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AGE is a hot topic, and on p20 we print an article that takes a first look at the scientific debate. When we saw the road sign in this photo, we just had to use it to accompany that. The pilot is Brian Stott, flying his pretty SHK-1 (now sold) at Wolds (photo: Mike Fox)

Sailplane & Gliding

20 Age and the glider pilot



Alistair Nunn and Gordon MacDonald have put together this thought-provoking article on the implications of ageing for glider pilots

28 The world's fastest glider



Debb Evans asks test pilot C Gordon Fullerton what it's like to fly the Space Shuttle – the fastest glider on earth

30 BGA weekend



Helen Evans reports on the British Gliding Association's Annual General Meeting and Conference

40 One team, one aim



Kelly Teagle reports on perhaps the largest-ever gathering of British women glider pilots, while event co-organiser Liz Sparrow describes the reasoning behind the day

43 A brief guide to NOTAM



Mike Cross explains how to brief yourself on the airspace for the area or task that you're flying

4 From the BGA Chief Executive

5 New BGA Chairman

8 Your letters:

Derek Eastell (reply by Pete Stratten); Alan Sell; William Malpas; Peter Davies; Vic Carr; Bernard Davey; Martin Jones

8 BGA Waypoint List

10 BGA Development News

12 BGA Communications News

12 BGA Technical News

15 Review: Competing in Gliders

16 Tailfeathers by Platypus

18 Digital Gliding Gallery

24 Where we are today

27 Winter Wednesdays

33 BGA Club Map

38 Six eventful seconds

44 Airspace update

50 Why I Glide: Andy Perkins

52 When liberation day came

54 Club News

60 Obituaries

61 AAIB Update

61 Accident/incident summaries

61 BGA Badges

64-6 Classifieds; advertisers' index



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Insurance, EASA and new ways of learning

BGA Chief Executive Pete Stratten provides an update on the insurance situation, EASA certification requirements and the interesting possibilities opening up in the field of glider flight simulation

DEALING with other organisations across a vast range of issues on behalf of BGA members is a key role for the Association's staff and volunteers. Over the last year, BGA representatives have been holding talks with gliding insurance underwriters to discuss a number of issues. The element of the insurance industry that deals with our gliding policies is not a bottomless pit of cash and, not unreasonably, those businesses underwriting the gliding insurance market expect to return a profit over a certain period of time.

Given the underwriters' headline figures, it doesn't take a glider designer to work out that the current level of hull loss and third party claims across the British gliding movement is unsustainable without significant short-term increases in premiums or a cut in the cost of claims.

The BGA is deeply concerned that clubs in particular are already feeling the pressure from increasing insurance overheads and it should be obvious that for many reasons – and by no means exclusively financial reasons – it is in all our interests to manage risk in gliding more effectively. It is also of concern that older pilots are finding policies increasingly restrictive and therefore the BGA has urged insurers to take a more scientific approach to identifying risk associated with age and flying sailplanes.

BGA sub-committees and working groups are addressing a number of safety-related initiatives that will reach maturity in the medium and longer term. In the short term, the winch safety information circulated to CFIs, instructors and club pilots last winter provides an excellent focus, and CFIs have also been developing ways in which they and other instructors can take the lead on currency and refresher training for all at club level.

However, none of this excellent work will achieve permanent change without buy-in from everyone who flies gliders. At the risk of sounding clichéd, gliding is a team effort and in terms of safety we're all in this together, regardless of how experienced we may be. If you are asked to give your valued opinion or perhaps a little of your time to help your club chairman and CFI in their efforts to improve existing standards at your club, please do so in the knowledge that you are helping yourself as well as others.

On the subject of seeking opinion, you may



Pete Stratten at his desk in Leicester

have spotted a steady trickle of BGA requests for responses to external consultations. Check the BGA website for information and please take the time to add your voice when asked. Incidentally, busy people may find that it's particularly helpful to subscribe to the free email information update service on our website (<https://www.gliding.co.uk/subscriptions>).

As you may be aware, we expect UK gliders to be incorporated into European Aviation Safety Agency certification processes during early 2007. An important but complex next step for the BGA and EASA is to align the certification of some 2,300 UK sailplanes with EASA requirements. As a consequence, during 2006 we are likely to ask glider owners and operators to assist in carrying out a fleet modification and airworthiness directive status survey. Details will follow in due course.

To close, the relatively dry winter may have thrown up more income-generating days at clubs than is usual for the time of year. However, developments in capable, low-cost flight-simulator technology and hardware are raising some very interesting possibilities that begin to address many issues associated with membership turnover, training fleet overheads and available flying days. If the process of learning to glide can be made far more efficient, regardless of the weather or available daylight – while maintaining standards and generating club income – the benefits to all are obvious. They may even be an essential element of gliding's future success in the increasingly challenging air sport environment that we face.

Pete Stratten
BGA Chief Executive
pete@gliding.co.uk
February 28, 2006

IF you're interested in the issues EAS President Sir John Allison raises in his article on p24-5, his superb speech to the IGC plenary meeting, which focuses on the European gliding perspective, can be found at www.gliding.co.uk/bgainfo/documents/igc3mar06.pdf Recommended reading from S&G's point of view.

THE 2006 Rules for BGA Rated Competitions are now available for download from the BGA website at www.gliding.co.uk/bgainfo/competitions/news.htm

YOU may have seen in the media that a virulent strain of Avian Influenza (AI) is spreading across Europe and beyond. Control measures in the event of an outbreak could affect gliding. Information and limited advice is in *Avian Influenza BGA Update 1* at www.gliding.co.uk/bgainfo/news.htm Travel advice if you plan to visit a country with known outbreaks of AI can be found via www.fco.gov.uk and the BGA will provide updates on the UK situation as appropriate.

EASA has set up a working group for "developing a concept for the regulation of aircraft other than complex motor powered aircraft, used in non commercial activities". The EGU will be represented by Roland Stuck and David Roberts. Terms of reference for this key group are at www.easa.eu.int/doc/Rulemaking/TORs1/EASA_ToR_MDM_032.pdf

THE Air League Educational Trust offers some 100 scholarships and bursaries each year. This year these include gliding scholarships, which offer cross-country, aerobatic or SLMG flying to assist young people to gain experience and qualifications. Applicants must be 16 but under 26 on April 28, 2006, the closing date for applications. More details at www.airleague.co.uk/ – or see p11.

PETE Harvey finished 7th in the New Zealand Gliding Grand Prix, at Omarama in January. Ben Flewett was first, qualifying for the 2007 World Sailplane Grand Prix. A DVD of the 1st FAI World Sailplane Grand Prix, in 2005, is now available from www.custommlix.com/Store/ShowStore.jsp?id=208261 The UK Qualifying Grand Prix, at the Cambridge Gliding Centre from September 4-9, has been added to the 2006 calendar. For dates of other competitions, see www.gliding.co.uk/bgainfo/competitions/calendar.htm

CHRIS Heames has been appointed as the BGA's Chief Accident Investigator on the retirement of John Hoskins, while Douglas Every has taken over as BGA Accident Database Manager from Dave Wright.

PROPOSED changes to planning guidelines that would define entire airfields as brownfield sites (with enhanced development potential) raised a furore in February in the aviation community and beyond. Notified only in an annex to a consultation document, the changes prompted many pilots to write to their MPs. For details, see the February 10 news item on www.gliding.co.uk/bgainfo/news.htm and watch this space (just please don't build a housing estate on it...).

THE winner of the BGA 1000 Club Lottery for February 2006 was M Wells (£33.75), with runners-up BA Kimberley and JF Green (each £16.88). The March winner was JG Allen (£33.25), with runners-up A Mason and P Gresham (each £16.63).

BGA elects new chairman

PATRICK Naegeli has been elected as the new Chairman of the British Gliding Association in a ballot of BGA member clubs that closed on March 3. Mike Jordy, who also offered himself for the post, continues as BGA Vice-Chairman.

The result of the election was announced at the Association's AGM and Conference on March 11 (see pp30-31), when four new members also joined the BGA Executive Committee. Since the number of candidates matched the number of vacancies, no ballot was required for committee membership.

Patrick (right) takes over the voluntary role of BGA Chairman from David Roberts, who stood down at the end of his full six-year term of office but has agreed to chair the BGA's newly formed Regulatory Group.

"I'm looking forward very much to working with Mike, David and the whole volunteer and staff team," says Patrick, "to ensure that gliding survives and thrives."

"The three years I've already spent on the BGA Executive Committee have enabled me to understand the key issues that are affecting British gliding, and to focus on what I can contribute to the leadership team. They've also allowed me to witness at first hand the excellent job David Roberts has done as BGA Chairman. His exceptional abilities and unswerving dedication have moved the Association a long way forward in what have been challenging times. We are fortunate to have ongoing access to his expertise as we continue to confront a fast-changing regulatory environment."

Patrick, the former chairman of Lasham Gliding Society, is a management consultant by profession. A Senior Regional Examiner, he has 2,500hrs in gliders, a 750km Diploma, and represented the UK at the 2005 European Championships. He chairs the BGA Strategic Planning & Finance sub-committee and Safety Initiative and is co-leading fundamental reviews of BGA strategy and operations.

Joining Patrick and Mike (who flies at The Soaring Centre) on the Executive Committee

Right:
Patrick Naegeli
at the 2006
AGM & Conference
(photo: Paul Morrison)



Below right:
new BGA Executive
Committee members,
clockwise from top left:
Phil Burton; Pete Harvey
(photo by Paul Halliday);
Bruce Tapson and
Rose Johnson

are four new members: Phil Burton, Pete Harvey, Rose Johnson and Bruce Tapson (see photographs, right). Phil, of Norfolk GC, has been on the committee before and is the BGA's Child Protection Lead. Bruce Tapson, of Buckminster, is the BGA's Senior Examiner for motorgliders as well as Senior Regional Examiner for the North-East. Rose Johnson, of Midland, has been representing Britain at international gliding competitions for nearly a decade while Pete Harvey, of York, is a regular S&G contributor. He won 2005's Open and Overseas Nationals and is the European Open Class Champion.

In addition, Jon Hall (Midland), Diana King (Herefordshire, Midland, Stratford on Avon) and Ted Norman (Ulster) have been reinstated as BGA Executive members. Together with the other committee members – BGA Treasurer John Birch (Cambridge), Paul Hepworth (York), BGA Company Secretary Keith Mansell (Midland), and BGA Chief Executive Pete Stratten (Windrushers) – they constitute the BGA's board of directors. Former Executive member Richard Starey retired in 2006 after two years' service.



Glider airprox news

TWICE a year, the UK Airprox Board publishes a GA (General Aviation) extract from the complete set of airprox over the period of its regular publications (the 14th report, covering the period January-June 2005, is at www.airproxboard.org.uk). By way of a change, the next GA extract will concentrate on airproxes involving gliders. Together with UKAB Director Peter Hunt, I have selected two sets of examples. One set will form the basis for lessons learned for GA and go into the UKAB GA publication, the other will appear in next issue of S&G and will cover lessons learned for glider pilots. There is no allocation of blame in the UKAB, merely a desire to inform and educate and so improve safety. I hope you will find it useful.

Hugh Woodsend

Lilienthal Medal for Ian Strachan

AS this S&G went to press, the 2006 plenary meeting of the FAI Gliding Commission (IGC) awarded the prestigious Lilienthal Medal for 2005 to the UK's Ian Strachan, Founder Chairman of IGC's GNSS Flight Recorder Approval Committee (GFAC), for his outstanding record of eminent service to world gliding over a long time, and especially for his work developing motorglider instructional techniques; identifying and publishing GPS-based turning points; and evaluating and approving flight recorders for records, badges, contests and everyday flying. It's the first time in 25 years that the medal has come to the UK.

Two Pirat Gehrigher Diplomas were also awarded

at the meeting, in Switzerland in March. One went to Martin Simons, of Australia, for his services to vintage gliding and to the recording of the heritage of gliding. His three-volume book, *Sailplanes*, offers the most comprehensive coverage of the world's sailplanes. The other diploma went to Fransois Van Haaff of The Netherlands, former president of the European Gliding Union, for representing the international gliding community on questions of airspace and equipment.

The meeting also approved the World Grand Prix 2007 bid by New Zealand. In the next S&G we hope to feature how this new concept worked at Omarama earlier this year. More news at www.fai.org

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British Gliding Association

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HALF of the proceeds go to the Philip Wills Memorial Fund to help with its work in developing BGA clubs and the other HALF is distributed each month in the form of 3 CASH PRIZES. The more participants we have, the greater the prize money pool.

1st PRIZE -- 50% of the prize money pool.

2 Runner Up Prizes of 25% each of the prize money pool.

Chances/numbers can only be bought from the BGA at £1.00 each. Those whose money has been received at the BGA by the end of each month will then participate in the draw on the first Wednesday of each following month. Tickets will not be issued in order to keep the administrative costs low but each member will purchase a "number" which will go into the draw. It is hoped that members will purchase 12 months' worth of tickets at a time. Winners will receive their prizes direct from the BGA and a list of their names will be published in S&G.

Please complete the form below and return it to the BGA with your payment. Please note that only BGA members and their families may participate and that the BGA is registered under the Lotteries And Amusements Act 1976 with Leicester City Council.

Pete Stratten, Promoter

To: Pete Stratten, British Gliding Association, Kimberley House, Vaughan Way, Leicester LE1 4SE

Please include me in the "1000 club" and I enclose £12.00 (payable to BGA) for twelve months of entries, or multiples thereof.

Name Signed

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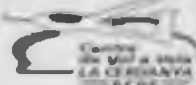


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Ian Strachan

One of these was described in Aero for



William Malpas, ANGERS, France

ABGC wings

A FEW weeks ago, an old regular at my local told me that he had been briefly involved in gliding when serving in Germany. He was based at RAF Grugen and in 1954 was supporting the British team at a competition at Schfoldendorf (?). Apparently the Brits did very well. Badges were handed out to the UK crews, which had the letters "ABGC". He thought it might mean "Association of British Gliding Clubs" but I have never heard of it. Can anyone throw any light on the origins of the badge?

Peter Davies, via email

Tertiary wave...

BRENNIG James's judgement that the Conwy Valley and its environs is a superb wave playground is correct (*Unexplored, the UK's best wave*, December 2005-January 2006, p8). Rod Witter subsequently asked why Denbigh pilots have never been able to reach 25,000ft-plus in the primary wave to their west (*More on Welsh wave*, February-March 2006, p7). In my opinion the answer to Rod's question is that when the Conwy Valley is at its fantastic best, pilots from Denbigh are probably denied access due to the wind direction and/or cloud cover. The latter can make a Denbigh start unlikely, if not impossible. Occasionally I have spoken to Rod on the radio, when overhead Denbigh airfield above full cloud cover.

My explanation after nearly 2,500 hours soaring over North Wales from Sleaf, in Kestrel 41, is that narrow steep-sided valleys, similar to Conwy, only work well when the wind is skewed so that the geographical contour comes closer to the natural wavelength of the airmass. In the Conwy Valley I guess 10 or 20° south of west is about an optimum wind direction.

In another context it is a mistake to believe that all significant wave in North Wales is related to Snowdonia or the Conwy Valley. There are plenty of sources from Aberdify through to Rhyl. Another influence, often present, is the residue of wave from the Wicklow Mountains across the Irish Sea, reinforcing or interfering. I have soared in the dregs of wave west off Holyhead, which came from this source.

My highest climb was nearly 28,000ft, climbing at 500ft/min, adjacent to Llanrwst, which was terminated by oxygen equipment failure. I have the photographs and the old-fashioned barograph trace of this flight. The aerotow start from Sleaf was 800ft.

On another occasion in a much more powerful system, there were only two holes visible in the total cloud cover right across North Wales. Starting at 18,000ft just west of Corwen I reached the downwind hole of the two, which was the secondary of the Conwy system, below 14,000ft. Cloud tops were in the order of 9,000ft; the wind strength had denied me the primary. To my surprise, visible in the hole was the Llanddullas gravel-loading pier sticking out to sea. This suggests a wind south of 250°. Climbing



Can you tell us what ABGC (see left) stands for...?

through 22,000ft at 600ft/min, and the time 14.00hrs GMT on November 2 with sunset due between 16.00hrs and 16.30, I had no choice but to scuttle for home. As there was no GPS or Decca, the descent was quite exciting. Again I had missed the promised 30,000ft, which had been my personal goal for some time.

In conclusion, my opinion remains that the best access to North Wales' waves, including Snowdonia, is Sleaf airfield on the Shropshire plain. If you have an hour or two to spare I will attempt to explain how and why!

Vic Carr, via email

French Glider Pilot's Licence

AS one of three Brits in our club (Tarn et Garonne, about 60km north-west of Toulouse) who have French licences I read with interest Les Beale's article in the February-March S&G (*Getting licensed the French way*, p48). He seems to have had, for various reasons, far more problems than us. In my case the whole process took less than two months.

In France every pilot must pass a medical, either a DGAC Class 2 carried out by an approved French doctor or a JAA Class 2, which can be carried out in the UK. With hindsight it would have been better if Les, having some minor problems, had gone down the second route in first place.

I go to a French doctor nearby who charges 40 euros, including a cardiogram.

The sub at our club is 152 euros and in addition every pilot pays 151 euros to the FFVV (French equivalent of the BGA). This second item, called a *licence assurance*, pays for, among other things, third party insurance (*responsabilité civile*) giving cover up to 4.5 million euros for each pilot anywhere in the EU. With the current problems with insurance in the UK, the BGA should consider this system. With a medical and insurance, a pilot (at the CFI's discretion) is allowed to fly solo in a French-registered glider as a student pilot, that is, local flying only. Only if you wish to fly cross-country do you need a licence. So having passed his medical, Les could have flown solo locally during the rest of his epic struggle with French bureaucracy.

To obtain a licence a pilot needs a certain amount of solo flying and soaring (not much), pass a flying test and pass a written theoretical exam. Since this is in French this is the real hurdle for British pilots. The exam is based on the *Manuel du Pilot Vol à Voile*, which is the French training bible. It consists of all the advice and theory a pilot needs,

starting from basic pre-solo to reach cross-country standard. There are 10 chapters and at the end of each there are 25-30 multi-choice questions in simple French to test your understanding, answers at the end of the book. Any moderately experienced British pilot should be ashamed if he cannot answer the majority of these questions correctly. The exam for the licence consists of 50 multi-choice questions all taken from those in the book, so you will have seen all the questions and answers beforehand. We achieved 100 per cent.

Les's experience should not deter British pilots resident in France from joining a local club, where as he says you will meet a lot of nice and helpful people as in most clubs the world over (and the flying is cheaper, 15-20 euros for an aerotow in our club).

Incidentally, two of us are private owners of a French-registered glider and with the help of the locals we have sorted out the system and have been approved to carry out all the maintenance work.

Bernard Davey, via email

Watch out for the bored bears

LIKE most people who subscribe to S&G, for me a great day always changes to an 'awesome' one whenever a shiny new issue drops into our mailbox. OK, it may be six weeks old by the time it reaches us, but Hell, this is the frozen north where mail arrives by huskies only after out-running an assortment of bored bears.

Imagine my surprise: *Gliding in Canada* (February-March 2006, p32). I could hardly turn to the relevant page fast enough. *Soaring Western Canada* – gee, my own back yard! Now Canada is a big place and Canadian glider pilots number just over one thousand spread across this vast country, so it's hard to get a handle on what's going on here. It's true in Alberta we get some great summer prairie flying days and the winter lee waves coming off the rocks are countless. But the undisputed Western Canada soaring jewel is Invermere and the Columbia valley BC. During the summer months many pilots migrate to the Invermere Soaring Centre (www.soartherockies.com) from all parts of the world, including the UK. But by far the biggest contingency consists of weekend pilots from Alberta!

My club, Canadian Rockies Soaring (www.canadianrockiessoaring.com), based at Invermere, has several 1,000km to its credit and every year many 750km flights.

There is something else worth noting: the Invermere Soaring Centre is open from April to September, seven days a week, and has gliders for rent. It's world class mountain soaring in English!

Martin Jones, CALGARY, Alberta

Please send letters (marked "for publication") to the editor at editor@sailplaneandgliding.co.uk or the address on p3, including your full contact details.

Deadline for the next issue is April 11

Data Protection update

DATA Protection is one of those topics that generate urban myths like damp trailers spawn mushrooms. I had thought my knowledge of the subject was better than average – until a member club asked the BGA whether it needed to register for Data Protection purposes. General information was dispatched together with the recommendation that it contact the line Information Commissioner's Office helpline. I fully expected that the club would be told it needed to register. I was stunned when it was told that it didn't.

Given that failure to comply with the Data Protection Act (1988) is a criminal offence, this raised questions that needed answers. So I did some research. It turned out that my knowledge was generally accurate, but there are exceptions and grey areas. Gliding clubs, it would seem, have huge potential to operate in the grey...

So what is the Data Protection legislation and what should everyone know about it?

