you can turn it on and off easily and the thermals usually start at low altitude, so you can either fly back to where there were thermals or in the direction where there seems to be thermals, at relatively low altitude saving the electricity for future “rescues”. For the first time, it is actually fun to mess around with the help of a little engine now and then. They say you have about 100km range and one hour if you ‘drive’ moderately. The sawtooth principle with rise/fall as on regular gasoline turbos is not the optimal operation here.

Battery handling

Battery handling on the ground when charging is a process where the two 16kg heavy battery units require some muscle if you are to lift them from the charging station. The cable connectors at the reconnection are fail-safe. Fully discharged batteries take five to six hours to charge with standard charger, half full in an hour. With larger and more expensive chargers, a completely empty battery can be charged in an hour. Now, a lot is happening on this front and the two-seater DG-1001e gets bigger batteries of almost 7kWh. The batteries will then weigh about 20kg each. It is unclear whether this will also be offered with the LS8-e neo. The problems you had a few years ago with fires in the battery unit seem to have been solved now. Firstly, there are rules for how the battery holders should be fire insulated, and there are also other technical solutions for how all the small cells are connected to a battery unit and the monitoring in the control unit.

The previously successful self-launching DG-800 series, the successor to the DG-400, is no longer produced. Like many others in the industry, DG has alternative activity under way. They have participated in prototype construction and development of the Volocopter concept, but also parts for Boeing, etc. In addition, they offer repair and service to all older DG and LS aircraft. Finally, DG has now developed both its 25-year-old LS and slightly younger DG-1000 into products that sell today. We like that!



LS8-e neo TECHNICAL DATA

Wing span	m	15	18
Wing area	m ²	10.5	11.4
Aspect ratio	/	21.4	28.4
Length	m	6.72	6.72
Height	m	0.8	0.8
V _{NE}	km/h	280	280
Glide ratio	/	~ 1:44	~ 1:50
Min. sink (at 420kg)	m/s	0.59	0.51
Empty mass (incl. basic instrumentation) ca.	kg	270	280
Water ballast wing	litre	190	190
Water ballast fin	litre	7.5	7.5
MTOW	kg	525	575
Max. wing loading	kg/m ²	50	50.4

PROPULSION SYSTEM LS8-e neo

Motor	LZ Design Brushless Motor (22kW)
Battery	Lithium-Polymer (4.2kWh)
Propeller	2-blade foldable propeller
Climb rate	ca. 1.5-2 m/s
Recharging time	5 - 6 h

POSITIVES: Nice flight characteristics, top in the Standard Class (according to our assessment), FES - incredibly easy to use, very safety-minded

NEGATIVES: Sound volume in cockpit, gear operation "in the wrong direction"

■ www.dg-flugzeugbau.de

■ www.mcleanaviation.co.uk

PHILIP WILLS MEMORIAL FUND

SUPPORTING GLIDING IN THE UK



The Philip Wills Memorial Fund has a long and successful record of supporting gliding clubs in the UK. This has been achieved principally by making loans to clubs, at very good rates and with minimal paperwork, for projects such as site purchase, the acquisition of gliders, tugs and winches, and improvement of infrastructure.

Currently the Fund has more than £330,000 out on loan, working for the improvement of gliding, and more applications are in the pipeline.

The trustees are very keen to further develop the activities of the Fund. To achieve this aim, we will need to increase the size of the fund over the coming years.

If you feel that this is a worthwhile initiative and that you would like to give back something to the sport which has provided us with such challenge and pleasure over the years, then please consider leaving a legacy to the Philip Wills Memorial Fund (c/o the BGA) in your will. However large or small, you can be assured that the trustees will put all such gifts to good use to the continuing benefit of the gliding community in the UK.

Thank you.

In conjunction with the



A FIRST WITH A SILVER LINING

Surrey Hill GC's Sam Coole, 18, achieves Silver on his first cross-country flight

AFTER hours of gruelling work by Jonathan Hill, with help from myself, conversion of the open trailer to take the K-6 was completed on 6 July. I quickly decided that Tuesday 7 July looked like a good day (talk about good timing!)... After lengthy conversations with Marc Corrance that evening, I had done all the necessary preparation by the next morning. Looking at RASP, the day would deteriorate a little by the afternoon. My thinking was that I better hurry up and get going then!

I launched at 10:20am and climbed up a thermal nice and quickly. I suddenly realised how much stuff I had brought with me – the K-6 felt even more cramped than usual. I thought I would stay local for a bit and get a feel for the day. It was a good thing I did as 20 minutes later I fell out of the sky! When I landed, I was so disappointed. “The sky is booming and I’m down here already,” I thought. Richard dashed over with the tow-out gear and got me back to the launch point very hastily.

Before I launched again, he said: “I better get a picture for Facebook.” “Oh yes, of course.

That’s why I landed, we forgot the picture!” – at least, that’s what I told myself.

I launched again at 11.10am, quickly found a thermal and climbed up again. At this point I just went for it – I knew the sky was working. I soon found myself at junction 6 of the M25 at 1,400ft QFE thinking “I’m probably out of range at this point, what have I got myself into?”. Fortunately, I climbed up again. I started to make my way down the motorway, keeping between 2,500ft and 2,200ft most of the time.

Just after Westerham, Gatwick’s airspace turns south and therefore so could I. Shortly after this I got down to 1,100ft. I had a nice field underneath me, but I managed to find lift. I averaged about 0.3kts for a while before I got a bit higher and managed to find a better thermal, quickly climbing back up to 2,500ft amsl. At this point I could see I was near the 3,500ft airspace. Shortly afterwards, I was there and on my way up to 3,500ft. “Ah, I’ve basically done it now,” I thought.

From then on it was fairly uneventful. At one point I got down to about 1,600ft agl, but happily climbed away. After one hour and 20 minutes I arrived at Challock. Saying that I was relieved would be an understatement! Only three and a half hours to go...

The highest I reached was about 4,900ft,



Climbing up towards 3,500ft
(photos by Sam Coole)



Arriving at Challock after one hour 20 minutes



Silver height achieved at 4,900ft



A very happy Sam Coole after landing

which covered my Silver height gain with a nice margin to spare.

With about an hour and a half left to complete the five hours, the cumulus started getting smaller and the thermals weaker. I concluded that if the day continued to deteriorate at this rate, I would not be able to make the duration. "You're having a laugh," I was thinking. After getting this far, as well! At roughly the same time, Jonathan Hill, Marc Corrance and Mark Kidd were on their way down to get me and were thinking the same thing. However, it seemed that they brought

the thermals with them as the sky got better again.

I carefully timed my descent so that I could be on the ground as quickly as possible whilst ensuring the five hours. I landed after five hours and four minutes and I could not walk afterwards.

Certainly, a day I will never forget...

Marc Corrance checked my trace later that day and confirmed he was happy I had not busted and had completed all three Silver legs. Once the BGA have approved it, that should be my Silver all done.



Before the descent...

I GOT DOWN TO 1,100FT. I HAD A NICE FIELD UNDERNEATH ME, BUT I MANAGED TO FIND LIFT. I AVERAGED ABOUT 0.3KTS FOR A WHILE BEFORE I GOT A BIT HIGHER AND MANAGED TO FIND A BETTER THERMAL, QUICKLY CLIMBING BACK UP TO 2,500FT

■ Learning to fly at Surrey Hills, Sam has since branded himself a "Kenley pilot". He said: "When it came to doing my Silver, I could either take the easier option and do it from Lasham (where I am also a member), or the harder option of doing it from Kenley... I chose to do it from where I learnt!"

■ A video of Sam's flight can be found on YouTube by searching 'Sam Coole Gliding'

■ This article first appeared in SHGC's *Cabletalk*



Sam Coole, 18, started gliding in June 2017 and went solo at Surrey Hills Gliding Club on 25 June 2018, on his 45th launch, shortly after finishing his GCSEs. This flight was his first attempt at 50km for his Silver. Sam achieved the Silver distance, height and duration in one flight – and all that before passing his driving test!

SHOT DOWN BY A SPITFIRE...

Andrew Woolley reflects on a field landing that attracted the interest of the emergency services and a passing Spitfire



The firemen became quite disappointed to find there was nothing flammable in the aircraft

HE THEN RESUMED HIS COURSE AND DID A BARREL ROLL AS HE FLEW OVER ME! I COULD IMAGINE HIM THINKING THAT HE HAD JUST DOWNED ME AFTER A FIERCE DOGFIGHT OVER THE FIELDS OF KENT!

MY SECOND field landing happened in June 2019, when I failed to emulate Mark Kidd's circumnavigation of the Gatwick CTA¹ in 2018². Not easy when the majority of the task has to be flown under the 2,500ft London TMA³.

After a winch launch from Kenley, straight into a strong thermal, I headed east towards my first turning point at Ashford. There were plenty of cumulus clouds in sight and I was making good progress in a street that was heading in the right general direction. It suddenly started to look overcast ahead and passing Sevenoaks I wasn't getting much lift and gradually started losing altitude.

The sensible thing would have been to turn around and head back to base but, instead, I started turning south towards darker patches of cloud in the hope that I would get enough lift to get through this tricky bit of weather. I was now down to 1,500ft over Tonbridge and, realising that I needed to find a landable field, I headed north-

east into more open country.

Still no sign of lift as I scanned hopefully for a good field. Having selected what looked like a large grassy meadow with no livestock in it, I made my approach. As I rounded out I started to have suspicions that this was a crop field, so I held off as long as possible. Wow, that was a short ground run as I was flung forward against the harness! I couldn't see anything but green vegetation around me, but at least I was on solid land and alive.

On exiting the cockpit I could see that I'd landed in a field of barley that was about three-feet high. That was just about wing height in the Discus so the wings had just skimmed the top of the crop and somehow I'd avoided a groundloop. Looking down at the fuselage I was amazed to see that both undercarriage doors were still attached to the aircraft. I seemed to have got away with it this time.

Soon a bronzed bare-chested chap was trudging towards me through the field and, on arrival, introduced himself. It turned out that he was an off-duty policeman who had seen me flying very low from his garden and then thought he had witnessed a crash. Unfortunately, he had called 999 to report an air crash before leaving his house.

Having ascertained that there were no injuries he managed to call off the ambulance, but very soon two fire engines and four police cars arrived on the scene. The firemen started asking about other passengers and fuel but became quite disappointed to find there was nothing flammable in the aircraft and that I was alone and neither trapped in the wreckage nor injured. I was then interviewed by a very polite young female police officer. One of her questions was "Do you know what went wrong?". I think she was puzzled by my response that "I just ran out of talent."

Open the gates

The farm manager and his assistant then turned up and were very helpful about arranging for gates to be opened. They made it clear that they were not concerned about crop damage and were just glad I was OK.

I was soon left to my own devices and, whilst awaiting the arrival of my recovery crew, I took off the tailplane and took it and the parachute to the gate. I was just getting back to the glider when I heard the unmistakable sound of an approaching Merlin engine. Suddenly a two-seater Spitfire with invasion stripes on its wings burst into view and executed a tight turn to orbit the field.

He had clearly spotted the glider, but must have seen me standing up and waving as he then resumed his course and did a barrel roll as he flew over me! I could imagine him thinking that he had just downed me after a fierce dogfight over the fields of Kent!

By this time, the overcast sky had recycled and the day looked very flyable once more. If only I'd waited an extra hour



before starting on the task.

My trusty crew soon turned up and we pushed the glider backwards and downhill to a track running across the field that we had been able to get the trailer onto. We soon had it derigged and in the trailer.

Back at base we examined the glider carefully and removed a lot of barley from the wheel well and cockpit. Fortunately, we

couldn't find any damage apart from a small scratch on the underside of the nose.

1: CTA is the volume of controlled airspace that exists in the vicinity of an airport.

2: See *Epic Thursday*, pp10-12, *S&G*, Oct/Nov 18.

3: In larger-scale cases, controlled airspace is known as a terminal manoeuvring area – TMA.

Andrew, from Surrey Hills GC, landed in a field of barley that was about three-feet high

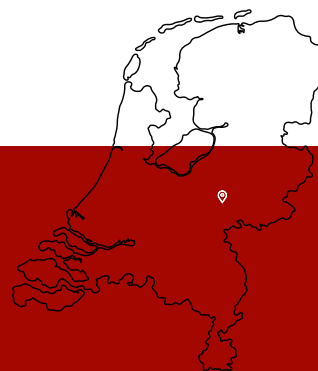
■ **Do you have a landout story – from heaven or hell – that *S&G* could include in this series of retrieve tales? Please send it to editor@sailplaneandgliding.co.uk**



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This page, anti-clockwise from top:

Steve Codd's K-18 after a complete refinish at Portmoak post-lockdown. How many glider pilots still out there flew in her, first solo or cross-country? (Steve Codd)

K-21 from P2 Peter Wilson's perspective during Lasham's Jaca Expedition. The photograph shows the foothills of the Pyrenees, trying to get away on 11 March, two days before Spanish lockdown

Rutland Water and Frampton Marsh, with the River Welland and the Haven from Boston entering the Wash, Norfolk coast in the background. Phil Jameson took this photograph from his Libelle 201B on 12 July on a 100km flight from Crowland

Adrian Docherty's Diamond distance and goal flight on 28 July, flown in a Duo Discus XLT

Facing page, anti-clockwise from top:
Cloudbase a bit low, but on reflection... Surrey Hills' Steve Codd took this photograph from R36 at Portmoak on 8 August

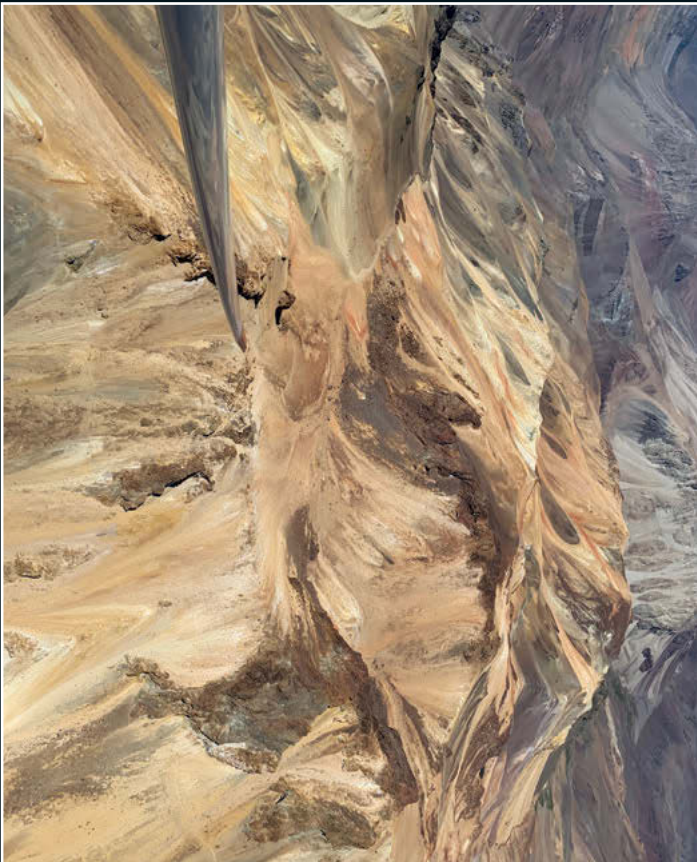
Photographed by Paul McLean during an expedition to Chile with the RAFGSA. Stunning scenery and 15kt thermals. The mountain is Mount Aconcagua, which, at 22,841ft, is the second highest in the world

Early start at Lasham (Jordan Bridge)

New car sir? Steve Lynn took this over Bedford from the back of EB28 13 on a 630km flight with Ed Downham on 29 July: Bovington, Radnor, Caxton Gibbett

■ If you would like your previously-unpublished photographs to be considered for inclusion in Gliding Gallery, send them to: editor@sailplaneandgliding.co.uk or upload to: www.sailplaneandgliding.co.uk/dropbox





AGREEMENT TO FIND WAY HOME

Seven years of hard work by Southdown GC's Craig Lowrie pay off with a LOA

SOUTHDOWN Gliding Club is located just six miles from the South Coast and has substantial amounts of air space, primarily for Gatwick airport, immediately to the north. This extends the journey home from the inland soarable areas and normally these kind of restrictions would limit the cross-country potential of a club. Despite this, many flights of 500-800km have been flown from Southdown as the pilots have learnt to live with these limitations. On

a typical good day, the sea air will be drawn inland and kill thermals in the local area, requiring gliders to climb high near Lasham and then start a final glide of almost 50km to reach home.

When the idea of Farnborough creating large areas of controlled airspace emerged, the club was clearly under significant threat regarding its ability to glide home from long cross-country flights, potentially ending serious cross-country flying for the club and, with it, negatively impacting a key growth strategy.

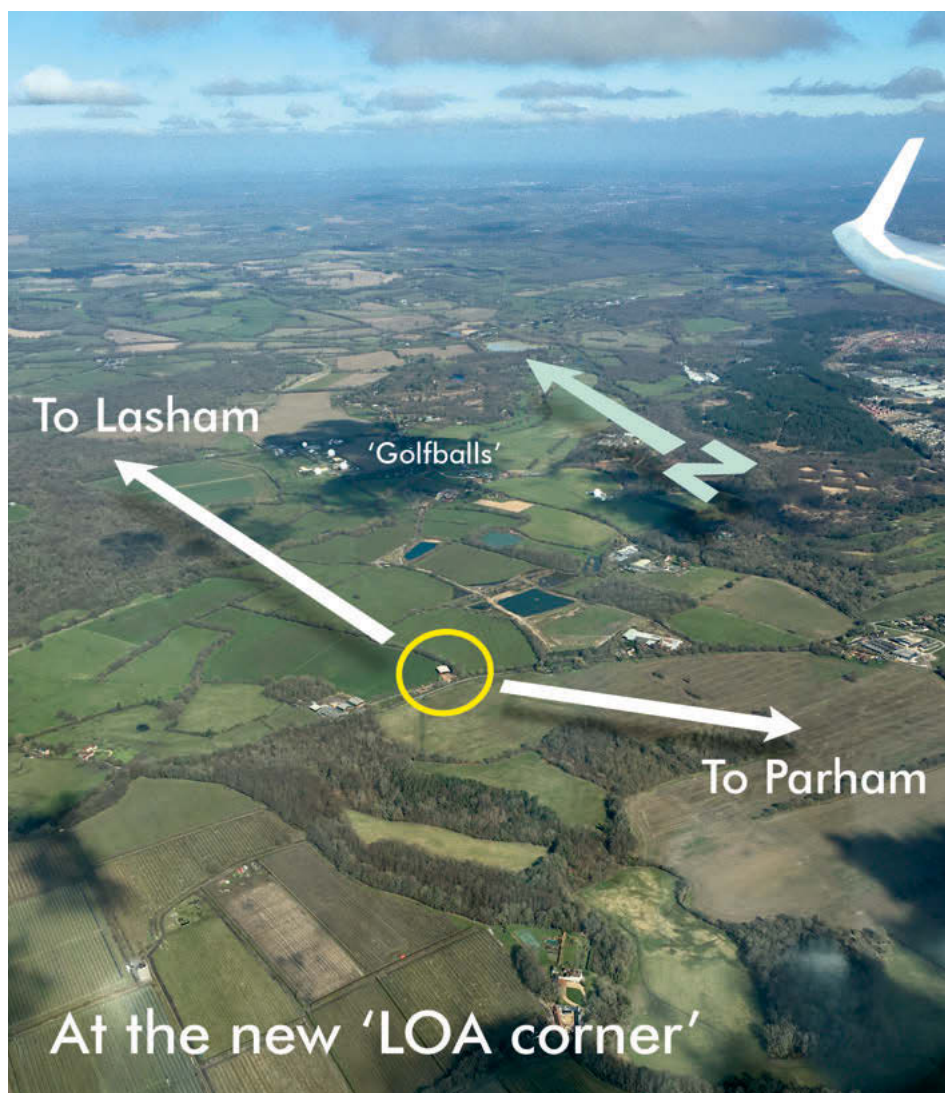
Discussions took place over many years and the proposed airspace looked like a compromise we could live with, but, in a final twist, the design was changed and a small but very significant area of airspace (CTA7) was added which blocked our route home. Despite raising serious concerns, this design was approved and it was clear that we needed to find a solution or potentially risk losing the club.

Lengthy discussions with Farnborough and the Civil Aviation Authority (CAA) followed and, without getting into the details, I can report that a workable compromise was reached which introduced a Letter of Agreement (LOA) from June 2020 based on electronic conspicuity, a dedicated conspicuity code and a much-simplified clearance dialogue. Establishing the case that this was a 'Primary and Essential Route' for our club was central in securing this solution.

So, armed with our agreement and with suitable technology installed, air traffic procedures in place and training complete, we began to make use of this to glide home after long cross-country flights. Clearly it is still very early days. However, we go forward with a degree of optimism as a number of our pilots have used this agreement to get back home already.

How does it work in practice?

The diagram (see facing page, top right) shows the new areas of airspace and some areas (shown in red) are effectively 'No-Go'



areas for us now; CTA8 and most especially CTA7 are areas that we can now access using the LOA. Without being able to cross CTA7, our distance to get home would be increased by 17 per cent and CTA8 would require us to throw away valuable altitude making the situation even worse. The LOA allows us simplified access to these areas, making the glide home only slightly worse than it was before the new airspace was introduced, albeit with an increased pilot workload.

A typical cross-country from Parham starts early in the day such that convection depth means it is rarely necessary, or indeed possible, to penetrate CTA7 on the outbound leg.

The flight discussed in this article was a 530km, 100km/h task (Parham-Great Malvern-Petersfield West-Swindon South-Parham) that I completed in July, making use of the LOA on the return trip home.

