

SAILPLANE & GLIDING

VOL. 62 NO. 3

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The BGA Shop - long proven to be a great shopping resource for everyone in gliding - now has a whole new direction. Following research into members' needs, the BGA has re-launched its shopping experience with a whole new look and plans for a much wider range of stock.

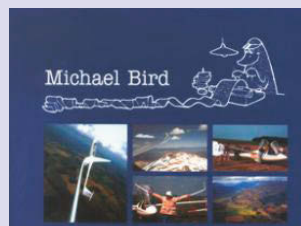
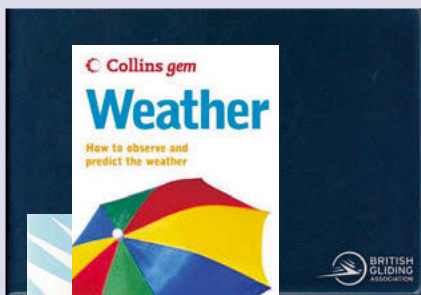
The BGA Shop has always been the best source for club essentials such as DI books, log books, text books, Laws & Rules, Operations Manuals, BGA badges, and one of the best for specialist media supplies such as books, videos and CDs - you name it! There has also been a limited range of clothing and the obligatory beanie hat, without which no self-respecting soaring pilot should venture into the sky...

The BGA Shop is moving forwards

Our commitment is to supply a diverse range of items to meet the needs of clubs and pilots along with an excellent level of service. The range of products will grow and grow - more gliding essentials will be added as the months pass.

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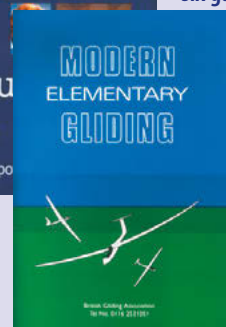


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Log Book

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Papers
... years of po



which will be supplied to you embroidered with the glider motif and your own personal comp number or trigraph. Visit the BGA Shop for more info!





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Andy Jessett swaps his Ventus 2cT for a Harrier jump jet for a day and discovers that there are more similarities between the two than you might imagine



MEMBER OF THE ROYAL AERO CLUB AND THE
FEDERATION AERONAUTIQUE INTERNATIONALE



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COVER STORY

Major Filippo Zuffada, Commander of the Italian Air Force Gliding Centre, at the controls of a Grob G103A Twin Astir II, descending towards the military airfield at Guidonia-Montecelio. For the full story turn to page 30 (Philip Stevens)

DEADLINES

Aug/Sept 2011

Articles, Letters, Club News: 9 June
Display advertisements: 24 June
Classifieds: 5 July

Oct/Nov 2011

Articles, Letters, Club News: 5 August
Display advertisements: 22 August
Classifieds: 6 Sept

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> The Synergy Diesel Glider Plane pictured here is competing in the 2011 CAFE Green Flight Challenge in the US in July. It has a 32ft (9.7m) wingspan and contains 144 square feet of wingspan area. Synergy is a six-seat aircraft with 142kW bio-diesel powerplant, which is said to possess the efficiency of a glider.

> We regret to announce the death of two gliding greats in recent weeks. Nick Goodhart (see obit p70) and Chris Wills (see obit p69). Both made significant contributions to our sport throughout their lives and will be greatly missed.

> Gordon Boettger and Hugh Bennett flew Hugh's Duo Discus 2,200km to another US distance record on 20 April. This is the third record set by the pair in recent months and, at the time of writing, is the longest distance flight in the world posted to the 2011 OLC. The pilots have submitted a claim for the US Multiplace Distance Around Three (pre-declared) Turnpoints record.

> The list of amendments relating to current UK Visual Flight Rules (VFR) charts previously hosted on the CAA website www.caa.co.uk/charts has moved to the NATS/AIS website. The new service is at www.ais.org.uk under the VFR Charts heading.

> Two new clubs have been welcomed by the BGA: Denbigh and the Bidford Gliding & Flying Club. Bidford Gliding, a BGA club that was based at Bidford, has moved to Long Marston airfield. Bidford Gliding's website is at www.bidfordglidingltd.org.uk

> The BGA has agreed to joining the CAA electronic conspicuity working group, within the Airspace Safety Initiative.

> Peter Claiden has taken over as chairman of the BGA Safety Committee. Peter, formerly Principal Inspector of Air Accidents at the AAIB, takes over from Phil King, who assumed this role in a temporary capacity more than two years ago!

> The 2011 BGA Chairmen's Conference and Treasurers' Forum has been provisionally booked for Saturday 19 November at Woodside, Kenilworth

BGA 2011 WAYPOINT LIST IS PUBLISHED

THE 2011 version of the BGA list of Waypoints and Sites of BGA Member Clubs has been published, **writes Ian Strachan, BGA Waypoint List Co-ordinator.**

The definitive BGA list, including latest updates and any 'Stop Press' items, can be accessed through a link from: www.gliding.co.uk/bgainfo/competitions/news.htm To find the link, scroll down to "Turnpoint Database". The list can be read directly at www.spsys.demon.co.uk/turningpoints.htm

The formats available include MS Excel, which allows WPs to be sorted in order of N/S, E/W or the nearest major main feature, or anything else.

Changes this year include Colsterworth (CSW) because the roundabout has been replaced by a bridge about 300m to the south, to which the BGA point has been re-plotted. The Shenington Club has changed its site datum (Code EDG), and Blenheim (BLE) has been moved to a junction to the north, away from the Oxford/Kidlington ATZ.

There are now some Commercial Air Transport movements at Oxford, so keep a good lookout for them when flying in this area. The main ILS pattern is from the north towards runway 19. For this reason,

the previous BGA WP at Heyford (HEY) has been deleted.

Other deletions due to Airfield Traffic Zones are Brackley NE (BRA), Dundee (DDE), Fareham (FAH), Ilminster (ILM), Nottingham W (NTW) and Welshpool (WPL), although a new WP Welshpool NE (WNE) has been created.

Additions have been made in the areas of Bicester, Dumfries, Edgehill, Talgarth, and, due to the closure of RAF Cottesmore, there are new WPs between Oakham and SE of Grantham. There are also new ridge soaring points near Bath Racecourse, Maidstone and Middlesborough.

In sum, 18 new WPs have been added and there are now 1,216 WPs in the BGA list. Please use them and tell myself or Tim Newport-Peace if you see any errors, or wish to add a new point for genuine soaring reasons. Email me at ian@ukiws.demon.co.uk or Tim on tnp@spsys.demon.co.uk

Finally, if you want to download a complete BGA list in formats suitable for many types of Flight Recorder, go to www.spsys.demon.co.uk/tpselect.htm or, for worldwide Waypoints <http://soaringweb.org/TP>

OLYMPIC AIRSPACE

THE BGA has been working with clubs, the GA Alliance and the authorities to minimise the impact on gliding of the proposed restricted airspace developed for the 2012 Olympics. This airspace is unlikely to change significantly. A BGA proposed alternative restricted zone (a 30 nm circle) was rejected.

Various exemptions have been sought for clubs, and by clubs, in the restricted zone. Negotiations will include individual airfield visits by CAA Directorate of Airspace Policy (DAP) throughout the summer. BGA representatives will be present at the meetings. If your club has arranged a meeting with CAA DAP and you would like BGA support, please contact Gordon MacDonald, BGA Airspace Committee, at gordon.dmacdonald@googlemail.com

Once each airfield inside the zone has

mutually agreeable arrangements with DAP for access to restricted airspace, DAP/DfT will then have to propose the exemptions to the Home Office. CAA DAP has made it very clear that the Home Office might not agree with some of the proposed exemptions.

In **addition** to the security airspace, NATS has developed temporary controlled airspace to facilitate peaks of traffic flowing into and out of UK airspace during and around the Olympics. It is hoped that this temporary airspace will be used flexibly.

Again, the BGA is working to minimise the impact of the flow airspace on gliding.

The NATS airspace proposals to date appear only to address CAT needs and fail to consider the safety and operational impact on others. Given adequate engagement, the BGA believes this can be resolved.



Taurus Electro wins Lindbergh award at AERO

ERIC Lindbergh, grandson of legendary aviation pioneer Charles Lindbergh, presented Pipistrel with the Lindbergh award for its self-launching electro glider, the Taurus Electro, at AERO 2011.

After extensive testing of the Taurus Electro prototype, Pipistrel decided to implement new solutions into the initial design. The result is the Taurus Electro 'Generation 2' - or G2.

It's a side-by-side two-seater ultralight with 15m span and 41:1 glide ratio. For the first time, electric power outperforms its petrol-powered counterpart, the Taurus M. A shorter runway is required and it offers a faster climb rate. Custom-developed Lithium technology batteries come in two variants, capable of launching to 4,000ft or 6,500ft respectively.



Pipistrel says its Solar Trailer and Taurus Electro G2 demonstrate how it is possible to fly free of charge, quietly and with zero emissions (Susan Newby)

■ Pipistrel's 'flying for free' concept, the Solar Trailer, contributed to the company's success in being selected for the Lindbergh award. Based around a Cobra trailer, the roof is covered in solar panels, while the trailer contains an integrated storage battery allowing you to charge your glider overnight with the energy that has accumulated during the day. Pipistrel claims that the trailer can charge a Taurus Electro in five hours (although the trailer can be used for any electrical equipment).

See p14 for a report on AERO 2011

DATES

NATIONALS, REGIONALS AND OTHERS

Women's Worlds	Arboga (Sweden)	15-27/6/11
Standard Class Nationals	Bicester	25/6-3/7/11
Competition Enterprise	Sutton Bank	2-9/7/11
18m Class Nationals	Tibenham	9-17/7/11
European Champs (unflapped)	Nitra (Slovakia)	17-30/7/11
Junior Championships	Aston Down	23-31/7/11
European Champs (flapped)	Pociunai (Lithuania)	31/7-14/8/11
Junior World Championships	Musbach (Germany)	6-20/8/11
Club Class Nationals	Pocklington	6-14/8/11
Open Class Nationals	Lasham	20-28/8/11
15m Class Nationals	Hus Bos	20-28/8/11
Two-Seater Competition	Pocklington	21-28/8/11

2011 glider aerobatic competitions

Nationals	Saltby	2-5/6/11
World Championships	Torun (Poland)	26/7-7/8/11
Saltby Open	Saltby	9-11/9/11
Power v Glider Team Match	Sleep	24-25/9/11

LASHAM REGIONALS

Lasham	28/5 - 5/6/11
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EASTERN REGIONALS

Tibenham	28/5 - 5/6/11
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BICESTER REGIONALS

Bicester	23-31/7/11
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NORTHERN REGIONALS

Sutton Bank	23-31/7/11
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MIDLAND REGIONALS

Husbands Bosworth	23-31/7/11
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SHENINGTON REGIONALS

Shenington	6-14/8/11
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DUNSTABLE REGIONALS

Dunstable	20-28/8/11
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GRANSDEN REGIONALS

Gransden	20-28/8/11
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Fast jet students get opportunity to experience gliding

RAF fast jet students undertaking the Basic Fast Jet Training (BFJT) course are being given the opportunity to experience gliding, following recent discussions between the BGA, RAF Linton on Ouse and Yorkshire Gliding Club.

This experience will expand the students' knowledge of aviation activity in UK airspace shared by military and civilian aircrew, and improve flight safety.

The BGA will provide briefing material to be used for ground school/mass briefing at RAF Linton on Ouse. Students will then be allocated slots during the working week at Sutton Bank, where they will receive a briefing before flying with the club's instructors.



Burn GC's K-21 in circuit above Burn Airfield with Drax power station in the background (Tony Flannery)

Burn GC fights to stay at its airfield

FOR the past 28 years, Burn Gliding Club in North Yorkshire has operated from the historic Burn Airfield with its triangular runway configuration of long runways, originally designed for Halifax bombers during World War II, **writes Chris Cooper.**

In recent years, the club has leased the airfield from the government quango Yorkshire Forward, but the latter is scheduled to be disbanded in March 2012 and must dispose of its assets, including Burn Airfield, by this date. As the club's lease expires in February 2012, every effort has been used to find ways of staying at Burn, including reviewing options for purchase.

Yorkshire Forward and the local MP have now stated that a decision on the method of disposal will be confirmed by the autumn and that the preferred option is to place the airfield with a trust managed by a local council. It is, however, assumed that if this option fails the club must be prepared for the airfield to be put up for sale on the open market.

At an EGM on 16 April, members gave unanimous approval for the club to make a bid if required, with many also pledging financial support for such a bid.

GA safety award

NOMINATIONS are being sought for the CAA's 2011 General Aviation Safety Award. If you would like to nominate an individual or team that has made a lasting contribution to GA flight safety, either through a one-off incident or a lifetime of campaigning work, visit www.caa.co.uk/gasafetyaward The closing date for nominations is 31 July, 2011

How do you know if your number is up?

THE BGA's improved IT systems are enabling us to manage the issue and renewal of competition numbers more effectively than in the past, **writes BGA Communications Officer Keith Auchterlonie.** However, a recent emailing of owners with expired competition number subscriptions has revealed a widespread unawareness of the way that the competition number system works. This article aims to explain the mechanisms in the hope that no owners inadvertently lose their numbers.

Anybody can apply to have any currently unallocated competition number – a combination of one to three letters and numbers – allocated to them. There are a few rules concerning valid combinations, but we won't go into these here. There is an annual fee, currently £17, for each competition number held.

A key thing to remember is that the competition number belongs to the

person paying the subscription, not to any particular glider. The competition number can be displayed on the fin of any one aircraft chosen by the holder.

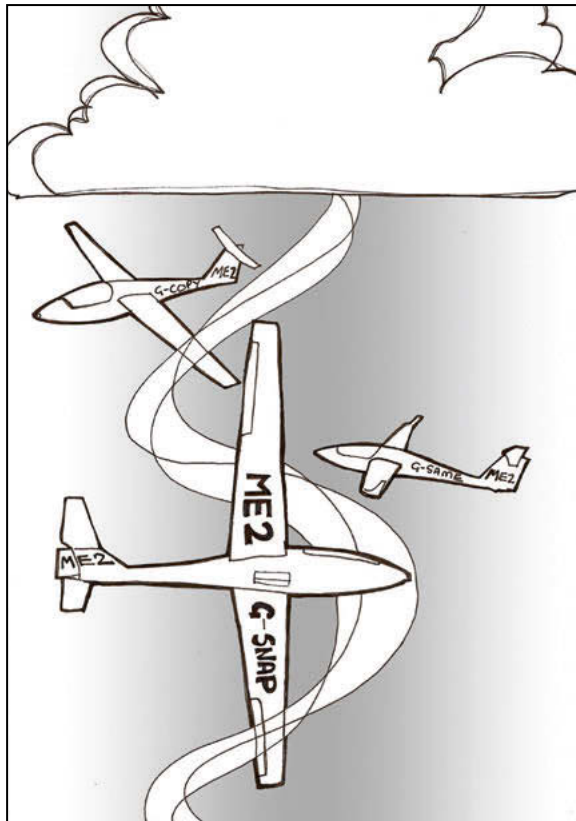
If the owner sells a glider bearing a competition number, the competition registration does not pass automatically to the new owner. Unless arrangements are made with the BGA, the competition number stays with the current holder, who may choose to display it on his new glider. In this situation, the purchaser of the glider must remove the competition number markings.

If the seller agrees to pass the competition number to the new owner, the BGA must be informed so that the bill and the certificate of issue for the following year can be sent to the new owner. If the competition number subscription is not renewed by the new owner, the competition number will be released and will be made available to others. In this

situation, the existing markings must, again, be removed from the aircraft and, in the absence of a current certificate of allocation, the glider will not be allowed to enter any BGA-rated competition.

The vast majority of competition numbers have been renewed for 2011 and so we are confident that our competition number database is largely up-to-date. However, if you have a cherished competition number and have not paid the BGA the 2011 subscription, please be aware that it probably no longer belongs to you and that somebody else may have already claimed it.

I hope that this helps to clarify how competition numbers work and that, armed with this knowledge, readers will not find themselves sharing a thermal with another glider bearing the same competition number as themselves.



Cartoon by Matt Wright, Devon & Somerset GC

■ **THE Air League Youth in Aviation event at the House of Commons on 28 March saw MPs and Lords from across the political divide coming together to learn about the activities offered by members of the Youth in Aviation Panel.**

The reception gave the opportunity for members of the panel (which includes the BGA, Air Cadets and Air Scouts) to showcase their work and convey some of the challenges they face to the people that matter; MPs, Lords and key industry stakeholders.

The purpose of the day was underpinned by the Air League's Position Paper on UK Youth in Aviation; *Aviation for Everyone*. "With Britain's future as a world leader in aerospace by no means guaranteed, it's up to us, the younger generation, to take up the mantle and to present our case to government," says the Air League's Scott Pendry.



A BGA team attended the reception at the House of Commons (Youth In Aviation)

RAeCT awards for junior glider pilots

ELEVEN young glider pilots have been awarded bursaries by The Royal Aero Club Trust, totalling £4,600.

The awards, to help develop the flying ambition of young people within gliding, were made to Joaquin Perez (21, Lasham GC), Paul Bassett (19, Portsmouth Naval GC), Thomas Atkins (17, London GC), Sarah Reed (18, South Wales GC), Joshua Brownlow (16, Norfolk GC), William Hilton (16, Booker GC), Daniel Brown (17, Stratford on Avon GC), Alex Szymanski (19, Rattlesden GC), Robert Smithers (17, Cambridge GC), Sam Roddie (20, Wolds GC), who was awarded the President's Scholar bursary worth up to £1,500, and Julia Robson (21, Cambridge GC), who was presented with the Bramson Bursary (£500).

If you are interested in applying for bursaries for 2012, visit www.royalaeroclubtrust.org/bursaries.html Applications forms available in September.

Lottery funding boost for club's kit list

SOME years ago, Shalbourne Gliding made two successful bids for National Lottery funding for instructor training. A further bid to a local authority funded the conversion of a K-13 for use by paraplegic pilots. One of the difficulties in framing our bids is that we neither own our site, nor have any significant security of tenure. This means that we have to focus our bids specifically on people and equipment.

Last year, having abstained from bidding for a while and being in dire need of some



A Lottery grant has enabled Shalbourne GC to invest in new equipment, including FLARM and parachutes (Bob Boyd)

instruments and parachutes, we thought it might be time to 'chance our arm' again.

Government and National Lottery funding for sporting activities is administered by Sport England. They have four funding streams of which the most appropriate for us was the Small Grants fund, which deals with bids from £300 to £10,000 with a total project value not in excess of £50,000. Their stated objective is to "build a world-leading community sport system" to "provide investment in the people, organisations and networks that grow and sustain participation in sport and lead on to sporting excellence". Projects will only be funded that demonstrably contribute to one, two or all the strategic aims of "GROW, SUSTAIN and EXCEL".

Previous experience of formulating bids taught us to read the rubric very carefully and seek advice before submitting the bid. We elected to speak to a local council Arts and Leisure officer, but Sport England advisors are always willing to discuss potential projects.

Our bid was for IGC logger enabled FLARMs for the entire fleet, combining the benefits of FLARM while removing

(hopefully) the age-old glider pilot's woe of a Silver height without a barograph. A mechanical vario was specified for a single-seater that relied only on an electronic one and averagers were added to the Borgelt varios already installed. In addition, we believe that all available tools should be used to avoid airspace infringements so a brace of Oudies were ordered to suit our most cross-country orientated gliders. A couple of parachutes to replace some time-expired ones completed our bid.

Having been awarded a grant for £8,600, we have now purchased the equipment and it is starting to appear in the club fleet. The initial impression is that installation of FLARMs has heightened members' awareness of the need to maintain a good lookout and no complacency that there's a piece of kit to do the job.

Bids, once submitted, are dealt with expeditiously and, if successful, are generally credited to your bank account within three months. Comprehensive information on Sport England funding can be found at www.sportengland.org

Colin Baines - Shalbourne chairman
Pete Smith - safety officer

Please send letters
(marked 'for publication')
to the editor at [editor@
sailplaneandgliding.co.uk](mailto:editor@sailplaneandgliding.co.uk) or
the address on p3, including
your full contact details.
The deadline for the next
issue is 9 June

Swinging the compass

I ALWAYS love Steve Longland's articles, but have to admit that I struggle to understand some of the modern gadgets. Not so with swinging the compass (April/May 11, p22).

There were just two of us at RAFGSA Chilterns Benson some 50 years ago who knew how to do it. We had the most accurate E-type compasses in the entire gliding world.

At nearby Wallingford, I happened to be looking in the window of an antiques shop and saw an E-type compass for sale for 2/6d old money (12.5 pence in Centigrade!). I bought eight for a whole pound – I couldn't afford more in those days, but of course regretted later that I hadn't bought the entire stock of some 50.

I digress – for the moment. I overheard a wonderful conversation in the bar at Benson. A Squadron Leader was holding court about his time flying Javelin fighters. It was apparently not unknown to prop up the bar until 2am and then go flying four hours later. One day he dutifully followed his "leader" as they taxied out for a "pairs sortie". He became slightly confused when the lead Javelin stopped for a couple of minutes and then turned through 180 degrees. It then turned through 90 degrees. The penny eventually dropped, through the haze of his hangover, that the "leader" wasn't going flying – he was doing a compass swing!
Jack Harrison, Cambridge

COMPARE THE WEATHER – SIMPLES!

FOR many of us, our eyes glaze over when presented with a set of Tephigrams, or even METARS and TAFS. We know we should understand them, but life gets in the way. However, help is at hand – the 21st century has arrived.

Darren Hatcher has stood upon the shoulders of Paul Scorer and Dr John W (Jack) Glendening to produce RASP-based weather forecasts in a wonderfully accessible form. For an average local area soaring club pilot like me they are ideal.

A Rattlesden GC pilot goes to the club website www.ratair.org.uk and clicks on the weather link for the day in which they are interested. (They are on the left-hand side). Wait a few seconds while the graphs are created and, lo and behold, an idiot's view of everything they need to know is displayed. Thermal likelihood and strength, cu potential, cloudbase, wind speed and direction are all displayed in a set of graphs that say it all. All this tailored to the RAT trigram. Also displayed are the RASP diagrams for thermals and Star forecasts for southern England. From this, the pilot can quickly decide if the day is on and how adventurous to be.

I use this and, if I just want to drift around East Anglia, I just need to recheck the graphs on the night before – a one-minute process; access the NOTAMS via SPINE – a two-minute process; check the NOTAMS via NATS AIS – a 40-minute process if there are Royal flight rehearsals, air shows, military exercises, etc and I need to decipher loads of coordinates (when will they get into the 21st century?); think about what sandwiches I want and I am ready for the next day. I repeat the weather and SPINE checks on the day and know from the thermal forecasts

and cloudbase predictions what time to aim for to launch. Simples! (I know – I should have checked AIS again).

For X-C, Darren and Paul have created a link that enables you to put in your own Trigrams so you can check the weather for your potential TPs, again in simple graphical form. Go to www.rasp.stratus.org.uk for this – on the main menu go to useful scripts and then RASP graphs by day. It is pretty obvious what you do then. Some clubs are talking about using this for their sites. You can also use the Track Average and Track Start Time links for an X-C route to get a forecast for that route with chances of making it! (Be aware this is work in progress).

I have long been a fan of RASP but, combined with the graphs, which I have found to be remarkably accurate, it is now even more useful. It gave me a 2hr 22min flight in an Astir on 8 February in flat East Anglia – Darren's graph the night before showed cloudbase peaking at 3,000ft at 13:30, I reached 3,100ft at 13:45!

BUT – you do need to remember that this is all just based on a model using limited data and which is run in advance of real life. Weather is weather and you still need to look out of the window and use your common sense.

Darren, Paul and Dr Jack have put a huge amount of work into making all of this freely available. They are also happy to improve it to increase its usefulness. Try it, it costs you nothing; get involved if you are interested. For far more information than you could possibly want, go to www.rasp.stratus.org.uk
Pete Harrison, Rattlesden GC

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Pictured (left to right): T-31 on launch at Sembawang; Singapore launchpoint; Tutor on launch

MEMORIES OF THE WAVE PROJECT AND SINGAPORE

I HAVE been subscribing to *Sailplane & Gliding* since I first started gliding in 1960 and have received, retained and filed every copy since. Consequently, how pleased I am to have continued my subscription, despite not actively gliding any more, and to see the excellent articles in the April/May 2011 edition on the Helm Wind (p38) and of gliding in Aden (p48). Perhaps I may be permitted to make a few comments on these subjects after consulting my earliest BGA pilot's log books.

I was part of the RAFGSA Wave Project at Crosby on Eden Airfield, near Carlisle, in 1962 and was very fortunate to have several good flights in wave. I was launched by aerotow in the Olympia 2b on 14 February and flew for over 5½ hours to gain my Silver C duration. My logbook remarks were 'Picked up wave at 2,300ft and climbed to 15,000ft, but very cold as 0°C at ground level.' Despite having oxygen, I did not climb any higher because I was feeling extremely cold and the canopy was icing up on the inside. However, I could not claim my Gold height as I was told that my barograph had frozen up, although I personally never saw my trace. Fortunately, I managed to get my Silver height in a 2½hr flight a few days later, with a climb from 3,500ft up to 9,000ft. I believe both these flights were in a strong NE wind and I can remember being south-east abeam Penrith to get the best lift. Thanks to 'Paddy' Kearnon we were being launched up to 5,000ft in RAF Chipmunks with RAF pilots.

Peter Kingwill recalls his flying in Aden and suggests perhaps a tale of gliding in Singapore. So here goes! I was the DCFI

and Aircraft Tech Member of the Far East Air Force Gliding Club in 1966, based at *HMS Simbang*, RNAS Sembawang, which was a Royal Marine base right in the centre of the main island of Singapore.

The club was formed mainly through the enthusiasm and determination of Alan Harndon, an early solo pilot. The club chairman was 'Max' Bacon, who coincidentally had previously checked me out for solo flying in the Slingsby Eagle at Carlisle. The CFI was 'Rip' Kirby and the winch was constructed by Roy Gaunt in the front garden of his married quarters on the Changi Road.