There are two parts to the Act. Firstly, certain groups and organisations have to notify the Information Commissioner of the type of information they hold on individuals and why they hold it. They also have to register (£35pa). An organisation that fails to notify and register when it should do is guilty of a criminal offence. If a gliding club were to fall foul of the Act, those liable are likely to be the club's officers.

The second part of the Act is compliance with the "principles". All organisations that hold information about individuals must comply with eight principles put in place by the Data Protection Act, whether or not they need to register. These state that data must be: 1. Fairly and lawfully processed; 2. Processed for limited purposes; 3. Adequate, relevant and not excessive; 4. Accurate; 5. Not kept for longer than is necessary; 6. Processed in line with your rights; 7. Secure; 8. Not transferred to countries without adequate protection.

So it would seem to be straightforward; clubs hold information on individuals (their members) so they should notify and register.

This is not necessarily the case, though, because the Act aims to protect individuals from having their information misused – largely by profit-making companies using personal information for marketing purposes. Not-for-profit organisations are exempt. The good news is that nearly all gliding clubs are not-for-profit organisations as "profits" are kept within the club for furthering the organisation's work (eg, buying new gliders). As such, they shouldn't need to register.

However, this is not necessarily the case either – it depends what the information is being used for... Now for the grey areas. If it is to be used for educational purposes, then the club needs to notify the Information Commissioner and register. Gliding clubs,

as organisations that offer training, could be interpreted as using it for educational purposes. But there are other grey areas, too. For instance, if a club starts a new service, such as bookable training, the club may market this to their membership by sending a letter to everyone on the membership database. Use of the previously exempt database in this way may well de-exempt it.

So how to avoid committing a criminal offence under the Act? Simply notify and register with the Information Commissioner's Office. The best advice, given that there are no definitive answers, is to look at their website and phone the helpline. There is also the option to notify voluntarily. At £35pa, this may be worthwhile. Information is also available at www.gliding.co.uk (on the Club Management area).

So there you have it. Enough of an introduction to data protection to show that there are no real answers. The helpline worker I spoke to said that the Act was written in the spirit of common sense, so common sense is probably the best way to handle the subject. If you're not sure, go and ask the Information Commissioner's Office: website www.ico.gov.uk and Data Protection Helpline 01625 545745.



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Seminar for sub-committee chairs



VOLUNTEERING yet another weekend to support British gliding – this time by attending the first-ever BGA Sub-Committee Chairmen's Seminar, in February this year – were, from left: Russell Cheetham (chairman, Competitions & Awards Committee); Mike Jordy (who hosted the event as BGA Vice-Chairman on behalf of the Association's Executive Committee); Pete Stratten (BGA Chief Executive); Kevin Moloney (Safety Committee); David Roberts (then the BGA Chairman and Chairman of the Staff & Administration Committee, and now Chairman of the BGA's new Regulatory Group); Diana King (Development Committee and BGA Executive Committee member); Carr Withall (Airspace Committee); Don Irving (Instructors Committee); Patrick Naegeli (Strategic Planning & Finance Committee, BGA Executive Committee member and Chairman of the BGA Safety Initiative, who was elected as BGA Chairman the following month); Howard Torode (Technical Committee) and Marilyn Hood (Communications & Marketing Committee). The event was held to provide an opportunity for interaction and discussion between sub-committee chairmen; to enable these invaluable volunteers to offer feedback to the BGA Executive Committee and the Association's professional staff; and to explore governance issues in the changing environment that gliding is experiencing. The agenda included a description by each chairman of their sub-committee's work and the issues they face; a presentation and discussion about BGA communications; and an outline of the Association's strategic planning process. There was a 100 per cent turnout by sub-committee chairmen and the points raised will be examined and, as appropriate, acted upon in the coming months or fed into the BGA's strategic planning for the future. BGA Chief Executive Pete Stratten adds: "The BGA values its sub-committee volunteer expertise and this seminar demonstrated the benefits of sub-committee Chairmen, Executive Committee and staff occasionally gathering together to exchange thoughts while focusing on some key issues affecting gliding in the UK."

(Photograph: Sailplane & Gliding)



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BGA Glider Maintenance Schedule



Photo: Jim Hammerton

THE BGA has published a generic maintenance schedule (*the booklet pictured, above right*) for the operation and maintenance of gliders and self sustaining sailplanes within the BGA airworthiness system. Every BGA glider and self sustaining sailplane owner will receive a complimentary copy with the first issue or next C of A renewal. This process will take 12 months to complete and by February 2007 all BGA glider owners will have received a copy.

The maintenance schedule is to satisfy a number of requirements, some mandatory and others for information. It has been produced in A5 loose-leaf format to allow easy inclusion in a ring binder, in five sections that are easy to revise or update.

Some of the main aims were to have one schedule for both BGA C of A and EASA C of A gliders and not fundamentally change the existing maintenance procedure using the BGA 267 report form. Updating the inspection tasks, incorporating the Self Sustainer Supplement and giving substance to the inspection tasks were also objectives.

The mandatory requirements of the schedule satisfy the need for a maintenance programme for the issue of an EASA C of A (the BGA GMS was approved by the CAA on March 23, 2005 for this purpose) and the eventual adoption of Part M, or something similar; section three is reserved for this.

The other elements advise operators, owners, and inspectors on the requirements and obligations of operating and maintaining a BGA glider. Aiding inspectors and owners who choose to assist with maintenance tasks by advising what the tasks on the BGA 267 mean and should include and to advise on certification and procedural matters.

The initial plan was to coincide the launch of the BGA GMS with the introduction of G-registration gliders and EASA C of A; however the registration has gone ahead without the EASA C of A, for a short period, so it was decided to launch the maintenance schedule in February 2006, ahead of the

How to promote gliding

TWO MAJOR events dominate the BGA's promotional activities as we go into the spring of 2006.

National Gliding Week runs from April 23-30. As I've written in previous columns, the hope this year is that all clubs will run media days to tie in with National Gliding Week, targeting their local press and radio.

We know that this is an effective way of getting publicity for clubs and it doesn't take too much effort to get a great result.

If your club has got your media day planned, thanks! If not, there is still time to get organised. All clubs are now in possession of our *Media Day in a Box*. This is a cookbook with hints and tips for running a media day from background planning through to execution. Also included are various materials (factsheets, photographs, etc) that you can provide to the press to help them put together their features on you.

Please support us to meet the objective of getting coast-to-coast coverage for the sport during National Gliding Week.

The second major initiative is our appearance at *Fly! The London Air Show*

at Earls Court from April 21-23. This show has been successful for us over the past two years and the organisers are investing heavily in publicity to get as many visitors who are not yet currently involved in air sports to attend.

The BGA stand will feature the gliding simulator and, we hope, a glider.

Following last year's format, we have invited BGA clubs to join us on the stand. This is an excellent opportunity for clubs to reach out to potential new members and others and present the benefits of club membership, their holiday courses, etc, to them.

Attendance at national exhibitions is normally prohibitively expensive, but we have put together a package that allows clubs to reach this market at a fraction of the normal cost.

Applications from clubs are being treated on a first-come, first-served basis so, if your club wants to take advantage of this opportunity, please get in touch with me as soon as possible.

Keith Auchterlonie
BGA Communications Officer
keith@gliding.co.uk



Left: Keith Auchterlonie (centre, front) with a group of happy customers from this year's BGA Club Marketing Seminars. These popular events, which have been running for three years, cover all aspects of marketing but focus on identifying your target audience(s) and messages for them, how to get your messages across, and working with the media. Feedback from participants in this winter's seminars – at The Soaring Centre, Lasham and York – rated them overall at a gratifying nine marks out of ten. If your club wants to benefit from the BGA's – and other clubs' – experience, look out for the next seminar programme, to be published in the autumn. Attendance is free, but places are limited: this year demand for places exceeded supply (Photo: S&G)

EASA C of A. A letter will accompany each schedule explaining the situation.

To complement the GMS there are two updated publications and a new web page.

New DI (Daily Inspection) book. The DI, also referred to as Check A, is detailed in section 2 of the BGA GMS and in the new DI book and formalises the inspections required. This is a good checklist so nothing is forgotten. The DI book has been generally updated to reflect the current requirements for glider and powered glider operation.

New BGA 267 (March 2006). The same numbering system as used in section 4 of the BGA GMS is used on the new BGA 267. An electronic form available from the BGA website can be completed on a PC and printed off for signature or downloaded for

completion by hand. Paper copies are available from the BGA shop for those without internet access. The old-style NCR pads are no longer being printed but may be used for non-powered gliders with a BGA C of A until stocks are depleted. The BGA GMS is also available to download from the BGA web site www.gliding.co.uk or purchased from the BGA shop.

When you get your copy, please read it and keep it safe with your glider logbook so you can refer to it later. If you want to see it before your copy arrives, please visit the BGA website.

Jim Hammerton
Chief Technical Officer
cto@gliding.co.uk

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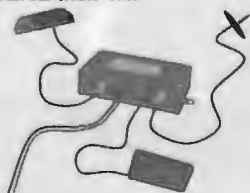
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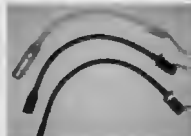
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Winning with your mind

Phil King reviews a new book on the art of racing by two top Italian competition pilots

THE BRIGLIADORI dynasty in Italy is a bit like the Wills, Wells, or Jones dynasty in Britain – one or other of the family has been competing at international level since 1952. In 1954 the brother and uncle to the authors, Ricardo Briigliadori senior, was at the Worlds held at Camphill, and in 1965 Leonardo Briigliadori competed at the South Cerney Worlds. Leo went on to win the Standard Class World Championship at Rieti in 1985, and his son Ricky has won Silver and Bronze in the Europeans. So when Leo and Ricky write a 350-page textbook revealing how to win competitions it is time to pay attention. But this isn't just a textbook, it has something for everyone, and even finds space to glory in the joy and beauty of soaring. Most of the pictures are full-colour, double-page spreads and you could justify buying the book just for these. They feature not just soaring in (yes I do mean *in!*) the Italian mountains, but also stunning aerial shots taken in Europe, America (North and South), and Africa.

When you have flicked through and



marvelled at the pictures, it's time to see whether the text really does reveal how to win competitions. The authors assume that you already know the contemporary theory of cross-country soaring as expounded by the likes of Helmut Reichmann, so this book tells you how to put that theory into practice and win. To make the theory come alive, Leo and Ricky have illustrated each topic with examples from their own flights (*see alongside*). Not only does this put the theory into context, but it also makes the book an enjoyable, and in places exciting, read.

Angela Sheard has translated the authors' Italian text into English and has generally done an excellent job; nevertheless some gliding jargon does not translate easily and this may be why I had to read some of it several times to fully understand it. For instance anyone familiar with texts such as Wallington's *Meteorology for Glider Pilots* would have recognised the word *Tephigram* but may not immediately understand that's what *status diagram* means. Measurements are all in metric units, so it helps to be good at mental arithmetic or have an idea how high (or low!) heights in metres really are.

There are five parts: technique, strategy, tactics, human factors, and organisation. Pilots entering their first competition this season will find all of these a great help in their preparation. They would do well to look particularly at the chapter on setting objectives. Even very experienced competition pilots will find some new ideas in this book: for example, why the MacCready setting to use for the final glide may depend on whether the task is a conventional race or an AAT. Theories like this one are fully justified with worked examples and neat colour diagrams, which are easy to follow.

The part on human factors covers many points that most of us neglect. Amongst other things it describes the role of the trainer/coach. Sportsmen have used personal trainers for more than a hundred years, so it's certainly time for that in gliding and this book defines their role and shows how valuable they can be.

One thing that will stop this book from becoming a standard reference on modern competitive gliding is its lack of any index. If you're like me you'll remember the gist of something from the book but then be unable to find it again when you need to refresh yourself on the details. On the other hand there is a comprehensive bibliography listing books in four languages, so there's plenty of scope for further study.

If you've never entered a competition before this book will give you a good idea what glider competitions are like and, if you decide to enter, it will get you off to a good start. If you've competed before, this could be your key to greater success. Even if you're not interested in competitions there are lots of techniques which could improve your personal performance and increase the fun you get from cross-country gliding.

The good day

"BOB (Monti) and I, both in Cirruses, find ourselves at about 800m agl, on the edge of a large lake that would have to be crossed, in a big gaggle that couldn't decide which fish to hook. We are on zero sink, the lake is nearly 20km wide, we don't know if the other side is landable, the weather situation is uncertain, because a covering of stratocumulus is already darkening the sky to the south and moving slowly north. The sky is practically cut in two: to the north, brilliant sunshine but no cloud; the south, covered up. The spiralling gaggle shows clear signs of anxiety and uncertainty but when in fact they all start to descend, the group scatters. Almost everyone makes for the sunshine so as to round the lake from the north, setting themselves up for a large, penalising, but thermically more reliable, turn. But Bob and I can see Reichmann go off in the middle of the lake, making directly for the sun/shadow divide marking our route. It is Reichmann's choice that convinces us, more from instinct than belief. Reaching the far side, at little more than 200m, we soon meet an unexpected effervescence of lift exactly where the last bit of sun ends. We would save our skins and have a good flight, learning an excellent lesson from Reichmann on the positive effects of slow-moving top cover. The explanation is, that a sort of cool edge forms, dislodging the warmer air that it meets as it advances"

Leonardo, from *Competing in Gliders*

And the bad...

"WORLD Championships 2003, Leszno. I am near the end of a 500km flight conducted very profitably considering that I find myself with the English brothers Steve and Philip Jones, who left four minutes earlier, they will win the day. The last 50km are very critical, being characterised by strong stratification which lasts almost to within 20km of the finish. The knowledge of having flown well up to this point leads me to adopt a cautious, tactical attitude so as not to ruin everything I have built up over five hours work. I live in hopes of winning enough height for my finals as soon as possible, underneath the stratification, even though I have good reasons to think that once I reach the sunshine, the values ought to be good. When I finally reach the sun, I notice that the climbs are at least 1m/s stronger. Result: I would have had to arrive into the sunny area at 300/400m to capture the thermal for final glide, only 25km from the airfield, not hope to win on finals from 50km. What this means is, instead of thinking about achieving a long final glide at all costs (from far out), I should have thought about doing a long glide prior to final glide and then a short one to the line. In actual fact, I had spent 500km making up four minutes and then took only 50km to lose another eight.

Ricky, from *Competing in Gliders*

TAIL FEATHERS

by Platypus



The Real Thing

SERIOUS dismay has been expressed about a bold British plan (*The Times*, February 13, 2006) to save loads of money by halving the hours of pilot training on any new airliner. The worriers are not placated by being told that the amount of simulator time will be doubled to compensate for the loss of true hands-on flying experience in the aircraft.

However the Much Graunching Gliding Club sees this development as a green light, and indeed wishes to take it to its logical conclusion. The Chairman, Bert Pannick, told me forthrightly, "We shall dispense with two-seat instruction as of next Saturday. We see no reason why the Club needs to risk an expensive training glider or an expensive instructor by letting some ham-fisted beginner thump it on the ground."

"I didn't know instructors were expensive. In fact I thought they were free at small clubs like Much Graunching."

"Well, they are until their lawyers claim for the earnings they've missed – and other things – after a heavy-landing accident caused by some inept *ab initio*. It's going to get worse. One instructor's wife sued the Club last year for loss of marital rights after her man had his coccyx ruined by a pupil's PIO. Apparently he had been a seven-nights-a-week performer, but after the ding..."

"Thank you very much, but this is a family magazine – what I'd really like to learn is how you plan to replace two-seat training."

"The way we see it, if solo training was good enough for that Platypus character and the Hitler Youth, it's good enough for us."

(At this point I decided not to reveal my identity. I thought I might learn something.)

"I knew Platypus did solo training in the 1940s but I didn't know he was in the Hitler Youth," I said carefully.

"Of course he was – he's always making speeches, and just look at the way that he goose-steps."

"More of a duck's waddle, I would have thought. I just think his chute is too tight."

"That's as may be, but solo training is back, and here to stay. And no, it's not a retrograde decision, because technology will be our saviour. We are going to install a state-of-the-

art Discus simulator in the old cowshed. It will administer sharp and painful jolts in the back-side for poor landings, directly proportionate to the estimated G-loading. After 40 or so dummy circuits we should be able to solo the little beggars in a proper Discus."

"Couldn't that pose a costly risk?"

"Not really, Mr – er...?"

"Bill. Bill Drake."

"Y'see, Bill, the first trials of the system will be done midweek in single-seaters borrowed from private owners who only fly weekends."

"That's frightfully good of them!"

"Well, between you and me I was only planning to let the owners know about the scheme after the event, if you get my drift."

"Hm. I wish you well. Stalling and spinning is still the biggest worry – how do you plan to eliminate that danger?"

"First we aim to make the simulator frighteningly realistic – even the smell of involuntary bodily functions such as vomit etc is sprayed into the cockpit. Thus a rooted aversion to even the mildest incipient spin will be inculcated. Secondly if we still break too many private gliders this way I will use a model-sailplane remote-control box to override the pupil if he looks as if he's losing it. I used to be pretty nifty at the scale aerobatic stuff about 30 years ago. I don't think I've lost my touch."

"I'd love to see the simulator, Bert – any chance of a go in it?"

"Maybe next week, Mr Drake. Right now I have an errand of mercy to perform. I hear that the instructor with the bent coccyx is at the chiropractor's all day, and I really must take this opportunity to console his wife."

"How charitable of you! No simulating this time, I imagine?"

"Ha-ha, what a wag you are, Bill! You know, you ought to be the one writing funny pieces for the BGA's organ instead of that old Messerschmidt pilot. See you at cloud-base, as they say!"

Any resemblance between the egregious Mr Pannick and any gliding club chairman is of course entirely coincidental. I was going to say the same thing about the Much Graunching club, but as of today (I write this on February 17, 2006) I am not so sure. I have a few

minutes ago had a phone call from Wally Kahn – wit, raconteur, author and tireless fundraiser for our sport – to say that Lasham has soloed a pilot almost entirely on the basis of simulator training. I immediately got on the phone to Lasham CFI Gordon MacDonald and Andy Chawe, who were celebrating Andy's solo in a K21 after five (that's right, five) instructional flights in the K21 and a flight of 1hr 15mins in a Motor-Falke. The rest of his training consisted of eight and a half hours ground-borne in the Lasham simulator, of which more below. Apart from a trial lesson back in July 2005 Andy, who is 31 and married with one child and a second imminent, has had no other flight training in powered aircraft or gliders. Before gliding he was a keen scuba-diver. Let me add that this has been an experiment, and a very successful one; however it is not yet instituted formally as general policy for *ab initio* training at Lasham.

Imaginary thermals with real gliders in them*

Just before Christmas I did get a ride in the simulator at Lasham, which is absolutely the best thing of its kind that I've experienced so far. Sitting in a real cockpit handling real controls is of course a big help, as is the wrap-around effect of images projected on three walls in a darkened room instead of a small screen. The entire room is dedicated to this simulator and you pay real cash, not Monopoly money, for flight time; this is no plaything for rainy afternoons. The movement of the glider seemed much more realistic than with the older applications. I remember one some 15-20 years ago in which it took an age to raise or lower the nose. Maybe a Zeppelin simulator had infected it in some way. Critics say the pitch on this latest version at Lasham is still not quite right, though it is vastly better than that. Ideally one would like the rapidity of movement around each of the axes to be adjustable at will, to replicate a Discus 2 or a Nimbus 3 with full water.

It was only on tow that I realised where I was – it was very familiar terrain – the Sierra Nevada with Lake Tahoe to the west and the Carson Valley with Minden airport to the east. I had flown over it every year from 1991 to 2004. Disconcertingly I found myself ridge soaring the east side of the

Sierra – a very unusual easterly was blowing. I have soared on the east side of the Sierra many times, but only in a west wind lee wave, not in ridge lift.

The way the glider behaved in imaginary thermals was quite convincing. However, I was not allowed to go cross-country – the Distinguished Former Chairman of the BGA was in the queue to fly. So it was back to the familiar challenge of a crosswind landing on Minden's long narrow asphalt runway – something we grass-field users can find disconcerting in simulation and in reality. On the downwind leg of my pattern I would have appreciated another (but expensive) wall-screen so that I could look back over my right shoulder and judge when to turn on to base leg. I just had to guess and it worked fine. The landing was not straight as a die, but that was very realistic too since my actual landings at Minden were prone to some weather-cocking. (The Americans, by the way, abhorring foul talk, prefer weather-vane to weather-cock. I am surprised they don't call those things on church steeples weather-roosters.)

Don't you mean fowl talk? Ed.

Look, I'll do the jokes and you do whatever you have to do with the blue pencil and green eyeshade, Madam Editor.

The Distinguished Former Chairman of the BGA hasn't flown a glider for decades, and so muffed a couple of thermals, then at the last moment tried to scramble to the little airport at the southern end of Lake Tahoe.

I know Lake Tahoe airport too; in 1998 I did several successive solo take-offs and landings in a Cessna 152 as part of my training in using an airport with a human controller, which Minden did not have at that time. Steeply wooded on three sides, and water on the fourth side, it is no place to have engine failure, whereas a failure climbing out of Minden in the wide, flat valley is no big problem if you are mentally ready for a sudden drop in revs. At least that was true eight years ago; soon the whole valley will be built over as people keep flooding into an area of very low taxes (gamblers are the real taxpayers), pleasant weather and few natural disasters.