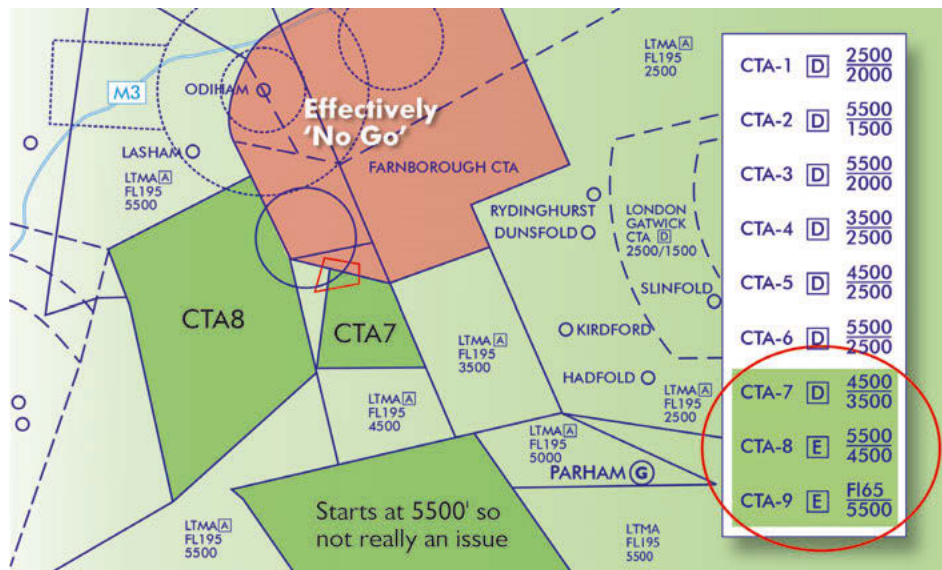
The task had a second turning point south of Lasham (PTW) and the ability to power-up the transponder and then climb above the CTA8 base of 4,500ft in the Class E+TMZ airspace, without any radio dialogue, helped to avoid the usual turning point challenges. After turning Swindon as the final turning point, I headed back towards home and then called Farnborough to obtain clearance when I was just to the south-west of Lasham.

Communicate

Our LOA allows us to communicate with Farnborough Radar using their much quieter approach frequency, which I had selected ahead of time and managed to hear and set their QNH ahead of my call. So, with the transponder turned on and our dedicated conspicuity code pre-set, I made the call and asked for clearance using the 'Parham Inbound Route'. Farnborough asked me to verify my altitude on their QNH, which I had already set. Having supplied that, clearance was granted and I proceeded to glide through CTA8, but by the time I reached CTA7 boundary I had fallen below the lower limit (3,500ft) of the zone. Luckily, the sea air had not reached this area yet and I was able to find a thermal in the middle of CTA7 and climb back up into this zone, before setting off once more on track for Parham. Once clear of CTA7, a final short call was made to complete the process and I could continue to glide home, which was rather marginal on this day and would have been unlikely to be successful without making use of the LOA.

The following day, I completed a 675km, 101km/h task and again used the

Which bits impact Southdown?



LOA without any problems, making use of some additional (and less frequent) agreed dialogue relating to jet traffic in the vicinity. Farnborough advised me of the traffic and I simply confirmed a visual and all was well.

On another day, I was following a Parham glider pilot, who used the LOA for the return trip and was just five minutes ahead of me. Farnborough handled this without any problems. Not having a commercial pilot background, talking to controllers is not something that I am used to, but the simplified dialogue really helps and will help other Southdown pilots who are in a similar position.

Conclusion

As a club, we are at a very early stage of using this LOA and are busy fitting transponders as fast as we can. In practice, many won't be fitted until the thermal season is winding down, so I don't see the LOA being used to its full potential until 2021. We continue to log all transits and feedback from the pilots is generally good. The Covid-19 restrictions have meant that I have had to run a number of Zoom video training sessions for our pilots and it is an absolute requirement that a member attends one of these sessions before making use of the LOA. All gliders using the LOA **MUST** also have a moving map with up-to-date airspace installed. We have just fitted moving map/transponder equipment to

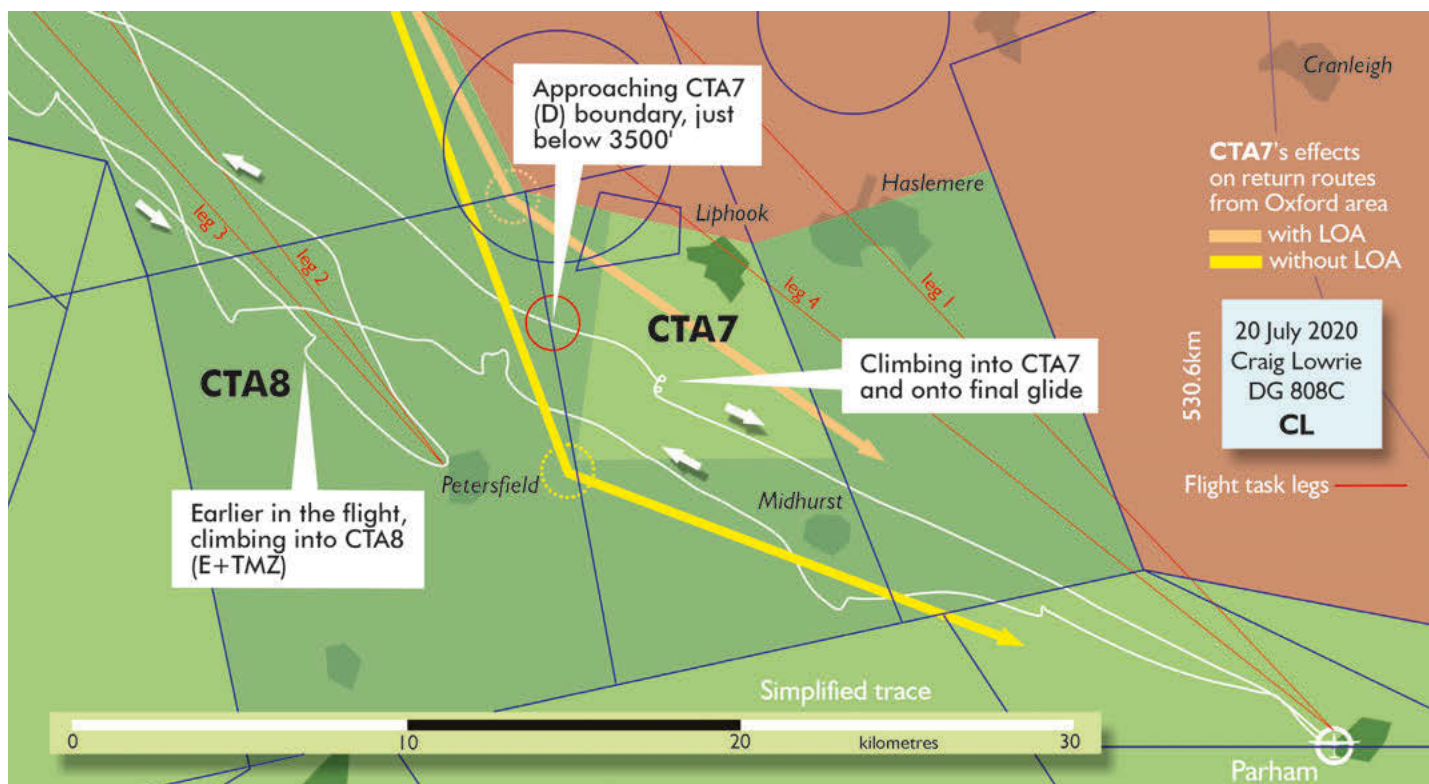
The main issues for the club are CTA8 and, especially, CTA7

(Graphic: Steve Longland)



Escaping Farnborough airspace heading NW, to the SW of Lasham. Just in CTA8, but with the transponder running (Craig Lowrie)

**SIMPLIFIED
DIALOGUE
REALLY HELPS
AND WILL
HELP OTHER
SOUTHDOWN
PILOTS WHO
ARE IN A
SIMILAR
POSITION**



Craig Lowrie has been a member of the Southdown Gliding club since 1983 and has held various positions, including DCFI. He is now in his third (three-year) term as club chairman. Craig completed the first 750km diploma flight from Southdown in 2003 and currently holds the distance record with a declared flight of over 800km flown in 2018. He sees securing the Farnborough agreement as one of his big successes for the club, along with purchasing the airfield in 2009 and navigating the club through the Covid-19 pandemic this year.

Craig Lowrie's flight on 20 July utilised the LOA that was the culmination of over 3,000 hours of work by Craig over seven years relating to Farnborough airspace (Steve Longland)

✈ our DG-505, with the LS4 and K-21s to follow. We also have an installation in our Grob 109b club motorglider and will use this to train less experienced pilots on the use of the LOA.

The establishment of this LOA is the culmination of over 3,000 hours work by me over about seven years relating to the Farnborough airspace. My work is not yet done: there is now fitting a significant proportion of the transponders; the post-implementation review response to manage as we provide feedback to the CAA; and the maintenance of the LOA with Farnborough on a periodic basis. All of this will require ongoing involvement.

So, what are the lessons learned?

- Engage early on with the Airspace Change Process (ACP). The Farnborough ACP was conducted under CAA CAP 725, now replaced by CAP 1616. Get to know the process and the opportunities to provide feedback.
- Make a case for the impact of any airspace change in terms of utilisation of airspace and criticality to the viability of the club's operation. The airspace may not be adjacent to your club, but still have a significant impact on cross-country flying.

- Appreciate that the CAA and the airspace sponsor may not have an understanding of gliding – once explained, they are more likely to be amenable to compromise.
- Keep any negotiated LOA as simple as possible for all parties concerned.
- Understand that many glider pilots are not familiar with interacting with ATC (air traffic control).
- Appreciate the workload of keeping a glider airborne, navigating, communicating and squawking a Conspicuity Code. Training is therefore critical and don't send early cross-country pilots through controlled airspace without suitable preparation.
- Finally, share the workload of interacting on the airspace change. Call on whatever club experience is available, including commercial pilots, and liaise closely with the BGA airspace representatives.

Personally, I am pleased with the outcome, which leaves Southdown continuing to be a first class all-year-round cross-country club. Things could easily have been very different and for this I must thank the CAA for their help in facilitating this solution and for the teams from Farnborough/NATS who embraced the challenge and worked constructively to reach the final agreement.

QUALITY TIME AT ISSOUDUN



Finn Sleigh introduces a report on this year's junior training week in France

SINCE 2014, every summer the UK Junior Development Squad has visited Issoudun, Central France, for a week of team training led by Brian Speckley. Despite the travel and aviation restrictions in the early part of the season, in July the rules had been relaxed enough for us to make it out to France for a week of quality flying together.

For those unaware, the Junior Development Squad is a group of 10 promising pilots picked by the British Team Coaches. Often, but not exclusively, the British Junior Team – four pilots who will compete at the Junior World Gliding Championships – is picked from within this group.

The aim of the squad and training is to help develop each member's cross-country flying and racing technique to a standard that will allow them to compete, and hopefully win, at an international level. Over the past five years this has been an extremely successful process, with Tom Arscott and Jake Brattle (both Development Squad

members) going on to become Junior World Champions in 2015 and 2019 respectively. I have been lucky enough to be a member of the Squad since 2016, and it has been a pivotal part of allowing me to progress in my gliding. The novelty of being able to fly with, race against and chat gliding with the likes of Brian, G, Tim and co is a privilege that will never be lost on me!

This year we were extremely lucky to have five coaches for the week: Brian Speckley, Tim Milner and the current WGC Club Class team of G Dale, Tom Arscott and Jake Brattle. The week was well structured to ensure we maximised our time out there. It was run as an informal competition in order to soothe our competitive souls, with daily weather, task, and theory briefings, as well as extensive debriefs after each flight.

As always seems the case, Issoudun's weather was very kind to us and, despite two scrub days, this was probably was best week of flying I've had there. Regular high cloudbases made for some of the fastest

Above: Coach Tom Arscott flying in his LS7 alongside fellow coach Jake Brattle. The coaches were getting some quality training in too! (Jake Brattle)

Below: Emily Nutt (Ollie Sleigh's crew) and Tom Arscott, flying on a scrubbed day (Tim Milner)



THE RULES HAD BEEN RELAXED ENOUGH FOR US TO MAKE IT OUT TO FRANCE FOR A WEEK OF QUALITY FLYING TOGETHER

I REALLY FELT A SPIKE IN MY DEVELOPMENT DURING THE TRAINING WEEK, AND THE BEST BIT ABOUT IT WAS THAT IT WAS INCREDIBLE FUN WHILE LEARNING A HUGE AMOUNT



Squad peloton: most evenings, mornings and scrubbed days the entire squad was out cycling (Tim Milner)

✎ Club Class task speeds I have achieved to date, giving us six solid days of training.

We even managed to make it out for some post-flight and scrub day peloton rides. Rather than bore you all with a day-by-day account of the week, myself and two other squad members have put together some of our best moments, biggest lessons and most interesting points from the week. We also have a short piece of creative writing from our coach, captain Tim Milner (far right).

FINN SLEIGH

Biggest lesson: For the past three seasons I've been solely focused on preparing for – and competing in – the previous two Junior World Championships. This has meant learning to fly with a team mate, almost

exclusively flying as a pair to practise our team flying. This year has been very different in that respect, as I've been flying alone. Issoudun was my first chance in quite a while to experiment with tactics and flying decisions in an informal, yet still highly competitive environment – something which is not always so easy to do when you have a responsibility to, and influence from, a team mate.

Best moment: We planned one task so we had a 50-minute window in which the start line was open. As you would expect, everyone waited until the very last moment to start, resulting in what was effectively a Grand Prix task with 10 gliders. It was great fun and we all pushed really hard to try and be first back. Jake, G and I finished within 10 seconds of each other after 220km of close-quarter combat! It is really unusual to

have a task like this and I was grinning all the way around as we all chased each other down!

Most interesting points: Besides discovering how much faster Tim is on his bike than he looks (sorry, Tim!), this year was the first time I've ever seen a junior squad and senior team training together. It was interesting to see how we all compared, and great for us all to look up to see what we need to do to compete at the very top level of the senior stage.

TOM PAVIS

ISSOUDUN training week was a first time for me, where I learnt a lot and thoroughly enjoyed the whole experience. It was also a first time for me flying in France, where the weather was fantastic and well worth the drive from Yorkshire!

The best flight for me has to be the last day of the week in the Duo Discus with Tom Arscott, where I learnt so much more about competition flying. The task for the day was an AAT, which was good as I have not done many. It started with Tom showing me how to plan the task properly, then how to fly an AAT correctly. I also picked up a few tips on thermalling and centring efficiently, which I can now work on.

A couple of interesting points from the week were gleaned from being able to listen to the senior team when they were planning the task. We were able to listen to them in the air when they were team flying, which was very interesting.

Thank you to everyone who came for making it such a great week. A big thank you to all the coaches for the week, also for doing the Zoom calls in spring.

GEORGE WHITE

Best moment: Getting round an AAT on a map – on the second AAT day (day 6), my Oudie failed due to the heat, I imagine. The LNAV in the glider was being temperamental, and the backup Oudie had a burnt screen and no GPS, so I had no other option but to use a map from the first turnpoint onwards. Luckily, there were lots of ground features in the area which I could line up with my routing options, so I had a good idea of what I was doing. I had only previously had to use a map for my Cross Country Endorsement a couple of years ago, so it was a bit of a challenge. However, I started to get used to it, and got comfortable using the others' turning points in the sectors to show me where I should turn to clip each sector.

I remembered in one of the training lectures back in lockdown that we should use a watch as a last resort for getting the time elapsed and remaining on task, so luckily I had that to tell me whether I was coming in over time. In the end it worked out pretty well and I was only slightly below the others with 92km/h. More by luck than judgement, I reckon.

Biggest lessons: Using ground features and terrain more for awareness and potential triggers, especially on blue days. On my



Colin Hayes (crew) flying with Tim Milner in the Duo towards the Sologne forest, which dominates the area (Tim Milner)

coaching flight with Tim Milner, we spent the time before starting looking up the track of the first leg and getting really comfortable with ground features and a plan of where to go. As it was an AAT, it was crucial to have a rough idea of what we were going to do before starting. I found this a really useful lesson.

Work on processes and checklists to focus more of my effort on flying – I had a beautiful Std Libelle to fly for the week, courtesy of Brian Speckley. This was a new type for me, so it took a bit of time to adjust to. However, I have just over 20 hours in the Libelle 205, so it was not a big change. I found flying it really enjoyable.

Crew at an international comp if possible to expose myself to the high level of competition, so I am best prepared in the future for what to expect.

Most interesting points: The weather – incredible conditions which seemed the norm to all the locals. seven out of nine days tasked, with every day varying from the next. This really aided my learning to see how to best tackle each day.

The briefings and debriefs were so useful for me, as I could see how everyone planned their flights and what they were looking out for in certain tasks that I would never have thought of. Simple points like deviating to the drier land to try and find better climb

rates, or maximising AAT geometry in a way that I would never have spotted. I really felt a spike in my development during the training week, and the best bit about it was that it was incredible fun while learning a huge amount.

■ As you can see, it was a great week for all involved and I'm sure the training will prove vital in a year with very limited hours and competition opportunities. As I write this, I'm on my way back from the Czech Republic, where Toby Freeland, Henry Inigo-Jones and I have been flying their Nationals and Pre-Junior Worlds in the hope that we get selected to fly the Junior Worlds, being held there in 2022. We have an article planned for this adventure so keep an eye out for that in the next S&G. Other squad members have all been flying regularly once back in the UK, putting the lessons from Issoudun into practice.

As always, this wouldn't have been possible without the huge amount of time dedicated by the coaches to help organise an overseas trip. This year especially, with the added Covid-19 complications, required a really big effort to make it happen in a safe and responsible fashion, so a huge thank you to you all. Another big thank you to the team at Issoudun, who welcomed us with open arms (not literally!) and managed the briefings in a very sensible and Covid-19 friendly fashion.

TIM MILNER

I'M STRESSED! I've been straightjacketed into a French Duo Discus, it's techno hell. Even if I could work the LX Nav, it's all in French. The instruments are metric, it's blue, it's hot, the canopy is steaming up. I'm mastering the black art of KRT radio frequency changes without my glasses (don't ask). I'm negotiating entry to Military airspace over Issoudun whilst running the start line using dual channel!

At moments like this, every instructor needs an Ollie. Ollie Sleight is a junior squad member and just happens to have an SD card in his pocket to reprogram the LX. Ollie finds the air vent, centres the thermal and prevents my meltdown.

Cumulus appear and we race the Club Class team. Racing better pilots and analysing your flights is our key to improvement. Next day it's the turn of 17-year-old George White; he seems to have learnt in two years what took me 30. Watch out for George! Then Toby Freeland, with an idea from competition sailing, suggests we use time-lapse footage to record the flight. With a changing altocumulus sky it gives fascinating results and is something we could develop more next year.

We were lucky to have a cross section of coaches there: Brian Speckley, Tom Arcsott, G Dale and Jake Brattle. All feed the junior's appetite for knowledge.

Enthusiasm breeds enthusiasm; it's hard not to get carried along by these guys. It's fair to say that the squad found a training formula that worked and all those present benefitted.



Stephanie Smith launches in K-6, Bymbo, during the 2019 Vintage Glider Club Rally at Tibenham (Keith Sowter)

BYMBO IS BACK

Stephanie Smith keeps her Dad's memory alive through the restoration of his beloved K-6

I STARTED flying gliders in 1999 and spent most of my teenage years on Wormingford airfield, flying anything I could get my hands on. I soloed on my 16th birthday and, shortly afterwards, converted from two-seater gliders to single-seat gliders. Eventually my Dad decided to let me fly his glider, a K-6CR called Bymbo.

Bymbo's name comes from her original trigraph registration – BYM. She's always been referred to by this name and that will never change. Bimbo is also the name of Betty Boop's dog (albeit spelt with an I not

a Y), hence Dad's mascot in the glider was a Betty Boop and Bimbo model.

Bymbo was built in 1966. She has an interesting history of owners and adventures over her years. Until recently I was based at Bicester Gliding Club, which was like Bymbo returning home as she was an RAFGSA Centre glider at Bicester in the late 1960s to mid-1970s.

At the end of 2016 Dad was diagnosed with terminal cancer, and he passed away in late April 2017. We had disagreed about the glider in his final weeks as he planned to sell her on, but I argued that she was part of the family and I wanted her. I'd even been trying to figure out how to buy her if she was put up for sale, and it turned out a few friends had the same idea. In the end, Dad agreed to sign Bymbo over to me as my inheritance when he realised just how much Bymbo meant to me.

Bymbo had not been flown since 2014 when I inherited her, as Dad hadn't been flying her and then became ill so lost his medical to fly solo. This meant a lot of missed maintenance over the years. Thankfully, friends had kept her



Dad, Kim Smith, with Bymbo



A vinyl decal in the cockpit means that Stephanie's Dad can continue flying with Bymbo

safely stowed away in pieces throughout the hangars at Anglia Gliding Club (Wattisham).

The biggest concern was missed inspections of the glue in the joints in the wings, tailplane, rudder and fin, which are meant to be carried out every three years. Wooden gliders are made using several different types of glue, and one called Kaurit has longevity issues caused by high humidity and ageing. In 2013 a glider had an inflight failure of deteriorated glue joints due to tension and torsion during an aerobatic manoeuvre, causing the right wing to break up, so it is a serious concern.

To inspect the wings, multiple holes are cut in the fabric outer layer, a borescope camera is inserted to examine the rib joints and then feeler gauges are used to determine if the spar joints are serviceable. The same is done to assess the rudder and elevator condition.

Thankfully, Bymbo passed her structural inspections, mainly due to the major rebuild she had in 2000 after she hit a tree.