We started flying at RAF Seletar in early February with a T-31 flown out from the UK in a RAF Hastings aircraft. We then moved to Sembawang in early April and flew briefly at RAF Changi later that month as a club recruiting expedition. This is, of course, now the site of Changi International Airport.

Space was at a premium on the RM base, so the gliders were de-rigged every day after flying and stored along the inside of a small ground equipment hangar next to the airfield. The clubhouse/equipment store was a standard international shipping



Alan Jury with Oly 2b at Crosby on Eden Airfield, February 1962

container, which was parked over the top of a monsoon drain adjacent to the glider storage hangar. The launch control point comprised a large tent, which had to be erected before flying commenced, with fold-up chairs and tables and plenty of ice and cold drinks for pilots and their families.

This tent arrangement was essential on the airfield because it was so hot and humid. However, it was logistical nightmare when we had to 'change ends'.

The enthusiasm of club members was outstanding in those early days, because they had each donated large amounts of their money to initially buy the T-31 to get the club going. Furthermore, they would spend all day on the airfield enduring all the hardships just for one or two very short circuits in the T-31, probably with an instructor.

My longest soaring flight in the T-31 was 13 minutes at Sembawang and in the Tutor, which arrived later in August, 21 minutes. This is not surprising considering that we had a 1,500ft height limit over the airfield, because of the three large and very active RAF airfields, a busy international airport at Paya Lebar and a RNZAF Sunderland flying boat base, all on an island just slightly larger than the Isle of Wight. Unfortunately, I had left Singapore by the time the Swallow arrived from Aden.

Alan Jury, Rutland

■ Aden Services Gliding Club has its own facebook page

Peter Kingwill, author of the gliding in Aden article (April/May 11, p48), died shortly after his article was published. See p71 for obit.

A SOURCE OF INSPIRATION TO OUR SPORT

BGA Chairman **Patrick Naegeli** reflects on examples of groups and individuals that have done much to inspire our sport and mourns the passing of two gliding greats, Chris Wills and Nick Goodhart



IT HAS taken a while, five years to be precise, but I have finally figured out the “secret” to writing a regular column for *S&G*. Rather than sit and agonise about what will have to be left out in order to stick within the word limit, one has to think beyond the next issue/deadline and schedule things out over several issues. A bit like *The Archers* – but without the benefit of sound effects.

As a consequence, I will be reporting on such subjects as the impact of the 2012 Olympics, regulatory developments, the future growth prospects for our sport, safety – and our progress against the various aims and objectives that we have set ourselves.

In this issue, however, I want to touch upon the subject of people – specifically, three examples of groups/individuals that have done a lot to inspire our sport. All efforts that we should acknowledge and celebrate, and characteristics that we should encourage more broadly.

One of the great benefits of being part of the BGA is that you get to see a lot of what goes on in gliding beyond the confines of one’s own home club. I take the opportunity to accept as many invitations as I can to visit clubs around the country. I always come away from such meetings with a renewed sense of enthusiasm for our sport, as well as being really impressed by what people are capable of achieving.

A few weeks back, Diana King and I went to Darlton Gliding Club, located roughly in the middle of a triangle between Lincoln, Newark and Mansfield, to attend the opening of its new clubhouse. The day was, however, more than just the opening of a new facility – it was the culmination of the first phase in the establishment of an almost entirely new club.

Darlton GC was originally formed when two earlier clubs – Dukeries GC and Newark & Notts GC – decided to combine their activities after both had to vacate their previous sites. The new club identified a greenfield site, and set about the long

and delicate process of securing a tenancy and establishing an operation.

After several years of effort, the end result is really very impressive. The airfield, clubhouse and hangar areas have all been created and developed almost entirely through the efforts, and not inconsiderable initiative, of club members. The attention to detail is apparent throughout and the whole effect works extremely well.

A similar level of care went into the planning and organisation of the celebrations for the new clubhouse – even down to the fine weather on the day.

What I find especially impressive about Darlton GC is that it has gone through a very successful start-up phase, whilst also investing considerable time and resources into a range of development initiatives intended to grow membership and participation levels. The club is in the first wave of the BGA’s new Junior Gliding Centres and is actively involved in local outreach programmes designed to show that gliding is a sport open to all.

Celebrating the successes of clubs such as Darlton is something that we all take pleasure in doing.

Unfortunately, sometimes we must celebrate things that people have done under more reflective circumstances.

It was with much sadness that, very shortly before my editorial deadline for *S&G*, I was told that Chris Wills had passed away after a period of poor health. Chris was well known to many, and the international gliding movement will be much poorer now that he is no longer around. It will, however, always benefit from his legacy.

Chris was one of gliding’s true characters and was the original architect and driving force behind the establishment and development of the Vintage Glider Club. My final article of 2009 paid tribute to Chris and his work. It appeared shortly after that year’s VGC Annual Dinner, during which the BGA presented him with a special award in acknowledgement of what he had accomplished. Despite his undoubted contribution to gliding, Chris was a man of great modesty, who highlighted the efforts and works of others rather than draw attention to his own.

We have also much to be grateful for to Nick Goodhart, who passed away in April – another character central to the development of our sport. Nick’s many achievements spanned several areas of his life, but it is because of his exploits as a true pioneer of gliding that we have gained most.

Nick and Chris’s official obituaries sum their lives up far better than I possibly could do here. I will, therefore, not do anything more, other than to send our thoughts and sympathies to their families and say “thank you” to both men for what they have given to us all.

Have fun, stay safe.

Patrick Naegeli
Chairman, British Gliding Association
May 2011

SAILPLANE & GLIDING



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Competition flying



Andy Miller
SLMG



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Airworthiness



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Dr Peter Saundby
Medical



Andy Holmes
Winch operating



Carr Withall
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).

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IS YOUR AIRFIELD PROTECTED?

Michael Powell offers advice on safeguarding your gliding site

YOUR airfield may have been a flying site for a great many years, but that does not give automatic protection from local building development, wind-turbines or unsympathetic neighbours who object to 'low flying' aircraft near their homes. There are people out there who think glider pilots deliberately fly low so that they can ogle housewives relaxing by the pool!

The Government is keen to see more alternative energy developments of all kinds, including biomass, solar energy and wind-turbines and gives generous financial grants to encourage developers who, in turn, are able to offer substantial financial inducements to landowners.

New legislation has been introduced setting in place what is called Permitted Development Rights, which to a large extent bypass the normal planning process and makes it easier, for instance, for individual landowners to

install wind-turbines. It still seems to come as a surprise to people buying a house next to an airfield that real aeroplanes come and go on a regular basis. The fact that the airfield has probably been there for a lot longer than the house does not stop them from forming a local 'stop the flying' association.

It is not unusual for one Government Department to work counter to another and we find that although the Department for Energy sees airfields as an ideal site for wind-turbines, the Town and Country Planning Act says that non-officially safeguarded aerodromes should "take steps to protect their locations from the effects of possible adverse developments by establishing an agreed consultation procedure between themselves and the planning authority or authorities". Furthermore, the Department for Transport has said that airfields should be regarded as part of the national transport infrastructure and given

the appropriate protection. Regrettably we have a long way to go before we have the much promised 'integrated transport system'.

An individual airfield may or may not be informed of planning applications falling within its area of activity, which may extend for several miles around the airfield and, if approved, may present a serious safety hazard to flying operations. In the worst case, they may prevent flying altogether. The GAAC, AOPA and the BGA are playing a vital role in defending airfields from the increasing number of threats posed by the expanding windfarm industry and efforts by local residents to curtail or stop flying, but the initial responsibility to take action lies with the airfield operator.

Gliding site operators are advised to contact the BGA Development Committee if they feel threatened by development proposals, eg windfarms.

Recent cases include an airfield on the outskirts of London, which could find the proposed high-speed rail-link running alongside the airfield on an embankment with cable gantries. AOPA is currently dealing with 14 cases of airfields threatened by local planning applications. Recently, Felthorpe airfield near Norwich was advised by the Local Planning Authority (LPA) that an application has been lodged with the LPA for the construction of a biomass generator 13-metres high, directly under the approach to runway 340 and barely 600 metres from the end of the runway.

The likelihood of a successful challenge to a threatening planning application is heavily weighted against the airfield due to a combination of factors, including the Government's encouragement and support of windfarm developments, landowners seeking to maximise their income by renting/selling agricultural land, the perceived environmental 'damage' caused by aircraft, local residents' anti-aviation groups and the need to significantly increase house building.

This somewhat gloomy picture is not without some glimpse of a silver lining, but it does set out the reality of the situation and it



Maybe putting Wing Commander Chalmondeley-Smythe DFC & Bar (retired) in charge of 'Protecting the Airfield Environment' wasn't such a good idea!

is vital that airfields which are not 'protected' take urgent action to set in place what is known in LPA planning circles as 'non-official airfield safeguarding'.

It is up to each individual airfield operator to draw up and submit a 'safeguarding map' and come to a mutual agreement with their local LPA so that the airfield operator is notified of any planning applications falling within the operational boundaries of the airfield, including the approaches to the various runways. A typical safeguarding map shows, by means of colour-coded marking, the safety-critical zones. For example, purple areas show where any proposed building or structure extending from the ground up must be the subject of consultation with the airfield operator, and red zones show where any building or structure above 100ft must be the subject of consultation. The critical areas are airfield specific and will be different for each airfield. For gliding sites, where long, low, final glides are sometimes needed, much lower maximum heights are advised to avoid obstruction hazards and the BGA has submitted proposed guidelines to the CAA, which are under discussion.

The notification by the LPA of the proposed biomass generator adjacent to Felthorpe airfield was the result of lodging a 'safeguarding map' with the Norfolk County Council Planning Authority and the Broadlands District Council. Had the airfield not been 'safeguarded' then it is unlikely that the airfield operators would have become aware of the proposed development on their doorstep until building started.

Fortunately, there is plenty of guidance on how to go about safeguarding your airfield and you are advised to consult the GAAC website at www.gaac.org.uk and go to Fact Sheets 3 and 4. These outline the background to safeguarding and how to go about drawing up a map and submitting it to the local LPA. Further information may be found in CAA publications *CAP738 Safeguarding of Aerodromes* and *CAP168 Licensing of Aerodromes*. These latter documents may be downloaded from the CAA website at www.caa.co.uk – go to Safety Regulation then search on CAP738 and CAP168. The BGA submission referred to is for a proposed CAP764.

The CAA documents are intended to set out the requirements for a licensed flying site (this will not apply to most glider sites), but the information contained in these documents is a useful guide to how to assess the critical areas and what terminology to use. These documents should be quoted as

references in any safeguarding application.

At an early stage in preparing a safeguarding map, you will need a 1:10,000 OS Landplan map centred on the airfield. Because of copyright rules you will need to obtain this map from a local OS supplier (find on the OS website) and you should expect to pay around £60 for a print. Make a temporary copy of this map and mark it up to show the critical areas around the airfield and for each runway approach. Remember that, although gliders may have relatively close circuits and approaches and represent the bulk of flying at your airfield, you should consider allowing for the worst case, which may be a long, low, final glide.

The map should show the heights above which any proposed building or structure would represent a danger to flying activities or would seriously interfere with flying activities. Close to the airfield, these heights would generally be from ground level and may extend along the centre-line half-a-mile from the threshold of each runway. Further out on the approaches, the critical height may start at 100ft above ground level and extend outwards for a further mile.

Although circuit heights are generally around 800ft, it should be remembered that gliders may have to make an immediate return to the airfield in the event of a cable-break or other 'emergency' and may fly an abbreviated circuit and make a final turn at considerably less than the normal heights. The pilot will have enough on his/her mind without finding an anemometer mast directly in his/her line-of-flight! It must also be remembered that glider sites are a little different in that in many cases the 'normal' runway headings may be ignored and gliders may land from any direction, so that critical approach heights may extend much further around the airfield than would be the case for an airfield used mostly by powered aircraft.

Gaining non-official safeguarding status (under Planning Circular 1 of 2003) does not guarantee a quiet life and freedom from threats, but it does mean that your airfield will receive plenty of warning and the Local Planning Authority is aware of your concerns and has agreed to consult on any planning issues affecting the airfield. Forewarned is forearmed, but it will still be necessary to lodge a formal objection if development proposals threaten operational safety.

AN INDIVIDUAL AIRFIELD MAY OR MAY NOT BE INFORMED OF PLANNING APPLICATIONS FALLING WITHIN ITS AREA OF ACTIVITY, WHICH MAY EXTEND FOR SEVERAL MILES AROUND THE SITE



For gliding sites, where long, low, final glides are sometimes needed, much lower maximum heights are advised to avoid obstruction hazards (Ronald Richardson)



Michael Powell is a Board Member of the General Aviation Awareness Council and flies from Felthorpe and Tibenham (Norfolk Gliding Club). He is also a Licensed Engineer, BGA Inspector and LAA Inspector



Schleicher's ASH 30 Mi www.alexander-schleicher.de



Lange Aviation's Antares 23E (above) shares its inner wing with the Schempp-Hirth Quintus M pictured below www.lange-aviation.com/www.schempp-hirth.com



AERO

THREE new Open Class gliders, all designed to the 850kg max (certification), were on display at the AERO 2011 show in Friedrichshafen in April.

Schleicher introduced its ASH 30 Mi, which had its maiden flight earlier in April. The 26.5m span glider incorporates the outer wing geometry and outer wing profile of the ASG 29. The four-part wing comes with detachable winglets as standard. This glider has a max wing-loading of just under 50kg/m² (about 10.2lb/ft²). Its fuselage is a new development. The front seat is modeled on the ASH 26 and the canopy lengthened for improved forward visibility. An enlarged back seat offers leg room comparable with a K-21.

Schempp-Hirth's Quintus M made an impressive display, hanging from the ceiling. This 23m glider shares its inner wing with the Antares 23E, but its outer wing has Maughmer winglets. "The outer wing is an important section to give Schempp-Hirth handling," said Schempp-Hirth's Bernd Weber.

"In competitions, it will have the advantage. No other Open Class glider is able to fly with 58kg, that's a 20 per cent higher wingload. A combination of factors, including high aspect ratio, mean that it thermals well and it has the right parameters for a good climb."

The Quintus also features a highly sophisticated aerofoil, developed by Loek Boermans in a joint venture project. In addition to competition performance, we are told that the Quintus M is ideal for expedition flights over several days, with a lot of available storage space. It has a steerable tail wheel and is said to be easy to rig. "The inner wing is 18m, 90kg. The outer panel is light, so to rig it is similar to an 18m glider," said Bernd.

Lange Aviation's Antares 23E is a longer-winged version of the Antares 20E and features the Antares electric self-launch system. The glide ratio is said to be 60:1. The Antares 23E features five water tanks in each wing, and three in the tail. Holding 250 litres allows a wing-loading range of 40-58kg/m² (8.2-11.9lb/ft²). With its maiden flight due in May, the Antares 23E is likely to cost around 205,000 euros, including equipment, with the exception of instruments and trailer.

O 2011

S&G reports on the highlights of Europe's biggest aviation fair, held in Friedrichshafen



■ The DG-1001TE, above and below, is the electric sustainer version of the DG-1001 family. With its maiden flight in May, this version is expected to cost 130,000 euros, plus tax. The power unit of the DG-1001M, left, was also on display.
www.dg-flugzeugbau.de



■ Schempp-Hirth's Arcus, in all variations, attracted a lot of interest. Thirty have now been delivered worldwide (including one at Nympsfield). The Arcus E, pictured here, is a self-launch two-seater with an electric motor and is produced in cooperation with Lange Aviation. Tilo Holighaus flew the Arcus E in the Berblinger competition (see p17).
www.schempp-hirth.com



■ Skylaunch presented its electric winch. It will set you back £80,000 but, we are told, once bought the cost per launch is virtually nothing. The first electric winch is destined for a club in France, where there is a lot of interest from gliding clubs, which benefit from council funding and additional grants.

Winches are also being delivered to clubs in China, where airspace is now being freed up, and to a new club setting up in Brazil.

Closer to home, a six-drum winch is being field trialled at Cotswolds.

Skylaunch is also working on a winch with disabled access.

www.skylaunchuk.com



■ HpH was displaying its Shark gliders. The maiden flight of its Twin Shark 304TS is now planned for 2012/13.

South East Aircraft Services has been appointed sole UK agent for the HpH Shark family of gliders. Available as an 18m pure glider, a Jet sustainer or as a self-launcher, the Shark has put up some excellent early showings in European competitions. The dealership is bringing a Shark with Jet sustainer to the UK and touring clubs during June. For more information, see www.hphUK.co.uk



TURN TO P16 FOR MORE AERO NEWS



■ The self-launching K-21 Mi formed part of the Wasserkuppe Flying School display. The headrests introduced with the K-21 Mi are now available as a retrofit for K-21s. Mounted on the back rest, the headrest is height-adjustable. When flying without the backrest, the headrest is inserted in a special mounting in the crossmember below the rear instrument cover.

■ Slovenia-based Enstroj displayed its Single Person Rigging Cart, a remote-controlled electrically-driven rigging system. It claims that a glider can be rigged by one person (from parking the trailer until ready for launch) in under 20 minutes. The cradle can hold almost all wing shapes and can lift in excess of 150kg (tested on Duo Discus and ASH25). More about this in a future S&G. www.enstroj.si

■ TeST told us that the electric versions of both its single-seat (TST-10 Atlas) and (TST-14 Bonus) ultralight gliders, manufactured in the Czech Republic, are scheduled for 2012. Over 50 of these models have shipped so far (none in UK). www.testandfly.com

■ M&D Flugzeugbau's diesel jet turbine conversion for the LS4 is currently being certified, with full certification expected by end of the year. Self-sustainer will cost 21,500 euros fitted. Conversions for other glider types are planned (unspecified). Weight 3.3kg. Idle thrust 400N. www.md-flugzeugbau.de

■ Polish-based Allstar displayed its Perkoz, Junior, Nexus and Acro. The SZD-54-2 Perkoz is a two-seater available in two versions: for virtually unlimited aerobic flying, schooling and competition (17.5m); with attached wingtips (20m) as a high performance two-seater for cross-country and wave. Type certification is expected in the next few months. www.szd.eu



■ The Academic Darmstadt Flying Club (Akaflieg Darmstadt) displayed its D44 Soteira Ejection System, a pilot ejection system for gliders. The system will automatically jettison the canopy and lift a 90kg pilot to a height of 20m above the glider before the parachute deploys. At present, there are no production plans or a likely cost. All components have been tested in the laboratory.

The Akaflieg Karlsruhe is working on a jet turbine sustainer for DG-1000, developing 400N thrust. There are no production plans.



■ The Elektra One from PC-Aero had a successful maiden flight, in Germany, just weeks before AERO 2011. It flew for around 30 minutes, using only 3kWh of energy (half of that stored in the batteries). The electric plane flew up to 500m, climbing at 400ft/min. The electric motor that powered Elektra One is rated at 13.5kW (16kW peak). The Elektra One is competing in NASA's CAFE Green Flight Challenge in the US in July and also took part in the Berblinger Competition (see right).

REPORT AND PHOTOS
BY SUSAN NEWBY



■ The Swift Light Electric hang-glider received a 10,000 euro special prize. "If the energy consumption of this prize winner is converted into diesel, then it would lie somewhere between zero and 0.38 litres/100km (619 miles per gallon!) of flight," according to Berblinger Prize officials.



■ The Sunseeker II shared top marks with the Antares 20E. Eric Raymond's concept of the two-seater Sunseeker Duo, also shown at the AERO, heralds the next generation of solar powered aircraft. It is a two-seat, side-by-side glider, based on the Stemme 10 fuselage with a 22-metre span experimental wing section developed at the University of Stuttgart. The wings are covered in solar cells which, because of their construction, integrate fully with the aerodynamic surface. The design range is 700km under power and production is scheduled for 2013.



■ Another competitor was Alisport's Silent 2 Electro, which has an electric motor installed in the nose of the glider, with folding propeller blades. It has retractable landing gear, vertical-design winglets, and horizontal stabiliser with automatic trim. These drag-reducing enhancements are said to expand the glide performance at high airspeeds.

BERBLINGER COMPETITION

AERO 2011 was host to the practical element of this year's Berblinger Flight Competition. The Berblinger prize is awarded for special efforts, developments and innovative ideas in the field of general aviation. This year marked the 200th anniversary of Albrecht Ludwig Berblinger's failed attempt to cross the Danube using a hang-glider. Berblinger, who is regarded as one of the first aviation pioneers to use the principle of gliding flight, found his way into aviation history with his attempts in 1811.

Participants in this year's competition were asked to demonstrate flying using innovative technologies on the basis of the latest research results, knowledge and developments in the field of aviation. Judges were looking for a practical aircraft capable of carrying one or more people, using innovative technology in the construction and/or propulsion, with particular emphasis on environmental sustainability, economy and safety.

Thirty-six participants competed for the 100,000 euro prize. Of the 36 applications received, 24 aircraft were initially admitted to the competition. Thirteen aircraft started successfully; the remaining competitors were unable to take part in the practical phase of the competition due to insufficient financial backing, technical difficulties or absence of the appropriate flying licenses. Eight participants successfully completed the 200km out-and-return flight from Friedrichshafen to Ulm.

Two competitors shared equal high marks and Lange's Antares 20E and Eric Raymond's Sunseeker II were each awarded 45,000 euro.

The Antares 20 E is a self-launching motorglider using a low-noise, ecological propulsion system. The Sunseeker II is a solar-powered, light-weight construction motorglider that has demonstrated that long duration flights powered solely by solar power are possible.

Manfred Ruhmer's Swift Light Electric hang-glider received a 10,000 euro special prize, for success in equipping economically priced sport aircrafts with electrical propulsion. The judges' decision enabled the recognition of "three development projects with totally different technical characteristics".

Holding the Berblinger competition at AERO generated a great deal of publicity for electric flight, with over 34,000 attendees having the opportunity to see true state-of-the-art technology.



Tilo Holighaus (far left) does his pre-flight checks for Schempp-Hirth's Arcus E before taking part in the Berblinger Competition flight from Friedrichshafen to Ulm



Competitors in the 2011 Berblinger Competition included the e-Genius (above left) from Stuttgart University, and the DESIE



■ The German Aerospace Center (DLR)/Lange Research Antares DLR H2 also competed. A successor to this, the world's first piloted aircraft capable of performing a complete flight powered by fuel-cells only, is currently being developed by Lange Research and the DLR. The Antares H3 aims to set new benchmarks for range and endurance. Technically, the new aircraft is based on the Antares 20E, as well as the fuel cell powered Antares DLR-H2. The Antares 20E has been in series production since 2004. The fuel cells use hydrogen as fuel. The hydrogen is transformed into electrical energy in a direct and non-combustive electrochemical reaction with oxygen taken from the surrounding air. The only reaction product emitted is water. The makers claim that the aircraft flies CO₂ neutrally, if the hydrogen is created using renewable energy resources.



Alastair Mackenzie, pictured NW of Ferrybridge above cloud at 6,000ft, bought his original German-built ASW 20L in August 2000. He says: "It's a great glider to fly, with responsive, well-harmonised controls and great performance. The powerful landing flaps are a great asset for cloud descents and short field landings and it can keep up with most modern 15m and 18m gliders, at a fraction of the price."

VARIETY ON AN ASW 20 THEME

Have you ever wondered what the differences are between various ASW 20 models? Tim Macfadyen reveals all...

I HAVE flown and worked on the various ASW 20 models and flown mine for 30 years and 3,000+ hours. I have often been asked what the differences are, so here goes:

- The old ASW 20 is sometimes incorrectly referred to as the ASW 20A, but is correctly called an ASW 20. It came from the Schleicher factory with the old bendy wings, a drum wheel brake, a large fixed instrument panel and the 55° "Jesus" flaps for very small fields that you shouldn't be trying to land in.
- The ASW 20 B&C have a (rubber) sprung U/C, a disc wheel brake, lift-up instruments,

an auto-connect elevator and the blown wing, which raises the handicap out of the Club Class and very slightly improves the performance. They don't have the full "Jesus" flap setting, but have adequate landing flap for any normal situation. They also have an expensive pitot/static/TE tube on the fin that stops working in the rain and is easily damaged. The old nose pitot and fuselage static vents system worked better, but is not quite so accurate. I converted one ASW 20C "back" to the old system.

- The ASW 20C is otherwise like the A,

except that the wing is very slightly stiffer.

- The ASW 20B is like the C, but with a much heavier, stiffer wing that makes it able to carry more water. It feels completely different to fly from the other floppy models. The extra weight (~70lb) makes the glider undesirably heavy in 15-metre form for normal UK weather, so it is normally flown in 16.6-metre form. This is OK for club flying, but the handicap makes it pretty uncompetitive. It was designed to be flown full of water in strong continental conditions, where I believe it is good.

- The L version adds 16.6-metre wingtips, which are a waste of time on the "A" version, except in extremely weak conditions. They improve the performance at very low speed, but make the wing twist and thus reduce performance above about 65 knots. They are heavily handicapped, so mine have been collecting dust in my workshop for 20 years. The wingtips are OK on the B, which has the stiffer wing, and may work a bit on the C, which has a slightly stiffer wing.

- The ASW 20F is the French-made version of the "A". Performance is identical and they nearly all have lift-up instruments, which is useful, but they have mandatory mods every now and again to fix problems. It is probably worth paying a bit more and getting a German one, but don't discount a French version. You can't fit the 16.6-metre tips to the F (20FL) unless you carry out an expensive wing-strengthening mod. This is definitely not worth doing (see above).

The stand-up winglets that some people have fitted, including Masak winglets, cost a point of handicap (which puts it out of the Club Class). They may improve the climb a bit when full of water. I made some Masak-type ones, but have not used them for some years. Some people say that the more modern ones work well; they certainly make the glider look more modern.

I, and others, find that we can't beat the Cirrus on handicap on good UK days, (~4 knots) despite the ASW 20 being 50-70lb heavier, but we win out on the bad days when the glide angle gets you to the next thermal (or home), not the next field. This was the story on the days that ASW 20s won in the 2008 and 2009 UK Club Class Nationals. The ASW 20 is very much better than older and contemporary gliders in the rain and with bugs. I believe that in good continental conditions (6-8 knot thermals) the ASW 20 should win the Club Class.