However, back to an increasingly harassed Former BGA Chairman: at 6,225ft, Tahoe is the highest big lake in the USA, so he had not got much altitude to play with. I did think he might just tiptoe on water, if not walk on it, and trickle a slightly damp wheel on to the beach, but he ended up in the lake well short of salvation. A decent simulator would have had someone or something throwing a bucket of icy water over the errant pilot. (Lake Tahoe is fed by snow-melt much of the year; it is very deep, very clear and very cold.) When elder statesmen screw up nobody sniggers. Too much dignity is at stake. If it had been me everyone would have roared with derision. I don't have any dignity to worry about.

mdbird@dircon.co.uk

Peter Fuller 1931-2006

FOR MORE THAN 40 YEARS, every time I wrote a paragraph for *Sailplane & Gliding* I would ask myself, "I wonder, how will Peter illustrate that bit?" I am doing it even now, though Peter has drawn his last cartoon. In my mind's eye I am trying to guess how he would depict Plat failing to goose-step convincingly in an excruciatingly tight parachute harness, or the BGA ex-Chairman being doused with a bucket of ice-water to add a touch of realism to his ditching the Lasham simulator in Lake Tahoe. We shall just have to go on imagining.

Peter's first S&G illustration, with its very personal and distinctive hard-edged black-and-white style, reminiscent of a woodcut, appeared shortly before his 30th birthday in 1961 – the same year that he went solo as a member of the British European Airways Silver Wings Club at Booker. As a team he, the professional artist, and I, the amateur writer, started working together in 1964. Once on the treadmill it was impossible for us to get off. Editors had their claws into both of us. We felt like Gilbert and Sullivan racing to beat a joint deadline to deliver so many laughs by next Friday, or else.

If I found myself writing too much technical stuff (say about MacCready theory) I would stop and say, "Hey, where's the opportunity for a Fuller cartoon?" but even with the serious material he would find a way of poking fun at it, thank Heaven.

Working as a cartoonist has become a dangerous occupation of late and it reminds me that if the pen is mightier than the sword, a cartoon can be more potent than the pen. Angry mobs of scruffy people in woolly hats (I can envisage a Peter drawing right now) have never ransacked the BGA offices in retaliation for being mocked, but maybe

FRED FUMBLE



Extract from Laws & Rules

"F.14 – All pilots must report any inspected defects or heavy landings to the instructor in charge before the aircraft is flown again."

that is because nobody really knew where the offices were and besides, a trip to Leicester is not a riot, either metaphorically or literally.

One of Peter's very last cartoons failed to appear through an error at the printer's, so we can run it now (see below). It is in a way sadly appropriate. It was meant to illustrate my quiz about how to calculate the altitude and position of an airliner heading for Heathrow as it passes between the sun and my kitchen at midday at the autumn equinox. Many planes cast their shadow over my cups and plates, but the only one I would always go out and look at till it flew out of sight was Concorde. I shall not enjoy that privilege again. Peter, too, has gone, and *Sailplane & Gliding* will never look quite the same. The end of an era.



Top: Fred Fumble, one of Peter's earliest S&G cartoons (1962). Above: the header for the first collaboration (1964) between Peter Fuller and Plat's alter ego. The Coarse Glider Pilot could be identified (below) because he lives for the big day but is never ready when it comes. Right: the familiar Plat persona and Concorde (2005)



* with apologies to the poet Marianne Moore and her line, "Imaginary gardens with real toads in them"



Just watching t

EVEN WHEN we're earthbound, the lure of skywatching can be irresistible for us glider pilots. In the contributors just couldn't resist temptation. Thanks to them, we can all enjoy the superb skyscapes. a dedicated fan of airborne water vapour, try out www.cloudappreciationsociety.org ("We love clouds")

Clockwise from above:

1. Lenticular at Talgarth, by Tony Crowden. Wales isn't the only place with photogenic wave but the
2. Now that's what we call wave! Paul Cooper's shot of this stack-of-dinner-plates effect is another
3. And back to Wales – the Brecon Beacons. This time the photographer, Robbie Robertson, was
4. Bill Longstaff caught this intriguing in-cockpit view during Competition Enterprise 2005. We know
5. Even on a non-gliding holiday at 30,000ft over Australia – 'somewhere over Queensland, near

If you'd like to share your best shots with S&G readers, just email JPGs or TIFFs to editor@sailplane.org





he clouds go by

cockpit, on the ground or — in one case — from the cabin window of a passenger jet, this issue's
 they captured. Perhaps we should consider renaming Gliding Gallery "Readers' Clouds"? And if you're
 s, we're not ashamed to say it and we've had enough of people moaning about them").

Back Mountains GC pilots seem pretty slick at getting their photos to S&G. How about other clubs?

classic — taken in New Zealand but appealing to soaring pilots the world over
 airtime in wave, focusing in on this lone wisp in winter. What was setting it off, we wonder...

Enterprise is an event for the more reflective racing pilot, Bill, but isn't that taking it a bit literally?
 George Lee's place" — Jay Rebbeck was cloud-spotting. These were at 10-12,000ft, he reckons

heindgliding.co.uk. This is a broadband account so all sensible file sizes should be no problem



Old age and glider pilots

Alistair Nunn and Gordon MacDonald have put together this thought-provoking article on the implications of ageing

LET'S FACE IT, we're all getting older. By the year 2020, something like 25 per cent of us will hit retirement age; does this mean that the skies (and trees) of gliding clubs will be populated by the aerial equivalent of 70-somethings doing 20mph in a Honda Prima in the outside lane of the M3? Or will we all be grounded at age 60 because no one will insure us?

Although we can take a light-hearted approach to the question, these are current and growing concerns. They have been addressed in Commercial Air Transport (the controversial "age-60" rule in the US, and the general age 55 cut-off in the forces), but less so in General Aviation (GA).

At what point do you (or your CFI) call it a day and accept that you're simply not the pilot you once were? What factors influence this and can we measure it? If overall health is not an issue, at what point do you simply become too crumbly to pilot your glider safely?

GA, and gliding in particular, are often taken up when folk are older; commercial and military pilots generally learn when they are very young. As more baby-boomers hit middle age, their thoughts will turn to activities such as gliding. Hence future glider pilots may well fall into two categories; those who learnt young and those who

didn't. This article is the first of two that sets out to explore the physiology behind ageing and its implications for us pilots. In this article we will look at the problem from the physiological aspect and explain a bit about the ageing process, and how it relates to pilot performance and the ability to learn. The second article, later this year, will look at the practical implications for older pilots, ways of measuring pilot ability, and how we can use this to help train older pilots.

These two articles are not meant to be a definitive review of the area; rather, they are thought pieces with a bit of science thrown in. Most of it you will know instinctively, as it was probably what your granny said; we're trying to rationalise it a bit.

The ageing process and the brain

In a nutshell, we oxidise to death; the process of producing energy is a lot more efficient if we use oxygen (we can produce some energy without it, but the process is a lot less efficient, hence, apart from the mess it causes, we tend to expire in a vacuum). It is undertaken by a little organelle found in most of our cells, called a mitochondrion. Sadly, the ability to release loads of energy is a double-edged sword; in the process of converting fats or glucose to energy, the mitochondria generate small amounts of reactive oxygen species (ROS), which can lead to cellular and DNA damage. Not only that, ROS also damages the mitochondrion itself, hence it becomes more dysfunctional as we age, leading to further oxidative stress. This slowly decreases the efficiency of the cell as genes and other internal machinery become damaged. This applies to the brain as well, but because neurons have to be especially long-lived and fats are particularly dangerous (they are highly susceptible to ROS) our brain is almost totally reliant on glucose for fuel (unlike the rest of the body), and is very good at managing oxidative stress. It is astonishing that it works almost perfectly for 70 years or more.

Generally speaking, long-lived animals are much better at reducing/managing ROS. However, ROS are also an important part of the inflammatory signalling process, hence prolonged illness, obesity, saturated fat, etc, can negatively affect lifespan. Moreover, one of the main triggers for inflammation is hypoxia; our little friend the mitochondrion pumps out a lot more ROS as it runs out of oxygen, which is part of this signalling process. Prolonged brain hypoxia is bad. It is thus of no surprise that calorie restriction, the only known process to extend life, reduces bodily ROS production. And guess what, moderate exercise, is also good!

OK, so what's this got to do with pilots?

Sadly, the brain also ages and it is possible to link this process at the molecular level

to reducing functioning: a recent study has clearly shown that most of the genes believed to be involved in cognition (neurotransmitters, their receptors and intracellular transport mechanisms, energy production systems, etc), are down-regulated as we age. This is due to the genes' promoters (a gene's 'on' switch) themselves becoming damaged. In contrast, genes involved in inflammation are up-regulated as the mitochondria themselves become inefficient. Given that there are a trillion or so connections in your brain, any degradation is bad and can be accelerated by too much inflammation.

However, the rate of this process is extremely variable between different people. In some, it clearly starts in their 40s, while in others it only really becomes apparent in their 60s; this process correlates with the gradual decrease in brain volume. For most folk, it accelerates in their late 60s. There is thus a clear correlation with an age-related decline in "cognition" genes and brain volume, which as we shall see, correlates with performance. Most of us start out with a spanking new Hewlett Packard super PC (although the model and spec may vary), but end up with a Spectrum ZX.

There are thus two main factors affecting brain function as we age: what you start with and how quickly it degrades.

Brain function, cognition and performance

The study of neurochemistry, memory and consciousness is still very new. However, what can be ascertained is that our brains are not too dissimilar to computers in that we have a hard drive analogue (long-term memory storage system), a central processor unit (CPU, which integrates stuff, makes decisions – executive functions) and RAM (Random Access Memory – short-term memory, which works closely with the CPU). Clearly, all of these have to be connected to each other using wires and connectors via the motherboard (nerves and synapses).

Like your computer, long-term memory is located in a different position (neocortex) from the short-term memory and executive function areas (frontal cortex), while the integration and new memory assigning system is kept in the middle (hippocampus). Clearly, any degradation in the wiring results in a generalised slowing, especially of higher functions. However, even more importantly, the processing speed and the RAM can be slowed down by overloading (time-sharing, too much load on memory, programmes too big), which in a biological system can also equate to focus and attention. Simply put, distractions can affect currently running programmes.

Older pilot mean response latencies plotted as a function of younger pilot mean response latencies. Slope very close to one: the older you get, the slower your reaction time.

Adapted from Hardy and Parsonnians, 1997

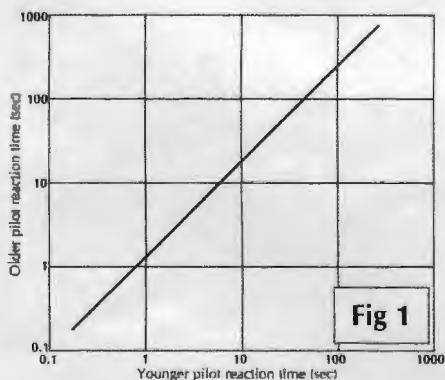


Figure 1, above – older pilot mean response latencies plotted as a function of younger pilot mean response latencies. Expressed simply, reaction times increase with age (see The role of crystallised and fluid intelligence in the pilot, opposite)

“Consider Europe, soon to be home to eight of the world’s 10 oldest populations. By 2050, 35 per cent of all Europeans will be over 60, compared with 20 per cent today. There will be 130 million fewer working-age Europeans. That shift has far-reaching consequences for people of all ages and is a growing consideration for policy makers across Europe.”
– Pfizer annual review, 2003

In physiological terms, we generally display two main types of intelligence (again, there are several different ways of describing this; this is the simplest). The first is *fluid intelligence*: how we process new information and assign it a useful context – broadly speaking, this encompasses perceptual-motor skills, short-term memory, attention and decision-making. In computer terms, it involves aspects of RAM, processing speed, and of course, the motherboard and the basic human ‘met-cog’ start up programme (eg DOS, or “Hom Sap executive function Version 1.2.2”).

The second is *crystallised intelligence*, which refers to stored knowledge and/or to those processes that link into previously learned (eg, through repetition) skills, and which have been embedded in a meaningful context. In computer terms, this probably represents accessing programmes from the hard drive (clearly, we are born with some basic programmes, but most are “written” as we learn), or possibly, some are written into ROM – Read-Only Memory and are instantly accessible. An example of crystallised intelligence is language, while fluid intelligence (in its broadest term) might be represented by “mental agility”.

These obviously overlap and folk often show biases towards different mental and perceptual-motor skill abilities, as we are all different – but for the sake of clarity, we’ll keep to the broad definitions.

Role of genes and environment

Intelligence and hence cognitive ability do have a very strong genetic component – something like 40 genes have already been identified that contribute to it – varying from genes that control neurotransmitter receptors, to inflammation, to those that control DNA repair. There is also a strong environmental component – a well-used brain does respond by growing a bit, or at least not deteriorating. Hence it’s not just a case of what you are born with, but how you use it and how quickly it degrades. Thus, a healthy body tends to lead to a healthy brain; if you poison yourself with loads of saturated fat and alcohol, or don’t take enough exercise, you can end up with a metabolic imbalance that results in oxidative stress. This leads to mild

systemic inflammation and atherosclerosis (not good for the brain). It is no surprise that a mutation in a particular gene that is involved in cholesterol metabolism (and is associated with atherosclerosis) has also been linked to accelerated senility, or that drugs, such as the statins that reduce cholesterol, or NSAIDS (through anti-inflammatory action), have both been found to slow the rate of brain ageing. Plus, there is some evidence that protecting your mitochondria may also slow this process – certainly older rats fed a diet high in acetyl-L-carnitine (ALCAR – which is a normal mitochondrial component that decreases with age) and/or lipoic acid (LA – which is a powerful anti-oxidant in the mitochondrion) helped their memory. ALCAR is a treatment for Alzheimer’s.

The role of fluid and crystallised intelligence in the pilot

Sadly, as the above would imply, as we age our fluid intelligence continually degrades; a good measure is reaction time (as it combines processing speed and working memory). Hardy and Parasuraman produced a very sobering graph (simplified, with fewer dots, as Figure 1, opposite) that plots older pilot mean response latencies as a function of younger pilot mean response latencies; the data was taken from many studies that measured the mean reaction time to complete a variety of tasks. As you can see, the graph is a straight line and has a slope of about one; very simply, reaction time increases with age.

Another approach (Mashburn Serial Action Test) shows that when pilots were asked to complete various stick and rudder co-ordination tasks in response to light patterns (hence, it’s a composite of both

Mean completion time for different ages of commercial airline pilots, tested using the Mashburn Serial Action Test. Note clear increase with age, despite probable increasing experience.

Based on data from McFarland et al., 1939

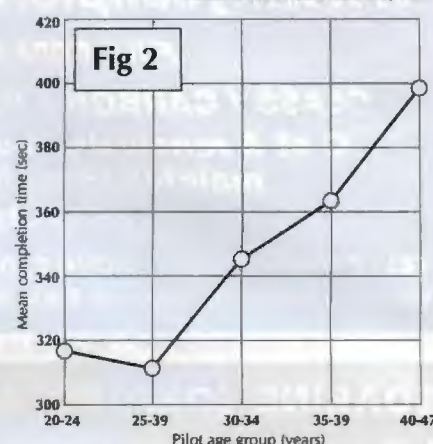


Figure 2, above – when asked to complete various stick/rudder co-ordination tasks, pilots in their mid-40s took about 20 per cent longer to complete, compared with those in their mid-20s (see The role of crystallised and fluid intelligence in the pilot, left)

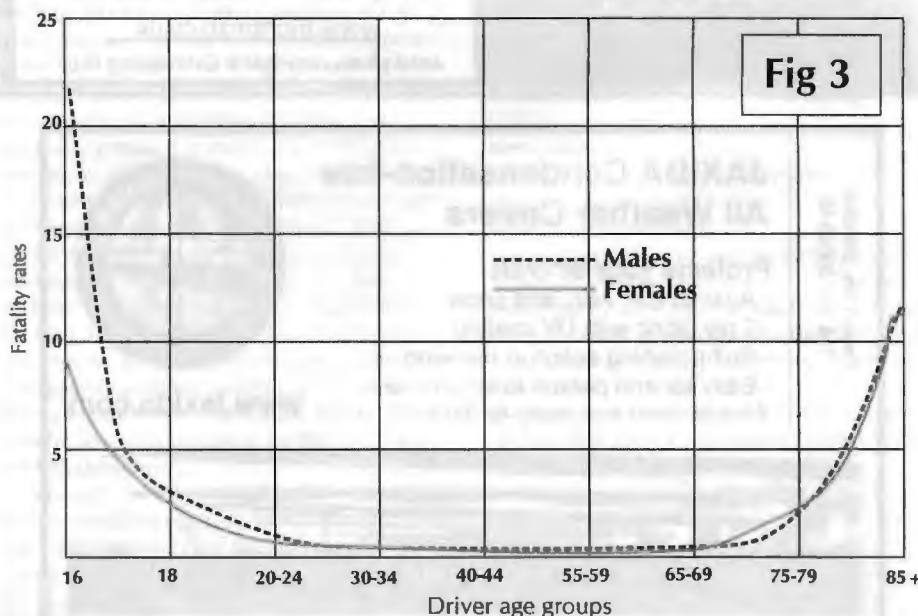
Figure 3, below – older, experienced pilots do have fewer accidents than young pilots. This is mirrored by the fatality stats for car drivers shown in this table

psychomotor skill and decision making) – pilots in their mid-40s took about 20 per cent longer to complete, compared with those in their mid-20s (Figure 2, above). Sorry, that’s the way it is – but don’t hit the whisky just yet!

It is now generally accepted that once a pilot (commercial, military and GA) has learned their basic skills, their piloting performance (as measured by performing a normal simulated flight on a simulator) does

Fatality rates for car drivers per 100 million vehicle miles travelled. Note high risk when young, and when very old, and that the curve increases sharply mid to late 60s onwards.

Adapted from US Dept of Transport figures for 1994



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The young pilot's brain. High degree of 'synaptic plasticity', with high level of fluid intelligence, but low experience.

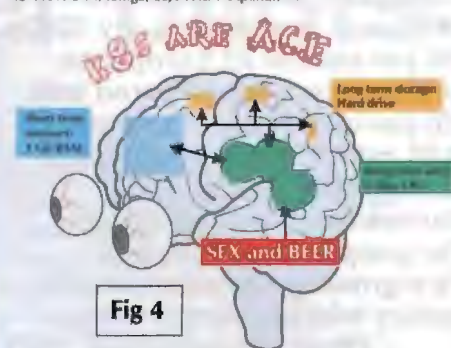


Fig 4

not really start to deteriorate until their late sixties – this is borne out by the accident statistics (Figure 3, previous page), which show that older, experienced pilots do have fewer accidents than young pilots. This is mirrored by the fatality stats for car drivers.

However, older pilots do perceive that they have to work harder to maintain this performance; this is borne out by the fact that they get worse at remembering and carrying out ATC commands. The reason older and highly experienced pilots still perform well is that they can subconsciously perform basic flying skills while anticipating situations much better than less experienced pilots, so they don't have to rely so much on using their fluid intelligence. This also explains why they may be more apt to make a mistake if distracted; part of their fluid intelligence is diverted to cope (meta-cognitive time-sharing), which may lead to a deficiency in another area. It also explains, all things being equal, why "smart" folk (don't you hate them?) can often cope better as they age – although again there are always exceptions.

What this means is that as we age, our crystallised intelligence increases as our experiences become hard-wired – but it does not alter the age-related cognitive decline. Thus, in computer terms, as you age, your RAM shrinks and the processing speed decreases, while your hard drive fills up and hard-wired programmes (ROM) increase (Figures 4, above, and 5, below).

In neuronal terms, young pilots display a large degree of "synaptic plasticity" (that is,

The old pilot's brain. Decreased 'synaptic plasticity', lower fluid intelligence, but much greater crystallised experience.