There are still some Kaurit joints from manufacture and previous repairs, so the inspections are vital to ensure airworthiness and for my



Above left: Wings in the EES Aviation workshop

Above right: With every trailer panel the carpenter removed he found more rot



Crash damage after Bymbo hit a tree in 1999 resulted in a major rebuild

I BURST INTO TEARS AS I WATCHED THE LAUNCH; I HAD THOUGHT I WOULD NEVER SEE HER FLY AGAIN

I WAS 10 when I started gliding, in April 1999, at Essex & Suffolk Gliding Club. My Mum had bought my Dad a trial lesson and after watching his flight I declared that I wanted a flight too.

I used to save my pocket money to pay for winch launches and eventually got a paper round to fund my flying. On 16 September 2004, my 16th birthday, I skipped school and soloed in a K-13. My first flight in my Dad's K-6CR, Bymbo, was on 12 April 2006 and while flying her in July 2007 I gained my Silver height.

I moved up to Newcastle Upon Tyne for university and joined Borders Gliding Club, where I had my first solo aerotow. During the second year of university I ran out of disposable income and time, which led to a four-year hiatus from gliding while I finished my degree and then settled into my role as an aircraft mechanic.

In 2012 I joined Chilterns Gliding Club, but after 18 months of struggling to keep current and fly at weekends around my shift pattern I took another break. After Dad passed away in 2017, I decided to throw myself back into the gliding world, starting with a 338km cross-country flight at the Bicester Regionals as part of the Women Glide two-seat training programme. In 2018 I joined Bicester Gliding Club and, after some refresher training, I resolved again and set about getting Bymbo airworthy.

While waiting for Bymbo to be ready I converted to K-8 to gain single-seater hours again. Summer 2019 saw me have my first flight in Bymbo since 2007, my first aerotow in her and my first Vintage Glider Club Rally at Tibenham. Now I'm settling in at The Gliding Centre, Husbands Bosworth, and have recently completed my Bronze and Cross Country Endorsement. I aim to complete Silver by the end of the year.

■ Recently I have taken over the role of running the British Women Pilots' Association Twitter account (@BWPA_UK). I'm hoping I can use this to encourage more

BWPA members to look into gliding and to attract more women glider pilots to the BWPA.

■ I am one of the 2020 winners of the British Women Pilots' Association Easy PPL Ground School scholarships. This scholarship has given me an Easy PPL ground school course to support my studying towards the PPL module exams, with course material and practice exams for every module. I will be using this scholarship to start my training for a PPL and, in the long term, I plan to gain a towing and taildragger rating. I hope my gliding experience and engineering background will help me through the training and exams.



Stephanie Smith runs the British Women Pilots' Association Twitter account



■ This article was originally published on the British Women Pilots' Association website.

■ www.bwpa.co.uk

✎ safety while flying.

Unfortunately, there were other problems. The torque tube connecting the control column to the control rods had significant corrosion. It had to be removed and sanded down before it could be etched primed and repainted. The seat was cracked and all the fixings needed replacing. The control cables had to be changed as they were corroded in several places. The shoulder harness buckles had rusted and the fabric straps were fraying.

Due to regulation changes, the old maintenance plan was invalid. As a licensed aircraft engineer, I am familiar with airworthiness directives, service bulletins and other regulatory requirements. So rather than pay for an inspector to draw up a new plan, I did it myself, saving hundreds of pounds.

Finding the information required to build a maintenance schedule was easy, but time consuming. The new maintenance plan allows easy tracking of when maintenance is due by calendar date, flying hours and number of launches.

Basic repairs

The next part of the project was the trailer, which had been stored outside and not looked after for years. I did a few basic repairs, including replacing tyres, filaments (bulbs) and the electrical connector to the car. I then towed it 500 miles to take Bymbo to Bicester for storage and the trailer to a carpenter for a rebuild.

I later found out that, given its condition, the trailer should not have managed five miles, let alone 500! What began as a small repair quickly escalated into a major rebuild. With every panel the carpenter removed he found more rot – the photos were horrifying.

Bymbo had her first flight in five years on 6 June 2019, two years after she was signed over to me. I burst into tears as I watched the launch; I had thought I would never see her fly again.

Although there was an experienced pilot at the controls, I watched with a knot in my stomach until she landed safely. I then took my first flight in Bymbo in 15 years, a wonderful moment that brought back so many memories of Dad. A friend made a vinyl decal to put in the cockpit so that Dad can stay flying with Bymbo.

There is still plenty of work left to do, but Bymbo is now airworthy and I can once again enjoy flying her.

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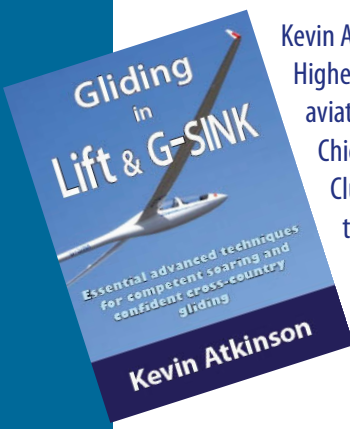
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RIETI LU



With UK nationals cancelled, Phil Jones realised that this was the ideal opportunity to fulfil an ambition to take part in an Italian competition with a legendary reputation

SO IT IS true when they say that every cloud has a silver lining. Following the extremely disappointing news that the 18m Nationals at Lasham had been cancelled, a group of us, including myself, Steve Jones, Peter Harvey and Derren Francis, suddenly realised that we might be able to take our Ventus-3 Turbos to the Coppa Internazionale Del Mediterraneo 2020 in Rieti. It was to be the first time that any of us had flown there.

We had always fancied this competition with its legendary reputation of high average speeds, fantastic convergence lines and

breathtaking mountain scenery, but it is a long competition that often clashes with other commitments and it is in the peak period of the summer holidays with two days travelling each way.

However, this is a year like no other and everything had fallen into place. It quickly became clear that the competition director, Aldo Cernuzzi, was determined to hold the competition if at all possible despite any difficulties surrounding the virus, which was a most refreshing and reassuring attitude. He could not have been more welcoming when we proposed our late entry, and went on to run the event in a very relaxed and charming



> **SAILPLANE & GLIDING**
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SILVER LINING

CK!



Phil Jones and Derren Francis coming in to land at Rieti (Max Kirschner)



Phil Jones in his Ventus 3 turbo, about to overtake Denmark's Arne Boye-Moller, who took this photograph from his JS3 18m

■ Phil and Steve both went to Rieti as children when their father, Ralph Jones, flew there representing Great Britain in the first European Championships almost 40 years ago, in 1982.

■ www.aeroclubrieti.it

■ www.soaringspot.com/en_gb/cim-coppa-internazionale-del-mediterraneo-rieti-2020

WE REALISED THAT WE HAD DONE OVER 160KM/H AROUND THE 430KM TASK, WHICH WAS A LITTLE EYE-WATERING

✎ manner whilst commanding our full respect and attention.

We were lucky that Jon Gatfield was already on the entry list and pointed us in the right direction on the ground and in the air, and Ben Flewett gave Steve and I a terrain map to copy and a comprehensive brief before we went, so a big thank you to them. Talking about luck, Derren was unable to make the first two competition days, but as they were scrubbed due to strong tailwinds on the only permitted take-off direction he didn't miss a thing! Scrubbed days are incredibly rare at Rieti.

We ended up in a beautiful five-star hotel overlooking the town of Rieti, which was about the same price as a budget hotel in the UK. The local wining and dining were truly amazing despite any minor inconveniences due to Covid-19 restrictions and it was almost worth the visit just for this alone, along with the opportunities to visit Rome and other attractions whilst they were so quiet. Lucky indeed.


Steve, Pete and I had three practice days to bumble around and try to familiarise ourselves with the area. The cloudbase was over 11,000ft on these days and after one of these sightseeing days we realised that we had done over 160km/h around the 430km task, which was a little eyewatering. Needless to say, the first four competition days were nothing like this as easterly winds set in, which is unusual and set us up for less than classic soaring days away from the high mountains whilst we tried to familiarise

ourselves further with the area.


Luckily the weather improved for the last four days and we were able to get some high quality racing in and flew eight of the 11 comp days as we had to have a rest day halfway through. I am not going to try and give a blow-by-blow account of the soaring days there. I just don't think I could do it justice. If you like the occasional 10-knotter and getting to run along high convergence lines without turning one moment and the next finding yourself running hard along a mountain ridge often at average speeds over 140km/h followed by exhilarating final glides, then this is the place for you.

It sounds simple, but in fact we often found ourselves changing our minds about the routes to follow as the sky developed in front of us. The tasks tended to be around the 400-450km distance in this mountain playground that I suppose is a similar size to the Southern French Alps area. It is a great place to fly, but it is very different from the Alps. You do have to be careful in some areas as the landing options can be limited at times, but please do not be put off by that.

I think a high-performance glider with a reliable sustainer system leads to a slightly more relaxed experience, but I wouldn't hesitate to go back there in a pure glider. And go back is what most people do, having had that first taste of Rieti. If I get lucky again I will most certainly go back for more. Next time we should be even closer to the top international pilots that have been there many times before.



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WORLD CLASS

Rebecca Bryan reports on an AAT coaching event for the Women's World Gliding Championship 2022 squad



Above: Rebecca Bryan flies her Shark at Gransden Lodge

Below right: Kelly Teagle liked Gransden Lodge so much that she returned for the club's Cloud Rally

■ www.wwgc2022.co.uk
The official 2022 Women's Worlds website (deferred from 2021 due to Covid-19)

■ www.womenglidle.co.uk
Women Glide work to encourage more women into gliding and competition flying. They hold coaching events and online lectures for all levels of experience.

■ www.bwpa.co.uk
Glider pilots are very welcome to join the British Women Pilots' Association.

SPREAD over nine days and five gliding sites, the WWGC2022 Squad AAT (Assigned Area Task) coaching week provided lectures, coaching and practice AAT tasks for the WWGC squad members. There were virtual remote morning briefings with weather reports, task planning sessions, AAT races (when weather allowed) and remote flight debriefs in the evening.

An AAT gives pilots an opportunity to pick where they think the best conditions will be in the sky. These types of tasks are not commonly flown by UK pilots, but will be set at the Women's Worlds being held at Husbands Bosworth in 2022. AATs comprise

large areas that the pilots are allowed to fly in. Pilots have to select the best route without being restricted to flying round specific turnpoints. This requires a different approach to flying racing tasks that have fixed, or variable barrel-size fixed turnpoints.

In club flying it's rare that people will fly an AAT, a racing task is far more likely to be set. For many, the first time they encounter an AAT is at morning briefing in a regional competition. Most of the squad have flown AATs, but because they tend to be encountered in competitions rather than day-to-day flying there's generally less experience of them. The AAT coaching week was designed to provide key knowledge, including the tools to plan and dynamically replan the flight.

Squad members at each of the different clubs have provided a summary of their week.



Gransden Lodge

Flying at Gransden Lodge were Rebecca Bryan, Wendy Head and Kelly Teagle. Wendy is a veteran of many regionals and nationals so is no stranger to AATs. Rebecca's first solo competition season was in 2019. It included many AATs! Kelly is based at Sutton Bank, but visited Gransden for the coaching event. Kelly mostly came for the weather, but took advantage of the opportunity to practise team flying. Kelly was so taken by the visit that the family Kestrel and caravan stayed behind and she returned for the Gransden Lodge Cloud Rally (8-16 August).

As well as planning the AAT tasks together, Rebecca and Kelly flew together on a number of days and practised flying as a team in their respective gliders. Friday 24 July was a flyable scrub day at Gransden, but as it was a flying week they flew together in a club K-21 before rain stopped the fun. It was good scratching practice.

Dunstable

Claudia Hill and Sally Walker are members of the London Gliding Club in Dunstable. Claudia was able to borrow an LS8 whilst her LS1-f is being refinished, and Sally flew her LS4 during the week.

Having a training week specifically focused on AATs has been invaluable. It's one thing going through the theory of planning AATs whilst in the comfort of your own home; planning an AAT on a busy airfield, with other distractions and before flying, is quite another. Workload can be raised significantly if you're not used to planning AATs, or familiar with setting tasks into navigation equipment.

Sally had flown AATs in competitions before, although not with the level of pre-flight planning or the frequency required for successful AATs. Claudia was able to share knowledge from her experience of flying international competitions and AAT planning with Sally during the training week.

Three consecutive days of good weather enabled both pilots to complete the AATs set. Days that were difficult to get away were used to practise soaring techniques, turning in sectors and final glides. Online lectures and discussions on Oudie settings, reading tephigrams to forecast weather, and flight



WORKLOAD CAN BE RAISED SIGNIFICANTLY IF YOU'RE NOT USED TO PLANNING AATs, OR FAMILIAR WITH SETTING TASKS INTO NAVIGATION EQUIPMENT

Left: AAT planning (Claudia Hill)

Below: More socially distanced
AAT planning with Philippa
Mugleston at Hus Bos



analysis were held on the two non-flyable days.

Planning of AATs does become easier with regular practice, leaving you to focus on flying the AAT once in the air. The training week gave Claudia and Sally plenty of opportunity to practise AAT planning and post-flight analysis, and they hope to fly more AATs together on a regular basis.

Husbands Bosworth

We were all originally meant to descend on Husbands Bosworth, but because of Covid-19 it wasn't feasible for the squad to all visit at the same time.

Fran Roberts and Philippa Mugleston flew all week, as this is their home club. Fran was flying an LS8 and Philippa an ASW 20.

The idea of the week was to get as much experience flying AATs as possible and to gain currency. Both pilots spent time each morning discussing and preparing for the day's flights. Considering the tasks were set remotely by Jeremy Pack, they were brilliantly set.

It was an insight to fly from the club where the worlds will eventually take place, as Husbands Bosworth airfield really does have its own unique weather system.

The tasks were set in all directions, and were a mix of 1½-3½-hour AATs. Both Fran and Philippa found the remote Oudie planning session, learning how to set up their Oudies to give the best information, really useful. Some of the useful settings

learned include tDelta (estimated time over or under) and t60 (task speed in the last 60 minutes of the flight).

Having consecutive days' flying AATs gave Fran and Philippa a great opportunity to sharpen their skills and consolidate the main rules of flying AATs, such as going as far as you can in the first sector, never coming back under time, being on final glide as the time runs out and not landing out, where possible! 🐾



Flying from Dunstable (Claudia Hill)



Above left: flying into the rain
(Jane Nash)

Above right: Jane Nash

Below: Mosquito 15b 'FBN' flown
by Jane Nash



Alison Mulder flew from her home
club, Nympsfield

✈ **Shenington**

Jane Nash and Carol Marshall were warmly welcomed at Shenington Airfield; Jane flying a Mosquito B and Carol flying the Silent.

The idea of the week was to be fully immersed in all things AAT, and they were.

Everything from remote weather briefings in the mornings, AAT tasks set by Jeremy Pack for each participating airfield and sent by WhatsApp, to evening flying debriefings held to analyse and critique the flights. Poor weather meant briefings on AAT planning and tactics and in-depth discussions around Oudie configuration for AATs.

Carol and Jane set aside time prior to each flight to discuss thoughts around how far and where to go in each sector; this chance to discuss tactics was invaluable. On 22 July, the set task was a three-hour AAT, Edgehill-Olney-Wantage-Stokenchurch Tower, which was perfectly judged and completed by both pilots with the final glide to Edgehill into rain.

Nympsfield

Alison Mulder was the only squad member flying from her home club, Nympsfield.

The week started well, with tasks received via WhatsApp, and weather briefings via Zoom. The constant beeping of Alison's phone meant she felt connected to the rest of the squad. Being the only participant at Nympsfield, this helped immensely to keep her feeling included.

Alison says: "The first AAT set out to



Hereford way, then up towards Bridgnorth. My plan of going far in the first sector was scuppered by higher ground and lowering cloudbases, inviting a landout. I found an amazing line of energy then to the north towards the second sector as the weather improved, I was racing again with 'keep going straight' ringing in my head. I didn't go far enough and got back early, factoring wind, time and conditions; needs more thought.

"Evening debriefs enabled learning from my own mistakes and from what others had done. It worked well, but nothing can beat everyone being in the same room. Blessed with some superb weather for a couple of days, I resolved to improve my AAT performance. Again learning was very useful from the dissection of tasks flown along with others.

"We had some ground school days, including Oudie sessions on how to get the best out of our instruments for AATs and I, hopefully, helped by explaining tephigrams.

"As the only member of the squad flying from Nympsfield, I was easily distracted by fellow pilots and their declarations of 500kms, 600kms and even 750kms, but I managed to keep focused most of the time. It was a shame about the Covid-19 restrictions; a week together with the squad would have been even better than our coaching week at different sites. We made the most of it and all learned a lot."

■ **With thanks to Wendy Head, Kelly Teagle, Claudia Hill, Sally Walker, Fran Roberts, Philippa Muglestone, Jane Nash, Carol Marshall and Alison Mulder for their contributions to this article.**

THE UPSIDES OF LOCKDOWN...

NONE, is the short answer: no flying; no sitting around the club table watching the clouds lower; no poking of smart phones and hopeful comments like "SkySight says we'll have plenty of thermal activity by 3 o'clock, if the rain doesn't arrive...". No excessive drinking of club Nescafe (actually Tesco's catering size) or early sandwich eating.

For an early-solo, the latter stages of the easing of lockdown were particularly galling as the flight tracker told the story of LS7s and LS8s, Astirs and Duo Disci cavorting in perfect conditions while those of us who had not managed to progress further than mere solo had to sit and watch and wait. Mind you, having spent so many hours in the back of a K-21, perhaps it was only fair the instructors got the first chance to fly their own gliders. Mike, John, Geddes, Phil, Robert, Stuart and Ellen, you deserved it.

Ah, but in the waiting there was productivity, in my case and thanks to the London Gliding Club, the invitation to slip aboard the Bronze Zoom sessions leading up to a virtual exam, also via Zoom. While the sessions under Martin Hayden were excellent, I would not recommend taking the exam via Zoom, if at all possible. For those of us used to exam papers that lie face down on wooden desks, to be turned with trepidation only at an invigilator's command, a screen full of questions which seem to dance in front of one's eyes and then disappear in what seems like seconds, is stressful – especially when some of your fellow examinees are in their teens and have finished in less time than it takes them to destroy an incoming alien in a game of Space Wars, The Final Reckoning.

As lockdown became a few weeks, then a few months, flying began to take second place to sailing. The time crucially gave me a chance to evaluate gliding. Was it becoming an obsession? Yes. Did it take over all my waking hours? Not quite, but almost. Come Friday, was it nerve wracking wondering if conditions would be flyable? Yes, doubly so in my case as it entailed a two-hour drive to Easterton. Was I desperate? Not yet.

With that pesky Bronze exam safely behind me – the first exam in over 40 years – I could honestly say that lockdown had not been wasted. More to the point, I now saw gliding in better perspective, and could assess with some objectivity my aspirations and limitations. A good club pilot, no more, with a modest flying range; an ambition perhaps to fly from Easterton to Feshie, alone or more realistically as a competent P2.

Not wasted time then. Not least, when I plucked up courage to look at my flying account into which I pay a modest, but not nearly large enough, sum every month. I discovered that over the months of lockdown I now owed around £10 and, if my memory is correct and I did in fact put £15 into the kitty for a mutual flight in January, I may even be in credit. Just in time to start spending it all again, much like an alcoholic who falls off the wagon.

STOP PRESS

On 18 July, after almost exactly four months, I was finally allowed into the front seat of a K-21, masked and keen to discover how much I had forgotten. Answer: a fair bit. Coordination, speed control, landing checks, where do I stop? After nearly two hours cavorting in strong but narrow thermals over Rothes, I made the correct call: head for home. At 800ft, I dispensed with a circuit to land straight on the centreline, alas, effectively blocking the launch of John's luscious new LAK.

It was the CFI's turn on a more benign following day, and after a short flight (landing checks remembered, radio call forgotten) I was sent up alone. Two days later, three flights in the Junior ended an enjoyable, but rather expensive, re-soloing. My only regret? Not listening to the sound advice to take a tow to where an LS8 was circling into the blue rather than trying, and failing, to find my very own thermal. Oh the arrogance of age...

Adrian Morgan uses lockdown to pass his Bronze exam, and eagerly returns to the sky



Social distancing while watching the skies at Easterton (Bruce Gordon)



Adrian Morgan soloed last year at Highland Gliding Club. A keen sailor, he first experienced gliding 30 years ago as part of a journalistic assignment that resulted in a slim paperback book, *Gliding in 8 Days*.



ADVISORY 15: GOING ON AN EXPOTITION...

Ebenezer Grimshaw
returns to break
taboos, dispel
myths and restore
reality for newbies
venturing into
mountain country

*Into my heart an air that kills from yon
north country blows
What are those brown-remembered hills...
what frights... what scares are those?
That is the land of lost content... I see it
shining plain
The happy flyways where I went. And I
must go again!*

*(With grovelling apologies to Housman and all
things Shropshire.)*

YOU did it! For some mad reason...
drunk or sober (we do not enquire)
you signed up for your club's Annual
Expotition (as Pooh Bear would call it) to
mountain country. Not exactly Pooh's 'North
Pole' stroll, but it is a long way... 634 miles
for me. Just getting there needs an Advisory
in its own right, but here are two tips:
Tip 1. Sign up for a middle week. That way

you'll not be asked to tow one of the club
gliders for hundreds of miles in wild scary
country... usually on your own.

Tip 2. Don't ever, on your own, towing a 30-
foot trailer full of Someone Else's Glider, pull
off the road on to an easy-angled left-hand
fork up a side track to stop for a pee, light
up a ciggy, ring home or consult the map. It
may have been an easy place to stop, but it's
a nightmare to re-start. How do you slowly
reverse a valuable 30-foot trailer back out on
to a twisty 'B' road without a fearless co-driver
60 feet back assuring you there's no fast and
furious Scotsman about to belt straight into
your rear? Mind you, as an Awkward-Situation-
You-Should-Have-Foreseen and as a general-
purpose scare, allow this to prepare you for
what's to come. You're in mountain country
now... you have to wise up and toughen up!