It is essential to fly with the CofG fully aft. The small tailplane generates lots of



ASW 20C wing pitot, static and TE probe



Above: ASW 20 showing large fixed panel



Above right: ASW 20C wing pitot connected to the blow holes



Right: ASW 20 showing 55 degree flap and drum brake



ASW 20C auto connect elevator



ASW 20C hydraulic brake



ASW 20C lift-up panel



ASW 20C showing max landing flap



ASW 20 elevator connection



Tim Macfadyen started gliding at Lasham, aged 14. He has three Diamonds and a UK 750km diploma (flown in the ASW 20 (EEE) that he has owned for 30 years). Tim has flown 130 types of glider, including seven varieties of ASW 20. A member of Nympsfield for 20 years, Tim became an inspector in 1975 and is now the vice-chairman of the BGA Technical Committee. He created and writes the BGA glider data sheets and been responsible for many glider modifications, including the Std Cirrus airbrake mod and the BGA cockpit weight increases

✎ drag if the CofG is anywhere else. You therefore need a very carefully calculated amount of lead in the tail. If you start with the CofG fully aft and then add half water it flies OK. With full water it is better, but not essential, to have a tail tank to move the CofG back aft. I fitted a tail tank. A tail wheel is useful as it keeps you straight on runway take-offs and aids ground manoeuvring.

ASW 20s are pretty strong if you land them on their wheels, but the belly is weak. Take the seat out (many screws) and thoroughly examine the internal structure before purchase. If you are mending the bottom, put some extra glass around the belly to make it stronger, otherwise a wheels-up landing will probably damage the glider.

Some max cockpit loads are getting very low as the gliders age and get heavier. Check this before purchase.

All models were made with Vorgelac gelcoat. This lasted about 10 years before cracking badly so almost all models have been repainted by now. Schwabbellack seems to crack on the bendy wings and on the (square) corners of the air brake boxes, especially if put on thickly. One of the various modern two-pack schemes is probably best.

I find the very bendy wings (on all except the B models) give a comfortable ride. A very few people find they make them sick and prefer the B (which most people don't like). It really is a matter of taste.

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PRESS-ON-ITIS

Darren Smith has never forgotten getting into trouble during his first competition. Here he shares the lessons he learnt



Darren Smith is pictured (front) with Neil Shaw at Portsmouth Naval GC, where he was assisting Mike Fox with an Ass Cat course

I WAS WAY OUT OF MY CURRENT COMFORT ZONE AND I WAS WELL AWARE THAT I HAD DISREGARDED MY TRAINING AND WAS IN TROUBLE

GLIDING and, in particular, competition gliding is a dynamic and challenging sport. In the UK, every year between May and September, there could be two or three simultaneous events, which typically last for nine days.

The format is reasonably simple, the task setter will brief a task based on the weather forecast and at a given time all of the gliders will be stream launched (by several tug aircraft) to try and fly around it as quickly as possible. It is not uncommon for 50 or more gliders to be racing around a 300km triangle – not necessarily at the same time as it's the fastest around, not first back.

The aircraft themselves are almost invariably white and have a very small cross sectional frontal area. Particularly on a dull day, when there is no sun glinting on the wings, they can be exceptionally difficult to spot. Cruising speeds regularly exceed 100kt and when thermal 'streets' develop many tens of kilometres can be flown, wings level, at high speed. The gliders can and will operate between very low and cloudbase. Cloud climbing is allowed and oxygen is often carried, so gliders can be encountered at higher flight levels. Typically though, they will be found in the upper half of the available height between ground level and cloudbase.

Anyway, I was several days into my first gliding competition and doing surprisingly well. The forecast was poor with a low, weak level of convection predicted and the day's thermal activity was forecast to end early. There was a strong inversion and horizontal visibility was so poor that many competitors were questioning the wisdom and legality of flying. Not me though. I had a hundred hours under my belt and couldn't wait to get on with it! A short task of around 120km was set.

The start sector didn't go well for me and I struggled to climb to a decent height, in the right area, to start the task. I should point out

that the physical act of flying does, or at least should, consume a very small percentage of your capacity in a gliding competition. Most of your attention should be devoted to lookout, navigation, tactics and, particularly with so many gliders operating very closely together, lookout (yes, again).

With the early cut-off in mind, most pilots elected for an early start. Stuck low in the start sector I was getting increasingly frustrated listening to people radio in their start times and report their progress down the first leg and I eventually made a start from what I knew was a less than optimum position.

Listening to other competitors report progress on the radio, the pressure and frustration grew. I was flying inappropriately and made increasingly poor decisions in an attempt to catch up. The visibility deteriorated, it seemed to be virtually nil towards the sun and if it wasn't for my GPS I would have been lost over the unfamiliar countryside. Resigned to losing lots of points, I switched from racing to survival mode, to avoid landing in a field, and suddenly started flying better. Then I started flying over lots of gliders that had landed out in fields – my spirits soared (sorry, terrible pun!) at this beautiful sight!

Passing an airfield, a more experienced friend, having thrown away some altitude to land there, tried to talk me into a safe landing with the option of an aerotow retrieve. Field landings can be hazardous and you have to wait for your retrieve crew with a trailer to arrive – he may also have been influenced by the fact I was flying our syndicate glider! I declined and pressed on.

The thermals were now very poor. I was achieving less than 100 feet per minute climb rate and they were topping out at the inversion, which was down to around 1,800ft above ground level. It was very hot in the cockpit and I'd run out of drinking water some time before.

I was chatting with another friend, on a dedicated gliding frequency, who had made a landing at Silverstone, which was about three quarters of the way around the task. Aware of my inexperience, and no doubt concerned for my safety, he suggested that I landed there too. The fact that he would have beaten



me on the day due to our gliders' speed index or handicap was no doubt incidental to him, but it was certainly at the front of my mind. However, the day was done and I decided to land with him. Then I found a 25ft/m thermal. After an interminable climb I topped out at 1,700ft. My glide computer told me that I would just make it back to base at 52kt – ie at my best glide angle speed with no speed or altitude reserve and, because of the poor visibility, unable to use visual cues to monitor my progress.

I knew the computer was optimistic, but so was I and so I set off into the murk completely unable to see my destination airfield that was still over 10 miles away. Slowly falling further and further below a sensible glide, in the eerily smooth evening air, I pressed on in the hope of a last thermal. By the time I resigned myself to a field, I was very low.

Although my aircraft would travel around 10km from 1,000ft, the height I had meant that I couldn't see any usable fields. I was way out of my current comfort zone (having flown numerous competitions and well over 1,000 hours since) and I was well aware that I had disregarded my training and was in trouble. At last, I saw a suitable field. After flying around a stand of trees, I was obliged to clear the hedge *before* lowering my undercarriage.

The potentially fatal urge that I felt to pull back on the stick during the very low – and only just fast enough – final turn is still

indescribable. The approach was without airbrake, yet the flair and landing roll were very short – I just got away with it.

I learnt several lessons about flying from that experience:

- Your workload is high in a gliding competition. I was very inexperienced and completely failed to consider how much higher it would be in the poor visibility and weak soaring conditions. **I was over confident.**
- Pressure, which was entirely-self induced, affected my performance to an alarming extent. **I failed to accept the conditions and the situation in which I found myself.**
- It's well known how dehydration affects your mental and physical performance. Long glider flights can easily last more than eight hours. **I now ensure I have adequate supplies of food and water.**
- I twice failed to heed the advice of more experienced colleagues. Landing at Silverstone should have been a no-brainer. **Clear press-on-itis.**
- I should have had a specific landing site selected by the time I was down to 1,000ft AGL and, ideally, an alternative. **Rules are usually the result of accumulated wisdom, which has often been hard won.**
- I fully understood stalls and spins. They are things I practised (and now teach) regularly. I still don't quite 'get' the almost overwhelming urge I felt to pull back on the stick during my final turn. **I do understand that 'it' could happen to me.**

Darren Smith pictured in a motorglider during an Ass Cat course at Lee on Solent (Mike Fox)



Darren Smith is a 39-year-old aircraft engineer serving in the Royal Navy. He has been flying for around 11 years and was hooked after participating in a RAFGSA course at Bicester (now a joint service course at RAF Halton). Since then he's accumulated around 1,100 hours gliding and 250 hours power. Darren has been a Full Cat since 2006, holds a BGA MGR and is a tug pilot. He has three Diamonds and is an inspector/ARC signatory. Darren's home club is Heron GC at the Royal Naval Air Station Yeovilton in Somerset, where he recently became CFI



SICK AND TIRED

Nick McCloud explains, from experience, how to mess up a good soaring flight by not drinking enough (water) the day before



Dehydration together with one poppadum and hot curry too many proved a bad combination

THE first indication that this wasn't going to be the stellar performance that I'd hoped for came in the first five seconds of the flight. With a crosswind component I kept the wings level on the ground run, but became fixated on the ASI as the needle progressed to 55kt and beyond. At 65kt my brain caught up and, in a questionable act of over compensation, I rotated into the climb faster than I should have.

After a three-year lay-off, a return to the north-west and back at my original home club, I was keen to demonstrate that I was close to re-soloing and this wasn't what I had in mind to inspire confidence in the senior

instructors. Demonstrating my awareness of my transgression, I said: "I'll tell you where that went wrong when we get back." The relaxed voice in the back seat just said: "OK."

With a decent height off the cable I turned right as planned, contacted a thermal quickly and corkscrewed up to cloudbase in double quick time, a gentle patter running as I spotted fellow club members flying nearby, head swivelling with the by-the-book scan pattern, tightening up the turns as I correctly anticipated the best part of the lift. Looking good, feeling good, feeling confident as I reached cloudbase and saw that of the other gliders in the immediate area, I was top of the stack.

And then a question from the back. “Why shouldn’t you lurk just under the bottom of the clouds?” I fished for an answer, but basically I was guessing. As we were a little downwind at this point I started looking for a thermal indicator upwind to try for. With a patchwork of lift, there were gliders zipping about just under me and I was trying to keep track of them, plus the private owner who was with me in my previous climb and somewhere behind me, but possibly down and to the right.

I stopped guessing and asked for the answer. Which turned out was not going to be a three-bullet point response. Keeping my scan going and looking for my next thermal I tried to defer the inflight tutorial, but the hint wasn’t taken so I tried to show willing by joining in. With other gliders still sniffing out their own place in the sky, my workload of fly, scan, thermal hunt and listen was increasing, the flying greenhouse I was in was getting warm and I was getting a bit on the hot and bothered side.

After the impromptu lecture came to an end, I was prompted to find a purpose to the flight other than just finding lift and reaching cloudbase as I could clearly do that well, and I received a delighted response to my suggestion of doing a local task. So off I went. Along with some discussion about the movement of the air, the cloud streets, the best places for lift, doing a beer can turn over the first mast, all the while flying and keeping an eye on my gliding colleagues.

Round the first turn and off to the next.

And then, in one of those heart-sinking moments, a cold wash of adrenaline ran over my body as my system told me that it had stepped right out of its comfort zone and it was going to have to take some remedial action. I was feeling airsick. The sort of nausea you know is not going to go away. I hadn’t actually been airsick since doing three loops in a Chipmunk with my father during an ATC Air Experience flight about 30 years ago. My ATC colleagues laughed then. I couldn’t imagine what the bar talk would be if I disgraced myself now.

Whilst heading off at a nice pace through the nil-lift, two down on my way to the next fluffy cloud I tried the most typical of male responses. Denial. My more rational side fitted the case for nausea together and presented them so that I could be in no doubt about my situation in a quick series of cameos.

The day before, because that was where this started from, had been the wrong sort of crosswind, far too strong. So we had a lecture

on instruments and at lunchtime we all dispersed. The bunkrooms were full so I was going down to the Stables B&B, where I was staying with my wife, Helen.

After a pretty hectic week I was happy to sit in the room, read and inevitably doze off. Which meant that one of my key ingrained rituals, the mid-afternoon pint of squash, got missed. I love coffee. Tea’s OK. But I can only drink so many cups without getting a caffeine twitch; trouble is I hate the taste of water. So each day I force a pint of squash down in the afternoon. But not this time, I was dozing.

We decided to try out a local Indian restaurant that we’d driven past several times before. And in my stupidity, I substituted the evening’s pint of squash for a pint of Cobra. The food was excellent and demanded a second pint, as Helen was happy to drive back to the B&B.

Up early and back to the club for a fine full English with coffee. Briefing. Get the kit out. Help out at the launch point. Bit windy, so three thermal layers.

So there I was, heading off to the next mast, dehydrated and wearing about two layers too many whilst working hard to aviate, navigate and communicate. No wonder my system was rebelling.

I had to bite the bullet. “Sorry John, I’m going to have to go back in, I’m feeling pretty nauseous. I’ll let you know if I need you to fly.” I got a brief acknowledgement, there was some shuffling in the back as I turned back towards the airfield, and emerging over my shoulder came a plastic bag. I politely declined the offer as I wasn’t even close to needing one, but it did make me smile.

So, on circuit, good approach, could have been a bit more held off on round-out, but all safe and back on the ground. Unstrapped and ripped off my top two layers and breathed in the cool air. Feeling much better. Relatively.

How many times before had I seen the “I’M SAFE” slogan and pondered its wisdom? But I suppose I had to have a negative experience to really understand its significance.

And whilst the actual experience was pretty trivial, I had missed out on a good soaring opportunity to do something other than bumble about the sky.

Lesson learnt.

A COLD WASH OF ADRENALINE RAN OVER MY BODY AS MY SYSTEM TOLD ME THAT IT HAD STEPPED RIGHT OUT OF ITS COMFORT ZONE

I’M SAFE

Illness – I was in good health.

Medication – nothing there.

Stress – I was fairly relaxed up until then.

Alcohol – whilst the effect from alcohol from the two pints I’d had was well past, the dehydration effects hadn’t been dealt with at all.

Fatigue – perhaps could have got more sleep during the week before?

Eating – one poppadum and a hot curry too many?



Nick McCloud has been a perpetual early solo pilot since 16, but hopes to get his Bronze at Camphill this summer





This page, from top:

Ed Downham flew a 402km triangle on 23 April, with Steve Lynn, in 13 (ASH 25 EB-28): Bicester - Newmarket - Darlton - Bicester. This shot was taken after a cloud climb on the final leg, which took them up to around 8,200ft. It was below freezing and you can see a bit of ice on the starboard wing. A bug had been hanging on to the front of the canopy since launching and was still there after the climb, but frozen solid. When Ed landed at Bicester, the bug flew off, none the worse! (Steve Lynn)

Soaring above Shenington during the club's spring soaring week. The photograph was taken from a K-21 looking down on the launchpoint, a K-6 flown by Eric Lown and a DG-500 flown by John Donovan (Ian Atherton)

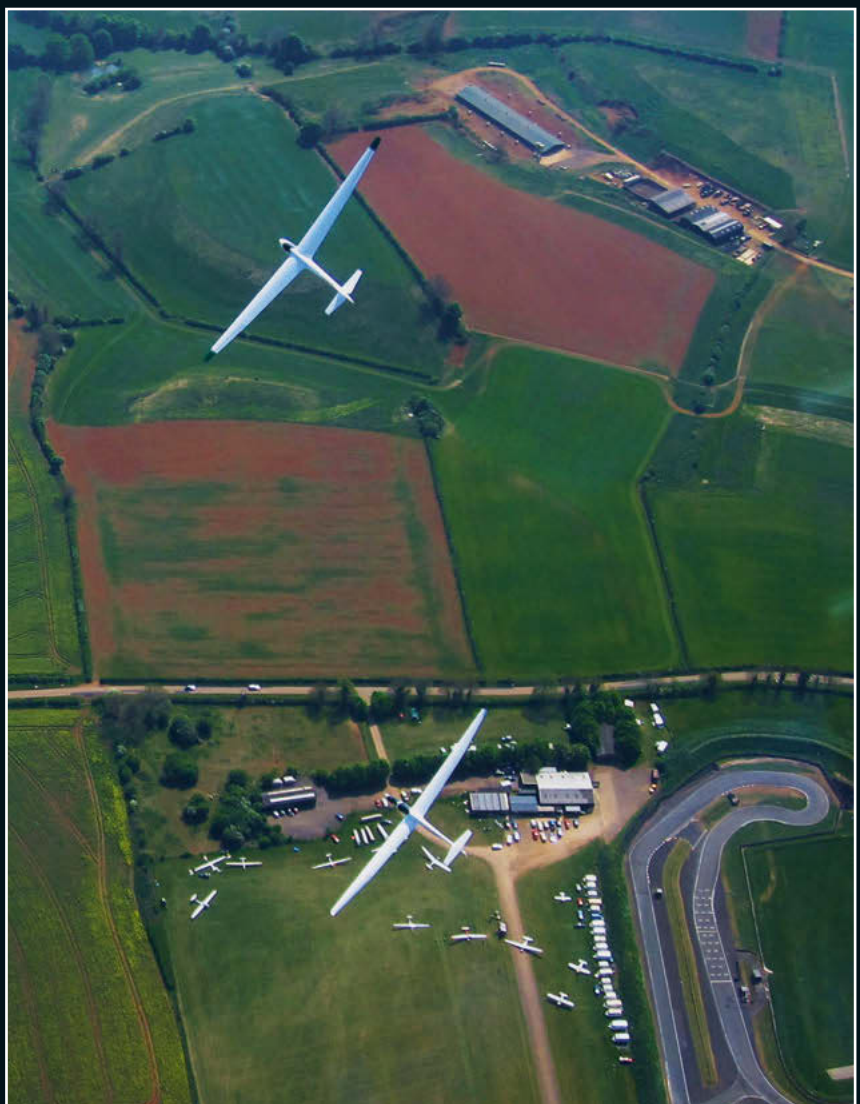
Facing page, clockwise from top:

Henry Ford (front) and James Hood, happy in Devon & Somerset GC's DG-505 at 7,000ft (James Hood)

The other four photographs on this page were all taken at the Long Mynd one day in April, just after a sudden and heavy hailstorm. The first two were taken by Greg Monaghan, who was there as part of a Cambridge GC expedition

The violent hailstorm at the Mynd was followed by a double rainbow and orographic cloud that were really very spectacular (Mike Greenwood)

If you would like your previously-unpublished photographs to be considered for inclusion in *Gliding Gallery*, send them to editor@sailplaneandgliding.co.uk



THE BGA SAFE WINCH LAUNCH INITIATIVE FIVE YEARS ON

Hugh Browning reports a decrease in the number of fatal or serious injury accidents during the first five years of the BGA safe winch launch initiative and highlights elements for staying safe

ALL accident reports held by the BGA were reviewed during 2004 in order to identify clusters of the most serious accidents. It became clear that accidents associated with incomplete winch launches accounted for 30 per cent of all fatal and serious injury gliding accidents.

A project to reduce the frequency of winch accidents was begun. The importance of releasing immediately if the wing was dropping during the ground run was well known, and for some years the instructor's manual had been stressing the necessity to adopt a recovery attitude and restore the approach speed after a failure in mid-launch. However, the conditions for an accelerated stall and flick roll to inverted flight during rotation had not been established, and the combinations of climb angle, airspeed, height, reaction time, push over g, and recovery dive angle that would lead to a

stall or hitting the ground nose first after a launch failure near the ground had not been determined.

After having quantified the rotation rate that would avoid an accelerated stall and flick roll during rotation, and having shown that the same launch profile would permit recovery after power loss near the ground, a booklet was published in October 2005 indicating how the hazards at each stage of a winch launch can be avoided by flying a particular climb profile and being ready to take the correct action when faced with adverse circumstances.

This 2005 communication has been followed by three subsequent editions of the booklet and a range of other communications, including video simulations of winch launch accidents on the BGA website. There has been considerable international interest. Requests for project material have been met from 11 countries. The modelling results were published in the OSTIV journal *Technical Soaring* in 2006.

The BGA has provided advice on winch driving to achieve appropriate cable speeds and accelerations. Some clubs have upgraded their winches to ensure cable speed is always adequate for safe launching in light winds.

Winch accidents in the five years from 1 October, 2005, to 30 September, 2010, are summarised in the table (left) and compared with those in earlier five-year periods.

In the five years from 2006-2010:

- There were four fatal or serious injury accidents, in comparison with 16 in the previous five years, a five-year average from 1976-2005 of 15.8, and a five-year weighted average of 11.7, which takes account of the reduced volume of winch launching compared with earlier years.
- The number of substantial damage accidents declined by 30 per cent.
- The reduction in the most serious accidents is attributable to fewer stall/spin accidents; there was one fatal/serious injury accident involving a stall or spin by a solo pilot, but nearly eight would have been expected at the previous rate.
- The frequency of accidents to experienced

Winch accidents 1976-2010

	Fatal injury	Serious injury	Fatal/Serious injury	Fatal/Serious injury rate per 100,000 launches	Substantial damage
2006-2010	2	2	4	0.41	22
2001-2005	7	9	16		34
1996-2000	2	9	11		42
1991-1995	8	10	18		47
1986-1990	4	13	17		47
1981-1985	5	11	16		40
1976-1980	5	12	17		55
total 1976-2005	31	64	95	1.20	265
actual five-year average 1976-2005	5.2	10.6	15.8		44
weighted five-year average 1976-2005	3.8	7.9	11.7		33

Note: the fatal and serious injury and substantial damage totals include all winch accidents; the weighted five-year average totals and the five-year rates per 100,000 launches exclude RAFGSA accidents and launches from 1974-1997. 'Weighted' assumes accidents are proportional to launches and in each five-year period there was the same number of launches as from 2006-2010 (launches in 2010 are assumed to be the same as in 2009).



pilots from a wing-drop followed by a groundloop or cartwheel was unchanged. Two of the fatal/serious injury accidents were of this kind.

- Instructing accidents continued at 30 per cent of the total. Five of the 22 substantial damage accidents followed power loss in mid-launch and an abbreviated circuit.

These results are encouraging, but it will be very important:

- To retain the vigilance necessary to avoid stall/spin accidents.
- To convince experienced pilots to release if they cannot keep the wings level.
- For instructors to take over early if P2 is not coping correctly with a simulated or real launch failure.

The most critical elements for staying safe are:

- If you have difficulty in keeping the wings level before take-off, release before the wing touches the ground.
- After take-off, maintain a shallow climb until adequate speed is seen with continued

acceleration. Then allow the glider to rotate at a controlled pace. If power is lost near the ground, immediately lower the nose to the appropriate recovery attitude.

- After power loss in mid-launch, adopt the recovery attitude, wait until the glider regains a safe approach speed, and land ahead if it is safe to do so.

Recent communications to pilots and instructors congratulate them on having achieved safer winch launches, but point out further effort is needed to achieve even fewer accidents.

Copies of a summary of the advice for safe winch launching have recently been distributed to clubs with a request that these leaflets be on permanent display to facilitate reaching all current and future pilots.

ACKNOWLEDGEMENTS:

Valuable contributions to the BGA safe winch launch project have been provided by Trevor Hills (mathematics and computing), Pete Masson (video simulation), Andy Holmes (cable speed issue and winch operations), Mike Wilde (design), Keith Auchterlonie (publications)

IN THE FIVE YEARS FROM 2006-2010 THERE WERE FOUR FATAL OR SERIOUS INJURY ACCIDENTS, IN COMPARISON WITH 16 IN THE PREVIOUS FIVE YEARS

■ For further information on safe winch launching, see www.glidering.co.uk/bgainfo/safety/safewinchlaunching.htm



Major Filippo Zuffada, Commander of the Italian Air Force Gliding Centre at Guidonia-Montecelio, wants to combine his vast gliding experience with fresh ideas for the benefit of instructors and students

THE Italian Air Force's (Aeronautica Militare – AMI) Gliding Centre (Centro di Volo a Vela) is located at the historic airfield of Guidonia-Montecelio, to the north east of Rome, **writes Philip Stevens**. Here the AMI's potential pilots are trained to fly gliders.

In November 2010, Major Filippo Zuffada returned to Guidonia as the new Gliding Centre Commander. Major Zuffada was born in 1970 and, at 20, joined the AMI for the four-year flying training course. After graduation he was posted to Decimomannu, Sardinia, and for the next three years piloted helicopters for Search and Rescue operations. He later completed nine years at the Gliding Centre at Guidonia as an instructor pilot before transferring to 61st (Jet Training) Wing (61° Stormo, 213° and 214° Gruppo) at Lecce as an instructor on the AerMacchi MB-339A jet trainer.

His varied flying experience totals around 1,000 hours on helicopters, 1,000 hours on gliders, 1,000 hours on single-engine propeller aircraft and 1,500 hours on jet aircraft. More remarkable, and why he is a major inspiration to those under his command and to his students, is that he has twice been runner-up in the annual world gliding competition the 'Campionato Mondiale Militare di Volo a Vela' for Air Force flying schools. He is a highly skilled glider pilot.

Major Zuffada is a firm believer that learning to fly a glider is very important for student pilots as it teaches them how to fly an aircraft and improve their general flying skills. "The glider pilot needs to use all the flight controls, especially the rudder pedals. When flying a powered aircraft, the pilot uses the rudder very little. You learn 'Energy Management' that is Altitude versus Speed," he says, adding that

MILITARY

the pilot has to be focused when flying a glider. "You don't have a second chance in a glider when in the approach, the pilot must have good parameters all the time."

The Guidonia airfield is steeped in history. It is named after General Alessandro Guidoni, who was killed when testing his own new design of parachute on April 27, 1928, in this area. He had lived in the nearby town of Montecelio. On the seventh anniversary of his death Duce, Benito Mussolini laid the founding stone of a military town and airfield named Guidonia, which was to be constructed at the location of his tragic death.

The airfield was used as a testing facility for the Italian Air Force and was equipped with a revolutionary wind tunnel and a large water tank to be used for testing sea planes up until the outbreak of the Second World War. When the German forces were in retreat in 1944, these and other historic buildings were blown up; their ruined remains have been left untouched to this day as a memorial. The testing of aircraft continued here until the Experimental Flight Test Wing (Reparto Sperimentale Volo – RSV) moved to Pratica di Mare, south of Rome, at the end of the 1950s, leaving various training units to operate from the airfield.