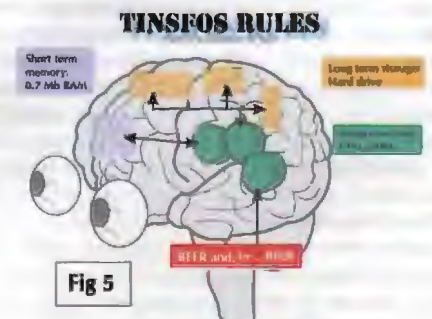
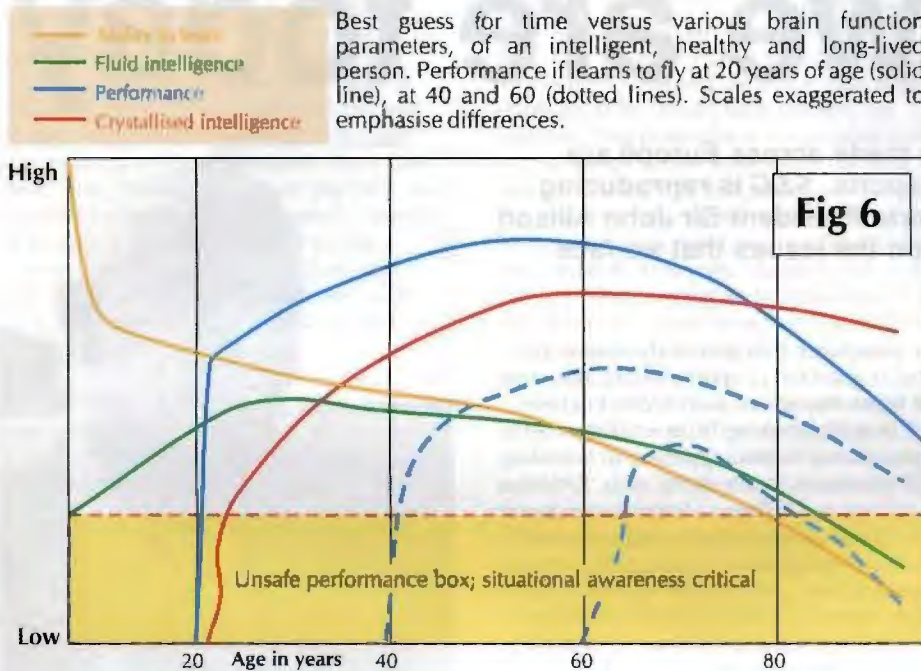


Fig 5



ability to learn), while older pilots are more set in their ways (see next section).

Unfortunately, when you get really old, the integration and access to ROM/hard drive also slows down, which means that the ability to maintain situational awareness, described by Heinrich (see references at the end of the article) as "The continuous exploration and integration of the dynamic environment, including individual credentials, to facilitate anticipation, decision-making and task execution", falls below an acceptable level. In short, despite experience, the system is just too slow to a) recognise and b) react to varying situations.

An extreme example of this is Alzheimer's: the unfortunate patient experiences a progressive loss of higher functioning, until they are left with only the very ancient and hard-wired programmes (eating, breathing: "Sinclair Spectrum 1, non-cog, Version 0.1").

It is well known that very old folk can remember their childhood like it was yesterday, but have no idea what day it is.

Learning becomes more difficult as we age

The brain is very good at compensating for loss of function: despite a lot of damage, it can recover by rerouting pathways. However, the continual degradation of high-energy-requiring processes that enable good fluid intelligence mean that these become less efficient with time. In addition, as it is finite in size, the brain constantly has to juggle storage and this is done on a need basis; if we use a particular skill, or continually recall certain facts, they become easier to do/remember.

However, the converse is also true. As we take in such a vast amount of information every day, it has to be sorted, prioritised and

discarded – just think how much memory your digital cine-camera needs for even five minutes of low-resolution recording. Now do that all day, every day, with sound, emotion and some very BIG programmes running to make it all work – at max resolution. This is why we forget – we have to. A lot of this prioritisation/sorting and storing process is thought to happen while we sleep – fluid intelligence drops off rapidly when we don't sleep and the ability to learn is dramatically decreased. Not only that, our ability to recall previously memorised facts also degrades, which indicates the role the fluid intelligence plays in everyday decision-making.

Glider pilot vs commercial pilot

So does this have an effect on the kind of flying you do? As said before, there appears to be little research on GA and even less on glider pilots, while there is an awful lot on commercial and military pilots. The general consensus is that fluid intelligence is viewed as playing a very important part in commercial aviation (less "seat of the pants" and more "systems management"). For military pilots, despite good crystallised intelligence, they just become too slow (as they will, potentially, be flying against the best an enemy has to offer), while for commercial pilots, despite a vast amount of experience, there comes a point, even if they are totally safe, where the risk to benefit becomes too great for the company (and its passengers).

However, for GA and glider pilots, no such constraints exist, so where do we draw the line and how do we measure "performance" – what is going to happen as we get more elderly pilots? This will be the subject of the next article.

Summary

The take-home message is this: as we age, our brain begins to slow down, but for the majority its overall performance holds up well into our retirement. However, in order to maintain this performance, it has to constantly make do with a deteriorating system, thus, fluid intelligence tends to decrease, while it relies more and more on crystallised intelligence, which is much more resistant to ageing.

However, there does come a point, and this is highly variable between individuals, where the remaining processing power cannot integrate new information with the old fast enough, and our performance starts to drop off. One strong indication of this is reduced situational awareness – there is probably a critical point where it becomes unsafe (Figure 6, left). This also indicates why older folk find it more difficult to learn, as fluid intelligence is part of this process. Furthermore, the late-learner pilot may be more vulnerable (or perceive it to be more difficult) in high-stress situations; they simply don't have the crystallised intelligence ("experience") to take some of the load off their working memory. However, it does indicate that the more current they are, the better they will be able to cope, as new "crystallised intelligence" is more accessible – but if it is not used (remember that the brain is constantly trying to reallocate resource in a diminishing and slowing system), it will be lost faster.

In a nutshell, if you learn late, you have to practise more often in order to keep your performance up. In contrast, pilots who have flown all their lives can quite easily get lost walking from their caravan to the canteen, but put them in a glider, even if they haven't flown for a few months, then they are still capable of beating some young upstart in a regional competition. However, ask them about the task the next day, and they probably cannot remember any of the turnpoints! Sound familiar?

Gordon is the CFI at Lasham Gliding Society and Alistair, a full rated instructor with 2000-plus hours, has a professional and casual interest in science

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Where we are today

Huge changes in how aviation law is made across Europe are affecting gliding and many other air sports. S&G is reproducing this speech, made by Europe Air Sports President Sir John Allison in February this year, to update you on the issues that we face

TO INTRODUCE you to Europe Air Sports (EAS), I will start by reading the key passage from our vision statement.

It says: "The overall objective of EAS is a long-term continuity of sports and recreational aviation in Europe with an appropriate amount of regulation and without additional unnecessary restrictions, to ensure flight safety, access to airspace, free movement and efficient and cost-effective organisation for the operation."

Additionally, we established a guiding principle: "The guiding principle for the transfer of governance from national authorities to a European authority should be: "what is permitted and conducted safely today in individual countries should continue to be permitted under the new regime".

Huge changes are taking place in the way that aviation law is being made across Europe, and in the law itself. Many of these changes threaten to damage the interests of recreational and sporting aviators. These changes affect, or will affect, everyone who flies for pleasure.

Do not think that you are safe because the hand of a new bureaucracy has not touched you yet. It will. Believe me, it will. Let me explain why you should be concerned and alert, even if you are, for example, an aeromodeller, just enjoying your harmless hobby.

The Europeanisation of aviation legislation across the European Union started with a project to harmonise the certification of Airbus products. This was a good idea. Moreover, no balloonist, homebuilder, old-timer owner or any other air sports person would have looked at that and felt afraid.

But the temptation of the political power that comes from centralising all authority for aviation under the European Commission proved too hard to resist.

That was the trigger for the formation of the European Aviation Safety Agency (EASA), which is rapidly filling the vacuum of European authority that was the result of the powerless JAA (Joint Aviation Authorities).

Now EASA is steadily taking over the main powers of the national aviation authorities and, politically, is one of the building blocks for the creation of a European super state.

EASA will eventually control everything – the only question being how much will be delegated back to the national authorities.

Let me hasten to say, that EASA have no ill will or bad intentions, in my opinion. From

my experience they genuinely want to do what is good for air sports. In fact, based on the latest discussions with EASA, I believe that their Rulemaking Team is taking a quite liberal stance in their approach to licensing and operations for air sports. Also, EASA has certainly been willing to listen to our deeply held concerns about Part M (Maintenance), and have undertaken to make necessary changes to the current draft rules to meet those concerns. Looking ahead, there are some real opportunities for air sports in the proposed changes to Regulation 1592, which is the basic regulation empowering EASA to harmonise air law across Europe.

So, you may well ask again, why is this change a potential threat to you, when all you want to do is carry on as before and enjoy your flying? The answer is because the Agency is moving fast and because, as regards recreational flying and air sports, it

'The European Aviation Safety Agency has come a long way, with contact and dialogue with representatives of our sector, but the potential for needlessly heavy regulation remains'

does not always have the necessary depth of knowledge of the air sports that it is seeking to regulate to make informed decisions.

Moreover, its agenda, and its mindset, have been driven first and foremost by consideration of commercial air transport, the regulations for which are simply not appropriate for recreational flying, nor can those rules readily be adapted. A different and much lighter touch is needed.

An example of an early mistake can be found in the attempt to define which light aircraft should come within EASA's jurisdiction and which not – the famous Annex 2 list. This was put together by consultants with no real knowledge of the inventory of affected aircraft, and without user consultation. The result was an incoherent list, but it was passed into law before those affected could advise. EASA has come a long way since then, with contact and dialogue with representatives of our sector, but the potential for needlessly heavy regulation remains.

They have made, as I say, some attractive proposals for a European recreational licence, but many issues remain to be



Sailplane & Gliding

resolved, including the sticky question of medical standards and the means of demonstrating compliance.

(Here I will digress for moment on the subject of medical requirements, because it is both topical and vitally important. I actually worry more about the ability of the recreational community itself to understand and agree upon this issue than I do about the stance of the rule makers. Some groups seem actually to want to cling on to ICAO- or JAA-based medical requirements, whereas there are clear indications that more relaxed standards and means of compliance could find acceptance.

In Europe Air Sports' view that position is perverse. Not only is there no safety case for requirements more demanding than for a driving licence, but to seek higher standards will needlessly disqualify some people from flying. Europe Air Sports could never support that.

The recently expressed preference of some glider pilots for an ICAO-based medical certificate seems to centre on a desire to smooth their ability to fly internationally and/or to be driven by fear of denial of access to airspace.

On the first point I would invite them to reflect upon the fact that the United Kingdom has been able to field national teams round the world, and to have produced, especially in recent years, a significant number of World Champions, without its pilots having the dubious benefit of any licence at all. Europe Air Sports' concern cannot be just for the convenience of international competitors. We also have to look after the guy who just wants to fly close to his home airfield at weekends and who has probably not even heard of ICAO (International Civil Aviation Organisation).

The second concern – access to airspace – is admittedly critical. It is, like medical requirements, something that has the potential to disbar people from flying altogether. However, there is no logic to allowing fear of linkage between the two to drive recreational pilots towards near-professional medical standards. For a start (and I am speaking hypothetically here, not ascribing a position to any specific country) if a national authority wanted to find a reason to exclude the private flyer from certain airspace, it would find one, with or without the spurious excuse of medical requirements.

What is needed is a minimum entry level for a licence, supplemented, if necessary, to meet national circumstances. We must not fall into the trap of proposing or accepting the “highest common denominator” for the sake of any country where airspace access drove the medical standards. That approach has the potential to ground many pilots completely unnecessarily. EASA are well aware of the extremely low accident rate due to medical incapacitation in those countries where the standards are not fully ICAO or JAA Class 2 compliant, and the means of demonstrating compliance are less onerous for the pilot.)

I turn back now to the overall theme of my talk. Maintenance regulations have been proposed that would be far too onerous to meet any safety needs of recreational flying, and which ignore the way that various air sports are safely and inexpensively organised today. Happily, EASA are now listening to our point of view on this and have agreed to review the regulations with us before publication.

The proposals for the Single European Sky would have (and ultimately still could) greatly reduced the volume of free airspace available for VFR flight. The key issue has been the attempt to agree upon a common FL ZULU – the flight level that will in future define the boundary between regulated and unregulated airspace. This matter has been deferred until 2010/2012 at the earliest and it is possible that it will be off the table forever, in fact, and that the States will conclude, failing to arrive at a compromise, that FL195 will be the dividing line.

That is far more reassuring that the starting position, in which the concept was broadly towards maximisation of airspace requiring a mandatory air traffic service, with FL ZULU set as low as possible, the collateral effect of which would have been to stifle air sports activity.

Moderation of the proposed airspace structure, and long-term deferral of the most contentious issue, the setting of FL ZULU, was achieved through explanation, education, dialogue and negotiation. In this, as with the maintenance debate, the price of freedom is eternal vigilance. If air sports are not effectively represented from the start, damaging decisions can be made.

So, aeromodellers, for instance, if future legislation for UAVs (unmanned aerial

vehicles) is framed without input from informed representatives, it is quite possible that inappropriate law could accidentally spoil that innocent enjoyment of your hobby. This is not far-fetched, as I have attempted to illustrate. Who would have thought, for instance, that proposed new European laws on the use of trailers would harm gliding and ballooning? Or that proposals for new EU insurance regulations would set ludicrously and unrealistically high coverage requirements, that were inappropriate to the risk from light aircraft and unaffordable for the operators? These were two issues where EAS was actively involved in negotiating a more realistic position.

Never underestimate the propensity of the bureaucratic mind, if left unchecked, to find problems where none exist and to devise academic solutions that are unworkable in the real world. So, whatever your aerial activity, you need representation. That representation must not only be fully informed about all air sports, it must also be European. In the main, EASA does not want to deal with national organisations – they are helping to build Europe, remember.

That is where Europe Air Sports comes in. Our members are the National Aero Clubs and the European Sporting Unions. Those bodies provide delegates and technical experts, and our officials are democratically elected from within the organisation. We receive our input through the delegates, and through the Annual Conference and

‘The next couple of years will be formative for our long-term future. We are doing this work because we want all these marvellous air sports to be there for our children’

other gatherings. We are democratic and genuinely European. We are recognised by EASA and by Eurocontrol as the authentic and authoritative voice of recreational and sporting aviation in Europe. Importantly, we are also accredited at the European Commission. We have seats in all the key working groups and committees, and I believe that our input is well respected, and, judging by results, is influential.

No other organisation can, or does, do this, for our sector.

The only other organisation with any kind of ability to speak, Europe-wide, for light aviation is IAOPA (International Council of Airport Owner and Pilot Associations). But their primary focus is on the medium to heavy end of powered flying and business aviation.

Just as we have neither the expertise nor the mandate to speak about corporate jets or other forms of executive and commercial aviation, so IAOPA has neither the mandate nor the expertise to make the case for the lighter end in the form of sporting and recreational flying such as hang-gliding, gliding etc.

Our member organisations pay EAS subscriptions. I and my colleagues find it upsetting when we receive grumbles about this. Representation costs money, if only in travel and hotel costs. We have one paid part-time official (the Programme Manager) and one other officer receives a small honorarium, which in no way compensates for the effort that he puts in. The rest of us are volunteers. We give endless time and effort to this work. We travel by the cheapest means, stay in modest hotels and pay for our own meals. Our wives get angry with us for spending so much time on something that they could not care less about. We take nothing from the organisation for ourselves. EAS's annual subscription income is 130,000 Euros. We are representing over 600,000 aviators. That is less than the price of a cup of coffee per person represented.

That is why I and my colleagues feel hurt by, and have no patience with, grumbles about the subscription.

The main issues for 2006 will be:

Task Group MDM 032: “Regulation of aircraft other than complex motor powered aircraft, used in non-commercial activities” In its preamble, EASA notes the complaints of the majority of stakeholders that they are already over-regulated and do not want to be faced with the same situation when the OPS and FCL regulatory framework is transferred to EASA.

Accordingly the first task will be to develop a concept for the regulation of non-complex aircraft when not flown commercially.

The task group will then go on to address design, maintenance operations and licensing, including consideration of the creation of a European Recreational PPL and of the prospect that such a licence could be issued by Assessment Bodies. This is an exciting opportunity for our community and it is the duty of all of us who contribute to this work to do everything in our power to assist M. Probst and his Rulemaking Team to “set the bird free”.

A second important Task Group is concerned with the development of a European Permit to Fly/ Restricted Certificate of Airworthiness.

Europe Air Sports is strongly represented in both Groups and is also engaged in other dialogue, for example on Part-M (Maintenance) and Part 21 (Original Airworthiness).

We are also holding a joint Recreational Flying Workshop with Eurocontrol on December 1. This will match the very successful workshop we held with EASA on Maintenance last year.

One thing you can be sure of – we will do our best for you and for all the recreational aviation community.

The next couple of years will be formative for our long-term future. We are doing this work because we want all these marvellous air sports to be there for our children and grandchildren. We do not intend to fail them – or you.

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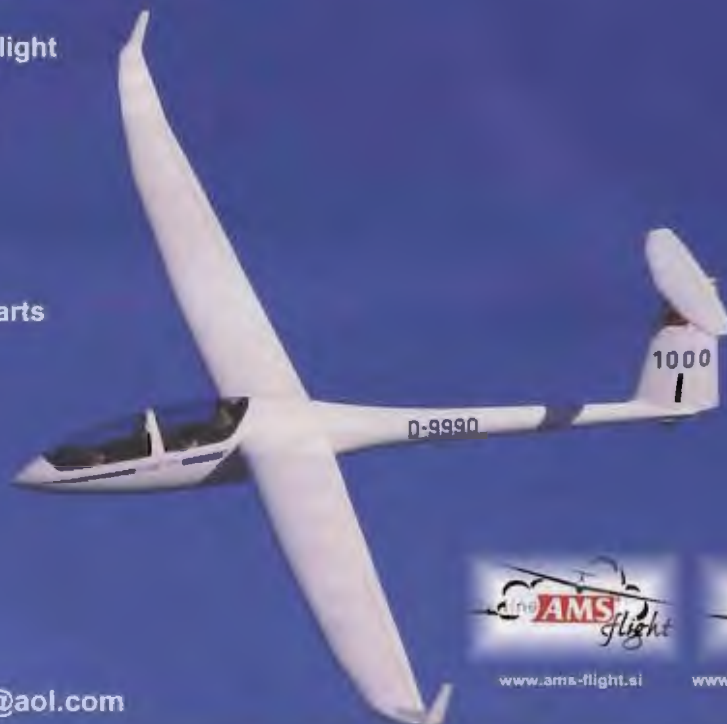
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Winter Wednesdays

Phil Newman (back) reports on how using the internet to support winter group flying led by **Dave Bowtell (front)** has paid dividends



MEMBERS of the Lasham Yahoo group, who get my weekly reports on Wednesday group flying, probably wonder what this man is on about. What's the point in encouraging people to hang around in 0°C and 15kt north-easterlies in a large field on the top of a Hampshire hill in the middle of winter? Surely only an idiot would choose to fly on gusty windy days, with the high probability that the chap in the back seat is going to do something to upset you? Surely no-one would choose to take a day off work with a 50:50 chance of not even getting off the ground?

Well, no, as Dave Bowtell decided last year. Dave is a Lasham pilot who instructs with the Wednesday evening summer group and on Wednesdays during the winter. Evening group flying made Dave realise that although people enjoyed the camaraderie of the evening groups, they stopped flying in winter. The result was that less experienced pilots, pre and post solo, spent half summer getting current, and the rest enjoying good soaring conditions. So only a quarter of the year was available for them to progress post-solo training, thanks to a reluctance to turn away from lift or to give up hard-won height gains for stall/spin and other training exercises. There was little opportunity to do work on the ground, such as preparing for written exams, and in any case there were so many distractions just outside the window!

Jonathan Ross writes: Several members of the University of Surrey Gliding Club joined the Winter Wednesday group. Adam Lindsay had an excellent start to his flying career. The small, friendly group quickly introduced him to launchpoint operation. I had already had around 20 flights before joining and went on to learn about air law, navigation, and Bronze. The University K-21 (431) was in regular use – on one day I did seven cable breaks! On non-flyable days we flew the simulator, and learned a lot of theory. The Yahoo group let us know what was planned, and gave Phil and Dave notice to organise instructors. Winter Wednesdays have probably been the most fulfilling times at Lasham for both of us, with a lot more learned than at weekends.

Mary Allen adds: I learned a great deal from the Bronze Badge study work, which has been really useful – especially when consolidated by my first cross-country flight with Dave, which was fantastic.



Winter Wednesday group flying at Lasham. "People really do run out to the glider to get a flight in!" says Phil

Early retirement and flexible working now make it possible for many people to attend for a regular, if not weekly, day or half a day to continue their training and progression throughout the winter, but many – including instructors – found committing themselves to time off only to have it wasted due to duff weather was very frustrating. Often, when the weather improved for a few hours later in the day, everyone had given up and gone home and the opportunity to fly was lost.

What was needed was better organisation to make sure there would be something to do on duff days, and better communication to match needs and resources.

And that was the stage Dave's thoughts had reached when he spoke to me early last September. My contribution to Winter Wednesdays is to use the Lasham Yahoo group to publicise the opportunities offered on Dave's group day. It started by publicising the aims – to give regular instruction to early learners and pre-solo pilots; to encourage

and help post solo pilots to progress through white and red cards and beyond, including aerobatics; to keep pilots of all levels current; and to run lectures to teach all subjects leading up to White Card written test and Bronze Exam. This, coupled with Lasham's flight simulator, three regular instructors (John Simmonds and Ed Lockhart have hardly missed a Wednesday!), tug pilots and others ensures that there is something to do for people who turn up – whatever the weather.