We're here for one thing... wave... but it
can be elusive. It took me three expeditions
to re-solo in mountain country and I was
convinced the wave thing was all a con.
Older, wilier, pilots going to incredible
lengths to convince us newbies that, like
Father Christmas, wave was real.

Then one day, urged by a fearless
Instructor to "take the K-21 for a solo... seems
silly to leave it sitting here...", I encountered
lift so strong the vario went off the stops and
stayed jammed at the top. In fact I never saw
the needle at all until I'd got past 10,000ft!
Amazed, I watched the altimeter winding up
faster than a stopwatch. Not even Grimshaw
could pass that off as hill lift... it was the
sort of thing you read about in magazines.

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And it's good to remind yourself, as you sit watching the rain and yet another day gets scrubbed, that this is why you're here.

But I'm getting ahead of myself. There are three Scottish mountain sites that attract us southern softies... Portmoak... Deeside... and Feshiebridge. Each one is a different world. Portmoak boasts slope soaring like you wouldn't believe (and wave), with two enormous hills just north of Edinburgh. Feshiebridge is less known... being weekends only... on the NW side of the 4,000ft Cairngorms, but I mean right smack on the edge. You couldn't get any closer! There's also Easterton on the Moray coast, which seems a vigorous club (Highland GC) but it's not really a mountain site.

My club expedition goes east of the Cairngorms to the drier micro climate of Deeside. Two tiny tarmac runways are narrower than my kitchen and quite short. Above 2,000ft you can hardly see them... just faint pencil lines by a bend in the river. The visitors' video is essential to explain the rules... the airspace is bizarre to say the least. You use the radio to call arrival. *Don't stop before the end of the runways and block them.* Nor must you 'weathercock' off them. This alone sharpens up your circuit planning and landing, that's for sure.

My biggest problem was precision crosswind landings. In most wind directions of any moderate strength you can expect to get thrown around quite a bit on the downwind leg. You soldier on... trying to be brave about it. You stay high... it's not like any circuit you've flown before and needs a fair bit of instruction. Throw away height only when you have to. Beware of going too far back... even in moderate winds... and turn fearlessly on to your crosswind leg.

Fearlessly

I say 'fearlessly' because there's a right and a wrong way to do this. The wrong way is to notice how tiny the runways still look. Feel how much you're being thrown around by the curl-over and general turbulence from surrounding hills. The natural instinct is to hang your head in your hands and burst into tears crying: *"I'll never get down onto that tiny line in crosswind gusts like this..."*. This is the wrong way to set about landing at Deeside.

The correct way is to pretend you're a Highland Scot. Centuries of mountain life rolling rocks onto the English have toughened you up. Remember what I said last time about confidence? You set your face grimly and you say out loud: *"OCH H*ll... I'm gonna set this*

*stupid machine onto that wee strip doon there if it's the last thing I bl**dy do..."*. As you pass through 650ft crosswind it usually quiets down as if by magic... repaying your faith... and you feel you stand a fighting chance.

Grimshaw's advice is don't forget to keep rechecking crosswind drift in the general panic... in most winds you don't need to touch down until a third or even halfway down the runway. So use the last seconds over (or more like beside!) the runway to reposition and make sure you plonk the wheel on the grey stuff. Keep the speed on... you need constant rudder authority to stop you weathercocking off the narrow tarmac... which is so easy to do! If you don't reach the yellow line near the runway end His Bobness Of Aboyne will descend on you like the wrath of God and... well... it's the oubliette for you! So don't slow too soon.

But you're also not supposed to run over your retrieve crew, waiting patiently at the end of the runway. See how they scatter as you hurtle towards them... watch their smirks disappear. What fun! Oh yes... forgot to say: You need a good wheel brake that actually works... I know it's unusual. Should have mentioned that before you took off...

Horror

All this fun pales into insignificance in a southerly wind... believe all the local horror stories! Both windsocks might well point towards each other. Anything can, and probably will, happen here... in a southerly.

Mine wasn't too bad at first. A little rough on tow-out, but you expect that. I got the Astir to 9,800ft above Ballater. But the skies kept clearing... the sun shone... visibility was good... it was nice and smooth. Lochnagar looked splendid. So much for all this scare talk about southerlies! After a pleasant hour or so I decided, out of the goodness of my heart, to let someone else have a go but it was hard to lose height. I tried whizzing round fast, high over Morven... the local hill of 2,800ft, but I had to pull the brakes out to commit myself. I called a seven-minute warning to my crew over the radio and then heard one of the local tug pilots come on loudly: *"Hey we no fly ze 'Air Experience'... is not good. No trial flights..."*. What? But it's such a lovely day!

I dropped smoothly through 2,200ft near Tarland then suddenly: WHAM! *Whoa... what's going on?* WOOOSH... WHOP! Flippin heck... it's suddenly very very lumpy! Then the tuggies come on the radio again... they're from Poland or Lithuania or somewhere and they're blinking good pilots: *"Hey we*

ALL THIS FUN PALES INTO INSIGNIFICANCE IN A SOUTHERLY WIND... BELIEVE THE LOCAL HORROR STORIES



A selection of suitable teeth settings for landing in mountain country...



DON'T TRY AND IMPRESS LOCAL CLUB MEMBERS WITH YOUR TALE OF TRIUMPH OR WOE. THEY'VE SEEN IT ALL BEFORE... DONE IT MANY TIMES



■ All cartoons by Ross Martin

■ **NEXT TIME:** Making a discovery

✂ *no fly at all... Is too rough. We no fly!"*. Superb timing... poor Grimshaw! Committed to his one-shot landing he's suddenly being chuckled around like a leaf in a gale! And surprise... it did NOT calm down turning crosswind. WHOOMP... WHOP... WOOOSH... Arrgh! More speed.

I was just about to turn finals with about 70 knots when WHOOMP I suddenly gained 30 feet. After a huge struggle I had the runway end coming up 40 feet below when WUFF... I shot sideways 15 feet to the left! Why the left? In a southerly heading 270 it should have been to the *right*... but that's Deeside for you. The cockpit air turned blue as I wrestled again using my most determined-ever teeth setting. But I got the damned thing down. It was a bit erratic... bootfuls of right rudder needed to stay on the tarmac... just... and taxi right to the end. My retrieve crew were impressed: "Hey we swear you went up 25 feet just before your final turn." "Yup... and sideways too!"

For the rest of the day I had the pleasure of watching Notables from other Southern clubs cocking it up. People far more experienced than me. They shot off the tarmac halfway down. They stopped short... blocking the runway... three ground-looped. One missed the runway entirely. Another sustained minor damage. But I had put my club's 102 down without incident and taxied all the way to the end despite being tumble-dried every inch of the way. Had our expedition Instructors realised how rough the brightening conditions would become I doubt they'd have let any of us fly solo... but I could now hold my head high. It felt incredibly satisfying.

The following year was less so. I was inbound not a mile out around 900ft steaming happily downwind in a north-westerly to begin the normal circuit onto 27 south when the vario needle dropped almost as far as it could go... *and stayed there!* In disbelief I put speed on... and more again, but I kept going down like a brick and then

hit a small shower... possibly the culprit.

Horried, I watched the angle of the airfield murkily decreasing by the second and seriously contemplated putting that same Astir down in the one field available... over the river to my left. But the sink slowly eased and I realised the safest thing to do at 400ft with the north runway clear was simply call a downwind landing... which I managed reasonably well. It unnerved our Instructors though. They heard about it later. So Grimshaw was back on checks... even though those who saw it agreed it was the right decision.

That's just a taste of what you can expect in the mountains. Mostly it's rain of course. But a final word of advice: Don't try and impress local club members with your tale of triumph or woe. They've seen it all before... done it many times. Their solo students must be scarily good. Club members seem friendly enough, but ask them why they're still haunting the clubhouse veranda when they've no intention of flying and they'll tell you "*Och laddie... we're here just in case the weather improves*". But they tell everyone that! I know what they're really up to...

Score cards

They're a secret judging panel... amusing themselves over visitor landings! They're very clever with their score cards... keep them well out of sight. It's very hard to catch them at it, but they don't fool me. And I bet they scored my heroic landings no more than a 5.8!

If you want to hear amazing stories just ask them about their more notable flights. You'll probably need a stiff drink. Last year, Hot Shots from Portmoak were on the radio high overhead for a northern turning point at Huntly. Then off to Islay... on the west coast... 170 miles away! They weren't in the air all that long either... whizzing along wave bars then jumping to the next at 7-10,000ft. Their average speed must have been something fantastic over some of the roughest, wildest regions in the country.

Expotitions are really an introduction. Get you a Gold Height maybe. Wave flying is a higher, wilder ball game than thermalling, looking down on clouds more than up! Joy, Serenity, Frustration and Terror get elegantly mixed! If you love adventure and want to sharpen your act you'll be back for more.

Strange but true as always...

*Ebenezer
Grimshaw*



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Photo: Alastair Mackenzie

#3 DYNAMIC MIXING AND FLOWS IN THE THERMAL FACTORY - PART 1



Fig 1: As the car accelerates, the helium balloon is driven forward by the denser air



Fig 2: As the car slows, the helium balloon is driven backwards by the denser air

GMAD – Gliding Mathematics and Atmospheric Dynamics

IN THE last issue, I mentioned the flows we feel in our operating layer whilst flying and how we can readily distinguish the vortex structure of a thermal, even down to 500ft agl, where they are detached from the thermal factory and the effects of ground features. Anywhere significantly below this height though, particularly, for example, on final or on a fast, long low final glide over flat ground, no such structure is routinely encountered.

What is buoyancy? The only vertical force on air is gravity. Whenever we talk about convection it is perceived as a 'force' that goes upwards.

If you put a helium balloon in a car and accelerate, the balloon will drift forwards (see fig 1). If decelerating, the balloon will drift towards the back of the car (see fig 2). In both these cases the resultant movement of the less dense balloon is driven by the heavier air going around it. Thus, in the same way in the vertical plane, lift is only as a result of surrounding sinking air which is denser. There is therefore no rising air without sink, but sadly we can get sink without lift! Our perception of what we call lift needs to change; convection is simply the result of heavier air sinking around it, which might generate 'lift' as a result. I reiterate that we have to have sinking air for thermal vortices at any height.

When discussing the structure of the sky we normally relate this to the layer of air between the ground and cloudbase as a single layer. The structure is better understood as two layers (occasionally more when the thermal factory is

outsourced!) with the lower one in contact with the ground being primarily considered the normal thermal factory. This lowest layer varies locally in depth, generally between 30ft and 300ft, and involves the numerous interactions of the air over a hard, level/undulating, smooth/rough, clear/obstructed, warm/cold, dry/wet surface and the interaction of a turbulent boundary layer. The depth is important as it contributes to the acceleration required to give the thermal any credible size, strength and stability.

Early in the morning just as the sky becomes unstable the layer is very thin, lacking depth. Thermals are very weak and lack significant additional surface temperature differential and, therefore, humidity content in the air, generating shallow short-lived cells and puffs of cumulus with a low cloudbase.

May I remind you about Lord Rayleigh and Raleigh's number?

Lord Rayleigh was an English mathematician and physics scientist, who in 1912 fathomed out that thermals in ideal fluids would change from a gentle shimmer to a toroidal flow pattern (smoke ring) at a particular rate of ascent.

This is important for two reasons. The first is to recognise that this occurs at about 2kts of air ascent so there is no core to centre in weak 1kt thermals (modern gliders fall at around 1kt) and, second, it gives us a solid understanding of the basic vortex structure that we are trying to centre in by feel when climbing stronger thermals.

Kevin Atkinson, Aim Higher lead coach

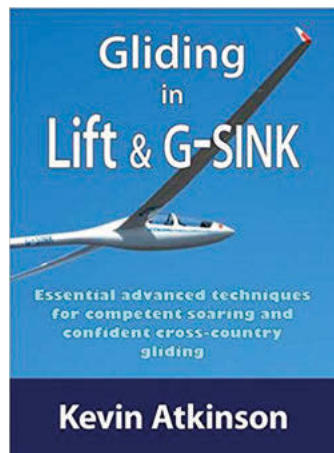


■ Aim Higher courses are held at clubs by arrangement, run either by Kevin or by club coaches briefed on the training materials and S&G articles developed by Kevin and Tony Cronshaw.

Please contact kratkinson@yahoo.com if you, or your club, would like to participate in future Aim Higher courses.



Kevin Atkinson is the club coach lead for the BGA Aim Higher initiative (www.gliding.co.uk/bgainfo/aimhigher.htm). With more than 7,500 military jet hours (Tiger Moths to Typhoon), Kevin started gliding at age 13 at Ouse GC (now York), flying his first solo on his 16th. Kevin has over 3,500 hours gliding, including competing in UK national and regional competitions

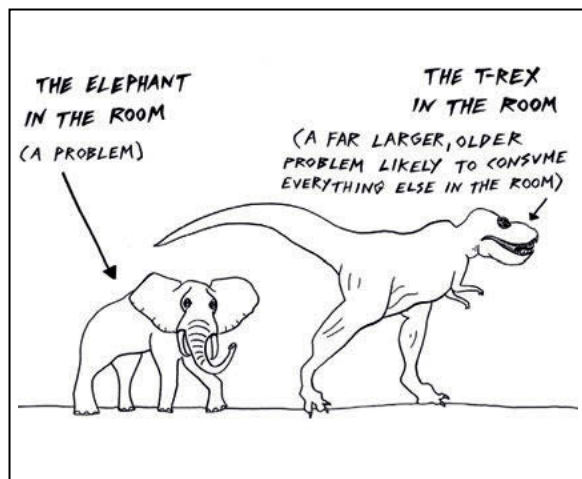


■ Kevin's book *Gliding in Lift and G-SINK* is available at www.bgashop.co.uk or direct from kratkinson@yahoo.com

MANAGING WAITING LISTS

WHAT does one 'do' with a waiting list? Let's start with the standard club management principles: putting solid club structures and processes in place, being accountable and planning ahead. How will you know when there is training capacity for a new cohort of pilots?

Next it is necessary to consider the waiting list from the perspective of the person on it. What will they want? Good question. Ask them. Regular communication is vital. What exactly are they waiting for? Is it just the flight training? What don't they need to wait to do? They could be paying a waiting list rate and be getting involved with all sorts of gliding activities and learning all sorts of useful and interesting skills.



Artwork reproduced with permission from The Misfortune Teller www.themisfortuneteller.org

■ **Alison Randle**
BGA Development Officer
alison@gliding.co.uk

SHOULD WE KEEP PEOPLE WAITING?

IN WHAT seems to be evolving into a little series on membership retention and lessons in good practice from lockdown, waiting lists have suddenly become relevant. As I write (which may have changed by the time you read this), more and more clubs are welcoming new students and potential new members as they restart a fuller range of two-seat flying.

In 2020, suddenly all our clubs have been operating de facto waiting lists. This is a long way from normal for us. It is something that clubs aspire to, but, in reality, what do we know about waiting lists and how best to manage them? I turned a search engine over and found a 27/2/18 article in *The Scotsman* 'Scottish golf clubs need to tackle brutal facts'. It's worth a read – it's a great illustration that gliding is not the only sport experiencing demographic challenges. In discussing the fall in golf participation the article notes the reduction in waiting lists as a

key symptom. Yet, for gliding, waiting lists have never been part of our culture – we just don't like to keep people waiting to learn to fly.

What happens instead? Do we deliver gliding as well as we could? Stewart Darling, an insight specialist and Scottish Golf non-executive director is quoted: "You have to confront the brutal facts if you want to change your performance. If you don't and try to pretend it is something else, ultimately you will fail because you are tackling the wrong thing."

What are our brutal facts? What is our T-Rex in the room; the older, larger, more dangerous problem than the gentle, out of place, elephant?

Our current wrong thing to blame is Covid-19, which arrived on the back of a difficult winter, effectively meaning clubs have three winters on the trot in terms of activity. Our brutal fact is membership retention. Do we truly look after the training needs of all pilots at all stages? We're making some really

excellent progress with, for example, the emergence of fantastic non-flying training resources, but we could easily do more. By consciously recognising where learning is taking place and doing more of it, membership retention will improve and clubs will evolve to better meet the needs of modern Britain, whatever that is this year. Spending time being physically active outdoors has been shown to be good for positive mental health and that's something gliding can definitely help with.

I digress. Aside from the challenges, Covid-19 is giving us plenty of useful insight into alternative ways of delivering gliding for our club members. Members are not quite customers per se, because gliding is volunteering and our sport relies on everyone getting involved with creating the club and its activities. This is not a simple relationship between provider and customer, as everyone in a club takes it in turns to learn, 'work' and teach, even if teaching is 'just' showing a person on an introductory flight package where to get a cup of tea, or talking to them about what's going on. That new person is grateful to their new teacher. Based on a lifetime of observation, I put this thought out: when people stop being challenged to learn at a gliding club, they leave.

Even with clubs being able to recommence flying several months sooner than most were originally anticipating, 'flying' doesn't equate to everyone in the club getting airborne. However, clubs have been plunged into a waiting list culture, with lots of people waiting to learn to fly. Gliding fosters innovation. My search engine trawl via the sports councils shows there is not much in the way of guidance for sports clubs out there, so clearly we need to work this out for ourselves.

There are some principles, and no doubt some brand new club solutions, so let's get sharing and evolving the emerging ideas. Fast.

A departing thought: gliding children have been doing this for decades, waiting to be old enough to fly. We weren't on any list. But we were waiting. On reflection, perhaps 'waiting' is a well-established part of our gliding culture after all.

An update from the BGA's Chief Executive, Pete Stratten

EASING US BACK TO 'NORMALITY'

AS REPORTED in the last issue, Covid-19 has had a very significant impact on our sport. Whilst many of us have had some good flying over the summer months (OK, there have been better Augusts...), for various reasons others are keeping a low profile and avoiding contact with people outside their immediate family bubble. I know all of us at our clubs look forward to seeing everyone getting back into flying just as soon as they feel comfortable in doing so. Meanwhile, keeping in contact with clubs and gliding mates through social media and online activities really helps.

Mike Fox, the BGA's training guru, has returned from furlough and is focused again on instructor training. His first task on return was to deliver online training for the Assistant Instructor course 'teaching and learning' seminar, replacing what was a weekend of classroom activity with an online product. It is early days, but our experience of online theory training during lockdown suggests that this is the right way forward. Online seminar dates have been published.

Mike is also carefully easing us back into the seven-day instructor course programme with, we hope, a course this autumn for those who started the ball rolling but were interrupted earlier this year. Please get in touch with the BGA office if you wish to get involved this year.

A new course is also being developed by Mike. We recognise that instructor development is not always easy to access at some of our clubs. So, an additional and all-new 'BGA Instructor Development Course' will be a BGA-facilitated flexible and fun week of development training that can deliver whatever prospective or qualified instructors need. For example, 'B module' training, Full Rating assessment, MGIR, cloud flying, aerobatics, etc. Details will be published when they are available.

All BGA inspectors should by now have received a communication from the BGA



Face coverings, the new normal. Wrekin's Alun Williams takes a check flight with instructor Nigel Readman

office describing the simple process of applying for a Part-66L maintenance licence based on existing BGA inspector privileges. This bureaucratic exercise satisfies an EASA regulation that results in all inspectors who maintain EASA aircraft in the UK needing to have a licence by the end of November 2020.

Minimising costs

Despite the usual CAA issues, your BGA team has done a great job in keeping things simple and minimising costs. Applicants receive in the post from the BGA their Part-66L licence, guidance and a renewed BGA maintenance authorisation. The guidance describes how processes and inspector's status, including as insured entities within the BGA airworthiness system, continue unchanged. There is no impact on aircraft owners.

The CAA has published quite a few Covid-19 mitigating exemptions relating to pilot licensing and medicals. By way of a reminder, the bigger picture for us is that the UK exempts pilots of EASA sailplanes, including powered sailplanes (which includes TMGs), from the requirement to hold an SFCL SPL and associated medical certificate

until 8 October 2021. Meanwhile, national/BGA requirements apply. Pilots who do use EASA licence privileges must comply with the relevant EASA licensing and medical requirements, subject to any CAA exemptions that may appear from time to time. As previously reported, we are talking to the CAA about the post-EASA situation next year.

The CAA is being pressed by Government to review airspace classifications with a view to minimising controlled airspace and the BGA has responded to the related CAA consultations. Only time will tell if the CAA will do the right thing with airspace when no one is watching from above. The Brize Norton and Oxford CAP725 ACPs have been submitted to the CAA. The BGA and GA Alliance have complained to the CAA in writing, describing several serious concerns about process and assertions made by the sponsor. The CAP1616 process replaced CAP725 in January 2018 for very good reasons.

And, finally, autumn is here and with it often comes expedition ridge and wave flying. Understanding and managing the risks, plus good supervision, help to keep things safe, productive and fun.



This page:

❶ Jim White wins Booker's Chiltern Challenge Cup, awarded by CFI Richard Crockett (Bob Smith)

❷ Surrey Hills CFI Richard Fitch took this photo with Shayan Hassanbigi while BI training during a winch launch

❸ Burn winch course (l-r): Terry Bassett, John Shaw, Russell Walsh, Fred Kirk, Craig Dawkins, Keith Springate, Mike Cursons, Trevor Graham, David Chafer, Ben Holmes, Alan Hopkins and Alan Martin

❹ There may be trouble ahead (Andy Burton)

❺ Burn CFI Dave Bell's LAK in the rain

Facing page:

❶ Red Bull champ Paul Bonhomme experiences gliding with John McWilliam in the Nimbus out of Aston Down. He really enjoyed the flight and is now planning to get into gliding properly

❷ Lincolnshire's Dick Skerry on approach back over the sheep (Pat Fowler)

❸ Southdown's Andy Taylor pointing out the Lowrie/Connaway/Rice safety screen for the K-21

❹ Three hours in and Wrekin's Will Dean looks well set for his Silver duration



The Lonely Green

The roadside gate swings closed behind,
The inner gate is locked.
The park is full of ghostly cars;
The hangar door is dropped.