The General Staff approved the creation of a gliding centre in 1943 and by 1951 it had become part of the Italian Flying Club. The AMI Gliding Centre was formed and operated from Guidonia and Rieti from August 1959, utilising Canguro gliders and P.148 towing aircraft. In 1967, the new SIAI S.205 and also the SIAI S.208/M were delivered to the Centre. In 1976, two new gliders were introduced – the Caproni A21S Calif and the LET L13AC acrobatic Blaník – to replace the now ageing Canguro gliders. In 1984, a Grob G103A Twin Astir II arrived followed by the Schempp-Hirth Ventus 2B and Nimbus 4D in 1997. Recently 303° Gruppo with the Piaggio P.166M relocated to Pratica di Mare from Guidonia, leaving the Gliding Centre as the only base flying unit.

Today the Gliding Centre at Guidonia comprises 422 Squadriglia Collegamenti



with Twin Astir II and Nimbus 4D gliders. The Twin Astirs are used by the students and Nimbus 4Ds for advanced and competition glider flying. Also here are the 423 Squadriglia Collegamenti with the S.208Ms, which are used for glider towing. There are also two Guidonia-based Breda-Nardi Hughes NH-500E helicopters belonging to the Helicopter Flight School (72° Stormo) at Frosinone. 208° Gruppo operate the NH-500E, which are principally used for communications duties.

The unit has nine instructors, all qualified on all three types of based aircraft. While their main activity is student glider pilot training, the instructors are also available for 'check-rides' for desk-based officers at AMI headquarters in Rome, who are required to maintain their currency as pilots.

Moving to Guidonia to fly gliders

From the end of January each year, around 45 students arrive from the AMI Academy (Accademia Aeronautica) at Pozzuoli near Naples for the glider flying training course. Their first year would have been spent at Latina Air Base learning to fly (in around 18 hours) the SIAI SF.260 and where ↻

Above: The gliders are towed to the runway by Land Rover and are connected to the SF.208M towing aircraft ready for launch

Left: Grob G103A Twin Astir II with Major Filippo Zuffada at the controls demonstrating some simple aerobatics

MAJOR ZUFFADA IS A FIRM BELIEVER THAT LEARNING TO FLY A GLIDER IS VERY IMPORTANT FOR STUDENT PILOTS AS IT HELPS THEM IMPROVE THEIR GENERAL FLYING SKILLS

WHY ITALIAN AIR FORCE PILOTS LEARN TO GLIDE

AN ADDITIONAL 70 STUDENTS FROM THE AMI MILITARY SCHOOL WILL ALSO ATTEND THE BASIC GLIDER FLYING TRAINING



SIAI S.208M (MM61983 '1') is about to drop the tow rope over the airfield. The town of Montecelio is in the background



For over 35 years Philip Stevens has been photographing aircraft, particularly military and classic civilian aircraft. He often stands on the hillsides in Snowdonia and Cumbria waiting for military aircraft that are flying fast and low so he can capture the action. More recently Philip has been visiting gliding centres and has found slim sleek lines of the glider very attractive. On meeting members at Long Mynd he has almost been persuaded to go on a gliding course

they will have gained their pilot's wings. Of the original intake, only around 60 per cent of the students will make it to the second part of their military pilot training course at Guidonia. Here they should all attain their glider pilot wings before being offered one of three options to get their military pilot wings: **Option 1:** return to Latina for the advanced propeller aircraft training course on the SF.260 and to then progress to Lecce Air Base to learn to fly the MB.339A jet trainer.

Option 2: transfer to the Rappresentanza Aeronautica Militare Italiana (RAMI) at Sheppard Air Force Base, Texas, in the United States to learn to fly the T-6 Texan II before moving on to the Northrop T-38C Talon jet trainer, also based at Sheppard AFB. (In 1983 Italy became part of the Program Euro-NATO Joint Jet Pilot Training (ENJJPT) and under this program the facilities at Sheppard were made available to the AMI.)

Option 3: transfer to RAMI at Kalamata Air Base in Greece to fly the Beechcraft T-6 Texan II

before moving on to the MB.339 at Lecce. This 10-month RAMI training course at Kalamata was set up in July 2009.

The AMI HQ Commander makes the decision as to which student takes which of the three options, the decision being based on the student's proficiency in the preceding years.

An additional 70 students from the AMI Military School (Scuola Militare Aeronautica) at Florence will also attend the basic glider flying training course at Guidonia. These students are there to gain flying experience only and not to qualify as military pilots.

Learning to fly the glider

Following two weeks of ground training, 15-20 students at a time are trained to fly gliders. For each student 10-12 flights that total up to seven hours in duration are sufficient for them to earn their wings and fly solo. The flights are short, perhaps only 25 minutes in duration, with the instructor during each sortie teaching only basic flying manoeuvres. They will be towed to between 2,000ft (610m) and 3,000ft (914m) and released to make their way to the airfield for a landing. The S.208M will have already dived on to the airfield to release the tow line and landed. The glider is immediately connected back to the towing aircraft ready for the next

student. It is a very efficient system enabling many students to fly in each session.

Typical of the nine instructor pilots based at Guidonia, Captain Stefano Rotatori has for the last four years been an instructor on the Grob G103A Twin Astir II. He is also an instructor on the S.208M and on the NH-500E helicopter. Captain Rotatori and the other instructors are determined to make sure each student passes the course. Although each student can have their own character he says, "80 per cent of their mistakes are the same". He is seldom surprised, he says. "You try to keep your hand from the stick for as long as possible before taking over. They must learn from their own mistakes."

The gliding courses run until September each year, which is when the Squadron makes plans for their deployment to three airbases around Italy to provide flying experience for 16- to 20-year-old students who are considering joining the AMI. The locations change each year, around 200 people at each place are given a week of lessons in aerodynamics, followed by glider flying experience in their second week.

The original Grob G103 Twin Astir is a two-seat sailplane which was designed and built in Germany in the 1970s with production continuing until 1980. The new improved design followed, designated the G103A Twin II or Twin Astir II is flown by AMI students. It is of glass-fibre construction with a non-retractable undercarriage and has upper wing surface airbrakes. It is designed for training, high performance and can be used for simple aerobatics. A strengthened variant, designated the Viking TX.1, was later produced for the Royal Air Force Air Cadet training programme. Eventually 549 G103As (including 100 Viking TX.1s) were built before they were superseded by the G103C Twin III in 1989.

Major Zuffada, as the new Gliding Centre Commander, wants to combine his vast gliding experience with fresh ideas for the benefit of his instructors and students. He hopes he can extend the glider flying programme and also make contacts with other military gliding centres around Europe to arrange squadron exchanges.

His first port of call is the RAF's own Air Cadets, who fly similar gliders to his. Following his initial contact it appears that the RAF would be happy to participate in a two-way squadron exchange.

I wish him and the Gliding Centre well and would like to thank them for the generous hospitality during my visit.

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IN SUPPORT OF EFFECTIVE LOOKOUT



Collisions have accounted for 20 fatalities in the UK over the past 23 years. Chris Nicholas offers a personal viewpoint on technology that can support 'See and avoid'

THE EYEBALL, using "See and avoid", is an imperfect anti-collision tool. In a 23-year period for which total statistics for UK gliding are now available (1987-2009), there have been 38 collisions between a glider and another glider or aircraft, including glider tug rope collisions, with 20 fatalities – almost one a year. It's up there with launch failures, and other spin/stall accidents, as a significant threat.

An official body, the Air Accident Investigation Branch (AAIB) referred to scan problems in its report on the Cirrus/Grob Tutor collision (two fatalities in the Grob) in 2009. See www.aaib.gov.uk/publications/formal_reports/5_2010_g_byxr_and_g_ckht.cfm

1.18.11 See-and-avoid

Various studies have highlighted the limitations of the see-and-avoid method of preventing mid-air collisions...

1.18.12 Alerted see-and-avoid

'...tests determined that one second of alerted visual search is as effective as eight seconds of unalerted search...'

(A visual search in the absence of traffic information is less likely to be successful than a search where traffic information is provided because, obviously, knowing where to look greatly increases the chances of sighting the other aircraft. Various field trials have shown that, in the absence of a traffic alert, the probability of a pilot sighting a threat is generally low until a short time before impact. Traffic alerts were found to increase search effectiveness by a factor of eight (in relation to the 'alerted' threat only).

Before I go on to 'alerted' lookout, just how good is the standard unalerted lookout?

To quote from the AAIB report again (the

BGA training is similar):

Lookout to the front and scan above and below the horizon, then attitude and instruments. Move the eyes around the horizon in a series of steps (normally to the right initially), scanning up then down at each point. Continue the scan back to the tailplane and then look above and behind over the top and back to the front.

The AAIB report continued to observe, and quote references to the effect, that a traffic scan takes time – at least one second at each fixation, so from 54 seconds to as much as 15 minutes! A study it referred to included these cumulative time periods, in seconds, to react to an observed collision threat:

- See object – 0.1
- Recognise aircraft – 1.1
- Recognise collision – 6.1
- Decide on action – 10.1
- Muscle reaction – 10.5
- Aircraft lag time – 12.1

Is even 54 seconds per complete scan good enough to detect in time a closing threat from, say, your 8 o'clock (only one such glance per 54 seconds, at best)?

Another official body, the UK Airprox Board, in its latest report, observed that of the several reported airproxes between powered aircraft and gliders in 2009, some could have been avoided if the powered aircraft had been fitted to detect FLARM signals.

Alerted search

This requires technology, to improve upon the unaided eyeball. If you are one of those who don't believe it helps, I hope to persuade you otherwise.

There are, to my knowledge, three technologies available or becoming so: FLARM, transponder detectors, and ADS-B (Automatic Dependent Surveillance – Broadcast). FLARM and ADS-B both use GPS data. FLARM is optimised for the specific needs of small aircraft and gliders, with lower power and different radio frequency than ADS-B, but with better conflict alerting. Transponders I will also refer to, briefly. ADS-B is sufficiently far away, in my opinion, that I am not going to cover it, except to mention some equipment for FLARM that can also receive ADS-B data.

FLARM

This was designed by and for glider pilots. Originally devised to address an alarming frequency of collisions in the Alps, there are over 17,000 units in use in the world. Over 25 per cent of UK gliders have them and the number is still growing. More than 600 have

been reported as pre-ordered in the USA, where they are not yet even on the market (as I write).

The manufacturer's website states: *FLARM is designed and built as a non-essential 'situation awareness only' unit to support the pilot, and cannot always provide reliable warnings. In particular, FLARM does not give any guidance on avoiding action. Under no circumstances should a pilot or crew member adopt different tactics or deviate from the normal principles of safe airmanship.*

It has algorithms that separate what it deems non-threat (eg formation flying, gliders sharing a thermal and on non-intersecting courses) from threats – projected collision paths.

The simple Swiss FLARM unit that I have uses two aerials. One is a GPS receiver, from which it knows location. It is on a long lead, allowing it to be far from other GPS units, which in my glider seemed to be advisable for FLARM to get a good signal (I mount this aerial on my headrest). Successive GPS locations are computed to yield a trajectory. This is broadcast using a second, low-power radio aerial, which also receives location and trajectory data from other nearby FLARM units. It displays the nearest or most threatening contact. Successively higher stages of alert warn of impending collision.

My experience, and that of most other FLARM users I have heard from, meets the AAIB view that it is many times better than unalerted lookout. Space precludes more description of how and what it does, but the data is available on the FLARM website www.flarm.com However, remember that this system will only respond to contacts fitted with a similar system.

The simplest "Swiss FLARM" such as mine, costs about £600. For a modest extra cost it can have IGC logger capability too, and older units can be updated to do that (mine was). Looking at this the other way round, if you are in the market for a £600 logger, why not get a FLARM one that has this technology too, for little more investment? It can be personal carry-on equipment, so not needing EASA and other obstacles to be overcome. It does need an external battery – I carry one of those on, too.

There are more expensive options, ↗

**MY EXPERIENCE,
AND THAT OF
MOST OTHER
FLARM USERS
I HAVE HEARD
FROM, MEETS
THE AAIB VIEW
THAT IT IS MANY
TIMES BETTER
THAN UNALERTED
LOOKOUT**



About £1,000 buys PCAS and FLARM as two separate units. They can be personal carry-on equipment, so do not need EASA and other obstacles to be overcome. Other approaches include integration of these and other functions into one instrument, such as PowerFLARM, pictured above



The Trig TT21 transponder (above) is an example of a compact unit which could be fitted to some gliders, if space and approvals permit. Collision avoidance systems such as the Zaon MRX (below) are suitable for gliders and light aircraft

MOST GLIDER COLLISIONS ARE WHERE 'BIG SKY, LITTLE BULLET' DOES NOT APPLY – RATHER, LITTLE SKY, QUITE A FEW 'BULLETS', IE OTHER GLIDERS OR TUGS – CLOSE TO THE HOME GLIDING SITE



including the ability to feed into other instruments, which can give a graphical display of received contacts.

Transponders and detectors

Transponders, and Computerised Airborne Collision Avoidance Systems (ACAS), were mentioned in the last S&G article (June/July 2010, p44). So were cheaper and lighter detection devices, typically PCAS (Portable Collision Alert Systems), which are more suitable for gliders and light aircraft.

Transponders alone cannot and do not communicate with each other – they serve no purpose in collision avoidance without at least either an ATC “Radar Service”, and/or additional equipment as a transponder detector in at least one of the aircraft. Outside controlled airspace (CAS) in the UK, radar service is harder to get, certainly for all practical gliding purposes. (Basic Service only is usually offered, which does not provide radar separation.) Transponders allow access to some CAS more easily than without; if you fly where airliners and other large aircraft with ACAS are to be found, they would be alerted to your presence if you have one (but you would not have any corresponding alert about them with only your transponder).

There are very few gliders at present equipped with transponders. They need an EASA-approved modification to install, unless in some cases they are factory-fitted into new gliders or included in EASA transition. I am advised that no such detailed approval exists for my glider, for instance. The most compact transponders available – 80mm, 57mm, or smaller format on the instrument panel, include Trig TT21, Garecht VT-0 and Funkwerks TRT800 (formerly Filsler). Details are available via an internet search.

Prices seem to be from about £1,500 (with or without VAT), plus installation, antenna and certifications costs. In addition, there will

be ongoing check and certification costs. I do not propose to dwell further on them for gliders, as they are impractical for many of us.

So, the only way they could be of use to us for detecting other aircraft is by adding a detector. ACAS is not feasible for a glider. The cheapest and most easily installed detector is PCAS (Portable Collision Alert System) or similar.

PCAS

This is apparently a generic term, though used by at least one supplier as though it were its model designation. It gives conflict alerts with transponder-equipped aircraft. Among various commercial products, one is a basic unit, smaller than a pack of cards, either self-contained or which can be run from glider batteries. I was sufficiently convinced of its utility and aid to increased safety that I bought one as soon as I had been lent one to try out.

PCAS is a receive-only device that detects transponders, eg when they respond to ATC radar or ACAS interrogations from passing airliners, etc. It estimates range from the transponder’s signal strength. If the detected transponder is Mode C, ie altitude encoding, it compares that with its own altitude and shows the difference, and trend, of the nearest contact. It gives a visual alert of transponding aircraft some distance away, and an audible alert if one is close enough to be a potential threat. Unlike FLARM, it cannot predict and compare trajectories, nor does it know direction of the contact. Proximity is shown as decimals of a nautical mile, when closer than one mile. The range parameters are user-adjustable.

It will help detect any transponder-equipped aircraft, but only the nearest one if there are several; including the low-level ones, who insist on flying over glider winch-launching sites (in breach of Rule 12), and those we can encounter when soaring at the levels in which most GA is to be found.

When cloud flying, it will help detect any otherwise invisible powered aircraft (I believe that almost all one might encounter in cloud would have transponders, mostly Mode C and/or Mode S), and while they cannot detect us, we could take evasive action eg by diving if one presents a threat at the same level. It offers the only hope of at least some interoperability with power, in cloud, at present.

It can also be used at winch launch points. Winch launch gliding clubs frequently complain of overflying powered aircraft. This

unit has detected them at up to five miles, and shown if closing, when beyond any visual range and below the nearest tree line. My club has now bought one, following a short trial which detected several threats each day before they were visible to the launch crew. About £400 buys a PCAS like mine, and my club's.

Some Mode S transponders can also transmit their location. More expensive versions of PCAS can then display these data on a graphic screen, either integral or by a link to other hardware.

Combined FLARM and PCAS functions

About £1,000 buys PCAS and FLARM as two separate units. They can be personal carry-on equipment, so do not need EASA and other obstacles to be overcome.

Other approaches include integration of these and other functions into one instrument. Two such are PowerFLARM, available later this year, and the FunkwerksTM250 (with a suitable link to a FLARM unit). They can also detect ADS-B (Automatic Dependent Surveillance – Broadcast – see below) where and when it is available. Costs are in the range of £1,100-1,300+.

ADS-B

I consider this to be too far away from glider use in the UK that I really do not want to dwell upon it. If you want to know more, do an internet search.

ADS-B transmissions from other aircraft can be decoded by the built-in Mode S receiver ("ADS-B Data-In") in units such as PowerFLARM and the TM250, with the display indicating relative position.

Today, the majority of Air Transport aeroplanes are equipped with ADS-B capable systems. GA still has a relatively low degree of ADS-B equipage.

My opinion

Almost all of us fly with a parachute, the new cost of which is, say, £1,700. Rarely used, and then almost entirely by a survivor of a collision. For the latter, you have to be still able to move, and be high enough to get out and deploy the parachute.

Most glider collisions are where "big sky, little bullet" does not apply – rather, little sky, quite a few "bullets", ie other gliders or tugs – close to the home gliding site. FLARM is the first priority to help avoid some of these. If you buy one, try to persuade your mates and the club to get them too – you are all each other's major collision threat.

If you can afford it, and find space in the cockpit, the next priority is transponder detection. While only an estimated 50 per cent of GA aircraft have transponders, the proportion is growing. Most recent glider/GA Airprox reports mention transponders in the GA aircraft.

About £1,000 buys both PCAS and FLARM and gives, in my opinion, a huge leap in improved safety. Not perfect, not 100 per cent, but a big improvement. For new gliders, a combined unit is a bit more expensive, but may be a neater solution.

And try to get the club to buy a PCAS for the winch launch point, if you have much trouble with overflying GA. PCAS sees further than eyeballs.

Transponders are neither practical nor worth it for most of us. I would have had one because of where I fly, had EASA not prevented it, but I am no longer trying – I have other priorities for instrument panel space.

■ A caveat – I am not an expert in this technology. Any errors and omissions in the above are mine alone, though I have sought to have the material reviewed by people better versed than I am in these things.



Chris Nicholas started gliding in 1970 at Essex Gliding Club. He has a Gold and two Diamonds (500km still to do). A lapsed instructor, Chris has had three spells as deputy chair of the BGA Exec Committee, and several further spells as an exec member; he was Airspace Committee chairman for several years and is currently a member of the Safety and Development Committees. Chris is a regular competitor in Competition Enterprise and a very occasional (and unsuccessful) entrant in regionals

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VENTUS v HARRIER

Andy Jessett jumped at the opportunity to swap his beloved Ventus 2cT for a Harrier jump jet for the day and discovers that, although the differences between a fast jet and a glider are huge, there are more similarities than you might imagine



S
R



OCCASIONALLY an event in life is so much fun that just reliving it later is exciting. For me, in flying terms, that usually results from a successful cross-country flight in my beloved Ventus

2cT, either further than I've been before, or perhaps achieved in challenging or unusual conditions.

I don't normally fly power, but in late March I achieved a long-standing ambition and flew one of the RAF's last Harrier GR9s, the so-called jump jets. Fun, did I say? I'm still grinning, and I felt perhaps it was worth sharing.

It was unbelievable, actually. There I was, sitting in the cockpit at RAF Valley, as my instructor, Simon, told me to release brakes, throttle to full power, then lift off as we hit 100kt. After pulling back a bit too enthusiastically I found myself a (very) few moments later at 12,000 feet! Such incredible power, which enables the Harrier to sustain a climb at 14,000 feet a minute – 140kt! But since the initial plan was some

low-level whizzing around the Welsh valleys, we descended to 200 feet to start that distinctly daunting prospect. At full power you hit 450kt in no time and, as the height of the terrain changed, I found myself occasionally crossing ridges lower than 50 feet, which at that speed is exciting to say the least.

We flew into what looked like a deep river valley, but turned out to be the narrow Menai Strait separating the island of Anglesey from “mainland” Wales. A distant suspension bridge came rapidly closer and I was instructed – ye Gods, could he be serious? – to fly underneath the ruddy thing; this was followed rapidly by another, which got the same treatment. Oh, wow!

Next instruction: pull up into a loop. Check altitude – only 200 feet! This time, he had to be joking. But no, believe it or not, we did just that. What would be lethal in a glider is perfectly possible – all that power enables you to exit a loop higher than you entered it.

After that we flew low level along various





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✎ twisting valleys – from 200 feet down to just 30 feet (!) at one point, before heading out to sea. Soon we approached an aircraft carrier. As we got closer, I was instructed to change the jet nozzle vector settings progressively, starting from straight back in level flight and finishing, as we drew alongside the carrier's deck, pointing straight down. Yes, we were hovering! More throttle made the jet rise, less produced sink. Rudder movements caused reaction control valve outlets in the tail to yaw the aircraft in order to line up with the deck. Pitch and roll is achieved via further such small jets in the nose and wingtips. Thus tiny pitch movements on the stick move the aircraft forward or astern, slight lateral ones a gentle sliding to right or left. The deck was smaller than I expected, and almost unbelievably narrow! Eventually, with some perspiring, I got myself correctly lined up, reduced power, and we sank to the deck. "Congratulations," said Simon's voice in my earphones, "you just made your first vertical carrier landing!" Wow, wow ... oh, wow! Not too many people have had the chance to do that (more have gone into space, apparently), so I feel very lucky.

Next, my first carrier take-off. Starting 60 yards from the ramp, brakes off, full power, shoot forward, ease back as you hit the end of the ramp. No problem – just like a winch launch really – getting quite cocky now! Following another deck landing we flew back to RAF Valley, after more fun runs around the mountains. Unlike a glider, no rudder at all is required in turns, because the 30-foot wingspan combined with the weight and speeds involved means no adverse yaw, and lots of inertia. What you must do is apply LOTS of bank – 80 or 90 degrees – then pull back hard to haul the jet around the turn: pull being the operative word, as g forces rise to five or more. Simply banking gently like a glider to 30 or 40 degrees means nothing much happens, and the turn is vastly overshoot. Not a good idea when making sharp turns into high-sided valleys!

What was really exciting (what wasn't?) was that rather than bunting over ridges you can avoid the associated negative g by rolling inverted and pulling back as you go over the top, then rolling upright again to follow the terrain down. The roll rate is stupendous – and ailerons mega-effective at 450kt, as you'd expect. The down-swept wings – anhedral – also reduce lateral stability resulting from sweep-back. Initially I got some quite violent lateral PIOs – rather too exciting, even for my

now stratospheric adrenaline levels. Spins we didn't try – needing 10,000 feet for recovery, rather than the 1,000 feet or so we can allow in K-13s!

So ended a truly memorable, once-in-a-lifetime event. Did I mention that Simon helped here and there with throttle and nozzle settings? Or that I fired rockets at a bridge and a Welsh village? (Sorry, Welsh people!) Or that my first attempt to fly under the bridges was too high, whereupon I over corrected and put the aircraft in the drink?

OK, OK ... I'll come clean. As you'll have twigged by now, my flight was in the Wittering simulator – but everything was so realistic that it truly felt like I'd been flying! The cockpit was real, sitting centrally within a domed building, on to the walls of which were projected amazingly lifelike graphics. As you approach the aircraft carrier, for instance, you literally look down on to the deck. So convincingly does all this fool the brain that later, standing on the platform outside the cockpit while Simon flew, I felt the guard-rail digging hard into my side during tight turns!

It all was all in the nick of time as the MoD contract expired on 31 March, which means not only will there be no more real Harrier flights, but no simulator sessions either. It was a huge thrill, but it's also very sad. It's hard to fathom the decision to scrap this wonderfully versatile aircraft, especially when we give more in aid to a country with its own space programme.

I'm grateful to Simon (my son, now a Wing Commander and OC 4 Squadron) for arranging this experience, but I feel it's only a fair return for the fun he's had since I introduced him to gliding at Booker in 1986. Since soloing in a K-13 at 16, he's been paid to fly progressively more sophisticated and exciting aircraft. I've often wondered if I could have done the same – and usually concluded that I'd have had neither the bottle nor the aptitude.

Now, I'm not so sure. As an instructor once said, in briefing me for a T-21 flight – it's an aircraft, fly it. Having now "flown" a Harrier (I'm grinning again) I think perhaps I might have made a reasonable stab at it. Although the differences between a fast jet and a glider are huge, there are more similarities than you might imagine.

Now, how can I wangle my way into a Typhoon...?

SPINS WE DIDN'T TRY – NEEDING 10,000 FEET FOR RECOVERY, RATHER THAN THE 1,000 FEET OR SO WE CAN ALLOW IN K-13s



Above: The instrument panel in the Harrier cockpit is not quite the same as that in Andy Jessett's Ventus 2cT

Main pic on centre pages: Andy's son Simon is a Wing Commander and OC 4 Squadron (Nick Sidle/Heartstone Festival of Flight)

Below: Andy is pictured in a Harrier



Andy Jessett flies a Ventus 2cT from Lasham, where he has been a member for 20 years. He has all three Diamonds and has held a Half-Cat rating for seven years, after seven years as a basic instructor. Andy flies around 4,000km a year cross-country in the UK, and is hoping to do his first 750km this season

FIRST SCOTTISH SOARING FLIGHTS

Bruce Marshall recalls the early days of gliding in Scotland



In 1930, the BGA and the *Daily Express* invited German experts Robert Kronfeld and Carli Magersuppe to give a soaring demonstration (photograph from the Chris Wills collection)

**MAGERSUPPE
RECOMMENDED
LOSS HILL
AS BEING A
POTENTIALLY
SUITABLE
SOARING SITE**

THE discovery of thermals and the invention of the variometer resulted in the first long-distance soaring flights in Germany at the end of the 1920s, and, when reports of these arrived in the UK, they led to an immediate widespread enthusiasm for gliding. Clubs were formed and primary gliders were constructed from plans in workshops throughout the land. Some of them even survived their first landing, after having been bungeed from the nearest convenient hilltop.