I am sure that the reports which I send following each Wednesday annoy those who stuck behind a desk, but the use of the net to regularly market Winter Wednesdays has seen those involved grow to a regular group of 10-20. It also works in reverse, as people email me in the early part of the week so that we have an idea of who is coming and what they want to do. This is what results in the better organisation!

Dave says: "There has hardly been a week when we haven't matched needs with resources. As the season draws on, we are starting to see some achievements clock up. Alex Popple became our first Bronze exam pass, and several others are now nearing the standard. Last month we took a group of 10 to a satellite strip to do real field landings, and many people have flown in the more challenging weather of winter to complete Red Card exercises".

From my point of view, as a post solo, not making very good progress but having had an enjoyable time in the last half of the summer, it has been a great opportunity. I've completed my air navigation exercise, field landing exercises and aerotow failure exercise – all things that would get in the way of soaring had I left them until later in the year. I am current and more competent and confident than this time last year, and am sure that I will achieve other targets before the start of the soaring season. ✈

John Gibson (right),

says: I joined not only to remain current during winter but to also improve my flying skills to set me up for 2006. The Yahoo group means you are able, at relatively short notice, to confirm your availability and what you would like to do, allowing instructors to plan activities suited to those who will be there, and the weather. The result – lots of challenging new flying experiences in winter weather and ground work to help progress through the theory. This really is joined-up gliding but it works only because of the co-operation between students and instructors. Many thanks to them for creating a hard-working high-achieving Group of like-minded souls.



The world's fastest glider

Paul Hailday



It's worth millions, starts its final circuit just below Mach 1 and the entire world switches on to watch it touch down. Debb Evans (left) asks pilot C Gordon Fullerton (right) about what it's like to fly the fastest glider on earth

I'M on the phone to a man who has pulled off some of the most impressive and memorable glider touchdowns in history. As test pilot and astronaut, it was C Gordon Fullerton's job to check the Space Shuttle's prototype landing systems, making him a member of an illustrious little club; along with William Shatner and Patrick Stewart, Gordon has captained the *Enterprise*. But I know this isn't Hollywood invention: I'm talking to someone who really has radioed up to astronauts standing on the surface of the moon. How cool is that?

His extraordinary flying career started, Gordon tells me, with the simplest of toys: paper planes. As a small boy during World War Two, he would receive presents of paper from his father, for Gordon to fold into aeroplanes. His father, unable to post anything else, little knew the impact of so humble a gift and Gordon admits even he never imagined how far it would take him. He is often asked if he always wanted to be an astronaut, but the word itself did not exist when he started aviating. Instead, he attributes his now-legendary career to good fortune. Once started, he couldn't stop; 70 this year, he still works as a civilian research pilot.

Gordon fulfilled his childhood dream by joining the US Air Force, applying to the Space Program not long after test pilot school. He arrived in Houston in October 1969 – just after the Apollo 11 mission – and, looking back, is remarkably measured about the experience. "It was diminished somewhat by the fact I was the new guy," he says. "My group was behind many people seniority-wise and it was clear that going into space wasn't going to happen in the very near future". In fact, it was about 12 years before that ambition was achieved, but while waiting his turn, Fullerton was at Mission Control during the lunar landings – something he relished. "People were landing on the moon and I was talking to them on the radio while they were walking around picking up rocks, so I had no complaints."

His main task was on the development of the Space Shuttle, which he was involved with from its very early concept days. This is where I see the first glimmer of Gordon the little boy who wanted to fly, rather than Gordon the cool and collected aviator. He remembers that first flight as if it were yesterday. "You don't forget something like that," he tells me. "There were two crews selected for the approach and landing tests,

which involved the Enterprise Orbiter being launched off the top of a 747 aircraft, and Fred Haise [of the *Apollo 13* mission] and I were on board for the very first launch. It was an exciting day out here at Edwards. We were gently hoping for the best and in fact it went very well."

Now we're straying into gliding territory, and I suggest that the Shuttle is basically the fastest, most expensive glider in the world. "Yes, that's true," Gordon readily agrees. "The first look at how it would glide, flare out and land unpowered was with the *Enterprise*, but that only happened for real after many, many practices. The first Shuttle simulator was built for the approach and landing tests and so we used it to really develop the simulator and the procedures." I can't help wondering what exactly that entailed. "For instance," Gordon explains, "what kind of a glide angle would it have? What air speed would be the best? Would you come down finals at high speeds where you have lots of time to flare and find the ground but as a result float a long way down the runway? Where should the aim point be so in case the shuttle doesn't glide as well as predicted you have a pad close so that you don't fall short of the runway but also don't float down and have a stopping problem at the end? As it turned out, the predictions of how it would behave were very close. We did our first test here at Edwards on a dry lakebed with about a 15-mile runway so we had no real problem staying on it."

I'm starting to think this has got to be the luckiest man on earth when Gordon reminds me that it wasn't all plain sailing. "The Orbiter has a computer controlled flight control system," he says. "When we launched off the 747 for the very first time one computer of the five that control it actually failed. Fortunately the system that votes out bad computers worked well and did just that. With a few procedures we were on our way, no trouble with the remaining four, but that was definitely unexpected and that's the kind of thing that you train a lot for in simulators. We'd seen that failure many times in practice so it was as though we'd been there before."

That strikes me as fair enough – most pilots will admit to the odd heart-stopping moment, but Gordon is exceptionally laid back, confessing that one of his favourite moments was probably his hairiest. After the approach and landing tests with *Enterprise*, he piloted the Space Shuttle *Columbia*, and then his

final mission as an astronaut saw him in command of *Challenger*. That was the first time the Orbiter had been operated around the clock. But about five minutes after lift-off they had a major problem...

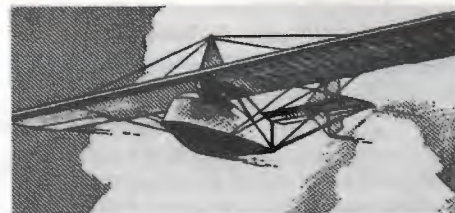
At this point Hollywood breaks in again and I hear the immortal line from *Apollo 13* "Houston...". Gordon brings me back to reality: "We had an engine shut down," he tells me. "It was after we were through the first stage where the solid rockets are jettisoned. We were on the three main engines and unexpectedly the centre engine shut off. And so that got everybody's attention. The Orbiter is pretty much hands-off automatic as long as everything works right but when engines fail a lot of the procedural necessities are up to the crew so it's a situation for which pilots particularly train, maybe half their training time on launch failures, and we had a situation for real. We got through the procedures. We changed the target for orbital insertion to a lower target and accomplished what's called an "abort to orbit". We burned every last usable drop of fuel in the external tank at what's called a "fuel depletion shutdown" and got just enough velocity to not have to do an immediate orbiting manoeuvring engine burn. And got into a lower acceptable orbit: it all worked just like the training. In fact the last major simulation we'd done before going down to the Cape was an abort to orbit case so we got to do it for real."

I'm a bit nervous about my next question. I want to know how the pure skills you learn when flying a glider translate into Gordon's way of doing business, but with about one per cent of his flying experience, it seems a bit impudent. Still, in for a penny... I ask anyway, and am pleasantly surprised by his reply. "Yes the general idea that you've got to do it right the first time and can't go around and try again certainly applies," he says. "Although the feel of soaring where it's silent, flying like a bird, which is delightful and thrilling, is not there when you're in a pressure suit in a pressurised compartment flying primarily with reference to instruments." OK, I'll give him that. And frankly, I don't think I'd want the pressure of the suit, the compartment or the world watching to see how my landings turn out.

Up until now, Gordon has been for the most part reserved, formal and softly spoken. Being married to a test pilot, I know quite a few men in this line of work, and the highly skilled ones like him are all the same. They don't need to jump on their own bandwagons, they simply have nothing to prove – their records speak for themselves. It's a tight-knit community and while it is friendly, polite and welcoming to outsiders, there's an unspoken boundary that they don't cross. But as Gordon coughs down the



The first test flight in the Enterprise wasn't Gordon's first go at gliding: "My first job after my degree," he says, "was with Hughes Aircraft at the Flight-Test department. A gentleman there had an old Schweizer TG-2 and he invited me to have a go up at Edwards. I took two or three flights, and actually thermalled up to 12,000ft. That was my first taste of soaring. Later on at test pilot school there was the opportunity to do some gliding and I actually have a glider rating on my pilot's licence." Incidentally, the TG-2, glide ratio 18:1, had considerably better performance than the Shuttle's 3:1 – which is half-way between a brick and the 7:1 Dagling pictured right Credits: (above) C Gordon Fullerton being interviewed by Debb Evans – NASA Photo by Carla Thomas; (above right) Enterprise, first tailcone-off free flight, at Edwards Air Force Base, October 1977 – NASA photo



phone at me for the umpteenth time, I see the first chink in that armour. I ask if he has a cold, and all of a sudden, he relaxes out of "extremely professional pilot" mode, and into "bloke with a cold". It feels as if the sun has come out. I can hear the smile in his voice as he admits he has got the sniffles, but says that right before I rang, he found an English Breakfast teabag so he's having that while we talk. English tea to go with the English interviewer. I then admit having had a cuppa myself, in a NASA mug that my husband brought home from a recent trip. There's warmth in his voice now as he asks if the mug makes the tea taste better.

Buoyed by this, I feel brave enough to ask what the Shuttle's glide angle is. "Well, generally about 19°," he says. "Normal ILS is around 3° so it's considerably steeper and it's very easy to see where you're gonna land." I may have been a solo pilot for only five minutes, but even I can appreciate the benefit of being able to see the landing area. And Gordon is quick to explain that the view can get even better. "It depends a bit on weight; during the approach and landing tests when we had a bit of a lighter Orbiter. Interestingly a lighter-weight aeroplane needs to glide more steeply to maintain the same speed so we had final approach with the tail gone off at up around 22°."

I'm now completely captivated: I can barely get my head around the skill involved in taking over from the computers at a ridiculous speed, knowing you've only got one shot at landing, dealing with a glider that has roughly a 1 in 3 glide angle (that's half-way between a brick and a Dagling) while the world's media point their cameras

at you in case it goes wrong. I have to ask what Gordon sees as the main challenges involved in putting it down safely. "Energy management is the number one thing you worry about," he says. "When you're starting at Mach 25 half-way around the world it's very important to be at the right speed and altitude all the way along so that when you get to your intended landing site you're not coming up short. Going too fast is just as bad, and you could end up whistling right by the landing airport at a high Mach number and never be able to get back.

"It's a little different in a glider; you would figure if you're getting back home, being high is no problem – you just circle to get the appropriate altitude – but the Orbiter is a different animal. Going too fast or too high is as bad as being short because it has a very poor turning radius and, for instance, if you arrive overhead at Mach 2 rather than the planned Mach 1 you probably don't have enough energy to turn around and get back to the airport. It takes so much energy to make a turn at high speeds you'd find yourself short on the far side of the airport, which is just as bad. Keeping track of that energy, which you can't do by looking out the window like in a normal glider – when you're out over the ocean there's nothing but water – you're dependent on the electronics and navigation systems."

So with such a lot to go wrong, I wonder the Shuttle pilots don't leave well alone and let the autopilot do the landing. Gordon says they tried that. "Until you get down to Mach 1 and up at 45,000ft over the landing airport you can take control manually and actually control the altitude of the airplane

and the direction it's going, but you have no way to do that accurately without reference to the navigation system, so usually the crew flies coupled into the autopilot and monitors the progress with the tools you have.

"Generally because all Orbiter landings so far have been controlled manually through flare and touchdown once going subsonic and in the vicinity of the airport, the pilot will take control manually to get a feel for the airplane and do the rest of the approach, line up, final approach, flare and touchdown with his hand on the stick. On STS-3 with Columbia there was a push to get to an autoland demonstration as soon as possible. On the third actual orbital flight I was with Jack Lausman and we were instructed to stay at automatic control all the way down till after the final flare and that's what Jack did. But that was a bad idea because he had very little time to get the feel of the airplane and we recommended that future crews not do that unless they have to." Enough said.

Clearly the Space Shuttle is very different from the ship I fly, the club K-21. But what is apparent from a fascinating half-hour discussion is that there are similarities, too. I might not be next in line to captain the Enterprise, but I will carry Gordon's wisdom about energy management into the cockpit with me. I'll run through eventualities more clearly in my mind and work harder at polishing my landings. That said, I'll also have a little smile, knowing that if I do get back with too much height, at least all I have to do is fly a few circles – I'm not racing into trouble on the far side of the field like Gordon and his fellow Shuttle pilots would be...

BGA weekend

Helen Evans reports on the British Gliding Association's 2006 annual get-together

More than 300 people attended the 2006 BGA Conference at Eastwood Hall, Nottinghamshire, on March 11.

The day began with a four 90-minute parallel sessions: an audience-driven talk about instrumentation, led by Dickie Feakes and Peter Purdie; a talk on flying faster in wave; BGA Communications Officer Keith Auchterlonie's workshop on running a media day for National Gliding Week; and a presentation from the manufacturers on designing the electric Antares motorglider. The wave session, led by Pete Harvey and John Williams, offered a superb insight into the opportunities and adventures to be had from wave soaring in the UK. Could the distance record soon be history? The BGA 1,000km trophy wasn't awarded this year but Pete and John certainly believe some big distances are up for grabs.

After coffee, around 230 people packed the hall to hear Andy Davis, Brian Spreckley and Pete Masson describe the hugely successful British Team Coaching operation and what coaching offers to the wider movement: "Unlock the potential and help your pilots live the dream," Brian urged. There are three vacancies on a BGA coaching course in Ontur for seven days this spring, starting on April 30. It is intended for pilots wanting help and guidance in how to coach cross-country pilots at club level (details from Debbie Carr, Debbie@gliding.co.uk, at the BGA office, or Brian at bgspreckley@compuserve.com).

Their talk was followed by a presentation by Brendan O'Brian on aerobatics.

After lunch came a re-run of the four parallel workshop sessions and a very useful impromptu session, facilitated by the BGA, linking gliding insurance underwriters and brokers with club officials to discuss current issues.

The formal business of the day, the Annual General Meeting, was next – David Roberts' last as chairman and John Birch's first as treasurer. The minutes of the 2005 AGM and the annual report were approved and John then presented the revenue account and balance sheet for the year ended September 30, 2005. He explained that the surplus, larger than budgeted, came about for two reasons: significant expenditure items, relating to changes in the regulatory environment, that have not happened as early as expected; and cost savings made by the BGA. He also explained that the revenue budget presented to the membership had been formatted differently to better reflect the BGA's areas of activity, and invited comment. There were no questions from the floor and the 2005 accounts were approved.

John went on to present the revenue budget for the year ending September 30, 2007. The BGA had rebuilt its reserves and the proposed budget aimed to produce a surplus of £20,000-£25,000; no change in any of the charges in that year was envisaged to achieve that. Again, there were no questions; the budget was approved; and the BGA's auditors were then reappointed.

A change to BGA Operational Regulation 7.10, to ready gliding for the coming EASA-driven change to a pilot licensing regime was approved: "All glider pilots are required to keep an adequate record of their flying to prove that they meet, as appropriate, BGA requirements for training and solo flying and



S&G's thanks go to Paul Morrison for covering the event: all photographs, supplied to tight deadlines, are his

for the renewal of ratings (See section 8.3 for logging flying in motorgliders)." BGA awards were presented (see photos, opposite) and David Roberts then announced that Phil Burton, Pete Harvey, Rose Johnson and Bruce Tapson had been appointed to the BGA Executive Committee before revealing the result of the election for his replacement as chairman: Patrick Naegell. Patrick paid tribute to David's effective leadership of the Association in a time of significant change, thanked him for his exceptional commitment and, in a break with protocol, asked him to officiate over the remainder of the AGM and the day. Current BGA Vice Presidents were re-elected and David was voted in as a new Vice President. He then formally closed the AGM by thanking all those involved in organising the day, all the exhibitors who attended and the sponsors of the free fleeces for participants,



Gilly Roberts presents Kay Draper with the California in England Trophy for a 702.4km flight



FAI Lilienthal Medal holder Ian Strachan – the first for the UK in 25 years – with, right, David Roberts (see p5)



The DG-1000T at the conference. DG MD Friedel Weber gave a keynote talk on the day



Above, from left: BGA Diploma holders: Tim Harrington (Windrushers) and Peter Poole (Surrey Hills)

Left: John Williams' Antares (see Another view of Antares, December 2005-January 2006, p31) came to the BGA Conference and is seen here on display, engine running. It was one of four gliders present: the DG-1000T, the LAK-19T and the BGA's new Duo Discus X, to replace the Duo broken last year in a road accident were also on show

Above right (from left): BGA Chief Executive Pete Stratten, Vice-Chairman Mike Jordy and Chairman Patrick Naageli at the conference



Joint Aviation Services. He concluded with thanks to everyone who had supported him during his time as Chairman.

The Caroline Trust then presented its Cadet of the Year award to Brian Cosgrove of Borders GC; the Ted Lysakowski Trust presented its awards (see photo, below) and the afternoon concluded with a presentation by Friedel Weber of the latest developments at DG Flugzeugbau.

After dinner and the presentation of BGA trophies (see right), Pete Harvey gave a great speech, in which he enthused about the new Grand Prix concept (entries to the British one in September can be made at www.gliding.co.uk/grandprix) – then ran a mini-version with radio-controlled toy cars and the help of the audience. The evening ended with music from an excellent band fronted by an instructor from Lasham.



Above: Carr Withall of London GC was awarded the BGA Silver Medal for his work over the last decade as Chairman of the BGA Airspace Sub-committee, establishing a highly influential position with external bodies to protect the interests of UK glider pilots. A volunteer, he has devoted an enormous amount of his own time to the pursuit of the BGA's objectives, to retain as much accessible airspace as possible in an environment of ever-increasing demands for controlled airspace: work that has led us to gain access as well as minimising losses. Without Carr, and his small team, it is unquestionable that glider pilots would today have far less accessible airspace for their sport than would otherwise have been the case

Awards and trophies: At the Association's Annual General Meeting, the first-ever BGA Silver Medal was awarded to Carr Withall (see picture, left), who chairs the BGA Airspace Sub-committee. BGA Diplomas went to Barry Walker (Bristol & Gloucestershire GC), Tim Harrington (Windrushers), Peter Poole (Surrey Hills) and Simon Waters (Channel) for their services to gliding. The Bill Scull Safety Award went to Arthur Doughty for his painstaking essential work over many years on the BGA Safety Committee. The California in England Trophy for the Longest Handicapped Distance by a female pilot went to Kay Draper (Lasham/Surrey & Hants) for a flight of 702.4km at 78.4km/h (actual distance 744.5km). The Chris Wills Vintage Glider Trophy for Best Performance in a Wooden Glider went to Andrew Turk (Bidford Gliding Centre). The De Havilland Trophy for the maximum gain of height went to Bruce Cooper (Booker) for 22,917ft at Aboyne in October. The Enigma Trophy for the National Ladder Open Section winner went to John Williams (Scottish Gliding Centre) with 17,530pts; the second place went to Roy Wilson (Deeside) with 14,476pts. The Frank Foster Trophy for the Fastest Handicapped 500km went to John Williams for 150.1km/h around 504.7km in an LS8 (see December 2005-January 2006, p32, for an account of this flight). The Furlong Trophy for the Longest Handicapped Triangle went to Ian Ashdown (Southdown) for 594.8km in an ASW 20. The Goldborough Trophy for the Highest-Placed Pilot in a Recent World Championships went to Mark Parker, Junior Standard Class World Champion. The John Hands Trophy for Outstanding Support in the organizing or running of competitions went to Harry Middleton for his work on the 2005 Junior Worlds. The L Du Garde Peach Trophy for the National Ladder Club Section winner went to David Masson (Lasham/Surrey & Hants) with 10,754pts, and the second place went to Jack Stephen (Angus) for 9,505pts. The Spitfire Trophy for the Junior Ladder winner went to Jonathan Meyer (Bristol & Glos) with 7,288pts. The Manio Trophy for the Fastest Handicapped 300km Trophy went to John Williams for the flight mentioned above. The Phil Lever Trophy for the Most Promising Junior Pilot went to Tom Smith. The Rex Pilcher Trophy for the Earliest Diamond Distance went to Z Goudie (Scottish Gliding Centre) for 521.8km at 81.6km/h on May 10. The Seager Trophy for the Longest Handicapped Distance in a Two-Seater went to Andy Aveling (Lasham/Surrey & Hants) for 745.8km at 90.6km/h on May 11. The Volk Trophy for the Longest Handicapped Out and Return went to Z Goudie for the flight mentioned above. The Wakefield Trophy for the Longest Handicapped Distance went to Jack Stephen for 829.4km at 81.3km/h on September 3 from Aboyne.