The tugs, in hope of service, stand
With engine cowlings gaping,
Nuts half spannered and screws
unscrewed,
In expectation waiting.

The gliders lie, wings down, reclined,
In grateful slumber, dreaming.
Lulled by the gentle canvas flap
And the sunshine gently streaming.

The kettle on the worktop boils,
Bacon sizzles on the hob,
And the hum of aviation chatter,
Echoes round the club.

Launch point is manned by shapeless
forms,
There, an aircraft beckons me.
I take the launch and dream the dream
In silent ecstasy.

When back to earth I look around
At an ever familiar scene,
And then I blink and they are gone,
So I leave that lonely green.

© David Bamber, Dorset GC

■ Our thanks to all the photographers
and to our *Club News* contributors for
sending these in.



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CLUB NEWS

AGC ANGLIA (WATTISHAM) **WWW.ANGLIAGLIDINGCLUB.ORG.UK** **520739N 0005722E**

AT LAST, we were able to restart flying, although not back at Wattisham airfield due to more stringent military restrictions. Norfolk GC invited us to Tibenham, where our instructors regained currency. With the two-metre rule relaxation, other solo pilots underwent currency checks with CFI Eric Hibbard at NGC and they have since flown at Ridgewell, which has been very welcome. Thanks to both NGC and EGC for their hospitality. We have now returned to full gliding operations. The Condor 2 group has continued to enjoy X/C tasks set by Jerry Berringer and a couple of new recruits have joined. Zoom video calls have been a regular club feature on Friday evenings, keeping members up to speed with club progress and return to flying preparation. We are delighted to announce that deputy CFI Gwyn Thomas completed his (and the club's) first 750km flight on 20 July in his own Nimbus 3. The O/R from Tibenham was an epic eight hours 28 minutes long, in which he flew 756km in total, with a 60km final glide to boot.

Simon Ginns

AGC WYVERN (UPAVON) **WWW.ARMYGLIDINGCLUBWYVERN.COM** **511712N 0014700W**

AT THE end of May we returned to the skies. Initially, only solo instructors and a carefully staged recency-based return to flying. Experienced Silver C pilots with recency were next. Army Gliding invested in the Southdown GC generated poly-carbonate screens for our K-21 fleet, which enabled us to return to two-seater flying and check flights – P1/P2 comms were too restricted for effective basic instruction. We took advantage of the glorious May and June for a virtual rolling 'task week', culminating in Allan Tribe's 750km. Wyvern has also expended considerable effort in preparing for and delivering the first two (of four this year) Covid-delayed five-day basic courses for Adventure Training Group (Army) – using the modified K-21, this time with intercoms – and all worked really well. These courses take the place of the Joint Service Adventure Training, since the demise of Halton. Delivered under BGA regulation, the course has now been fully safety assured, up to and including by the Defence Safety Authority. This is probably the first 'civilian' gliding club to achieve this standard. We said goodbye to Major Tom Clark as chairman on his retirement from the

Army and his imminent return to Australia. Thanks Tom – welcome to Lt Col Bill Blakey.
Paul Jessop

BANBURY (HINTON IN THE HEDGES) **WWW.BANBURYGLIDING.COM** **5204355N 00118784W**

IT'S great to be back flying, albeit with the normal club atmosphere still feeling to be some way off! A special welcome to all our new members from Bicester following the end of their lease. For many this was a difficult time having put so much effort into their club over the past few years. Our replacement airfield bus is undergoing extensive refurbishment, thanks to Mick Boasman and his band of helpers. There have been suggestions that we will have to upgrade our attire to use it! Congratulations to Duane Pickering and Paul Waghorne on their various Silver, Gold and Diamond legs.

Peter Fincham

BATH, WILTS & NORTH DORSET (THE PARK) **WWW.BWND.CO.UK** **510742N 0021445W**

WE CONTINUE to operate under strict bio-security and are now able to offer tuition in line with best advice. We have been able to lease from the ever-helpful Tim Dews K-21 GAM, modified with cockpits separated with a perspex screen and intercom, which has restored some check flight and training capacity. We are also able to use our Puchacz under certain restraints. Cleaning stations are established in the hangar and field and maximum hygiene is maintained throughout. Solo and private flying is beginning to approach normality and we can avail ourselves of the good conditions at last. With flying restricted, time has been spent on refurbishing the engine on our Venture VKU. This included the replacement of cylinder heads sourced by Mike Thorne with work carried out by the team, with Ian Wright and John Hull prominent amongst them.

Chris Basham

BIDFORD (BIDFORD) **WWW.BIDFORDGLIDINGANDFLYING** **CLUB.CO.UK 520803N 0015103W**

THE restrictions on gliding were finally lifted and some excellent flights were carried out during June and July. We were able to solo some of our juniors and to train others. At the time of writing, a risk assessment is being carried out to consider whether to hold the 'BMI fly-in' in the light of Coronavirus.

Mike Pope

BLACK MOUNTAINS (TALGARTH) **WWW.BLACKMOUNTAINSGLIDING.CO.UK** **515848N 0031215W**

THE club is returning to full flying operations based on a phased approach. Solo flying in privately-owned single-seat gliders recommenced mid-June, and dual flying on 4 July. Five instructors volunteered to fly dual, with more to follow. The club's fleet is partly insured to reduce operating costs: as of August, one K-13 and the Junior are on line. Towing services are provided by our faithful Pawnee G-AZPA, complete with re-lifed engine. The club operates every weekend and, when flying days are called, midweek. We expect to scale this up beyond August. Members achieved some good cross-country flights during July. A working weekend for general maintenance and tidying up is planned at the end of August.

Mike Codd

BOOKER (WYCOMBE AIR PARK) **WWW.BOOKERGLIDING.CO.UK** **513642N 0004830W**

OUR temporary operation at Chiltern Park has been very successful in getting members safely back into the air and flying many cross-country kilometres, including Paul Field and Howard Joseph, who have achieved their first 500km. We staged the Chiltern Challenge Cup comp there in place of our Regionals, with tasks designed to minimise the chance of field landings; Jim White won the cup. Back at Wycombe Air Park, we have restarted training flights with a seven-day operation, including evening groups on Tuesday, Wednesday and Friday. Our online daily morning briefings continue; an excellent way of keeping in touch.

Jane Moore

BORDERS (MILFIELD) **WWW.BORDERSGLIDING.CO.UK** **553514N 0020510W**

THE club has settled down to the "new normal" with the return of instructional flights, resulting in our first post-lockdown solo. Congratulations to Keith Howlett, who was sent solo by Tom Farquhar. We successfully held our AGM by Zoom and appointed a new secretary, Susan Ward, and safety officer, Tom Farquhar. Our EuroFOX, recently fitted with a 914 turbo, is performing well and all of our tuggies have now completed their turbo conversion course run by Phil Marks. We are intending to run our wave weeks in the autumn and hope to start air experience flights again late August.

Bill Brittain

(Left to right): **Anglia's** DCFI Gwyn Thomas completed his, and the club's, first 750km flight, on 20 July, in his Nimbus 3; Venture engine with replaced cylinder heads at **BWND**; **Booker's** Paul Field and Howard Joseph celebrate their first 500km (Ashley Birkbeck)



BRISTOL & GLOS (NYMPFIELD)

WWW.BGGC.CO.UK

514251N 0021701W

ALL THE two-seaters have returned to flight and those requiring instructor support are flying again. Ben Payne finally completed his BI course and then his first 300km flight to boot, while Dad Neil completed his Silver (he wouldn't say how many years it took!). Larry returned as the club's resident instructor, completing the first inclusive course in 15 years. The VGS 621 Historic Flight took up residence at Nympsfield bringing a large dose of enthusiasm to the launch point and aircraft that hark to a former age. As a contrast, the highly specified Bristol University DG-1001 took to the skies, thanks to the chairman for his handling of the bureaucracy and Bristol University for their support. Many 500km+ flights were completed. The club started a trial using a Skylaunch winch and readied for a socially distanced task week.

Greg O'Hagan

BUCKMINSTER (SALTBY)

WWW.BUCKMINSTERGC.CO.UK

524912N 04228W

WE HAVE got back to flying; solos only at first and now Covid-aware two-seater flying, masks, etc. Our K-21 has been modified with a screen. Our committee has done a super job in keeping the club going; a big thanks to all of them. Club flying has been pretty brisk. We have three new solo pilots: John Jennings (14), Luke Pike and Gary Johnson. Members have also completed seven Silver heights, a Silver duration (Jack Vincent), a Silver badge (Emma Burns), a Bronze badge (Luca McGregor) and a Gold distance (Ben Jenner). Our clubhouse outside has been repainted by a team led by our CFI Lyn. We have launched a range of branded clothing and are eagerly awaiting the first deliveries. The weather has been kind to us with many excellent soaring days. We are still planning to have an autumn expedition, but are not taking any risks.

Danny Lamb

BURN (BURN)

WWW.BURNGLIDINGCLUB.CO.UK

534445N 0010504W

WE QUICKLY had over half of our pilots authorised. To support those who did not wish to fly and ab initio members who could not, we ran a programme of instructional videos on Zoom, enjoyed by other pilots across the country. We have installed a Perspex screen into our K-21s and resumed dual flying. Our CFI, Dave Bell, found out that

our weather forecasting skills needed honing after the rain stopped play after two flights in his LAK. We tried to recover with ad hoc days and two full flying weeks. However, we have been further frustrated by the imposition of local lockdowns in the North of England. We held a virtual AGM and committee members were elected by a postal ballot. The break from regular flying during the lockdown did highlight how much preparation is required to get members back to safe operations. Sadly, two of our past members passed away Joe Millward, a previous secretary and Jack Sharples, who had been our CFI (see p71).

Neil Bale

CAMBRIDGE (GRANSDEN LODGE)

WWW.CAMGLIDING.UK

521041N 0000653W

WE ARE now a "Covid-safe" airfield with both aerotow and winching in operation. Our two-seater club gliders are back in use for check flights and member training, but trial flights and public courses are still not possible. This year's Cambridge Regionals was cancelled. However, our Cloud Rally went ahead in early August. Despite the shortened season we have several achievements to celebrate: Aidan Clark and Oliver Bridgman passed the Bronze written exam; Steve Pleasance and Andrew Dowell achieved Silver height and Silver distance respectively; Phil Atkin was awarded Gold and Diamond distance badges; Bogdan Manoiu flew his first UK 500km; and Chris Barrott missed his first 300km flight, landing just 3km from home.

Chris Davis

COTSWOLD (ASTON DOWN)

WWW.COTSWOLDGLIDING.CO.UK

514228N 0020750W

WE HAVE reintroduced two-seat flying and winch launching in addition to aerotowing. The clubhouse lounge, kitchen and bunkrooms remain closed. We can report some sensational flights: Andy Smith has flown 750km on three occasions, while Jon Huband has flown his first 750km and another flight of over 600km, and another pilot declared 300km and flew 500km. Austin Rose and Ben Hilsenrath completed their Silver badges, and Elliot Apperley was successfully sent solo on his 14th by Geoff Dixon. Paul Bonhomme, three times Red Bull air race champion, visited the club and was taken on a brisk out-and-return to Lasham by John McWilliam in his Nimbus 3DT as an introduction to gliding now that he has retired from racing.

Frank Birlison

CRANWELL (RAF CRANWELL)

WWW.CRANWELLGC.CO.UK

530231N 0002936W

SUMMER seems to have passed us by rapidly this year. However, many members have taken advantage of good soaring weather, building hours or getting in some cross-country kilometres. Well done to Ross Craney, who completed his 5-hours at the beginning of August; the first of this year. The strict routine of sanitisation appears to be working well allowing us all to fly with a modicum of confidence. We recently attracted some new members and hope that they too will be able to enjoy an improving situation. It was proposed that we organise an in-club competition during the August bank holiday, but more about this in the next issue. Stay safe, keep thermaling.

Zeb Zamo

DARLTON (DARLTON)

WWW.DARLTONGLIDINGCLUB.CO.UK

531444N 0005132W

THE recommencing of gliding is progressing well under very strict Coronavirus procedures; we have never seen such clean gliders. The club has started two-seater training for members, using a limited number of instructors to restrict close contact. We had our first training success with chairman Andrew Barton being sent solo by Alan Clark; our congratulations to Andrew on his first solo. We all wish Dave Postlethwaite a speedy recovery after his accident and hope to see him back at the club soon. Members are looking forward to our flying week, which should start on 29 August if all goes well.

Barry Patterson

DARTMOOR (BRENTOR)

WWW.DARTMOORGLIDING.CO.UK

503517N 0040850W

SOCIALLY distanced working parties installed a new cover to the MT shelter, refurbished the new launch point bus and installed solar power and lighting to the workshop. The club purchased an SF-27 for club flying to supplement the existing K-8 and the instructor team worked hard to get the club back to currency; all with another layer of hygiene and safety to contend with. A great achievement by all. Then a change of gear when flying commenced. Those of us that were lucky to get back to currency relatively quickly took full advantage of the weather and Roger Green completed a 301km O/R to Wiltshire.

Richard Roberts



(Left to right): **Buckminster's** Luke Pike is congratulated on first solo; Elliot Apperley was sent solo at **Cotswolds** on his 14th by Geoff Dixon (Jonathan Apperley); Alan Clark congratulates Andrew Barton on his first solo at **Darlington**; **Dartmoor's** Roger Green is happy after his 300km O/R (Steve Lewis)



DEESIDE (ABOYNE)

WWW.DEESIDEGLIDINGCLUB.CO.UK
570430N 0025005W

WE RESTARTED dual flying and instruction on 1 August with a busy weekend of flying. We're operating a modified instructing scheme to minimise numbers of different pupils instructors are exposed to in a day. Full-time instructor Jakub Hlavacek is back, supported by Abel Boskovitz tugging to provide instruction through the week. Our new LS4 also had its first Scottish flight that day, and all of the fleet is now back on line. We've equipped the fleet with Mountain High oxygen and FLARM ready for the wave season. We confirmed we would run the UK Mountain Soaring Championships in a modified format, along with the wave season. Notable flights have been Charlie Tagg's 500km and Tim Martin completing his 5-hour Silver endurance in thermals (a rarity in this part of the world).

Steve Kenyon-Roberts

DERBY & LANCS (CAMPHILL)

WWW.GLIDINGCLUB.ORG.UK
531818N 0014353W

WE STARTED flying single-seat gliders again on 19 May. The committee worked hard to formulate protocols and make the PPE available to ensure members' safety. The CFI came up with procedures to allow pilots to fly again and instruction started again in late July. To the relief of many, the bar has reopened and catering has restarted. Congratulations to Mike Stephens on a 300km Gold distance and Diamond goal flight, which he and his syndicate partner celebrated by buying an ASW 27 to add to their Discus. Weather has been rather mixed with two days rarely alike, and we did not have to suffer the exceptional soaring conditions endured by those in the south.

Dave Salmon

DEVON AND SOMERSET (NORTH HILL)

WWW.DSGC.CO.UK
505107N 0031639W

SOLO pilots took advantage of the high cloudbases after lockdown and gathered Silver heights aplenty: Mike Harris, James Smart, Tim Petty, Josh Funnell and David Cowley. The 500km days saw John Burrow finally get his third Diamond after a wait of something like 40 years. Andy Davy and Eric Alston claimed Diamond goal. Paul Medlock completed his Silver at the second attempt at five hours. As soon as two-seater training/check flights resumed, there were first solos for Ashley Thomas and Charlie Broderick, plus a resolo for Dave Perriam.

Jill Harmer

DORSET (EYRES FIELD)

WWW.DORSETGLIDINGCLUB.CO.UK/DGC
504233N 0021310W

DUAL flying has resumed with appropriate precautions in place. All previous solo pilots have now been cleared to resume solo flying. Richard Skuse achieved his 5-hours duration to complete his Silver C on 21 July. The annual task week has just finished with some good soaring flights being enjoyed during the fine weather. The sale of the club's EuroFOX has attracted serious interest and its purchase is anticipated to take place shortly.

Allan Powell

EAST SUSSEX (RINGMER)

WWW.SUSSEXGLIDING.CO.UK
505423N 0000618E

WE CAUTIOUSLY resumed solo flying for the more experienced pilots; later dual flying. We then began student flying again where capacity was available. Most of this was done using our winch only, as our tug was beset with technical issues, now resolved. We slowly got more of our fleet back into service after annuals and ARCs, including our motor glider. During the second week of July we had exceptional soaring weather and a rash of Silver qualifying flights. Dave Shirley and Chris Young both achieved their Silver duration, Nigel Day bagged a Silver height, but, most notably, junior David Coper gained Silver distance, duration and height in one flight! All Silver flights were done in the club's K-8.

Mike Jeater

EDENSOARING (SKELLING FARM)

WWW.EDENSOARING.CO.UK
544152N 0023506W

WE HAVE decided not to open at Skelling Farm this season. The overheads outstrip the earning capacity of what is left of our summer season. We are planning visits to other clubs that will have us and are currently forming an itinerary. We will be back at Skelling in 2021; ridge soaring and the beautiful Eden Valley will be calling! Thanks to all supporters who have helped us in this challenging year.

Keith Nattrass

ESSEX (RIDGEWELL)

WWW.ESSEXGLIDING.COM
520253N 0003330E

WE NOW have our full fleet back up and running. Members have been having some good flights, including some nice cross-country. Instruction is under way again. We enjoyed having our friends from Anglia flying with us for a few days during our latest flying

week; glad to help them out as they were so welcoming to us during the winter months. We have been fairly lucky with the weather during the two flying weeks and, with the forecast looking hopeful for the last one in August, we are optimistic. We also have our fabulous simulator, which is ever improving, thanks largely to Allen Cherry and his skills.

Cathy Dellar

ESSEX & SUFFOLK (WORMINGFORD)

WWW.ESGC.CO.UK
515630N 0004723E

WE HAVE had great success with a task week kindly organised by one of our junior members, George White. George is also part of the BGA Junior Gliding Development Team and was recently in France practising with the rest of the team, well done for both of these achievements George (see pp21-23). The task week resulted in four good days, with tasks set of varying distances. It was a treat following lockdown. Andy Frost has completed his Cross Country Endorsement, we look forward to seeing him progress.

Edward Smith

HEREFORDSHIRE (SHOBDON)

WWW.SHOBDOINGLIDING.CO.UK
521429N 0025253W

IN THIS new covid world Herefordshire Gliding Club has been remarkably busy, so much so that we brought in another tug to support us whilst FO received some TLC. We have been visited by a number of gliders and pilots from Wales to exercise their wings in the less restrictive environment in England. With the café now open for al fresco meals, things are beginning to feel almost normal. Congratulations to Martin Clarke, who has completed his Silver. Work is well under way to deliver a course later in August, with Mike Dodd and Andreas Jelden leading on the instruction and carrying on the award-winning work with juniors in 2019; great news for both the club and the future of gliding.

Bob Pye

HIGHLAND (EASTERTON)

WWW.HIGHGLIDE.CO.UK
573508N 0031841W

ADRIAN Morgan passed his Bronze exam after taking an online course provided by London Gliding Club, almost 600 miles from his home in Ullapool (see p45). Many thanks to Toni Hausler, who produced a very professional document which will be used to formalise briefings for our power pilot colleagues who share Easterton with us. A

(Left to right): first solo for Ashley Thomas at **DSGC**; also for **DSGC**'s Charlie Broderick; **Dorset**'s Richard Skuse on completion of his 5-hour flight; **East Sussex**'s David Cooper lands out at Challock after his Silver flight – the glider is packed in its trailer for recovery to Ringmer



parachute "care and use" session held at Easterton was well attended and included a powerful story from Robert Tait about his mid-air collision and the subsequent parachute escape from an uncontrollable Twin Astir by himself and his 14-year-old son.

John Thomson

LAKES (WALNEY)
WWW.LAKESGC.CO.UK
570752N 0031549W

OUR method statement for Covid-19 has been approved by BAE systems. The airfield is now open to the club, but to a restricted number of eight nominated members each weekend. We started working on the aircraft on 5 July and flying the following weekend. Most of the instructors and tug pilots have flown and some of the members. Thanks to Peter Lewis for his tireless work, negotiating with the airfield management.

Peter Craven

LASHAM (LASHAM)
WWW.LASHAMGLIDING.CO.UK
511112N 0010155W

OUR phased approach to opening has continued to succeed, thanks to everyone's co-operation. Instruction was made possible again from early July under strict rules and with suitable protective equipment. With continued favourable weather we have seen dozens of achievements from first 750km to Diamond goals and Silver distance, with gliders reaching the coasts of Kent and Cornwall – sometimes on the same day! The training operation has again seen solos and Bronze/cross-country qualifications passed. A very special mention must go to Nigel Mallender and David Masson on their epic 487.2km at 89.4km/h handicapped in K-13 L99, just falling short of the goal of 516km with a landout at Chilbolton Airstrip. Our new restaurant is proving very popular and we look forwards to reopening the club further to the public in the coming months.

Jordan Bridge

LINCOLNSHIRE (STRUBBY)
WWW.LINCSGLIDING.ORG.UK
531836N 0001034E

WE STARTED gliding again as soon as we could. We had sublet the grass back to the farmer and the call for the restart came with such short notice we didn't have chance to get the sheep off, and had to start on the short hard. Phil Trevethick has got his new Libelle flying.