Few participants had any practical flying experience and, as there had been no soaring done in Britain since the Itford Hill meeting in 1922, in 1930 the BGA and the *Daily Express* invited two German experts, Robert Kronfeld and Carli Magersuppe, to give demonstrations of how it should be done.

After Kronfeld had made a spectacular flight of some 50 miles along the South

Downs, both pilots were invited to give a demonstration to the Scarborough Gliding Club. The launching site was unsuitable and resulted in Magersuppe being forced down into the sea, but that did not prevent him being engaged as a professional instructor by the club. He soon persuaded the club officials that the way forward was not the solo training method but dual instruction in a two-seater, so money was borrowed and KFK-3 "Doppelsitzer" was purchased from the factory in his home city of Kassel, at the considerable cost, for the day, of £240. However, the venture was not a success. The high cost of the machine prevented anyone else being allowed to fly it as P1, and, although Magersuppe made several soaring

flights with various passengers from locations around the Yorkshire Moors, I suspect that little proper training was done. Members lost interest and dropped out, resulting in the club becoming unable to repay the loan, and going into receivership. Magersuppe was out of work, but other employment soon turned up from an unlikely direction.

The Lyons Tea company had devised an ambitious publicity programme to cash in on the gliding mania by arranging a series of demonstrations around the UK. One such was planned to take place in conjunction with a meeting organised by the Glasgow Gliding Club at Campsie Fells on 6-7 June, 1931, and the Lyons circus duly turned up with a Falke to be flown by their pilot, Hans Werner Krause. The weather, however, failed to oblige, and Krause was unable to do much better than the local pilots, who amused themselves with downhill hops of up to 27 seconds!

Krause's next demonstration in Scotland was to have taken place two weeks later, on the 20-21 June, and had been arranged with the assistance of the Stirling Gliding Club. However, the *Daily Mail* then announced a competition for the first cross-Channel glider flights, to be held on that very weekend. It was decided that Lyons would be represented by Krause with his Falke and, to take his place at Stirling, they hired Magersuppe with the ex-Scarborough KFK-3. Magersuppe had already been to Stirling in the February of that year, to lecture to the local club and recommended Loss Hill, on the edge of Sheriffmuir at the west end of the Ochil Hills, as being a potentially suitable soaring site. Fortunately, one member of the Stirling club was a young journalist named Johnnie Gardner, who later became the first secretary of the Scottish Gliding Union. His report in the *Alloa Journal* takes up the story:

FOR several days beforehand, the committee of the Stirling Club were busy making arrangements for the display, which



began on Saturday afternoon at 14:30 when about 2,000 people witnessed what was generally agreed to be a most pleasing sight.

At the outset, Herr Magersuppe explained that, not having flown a glider over that district before, he could not guarantee to meet with any great measure of success, but he would do his best to let them see the possibilities of the sport of air yachting in this district. The launching team were then got together and, with the assistance of many willing helpers, they pulled the sailplane to the top of Loss Hill.

On reaching the summit, Herr Magersuppe explained the method of launching and, having requested that a certain area be kept clear of people in order that he might be able to land back there, he directed seven members of the local club to each of the launching ropes. Taking his seat in the cockpit, he prepared to be shot into the wind over the side of the hill.

Everything set, the launching team were ordered to run forward pulling the great elastic rope with them and, when the necessary strain had been applied, the pilot released his machine from the ground grip and shot out into space.

The air yacht floated round about the face of the hill gradually gaining height until it would be about 200ft over the starting point. Occasionally, Herr Magersuppe would swoop down and shout down to those on the hilltop such remarks as "the air's bumpy", or "prepare for me landing". Having flown about for 10 minutes, he swooped down to a flat part of the hilltop and made a beautiful landing.

The pilot then got out of his machine and explained to the many spectators on the top of the hill the effects the uprising currents had had on his machine and how he had turned them to his use. He then got launched off again, and having flown about for a good time, he returned to the hill and requested that the air yacht be pulled up to the higher reaches of the hill that he might avail himself of the stronger air he anticipated would be there and so be able to sailplane further away.

This done, the sailplane was again released and it was seen flying well into the wind.

While our representative was standing on the hilltop watching the performance, many people were heard to express themselves as being surprised that the machine could be flown against the wind and, no matter how the officials of the local club might endeavour to explain this, there were many who could not fathom what was to them an absolute mystery. In some cases in fact, it seemed as though even seeing it for themselves, they were loath to believe the machine was going into the wind at all. "Are you certain he hasn't got an engine," and "I can't understand it" were remarks which one frequently heard, but notwithstanding these remarks, all seemed to be unanimous that the flights were a very graceful spectacle.

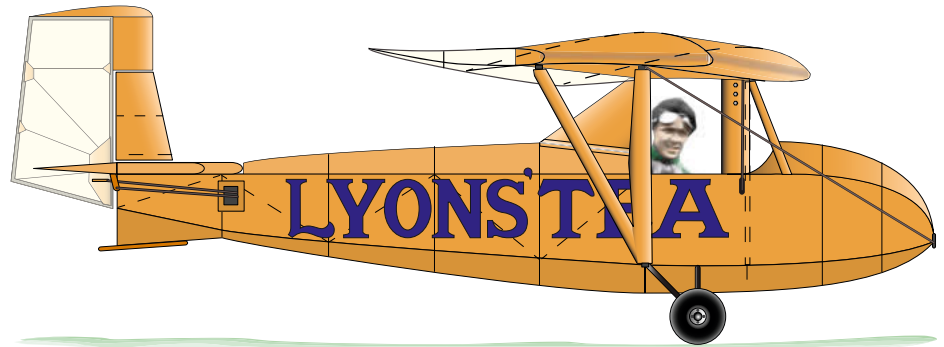
A further display was to have been given on Sunday, but just when the launching team had brought the sailplane from its anchorage to the face of the hilltop the wind

Above: The two-seater Kassel "The Scarborough" was the aircraft in which the first Scottish soaring flights were made



Magersuppe's 1930 two-seater Kassel is pictured at Kirby Moor (photographs on this page courtesy of Lakes GC)

HE HAD BEEN IN THE AIR FOR 45 MINUTES AND HAD ENCOUNTERED LIFT, IN ADDITION TO THE SLOPES OF LOSS HILL, ON THE WESTERN AND SOUTHERN SLOPES OF DUMYAT, AND NEAR THE FARMS OF KIPPENRAIT AND PENDREICH



Hans-Werner Krause and Lyons Tea RRG Falke (Vince Cockett)

✈ increased greatly in velocity and a heavy mist fell on the higher reaches, completely obscuring them from view.

Herr Magersuppe, by the aid of his air speed indicator, found the speed of the wind

to be 55 miles per hour, or 10 miles faster than the forward gliding speed of his machine. Thus, there was every indication of his being obliged to fly backwards into the mist with the chance of colliding with the higher hilltops which were hidden from view, and he was therefore obliged to wait until he saw if the clouds would lift before endeavouring to fly his machine.

For hours he waited, as also did the hundreds of spectators at the foot of the hill, ever hoping that the weather would improve for even a short time, that they might get a view of this wonder machine in flight.

About six o'clock the clouds came lower down and it was then definitely decided to abandon the effort, and at half past six, the sailplane was brought further down the hill to below the clouds and Herr Magersuppe glided it down to the trailer. The few dozen spectators who had waited until this time appeared to be quite pleased that they had hung on for even so short a glimpse of the machine in flight. ☺

Unfortunately, no photographs of the demonstrations seem to have survived, but I can claim a slight personal connection here, as my parents, who had lived in the district, had each, as teenagers, been present at the washout on the Sunday. When I first became interested in gliding, they pointed out Loss Hill to me, but as they spoke only of a glider

flying from the top to the foot of the hill, I was distinctly underwhelmed.

I forgot all about the story till years later, when I came across another document by Johnnie Gardner among the papers of Andrew Thorburn, one of the founders of the Scottish Gliding Union. In it, he wrote that Magersuppe had reached heights of 500-1,000ft above the launch point at 1,337ft ASL during the course of his longest flight. He had been in the air for 45 minutes and had encountered lift, in addition to the slopes of Loss Hill, on the western and southern slopes of Dumyat, and near the farms of Kippenrait and Pendreich, (probably thermal), some two miles upwind.

Although this had been a promising start for Scottish soaring, Loss Hill never became a gliding site, as there is no road to the summit, and the unimproved moorland at the foot is too rough and uneven for launching. However, hang-gliders and parascenders are often to be seen in the area nowadays, launching themselves from the slopes of Menstrie Glen, two miles further east. The flights were only reported in the local press and have been totally forgotten, probably because the big gliding news of the weekend was the cross-Channel competition, won by Kronfeld from 10,000ft aerotows.

Magersuppe flew several other demonstrations in England for Lyons Tea, but the venture failed to provide the anticipated boost to sales, and they closed down their operations at the end of the summer. He also set up some British records in the Airspeed Tern, but was after that in debt and out of work, so was deported back to Germany.

The next soaring flights in Scotland did not take place till nearly seven years later – but that is another story, which will be continued in a future issue of S&G.



Although Magersuppe's flights from Loss Hill were a promising start for Scottish soaring, the location never became a gliding site



Bruce Marshall has been a member of the SGU for nearly 50 years, and normally flies a Discus CS from Portmoak. He is a former instructor and tug pilot, and holds a Gold badge with two Diamonds

THE HISTORY OF HANDICAPPING

The UK was probably the first nation to use a scientific approach to handicapping. Ian Strachan reflects on its introduction



The theoretical XC speed turned into the handicap figure with respect to the 100 per cent datum was taken in 1967 as the Skylark 3

¹ Then CIWV, the Commission Internationale de Vol à Voile

² Later BGA Chairman

AS FEW STRUTTED GLIDERS ENTERED BGA COMPS, THE MAIN EFFECT WAS TO GIVE 10 PER CENT BONUSES TO 15M GLIDERS SUCH AS THE OLY 2 AND SKYLARK 2

THE article on Handicapping by Andy Davis (*Andy Davis Talks Glider Handicaps*, Aug/Sept 10, pp12-13) stirred a few memories about how handicapping in gliding competitions developed. **Initially, it was the fault of the Standard Class!** The specification for the Standard Class was finalised at an IGC meeting¹ in February 1957 and the first international Standard Class championship was in Leszno, Poland, in June 1958.

Pilots flew gliders such as the Breguet 905 (France), Ka-6b (Germany), Mucha Standart (Poland), and PIK-3 (Finland). For the UK, Philip Wills flew a Skylark 2 built by Slingsby's and Tony Goodhart an Olympia 415 built by Elliots of Newbury. Several pilots from other nations flew the Olympia 2, a direct descendant of Hans Jacobs' Meise that was to be the standard type in the 1940 Olympics that were cancelled because of the 1939-45 war.

After the Standard Class Worlds in 1958, it might have been thought that the UK would run a separate Standard Class Nationals. However, there were simply not enough Standard Class gliders or interest from the top UK pilots of the day, and a separate Standard Class task group was not held in the UK for many years.

In the late 1950s, our Nationals were divided into Leagues 1 and 2 based on pilot experience rather than glider performance or class. In 1959, British team member Tony Goodhart said, in a letter to *S&G*: "The Standard Class is now successful internationally, but needs a stimulus nationally so that Standard pilots have some measure of equal chance with the Open Class. Therefore, some form of handicap according to glider performance is needed, such as a simple percentage added to points scored by Standard Class gliders, or a handicap factor for each type of glider such as the Goodhart number."

The Goodhart number was a "figure of merit" invented by Tony's brother Nick for assessing glider performance and consisted of achieved cross-country (XC) speed divided by thermal strength.

The BGA then appointed a committee, consisting of David Carrow, Charles Ellis and Lorne Welch, to study handicapping. They opted for Tony Goodhart's first alternative of adding a "handicap bonus" to the scores of lower performance gliders. Their 1960 paper recommended a 10 per cent bonus for gliders of span 15m or less and two-seaters when flown two-up. Gliders with wing struts and those with aspect ratios under 14 were to have a bonus of one third.

The "handicap bonus" system was used in Regionals and League 2 Nationals for several years. As few strutted gliders entered BGA comps, the main effect was to give 10 per cent bonuses to 15m gliders such as the Oly 2 and Skylark 2. However, it was recognised that the latest in the 15m K-6 series were equivalent in performance to 18m gliders such as the Skylark 3, so changes were needed.

In 1966, the BGA Handicapping Committee, now chaired by David Carrow, introduced the 5 per cent bands and rationalised the position of the K-6. The revisions put the SHK and Dart 17 at 95 per cent, the 18m Skylark 3/4 and 15m K-6 at 100 per cent, Skylark 2 at 110 per cent and Olympia 2 at 120 per cent. Later in 1966, John Delafield and Ian Strachan published a paper proposing a revised structure for future British competitions, suggesting a 2 per cent handicap interval based on a more positively-defined principle, rather than using arbitrary bonus steps.

Roger Barrett², chairman of the BGA Flying Committee (now the Competitions Committee), then invited Ian Strachan to join, saying that "it might be better to give you work as a committee member rather than you being a loose cannon outside the committee". Shortly afterwards, Ian was "hoist by his own petard" and given ☹

THE BGA 1974 SYSTEM IS ESSENTIALLY WHAT HAPPENS TODAY, WITH THE 100 PER CENT DATUM POINT SHIFTED UPWARD IN XC SPEED AND REFINEMENTS USING UPDATED POLAR CURVES



Ian Strachan obtained his Silver C at the Long Mynd in 1958 and has three Diamonds. Twice British Standard Class Champion, Ian chaired the BGA Competitions Committee, also serving as UK delegate to the FAI Gliding Commission. Now retired and flying a Nimbus 4 from Lasham, he was an RAF pilot, flying instructor and Boscombe Down test pilot

the Handicapping portfolio. He had read Nick Goodhart's 1965 OSTIV paper *Glider Performance, a New Approach*. This defined a methodology for calculating XC speed based on a specified thermal structure and a table of climb rates for different gliders ("iso-climbs"). Ian therefore proposed to the Flying Committee that pre-calculated XC speeds for the different glider types should form the basis of a new handicapping system, and that competition scoring formulas be adjusted to reflect the fact that the new handicap percentages were speed-based.

To calculate and agree the new figures, competition pilots Gerry Burgess, David Carrow, Tony Deane-Drummond, Nick Goodhart and John Williamson joined the BGA Handicapping Committee, under Ian's chairmanship. The work was completed during 1967, agreed by the Flying Committee and BGA Executive and announced in an S&G article in December.

The handicap percentages for 1968 were based on 100 per cent for the Skylark 3, faster gliders having lower figures and slower ones, higher, in the same way as the earlier "bonus" system. However, percentages now depended on calculated XC speeds using the thermal assumed by Goodhart in his 1965 paper. This had a rate of rise of air of 4.5kt, reducing to zero at a radius of 550ft. Applying the minimum sink point from the polar curves of various gliders to a typical thermalling turn in the "Goodhart Thermal" gave an achieved rate-of-climb of about 2.5kt

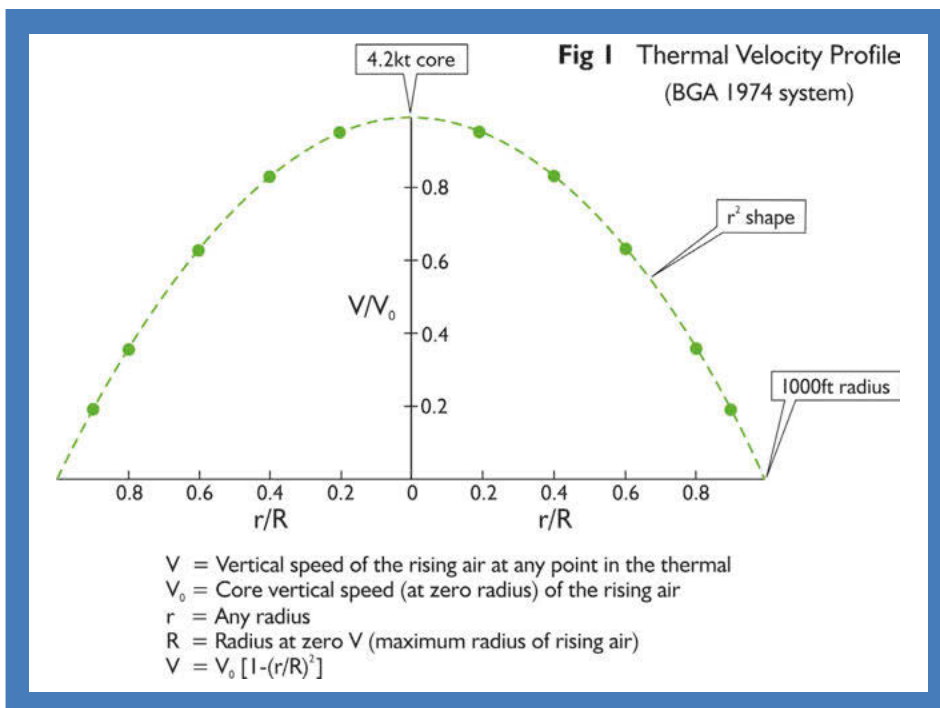
for slow low-sink gliders and 2kt for gliders with min sink at faster speeds. Then, using the polar curve for the glider concerned, a line starting above the horizontal axis at zero airspeed and at the rate of climb as found above, is angled down until it just touches the curve (the tangent).

Classical "climb and glide" theory shows that where this tangent cuts the horizontal axis gives the average XC speed for the rate-of-climb and glider concerned. It was this theoretical XC speed that was turned into the handicap figure with respect to the 100 per cent datum, taken in 1967 as the Skylark 3. For the calculations, a series of reasonably reliable polar curves were used for gliders across the performance spectrum, then other gliders were placed relative to those with the reasonable polars.

Using this methodology, in the BGA system for the first time in 1968, the SHK was listed at 86 per cent; Dart 17 90 per cent; K-6E 96 per cent, Skylark 3 100 per cent (Datum), Skylark 2 108 per cent and Olympia 2 125 per cent. For competition scoring, achieved speeds were multiplied by the glider handicap percentage before speed marks were calculated. In the case of land-outs the scoring distances were multiplied by the handicap to obtain distance marks. For finishers, distance marks were left unadjusted.

The above system ran for six years but, by 1974, the Flying Committee had enough evidence to make refinements, and Ian was asked to co-ordinate them. A simple, but fundamental, one was to invert the handicaps, converting them into relative speeds rather than bonuses, and re-naming them "Speed Indexes". It was felt that it was more understandable to list a high-performance glider at, say, 125 per cent rather than 80 per cent, and it was easy to change the scoring formulas to allow for this.

At the same time, the thermal shape was adjusted as a result of flight tests made by Reading University using an instrumented Falke motorglider, some research carried out in Lithuania by Victor Kononov, and a poll of UK Nationals pilots. The new "BGA Thermal" (Figure 1) had a 1,000ft radius and an R-Squared profile. As with the BGA 1967 system, this was turned into a matrix of lines of equal rate of climb (Isoclimbs, Figure 2) and the climb rate was then applied to a glider polar curve to obtain its XC speed (Figure 3). The 100 per cent datum was increased in XC speed to 34kt (63km/h),



making the ASW 15 and Standard Cirrus effectively the datum gliders.

A more difficult matter was how to allow for wind. Earlier handicapping systems had made no allowance at all. 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.

The 2,000ft wind was officially recorded by the nearest Met Office and was taken as the "wind of the day" for scoring, so that there should be no guesswork by competition officials. This was taken at 2pm or another time relevant to the mid-time of the task flown.

The BGA 1974 system is essentially what happens today, with the 100 per cent datum point shifted upward in XC speed and refinements using modern computing and updated polar curves.

Once the BGA had defined handicaps in terms of relative glider XC speeds, other IGC members were given copies of our work, and several followed what we had done. For instance, the current German and IGC systems are similar to BGA 1974, but using higher thermal strengths. Indeed, some years later when IGC created the handicapped Club Class, I was asked by Tor Johannessen (then in charge of the Sporting Code) to write the appropriate paragraph in the Code. Handicapping was to use Speed Indexes from calculated average XC speeds as the percentages to be applied to achieved speeds to obtain scores and, for land-outs, applied to distances flown to obtain scoring distances.

We have progressed a long way from adding a scoring bonus of 10 per cent for 15 metres and 33 per cent for struts. We have seen that the present system is based on relative XC speeds calculated from glider performance curves (those that are considered reliable, anyway).

Although it may not be strictly accurate on a given day, it is reasonably fair over a complete contest as long as the range of glider performance is not too great. It is certainly fairer than not being used at all, which would allow high-performance gliders to always have a huge advantage, irrespective of pilot ability.

Since the gliding movement prefers competition scores in handicapped events to reflect pilot performance rather than that of the glider, it can be concluded that we have succeeded pretty well, maybe better than in some other sports.

Fig 2 Isoclimbs - Datum Thermal (BGA 1974 System)

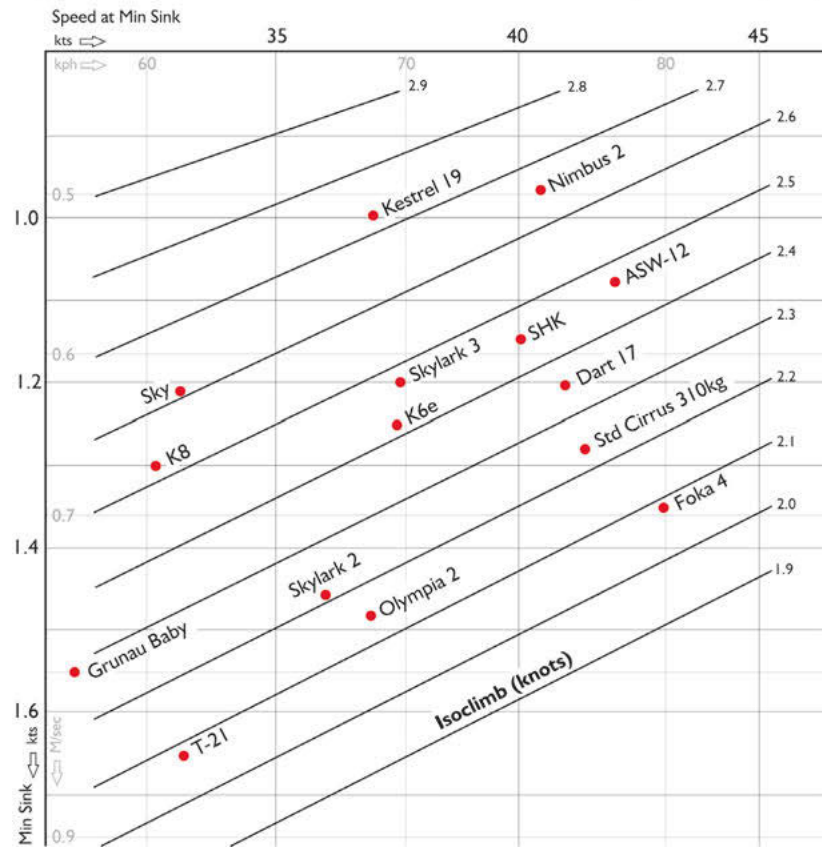
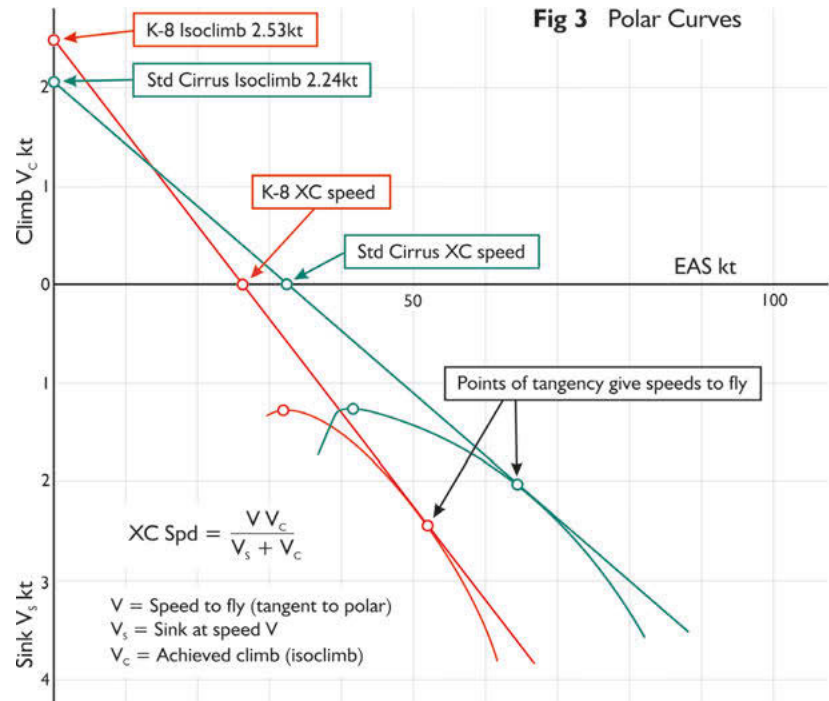


Fig 3 Polar Curves



Glider	Polar	ALUW	Min Sink	Speed at Min Sink	Isoclimb V_s kt	Speed to Fly V kt	Sink V_s kt	$V_s + V_c$	$\frac{V V_c}{V_s + V_c} = \text{XC Spd}$	Speed Index % 100% = 34kt
Unballasted Std Cirrus	BGA Average of 4	310kg	1.28	41.25	2.24	63.0	1.95	4.19	33.65kt	98.8%
K-8	Maker's	280kg	1.30	32.5	2.53	52.0	2.40	4.93	26.65kt	78.3%

OH MY OMARAMA

Christopher Claxton is introduced to gliding in New Zealand and asks if this is the most spectacular soaring site on earth

GLIDER pilots in the northern hemisphere may wish to consider a launch of a rather special kind. It could even start at Heathrow, or Frankfurt, even Zurich. It would mean a long flight to the southern hemisphere, 12 time zones away, often best to dawdle on the way to de-jet lag at idylls such as San Francisco and Tahiti before arriving at Auckland, New Zealand. Even then they must press on next to earthquake-hit Christchurch in South Island.