Above: Steve Jones (centre) presented Ted Lysakowski Awards to Simon Barker of Wolds GC (left) and Russell Francis of Bristol & Glos GC (right)



Above left: The Bill Scull Safety Award was presented to Arthur Doughty

Above right: Ron Bridges, who accepted a certificate signed by the BGA's Patron, HRH the Duke of Edinburgh, on behalf of the World Juniors 2005 organising team



2006 BGA Course Programme

Spring & Summer Courses from the BGA

Assistant Instructor Courses

- IC2 8th April - 16th April
- IC3 22nd April - 30th April
- IC4 6th May - 14th May
- IC5 20th May - 28th May
- IC6 3rd June - 11th June
- IC7 17th June - 25th June

Instructor Soaring Courses

- IS1 2nd - 8th July
- IS2 16th - 22nd July



For more information, or to book on a course, please contact the BGA office
Tel: 0116 2531051 Fax: 0116 2515939 E-Mail: debbie@gliding.co.uk Web: www.gliding.co.uk

picture courtesy of Mike Fox

How to find a gliding club in the UK

If you want to try a new site, this list and the map overleaf can help. Numbers refer to locations on the map. Contact details are updated at www.gliding.co.uk, where affiliated university clubs are also listed. Service clubs, which may restrict civilian access or membership, are in green below; only UK-based ones are included

ANDREAS GC (9): Andreas Airfield, Braust Farm, Lezayre, Isle of Man; send post c/o Cranstal Cottage, Port e Vullen, Maughold, Ramsey, ISLE OF MAN, IM7 1AN
secretary@manxgliding.flyer.co.uk / www.manxgliding.org

ANGLIA GC (10): RAF Wattisham
ecc.con@which.net / 01493 752232

ANGUS GC (1): Drumshade Farm, Roundyhill, Glamis, By Forfar. 01307 467676 / bob@carstyledirect.co.uk
www.angusglidingclub.ukf.net

AQUILA GC (11):
Hinton-in-the Hedges Airfield, Stearne, Brackley NN13 5NS
Clubhouse / launchpoint (w/ends) 01295 811056 / 07981 103159 info@aquilagliding.com / www.aquilagliding.com

BANNERDOWN RAFGSA GC (12): Keevil Airfield
Clubhouse / launchpoint (w/ends) 01380 870411 / 07931 556646 / al.stacey@bannerdown.co.uk / www.bannerdown.co.uk

BATH, WILTS & NORTH DORSET GC (13):
The Park, Kingston Deverill, Warminster BA12 7HF
01985 844095 / 07762 738318 / bwndsecretary@aol.com
www.bwnd.co.uk

BIDFORD GLIDING CENTRE (14):
Bidford Airfield, Bidford on Avon B50 4PD
01789 772606 / office@bidfordgliding.co.uk
www.bidfordgliding.co.uk

BLACK MOUNTAINS GC (86):
The Airfield, Talgarth, Powys LD3 0EJ
01874 711463 / blackmountainsglidingclub@hotmail.com
www.talgarthgc.co.uk

BOOKER GC (15): Wycombe Air Park, Marlow SL7 3DR
01494 442501 / office@bookergc.nildram.co.uk
www.bookergliding.co.uk

BORDERS GC (16): The Airfield, Milfield Wooler NE71 6HD
01668 216284
help@bordersgliding.co.uk / www.bordersgliding.co.uk

BOWLAND FOREST GC (17):
Lower Cock Hill Fm, Fiddlers Lane, Chipping, Preston PR3 2WN
01995 61267 / enquiries@bfgc.co.uk / www.bfgc.co.uk

BRISTOL & GLOUCESTERSHIRE GC (18):
Nympsfield, Stonehouse GL10 3TX
01453 860342 / office@bggc.co.uk / www.bggc.co.uk

BUCKMINSTER GC (19):
Saltby Airfield, Sproxtton Road, Skillington, Grantham NG33 5HL
01476 860385 / office@buckminstergc.co.uk
www.buckminstergc.co.uk

BURN GC (20): The Airfield, Park La, Burn, Selby YO8 8LW
01757 270296 / burnglidingclub@bigfoot.com
www.burnglidingclub.co.uk

CAIRNGORM GC (2): Blackmill Airstrip, Feshiebridge, Kincaig, Inverness-shire / 01540 651317
gliding@feshiebridge.freemove.co.uk / www.gliding.org

CAMBRIDGE GLIDING CENTRE (21): Gransden Lodge Airfield, Lodge Farm, Longstowe Road, Little Gransden, Sandy, Beds SG19 3EB
01767 677077 / office@glide.co.uk / www.glide.co.uk

CARLTON MOOR GC (22):
Carlton Moor, Nr Stokesley, North Yorkshire
01642 778234 (w/e) / enquiries@carltonmoorglidingclub.org.uk
www.carltonmoorglidingclub.org.uk

CHANNEL GC (23):
Waldershare Park, Nr. Whitfield, Dover, Kent CT15 5NH
01304 824888 / secretary@channelglidingclub.com
www.channelglidingclub.com

RAFGSA CHILTERN CENTRE (24): RAF Halton
Office 01296 696818 / engineering 01296 696798
manager@rafgsa.org / www.rafgsa.org

CLEVELANDS GC (25): Dishforth
www.dishforthairfield.freemove.co.uk
Clubhouse 01423 321642 / Mobile 07779 454124

CONNEL GC (3):
Oban Airport, North Connel, By Oban, Argyll PA37 1RT
01631 710428 / stewart@macfarlane.evesham.net

CORNISH GLIDING & FLYING CLUB (26):
Perranporth Airfield, Trevelas, Nr Perranporth TR6 9QB
01872 572124 / cornglide@aol.com
<http://members.aol.com/cornglide/page1.htm>

COTSWOLD GC (27):
The Control Tower, Aston Down Airfield, Nr Minchinhampton, Stroud, Glos GL6 8HT
01285 760415 / pat@cotswoldgliding.co.uk
www.cotswoldgliding.co.uk

CRANWELL GC (28): RAF Cranwell
www.cranwellgc.freemove.co.uk
Sat, Sun & Bank Holidays: 07970 869501

CROWN SERVICE GC (29):
Lasham Airfield, Alton GU34 5SS
01252 549861 / membership@csgc.org.uk / www.csgc.org.uk

DARTMOOR GLIDING SOCIETY (30):
Bumford Common, Brentor, Tavistock, Devon
01822 810712 / mark.cooper5@ntlworld.com
www.dartmoor-gliding.com/

DEESIDE GC (4):
Aboyne Airfield, Dinnet, Aboyne, Aberdeen AB34 5LB
01339 885339 / office@deesideglidingclub.co.uk
www.deesideglidingclub.co.uk

DENBIGH GC (87): Mold Road, Denbigh, Clwyd
01745 813774 / office@denbighglidingclub.co.uk
www.denbighglidingclub.co.uk/

DERBYSHIRE & LANCASHIRE GC (31):
Camphill, Great Hucklow, Tideswell, Buxton, SK17 8RQ
01298 871270 / dlgc@gliding.u-net.com
www.dlgc.org.uk

DEVON & SOMERSET GC (32): North Hill Airfield, Broadthembury, Honiton EX14 3LP / 01404 841386
godfrey@king@blueyonder.co.uk / www.dsgc.co.uk/

DORSET GC (33): Eyres Field, Puddletown Road, Hyde, Wareham BH20 7NG
01929 405599 / www.dorsetglidingclub.freemove.co.uk

DUKERIES GC (34):
Gamston Airfield, Gamston, East Retford (Not a postal address)
01909 731436 / adele@swannack60.freemove.co.uk

DUMFRIES & DISTRICT GC (5):
Falgunzeon, By Dalbeattie, Dumfries & Galloway
01387 760601 / kaz@paszki.freemove.co.uk
www.paszki.freemove.co.uk/ddgc.htm

EAST SUSSEX GC (35):
Kitson Field, The Broyle, Ringmer, East Sussex BN8 5AP
01825 840347 / stewart@forsterfamily.co.uk
www.sussexgliding.co.uk/

ESSEX GC (36): North Weald Airfield, Merlin Way, North Weald CM16 6AA (01992 522222); Ridgewell Airfield, Pannells Ash, Ashen, Ridgewell CO10 8JU (01440 785103)
egc@glidingclub.co.uk / www.essexgliding.org

ESSEX & SUFFOLK GC (37): Wormingford Airfield, Fordham Road, Wormingford, Colchester, CO6 3AQ
01206 242596 / Glide@esgc.flyer.co.uk / www.esgc.co.uk

FENLAND GC (38): RAF Marham
www.fenlandgc.co.uk / webmaster@fenlandgc.co.uk

FOUR COUNTIES (39): RAF Wittering
Bryan Delmar bryan.delmar@ntlworld.com / weekend mobile 07813 542884 / www.fourcountiesglidingclub.co.uk/

FULMAR (6): Easterton Airfield, Birmie, Elgin, Morayshire
Post: Stuart Naylor, Allt na Craoibh, Kellas, Elgin IV30 8TS
01343 890787 / stuart@naturalpower.com
www.fulmargliding.co.uk

HEREFORDSHIRE GC (40):
Shobdon Airfield, Shobdon HR6 9NR / 01568 708908
gliding@shobdon.com / www.shobdon.com

HERON GC (41): RNAS Yeovilton
CFI: derek@laleham-house.isnet.co.uk / 01935 863055

HIGHLAND GC (7): Easterton Airfield, Birmie, Elgin, Morayshire. Post to: Secretary, HGC, Drum Farm, Keith AB55 5NP
01343 860272 (weekends only)
admin@highglide.co.uk / www.highglide.co.uk

IMPERIAL COLLEGE GC (42):
Lasham Airfield, Lasham, Alton GU34 5SS
01256 384900 / iggc-committee@ic.ac.uk
www.sp.ic.ac.uk/gliding

KENT GC (43):
Squids Gate, Challock, Ashford, Kent TN25 4DR
01233 740274 or 740307 / soaring@kent-gliding-club.co.uk
www.kent-gliding-club.co.uk/



Over 1000m

500 - 1000m

200 - 500m

100 - 200m

0 - 100m

SCOTLAND

- 1 Angus (Drumshade) ▲
- 2 Cairngorm (Feshiebridge) ▲
- 3 Connel (Oban) ▲
- 4 Deeside (Aboyne) ▲
- 5 Dumfries & District (Falgunzeon) ▲
- 6 Fulmar (Easterton) ▲
- 7 Highland (Easterton) ▲
- 8 Scottish Gliding Centre (Portmoak) ▲

NORTHERN IRELAND

- 91 Ulster (Bellarena) ▲

Ridge site ▲
Service Club ♦

ENGLAND

- 10 Anglia (Wattisham) ♦
- 11 Aquila (Hinton-in-the-Hedges) ▲
- 12 Bannerdown (Keevil) ▲
- 13 Bath, Wilts & North Dorset (Kingston Deverill) ▲
- 14 Bidford Gliding Centre Ltd (Bidford) ▲
- 15 Booker (Wycombe Air Park) ▲
- 16 Borders (Milfield) ▲
- 17 Bowland Forest (Chipping) ▲
- 18 Bristol & Gloucestershire (Nympsfield) ▲
- 19 Buckminster (Saltby) ▲
- 20 Burn (Selby) ▲
- 21 Cambridge (Gransden Lodge) ▲
- 22 Carlton Moor (Carlton Moor) ▲
- 23 Channel (Waldeshare Park) ▲
- 24 RAFGSA Chilterns Centre (RAF Halton) ♦
- 25 Cleveland (RAF Dishforth) ♦
- 26 Cornish Gliding & Flying Club (Perranporth) ▲
- 27 Cotswold (Aston Down) ▲
- 28 Cranwell (RAF Cranwell) ♦
- 29 Crown Service (Lasham) ▲
- 30 Dartmoor Gliding Society (Brentor) ▲
- 31 Derby & Lincs (Camphill) ▲
- 32 Devon & Somerset (North Hill) ▲
- 33 Dorset (Eyres Field) ▲
- 34 Dukeries (Gamston) ▲
- 35 East Sussex (Ringmer) ▲
- 36 Essex (North Weald & Ridgewell) ▲
- 37 Essex & Suffolk (Wormingford) ▲
- 38 Fenland (RAF Marham) ♦
- 39 Four Counties (RAF Wittering) ♦
- 40 Herefordshire (Shobdon) ▲
- 41 Heron (RNAS Yeovilton) ♦
- 42 Imperial College (Lasham) ▲
- 43 Kent (Challock) ▲
- 44 Kestrel (Odiham) ♦
- 45 Lakes (Walney Island) ▲
- 46 Lasham Gliding Society (Lasham, Alton) ▲
- 47 Lincolnshire (Strubby, Alford) ▲
- 48 London (Dunstable) ▲
- 49 Mendip (Halesland) ▲
- 50 Midland (Long Mynd) ▲
- 51 Needwood Forest (Crass Hayes) ▲
- 52 Nene Valley (Upwood) ▲
- 53 Newark & Notts (Winthorpe) ▲
- 54 Norfolk (Tibenhams) ▲
- 55 North Devon (Eaglescott) ▲
- 56 Northumbria (Currock Hill) ▲
- 57 Oxford (RAF Weston on the Green) ▲
- 58 Oxfordshire Sport Flying (Enstone) ▲
- 59 Peterborough & Spalding (Crowland) ▲
- 60 Portsmouth Naval (Lee on Solent) ♦
- 61 Rattlesden (Rattlesden) ▲
- 62 Sackville (Riseley) ▲
- 63 Seahawk (RNAS Culdrose & Predannack) ♦
- 64 Shalbourne (Rivar Hill) ▲
- 65 Sherington (Sherington) ▲

BGA MEMBER CLUBS

KESTREL GC (44): Odiham

01372 458579 / chriswick85@hotmail.com

LAKES GC (45): Walney Airfield, Barrow in Furness, LA14 3YJ

07860 135447 / LGC@Braithwaite.freewire.co.uk
www.lakesgc.co.uk

LASHAM GLIDING SOCIETY (46):

Lasham Airfield, Alton GU34 5SS
 01256 384900 / office@lasham.org.uk / www.lasham.org.uk

LINCOLNSHIRE GC (47):

Strubby Airfield, Alford LN13 1AA
 01507 450698 / kelthbrown600@hotmail.com
www.lincsglidingclub.co.uk

LONDON GC (48): Tring Road, Dunstable LU6 2JP

01582 663419 / info@gliding.powernet.co.uk
www.londonglidingclub.co.uk

MENDIP GC (49):

Halesland Airfield, New Rd, Priddy, Wells, BA5 3BX
 01749 870312 (Thursdays and weekends only)
jpatrick.haxell@virgin.net / www.mendipglidingclub.co.uk

MIDLAND GC (50):

The Long Mynd, Church Stretton, Shropshire SY6 6TA
 01588 650206 / office@longmynd.com / www.longmynd.com

NEEDWOOD FOREST GC (51): Cross Hayes Field,

Maker Lane, Hoar Cross, Burton upon Trent DE13 8QR
 01283 575578 / nfgc@gogliding.co.uk / www.gogliding.co.uk

NENE VALLEY GC (52):

Marshalls Paddock, Ramsey Road, Upwood PE26 2PH
 01487 813062 / 07761 478417
secretary@nvgc.org.uk / www.nvgc.org.uk/

NEWARK & NOTTS GC (53):

TThe Club House, Drove Lane, Winthorpe, Newark NG24 2NY
 01636 707151 / 07956 637488
webmaster@newarknottsglidingclub.freemove.co.uk

NORFOLK GC (54):

Tibenham Airfield, Long Stratton NR16 1NT
 01379 677207
norfolkgc@hotmail.com / www.ngcglide.freemove.co.uk

NORTH DEVON GC (55):

Eaglescott A/F, Burrington, Umberleigh, North Devon EX37 9LH
 01769 520404 / www.eaglescott-airfield.com

NORTH WALES GC (88):

Llantilio Airfield, Gefnffordd Lane, Nr Llandegla
 (Not a postal address)
 07956 498078 / brianw@nwgc.org.uk / www.nwgc.org.uk

NORTHUMBRIA GC (56):

Currock Hill, Chopwell, Newcastle Upon Tyne NE17 7AX
 01207 561286 / info@northumbria.flyer.co.uk
www.northumbria-gliding-club.co.uk

OXFORD GC (57):

RAF Weston On The Green, Nr Bicester OX6 8TQ
 01869 343265 / secretary@oxford-gliding-club.co.uk
www.oxford-gliding-club.co.uk

OXFORDSHIRE SPORTFLYING LTD (58):

Enstone Aerodrome, Church Enstone OX7 4NP
 01608 677208 / os@enstoneaerodrome.co.uk
www.enstoneaerodrome.co.uk

PETERBOROUGH & SPALDING GC (59):

Postland Airfield, Crowland, Lincs
 01733 210463 / Chairman@psgc.co.uk
www.psgc.co.uk

PORTSMOUTH NAVAL GC (60): Lee on Solent

www.pnag.co.uk

RATTLES DEN GC (61):

Rattlesden Airfield, Hightown Green, Rattlesden,
 Bury St. Edmunds IP30 0SX
 01449 737789 / eaandskiddy@hotmail.com / www.ratair.co.uk

SACKVILLE GC (62):

Sackville Lodge Fm, Riseley MK44 1BS
 01234 708877

SCOTTISH GLIDING CENTRE (8):

Portmoak Airfield, Scotlandwell, By Kinross KY13 7JJ
 01592 840543 / office@scottishglidingcentre.co.uk
www.scottishglidingcentre.co.uk/

SEAHAWK GC (63): RNAS Culdrose

tony@trevonehouse.fsnet.co.uk / 01326 221670 / 07808 348450
 Launchpoint 07791 001384

SHALBOURNE SOARING SOCIETY (64):

Rivar Hill Airfield, Henley, Nr Marlborough SN8 3RJ
 01962 779333 / www.shalbournegliding.co.uk

SHENINGTON GC (65):

Shenington Airfield, Shenington OX15 6NY
 01295 688121 or 680008 / Gliding.club@virgin.net
www.shenington-gliding.co.uk/

SHROPSHIRE SOARING GROUP (66):

Sleap Airfield, Nr Wem SY4 3HE
 01939 232045 / c.racliffe@tesco.net
keithfield@welshwave.co.uk
www.welshwave.co.uk

SOUTHDOWN GC (67):

Parham A/F, Pulborough Rd, Cootham, Pulborough RH20 4HP
 01903 746706
gliding1930@tiscali.co.uk / www.sgc1.org

SOUTH LONDON GLIDING CENTRE (68):

Kenley Airfield, Caterham On The Hill CR8 5YG
 0208 763 0091 / suneyhillsgc@gmail.com
www.southlondongliding.co.uk

SOUTH WALES GC (89): The Airfield, Gwernesney, Usk

01291 690536 / Richard@3rickfield.freemove.co.uk
www.users.globalnet.co.uk/~tonyho

STAFFORDSHIRE GC (69): Seighford A/F, Seighford, Stafford

01785 282575 / office@staffordshiregliding.co.uk
www.staffordshiregliding.co.uk

STRATFORD ON AVON GC (70): Snitterfield airfield,

Beasley Road, Snitterfield, Stratford on Avon CV37 0tG
 01789 731095 / geoff@gbutler.demon.co.uk
www.gbutler.demon.co.uk/soagc/index.htm

SUFFOLK SOARING CLUB (71): Rougham Airfield, Bury St

Edmunds. Post: c/o 19 Roxburgh Road, Ipswich, Suffolk IP4 3HW
 01473 710160 / secretary@suffolksoaring.co.uk
www.suffolksoaring.co.uk

SURREY & HANTS GC (72):

See Lasham or www.surreyandhants.org.uk

THE MOTOR GLIDER CLUB (73):

Hinton-in-the-Hedges Airfield, Steane, Brackley NN13 6LX
 01295 812775 / Tompfit@aol.com

THE SOARING CENTRE (74):

Husbands Bosworth Airfield, Lutterworth LE17 6JJ
 01858 880521 / 880429 / office@thesoaringcentre.co.uk
www.thesoaringcentre.co.uk

TRENT VALLEY GC (75):

The Airfield, Kirtan In Lindsey, Gainsborough, Lincs
 01652 648777 / pwdewick@hotmail.com
www.tvgc.freemove.co.uk

ULSTER GC (91):

Bellarena, Seacoast Road, Nr Limavady, County Londonderry
 028 7775 0301 / tom.snoddy@ireland.com
www.gliding.utvinternet.com

UPWARD BOUND TRUST GC (76): Aylesbury/Thame

Airfield, Haddenham, Bucks, HP17 8LB (Not a postal address)
 01908 263493 / secretary@ubt.org.uk / www.ubt.org.uk

VALE OF NEATH GC (90): Rhigos Airfield, Mount Road,

Cefn Rhigos, Nr Glynneath, Mid-Glamorgan
<http://hometown.aol.co.uk/rhigosgliding/myhomepage/flying.html>

VALE OF WHITE HORSE GC (77):

Sandhill Farm Airfield, Shrivernham, SWINDON. Post: A Hadwin,
 34 Mereok Park, Three Mile Cross, Reading RG7 1NR
 01793 783685 or 01784-741192 / vowhgc@gmail.com
www.swindongliding.co.uk

VECTIS GC (78): Hangar No 1, Bembridge Airport, Bembridge,

Isle of Wight. Post: Alasdair MacLean, 140 St Edmunds Walk,
 Wootton Bridge, Ryde, Isle of Wight PO33 4JJ
 01983 883884 / alsadair@arnaclean.flyer.co.uk
www.vectisglidingclub.co.uk/

WELLAND GC (79):

Lyveden Airfield, Harley Way, Lyveden Road, Brigstock,
 Kettering, Northants / 01832 205237 / www.wellandgc.co.uk

WINDRUSHERS GC (80):

Bicester Airfield, Skimmingdish Lane, Bicester OX26 5HA
 01869 252493 / fly@windrushers.org.uk
www.windrushers.org.uk

WOLDS GC (81): The Airfield, Pocklington, York YO42 1NP

01759 303579 / office@wolds-gliding.org
www.wolds-gliding.org

WREKIN GC (82): RAF Cosford

Mobile: 07719 732746 (Sat/Sun) / Clubhouse: 01902 377255
www.wrekingliders.org

WYVERN GC (83): Upavon

Secretary: 01264 782812. Airfield: 01980 615283/07909 728903
secretary@wyverngliding.org.uk / www.wyverngliding.org.uk

YORK GLIDING CENTRE (84):

Rufforth Aerodrome, Rufforth, York YO2 3QA
 01904 738694 / yorkglidingcentre@btinternet.com
www.yorkglidingcentre.co.uk

YORKSHIRE GC (85): Sutton Bank, Thirsk YO7 2EY

01845 597237 / enquiry@ygc.co.uk / www.ygc.co.uk

We've tried hard to make sure the above details are as accurate as possible, but please do send any corrections to: editor@sailplaneandgliding.co.uk before April 11, 2006

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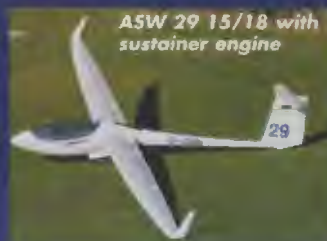
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WINGDROP ON THE WINCH

Your hand should be
on the release knob
at the start of a launch.
If you cannot
keep the wings level,
release immediately



Six eventful seconds

A few weeks ago this incident made the pilot in command use all his available flying skills to prevent an accident – and Paul Haliday captured it in one-second time-lapse photos. Gordon MacDonald examines what was happening

1, 12:56:08: The glider is not parked! The wing tip is on the ground and the main wheel of the glider is just about to leave the ground. Note that the ailerons and rudder are deflected to the left. Elevator neutral. The instructor has tried to release the cable but the knob slipped through his hand due to low-friction gloves and higher than anticipated release loads. If the cable was released before the wing touched the ground, the following would not have happened.