Dick Skerry

LONDON (DUNSTABLE)
WWW.LONDONGLIDINGCLUB.CO.UK
515200N 0003254W

WE HAVE been through some excellent soaring weather and big grid days and have clocked up six flights of over 750km and 31 over 500km. We have reintroduced the winch, initially concentrating on instructor currency. Dual instruction has started and we are offering intensive one-week courses to members. This is despite all rotas being suspended and being replaced by a volunteer booking system. Our phase 2 flying operations procedures have been generally effective. Our regionals competition was replaced with a task week, complete with Zoom briefings. Much to everyone's relief, our restaurant opened again in early August.

Andrew Sampson

MENDIP (HALESLAND)
WWW.MENDIPGLIDINGCLUB.CO.UK
511544N 0024356W

WE HAVE come out of lockdown with a major fleet modernisation. We have sold a K-13 and Skylark 4, and purchased a Junior. Funding came from the sale, donations from club members and a loan from Philip Wills Memorial Trust. The new acquisition has already been put to very good use and is proving popular. We have Silver distances from Andy Harryman, Laurie Penrose, Nick Blake and John Connor; Silver heights from Ben Person, Nick Blake and John Connor; and completed Silvers from Andy Harryman and Nick Blake. Most of the flights were in the Junior. We also have Mike, Rob and Keith, who have formed a new syndicate with a Club Astir 2. We have resumed two-seat flying. Condor 2 has proved to be a very useful tool during our enforced grounding and Dr Mathis is looking into the possibility of building a simulator. Solar-powered battery charging equipment has been installed in the hangar.

Barry Hogarth

MIDLAND (LONG MYND)
WWW.MIDLANDGLIDING.CLUB
523108N 0025233W

TWO-SEATER flying has resumed and instructors have been working hard to help members regain currency. We have been able to reopen the clubhouse accommodation and the catering has also restarted. Our WhatsApp group has been very busy, with Andy Holmes providing information, advice and encouragement to Mynd pilots, with plenty of hints for cross-country pilots of all levels of experience. A group from the Mynd

is enjoying the sunshine on an expedition to Gap, in the French Southern Alps.

Steven Gunn-Russell

NORFOLK (TIBENHAM)
WWW.NORFOLKGLIDINGCLUB.COM
522724N 0010915E

TIBENHAM airfield is showing signs of life, after months of inactivity. Congratulations to Jack Jenner-Hall who, at 14, becomes the youngest first solo in the country (at the time of writing) and, with a second flight on the same day of an hour's duration, he has made a significant start to his flying career. Sadly, we all said our last goodbye to Berkley Pittaway on 15 July. The hearse made a tour of the runways prior to journey to his funeral. On a happier note, on 20 July Gwyn Thomas completed a 756km task from Tibenham in 8.25 hours. Only the fourth to be completed from our site.

Adrian and Barbara Prime

NORTH WALES (LLANTYSILIO)
WWW.NWGC.ORG.UK
530239N 0031315W

WE HAVE been frustrated pilots, wanting to get back into the air. England was first, with those of us in Northern Ireland, Scotland and Wales looking on with envy. Now we are flying throughout the UK, although in Wales we can only fly solo or two up if from the same family. My first solo flight since lockdown was like my first solo, full of trepidation. I'm sure it was the same for most pilots. It must have been just as frightening for the CFIs and Duty Instructors, making those judgement calls. Let's make the most of it; just need good flying conditions. Our new website is up and running, thanks to Alan Ellicott (www.intrepidigital.co.uk).

Ian Masson

OXFORD (RAF WESTON ON THE GREEN)
WWW.OXFORD-GLIDING-CLUB.CO.UK
515249N 0011311W

THERE'S been a fair amount of 'tiddly up up' going on lately as we get used to the new Covid-safe way of flying, with some of our magnificent members even looping the loop and defying the ground in their flying machines. Well done Lukasz Solek on the aerobatics course. Other notable firsts include Henry Morris, Oliver Ramsey and Harry Reed-Waller on converting to the Astir. Oliver also gained his Silver height, along with Peter Belcak, whilst Jonathan Edge finally found a way to fold himself into a K-8 in preparation for his BI training. We welcome the enthusiasm and energy our 28 new ex-Windrushers'

(Left to right): **Mendip's** latest addition to its fleet; Jack Jenner-Hall, sent solo on his 14th by Phil Sillett. Jack was launched by **Norfolk's** youngest winch driver, 16-year-old Tom Hesp; **Staffordshire's** Tiago arrives at Hus Bos; Simon Anthony (right) sent solo by CFI Alan Smith at **Hus Bos**



members have bought to the club. We held a virtual EGM and it is encouraging the spirit of collaboration that exists with our neighbours at Hinton as we face up to challenges.

Norman G Nome

RATTLESDEN (RATTLESDEN)
WWW.RATTLEDENGLIDING.COM
521001N 0005216E

WE CARRIED out the Covid-19 'Craig Lowrie' mod to our K-21, which has allowed a few willing instructors to start training again. They concentrated first on the pilots who, before lockdown, were solo but required check flights. Instructors then resumed normal training, with one suitable two-seater and the need to book a slot. We have also returned to trial flights on a Friday. Having only one suitable glider and the need for wiping down the cockpit and parachutes, etc, means it is a slow process. As I write this, we are a few days away from our belated AGM. Our chairman of a few years, Kevin Western, has decided to stand down and it looks like our secretary Liz Russell will be taking over. May I thank Kevin on behalf of all members for the excellent job he has done in this position and welcome Liz, who realises she has some large boots to fill!

Gary Western

SCOTTISH GLIDING CENTRE (PORTMOAK)
WWW.SCOTTISHGLIDINGCENTRE.CO.UK
561121N 0031945W

IN THE style of the Incredible Hulk, the SGU has thrown off the chains of lockdown and resumed flying with vigour. Many of our instructors have revalidated our pilots with the help of 'Craig Lowrie' screens. We have made the most of our soaring conditions with eight 500km+ flights, nine 300km+ and many more cross-country flights. Adrian Docherty achieved his Diamond goal and distance, Mitch Skene his Diamond height, and Evan Skelhorn his Gold height. Our two tugs and winch have been working hard and are prepared for our autumn wave season and visitors. Our resident instructor, Chris Robinson, retired after many years of loyal service. He inspired many with his sage advice and wisdom and will be sorely missed. Chris will, of course, still be seen flying his DG-300.

Sant Cervantes

SEAHAWK (RNAS CULDROSE)
WWW.SEAHAWKGLIDING.CO.UK
500509N 051520W

WE RECOMMENCED operations on the weekend of 23-24 May. All went well and we swiftly got everyone who could reasonably be

considered experienced and recent enough to get airborne safely into the air. As CFI, it was a pleasure to see such an experienced group of pilots pick up the problem and run with it so successfully. The weather turned in mid-June so we only managed the odd flying day of circuits in order to maintain currency. Since then we have had a couple of good soaring days and recommenced training flights in July, so now the whole club is flying again and we have even had our first group of potential new members in to fly.

Chris Bryning

SHENINGTON (EDGEHILL)
WWW.SHENINGTON-GLIDING.CO.UK
520507N 0012828W

MEMBERS have been taking advantage of the good weather for cross-country flying. We are now doing some limited dual club flying, with the assistance of a perspex divider screen in the K-21 and face masks. There is still some midweek flying going on, and we hope to increase that through late summer, with Sean operating the winch. We've also got our yearly expedition from Kent on site for a fortnight in early August. We had a curry night (outside!) to welcome new members from Bicester GC. We had to cancel our Regionals, though Lucy and Paul organised their famous regionals quiz as a Zoom session. We are having a club soaring week in August on the date that we had planned to hold the postponed regionals. Congratulations to our 'ex-juniors' Lucy Wootton and Rob Jones, who have both just completed their degrees. We also thank Carole Shepherd for running our office over the past few years, and wish her and family all the best with their move up north. We welcome Charlie Corrigan as our new administrator.

Tess Whiting

SOUTHDOWN (PARHAM)
WWW.SOUTHDOWNGLIDING.CO.UK
505532N 0002828W

MANY thanks to Craig Lowrie, Dave Connaway and Marcus Rice, who developed the approved safety screens for the K-21 that allowed us to continue two-seater flying at Southdown. Before this technical breakthrough members were displaying patience, which was little more than despair disguised as virtue. During a spell of fine soaring weather mid-summer, hundreds of hours were flown by pilots who had hitherto been grounded for want of a check flight. Among those making badge claims were Alex Gibbs, who flew a Gold distance and James Hiley, who covered 504km for his Diamond

distance. A successful compromise has been reached with Farnborough regarding local airspace, one of the most important achievements we have to report (see pp28-30). Details can be found in *Southdown Soaring*, our club magazine online.

Peter J Holloway

SOUTH WALES (USK)
WWW.USKGC.CO.UK
514306N 0025101W

WE ARE slowly getting back into the air – well, quite quickly really, since our launches are all aerotow using our shiny new EuroFOX tug. It may be a little longer before we feel we can comply fully with all the social distancing requirements while using our Skylaunch winch. Thanks to a hard core of dedicated instructors (along with a few other very experienced pilots), who swiftly became current again as the lockdown eased, we are gradually getting the rest of our pilots checked out in our two-seaters. We are particularly grateful to Herefordshire GC for letting us bring our Grob to fly from Shobdon while travel in Wales was still restricted.

Stuart Edinborough

STAFFORDSHIRE (SEIGHFORD)
WWW.STAFFORDSHIREGLIDING.CO.UK
524940N 0021212W

THE return to gliding has been a successful and interesting time. We preceded it with a weekly webinar series, hosted and organised by Andrew Stout. We also have four members who took their BGA FRTOL radio licence course (Andy Kidd, Andrew Stout, Andrew Cowey and Tiago Olivera). Special thanks to Andy Jones of Borders GC, who put in a huge amount of work for those taking part. Congratulations to Tiago for completing his Silver distance to Husbands Bosworth. Thanks also to our team of glider inspectors and maintainers, who got the fleet up and running so we could return to gliding after lockdown.

Graham Stanford

STRATFORD ON AVON (SNITTERFIELD)
WWW.STRATFORDGLIDING.CO.UK
521406N 0014310W

IN JULY we had a successful inaugural wood week. We hope to be able to make this an annual feature and look forward to being able to expand this event next year. Congratulations to our junior pilots, who have had notable successes. Owen went solo; Ben completed his Silver badge and Archie completed all parts for his Silver, plus the 100km diploma, in one flight. We have

(Left to right): Joe Cornelius (right) is sent solo by **Welland's** Mark Rushton; **Wolds'** Jonathon Richardson and Craig Scott test out the K-21 Covid screen; **Wolds'** Matt Rands after first two-hour flight; return to flying instructor checks with **Wrekin's** CFI Ian Gallacher and Nigel Readman



a strong junior contingent and it is great to see them making excellent progress. Recent conditions have enabled XC pilots to rack up the km and to make up for lost flying time.

Bethan Capron

SURREY HILLS (KENLEY)
WWW.SURREYHILLSGLIDING.CO.UK
511820N 0000537W

WE ARE delighted to have been able to start flying our trainees and pilots requiring check flights. We have also, in a limited way, started flying some voucher flights and as a result some sort of normality has been restored. Thanks to all the committee, office staff and other members, who have helped in getting all the new procedures in place. Congratulations to Sam Coole, who attempted his first cross-country flight and flew the narrow corridor to Challock. He also got his 1,000m height gain and 5-hour duration in the same flight – fantastic achievement (see pp22-23). Congratulations also to Eric Short, who has resolved after a six-year absence.

Chris Leggett

THE GLIDING CENTRE (HUS BOS)
WWW.THEGLIDINGCENTRE.CO.UK
522626N 0010238W

WE'VE started the season in the middle of the season! Although we are sorry for the sad loss of Bicester GC, we welcome the many pilots who have joined us and fired us with their cross-country enthusiasm. July saw three flights of over 750km (Pete Harvey managed 866km!) and 18 flights of over 500km, along with many 300km. Our Duo Discus is being kept busy with cross-country coaching most flyable weekends, thanks to Rory Ellis. Graham Greensall has flown his 2,500th tug flight this year. Richard Torr achieved Gold distance and Diamond goal on completing the club 300km triangle. We have taken delivery of our new K-21b and are just awaiting the paperwork before she flies!

Sallyann Perkins

VALE OF WHITE HORSE (SANDHILL FARM)
WWW.SWINDONGLIDING.CO.UK
513614N 0014030W

WE WELCOME Motorglide's relocation to join us at Sandhill Farm. Our clubs have been operating smoothly alongside each other and, with our aeromodeller associates, sharing and bringing impressive improvement to our facilities. It also gives us seven-day operability, including aerotows and access to some of their BGA instructors. Motorglide

also offers the opportunity for glider pilots to upskill and a number of their members have realised the bonus of combining a return to 'real' gliding. Sadly, we have had to say goodbye to the 621 VGS Historic Group, who have moved their collection to utilise the winch facilities at Nympsfield. We have a sturdy T hangar for their Venture syndicate remaining here on return from its engine rebuild. When not building this palace, member Al Stacey has been bringing his Skylark 4 to life. We welcome new members, and their gliders, and are always pleased to give you a welcome – even if only for a landout!

Peter Berridge

WELLAND (LYVEDEN)
WWW.WELLANDGC.CO.UK
522758N 0003430W

AFTER the saturated winter, lockdown and a self-imposed restriction on XC flights, we're once again stretching our creaking legs. The rustiness is apparent, but currency and confidence is building, assisted by kind weather during our August flying week. New recruits are signing up, but trial flights remain on hold. Our club has survived the pandemic relatively unscathed so far and, even though the story is not yet over, we remain extremely positive. Condor has proven to be a fun and helpful training aid and our online gaggle of Upwood, Crowland and Lyveden pilots continue to benefit under the patient tutelage of John Young.

Andy Burton

WOLDS (POCKLINGTON)
WWW.WOLDS-GLIDING.COM
535532N 0004740W

MEMBERS have enjoyed some fabulous soaring conditions leading to several flying achievements. Amongst the many flights flown, we congratulate Sandy Loynd on completing his Silver badge; David Tagg and Jonathon Richardson on completing their qualifying 300km tasks; and Aaron Harvey, Matt Rands and Irek Rudy, who all completed duration flights towards their Cross Country Endorsements. In addition, we thank Richard Midwinter, Alan Rands and Tim Milner for conducting check flights so that our members can resolo or progress further in their training. For pre-qualified solo pilots, we now look forward to employing the local turnpoint league, devised by Sandy Loynd, to promote local task soaring within gliding range of the site.

Jonathon Richardson

WREKIN (RAF COSFORD)
WWW.WREKINGLIDINGCLUB.CO.UK
523824N 0021820W

OUR return to flying programme has coincided with some great weather. We have dusted off the cobwebs and are in a good place to enjoy the rest of the summer. Attainments include Geoff Catling completing his Silver badge and Will Dean achieving his Silver 5-hour duration. Congratulations to Nick Lewinton on being authorised as a BGA inspector. The joint monthly meetings that take place with the staff of RAF Shawbury are progressing very well and the move from RAF Cosford into Hangar 4 at RAF Shawbury is tentatively planned for late September, with the first flying day scheduled for 3 October.

Geoff Catling

YORK (RUFFORTH)
WWW.YORKGLIDINGCENTRE.CO.UK
5357100N 00111332W

FLYING has resumed with strict precautions in place. Gliders are disinfected after every flight, masks are obligatory for dual flying and we are now well used to our daily briefings being held in the club car park. Despite operating with a reduced fleet and with fewer than normal instructors, we have managed to get all of our members back flying and we have been enjoying some long-awaited soaring. The airfield remains closed to members of the public, but we hope to be able to reopen before too long. We are delighted that Yorkshire GC has kindly invited us to join them for their task week at Sutton Bank, w/c 9 August.

Andy Carden

YORKSHIRE (SUTTON BANK)
WWW.YGC.CO.UK
541338N 0011249W

THANKS to the sterling efforts of CFI John Carter and deputy Bruce Grain, all pilots who wished to go solo have done so. Our new practices are working well with an online log-in system for coming days' flying. Unfortunately, the weather has not cooperated. Nevertheless, on flying days the airfield has been busy with our pilots making the best of conditions available. July allowed some decent cross-country flights. Bill Payton and Albert Newberry ventured trans-Pennines in their DG-1000t whilst Rob Bailey and Derek Taylor each bagged flights over 400km. We held our well attended virtual AGM via Zoom, which worked well and even voted on selecting a new board member.

Ken Arkley



■ For 2021, BGGC plans to resume a full course schedule, including Master Class weeks with top competition pilots – see www.bggc.co.uk for details.

> CLUB FOCUS

BRISTOL & GLOUCESTERSHIRE

AT A GLANCE

Membership:

Full: £485pa (reduced rates for country members, juniors, students and cadets)

Launch type:

Winch £10 (£15 for post-Silver C pilots)
Aerotow £40 to 2,000ft

Club fleet:

K-21/DG-505/Grob 103,
2 x K-8b, Grob 102, LS4

Private gliders & TMGs:

55, plus three private powered aircraft

Instructors/Members:

24/135

Types of lift:

Ridge, thermal, convergence and wave

Operates:

Seven days a week March-Oct. Weekends and flyable weekdays Nov-Feb

Contact:

Office: 01453 860 342
office@bggc.co.uk
www.bggc.co.uk

Long and Lat:

514251N 0021701W

IN 1957, Bristol Gliding Club acquired the site at Nympsfield (between Stroud and Gloucester) and renamed itself the Bristol & Gloucestershire Gliding Club (BGGC), joining the ranks of major ridge sites across the UK. The airfield sits on the Cotswold edge with a large grass strip oriented roughly east/west. We overlook the scenic Severn Vale, looking west to the Black Mountains in Wales and north to the Malvern Hills. With excellent thermal, ridge, convergence and wave soaring potential through the year, our members have carried out flights in excess of 750km and reached over 20,000ft in wave. In westerly winds we enjoy around 100km of usable ridge, from just beyond Broadway down to Bath, enabling 300km+ flights on ridge lift alone.

We operate through the year (conditions permitting) and have mid-week professional staff through the main gliding season. As well as a programme of holiday courses and intensive training weeks we run a cadet scheme, including limited highly sought-after sponsored places.

The club is excellently sited for cross-

country, with tasks regularly completed into Wales, Devon/Cornwall, East Anglia, the North and down to the South East. We run cross-country briefings at the weekends, aimed at all levels, with coaching available. BGGC has produced numerous nationals competitors, as well as current and past British Team members (and the odd World Champion) and makes a point to encourage, promote and develop pilots of all levels.

It is also home to the Bristol University Gliding Club, hosts the Bristol University Aerospace group and has recently become home to 621 VGS Historic Flight. The Aerospace department has acquired a DG-1000, which will be used to give future aeronautical engineers a taste of flight dynamics in a real-life environment. When not in use for teaching or research, the DG will be available for advanced training by the club.

The airfield has a clubhouse with accommodation and kitchen facilities (Covid-19 rules allowing) and, of course, a bar. Camping is also available on-site and visitors, with or without their own gliders, are welcome through the year.

Julian Rees

The BGA Team and General Information



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chairman@gliding.co.uk

Vice Chairman

George Metcalfe

Executive Members

Nick Garland, Peter Hibbard, Matt Page,
Peter Bennett, Rebecca Bryan,
Bill Brittain and Richard Brickwood

Treasurer

Anthony Smith

Company Secretary

Anthony Smith

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Aim Higher

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Schools and Colleges Lead

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Airspace

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SLMG

Paul Whitehead

Technical

Howard Torode

Flying Operations

Peter Moorehead

CAA SLMG Instructors and Examiners

A number of CAA authorised SLMG examiners are appointed via the BGA to support SLMG activity under the management of the BGA SRE SLMG. Contact details are at <https://members.gliding.co.uk/examiners>

Gliding Examiners

BGA gliding examiners are appointed regionally and directed by Senior Regional Examiners. Coaching and tests can be arranged via SRE's who are listed at <https://members.gliding.co.uk/pilot-resources-flying-training/examiners/>

Safety Guidance

There is extensive safety guidance including a toolkit for club safety officers at <https://members.gliding.co.uk/safety>

Airworthiness Inspectors

There are a number of BGA inspectors across the UK. A proportion of them are approved to issue an ARC and are listed by region at <https://members.gliding.co.uk/arc-signatories>. Regional Technical Officers can be contacted via the BGA office.

Airworthiness Guidance

Extensive guidance for owners of non-EASA and EASA aircraft is at <https://members.gliding.co.uk/airworthiness>

Other Information

Courses and Seminars

BGA courses and seminars information is at <https://members.gliding.co.uk/courses/>

Fees

BGA fees are detailed at <https://members.gliding.co.uk/fees-and-charges/>

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tel: 0116 289 2956 email: office@gliding.co.uk



■ Above: The Pelzner hang glider flies with tethered ropes at the wing ends. The pilot would not be the experienced Willy Pelzner. Pelzner won 1,000 DM for the third best flight duration, 1,000 DM for the third best flight route and a 100 DM encouragement prize for the aircraft, which is the first to cover a flight of 250m (Photo: Hellmuth Hirth Collection)



■ With special thanks to Frank-Dieter Lemke, whose works this article is based on.

DESPITE an unprecedented start to the 2020 UK gliding season, this year represents an event that all present-day gliding enthusiasts should stop and take pause for at least a moment of recognition. This year represents the 100th anniversary of what can be considered the world's first meeting of gliders, an event that was to set out the birth and future direction of a new popular sport.

Up until that time, gliding had been very much the preserve of a lonely few, with names such as Cayley, Chanute, Wright and, of course, Otto Lilienthal, who many consider the father of gliding. Early 20th century exploits here in England came in the form of Joseph Weiss, while in Germany Hans Gutermuth had set a new world distance record of 850m (1m:52s) in 1912 [1] at the newly-discovered site of the Wasserkuppe.