For those in the southern hemisphere, the journey may be a little more modest; a mere three-hour flip across the Tasman to scenic

Queenstown or to Christchurch, followed by an obligatory two- to four-hour drive through farmland and foothills. Eventually you reach the dramatic Southern Alps and the gliding paradise at Omarama, on which pilots from all corners of the earth descend.

There you will find an open, perfectly flat large grass field close by a tiny single block town, amidst multiple lofty mountain ranges. It is at this location that a former mountain guide, 13 times up Mount Cook, operates what he claims to be the finest mountain gliding site in the world. In younger years he had bought a second-hand Super Cub, "did it up", and ran a mountaineering school on the glaciers. Then he evolved into a mountain gliding maestro with more than 10,000 hours. This exceptional New Zealander is the renowned Gavin Wills. Is this the most spectacular soaring site on earth?

Jet stream

Unencumbered by major landmasses, far from South America and the Antarctic, strong westerlies hit the Southern Alps, which stand as barriers to the high-speed flow. Omarama itself lies in a bowl of the mountains. The consequences are dramatic,

at low-level there is strong ridge lift and, at altitude, mountain lee wave, which may reach as high as 90,000ft. Importantly, and in addition, its latitude of 44.5° south ensures from October to March sunny days and strong thermals.

It was at this gliding Mecca that your correspondent arrived at the end of January 2011 to attend Gavin Wills' Mountain Gliding Course; for details see *GlideOmarama.com*. You discover a modern fleet of superbly kitted out Duo Discuses, an ASH 25, single-seat Discuses and an LS3; superb hangarage, disciplined RT procedures, and fine organisation.

An international team of exceptionally experienced hand-picked instructors is available. They included, at the time of the

visit, amongst others New Zealander Phil Plane, chief tow pilot and instructor Darren Smith, Dunstable's Mike Till, tug pilot Ash Hurndell, and Bo Nilsson, originally from Sweden. Devin Bargainner from the US and Gabriel Griffe from St Abon, France, are both in their respective National Gliding teams, adding youth and mountain racing experience. Lasham's G Dale, off site at that time, is a highly-respected local expert. There are strong ground handling crews and some lovely chalets to stay in.

During the New Zealand season, Nympsfield's Lemmy Tanner with many decades of experience is a good natured CFI. He delivers on the dot of 10am every morning, announced by a hand bell in a modern clubroom, a highly professional weather briefing; all clearly illustrated by PowerPoint presentations of weather charts and the latest satellite observations.

Daunting

To the newcomer the challenge may seem almost too much. High mountain ridges reach anywhere between 5-10,000 feet, steep sided valleys with narrow valley floors, lakes and glaciers, on occasion heavily forested mountains sides, and persistent strong winds that change direction with the chaotic topography.

"You are right to feel daunted," agreed Gavin, "but you must place yourself in the hands of us experts." Which I did. Veteran instructor Phil Plane elaborated. The first rule is this; "do not hit the hill". Do not look down, fly accurately with a 45° bank, "keep the yawstring straight", or else you "may leave there your own red mark". When you feel the surge of a thermal, then immediately "turn into the wind". The valley sides mean that you will have no horizon as you do in the flat lands of Europe so "imagine one". "Fly by feel", all this and more as he explained the arcane mysteries of ridge soaring amongst mountains, wave soaring, and convergences.

At Omarama flying often does not start until the early afternoon when the sun has had time to do its warming work so there



**EVENTUALLY
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is plenty of time for morning briefings and seminars. Then the drama begins with an aerotow in turbulent air to one of the adjacent mountains. There you seek to gain height, gyrating in the thermals or ridge lift or both to reach for the magic wave above.

Terrain

To the immediate south-west lies Mount Horrible, to the west Hugo's Elevator, which provides extraordinary lift from a tail wind, and the Omarama Saddle; to the north-west Magic Mountain and northwards, Mount Benmore.

Further away are the Lindis Range, Mount Ben Avon, the Dingleburn "but do not get stuck in there", the Hunter, Dobson and Hopkins river valleys, and their lakes, which lead inexorably unless covered in cloud to Mount Sefton, next to Mount Cook at 12,316ft. Their fierce rock needles are capped in steep glaciers. Or go south to nearly as high Mount Aspiring. "We never fly in cloud. Make plenty of allowance in the strong winds for the drift."

Your correspondent had never before flown above such hostile terrain. Where to land out? Fortunately the local farmers had built 100 or more local airstrips for spreading fertilizer and which coincidentally provide emergency escape. "Always have a plan, but always also have an escape plan in case your first plan does not work." Remember, "if a ridge does not work, immediately turn away, head for the middle of the valley where you will probably find lift". The worst thing is indecision, which can be deadly; in emergency go for an airstrip at the bottom of the valley. "Learn the airstrips."

The consequences were extraordinary, the longest, highest and most dramatic flights far beyond previous experiences. We flew five days in six, only one was too windy; total flight time, about 14 hours; total distance, over 1,500km; total height reached, 68,500ft; highest altitude, 16,500ft, always with oxygen of course.

We crossed South Island eastwards down the rugged Hawkdun and Kakanui Ranges to the sea, then coolly retraced our steps; over 300km that day. We flew up the Dobson towards cloudy Mount Cook, but turned back. We made a second attempt, and a third, then a fourth with Gavin, which was successful to soar the ridge effortlessly and to gain 2,000ft above that fearsome peak. On the last day we reached three miles high, and a colleague from Utah flew somewhat higher to gain his Diamond Height.



"Be a coward, and survive." Afterwards we fliers would meet in Lady Dagmar's on-site Kahu Café, which means appropriately a New Zealand hawk, to exchange stories, of heavy turbulence, of rocks, cloud, of the magic in the mountains, of the incredible smoothness of the wave, where flying has many of the characteristics of driving down a traffic-free motorway.

Speech

At Thursday evening's habitual dinner for all, Gavin ordered: "Christopher will give a vote of thanks." I spoke of our incredible journey out, of the privilege of being in such astonishingly good company in an amazing place. I thanked the tuggies, a fellow flier thanked the ground crew. I said that my only complaint was when in extreme turbulence at the saddle on Magic Mountain my head hit the roof and "someone important who you know was concerned only about his canopy".

Omarama is the place of records; of highest heights, including space-suited attempts by the late Steve Fossett and Einar Enevoldson; the World Speed Record over 1,000km by Fossett and Terry Delore (NZL) in 2004. Delore's amazing 2,500km flight last year averaged 180km/h. The World Gliding Championship was held here in 1995 followed by two International Grand Prix. For those who fly here each has their own individual superlatives.

After tasting arguably the most spectacular soaring on earth for real it was time to turn northwards to that other hemisphere from whence many of us had come. There are many more magical places at which to dawdle on the way home, and a truly wonderful gliding site to which to return another year.

Above: Look carefully to spot Duo Discus Delta Delta (Phil Plane) above Southern Alps

Below: Instructor Phil Plane and Christopher Claxton after flying more than three miles high



Christopher Claxton is the author of *Spoilt Veteran*, published in *Sailplane & Gliding* February/March 2010. He flies his Discus Bt at Dunstable and visited Omarama in January 2011. He was an international businessman, this his tenth circumnavigation; and is author of seven books

BGA CLUB ANNUAL STATISTICS

1 OCTOBER 2009 TO 30 SEPTEMBER 2010

	MEMBERSHIP							FLYING					NEW PILOTS			
	Full Flying Members (Adult)	Full Flying Members (Junior)	Affiliated Members	Female Members	Temporary Members	Non-Flying Members	Winch Launches	Total Launches	Total Hours Flown	"A" Badge	Bronze Badge	Cross-Country Endorsement				
Andreas Gliding Club	12	1	0	0	12	0	12	65	16	0	0	1				
Angus Gliding Club	15	0	0	0	37	0	406	406	57	2	0	0				
Banbury Gliding Club	48	2	0	3	186	5	0	1024	675	4	1	0				
Bath Wilts & North Dorset Gliding Club	77	13	49	5	37	29	2109	3212	1790	1	0	2				
Bicester Gliding Centre	147	4	109	20	244	103	5569	8397	5000	7	1	1				
Bidford Gliding Centre	64	4	0	5	284	12	0	1708	2000	2	2	2				
Black Mountains Gliding Club	66	8	0	5	393	14	0	2354	2838	3	3	3				
Booker Gliding Club	138	17	4	10	737	21	0	4819	3500	10	8	6				
Borders Gliding Club	86	7	0	3	189	21	0	1946	1765	0	1	1				
Bowland Forest Gliding Club	92	6	6	14	466	45	3515	3515	1424	1	1	6				
Bristol & Gloucestershire Gliding Club	171	14	6	16	320	40	3346	4800	4557	2	1	1				
Buckminster Gliding Club	109	6	8	8	291	9	1782	4171	2327	3	4	0				
Burn Gliding Club	87	8	0	6	275	9	3146	3837	1089	3	3	3				
Cairngorm Gliding Club	32	2	0	2	74	0	95	895	873	1	0	0				
Cambridge Gliding Club	171	10	50	15	955	35	7097	8703	5300	3	7	4				
Channel Gliding Club	16	2	0	1	195	1	644	648	180	0	2	1				
Connel Gliding Club	8	0	0	0	0	3	0	70	102	0	0	0				
Cotswold Gliding Club	137	12	52	17	709	79	5232	5558	2893	3	2	2				
Dartmoor Gliding Society	45	7	0	3	230	10	2799	2799	716	4	4	3				
Dariton G.C.	52	10	20	6	201	3	3170	3170	1005	0	1	0				
Deeside Gliding Club	45	8	0	10	234	40	0	1900	1914	0	1	0				
Derby & Lancs Gliding Club	120	7	0	4	283	38	4670	4670	2287	3	3	0				
Devon & Somerset Gliding Club	132	16	26	19	72	30	5751	6369	2092	1	4	4				
Dorset Gliding Club	39	1	0	2	244	37	1224	1720	580	0	0	1				
Dumfries & District Gliding Club	18	1	0	6	60	11	806	806	155	1	3	1				
East Sussex Gliding Club	92	12	0	5	380	0	1802	2970	706	4	3	0				
Eden Soaring	21	3	15	2	43	4	1537	1537	790	2	0	0				
Essex & Suffolk	107	8	0	6	561	0	5489	5515	2542	3	7	4				
Essex Gliding Club	52	7	0	5	120	10	1224	1430	640	2	0	0				
Herefordshire Gliding Club	24	0	0	1	90	5	0	607	328	2	0	0				
Highland Gliding Club	27	4	72	6	50	1	543	1051	687	1	0	0				
Kent Gliding Club	121	11	10	5	422	27	2778	3787	1185	10	4	1				
Lakes Gliding Club	26	4	0	2	100	7	0	559	348	0	1	0				
Lasham Gliding Society	570	89	82	77	935	149	14100	21300	7600	36	19	18				
Lincolnshire Gliding Club	29	1	0	2	104	1	1416	1416	200	0	0	0				
London Gliding Club	240	11	0	11	1238	38	7000	14100	6782	6	4	3				
Mendip Gliding Club	62	17	0	6	202	4	2401	2910	831	2	3	2				
Midland Gliding Club	119	16	5	12	197	15	5857	6331	2966	8	4	2				
Needwood Forest Gliding Club	40	4	0	2	271	20	2221	2221	484	3	0	0				
Nene Valley Gliding Club	44	2	0	5	181	14	1937	2026	670	0	0	1				
Norfolk Gliding Club	101	40	0	12	221	97	1678	3918	1586	7	2	3				
North Devon Gliding Club	6	0	0	0	48	0	0	125	125	0	0	0				

North Wales Gliding Club	35	0	0	139	1	1002	1002	204	2	1	0
Northumbria Gliding Club	49	8	4	223	2	649	1300	1300	1	2	1
Oxford Gliding Club	73	4	6	381	17	3657	3657	1062	4	2	1
Oxfordshire Sportsflying Club	63	2	5	38	0	0	0	1700	0	0	0
Peterborough & Spalding Gliding Club	54	4	2	181	29	0	1253	715	5	3	2
Rattlesden Gliding Club	72	13	9	95	11	1712	2057	824	2	2	1
Sackville Vintage Gliding Club	2	0	0	11	0	60	160	20	0	0	0
Scottish Gliding Union	238	12	11	545	0	7511	8897	6000	14	5	6
Shalbourne Soaring Society	46	1	2	280	0	2672	2672	1130	1	1	1
Shenington Gliding Club	69	23	9	145	3	4180	5051	2188	3	0	0
Shropshire Soaring Group	19	0	1	30	30	0	286	314	0	0	0
South Wales	60	3	4	78	0	1008	1591	1022	0	4	3
Southdown Gliding Club	165	29	12	548	26	268	4703	4237	7	5	4
Staffordshire Gliding Club	64	13	27	19	39	3052	3865	1180	1	3	4
Stratford On Avon Gliding Club	77	13	9	520	24	5533	5533	1830	6	5	2
Surrey Hills Gliding Club	55	10	2	227	7	3919	3919	732	3	2	1
The Motor Glider Centre	15	1	0	6	0	0	0	500	0	0	0
The Gliding Centre	217	33	8	596	34	4080	7770	3000	4	0	2
Trent Valley Gliding Club	50	7	2	253	5	2059	2446	926	5	2	0
Ulster Gliding Club	63	7	7	322	4	0	1223	1033	2	1	1
Upward Bound Trust Gliding Club	24	2	2	41	0	1397	1397	286	1	2	1
Vale of Neath Gliding Club	12	0	0	2	0	0	754	65	1	0	0
Vale of White Horse Gliding Club	31	0	3	92	0	0	742	569	4	1	0
Vectis Gliding Club	19	0	1	47	3	0	259	122	0	0	0
Welland Gliding Club	32	3	4	145	8	879	1079	460	0	0	0
Wolds Gliding Club	145	19	16	351	4	7172	8773	3306	2	6	5
York Gliding Centre	117	8	6	577	12	446	2296	2500	2	2	1
Yorkshire Gliding Club	164	22	17	349	36	768	4596	4246	2	0	0
SERVICE CLUBS (AGA, RAFGSA, RNGSA)											
Anglia Gliding Club	28	5	0	51	0	1400	1480	350			
British Army Germany	14	2	0	10	8	430	433	145			
Wyvern Gliding Club	50	2	4	72	0	4404	4677	1303			
Bannerdown Gliding Club	80	7	5	128	0	3043	3361	1331			
Cranwell Gliding Club	65	10	17	273	0	3948	4363	1481			
Crusaders Gliding Club	21	2	2	3	0	2923	2923	473			
Fenland Gliding Club	80	2	5	44	0	1624	1755	548			
Four Counties Gliding Club	39	1	1	100	0	1876	2045	711			
Fulmar Gliding Club	26	2	3	15	3	See Highland GC					
Kestrel Gliding Club	40	8	1	119	0	936	1157	246			
RAF GSA Centre	68	8	5	24	0	1859	4757	2087			
Wrekin Gliding Club	15	1	1	188	2	1200	1650	500			
Heron Gliding Club	31	7	1	39	3	166	647	280			
Seahawk Gliding Club	26	2	2	3	3	597	1062	390			
Portsmouth Naval	79	6	3	125	12	1533	4049	1237			
Subtotals	6300	697	558	19326	1304	179319	261005	126158	278	168	129
						Air Cadets			34	2	0
						Service Clubs			32	16	17

The British Gliding Association (established 1929) is the governing body for the sport in the United Kingdom, representing and furthering its interests in an increasingly competitive environment. Its mission statement is "to provide effective leadership and continuity of gliding and soaring in the UK". You can use the interactive map at www.gliding.co.uk/findaclub/ukmap.htm to locate the club you require. University gliding clubs are listed at www.gliding.co.uk/findaclub/university.htm

■ The BGA is reviewing the data it collects and how it will be presented in the future

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INNOCENCE LOST?

OPENING the April/May issue of S&G, I was reminded of Mike Fox's wise words regarding preparing for the upcoming season, *writes VGC secretary Bruce Stephenson*. Naturally, like many of you, these words resonate in the back of my mind, galvanising me into thinking not just about getting my glider ready for the new season, but myself as well.

With time fast running out, the UK vintage world is about to kick off with the intimacy of Haddenham, the thrill of our National at Nympsfield, and the excitement of historic Spitzerberg in Austria for our International. For me at least, there's a real zest in looking forward to what adventures this year's Vintage Rallies may bring.

But travelling at 29,000ft today in a small commuter jet, feeling like every wisp of cloud was a very hard rock on a motorway, ever the backseat driver I wondered why the crew just didn't ask London if we could climb another two thousand feet? It was then I realised just how far removed I had become from those early years of enthusiastic innocence, and the basic thrill of flight.

For me so far, I haven't enjoyed a text book career in aviation, but the journey has been a privilege all the same. But sitting there in quiet contemplation I realised that something else had crept up on me along the way as well. Like a child growing up too fast in a world ruled by a media that tells kids to act like sultry 21-year-olds at the age of 12, in my personal journey in aviation, I had lost that fragile gift of innocence; that almost child-like enthusiasm for nothing better than just simply getting into the air.

I had become so dismissive of what life had given me that Mike Sheehan, a friend

of mine, recently was so upbeat about the fleet at our club that I honestly thought he was joking. He described our tired, but well maintained fleet that had been abused by many and loved by few as "the ultimate toys". I just stared back as if he had lost his sanity... he had to be kidding; right? For me I instantly compared his enthusiastic description to that of a shiny new jet from Mr Boeing, this after all is where I make my way in life, how could this collection of clapped out junk even begin to compare? I was serious; so was he.

But who was the lucky one? Well in truth you could argue both of us were. Here I was getting paid for making a living doing something that I loved, which of course is nothing short of a privilege; and Mike, well he still had something that was as innocent as your first love...

So bouncing along at 29,000ft, I began to think of our humble fleet in a different way as I recalled the thrill I used to get from my expensive but hard-earned one-hour's flying once a month in some clapped out Cessna all those years ago, or in more recent years, the worn and faded Puchacz. They were to me at that time what our humble fleet is to Mike now, "the ultimate toys". However, I am still eternally grateful that my love for nostalgia and flying can still arouse these same strong emotions from within me as they do for Mike.

For many of us gliding is all about speed and distance, or to others competing, but to me it's about losing myself to the simple elements of the air in something that speaks to me of yesteryear, the sweet smell of wood and fabric, of good friends and exciting new places. For me vintage gliding still holds that flicker of innocence, hold on to it, it's a beautiful and rare thing!



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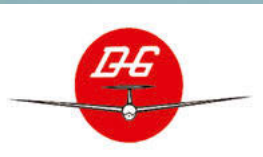
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■ Rachel, daughter of Frank and Margaret Birlison, is pictured with Paul Lazenby at Aston Down in February, fulfilling her ambition to have “flown like Brian”, her Full Cat brother. Sadly, Rachel has since died. She suffered from Williams Syndrome, which meant she would never have the range of skills necessary to drive, and certainly not pilot a glider, and she was easily frightened if she lost her balance. However, as Frank’s photograph shows, Rachel was thrilled by her flight in Paul’s motorglider on a calm winter day.



■ As reported in the obits section of S&G (April/May 11, p71), it was with great sadness that one of the most respected and popular characters in the East Midlands gliding movement passed away earlier this year. Ray Parkin, who sadly did not survive to receive the BGA Diploma that he had been awarded, had split his devotion, commitment and loyalty equally between the Buckminster and Trent Valley clubs for the past 15 years. This was reflected in his final wish that his ashes were to be scattered half and half at each club. ‘Parky’ had been a gliding and motorgliding instructor as well as a tug pilot, and flew his own DG-800 whenever there was time left for that! The club took full advantage of his skills and experience in all these fields. He was Buckminster’s Safety Officer for several years, as well as being the Regional Safety Officer for the BGA. He will be sorely missed by all who knew him and had the privilege of flying with him. **Stuart Black**



This page from the top:
An evening landing at Devon and Somerset’s North Hill
(Graham Barden)

DSGC’s Lisa Humphries (inset) finds a new way to repair the lining in a set of wing covers – at least, that is what she said she was doing (Cheryl Smith)

SGU trophy-winner Jim Cook:
“Just checking for the hallmark before I log on to eBay!”
(Ian Easson)





■ The university ladder was introduced to stimulate competition between UGCs. Run through the BGA National Ladder team, it was activated for the first time in 2010. Bristol University was the winner and Alex Ward (who posted the six best flights) is pictured collecting the award from Patrick Naegeli.



Clockwise from top right:
Andy Sutton having fun in Black Mountains' T-21 'Snoopy', the perfect platform for siteseeing in the Welsh mountains (Robbie Robertson)

Nympsfield was recently visited by 161 Beaver Scouts, hoping to obtain their Air Activity badge. To gain this badge, the Beaver Scouts learnt how a plane flies, made a paper glider and saw how well it flew. They found out about different kinds of aircraft (glider, microlight or similar light aircraft) and talked to pilots before each having a turn sitting in front of the Grob, bottom right (Bernard Smyth)

Borders' prize winners (left to right): Andy Bardgett, Jules Sutton, Steve Marriot, Alan Walker and Rich Abercrombie (Graham White)

Our thanks to all the photographers and to our *Club News* contributors for sending these in. If you'd like to submit your previously-unpublished photographs for possible inclusion somewhere in *S&G*, send them to editor@sailplaneandgliding.co.uk

CLUB NEWS

BANNERDOWN (RAF KEEVIL) **WWW.BANNERDOWN.CO.UK** **511858N 0020631W**

ANOTHER good couple of months here with four newly-qualified BIs; Andy Smith, Arran Armstrong, Gaz Baker and Ron Peach, who have been busy already with their duties. Pete Desmond ran a week-long motorglider NPPL course at Keevil in March. We held our AGM in March at which time our long-serving CFI, Oscar Constable, stood down. We owe Oscar a debt of gratitude for the last seven or so years that he has been CFI, along with the wealth of experience that he brought. Ian Harris has taken over as our CFI and we wish him all the best in this very demanding role.

Arran Armstrong

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

MARCH brought excitement as three younger trainees went solo; Ben Collins on his 16th birthday. Ben has worked hard and built up many of the skills necessary to become a good pilot. This showed in his aerotow launch, landing and ability to soar for over 30 minutes on a poor day. Paul Hailes and Sudip Nair also soloed. Paul, already 16, has done well to reach this stage. Sudip, a Bath University student, has put a lot of effort into the club and least expected to go solo. He literally skipped out of the hangar. To crown the weekend we had two new members join.

Jan Smith

BICESTER (WINDRUSHERS) **WWW.WINDRUSHERS.ORG.UK** **515458N 0010756W**

THE season began with several cross-countries. Full-time flying has resumed with a winch available throughout the week. The Motor Falke has returned from its annual inspection, ready to book for field landing training and cross-country endorsement. We have four new BIs; congratulations to Jolien Chow, Alan Jenkins, Richard Markham and Philippa Roberts. Some of our members teamed up with the Air League and other organisations and visited the House of Commons to present a case for the social benefits of youth access to aviation. Our annual expedition to Portmoak is about to take place with gliders, instructors and students setting off to experience new heights (hopefully) and enjoy the Scottish hospitality.

Annette Purcell

BIDFORD GLIDING & FLYING (BIDFORD) **WWW.BIDFORDGLIDING.CO.UK** **520803N 0015103W**

EXCITING events happening here with the formation of a new BGA-approved members' club, known as Bidford Gliding & Flying Club. We are growing rapidly with a membership likely to be double what we had anticipated. The Janus has been refurbished and looks as though it has come new from the factory. During our first season we are planning to run our own "friendly regionals" – non-rated this year, but with all the same facilities. It's going to be a fun week, starting 11 June. The total entry fee will be £40. All are welcome. In the meantime we are running a seven-day operation from Easter. For more information email bidfordglidingandflyingclub@hotmail.co.uk

Frank Jaynes

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

AT the end of March we had a working weekend organised by Julie King and many turned up for painting, cleaning, tidying up, etc, which we fitted in between soaring to a 5,000ft cloudbase. The club spirit keeps improving. Congratulations to our CFI, Martin Langford, who has been awarded a Bill Scull award for safety. Somehow Martin has the knack of keeping pilots enthusiastic and safe at the same time. Very well deserved Martin. The expedition season is in full swing with a group from Booker currently sampling the delight of thermals, ridge and wave above the Welsh Mountains. Bi Nilsson has returned ensuring smooth seven day a week operations.

Robbie Robertson

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

BY the time of publication, the first "Booker Rules" competition will have been held. It's designed to appeal to a wider range of pilot experience and to allow officials to fly tasks wherever possible. We have relaunched our website and our course structure has been revised, with the intention of moving to a much more "club-based" style. It is also intended to include a Booker YouTube video channel. Recent solos include cadet Guy Trees on his 16th birthday. Our excellent blog remains the best way of keeping current with everything that's new and happening at

Booker. We have a great range of expeditions this year, including Talgarth (which has been successfully completed) Shobden, Serres and Aboyne.

Roger Neal

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

BORDERS held its AGM in early April. Both Graham White (Public Relations Officer) and Bill Brittan joined the committee, while Ken Marsden stood down after serving his full term. A huge thank you to Ken for all his help and effort over the years – it has been greatly appreciated. The annual prize-giving took place following the AGM. The Urwin Trophy (greatest height climb) was awarded jointly to Jules Sutton and Andy Bardgett. Steve Marriot received the both the 'Old Gits Triangle' and the Boomerang Trophy (out and return). Alan Walker (our secretary) received the President's Cup (services to the club) and Rich Abercrombie the Coulson Trophy (contribution to the club). Well done to all.