2, 12:56:09: One second later the pilot has now released the cable. The ailerons and rudder are fully deflected to the left, elevator down a bit. The glider has started to rotate around the lower wing tip. The upper wing is flying a lot faster than the lower wing, producing so much more lift that the ailerons are not effective enough to overcome the rolling motion.

3, 12:56:10: Ailerons, rudder and elevator appear fully deflected. The glider has turned 40° to the right of where it started. There is nothing more the pilots can do. They have to wait and see if the ailerons will be effective enough to level the wings, and hope they have enough airspeed to not stall into the ground.

4, 12:56:11: The ailerons start to work, but the glider is too slow to descend back through the wind gradient. Wind speed was 12-15kts, gusting more, from the left.

5, 12:56:12: Wings becoming level and attitude looking better. But is there enough airspeed to round out through the wind gradient? The glider has now turned 70° to the right since launch.

6, 12:56:14: Wings level, rounding out successfully. Luck saved this situation. The glider has turned more than 90° to the right and the wind is 110° to the left of the glider. The wind gradient was less as a result.

Some factors that are worth considering here:

- Crosswind component of at least 15° at the moment of launch. Makes a wing drop on take-off more likely.
- Student was unaware of the need to have his hand on the release. In a two-crew plane if a wing drops it is both pilots' job to release as soon as possible.
- The higher-than-anticipated release loads. With the cable being pulled forward the claw in the Tost release hook has to move further than if you release while the glider is in the full climb.
- The gloves used meant a tighter-than-normal grip was required on the release knob to overcome the lack of friction caused by the glove.
- Higher wind speed makes this more likely.



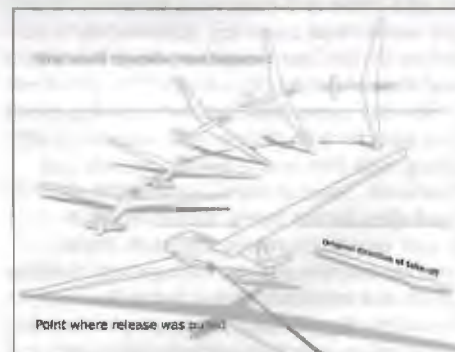
– High ground friction (soft earth) means when a wing tip touches the ground there is more friction, causing yaw and roll, which both make the situation worse.

– The wind chill factor for the day was -6°C. Very cold temperatures are known to slow down human reaction and response times. Bulky warm clothes do not help.

These accidents are rare and have been fatal as the front cockpit rotates around the wing into the ground, hitting it with very high energy. **Your hand should be on the release. If you cannot keep the wings level, release immediately. This holds for aerotows, too.**

A big thank you to photographer Paul Haliday, and to the pilots for being so honest, enabling us to all learn from what happened that day.

For the BGA Safety Initiative's tips on what every pilot should know about safe winching, outlining other important hazards, look at the December 2005-January 2006 S&G (p26) or ask an instructor or your Chief Flying Instructor.



To learn more of the theory on wingdrops, get hold of Don Puttock's article, *Time for lateral thinking*, in the February-March 2006 S&G (p20), from which the above diagram by Steve Longland is taken.

One team, one aim

Kelly Teagle decided to go to a British Gliding Team women's event at Bicester – perhaps the largest ever meeting of British women glider pilots – and now reports on what it was like

I MUST admit I was dubious when I first saw the advert on the BGA website for "female competition pilot development training". I had always believed that women and men should be equal in gliding – there being no major reasons for inequality – so why the need for a split?

On speaking to Liz Sparrow, the point of contact for the advert, the reasons became obvious. Approximately 90 per cent of glider pilots in the UK are male. Those females who do fly gliders tend not to go cross-country or fly competitions. The reasons for this aren't clear, but looking at it from a purely personal view, I believe that it is down to a lack of self-confidence, rather than a lack of motivation.

Liz told me that during the Women's World Championships last summer, the British Team discussed the lack of women flying cross-country and competitions, and wondered what could be done about it. The result was the Female Competition Pilot Development Training.

The purpose of the development training was to gather together like-minded female pilots, to offer them training, mentoring and the support of a group.

It's a fact that women tend to benefit more from being in groups than men, so why not use that to our advantage?

Liz received a large number of emails from women interested in joining the group, and a development day was organised, to take place at Bicester in January. Liz was to lead a session, followed by fellow British Team members Rose Johnson and Pete Masson.

The day came and Bicester's briefing room was packed with people – 31 women in all, along with Pete and a few boyfriends and husbands. Several more women sent their apologies for not being able to make it. It was very encouraging to see so many women in the room, including some notable pilots and members of the British Team. It was the biggest single gathering of female glider pilots ever to have been arranged.

We began with the usual introductions and each of us spoke briefly about our experience. Most of the women had flown at least one competition before, even if it was only at Inter-Club League level. All of us shared the desire to fly more competitions, and to do better in them.

To whet our appetites, Liz began with a



'I decided there and then that I should enter the Northern Regionals and try my luck'

talk on the British Team and how members are selected. She introduced Brian Spreckley's vision: "One Team, One Aim, One Logo", to encompass all members of the Team, whether male or female. The 'Aim' of the Team is, of course, to win!

She went on to describe the Women's World Gliding Competition 2005, which took place at Klix in Germany. The Team had a very good time, both on the flying and social side, and there were plenty of photos to prove it!

The thought of flying National and International competitions was very encouraging. OK, so it's unlikely that many of us would be good enough to make it onto the Team (and there are a limited number of places anyway), but it's definitely something worth aiming for.

In order to get there, it would obviously be necessary to improve our cross-country skills. Pete delivered a presentation entitled 'Flying Faster', which described the techniques, theories and skills involved in increasing your cross-country speed. Pete delivered the presentation with practised ease – he obviously knew what he was talking about. The major themes dealt with MacCready theory for speed-to-fly, and how

to maximise climb rate (with the net result of spending less time thermalling). Pencils could be heard madly scribbling notes throughout. I think most of us had writer's cramp by the time Pete was finished!

A short break for lunch was followed by a 'brainstorming' discussion, this time led by Rose Johnson, who is an Accident & Emergency Consultant by profession. She asked us to identify the skills, knowledge and personal factors which affect our gliding, and especially cross-country flying.

As a final category, she also asked us to consider fitness: i.e. what do we need to do to be fit for flying, and what factors can affect our fitness on any given day.

Of course, between us we produced an extensive list, and the mad scribbling of pencils began anew.

Finally, we divided into smaller groups and discussed our aspirations for the coming year. Most of the pilots in my group had flown at Regional level before, and other groups consisted of previous Nationals pilots, and even those who'd never flown a competition before. We decided that it would be great to have a 'Girlie Inter-club' – not out of sexism, but just as a bit of fun. After all, there's nothing to stop men from flying with us if they want to!

All in all, it was an extremely successful day. It was very encouraging to know that there are other women in the sport who are interested in cross-country soaring.

The main problem was that we all wanted to go soaring instantly, but it was only a wet and cold day in January!

I for one was very excited on the drive home. My husband and I talked incessantly about it – having listened to the whole day, he was just as fired up as I was! I decided there and then that I should enter the Northern Regionals and try my luck – after having done extremely badly in my first ever competition, it could only get better! I'm keeping my fingers crossed that it goes well, and I'm itching for some good weather so that I can put the advice from the Development Day into practice!

A few days later, Liz told me that she'd had lots of emails from other women in the group, telling her they'd decided to enter competitions too. All in all, a fantastic result for Liz, Rose, Pete *et al*, and the rest of us. Watch out boys, we're coming to get you!

Kelly (above, centre) flies an ASW 19B from Yorkshire GC, based at Sutton Bank in North Yorkshire. She started flying as a 15-year-old Venture Scout, and went solo at 16. She now holds Silver Badge, plus Gold Distance and Diamond Goal. She has recently qualified as a Basic Instructor, and hopes in time to be able to teach cross-country soaring to other pilots



Why women's development?

Liz Sparrow, British Team member and event co-organiser, with Rose Johnson, outlines why she got involved



IN NOVEMBER 2005 I posted a note announcing development training opportunities for female cross-country pilots; the response was stunning – and 29 pilots attended the first development day at Bicester. We set up a page on the BGA website to publicise future activities. This prompted various people – of all sexes! – to query whether this was appropriate for the BGA to be doing; perhaps not an unreasonable question. So, this explains what is being done, who is doing it, and why it's a reasonable thing to do.

She would say that, wouldn't she?

So, who am I to be writing this? Full-rated instructor, ex-CFI, British Team since 2002, my background is mucky engineering, and I'm used to being the "only woman this" or the "first woman that". Over the years, I've spoken to many women who didn't take my route to discover their reasons why.

It can be attitudes, it can be physical constraints – for example there were no ladies loos in one area where I first worked! But more insidious than physical barriers are the constraints imposed by society's expectations. If you aren't expected to do something, most people don't do it.

So I've found you can make a difference by setting people's expectations to include the possibility of things they had not

previously considered. For some women, this includes cross-country and competition flying. This is a huge generalisation – some don't find this an issue at all. And it certainly doesn't apply just to women.

What is it?

Firstly, a couple of "what-it's-nots". This is not a centrally devised initiative. This is not a BGA-funded initiative (with, I suppose, the exception of the cost of our website page): this is a small bunch of pilots who are helping another bunch of pilots.

We aim to encourage more women pilots into competitions and to develop the skills of those who compete. To do this, we're networking, role-modelling, objectives-setting, and offering competition training. Initial indications are of big demand for this voluntary initiative.



The meeting at Bicester in January is believed to be the largest ever gathering of British women glider pilots – unless you know differently? Pilots came from Aquila, Black Mountains, Booker, Bristol & Glos, Cambridge, Cotswold, Dorset, Lasham, London, Midland, North Devon, Oxford, Peterborough & Spalding, Shalbourne, Shenington, South Wales, Stratford on Avon, and Yorkshire

(Main picture: Pete Masson)

Who is doing this?

The British Team started discussing feasibility at the Women's Worlds at Klix, encouraged by British Team Manager Brian Spreckley. We want to make it more difficult for ourselves to qualify next time!

Why is it reasonable?

So, while gliding is theoretically a sport where men and women compete on equal terms, the small percentage of women in the movement – and the small percentage of female comp pilots – means that the chance of us coming up with the next world champion are small. These small numbers mean fewer role models, fewer leaders for women to follow. Thus it becomes important to set aspirations, and to include the possibility of competing at world level.

Once we approach parity of numbers, I won't continue to support separate women's initiatives. For now, my experience in other environments tells me that role modelling and active support are necessary to change society's expectations to include equality both of opportunity and take-up.

Will it work?

Look at the success that we've had with the similar initiative for Juniors.

Which brings me to two final requests – if anyone is prepared to sponsor this initiative, please get in touch! We give our time for free but it costs money eg to trail a Duo Discus to France and to pay entry fees.

We want the training to be available the person with the best chance of the next medal, not the person who can best afford it.

And if you are interested in keeping in touch with what we're doing, sign up for alerts on the BGA website at <https://www.gliding.co.uk/subscriptions/>

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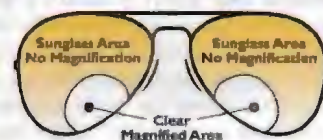
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NOTAM: a brief guide to getting airspace right...

An example
task



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Steve Longland



Mike Cross
explains how
to brief yourself
on airspace for
the area or task
you're flying

IT WILL HELP to understand a little of the International Civil Aviation Organisation NOTAM (Notice to Airmen) system. Part of the international NOTAM format is a line of code starting with the letter Q. At the end of the line is the geographic centre of the NOTAM and its Radius of Influence in nautical miles. Plot it on a chart and you get

a circle. If you intend to enter that circle the information may be relevant to you. So how, out of the many thousands of NOTAM in force at any time do you pick the ones that may affect you?

It's quite simple. Define the area you are interested in, and the UK AIS website will give you a list of the NOTAM that may affect you. Of course you could just get all of the NOTAM for one or more FIRs and scan through them but it's a lot less work if you filter out the irrelevant ones.

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Welcome Michael Cross

Narrow Route Briefing

Briefing ID	Briefing Criteria		
D6RED *	<input checked="" type="checkbox"/> SNOWTAM	<input type="checkbox"/> ASHTAM	<input checked="" type="checkbox"/> BIRDTAM
UTC Date of Flight	UTC Time of Flight	Departure Aerodrome	Arrival Aerodrome
YYMMDD 050720	HHMM 0905	EGBJ *	EGUY *
Traffic	UTC Validity Period (YYMMDD HHMM)		
VFR	from 050720 1130	to 050720 2030	
Purpose	exclude NOTAMs with effective date earlier than days.		
General + Misc	(Range 1-999, leave blank to include all)		
Flight Level	Narrow Route Width		
VFR FL *	20 NM		
Route			
DCT			

Above: part of the input screen for the Narrow Route Brief. Note: The briefing ID is something meaningful so it can be found later in the "Briefing Handbook" (saved briefings). The "Traffic" box has been set to VFR rather than IFR/VFR and the Flight Level box has been set to VFR, giving Surface to 12,000ft. The UTC Validity Period has been set to the task times rather than being left blank, which would have given 48hrs validity. The UTC Date and Time of Flight boxes have NO EFFECT on the validity period. Sywell (EGBK) and Turweston (EGBT) could be added as Alternates to avoid a trailer retrieve if it all goes pear-shaped

Setting up a geographic filter

The way to produce your geographic filter is to use the Narrow Route Brief. This is primarily designed to produce a brief for someone flying from one ICAO aerodrome to another, but it will suit our purpose admirably.

In its simplest form you tell it where you are going from to and it creates a box 10nm either side of the direct track, that is, a 20nm wide rectangle centred on your two aerodromes.

The width is adjustable; you can create a box of any width you like.

There are a few other refinements. If you don't tell it the validity period you want it assumes 48 hours from when you click "SUBMIT" but you can fine-tune this by entering whatever validity period you desire. It also wants to know what height you intend to fly at and will give you anything affecting Surface to 4000 feet above your selected Flight Level.

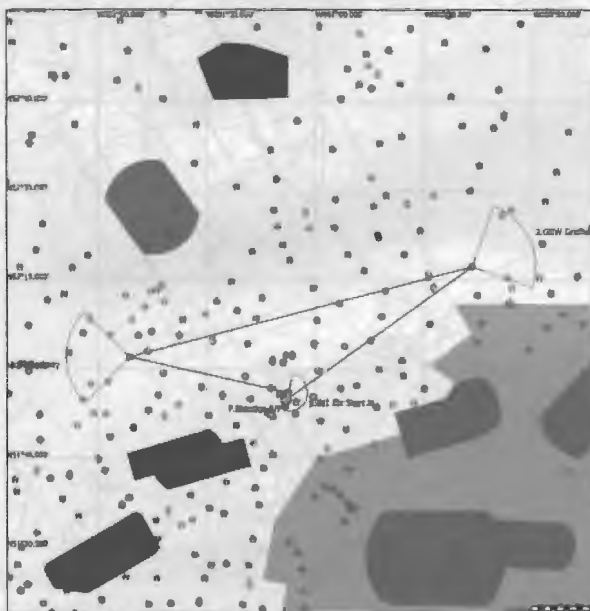
You can also filter out anything that is intended purely for IFR traffic and can filter out NOTAM classed as "Miscellaneous" by ICAO. As these include Navigation Warnings it's probably not a good idea.

Task Information

Bicester Regionals 2005 Day 6, Red Class

Type: Polygon with two points
Task distance: 231.9km

Style	Code	Points	Latitude	Longitude	Dis.	Crs.
Take off	BIC	Bicester A/F	51°54'43.80"	1°00'10.118"		
Start	BT1	BT1 Bk Start N	51°56'1.80"	1°01'57.537"		
1. Point	BRO	BROadway	52°02'2.82"	1°00'51.368"	51.20km	283°
2. Point	GRW	GRW Grafton Water	52°13'2.82"	1°00'17.170"	110.00km	59°
Finish	BIC	Bicester A/F	51°54'43.80"	1°00'10.118"	69.00km	120°
Landing	BIC	Bicester A/F	51°54'43.80"	1°00'10.118"		



The task above, flown at a regional gliding competition last year, is used to illustrate how you can use the AIS website to brief yourself on the airspace NOTAM that could affect your flying day

An example task

OK, let's get down to a real-world example. Here's the Bicester Regionals Day 6 Red Class Task from last year. Start and end at BICester, turning points at BROadway and GRW (Grafton Water). First thing to do is to draw out the task on a chart. Now find a couple of ICAO aerodromes that straddle the area of interest. In this case EGBJ (Gloucestershire) and EGUW (Wyton) are among several pairs we could use and neatly straddle the task course. Draw a line between the two. Ideally it should go through the area of interest but it's no problem if it's a bit to one side.

Now work out what's the furthest you're likely to stray from that line. In this case the point furthest from the line is Bicester, about 12nm.

Naturally you might stray beyond it in search of lift so add on a bit of an allowance, dependent on your own gut feeling and the wind direction (you'll probably head upwind more than you would downwind). So if Bicester is 12nm from our line we might add a bit and come up with 20nm. Set this figure as your Narrow Route Width as shown in the input screen.

You've now defined a box centred on Gloucestershire and Wyton and extending 20nm either side of the direct track between them (you can see an illustration of this on the air chart on the previous page). If you want to check the status of any licensed

aerodromes you might want to divert into, put them in as alternates and you'll get any aerodrome NOTAM affecting them (eg, runway closures, frequency changes, etc).

Once you've finished with the input screen click Submit and that's it. The brief will automatically be saved in the "Briefing Handbook" so you can prepare it beforehand and when you're ready simply go into the Briefing Handbook, find it and select and then click "Use" to get it back on your screen.

Official information sources:

UK AIS Website www.ais.org.uk
– the website of the United Kingdom Aeronautical Information Service, part of National Air Traffic Services. Back-up briefs in case of non-availability of the main site: www.nats.co.uk/operational/pibs

For an accurate and up-to-date check on Temporary Restricted Areas, Emergency Restrictions of Flying and Airspace Upgrades ring the AIS information line on 0500 354802

AIS Duty Officer: 020 8745 3450 or 3451 (24 hours)

Mike Cross is a PPL with a Bronze Badge. He has worked closely with UK AIS and NATS on making the AIS website easier to use. He flies a 1948 Luscombe 8E, based at Popham

Here are some NOTAM-related web resources that Mike Cross has come across. Inclusion on this list does not imply any kind of recommendation. It remains the pilot's responsibility to ensure they have all relevant airspace information before a flight.