Then came the winds of war and, with it, a rapid and technological revolution for early powered aviation. Gliding, a rather

limited sport with declining appeal, had by then been totally overshadowed in its modest achievements measured in mere minutes compared with the ever-increasing new records being set by powered aviation. By the time Gutermuth achieved a record distance flight of a comparatively paltry 850m, records for powered aircraft stood at distances over 1,000km! [2]

With a vanquished Germany at the end of WW1 still reeling from the Allied blockades which brought widespread death among the German civilian population (an estimated 763,000 German civilians had died from starvation and disease by the end of December 1918. [3]), the immediate post-war armistice did little to alleviate German suffering. Such was the ongoing hardship it is estimated that, throughout 1919 alone, a further 100,000 people perished during the continuation blockade [4], and it is from this bleak backdrop that, incredibly, our sport was to take its first significant steps.

January 1920 had seen the restrictive

Versailles Treaty officially come into force, which was designed to quell all further military German aspiration and extract repatriations; German hopes of aerial freedom was all but wishful thinking. With a general ban on powered aviation, gliding, models and rockets were simply either an oversight or deemed of little value by the Allies.

In 1920, two individuals, Erich Meyer and Wolfgang Klemperer, were members of the Dresden Aviation Engineering Association and eager to fly again. (Klemperer left soon afterwards and joined the Aachen Aerodynamics Institute, where he headed up the newly-formed Academic Gliding Club.) Meyer had written to the Reich Air Office to enquire if the Allied flight bans included motorless flight. The encouraging answer was 'no', which led to a series of articles by Meyer describing how to get into gliding. These were published by the German magazine *Flugsport*, edited by Oskar Ursinus.

Based on both Meyer's writings and the works of Klemperer and Meyer, Ursinus hit on the idea of holding a gliding competition. This saw the formation of the first German gliding competition and marked the birth of what we know today as modern gliding. With a newly-emerging interest in gliding as the only outlet for many enthusiasts and ex-WW1 German pilots, many designers turned to the past masters for inspiration. But many were to look to the rapid advances that the aeroplane had undergone during the war to break free of the cruder weight-shift gliders of pre-WW1.

Design is one thing, but planning such a meeting – especially under the harsh economic conditions of the day and within the timeframe of just weeks – was, by any standards, quite remarkable. Ursinus, who was later known as the 'Rhönvater' and became a tireless pioneer for gliding, grappled with the many issues of organising the competition. This challenge was even more surprising when one considers that many cities within Germany had more fundamental concerns at that time and were experiencing widespread rioting!

What Ursinus achieved was nothing short of remarkable and soon he had secured a number of army tents, which were used for housing assembled gliders, and established a workshop and kitchen barracks. Not only that, he managed to secure finance through Dr Karl Kotzenberg, who practically sacrificed his fortune to help gliding over the difficult early years. Ursinus was to make another

significant move for the entire future of both German and world gliding – the appointment of Professor Walter Georgii as meteorologist (Georgii went on to become one of the world's most significant figures in the sport).

One aspect that was never going to be difficult, however, was the appointment of volunteers to assist with the logistical aspects of the meeting. The lure of food and accommodation, mixed in with a bit of a relaxed holiday atmosphere, soon had cooks, carpenters and blacksmiths stepping forward, who were only too happy for the opportunity to escape the bleak reality around them. Accommodation was extremely basic with mainly mass-quarters in tents and beds made from straw-filled propeller boxes.

The meeting started on 15 July 1920 and was scheduled to end on 31 August. Ursinus' approach was characteristically visionary and one of true professionalism in promoting the sport as a serious future player in German aviation. He had soon appointed a technical commission (TeKo), which was responsible for the technical supervision of all the entries and safety checks on flying. Heading up this team initially were Jakob Goedecker, Hugo Kromer and Oskar Ursinus.

Word of the event quickly spread and soon began attracting the interest of both students and former war aviators who wanted to fly again, not to mention scientists, engineers, craftsmen and enthusiastic young people. With this new focus, discussions began with a common theme of how to approach the best solutions for glider design (remember, they were practically starting from scratch) and had soon led to a close camaraderie of enthusiasts that was unprecedented in aviation at the time.

Success and failure... in equal measure

With some 18 machines in various stages of completion turning up, it was evident there was a widespread design approach to the machines assembled, with many still taking the shape and form of the pre-war fathers. Although these well-proven weight-shift machines were easy and fun to fly, they were a far cry from the more modern, and technically more difficult, monoplane designs that were to have far-reaching consequences in the immediate years that followed.

Not only that, there was a huge spread

THIS SAW THE FORMATION OF THE FIRST GERMAN GLIDING COMPETITION AND MARKED THE BIRTH OF WHAT WE KNOW TODAY AS MODERN GLIDING



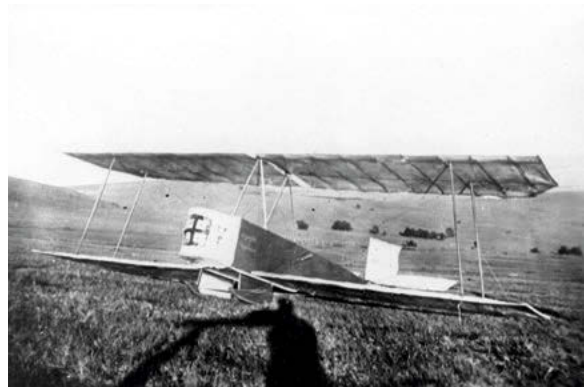
The hapless 'Senator Zeise' of Theo Suchla. Suchla was unharmed (Photo: German Glider Museum)



Advertising poster for the first gliding competition on the Rhön (Source: German Museum, Munich)



It was as long as it was high and wide; the triplane of Richter-Hauenstein from Berlin. Richter received a 1,000 DM award from the Federation of German Aviators (Photo: German Glider Museum)



Eugen von Loessl's biplane glider with the black swastika now painted out. Note what turned out to be the macabre text seen faintly on the side of the fuselage; Vergnügen Flügelbruch. Loessl was awarded 4,000 DM prize money for the second-best flight of duration and distance (Photo: DEHLA)

of piloting skill, as was highlighted in reports by Oskar Ursinus. Ursinus was far from enthusiastic about Ernst Freiherr von Lüttwitz and his glider, which employed the most crude and basic of materials and had been assembled in just four days! Despite his rather hasty and crude structure, Lüttwitz flew 60m in 12 seconds, albeit with an ensuing crash-landing in which Lüttwitz was uninjured.

The youngest participant was a 14-year-old student, Peter Riedel, from Aschersleben, who arrived with his incomplete PR II biplane school glider. Karl Kammermeyer and others helped with the completion of the machine. Wilhelm Hoff from Berlin-Adlershof, a newly-appointed head of TeKo, had filed an objection to Riedel's entry. Fortunately for Riedel, Ursinus took pity on the boy and allowed him to continue, prohibiting free flight until Riedel had learnt to fly! Two helpers held the PR II with short ropes at both wingtips and ran with it, whilst flight instructors – Theo Suchla or Erich Meyer – ran ahead shouting instructions to the boy as to what to do. It proved to be an exhausting exercise for all involved!

Other entrants were not so successful. There were at least five machines that failed to get into the air at all, including the 100kg monoplane by Robert Heinzmann, whose huge V-shaped wing was admired by everyone. The wood sculptor from Furtwangen had built the imaginative monoplane without any previous knowledge of flight mechanics and at great personal financial cost. Severely disheartened by the entire experience, after the competition Heinzmann took to the contraption with a hammer and gave up!

But there were some successes, too, that were to mark the faltering first steps of real progress. The Flugtechnische Verein Stuttgart (Aviation Association of Stuttgart) gained some progress with a simple biplane weight-shift glider, with the former WW1 pilot Paul Brenner making some notable flights. Friedrich Richter, one of the oldest of the participants, managed a flight of 206m in 22 seconds in his triplane in a 6m/s wind. On 6 August, Bruno Poelke from the Frankfurt Model Flying Club managed to climb to 41m in a 10-12m/s wind. He was the first to use a single, medium-sized skid, a layout that many had previously doubted but that was to mark a common design feature of future glider designs.

With these faltering steps of progress came tragedy for Darmstadt flyer Eugen von Loessl and this was to prove a tragic loss to the sport. In an article, *Von Segelfliegen*, in the spring of 1920 in the magazine *Flugsport*, von Loessl gazed far into the future, but the significance of his observations were hardly noticed at the time. Von Loessl mentioned the frequency of thermal winds over dark areas and other heat-radiating objects. Rising air currents, according to Loessl, would bring much more promise than first realised and was to later transform the sport.

Von Loessl had come with a covered-fuselage biplane. Weighing only 43kg, it had a remarkably low wingload of only 6kg/m² and had the sarcastic wording of 'Vergnügen Flügelbruch' (comical broken wing) painted on the fuselage. This was to prove to be a bad omen indeed. In addition, the night before the last flight, a stranger had painted a swastika on the fuselage of Loessl's biplane. The black swastika, a popular symbol of luck and used by both Allied and German pilots in WW1, met with criticism from some participants, so Karl Kammermeyer turned it into a black outlined square. (This was before



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the Nazi Party adopted the symbol as their badge.)

On 9 August, von Loessl suffered structural failure of his glider due to turbulence. The left half of his pendulum elevator broke away at a height of 150m and the glider overturned at a height of 40m above ground, whereupon von Loessl fell out of the cockpit. It later turned out that he had unbuckled himself in flight to slide forward to compensate for the tail heaviness of his glider. Had he remained strapped in he may have survived the crash as the glider fell into some trees, which softened the impact and remained largely intact. The fledging post-war German Civil Aviation had found its first victim and, at the same time, founded a myth. From then on, the slogan "Es wird weitergeflogen!" (the flight continues) was to become widely adopted and influential.

Another more successful entrant was the skilled weight-shift glider pilot, 20-year-old Willy Pelzner from the Municipal Aviation School in Nuremberg, with his amazingly lightly constructed hang-glider, covered with yellow oil paper, weighing only an incredible 12.5kg!

Pelzner first flew a 100m distance, before improving results to a 500m over the slopes of the Wasserkuppe. He was to complete 16 flights in total, covering a combined distance of 2,728m. The Pelzner slope on the Wasserkuppe still reminds us of those memorable days and Pelzner's modest achievements.

Victory of a Schwatze Düvel from Aachen

The FVA-1 Black Devil (Schwatze Düvel) was the result of Wolfgang Klemperer's pen and the enthusiasm of the Aachen Academic Gliding Club. The construction was financed by Aachen silk trader, Katzenberg, who had also supplied the black covering material, thus the glider becoming known as the Black Devil. A rather chunky looking cantilever monoplane, it was based on a Junkers low-wing-monoplane aircraft design. It proved to be both strong and lightweight, weighing in at only 62kg, and set the direction in which all future glider construction would move.

Klemperer had paid much attention to drag, with an airframe that had been carefully clad and streamlined. The most significant design feature, however, was borne out of the FVA-1's unique streamlined twin-skid undercarriage legs. The two rubber-sprung ash runners allowed for butter-soft landings and were generally admired by all at the time. What was to cause the real sensation,

however, was the launching method. Klemperer had brought a revolutionary rubber rope with him, a departure from the hemp rope that had previously been widely used as a starting aid. This was to revolutionise gliding for many years to come; and the bungee launch was born.

With fog continually plaguing the event, on 7 September Klemperer managed the first soaring flight over the uphill slopes with a wind of 15-18m/s when he climbed to 10m above the starting point. However, the flight attempt by Weil, a former WW1 pilot, ended with damage to the glider. Overall the FVA-1 achieved a total distance of 2,805m in five flights, amounting to some five minutes and one second flying time. It was, by far, the most successful glider at the event and received many awards.

Conclusions

The flight tests in the Rhön continued after the official end of the competition. Some persistent people even stayed on at the inhospitable Kuppe over the winter. At that time, the English magazine *Aeroplane* summed it up: "It is interesting to note that poor, battered, exhausted Germany knows how to keep the enthusiasm for conquering the air alive, while in our rich, well-fed country, we do not know how to maintain a simple aero club that can advance the progress of the air..."

As early as late autumn 1920, the Association of German Model and Gliding Flight Clubs announced the next gliding competition in the Rhön for 1921. Although the 1920 Wasserkuppe contest may not have set the world on fire in terms of today's fast-moving world, it did sow the seeds for a revolution in aviation about to take off.

The following year's event saw probably the most significant design to emerge, the Vampyr, which was to set the benchmark in all future sailplane design, with a high-ratio, stressed-skin, leading-edge wing. This design overcame many of the structural problems facing the designers of long, thin wings at the time. It also saw the demise of the weight-shift era, which was to take a hiatus until the early 1970s when the modern day hang-glider craze was reawakened with the Rogallo wing.

The first Wasserkuppe meeting of 1920 saw the fledging steps of gliding beginning its journey to conquer the world of aviation.

THE FLEDGING POST-WAR GERMAN CIVIL AVIATION HAD FOUND ITS FIRST VICTIM AND, AT THE SAME, TIME FOUNDED A MYTH



The FVA-1 Schwatze Düvel. With its aerodynamics, strength and lightweight wooden construction, the glider was an outstanding landmark in glider construction. It also received an impressive array of prizes at the event: a 5,000 DM prize from the former aircraft manufacturer, Dr Edmund Rumpler, for the longest flight duration; a 3,000 DM Fokker prize for the longest flight distance (beating Guterth's record); a 3,000 DM prize for best flight performance; and a further unspecified 500 DM prize. This was by far, the most successful glider at the meeting, with a total of 11,500 DM being awarded to the FVA-1 (Photo: DEHLA)

[1] *The Story of Gliding* by Ann Welch.

[2] 1,010.89km (628.14 miles) by Maurice Farman (France) on 11 September, 1912. Wikipedia.

[3] "Schädigung der deutschen Volkskraft durch die feindliche Blockade" [Damage to German national strength due to the enemy blockade]. Memorandum of the Reichsgesundheitsamt [Reich Board of Health].

[4] *The Blockade of Germany after the Armistice 1918-1919* Bane, S.L. 1942 Stanford University Press.

SAFE ROTATION

The BGA safety team reminds us of the vital importance of understanding the detail of a winch launch

* CAP1724 [1] identifies any flight at a pitch angle above 30° as aerobatic

■ Clubs can obtain printed copies of Safety Briefings from the BGA Office.

Below: K-21 launching
(Mark Layton)



AEROBATIC display pilots are given individual display authorisations that specify the minimum height at which they may perform aerobatic manoeuvres. The lower this level, the more demanding the authorisation requirement, because there's a narrower margin in which to recover from any power failures or errors. The lowest limit is generally 200ft above the airfield.

Yet glider pilots perform what's akin to an aerobatic manoeuvre* every time they rotate into a winch launch. It's vital to understand the detail.

Winch launch rotation

Rotation from the level attitude in which we leave the ground to the steep nose-high attitude of the full winch climb resembles the beginning of a loop. In both the aerobatic loop and the winch launch, the curved flight path accelerates the glider upwards, pressing the pilot into the seat.

The loop begins at an elevated airspeed to ensure that the glider has enough energy to keep flying at the top. It is tight enough for the accelerometer to read 3g, meaning that the lift generated by the wings not only

STRAIGHTEN
UP & FLY
RIGHT

overcomes 1g gravity, but also provides 2g of centripetal acceleration towards the loop's centre. The stall speed in this state will be 70 per cent above that in level flight (V_s), but well below the typical loop entry speed of 2.5 V_s [2]. Pilots nonetheless take care to avoid stalling as the airspeed falls.

In contrast, rotation into the full winch climb begins at a much lower airspeed – typically 1.5 V_s [3]. As well as generating enough lift to overcome gravity, the wings must balance a component of the cable tension and, as in the loop, they must also provide centripetal acceleration to steepen the climb angle. This acceleration, though much lower than in a loop, is important.

While the steady forces during winch launches have long been understood [4], the significance of centripetal acceleration has been appreciated only more recently [5,6]. In the decades before the BGA Safe Winch Launch initiative in 2005, winch launches were the largest source of serious gliding accidents in the UK, averaging around one fatality and two serious injuries a year. Analysis of accident records identified flick rolls during rotation as an important cause. Although relatively rare, such accidents were nearly always serious and, between 1987 and 2004, seven pilots were killed and nine badly injured. Pilots were rotating into the full climb too quickly.

Raising the glider's nose by 40° in two seconds at 55kts requires a 1g centripetal acceleration [7] – equivalent to doubling the glider's weight. A cable tension component readily takes the overall load factor to 2.25g and the stall speed to 1.5 V_s . With its nose high in the air, the glider will undergo an accelerated stall that could develop into a flick roll. No aerobatic pilot would attempt this so close to the ground.

The BGA Safe Winch Launch guidance, to take at least five seconds to rotate to the full

climb with a typical pitch angle of 35°, limits the centripetal loading to around 0.3 g and keeps the airspeed well above the stall. Since this revision to our training in 2005 [8], there has been only one serious UK accident in the rotation stage of the winch launch.

Launch failure recovery

Recovery from a launch failure after the glider has rotated into the climb requires the nose to be lowered promptly. This causes the glider to perform a bunt that trades some of its airspeed for height before accelerating downwards. The pilot experiences reduced or negative g, which can be disconcerting but reduces the risk of a stall, though it is important to retain enough airspeed for control authority.

From a 35° full climb at 55kts, a prompt 0g 'weightless' push-over would take just 1.6 seconds to reach a zenith 40ft higher, with a 10kt drop in the airspeed. Pilots' reactions, however, are not immediate. If the climb attitude is maintained for just 1 second, the minimum airspeed will be only 36kts and, although the attitude will look normal, the glider could stall in level flight. The push-over must therefore be continued to an appropriate recovery attitude and this then maintained until manoeuvring speed has been regained.

To recover from the nose-down attitude, the glider must then perform another positive g manoeuvre. Attempting this, or a steep turn, with insufficient airspeed will again result in a low accelerated stall.

Accidents from low launch failures between 1987 and 2004 seriously injured nearly one pilot a year.

Technical analysis of low-level launch failures reveals a further reason why a prompt and positive reaction is crucial. Maintaining the climb attitude or pushing over less vigorously slows the glider's horizontal motion, making the downward pitch angle steeper for a given airspeed and requiring a tighter pull-out to recover.

The BGA Safe Winch Launch guidance ensures that the glider always has enough height and airspeed for a safe recovery, provided this is started promptly and conducted correctly. Since its introduction, there has been only one serious injury from a low launch failure.

Safe winch launch rotation

Our current generation of glider pilots may be unaware of the accidents we had until 15 years ago, and others may have forgotten or

not fully understood the reasons for them. If we're to maintain our recent safety record, it's crucial that we continue to follow the Safe Winch Launch guidance [9,10].

The recipe for a safe rotation into the full winch climb is:

- Leave the ground in a level attitude.
- Maintain a shallow climb (10-15°) until you have attained adequate airspeed (at least 1.5 Vs) with continuing acceleration.
- Rotate the glider smoothly ensuring that the transition from level flight to the full climb is controlled, progressive and takes at least five seconds.
- If the launch fails, immediately lower the nose to an appropriate recovery attitude and don't manoeuvre or use the airbrakes unless a safe speed has been attained.

These succinct guidelines merit a little amplification:

- Just as for an aerotow, the level starting attitude is with the glider balanced on the mainwheel during the ground run.
- Don't hold the glider down: a shallow but positive initial climb allows height to be gained without rotation or significant pitch, and provides a cable load that keeps the parachute from inflating.
- A higher airspeed may be appropriate before starting rotation when it's windy to ensure that you can penetrate the wind gradient in a launch failure recovery [11].
- The recovery attitude will vary with the conditions: steeper in a wind gradient if there's enough height, and shallower if the glider is close to the ground.

The winch launch is not, however, a manoeuvre that can be flown 'by numbers': it requires knack and feel, as well as prompt and accurate responses if something goes wrong. For this reason it's not taught until pilots have mastered fundamental flying skills, and the early part of the launch is not attempted until pilots have gained some feel from flying the later stages.

It's not really an aerobatic manoeuvre either, so please don't try to make it into one.

Tim Freearge and the BGA safety team

PREVIOUS 'FLY RIGHT' ARTICLES

The Perils of Distraction (Apr/May 19)
Keeping Safe in Thermals (June/July 19)
Why It Is Good to Think Ahead (Aug/Sep 19)
The Effects of Wind Gradient (Oct/Nov 19)
A Fun but Safe Introduction (Dec 19/Jan 20)
Stop the drop (Feb/March 20)
Avoiding Upset (Apr/May 20)
Backroom Boys (June/July 20)
Cockpit muddle (Aug/Sep 20)

GLIDER PILOTS PERFORM WHAT'S AKIN TO AN AEROBATIC MANOEUVRE EVERY TIME THEY ROTATE INTO A WINCH LAUNCH

■ For more information, see booklets and videos on the BGA Safe Winch Launch webpages [10] and Instructor Manual [3].