Rich Abercrombie

BRISTOL & GLOS (NYMPFIELD) **WWW.BGGC.CO.UK** **514251N 0021701W**

STEPHEN Daynes handled a cable break on his first solo – congratulations. Hundreds of Beaver Scouts are visiting in May for their Air Activities Badge. Our K-21 went for a refinish and Ian Hey and happy band refurbished a K-13. Aston Down kindly lent us a K-13. Our Scout tug was sold to B Walker & Co (Dursley) Ltd, but will stay here. We ran a BGA club management course in March and relaunched our mentoring scheme. Several visitors enjoyed flights. Cups were awarded at the dinner-dance to Iain Evans, Russ Francis, Simon Bawden, Sid Smith, Tim Macfadyen, Trevor Stuart, Matt Davis, Christophe Mutricy, Julian Rees, Kevin Neave, Steve Eyles and Carol Smith.

Bernard Smyth

BUCKMINSTER (SALTBY) **WWW.BUCKMINSTERGC.CO.UK** **524912N 04228W**

AS a reminder, Saltby will be hosting the National Glider Aerobatics contest on 2-5 June and a 'Falke Fly-In' on Saturday 25 June, 2011. Please contact our office if you wish to attend either of these events.

Stuart Black

(Left to right) Paul Hailles and Ben Collins solo at **Bath & Wilts** (Laurie Smith); **Bidford's** new Janus B in its Vertigo covers with David Findon, Tugmaster (left), and Frank Jeynes, CFI; Marc Selzer after his first solo at **Booker**



BURN (BURN)
WWW.BURNGLIDINGCLUB.CO.UK
534445N 0010504W

YORKSHIRE Forward's plans for disposal of its asset in Burn Airfield are anticipated, but the committee has been making plans for possible actions once we know. To permit the new flight logging system to operate from different locations, a point-to-point internet connection has been installed in the launch point office. The chairman has been instructing some Scouts so that they can obtain a badge in aviation and possibly consider taking up gliding. To prove that it's not just power station soaring at Burn, our treasurer George Goodenough reports that he reached 12,000ft in early spring wave on 7 April. Finally we are sad to report the death of one of our former members, Dave Brown.

Chris Cooper

CAIRNGORM (FESHIEBRIDGE)
WWW.GLIDING.ORG
570613N 0035330W

AT the time of writing, members are spring-cleaning the clubhouse and hangar in preparation for Mayfest, which is as busy as ever. More on this to come. Pilots have been soaring the hills and enjoying the occasional wave climb, and recently some amazing thermals. Our sincere thanks go to our hardworking Inspectors, especially Ian Carruthers, and new member David Weekes for completing ARC renewals on both our Grobs. We hope to have our Puchacz back soon, having undergone refinishing. Octoberfest this year runs from 1 October for two weeks. Bookings should be made with Chris@cabrich.com Check out our website for more details.

Chris Fiorentini

CAMBRIDGE (GRANDSDEN LODGE)
WWW.GLIDE.CO.UK
521041N 0000653W

A huge thank you to Richard Brickwood, who has handed over as chairman to Paul Ruskin. Richard has worked tirelessly for the last five years. We wish Paul well. Robert Bryce-Smith handed over his chief tug pilot duties to Andrew Hulme – again thanks to Robert. A record number of new members last year has created a raft of new solo pilots. The April expedition to the Long Mynd was great fun with several members experiencing ridge and wave. Our open day was held on

9 May. Congratulations to John Mc Carthy who has gone solo and to cadet Josh Hope, who soloed on his 16th birthday on 13 April.
Lorna Sleight

COTSWOLD (ASTON DOWN)
WWW.COTSWOLDGLIDING.CO.UK
514228N 0020750W

WE welcome all eligible junior pilots to the Junior Championships here, 23-31 July. We have been testing a new retrieve which pulls all four cables from our two winches simultaneously but allows us to use one winch at quieter times. Thanks to the concreting skills of Richard Kill and Alex Jones, our hangar has been reorganised to allow improved access while work continues on the planning for our proposed private owner hangar. Bronze lectures are now in full swing and we have a mystery blogger reporting how good the day was. Hopefully we shall have a tug in service soon.

Frank Birlison

CRANWELL (RAF CRANWELL)
WWW.CRANWELLGC.CO.UK
530231N 0002936W

NOW we're ready. Aircraft spick and span, all field landing checks done, a little bit of soaring has taken place. Now we await the rest of the soaring weather with anticipation. Throughout the fixing and fettling weeks we have, after the days flying activities received a number of lecturettes from Kev Atkinson which have provided food for thought with respect to the forth coming soaring, which no doubt will benefit those who are seeking to expand their horizons. I'm sure there will be more to report in the next issue of S&G.

Zeb Zamo

CRUSADERS KINGSFIELD (CYPRUS)
WWW.RAFAKROTIRI.CO.UK/CRUSADERS
3501N 03344E

IT'S spring again and the weather can't decide what it's doing. One day the sun is shining and the next we have a thunderstorm. We also have the spring JSG courses going on at the moment – this time we have Taff Williams, Ian Padgett and Nick Lewington with us. Welcome boys. We greeted them with a BBQ on their first Sunday and will do our best to look after them during their stay. Lester Pell, our OIC from 2004 to 2007 is back on island and has taken the position again – many thanks and welcome back.

Jo Rigby

DARLTON (DARLTON)
WWW.DARLTONGLIDINGCLUB.CO.UK
531444N 0005132W

AFTER a frustrating break for adverse weather, we are back to normal with an active flying programme and members conducting their annual checks prior to the season. To aid this we have a Puchacz on short-term loan from Saltby in exchange for our Janus. To encourage more junior members, the club has the benefit of Accredited Junior Gliding Centre status, offering preferential flying rates to all juniors. Our Darlton syndicate Motor Falke is nearing completion of the recovering of the fuselage and will be back on the flight line shortly – a further training aid. Finally, plans are well advanced for the official opening of our new clubhouse by a mystery dignitary in mid-April.

Geoff Homan

DARTMOOR (BRENTOR)
WWW.DARTMOORGLIDING.CO.UK
503517N 0040850W

IF you pass a Nelsonian eye over February, it has been a cracking start to the year. In January, we operated most days, with Richard Morgan and Richard Williamson going solo. Into March there was a stream of solos and conversions, with Alan Carter, completing his Bronze along with Mike Keller, Robin Wilson and Chris Kaminski. We thank Rick Wiles for installing plasma screens and a router to our broadband, and to Dave Bourchier for his work on the ML winch. At the end of March, Richard Williamson achieved his first Bronze leg. Finally, at our AGM, the inspirational enthusiasm of our professional CFI Don Puttock was loudly applauded and our committee was re-elected.

Martin Cropper

DEESIDE (ABOYNE)
WWW.DEESIDEGLIDINGCLUB.CO.UK
570430N 0025005W

HAVING emerged from the winter unscathed, early spring is providing some good soaring days, with wave up to 3,000m (9,833ft). This summer we will run two five-day courses, from 6-10 June and 15-19 August. Instruction will be tailored to individual requirements, so if you are a newcomer to gliding, or just need that booster to get to solo, this is for you. Some clubhouse accommodation is available, or there are comfortable, local hotels: full booking details on our website. Prospects for the season are good, with seven-day operation planned



(Left to right): **Cambridge** cadet Josh Hope was sent solo on his 16th birthday by Julian Bane (Andy Beatty); The guys from Halton with the JSG recruits at **Crusaders** (Taff Williams); **Darlington's** Mick Noon and Andrew Lucas with a new toy at the end of the rainbow (John Maddison)



📅 from May through October. The 2011 UK Mountain Soaring Championships will be held 4-10 September, heralding the wave season.

Fred Pell

DEVON AND SOMERSET (NORTH HILL)
WWW.DSGC.CO.UK
505107N 0031639W

CONGRATULATIONS to newly-solo David Clements. Dylan Davies, Wyn Davies and Will Bond have all converted to single-seaters and are enjoying the start of the season. Members are having a superb week at Portmoak, experiencing wave, most days to around 9-10,000 feet. Congratulations to Rowan Smith and Paul Summers for completing their 5-hours, Henry Ford for Silver height and James Hood a 50km, (fractionally missing his 5-hours with 4hrs 58mins on the logger). Mike Fitzgerald has been presented with a framed diploma from the BGA in recognition of his services to gliding for over 50 years. Preparations are well under way for our open weekend at the end of May.

Cheryl Smith

DORSET (EYRES FIELD)
WWW.DORSETGLIDINGCLUB.CO.UK/DGC
504233N 0021310W

CAROL Marshall has stood down after many years as our treasurer, ably assisted by her husband Jon, who has managed flying statistics and done most of the grass cutting and vehicle maintenance. We would like to thank them for their sterling efforts. Doug Every is our new treasurer and has started creating databases to simplify the task. Our K-13 "CHW" is newly refurbished, re-covered, and re-sprayed, thanks to Barry Thomas and Bill Cook. Nick Barnes is now a BI and has officially been 'let loose'. Nathan Hanney goes on his Assistant Instructor course in June, and Tony Law in September. Our task week is the last in July.

Colin Weyman

DUMFRIES & GALLOWAY (FALGUNZEON)
WWW.DUMFRIESGLIDING.110MB.COM
545638N 0034424W

LIKE most gliding clubs, due to the bad weather, our flying and income has been drastically reduced. This has allowed us to do general maintenance and start CofAs. Our AGM revealed good news and allowed us to look forward to doing valued work on reopening our east-west runway, giving us added potential for more flying this year.

Further work will hopefully bring our second two-seater back in to our fleet. Congratulations to two of our members Allister McGregor and Iain McIver for passing their Radio Course at Portmoak, giving them another feather in their caps.

Wendy McIver

ESSEX (RIDGEWELL)
WWW.ESSEXGLIDING.ORG
520253N 0003330E

WE had an enjoyable winter flying with Anglia GC and again thank them for their hospitality. We have been very busy replacing our old clubhouse and reconnecting all the main facilities. Well done to all concerned in this big job. With our new reconditioned twin-drummed Skylaunch winch on site, which will carry a 4mm steel cable on one drum and a Skyrope on the other, we look forward to more height in our launches. It will be interesting to see how each drum performs. Hopefully the new winch will also encourage some new drivers to get winching. We are all looking forward to another good season with anticipation of higher and longer flights.

Peter Perry

ESSEX & SUFFOLK (WORMINGFORD)
WWW.ESGC.CO.UK
515630N 0004723E

WE are all prepared for the new season. More hard-standing for cars offering better access has been laid, the field is in good condition and thermal soaring has already started. Winter training has paid off for two new solo pilots; well done Rob Hart and Kaz Fuks. Congratulations also to all who picked up trophies at the recent AGM – including the unnamed member, who was awarded the "Soddit" trophy for only discovering that his fuel tank was empty when he tried to fire up his turbo to get home. The "concrete swan" two-seater has now departed for a new life in Eastern Europe and we wait with bated breath for a replacement.

Dick Skinner

FENLAND (RAF MARHAM)
WWW.FENLANDGC.CO.UK
523854N 0003302E

AT the time of writing (early April) we are beginning to get a few thermals for local soaring flights and even one 50km out and 50km back. In the meantime, club member Ollie Chubbock is compiling a history of the club. It is believed that, as Fenland GC, it

was started at Methwold Airfield and moved to Swanton Morley and Marham, which, of course, is not in the Fens. If anyone has any information of interest, please contact Ollie at 59 Thorpe Drive, Attleborough, Norwich. NR 17 2 HS or olliechubbock@yahoo.co.uk

John Doubleday

HEREFORDSHIRE (SHOBDON)
WWW.SHOBDONGLIDING.CO.UK
521429N 0025253W

EFFORTS to increase gliding at Shobdon were interrupted in March, after the CAA took an interest in our airfield. Several members spent many hours negotiating and agreeing new procedures. These now seem to be working and we hope they will soon become second nature and easy. We had two successful weeks with members from Dunstable and Hinton soaring here. A busy summer programme is planned: hosting Rockpolishers league after a break of several years, running courses for our increasing group of beginners and a task week in August. We have two new arrivals on site, a Duo Discus T, which Phil King plans to syndicate and a PIK 20E for our treasurer, Les Kaye.

Diana King

HIGHLAND (EASTERTON)
WWW.HIGHGLIDE.CO.UK
573508N 0031841W

OUR AGM was well attended. The start was delayed because committee members were in wave. Congratulations to Ellen Mountain, who re-soloed in February after a break of a few years. A band of members are planning an expedition to Nympsfield in July. The club sent an LS7 to the local Science Festival as a static display. It generated lots of interest, and our thanks go to Martin Knight, Ian Lane and Robert Tait. The same LS7 was turned into a money box a few days later by one of the owners using a 2p coin to turn the tailplane attachment wheel and allowing the coin to drop into the fin. Plastic surgery was required.

John Thomson

KESTREL (RAF ODIHAM)
WWW.KESTREL-GLIDING.ORG.UK
511403N 0005634W

NEIL Armstrong has taken over as CFI from Brian Garston. Thanks to Brian for his efforts managing the flying, and the acquisition and construction of our new hangar. The Kingston University gliding club link established last year has provided a steady flow of new

(Left to right): Mark Lowrey went solo at **Dartmoor**; David Clements was sent solo by **DSCG** CFI Peter Harmer (Cheryl Smith); **Dorset's** K-13, with Bill Cook (left) and Barry Thomas (Gerry Cox); **Lincolnshire's** Pete Carrington receives a BGA Diploma from Patrick Naegeli (Tony Bowness)



recruits. Kestrel has also welcomed Bamle Mije, a student from the Farnborough College of Technology. Gliding has helped Bamle understand the effects of controls and flight loads. We hope a more formal link will be established with the college. Taff Williams has been flying his Olympia 2b and will soon be joined in the air by a Zugvogel. Finally, many thanks to Rob Armstrong for revamping the club website.

Robin Colbourne

LINCOLNSHIRE (STRUBBY)
WWW.LINCSGLIDINGCLUB.CO.UK
531836N 0001034E

MATTHEW Jordan has gone solo, as has Phil Trevethick. Phil is a resolo after a break of many years. Pete Carrington, our retiring MT fleet and grounds man and everything-else-that-needed-doing man, has been recognised with a BGA diploma. The club has bought a pristine Pirat to support the poor old K-8 and give members something to aspire to within the club fleet. There were committee changes at the AGM and Tony Bowness has taken over from Pete Carrington to manage our vehicle fleet, Phil Trevethick is now in charge of the aircraft, taking over from the late Dave Fenn (see obit p71).

Dick Skerry

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

CONGRATULATIONS to Simon Roberts, Bruno Greco and Bev Atkins on their first solos, to Mike Fase on his Bronze, and James Innes and Michael Gardner on their RT licenses. The Dan Smith aerobatics competition was a success; congratulations to winner Richard Chapman and to Steve Hardy, the highest-placed LGC pilot. Our listed glider hangar and clubhouse date from 1936. The roof and cladding are nearing the end of useful life and we have launched a project to raise the six-figure sum needed to refurbish. The season has started at last, with our first thermal cross-country flights logged towards the end of March. We had an Easter mini-comp followed by our Task Week in May.

Andrew Sampson

LOUGHBOROUGH STUDENTS UNION
(RAF WITTERING) WWW.LSUGC.COM
523645N 0002840W

THE last couple of months have been busy. March saw the club say a sad farewell to

the 2010/2011 committee and an especially teary-eyed farewell to chairman Sam Roddie. Everyone at the club is indebted to Sam for organising the purchase of our ASK-15, drawing in a record 72 members and keeping the club running smoothly. We now welcome our new chairman, Patrick Leedham, and his committee – they have a lot to live up to. The most recent challenge has been renovating the 15's trailer, organising the refurbishment of the 15 and an 'LU' comp number. Everyone at LSUGC is looking forward to a summer of soaring and solos.

Oliver Giles

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

THE 2011 Scholarship scheme has had a fantastic result. The club held two weekend open days to invite local youths to the club to have a look around and receive a free trial lesson. They were then invited to apply for a scholarship. We have successfully awarded five Junior Scholarships to local young people, who commenced their training during the Easter Courses. A massive thank you to Peter Turner of Executive Aviation Services Ltd, based at Gloucester Airport, for the sponsorship. Congratulations to Thomas Hogarth, of the Hogarth Clan, on completion of his cross-country endorsement; novice class for Tom this year.

Terry Hatton

MIDLAND (LONG MYND)
WWW.LONGMYND.COM
523108N 0025233W

AWARDS were presented at our "Start of Soaring Season" party. We enjoyed a superb meal, thanks to the team led by Helen Johnson. Our accommodation block had a substantial make-over with professional instructor Dave Crowson becoming a professional builder, helped by a team of volunteers. The pressure was on to finish the work in time for the group of 27 Dutch visitors. Cross-country flying has got off to a good start, with impressive flights by Iain Evans, Dominic Haughton and James Fisher (height gain). We welcome new members Elizabeth Lawrenson and Charles Ferrier, returning members Rose Johnson and Iain Evans and also Rob Hanks, who has joined us as our assistant course instructor.

Steven Gunn-Russell

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

WE crowned a successful year for our Cadet scheme when Paul Carter went solo on his 16th birthday, the third of our cadets to do so in 2010. Congratulations to them all. At the AGM Martin 'Will' Day took over as CFI from Mark Wright. We thank Mark for all his hard work and wish Will good luck. There were changes to the committee, with many thanks to Mike Crook, who stood down as we welcome Graham Asworth and David Blyth on to the team. The trophies for highest, fastest, and furthest were presented after the AGM. We are looking forward to the Eastern Regionals in May and the 18m Nationals in July.

Mike Bean

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

NORTH Wales has had a good start. Newly-solo Nigel Morris managed two Bronze legs on the same day; Chris Jenks soloed with a soaring flight. A big loss was announced at our AGM – a whole syndicate, including our CFI and chairman, has moved for reasons not reflecting on the club. Dave Holt received the grateful thanks of all and, even though we are a small club, we have been able to replace the positions from within. Jack Stockford has agreed to instructor training to help take the strain off our existing instructors, as they do more than their fair share of air experience flights – an important part of our operation.

Brian Williams

NORTHUMBRIA (CURROCK HILL)
WWW.NORTHUMBRIA-GLIDING-CLUB.CO.UK
545603N 0012722W

OPENING up for mid-week flying when the weather looks good has been rewarding. March has delivered some cracking days, a mix of wave and thermal has meant plenty of soaring opportunities with many flights over three hours and up to 8,000ft. Nic Fellows completed the final leg of his Silver on an 88km cross-country to Sutton Bank, while Dave Scott successfully negotiated the first Currock 50km triangle of 2011. Steph Burn is getting to grips with the Astir, and Emily Gooch re-soloed after a four-year break. Mark Johnson has been flying with us until his usual club opens for the summer. Thanks also to Nic for his hard work on the website.

Rob Rose



(Left to right): London's Simon Roberts, sent solo by Chris Collingham (Andrew Sampson); Chris Jenks was sent solo by Ken Payne at North Wales (Carl Pierce); Luke Dragovic and Charles Wildblood were both sent solo on their 16th birthday by Staffordshire's Derek Heaton; Ulster's K-21 (Jo Myles)



✈ **PETERBOROUGH & SPALDING (CROWLAND)**
WWW.PSGC.CO.UK
524233N 0000834W

FLYING continued, despite the weather, with a few early season soaring flights. Congratulations to Richard Thornley, our latest solo tuggie in the Husky, won't be long until he'll be "Velcroed" into the Pawnee. Preparations for our open day on 24 July are under way. Attractions include static displays, vintage gliders and power, plus other flying displays, including the Red Baron's "Fokker Triplane". Dates are now confirmed for the Millfield sojourn, 12-16 September, with about half the club signed up for it. Finally, our treasurer Pete Hardingham has purchased a Cirrus to add to the collection of privateers.

Marty Edgar

PORTSMOUTH NAVAL (LEE ON SOLENT)
WWW.PNGC.CO.UK
504855N 0011225W

CONGRATULATIONS to Andy Payne on his SLMG solo, and to Richard Barwick for his full licence. Our Annual Dinner Dance was enjoyed by 40 and we're planning a big Hangar Party after our family and friends event on 2 July. By the time of publication, we'll have completed our Easter Course; had an expedition to Edensoaring; held our AGM and sent our older K-21 to Poland for a complete re-gel and refurbishment. The Duty Pilot role has been reinstated to optimise launch rates and ensure launch-point duties are managed efficiently. We wish members safe and enjoyable flying, with all success in the various competitions, courses and achievements many will pursue.

Neil Shaw

RATTLEDEN (RATTLEDEN)
WWW.RATAIR.ORG.UK
521001N 0005216E

THE season started early, as Pete Harrison soared for over two hours in February, and Michael Jillings an hour and three-quarters in March. The AGM was well attended, and the cups were awarded to the following: The Woody Winch Trophy – Dave King, The Cunningham Triangle – Martin Raper and The Numb Bum Cup – Mick Nichols. The Landlord's Cup, for the most improved pilot – Darren Hatcher, The Jean Towse Cup, for the most meritorious flight in a club glider – Martin Raper and the Karen Wright Cup, for services to the club – Bod Blanchard. We are looking forward to the 447th Veterans are coming back to Rattlesden in July.

Helen Page

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

WE held our awards night and, after an excellent meal (thanks Steve, Irene, Sandra and their brilliant team), the following collected their Silverware: Mark Wilson, Mark Dickinson, Jim Cook, Brian Scougall and Z Goudie (1), John Dunnington, Kevin Hook, John Henry, Johnny Paterson and Ian Paterson (2) and John Williams (4). Other members have achieved lots this year: radio courses were passed by Andrea McLean, Toni Hausler, John Munro, Iain McIver and Alistair Mcgreggor (Iain and Alistair travelled 100 miles between their club Falgunzeon for the classes). Mike Lithgow achieved Bronze and Silver height. Lastly, well done to our safety officer, Ricky Jackson, first solo (NPPL – SLMG) in his Grob 109B.

Ian Easson

SHALBOURNE (RIVAR HILL)
SHALBOURNEGLIDING.CO.UK
512014N 0013239W

OUR Annual Dinner celebrated members' achievements. Stephen Ottner won Instructor of the Year for work on weekend courses. Richard Barber claimed *ab-initio* of the year and a special award was given to Nigel Burt for his Silver distance. Our SkyLaunch conversion continues providing a thrifty way of achieving aerotow heights at minimal cost. James Hunneman and Ken Hansell have worked extremely hard to improve reliability of our ground equipment, while Andy Brind and Bill Cook ensured our aircraft were ready for the season. We are quietly celebrating the closure of Lyneham Class D airspace from September, which will open skies to the North. We are also celebrating £8,600 from Sport England for new instruments and parachutes (see p6).

Colin Baines

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

OUR Annual Dinner was a great success with lots of prizes. Dick Skerry has handed over as DCFI to Rowan Griffin – many thanks to Dick. Mid-week gliding has started again – all are welcome, just call the office. Our Friday evening juniors group is back in action and a couple of our young pilots (Jessie Cuming and Tom Koochitt) took part in the BGA presentation to MPs. Don't forget our 21st Birthday party on 18 June. We have many takers for the August Regionals, but there are

places available. Cross-country pilots should be aware the Edgehill Turn Point 'EDG' has had its co-ordinates amended and now marks the centre of our airfield, not a runway intersection.
Tessa Whiting

SOUTHDOWN (PARHAM)
WWW.SGC1.ORG
505532N 0002828W

APRIL showers arrived early this year, but John Gowdy returned from the British Antarctic survey in time to share his expertise in landing on snow and ice. When spring did arrive, we had the experience of finding wave in the lee of the South Downs. Howard Joseph, who joined us as a cadet, has started his career as a pilot with Ryanair. Gordon Bains, the air-to-air photographer, gave us an exhilarating lecture and then became a member. We also welcome Axel Warme, Dan Welch and Sam Worthington-Leese. We donate £2 to local charities from every Air Experience flight, and our improving relations with neighbouring organisations keep us in the public eye.

Peter J Holloway

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

WE have had some cross-country days this year. Members are completing their annual checks and we've been entertained and educated by an excellent series of evening talks. Geoff Williams' presentation on the complexities of the design and manufacture of Airbus aircraft included some exciting test videos. Other topic included a study of how some dinosaurs managed to fly. The most recent entertainment was a hilarious quiz night, mostly on general knowledge with one or two of the questions from *Laws and Rules*. The highlight of our social season is yet to come; our annual dinner will be at the clubhouse on Sunday 24 April, with our own team of skilled chefs providing the catering.
Stuart Edinborough

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

THE early season has been good with lots of soaring in February and March. Our system of more concentrated training continues to pay dividends with another crop of first solos. Congratulations to Louise Wildblood, Steve Daniels, John Larner and Rob Kameny. The Bronze legs are now coming thick and fast too.

(Left to right): **VOWH** instructor John Giddins congratulates Jeff Lynes - XC extension, and Paul Kellett – Nav task (Jay Myrdal); **Wyvern's** Dan Carter can't keep his mind off golf! (Andy Fitzpatrick); Neal Thorne (left) and Phil Jones solo at **Yorkshire** (Andy Parish)



Special congratulations to Geoff Sutton for getting his Bronze and repeating a Bronze leg and Height. Our Annual Dinner was very well attended, as was our AGM. The finances are in good shape and the membership is growing. Our CFI Alan Jolly steps down, with our thanks for keeping us all safe and sound. Peter Gill has now picked up the role.

Neil Frost

TRENT VALLEY (KIRTON IN LINDSEY)

WWW.TVGC.ORG.UK
532745N 0003436W

WE have started the season well, with increased flying from members and an encouraging flow of visitors. One of our social evenings featured a visit and presentation by the Red Arrows' Kirsty Moore (Red 5). It was a terrific evening, with visitors from Darlton and Pocklington making a full house. We have also had two separate expeditions to Portmoak already, with another planned for October. Some members will also be visiting Talgarth. We have our GPRS payment machine up and running, which enables us to accept payment by card. This is particularly useful for voucher sales. We extend our thanks to outgoing CFI Richard Hannigan, who has passed the mantle on to John Williams.

Geoff Davey

ULSTER (BELLARENA)

WWW.ULSTERGLIDINGCLUB.ORG
550819N 0065753W

APRIL welcomed the arrival of our new visitor's centre and resurfaced lane-way, which was made possible by a grant from The Northern Ireland Rural Development Programme. We thank Tom Snoddy and Harry Boyle for their hard work and dedication in making this happen. This will be a busy 81st year, with our Open Day planned for 28 May and 'Big Breakfast' on 2 July. We will have other exciting events planned throughout the year; see our website or Facebook page for details. Congratulations to Simon Langtry, who recently went solo and we welcome our latest member Daniel Witticombe. Congratulations to Gary McLaughlin on achieving a Diamond leg and Gold distance.

Jo Myles

VALE OF WHITE HORSE (SANDHILL FARM)

WWW.SWINDONGLIDING.CO.UK
513614N 0014030W

WE'VE had some good days and hopeful cross-countries. Congratulations to Jeff

Lynes who has completed his Cross-Country Endorsement just in time for the season. We are looking forward to The Flying Pig Festival on 23. This is the new name for our very popular Hangar Party and Hog Roast. Many of the same bands, and some others, will be performing in the hangar. Gliding on both Saturday and Sunday and we also hope to have a jump-in by our neighbours, Redlands Parachute Club. Fly-in by prior arrangement. The advance price for the whole festival, including a full hog dinner, is only £13. See the website for more details.

Jay Myrdal

WELLAND (LYVEDEN)

WWW.WELLANDGC.CO.UK
522758N 0003430W

GEAR is out of mothballs and spring provides soaring flights, so we must acknowledge the hard workers maintaining our facilities. Thanks to the Four Counties club we now have our Grob back from Wittering, where it helped dust the winter cobwebs from the flying skills of the hardy and dedicated. Andy Burton has completed his Bronze over this period, congratulations. We now have most of our fleet equipped with radios, with expectation to be used for downwind calls. We have a small group visiting Feshie in May, hoping for a stack of Diamond heights and a fair sampling of whisky. Finally, our flying week is set for the first week in August.

John Strzebrakowski

WOLDS (POCKLINGTON)

WWW.WOLDS-GLIDING.ORG
535541N 0004751W

AS CFI John returned from Oz, congratulations to Graham Wadforth, who became joint DCFI with Derrick Roddie. This allowed Chris Price to step down in the club organisation and concentrate on being a Senior Regional Examiner; many thanks to Chris for his work. We were pleased to welcome a large party of pilots from Derby & Lancs for their aerotow check weekend. The instructing and cross-country team began training in April to encourage more pilots and our Inter-Club League organisers Dave Holborn and Richard Haliburton have enthused many of our pilots to enter the competition. We returned to seven-day operations in April and visiting pilots are welcome any day of the week.

Avelyn Dell

WYVERN (UPAVON)

WWW.WYVERNGLIDINGCLUB.CO.UK
511712N 0014700W

COURSES have started successfully, new members recruited and many solos achieved. Alec Watt has sent his First Solo as an Ass Cat instructor. Meanwhile there was a lot of discussion about the relocation of the LPG tank. Its place has been decided in front of the toilets block. One hopes that lethal gases do not combine to make an interesting explosion after a certain member has been!

Matt Graeme-McMurdoch

YORK (RUFFORTH)

WWW.YORKGLIDINGCENTRE.CO.UK
5357100N 00111332W

AN application to build a windfarm near our airfield has caused a stir. The turbines, 475ft high, would be too close for comfort when gliders use our north-south main runway. We have joined local villagers in voicing our protest. A detailed proposal by the applicant should be submitted to York City Council by the year's end. Our club was the venue for a well attended gliding safety meeting. Illustrated charts and some very dramatic films were used to pass on the message: always plan your flight before take-off, then no last-minute and perhaps unwise decisions have to be made when in the air. Our congratulations to Karen Usher on her first solo flight.

Chris Brayne

YORKSHIRE (SUTTON BANK)

WWW.YGC.CO.UK
541338N 0011249W

CONGRATULATIONS to Bill Payton for winning the Philip Wills National Enterprise Trophy. Other awards were handed out at our Annual Dinner Dance, the main recipients being Andy Wright, Sam St Pierre, Richard Cole and Richie Toon. The much-deserved Chairman's Award went to David Hodgson for his efforts in establishing Gift Aid. Our first two solos of the year went to Neal Thorne and Phil Jones. Phil's first flight of 50 minutes showed he has been paying attention to the soaring aspect of gliding. Well done all. Visitors continue to enjoy our magnificent site, fleet and facilities.

John and Sarah Marsh

S&G's thanks as usual to Debb Evans for editing this issue's Club News – Susan Newby, S&G editor



Banbury GC has a good collection of dry-all-year runways. Directions include 06/24, 15/33 and 09/27 all on grass and the club has a tarmac 06/24 configuration, primarily used by GA. Visitors should note that this is a busy parachute drop zone

> CLUB FOCUS

BANBURY

AT A GLANCE

Membership:

Full: £300pa
Junior: £50pa
Reciprocal membership is free

Launch type:

Aerotow: £26 (2,000ft)
£19.50 for juniors

Club fleet:

2 x K-13, K-21, Astir, K-6Cr

Private gliders:

10

Instructors/Members:

13/47

Types of lift:

Thermal

Operates:

Weekends, Bank Holidays, and some midweek days during summer

Contact:

Tel: 0333 044 0134
07981 103159 (launchpoint)
www.banburygliding.com

Long and Lat:

520144N 0011225W

BANBURY GC operates from Hinton-in-the-Hedges Airfield in Northamptonshire, just five minutes away from Junction 11 of the M40. The airfield is an ex-RAF site built in 1940 by the RAF Bomber Command. It closed to military activity in around 1945 and has been home to Banbury GC (formerly Aquila) since April 1972, after six years of the club moving around local airfields at Westcott, Gaydon, Enstone and Turweston.

Nowadays, the airfield is quite busy, more so at weekends where we operate alongside a number of fixed wing aircraft and the occasional helicopter. We share the airfield with a number of organisations, such as Pilot Flight Training and Hinton Skydiving Centre.

Aerotow is our method of operation, and we have two tugs. The airfield (elev 500ft) is under a FL65 airspace restriction, however this steps further upwards close to our west. The club maintains its own gliders, with the availability of our workshop. We have recently acquired a new clubhouse with ample kitchen and social rooms, as well as an equipped briefing room. We have

also acquired a new launchpoint bus, kitted out with kitchen and briefing facility. Over the past year, we have been implementing a new logging system - Glidex. This makes the logging process much easier and can log flights at the click of a mouse.

We offer a wide range of cross-country opportunities and host an Inter-club League every May Bank Holiday, as well as various other practise competitions in order to get our post-Bronze pilots used the competition feel. We have access to a Falke motorglider from the neighbouring flying club to practise navigation and field landing. Many early solo pilots make good use of our K-6 and quickly progress onto the Astir. The club offers a good range of courses ranging from a six-month Learn to Fly Package to a five-day course offering an intense flying week, which maximises learning. During the winter months, we have expeditions to Talgarth with our K-21 and enjoy the amazing soaring the site can bring. We also hold BBQ evenings in the summer after flying and reflect on the day's gliding.

Ashley Valentine



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THE SCOTTISH GLIDING CENTRE
Portmoak

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CAA SLMG Instructors and Examiners

The BGA has approved a number of CAA rated examiners and instructors under the management of the SLMG SRE to support SLMG activity. Contact details are at www.gliding.co.uk/bgainfo/instructors/motorgliding.htm

Regional Gliding Examiners

BGA gliding examiners are appointed on a regional basis and directed by Senior Regional Examiners. SREs are listed on the BGA web site at www.gliding.co.uk/bgainfo/instructors/contacts.htm

Regional Safety Officers

RSO club allocations are listed on the BGA web site at www.gliding.co.uk/bgainfo/safety/documents/rsolist.pdf

Airworthiness Inspectors

There are a number of BGA inspectors across the UK. A proportion of them are approved to issue an EASA ARC. The Regional Technical Officers and the ARC signatory 'Chief Engineers' are listed by BGA region at www.gliding.co.uk/bgainfo/technical/contacts.htm

Airworthiness Guidance

Guidance for owners of Annex II and EASA aircraft is at www.gliding.co.uk/bgainfo/technical/news.htm

Accident Investigation

Chief Accident Investigator

Chris Heames

Other Information

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BGA course information is at www.gliding.co.uk/bgainfo/bga/courses.htm

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BGA accident/incident summaries

AIRCRAFT

Ref	Type	Damage	Date, time	Place	PILOT Age	Injury	P1 hours
12	K-8	minor	24/10/10, --	Dorset GC	49	none	10
Turtledeck came off during winch launch. The pilot had been distracted during the DI and omitted to secure the retaining nuts.							
16	SF25	minor	22/12/10, 10:50	Yorkshire GC	57 / 70	none / none	500
Prop strike during a heavy landing. After flying the approach with minimal spoiler, the handling pilot opened the spoilers fully at 5-10ft agl.							
18	DG-500	minor	30/01/11, 15:49	Yorkshire GC	40 / 73	none / none	3054 / 0
Trial flight student's head hit and broke canopy. The glider ran over a pothole at low speed at the end of the landing ground run.							
20	Grob 109	substantial	12/02/11, 13:30	York GC	54	none	108
Broken propellor after the TMG tipped onto its nose. The aircraft landed long and ran off the end of the tarmac section of the runway onto the grass runway.							
22	PA25	minor	19/03/11, 15:15	Devon & Somerset GC	74	none	--
Undercarriage damaged after heavy landing. The tug bounced the first touchdown and then stalled and dropped to the ground from 5-10ft agl.							

Incidents

13	Pegasus	substantial	9/10/10, --	--	--	--	--
Glider damaged by falling winch cable, which continued to be wound in. Failure to follow club SOPs regarding siting the winch and glider parking areas combined with poor crosswind launch technique to allow the cable to fall over parked gliders.							
14	Astir CS	minor	14/11/10, 12:00	--	--	--	--
Canopy cracked in hangar incident.							
15	Astir Twin II	none	13/10/10, 15:10	--	--	--	--
Glider groundlooped while braking to avoid running into boundary fence. Cable break instruction flight in nil wind conditions.							
17	K-13	substantial	8/01/11, 14:00	--	--	--	--
Distortion to nosewheel assembly discovered - believed to be the result of cumulative damage to BGA approved mod. Club will replace nosewheel with Schleicher approved mod.							
19	LS8	substantial	5/02/11, 13:30	--	--	--	--
Wingtip caught on tree while the glider was being towed out using tow out gear. Damage to fin, tailplane mounting points, rudder and wingtip.							
21	DG-200	substantial	21/01/11, pm	--	--	--	--
Leading edge of the wing damaged after falling onto concrete during rigging.							



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Chris Wills, founder of the Vintage Glider Club

CHRISTOPHER WILLS, founder and President for Life of the Vintage Glider Club, passed away on 4 May, 2011, at the age of 79, following a short illness.

Chris was born in London on 27 August 1932, the eldest of four children of Philip and Kitty Wills. Philip Wills, his father, had been actively involved in the early gliding movement, not only as one of the founder members of the British Gliding Association, but also having become World Gliding Champion. As a consequence, Chris was exposed to the sport throughout his youth and retained an encyclopaedic memory of these early days of gliding from all quarters of the world.

During the Second World War, Chris and his younger brother were evacuated to Australia for their safety, but, after the Japanese threatened to advance on the Northern Territory, their parents decided that the boys should return to England. They arrived in London, only to experience at first hand the Blitz, watching the dog fights by day and the Doodlebugs by night.

After the war, Chris worked as an art teacher, but from 1953 -55 he also worked for a period at Elliots of Newbury, helping to complete the fuselages of some 14 EoN Baby gliders.

Chris started gliding in 1951 and made his first flights in a Slingsby Kirby Tutor at Redhill with the Surrey Gliding Club, undertaking his first solo in August 1951. He completed his Silver C at Lasham in March 1955. He also had a Private Pilot's Licence.

Chris then spent some time in New Zealand. Whilst there, he became the Honorary Secretary of the New Zealand Gliding Association from 1955-58, and in his final year there flew 250km in a Weihe from Harewood, NZ, via Christchurch to Omarama, reaching 23,000 feet. In the same year, together with Jon Hamilton at Simons Hill, he established three New Zealand National Two-Seater records in a Slingsby Eagle, including an absolute height record of 24,550 feet.

Back home, following a successful meeting in 1972 at Itford, held to celebrate 50 years of gliding in England, Chris organised another similar meeting the

following year at Husbands Bosworth. At this get-together, Chris and his gliding friends assembled their pre-war wooden gliders and flew them together, just for the fun of it!

The glider pilots had come from several countries, including Great Britain, Germany and Switzerland, and it was here that the decision was made to found the Vintage Glider Club (VGC), with Chris Wills as the first president.

This first meeting of the VGC was followed a year later by a second one in Germany and the Annual Meetings have continued ever since in virtually every country throughout Europe, from Switzerland to France, Hungary, Holland, Belgium, Czech Republic, Slovakia, Finland and Poland. This year's meeting, in Spitzerberg, Austria, will celebrate the 40th such International Rally.

Over the years, Chris' shy but endearing personality attracted enthusiasts from almost every continent. When the VGC was started, the founder members had little idea that by 2011 the club would have around 1,000 members and become the largest gliding club in the world (although it has no airfield of its own).

The club now has, in flying condition or undergoing restoration, some 1,000 old wooden gliders (as well as several replicas which have been built). Most of these gliders would probably, in time, have been consigned to the bonfire! The flying of these vintage gliders has brought enormous pleasure to their owners and families, and over 40 years the safety record has been exemplary.

Chris Wills' great achievement was to ensure that our gliding heritage would be preserved, although sadly his vision of a national gliding and flying museum was not to be realised in his own lifetime.

Nick Newton, a vice-president of the Vintage Glider Club

■ Chris Wills was awarded a BGA Diploma in 1976 and, in 2009, a specially commissioned certificate from the BGA for his work in founding and presiding over the Vintage Glider Club.

He also received several prestigious international awards, including the FAI Diploma d'Honneur (1985) and the Paul Tissandier Diploma from the FAI (1996). He was awarded the Gold Ehrenmedaille from the German Aero Club (1999), and, in 2001, the FAI/IGC Pirat Gehringer Diploma.

During the AERO exhibition at Friederichshafen in 2005, he was honoured with an Ehrenurkunde Certificate, recognising his outstanding contribution in fostering personal relationships between members throughout the European Community through gliding.

Finally, in 2009, Chris also received the Bronze Medal of the Royal Dutch Association for Aviation for his lifelong commitment as president to the Vintage Glider Club.



■ In 1953, the Mid-Atlantic Soaring Association became operationally more sophisticated because of the arrival of an experienced British soaring pilot, Commander HCN "Nick" Goodhart, Royal Navy. He brought with him experience and the discipline to which he was exposed in the British clubs. We all recognised his value, and soon after joining M-ASA, he was elected a director, a job which he performed with hard work and dedication. He initiated and wrote an article each month for the club newsletter called *Nick's Corner* in which he tried to teach us the technical aspects of soaring.



During the summer of 1953 under M-ASA's banner, Nick entered the US Nationals at Elmira, placing fifth in a rough Laister-Kauffmann sailplane against competitors with more sophisticated equipment. His 195-mile goal flight to Idlewild Airport, NY (now John F Kennedy International Airport) made the Washington DC newspapers, one of which headlined "Idlewild Startled as Glider Slips in with DC Diplomat".

Jack Perine
The Early Years of MASA, 1978

Rear Admiral HCN (Nick) Goodhart CB, FRAeS

A VERITABLE giant of the gliding world died on 9 April, 2011, aged 91. Nick Goodhart's CV is awe-inspiring – World two-seater champion; single-seat France 1956; 2nd, Poland 1958; 4th, Germany 1960; 11th, Argentina 1963; 7th, England 1965 and, finally, 16th, Poland 1968. His British nationals record is equally impressive – 2nd, 1950, Camphill 1950 and 1951; 2nd, Lasham 1957; 2nd, Lasham 1959; National Champion Lasham 1962; British Champion Lasham 1967; 2nd, Lasham 1969 and, finally, British Standard Class Champion Lasham 1971. He won the 1955 USA Nationals but, being a foreigner, he was placed "one above the national champion".

An epic flight during the 1959 Nationals at Lasham saw Nick, on his third launch, using thermals, waves and thunderstorms to fly to his goal at Portmoak, 579km in his Skylark 3, breaking four records in the process. He also gained the British Absolute Height record of 37,050ft and the UK 300km triangle speed record.

Nick started gliding at Sutton Bank, gaining his A, B and C within a week in August 1938, his Silver C – 244, his Gold –9 and, in 1951, he was the first Briton to gain his Diamond C.

In the late 50s, there were moves afoot to sweep us out

of the skies. Our detractors used every spurious argument, each one had to be shown to be incorrect and unjust. One of the hottest was the risk of collision. 'They' thought that they had a knock-out blow, but they had not reckoned with Nick. As long-serving chairman of the BGA Airspace Committee, he used his formidable brain to totally demolish their case.

When in 1961, Philip Wills, David Carrow, me and Nick, as our airspace guru, confronted the Minister and all his civil servants, again the battle was won by Nick. It was a simple case, we had been at Lasham for 10 years with one month's security of tenure. We demanded a longer lease, 'them' wanted us out, put up a safety case of airspace expansion from Heathrow, which required our departure. Nick proved

that their case was totally flawed and, after an epic battle of wills, we won.

He was a remarkable man. Trained at Dartmouth, he emerged as an Engineer Officer. After his ship was severely damaged by two 1,000lb bombs, Nick devised a temporary repair at sea by plugging a huge hole in her side. He was able to transfer to the Fleet Air Arm, trained as a pilot and certainly had his share of excitement when, in April 1945, he ditched his Hellcat. In 1946, with only 424 hours in his log book, he attended No 4 course of the Empire Test Pilot School, alongside David Ince.

Nick is famous for his invention of the mirror landing scheme for aircraft carriers, which dramatically cut the accident rate. It was soon adopted by all the world's navies. The USA awarded him the Legion of Merit Medal, our Admiralty gave him a cash donation, but, typically, no medal. In 1971, his fertile mind produced 'Sigma', a revolutionary design variable wing sailplane with a wing span of 21 metres and aspect ratios of 36:2 – 26:8. Sadly, it did not achieve the hoped for performance, though it is still flying in Canada.

Unperturbed, Nick then designed and built a man-powered twin-engined aeroplane with a span of 42 metres, called 'The Newbury Manfliner'. Its end, after some low hops, was most undignified – Nick fell off a ladder on to it, which did it no good at all. Before he could rebuild it, the US Air Force demanded their hangar at Greenham Common to store their atom bombs, so goodbye to the Manfliner.

Nick's history and achievements go on and on. He was the sixth member of his family to have served as 'Master Grocer', the Grocers being the second oldest Worshipful Company of the City of London; truly a rare honour. In 1951, Nick came 35th out of 350 in the Monte Carlo Rally. He was also hyperactive in the Lloyd's insurance market, to name just a few achievements.

Shortly, googling "Wally Kahn/BGA eBook Collection" will show that my gliding library will be freely available to read. Do then read pages 156/8 about Nick in the 2nd edition of *A Glider Pilot bold...* He was a one-off, always willing to help; one of the very nicest people I have ever met.

Wally Kahn

Dave Fenn (1948-2011)



DAVE FENN died very unexpectedly of a heart attack in February. He had been a teacher of English in a local high school and had taken up gliding in the early 1990s. A gentle man with a great intellect, he took to gliding as if he had been at it all his life. Dave became my syndicate partner in the Pirat. I rarely ever got a look in as Dave earned a reputation as Mr Anti-gravity. He became club aircraft officer and his quiet manner was ideal for this job. If the club needed a part, or some service acquiring, by the time it was mentioned to Dave he had done it.

We shared many a trip to other clubs and he was always good company. He kept a motorcycle, which he would ride on fine days, though he did sometimes struggle to secure his toolbox on it. Dave was also a dog lover and was always telling stories of the pups he had, which destroyed his furniture and footwear.

Dave progressed to be a BI and helped introduce many a person to gliding; once again his quiet relaxed manner was ideal for this job. He will be missed by us all and our condolences are extended to all his family members.

Dick Skerry, Lincolnshire GC

Peter M Kingwill (1946-2011)



AS THE son of a serving RAF officer, Peter started gliding at the age of 13 – in 1959 – with the RAFGSA Wessex Gliding Club at RAF Andover. His first flight was in a T-42 (Eagle) and he eventually went solo shortly after his 16th birthday in a Kirby Cadet Mk 2. Although he always wanted to be a pilot, the RAF would not allow him to fly as he was found to be colour blind and, as a result, he subsequently joined as a Supply Officer in 1965.

He continued his love of gliding with the RAFGSA Chilterns Gliding Club at RAF Benson, prior to being posted to RAF Khormaksar in Aden in late 1966, where, to his surprise, he discovered that the RAF had a Gliding Club operating from a disused airfield at Sheik Othman. When the military withdrew from Aden in late 1967, Peter was posted to Singapore and was amazed to find out that two of the club's aircraft from Aden had been moved to Singapore, where they were flown

by the Army at Sembawang Barracks. Although Peter flew both aircraft in Singapore, the restrictions on how far one could fly away from the airfield and the height limitations were such that there was not much fun to be had. It was only when Peter returned to the UK in 1971 and was posted to RAF Marham that he was able to continue gliding in earnest with the Fenland Gliding Club. By the end of 1973, Peter had obtained his Silver Badge, gained his Gold and Diamond heights and completed his Ass Cat Rating – it is interesting that his students included teenagers Barry and Andy Elliott!

Between 1974 and 1997, Peter did very little gliding, as he was bringing up a family and work meant that he spent a great deal of his time overseas. He did, however, fly as much as possible in military aircraft and amassed a total of over 1,000 hrs on Jaguars, Hawk, Hunters, Strikemasters, Jet Provosts, Skyvans, Islanders, Tucanos, Chipmunks, Bulldogs, Tutors and Beavers, as well as nine different types of helicopter. However, shortly after being posted to RAF Cranwell, Peter joined the Cranwell Gliding Club in 1997 and got a place on one of the Joint Services Adventurous Gliding Courses, which were then being run at RAF Bicester. After six dual flights, Peter Stratton – the CFI of the RAFGSA Centre at the time – sent Peter solo for the first time after 22 years!

Peter continued to fly with the Cranwell club for as long as his medical would allow. In addition to taking part in many Inter-Service Regional Gliding Competitions, Peter took every opportunity to go on RAFGSA Gliding Expeditions and thoroughly enjoyed his time at Darling Downs in Australia – where he completed his 3rd Diamond in November 2003.

When he was approaching his 60th birthday, he was encouraged by one of his friends at Cranwell, Mick Lee, to buy a half-share in a DG-400 (self-launcher). The only hurdle to overcome, before he could fly the aircraft, was to obtain a NPPL! Mick undertook the challenge of teaching an 'old dog' new tricks and after completing his qualifying flights with Chris Heames, Peter obtained his NPPL in June 2008. He thoroughly enjoyed this new dimension to his flying and took every opportunity to fly the DG and also to qualify solo on as many powered aircraft as he could. His ultimate joy was being given the chance to fly a Tiger Moth solo and he didn't stop

BGA BADGES

No.	Pilot	Club (place of flight)	Date
DIAMOND GOAL			
2-2420	Jonathon Morris	Loughborough Students Union RAF Wittering, Four Counties	10/07/2010
DIAMOND DISTANCE			
1-1157	Stephen Nock	Trent Valley	22/04/2010
GOLD HEIGHT			
	Stephen Ball	Sutton Bank Yorkshire GC	13/11/2010
	Sebastian Cassel	Bicester Portmoak	08/04/2010
GOLD DISTANCE			
	Jonathon Morris	Loughborough Students Union RAF Wittering, Four Counties	10/07/2010
SILVER BADGE			
	Sebastian Cassel	Bicester	08/04/2010
CROSS COUNTRY ENDORSEMENT			
	Adam Berrisford	Bannerdown	28/11/2010
	Thomas Hogarth	Mendip	27/01/2011
	Sam Prin	Wyvern	16/10/2010
	Laurent Couval	Midland	14/02/2011
	Anthony Claydon	Peterborough & Spalding	14/02/2011
	Howard James	Lasham	14/02/2011
	Sean Reynolds	Kestrel (RAF GSA)	26/02/2011
	Derek Napier	London	26/02/2011
	William Fuller	SGU	10/02/2011
	Adam Watson	SGU	06/11/2010
	Carwyn Grange	South Wales	05/03/2011
	Timothy Dutton	Wyvern	06/03/2011
	Andrew Burton	Welland	05/03/2011
	Darren Edge	Cotswold	13/03/2011
	David Spillett	Banbury	19/03/2011
	Jake Brattle	Kent	12/03/2011
	Jonathan Clarke	Gliding Centre	05/10/2010
	Jamie Dickson	Stratford On Avon	20/03/2011

talking about this until he was given the flight of a lifetime in a two-seat Spitfire, with Cliff Spink at Duxford, in 2010. Peter was also grateful to the CFI at Cranwell – Mark Evans – who allowed him to convert to the Chipmunk; especially as he found that its handling was very similar to that of the Spitfire; albeit the horse power was somewhat less!

During his time with the RAFGSA, Peter held the post of Officer in Charge of the Sheik Othman GC, Fenland GC and Cranwell GC, as well as carrying out the appointments of Deputy Competition Member and Supply Member on the RAFGSA Executive Committee in the mid-70s and the Deputy Membership Secretary in the late-90s.

Peter died of cancer on 11 April and leaves his wife Rosie, sons Simon and Nigel, and grandson Alfie.

Tim Davies, secretary, Cranwell GC



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Vertex Pilot III handheld transceiver £209.95
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Northern England & Northern Ireland 1:500,000 Aeronautical Chart

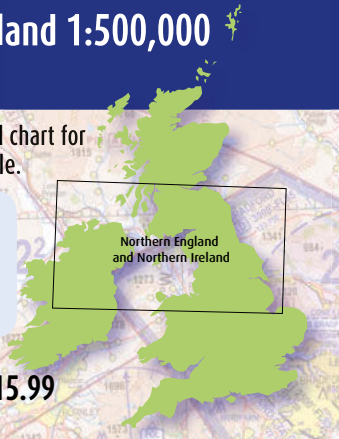
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