- [1] CAA, Flying Display Standards, CAP1724 (2020) <https://tinyurl.com/flyright2028>
- [2] P Mallinson & M Woollard, *The Handbook of Glider Aerobatics*, AirLife (1999)
- [3] BGA Instructor Manual section 16 <https://tinyurl.com/flyright2029>
- [4] J Gibson, *The Mechanics of the Winch Launch* (2002) <https://tinyurl.com/flyright2030>
- [5] H Browning, *Boundaries of Safe Winch Launching*, Technical Soaring 31 (4), 95 (2007) <https://tinyurl.com/flyright2031>
- [6] T Hills, *Safety Analysis of the Winch Launch*, Technical Soaring 31 (4), 101 (2007) <https://tinyurl.com/flyright2032>
- [7] The centripetal acceleration is calculated by multiplying the airspeed by the rate of change of pitch angle. In aviation units: the additional g loading is $(0.0009 \ v \ r)$, where v is the airspeed in knots and r the rotation rate in degrees per second.
- [8] H Browning, *Safe Winch Launches*, Technical Soaring 37 (1), 3 (2013) <https://tinyurl.com/flyright2033>
- [9] H Browning, *S&G* June/July 2009, p26; June/July 2011, p28; April/May 2012, p48
- [10] BGA *Safe Winch Launching* <https://tinyurl.com/flyright2034>
- [11] *The Effects of Wind Gradient*, *S&G* Oct/Nov 2019

BGA accident/incident summaries

AIRCRAFT				PILOT	
Ref	Type	Damage	Date, time	Injury	P1 hours
27	Puchacz	minor	29/12/19, 17:00	none/none	690
Heavy landing. The P2, flying from the rear seat, rounded out slightly too high; the glider ran out of airspeed and landed heavily, tailwheel first, damaging the wheel hub. The CFI and the instructor P1 both acknowledge that an earlier takeover may have prevented the accident. Neither pilot had flown much in the preceding two months and the CFI's report points to lack of currency as the root cause of the accident.					
31	-	-	18/01/20, 13:15	serious	-
While running the wing during an aerotow launch, a club member stumbled and fell heavily onto his shoulder. Assessment in hospital revealed a significant fracture to the shoulder joint requiring treatment.					
32	K-21	minor	04/01/20, -	none	38
Burst nosewheel. The CFI reports that the airbrakes appeared to be shut as the pilot attempted to extend the float to land further along the runway. The glider bounced on the initial touchdown before coming to a stop after the second. The nosewheel had taken some of the impact, bursting the inner tube and damaging the wheel hub.					
33	Grob 103	minor	01/02/20, 14:15	none/none	2225
Canopy came open at 200ft ato during a winch launch. The rear seat P1 was the handling pilot and reports that the distraction of a busy launchpoint may have contributed to forgetting to exert upward pressure on the canopy frame during the pre-flight checks. The canopy broke and the frame was damaged, but the rest of the glider landed safely.					
37	DG-303	minor	05/03/20, -	none	112
Wheel-up landing. The pilot lowered the wheel during his pre-landing checks and visually confirmed that the handle was in the down position. During the downwind leg the pilot adjusted the trim by pressing the trim release lever and moving the trim indicating lever on the left side of the cockpit. As the glider touched down the wheel retracted causing minor damage to the underside. The pilot thinks that he may have moved the undercarriage lever when re-trimming.					
38	Grob Astir	substantial	07/03/20, 14:45	none	563
Heavy landing in a field. The pilot had been briefed that the wind at altitude was much stronger than at ground level and that another club glider had already landed out after drifting downwind. After an aerotow, the pilot turned downwind and worked some wave lift before suddenly becoming engulfed in dense cloud. He decided that heading to the east (crosswind) offered the earliest chance of breaking out of the cloud, but still lost some 1,500ft before regaining VMC. He found himself some way downwind of the airfield over an area with no landing options so flew to the next valley. The fields here were small and surrounded by dry stone walls; the pilot picked the best available field before making a slightly downwind approach and choosing to fly the glider onto the ground in an attempt to shorten the landing ground run. The wet ground slowed the glider quite quickly and the canopy shattered during the landing.					
40	K-21	minor	06/03/20, 16:35	none/none	Not reported
Burst inner tube during landing. The glider touched down on the peri-track and clipped the raised edge of the runway during the ground run.					
43	Grob 103	minor	13/03/20, 15:10	none/none	2530
Rear canopy opened during the winch launch. The club reports that a similar incident had occurred a couple of years earlier. Close inspection of the locking mechanism revealed a retaining pin through the canopy locking handle was slightly proud and scouring the canopy frame, potentially preventing the handle from closing properly. The club has re-seated the pin and intends to put alignment indicators on the frame to show the open and fully closed positions.					

Incidents

25	Antares	substantial	05/12/19, 10:00	-	-
Cracked canopy. The visiting pilot was offered a place in the club hangar and the glider was pushed in sideways using a main wheel dolly. The owner then removed the batteries and put the canopy cover on. He didn't notice any damage to the canopy at this time, but the light was failing and the hangar was unlit. The next morning, the club CFI and another pilot moved the Antares out of the hangar to extract another glider before putting the Antares back into the hangar. The owner arrived later to extract his glider to de-rig it; when about to remove the wing pins he noticed a 20cm-long crack rising from the canopy frame just aft of the DV panel. All the pilots involved in moving the Antares were experienced and none could recall pushing on the canopy.					
26	-	-	18/12/19, 12:45	-	-
The winch cable parachute drifted off the airfield following a cable break and landed on a car parked in an industrial area bordering the airfield. The preferred winch could not be started so the spare winch was prepared. The cables on this winch each had multiple repaired breaks on them and were due to be replaced. The first and third launches, flown by a single-seater, were completed successfully; the second launch, flown by the K-21, had a cable break at 800ft ato. The fourth launch, flown again by the K-21, resulted in the cable breaking close to the winch and the moderate crosswind carried it off the airfield. The owners of the industrial area reported the event to the CAA.					

BGA accident/incident summaries *continued*

AIRCRAFT Ref	Type	Damage	Date, time	PILOT Injury	P1 hours
28	Capstan	-	17/11/19, 11:35	none/none	-
Tug upset. The Capstan pilots report that the tug dived suddenly to avoid a cloud before pulling up again, a bow developing in the rope which tightened before either pilot could pull the release. The weak links broke at the glider end of the rope at 2,700ft ato. The tug pilot reports that, after completing a turn, he found himself in a steep nose-down attitude. He closed the throttle, recovered from the dive and returned to the airfield.					
29	K-21	none	09/01/20, 14:00	none/none	-
The shock cord between the winch parachute and the strop became partially wrapped around the parachute. During the launch severe vibration was felt at both ends of the cable. The launch was aborted and the glider landed safely ahead.					
30	K-21	none	18/01/20, 13:45	none	25
Airbrakes came open during the winch launch. The pilot eventually closed the airbrakes part way round the circuit at about 400ft ato before landing safely. The CFI notes that there have been a couple of instances of gliders getting airborne with the brakes unlocked following the changes to the order of pre-flight checks.					
34	DG-505	none	04/02/20, 13:15	none	1660
Glider took a winch launch and flew a 90-minute soaring flight with the tail dolly still attached. With two pilots on board and an empty fin tank, the centre of gravity of the glider was still within the allowable range. The club intend to re-emphasise the importance of ABCD checks before entering the glider.					
35	DG-505	none	19/01/20, 11:00	-	-
Canopy misted up during aerotow as the combination climbed through a gap in the low cloud. The P2 was able to keep the front nose of the aircraft rested on the ground, damaging the propeller and spinner. The wind had picked up and the tug was in the process of returning to the hangar when the upset occurred. The club suggest using wing walkers when taxiing the light tug in strong winds.					
36	EuroFOX	minor	26/02/20, 12:30	none	655
While turning into wind a sudden gust lifted the starboard wing, the port wing struck the ground and the tail was lifted until the nose of the aircraft rested on the ground, damaging the propeller and spinner. The wind had picked up and the tug was in the process of returning to the hangar when the upset occurred. The club suggest using wing walkers when taxiing the light tug in strong winds.					
39	LS7	none	03/12/19, -	none	3782
Control restriction discovered in flight. The glider had just come back from a total refurbishment and this was to be the first rig and first flight since its return. Some slight stiffness during rigging was put down to the refurbishment, after which positive control checks were done but control deflections were not measured. During the pre-flight checks control movements seemed normal. During the flight a considerable difference in roll rate was noticed, roll to the right being slower than roll to the left. After the flight the control deflections were measured and it was noticed that down deflection of the left aileron was considerably less than for the right aileron. A maintenance organisation noted that a rigging guide plate for the left wing was bent and needed to be replaced.					
41	DG-505	none	01/03/20, 12:00	none/none	1889
Wheel-up landing after a short, non-soaring training flight. The strong and gusting wind made the circuit particularly challenging for the inexperienced P2, the instructor was distracted while guiding the student and forgot to lower the undercarriage before taking control for the final approach and landing.					
42	PA 25	none	25/01/20, -	-	-
Winch cable fell over the wing of a parked tug. During the eighth winch launch of the day the engine stalled when the driver throttled down as the glider reached the top of the launch. The cable drifted downwind, but landed safely on the airfield. At the end of the ninth launch the engine again cut out as the driver throttled back, but this time the cable drifted further, landing draped over the wing of the tug and a temporary canvas hangar. The cable was retrieved and the winch removed from service. The club had recently replaced the distributor cap on the advice of the winch manufacturer after two consecutive engine cut outs some three weeks earlier. After these latest engine failures the manufacturer's engineers examined the winch and found that both the carburettor and evaporator of the LPG powered engine were clogged with sludge.					
44	PA 18	none	05/02/20, 13:00	none	420
Aerotow rope snagged during final approach into the short airfield. The club were using two tugs and, in the light crosswind, the landing direction was the reciprocal of the take-off direction. As the incident tug returned to the airfield the pilot noticed the other tug taking off. The pilot flew a wider than usual base leg to give the other tug time to clear the airfield, but then arrived over the airfield boundary slightly too low and the rope caught on some electricity cables, breaking the rope weak links. There was no damage to the cables.					

During BGA Club Safety Officer seminars it was proposed that, to further encourage reporting, it would be a good idea to remove site names from summaries. This has been reflected in the summaries on these pages. Edward Lockhart continues to provide a little extra detail, where available, in these listings. We would also like to publish (anonymously) your stories of particular flights that have taught you a valuable flying lesson. Please send details to editor@sailplaneandgliding.co.uk or by post to the address on p3.

BGA BADGES

No. Pilot Club (place of flight) Date

Diamond Badge

850 Andrew Watson Cambridge 12/07/2020
851 Adrian Docherty SGU 28/07/2020

Diamond Distance

1-1302 Philip Atkin Cambridge 26/06/2020
1-1303 James Hiley Southdown 30/05/2020
1-1304 David Ascroft Bristol & Glos 31/05/2020
1-1305 George Green Essex & Suffolk 12/07/2020
1-1306 Andrew Watson Cambridge 12/07/2020
1-1307 Peter Joslin Cambridge 21/07/2020
1-1308 Bogdan Cambridge 20/07/2020
Manoiu
1-1309 Adrian Docherty SGU 28/07/2020

Diamond Goal

2-2641 Richard Torr Gliding Centre 31/05/2020
2-2642 Thomas Clark Wyvern 31/05/2020
2-2643 Jonathan Shaw Lasham 12/07/2020
2-2644 Danny Anglia/Wyvern 11/07/2020
Richmond (Upavon)
2-2645 Andrew Davey Devon & 11/07/2020
Somerset
2-2646 Bogdan Cambridge 20/07/2020
Manoiu
2-2647 Jonathon Wolds 19/07/2020
Richardson
2-2648 Adrian Docherty SGU 28/07/2020

Gold Distance

Philip Atkin Cambridge 26/06/2020
Alexander Gibbs Southdown 30/05/2020
Richard Torr Gliding Centre 31/05/2020
Thomas Clark Wyvern 31/05/2020
Benjamin Jenner Buckminster/ 20/07/2020
Loughborough Student Uni
Jonathan Shaw Lasham 12/07/2020
Danny Richmond Anglia/ 01/07/2020
Wyvern (Upavon)
Tadej Magajna Lasham 31/05/2020
Lauri Pesonen Cambridge 12/07/2020
Andrew Davey Devon & 11/07/2020
Somerset

Bogdan Manoiu Cambridge 20/07/2020
Jonathon Richardson Wolds 19/07/2020

Gold Height

Matthew Stickland SGU 06/07/2020
Tadej Magajna Lasham 05/01/2020
(Denbigh)

Silver Badge

Martin Clark Herefordshire 31/05/2020
Nicholas Stuart Lasham 31/05/2020
Declan Callan-McGill Lasham 21/05/2020
Emma Burns Buckminster/ 11/07/2020
Loughborough Student Uni
Sam Coole Surrey Hills 07/07/2020
David Cooper East Sussex 07/07/2020
Neil Payne Bristol & Glos 11/07/2020
Geoffrey Catling Wrekin 12/07/2020
Benjamin Hilsenrath Bristol & Glos/ 20/07/2020
University of the West of England
Xavier Overbury- Essex & Suffolk 20/07/2020
Tapper

Andrew Harryman Mendip 11/07/2020
Andrew Dowell Cambridge 21/07/2020
Geoffrey Brooks Kent 21/07/2020

Silver Distance

Paul Roberts Lasham 12/05/2019
Nicholas Baldock Bristol & Glos 30/05/2020
Sam Coole Surrey Hills 07/07/2020
David Cooper East Sussex 07/07/2020
Neil Sexton Wyvern 12/07/2020
Neil Payne Bristol & Glos 11/07/2020
Nicholas Blake Mendip 11/07/2020
Geoffrey Catling Wrekin 12/07/2020
Benjamin Hilsenrath Bristol & Glos/ 20/07/2020
University of the West of England
Andrew Harryman Mendip 11/07/2020
John Marchant Lasham 20/07/2020
Andrew Dowell Cambridge 21/07/2020
Geoffrey Brooks Kent 21/07/2020

Silver Duration

Andrew Harryman Mendip 31/05/2020
Alexander Loynd Wolds 28/05/2020
Paul Smith Gliding Centre 22/05/2020
Declan Callan-McGill Lasham 21/05/2020
Jonathan Rowney Bannerdown 31/07/2016
Jack Vincent Buckminster/ 12/07/2020
Loughborough Student Uni
Geoffrey Brooks Kent 09/06/2020
Sam Coole Surrey Hills 07/07/2020
Theodore Nellis Bannerdown 11/07/2020
David Cooper East Sussex 07/07/2020
Peter Gibbons Rattlesden 12/07/2020
Mateusz Borkowski Lasham 10/07/2020
Neil Payne Bristol & Glos 11/07/2020
Benjamin Hilsenrath Bristol & Glos/ 11/07/2020
University of the West of England
Xavier Essex & Suffolk 20/07/2020
Overbury-Tapper
Matthew Morrison Ulster/ 09/07/2020
Wrekin (Bellarena)
Max Gould Bannerdown 12/07/2020
Nathan Godding Rattlesden 20/07/2020
Tim Martin Deeside 20/06/2020
Thomas Docherty SGU 19/07/2020

Silver Height

Martin Clark Herefordshire 31/05/2020
Nicholas Stuart Lasham 31/05/2020
Michael Boasman Banbury 13/06/2020
Paul Smith Gliding Centre 22/05/2020

Nicholas Blake Mendip 30/05/2020
Kenneth Snell Lasham 31/05/2020
Declan Callan-McGill Lasham 21/05/2020
Emma Burns Buckminster/ 11/07/2020
Loughborough Student Uni
Luca Macgregor Buckminster 11/07/2020
John Jennings Buckminster 19/07/2020
Sam Coole Surrey Hills 07/07/2020
David Cooper East Sussex 07/07/2020
Michael Harris Devon & 31/05/2020
Somerset

Laurence Penrose Mendip 31/05/2020
Norman Petty Devon & 11/07/2020
Somerset

Matthew Barnard Buckminster 19/07/2020
Paul Bannister Essex & Suffolk 17/07/2020
Gregory Zak Buckminster 20/07/2020
Suzannah Forbes Wyvern 12/07/2020
Nigel Day East Sussex 10/07/2020
Benjamin Hilsenrath Bristol & Glos/ 11/07/2020
University of the West of England
Christopher Godding Cotswold 11/07/2020
Max Gould Bannerdown 12/07/2020
Stephen Pleasance Cambridge 22/07/2020
Nathan Godding Rattlesden 20/07/2020

100k Diploma Part 1

Andrew Davey Devon & 02/06/2020
Somerset

100k Diploma Part 2

Andrew Davey Devon & 02/06/2020
Somerset
Harriet Gamble Bath, Wilts & 20/07/2020
North Dorset

Cross Country Endorsement

Guillaume Flavin Oxford 18/06/2020
John Marchant Lasham 09/07/2020
Trevor Roberts Kent 21/07/2020
Henry Morris Bicester/ 25/07/2020
Oxford
Kenneth Snell Lasham 22/07/2020
Thomas Chapman Portsmouth 21/07/2020
Naval
Bengali Person Mendip 28/07/2020
Joshua Bean Buckminster/ 06/08/2020
Loughborough Student Uni

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JOE MILLWARD (1931-2020)



JOE joined Doncaster Gliding Club in 1968 and went solo in the club Swallow in 1969. He was club secretary for some time and his expertise as an architect was invaluable

when the club had to vacate Doncaster airfield and we planned the move to Burn. He designed the clubhouse and prepared all the plans needed for that and the hangar, which were submitted to Selby Planning.

Joe had shares in several gliders over the years – some shared with Jack Sharples. One of his most memorable flights was from Gap in the French Alps in his Open Cirrus. Several Burn members were on the trip, but Joe was the only one to land out. People who have flown there know that landing areas are very few, but Joe was successful!

He was always a quiet, reliable member of the club until he started spending his winters in Portugal. When he sadly lost his wife, Marian, he moved south to be nearer to his son, Jonathan. He didn't stop flying – but limited himself to large model gliders.

In 2012, Joe came back to Burn to attend an event and was pleased to see the clubhouse still standing and well used.

John Stirk, Burn GC

JACK SHARPLES (1932-2020)



JACK died in July 2020 after a long illness. He started gliding as a cadet and joined the Halifax Gliding Club in 1966. He was not a founder member, but joined soon after the

club was established. As Jack was an engineer, he was soon put to use on winch driving and maintenance.

He flew mainly at Halifax, but he also flew at Doncaster. His 10th lesson was at Camphill in a T-49 and he did a course at Perranporth in August 1966. When the Halifax club closed in 1967, because of site problems, Jack and others joined the Doncaster Gliding Club.

He had shares in many different gliders – perhaps the most suitable being a Skylark 4, which suited his large size – another a Diamant and also an Olympia 463, PIK and an Open Cirrus that he shared with Joe Millward.

Jack got a PPL and had a share in a Piper Tripacer, but most of his power flying was towing for the club in a Rollerson Condor and a Super Cub. In 1977, with Bill Scull's approval, he became CFI and did the job until 1981. When the club moved to Burn in 1983, Jack continued as an instructor and was always willing to pass on his considerable knowledge. He enjoyed flying at other clubs: Pocklington, Millfield, Rufforth, Lleweni Parc and many others.

It was not generally known that Jack was quite an accomplished painter – his favourite subject being aircraft. Several years ago I visited our doctor's surgery. I saw a new doctor and there on his wall was one of Jack's paintings – a parting gift from Jack to an excellent GP.

Jack was always supported by his wife, Edna, and could be heard shouting 'Edna' when he needed somebody to hold the wing. She was the key maker of bacon sandwiches, but always there for him – particularly when he became so ill.

He was gruff Yorkshireman with a big character and will be remembered fondly by so many.

John Stirk, Burn GC



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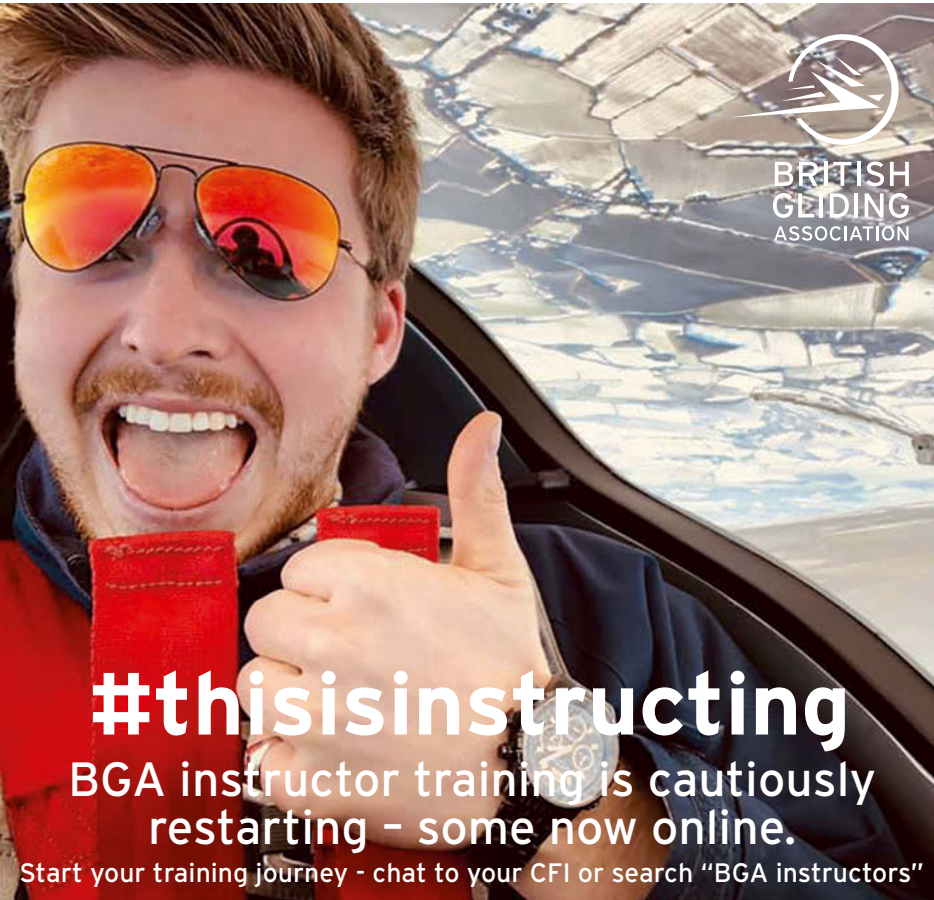
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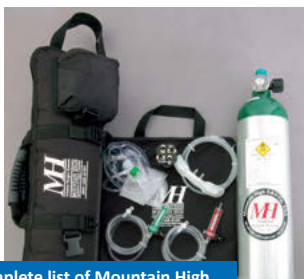


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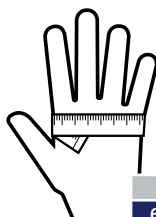
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