Aviation Briefing Ltd www.avbrief.com
an "on-line resource of weather and flight briefing information for pilots".

NotamPlot www.notamplot.flyer.co.uk
"NotamPlot v2 is a software application for pilots that downloads and plots NOTAM on a map of the United Kingdom and Ireland."

NavBox ProPlan www.navbox.nl Flight Planning Software. "Print route specific METARs, TAFs, SIGMETs and NOTAM – requires current ProPlan database and internet connection"

NotamCheck www.notamcheck.co.uk
"NOTAM Check is a powerful Windows based NOTAM software which checks and plots NOTAM on to a map."

NotamPro www.notampro.co.uk
"NotamPro® is a PC programme, especially written for pilots, that will download the latest NOTAM from the Internet, decode any longitude/latitude co-ordinates and display them in an easy to interpret graphical form"

Update:

Carr Withall, chairman of the BGA Airspace Committee, provides a brief assessment of 2005 and the annual reminder on airspace knowledge that all pilots should have

DURING 2005, the BGA Airspace Committee was once again involved around the country as more regional airports started planning for controlled airspace. The Airspace Change Processes will take around two years before they are implemented and all the local clubs will be, or already are, involved once maps of the proposals become available.

The big change this spring and summer is to the Bristol/Cardiff area and the airway structure running down from Manchester to France, due to be introduced in March. The Bristol/Cardiff new Class D airspace date has slipped to April/May and it will NOT be shown on the new 1/2 million map (see map, overleaf). The bases of the airway N864 running up over Talgarth have been raised significantly although the bases of airway N862 have been lowered. Two wave boxes have been introduced where known high flights have been achieved (see map, overleaf). As part of the Bristol change there is a Letter of Agreement (LoA) that allows gliders to fly over Bath up to 4,500ft. This will be on the BGA website together with detailed maps. These changes also allow virtually all of Wales to become a wave flying area (effective from March 16) and the new areas are shown on the BGA website airspace section (www.gliding.co.uk/airspace). Access procedures are as at present.

Luton is increasing its Class D controlled airspace to the west with a block of airspace to the north of Aylesbury with effect from May 11. Bases will be 4,500ft and 3,500ft. This will not be on the new maps but a map will be put on the BGA website's airspace section. Edinburgh TMA is now Class D and a Letter of Agreement (LoA) to help gliders flying through the area has been written.

Aeronautical Information Service

Just a reminder, whilst we have some sympathy for General Aviation attempts at deciphering AIS information it is up to you all to ensure you are properly briefed before flying. As well as the article on the previous pages, the BGA website's airspace section has a link that gives a detailed help guide on how to obtain AIS and NOTAM information. The AIS website is www.ais.org.uk. Please pay particular attention to the Red Arrows displays; make sure you know when and where they are displaying. Vacate the display airspace in plenty of time. Check on the Red Arrows website www.raf.mod.uk/reds for

gliding and UK airspace

details. We are going to try and get the information decoded for you and place it on the BGA website but it is still up to you to keep yourself briefed.

Transponders

The UK has agreed that the date for all aeroplanes below 5,700kg to be equipped with Mode S transponder is March 2008. However until a suitable transponder is available for non-powered aircraft this date will slip and an exemption granted. The UK is still in the process of developing a low power (20 watt) Mode S transponder that is suitable for gliders. Until all ground radars are Mode S the problem with power consumption will still exist.

ICAO Airspace Classification

In November 1991 the UK adopted the system of international airspace classification developed by the International Civil Aviation Organisation. The status of a piece of airspace is denoted by a letter shown on all aeronautical charts, and it is this letter rather than the title of the airspace that determines the rules applying to it. For example, in the UK airways are Class A, but in other countries they may be Class E. In order to fly within Controlled Airspace, gliders will often require legal exemptions, and the availability and nature of these will vary from country to country.

Class A Controlled Airspace

Cotswold CTA
Davenport CTA
London CTR
London TMA
Manchester TMA
Worthing CTA

All Airways (except where they pass through a TMA, CTA or CTR of lower status).

As from November 6, 1997 NO airways can be crossed by gliders. Exceptionally, gliders may cross sections of Class A airspace by virtue of a Letter of Agreement (LoA), which will have very detailed procedures to be followed. These LoAs will be specific to a club operation. Camphill has an agreement for crossing airway B1. There is also an agreement for crossing airways B2 and B226 in Scotland, which applies nationally. However both these agreements require pilots to have read the detailed procedures and signed the BGA form which MUST be given to the CFI before undertaking a crossing flight.

Class B Controlled Airspace

The entire airspace over the UK above FL 245, comprising the Upper Airspace CTA and the Hebrides Upper Control Area (UTA), is Class B Airspace. Gliders are no longer allowed to fly in this airspace without

Right: new airspace at Luton – areas CT-8 and CT-9 on the map



Map courtesy of NATS

restriction. Specified areas have been agreed that can be activated by clubs using the procedure for glider operations in Class B airspace. The requirement for notice of activation of these areas has been reduced to two hours.

Class C Controlled Airspace

No UK airspace currently falls in this category. However as part of the European Airspace Strategy all airspace above FL195 will become Class C airspace on July 1, 2007. Class B airspace will no longer exist.

Class D Controlled Airspace

Formerly Special Rules Airspace. All Class D airspace requires an ATC clearance to enter and transit this airspace. Pilots will also be flying in VMC conditions. Any pilot wishing to enter it must: 1. Contact the ATC unit and pass details of aircraft's position, level and proposed track; 2. Obtain entry clearance; 3. Listen out on the frequency whilst in that airspace; 4. Comply with ATC instructions.

These rules apply to gliders in all Class D Areas: Aberdeen CTR/CTA; Belfast CTR; Belfast City CTR/CTA; Birmingham CTR/CTA; Bournemouth CTR; Bristol CTR/CTA; Brize Norton CTR; Cardiff CTR/CTA; East Midlands CTR/CTA; Edinburgh CTR; Glasgow CTR; Leeds/Bradford CTR/CTA; Liverpool CTR; Lyneham CTR/CTA; London Gatwick CTR/CTA; London Stansted CTR/CTA; London City CTR; London Luton CTR/CTA; Manchester CTR/CTA; Newcastle CTR/CTA; Scottish TMA; Solent CTA; Southampton CTR/CTA; and Teesside CTR/CTA

There is a form to complete after flying through Class D airspace. (BGA website, airspace section). All clubs do have copies. Completing this form will give the BGA and the CAA statistics on how many gliders have been granted clearances to continue their flights and identify any ATC units that may be unhelpful. There is NO restriction to asking any ATC unit in Class D for clearance to

fly through their area. Most are only "busy" for short periods usually early morning and late afternoon. Much of the traffic is transiting light aircraft or flying school traffic. The *Code of Conduct for Glider Flights through Class D Airspace* is still relevant as it sets out good airmanship practice. Most pilots who have asked for clearances obtain them from helpful controllers but a few have been refused.

With more education and visits from pilots to their local ATC unit, clearances should become the norm.

Code of Conduct for Glider Flights Through Class D Airspace

With the ever-increasing size of Class D areas the need to fly through them on cross-country flights will occur more frequently. Pilots can ask for a clearance to fly through ANY Class D airspace. The code set out below is a guide to good airmanship practice.

1. Glider pilots should plan to route their flights through Class D airspace when it is clear that there are advantages from so doing, such as better weather and shorter track distance.
2. Flights should try to spend the minimum time in Class D airspace. Pilots should avoid circling on or close to the runway extended centre lines, since this may well interfere with departing or arriving traffic.
3. Keep the controller informed if, for any reason, for example, massive sink, you have to change your planned course.
4. Good lookout is vital at all times, and glider pilots should be prepared to initiate avoiding action notwithstanding their right of way priority. Gliders are not always visible on radar.
5. Competition tasks should NOT be set through Class D airspace. Where a task leg has to be set close to Class D airspace the ATC unit should be informed. When possible control point(s) should be

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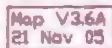
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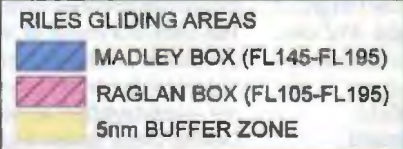
Above: new Class D airspace in the Bristol and Cardiff areas (see page 44 for details)

The Belfast TMA and parts of the Scottish TMA are notified as Class E and permits all aircraft (including gliders) to fly in this area without ATC clearance subject to maintaining VMC.

An Advisory Route (ADR) is a route used by airline-type traffic without the full protection of an airway. Although depicted only as a centreline on UK aeronautical charts it is nominally 10nm wide. Gliders may cross Class F airspace without restriction but caution should be exercised and a listening watch on the correct ATC frequency is advised.

This is the term given to the "open" FIR (Flight Information Region), which is the uncontrolled airspace not subject to any of the previous classifications.

Maps courtesy of NATS



A flight information service (FIS) may be provided by civil and military ATC units. Most small light aircraft talk to whoever will listen as they fly around the country.

Visual Meteorological Conditions

VMC conditions for Class D, E and in the open FIR below FL100 are: that an aircraft shall remain 1,000ft vertically, and 1,500m horizontally from cloud in a flight visibility of 5km. Below 3,000ft AMSL an aircraft shall remain clear of cloud in a flight visibility of 5km and in sight of the ground. Additionally when flying in the Open FIR below 3,000ft and below 140kts flight is permitted in flight visibilities of 1,500 metres.

Local Agreements

A number of local agreements exist, which modify the effects of some of the airspace listed above. Letters of Agreement (LoA) between a gliding club and a nearby airport can make airspace either more or less restrictive than described above, depending on circumstances. These arrangements are too numerous to list in full here.

Clubs that have LoAs must encourage their pilots to make use of the agreements. These agreements take up a large amount of time and effort to achieve and if the ATC authorities can see that they are not being used then we shall lose them. Use it or lose it! Copies of LoAs should be available from your club.

NOTE: LoAs will be published on the BGA website airspace section to assist pilots before they visit a new site that has an LoA. Sites with LoAs will be listed.

These agreements have developed over considerable time and the BGA Airspace Committee does not have the capacity for retrospective discussion of agreements already signed.

Aerodrome Traffic Zone (ATZ)

A glider pilot wishing to enter an ATZ must first call the aerodrome on the notified radio frequency. An ATZ is only active during the notified hours of operation of the aerodrome. A few ATZs may only be active at weekends and Bank Holidays. Many military aerodromes are notified as permanently active though in reality this is not the case. Nonetheless the ATZs must be regarded as active at all times. At an aerodrome with an Air Traffic Control (ATC) unit, that unit is able to give or refuse permission for any aircraft to enter the ATZ and to give clearances to take-off or land.

At an aerodrome with an Aerodrome Flight Information Service (AFIS) or Air/Ground (A/G) service, that unit is able only to pass information from which a pilot may judge whether or not it is safe to enter the ATZ or to take-off or land, i.e. the unit cannot issue clearances or withhold permission.

The following categories of aerodrome are protected by an ATZ: Government aerodromes and licensed aerodromes with one of the above types of service.

The ATZ comprises the airspace extending from ground level to 2,000ft above the level

of the aerodrome and within a radius of 2 or 2.5 nm of the centre of the aerodrome, depending on the length of the main runway. At aerodromes without ATZs, including most gliding sites, regardless of how busy they are, an itinerant aircraft may legally penetrate the airspace near and over the aerodrome, provided the pilot conforms to the traffic pattern or keeps clear of the circuit airspace, and observes the normal rules of good airmanship to avoid conflicting with other aircraft. For landing at aerodromes with or without ATZs, it should be noted that many are listed in the UK Air Pilot as "PPR", "PPR to non-radio aircraft" or even "not available to non-radio aircraft". PPR (Prior Permission Required) means that landing permission must be obtained in advance of the flight, for example by telephone. All military aerodromes are effectively PPR and will not permit landings by civil aircraft except where they have been pre-arranged, or in an emergency.

Military Aerodrome Traffic Zones (MATZ)

The rules applicable to the penetration of a MATZ are not mandatory for civil aircraft and the same applies to the Lakenheath Military Control Zone. However, radio contact is advised and inside every MATZ there is an ATZ, the rules of which must be observed.

A standard MATZ comprises the airspace within a 5nm radius of the centre of the aerodrome extending from the surface to 3,000ft above aerodrome elevation.

In addition, projecting stubs 5nm long and 4nm wide extending from 1,000ft to 3,000ft above aerodrome elevation are aligned with the approach to the main runway at one or both ends. Some MATZ may lack stubs or form part of a combined MATZ (CMATZ).

Prohibited and Restricted Areas

A Prohibited Area (P-prefix) is prohibited to all aircraft, whereas a Restricted Area (R-prefix) permits limited access by aircraft under defined circumstances, for example, landing at a nearby aerodrome. These areas include atomic energy establishments, security areas in Northern Ireland and sensitive military installations. Most Restricted Areas should be considered as prohibited to gliders but the following are exceptions:

The Restricted Airspace established around high-security prisons is applicable only to helicopters and R105 at Highgrove House, Gloucestershire, applies only to helicopters and microlights.

R313 at Scampton exists for the purpose of protecting the Red Arrows' display training. The area is a circle of 5nm radius extending to 9,500ft amsl and active only during Scampton's normal operating hours, which are weekdays and as notified by NOTAM. During these times, a glider may enter the area by permission of ATC Waddington.

Temporary Restricted Airspace

Major air displays such as Farnborough

or the Royal International Air Tattoo (RIAT) display at Fairford are protected by Temporary Restricted Airspace (TRA).

This year the **RIAT is again at RAF Fairford, on July 15-16, 2006**. Be aware that the TRA starts on July 12 and runs until July 17. **Farnborough Air Show is from July 17-23, 2006**.

Local gliding clubs usually negotiate limited access routes to and from their sites to enable non-radio gliders to continue operating but a glider equipped with suitable radio may fly in the area if it contacts the ATC unit designated by the NOTAM as the controlling authority.

Other types of Temporary Restricted Airspace are effectively closed to gliders. They are established to protect Red Arrows' displays throughout the country, plus major flypast formations, over events of political significance and over the sites of major disasters. The duration and extent of the restriction can be quite short and will be published by NOTAM.

Royal Flights (Purple Airspace)

At certain times Airspace to protect Royal Flights in fixed wing aircraft is established. This airspace is now referred to as Temporary Class A airspace. Details are available by using the Freephone service 0500 354802 or from AIS (military) on 01895 426153. NOTAM information of this airspace may be available should the flight be planned in advance. The AIS website www.ais.org.uk will have this information. NOTAM covering Royal helicopter flights have ceased. These flights are not protected by Temporary Class A airspace. Clubs should telephone daily in order to obtain information on Royal Flights. Gliders are not permitted to fly within Temporary Class A Airspace, even by contacting ATC.

Danger Areas

The UK is covered with Danger Areas of many types, shapes and sizes. They are active part-time, permanently or when notified by NOTAM. Full details will be found in the *UK Air Pilot*, RAC Section. The chart of UK Airspace Restrictions is also useful.

The UK Air Pilot lists only the type of activity most likely to be encountered, but in practice various hazards may be encountered manoeuvring outside the confines of the Danger Area, especially if it is a Weapons Range Danger Area.

Many Danger Areas contain areas over which flight is prohibited at times within the period of activity of the Danger Area by reason of by-laws made under the Military Lands Act 1892 and associated legislation. It is also worth noting that the *UK Air Pilot* does not list Danger Areas with upper limits 500ft or less above the local surface, to which prohibiting by-laws may also apply.

With these exceptions, flight through a Danger Area is not prohibited, but may be foolhardy.

For certain Danger Areas, most notably for

Salisbury Plain, a Danger Area Crossing Service, is available – call Salisbury Plain Control on 122.75Mhz. A Danger Area Activity Service is available in other cases: this should be viewed as a means of establishing the state of activity of a Danger Area at a particular time, not as a clearance to cross it. A convenient summary of these two services and the ATC units to contact is printed at the foot of the 1: 500 000 series CAA charts.

Particular care should be taken to avoid Weston on the Green (D129), which is used extensively for military paratroops' training. Brize Radar on (134.3) will confirm activity status.

Parachuting

There are many sites around the country and a few operate every day and are extremely busy. The list of parachute sites and the appropriate contact ATSU/AC for transit information is on the maps. The airspace is contained in a circle radius 1.5 or 2nm from the centre of the drop zone up to a maximum of FL150. You will NOT see a free-fall parachutist in time to take avoiding action. The BGA website airspace section has a link showing all parachute sites and radio frequencies. NOTE: this list adds another 0.5nm to the radius of drop zones. This is for pilots flying with moving map displays to receive a warning when within 0.5nm of a drop zone.

High Intensity Radio Transmission Areas (HIRTA)

These contain powerful radio emissions, which may cause interference with glider radios, electric variometers, electronic barographs and loggers. In particular, Fylingdales is so powerful that prolonged exposure may be injurious to health.

Areas of Intense Aerial Activity (AIAA)

An AIAA is airspace not otherwise protected by regulated airspace but where the activity of civil and/or military flying is exceptionally high or within which aircraft regularly participate in unusual manoeuvres. Gliders may penetrate these areas but in view of the hazards, a sharp lookout is essential.

Military Low Flying System

Low flying by high performance military aircraft takes place in most parts of the UK up to 2,000ft agl, with the greatest concentration between 250ft and 500ft. A chart is available denoting the system (*UK Air Pilot*, RAC Section). Most gliding sites are notified to the MoD, which affords them the status of a Military Avoidance Zone, usually with a radius of 1.5nm.

Radar Advisory Service Area (RASA)

A RASA is an area of airspace in which a pilot may, if he/she so chooses, avail him/herself of the services of a radar unit. There is no requirement to do so, and a

glider pilot should not assume that other aircraft are being separated from him/her, nor even that the radar unit is aware of the glider's presence.

The Airprox System

Hugh Woodsend of the BGA Airspace Committee is now an official on the UK Airprox Board and thus can inform its deliberations if any gliders are involved in an airprox. An airprox may be filed by a pilot who considers his flight to have been endangered by the proximity of another aircraft. All airproxes are investigated by the United Kingdom Airprox Board, whose deliberations are confidential so as to preserve anonymity. The purpose of a UKAB investigation is to determine what lessons can be learnt, not to take punitive action.

Prompt airprox reporting is vital if the other aircraft is to be traced. If in radio contact with an ATC unit report to them at once, or if this is not possible, telephone soon after landing. Call AIS (MIL) at LATCC West Drayton on 01895 426153, who will start tracing action at once and inform the Airprox Board. Follow this up with a written report on form CA1094 to the UKAB within seven days. Always use GMT (UTC is the same) in reports. Every club has been issued with this form.

UKAB can be called in working hours on 01895 815125 or faxed on 01895 815124. Address: The Director, UKAB, Hillingdon House, RAF Uxbridge, UB10 0RU.

If you are filing an airprox, or suspect that one may be filed against you, then please also contact: Bruce Cooper 01628 521360, or email bruce.cooper68@virgin.net or Carr Withall 01442 862577, email carrwithall@btinternet.com or Hugh Woodsend 01993 830588, email hugh_woodsend@compuserve.com as soon as possible. If carrying a logger please keep the trace. The use of traces may well provide evidence against exaggerated claims.

Use of Radio

A glider pilot possessing a radio operator's licence (R/T Licence) is entitled to use all the available aeronautical frequencies of a 760-channel radio. This permits seeking access to the following types of airspace that may be otherwise closed to gliders: the new Class B airspace areas, any Class D airspace and Aerodrome Traffic zones, some types of permanent and temporary Restricted Airspace and some Danger Areas.

Radio cannot be used to request entry clearance into Class A airspace (except by special arrangement).

All clubs have a copy of where and with whom one can take the R/T licence test. The licence will be valid for ten years.

Future Airspace Concerns

Exeter, Coventry and Finningley (now Robin Hood airport) have started the process for obtaining Class D controlled airspace. We shall be involving all the local clubs to ensure that gliding can continue with the

least impact possible. We unfortunately cannot stop the growth of the low-cost airlines.

Maps

After more powered aircraft and helicopters have been reported flying over gliding sites when winch launching is taking place the wording 'intense gliding activity' has been put back on the aviation maps for sites that have been most affected.

There is much useful information at the bottom and side of the map that can greatly assist on cross-country flights: for example, ATZ frequencies, parachute site contact frequencies, Danger Area activity, etc. With ever-increasing numbers of gliders and light aircraft flying around it is essential to use every bit of airspace possible. This can only be achieved if the correct frequency is immediately to hand when you wish to inform airfields that you are likely to fly over or through their zone. See BGA website Airspace, Charts, for dates of new maps.

Airspace Infringements

Last year several pilots were penalised in contests for minor airspace infringements due to their not having the correct airspace shown on their map display. Please ensure that you have the up-to-date GPS airspace data downloaded and installed. Also have the latest map with you in the cockpit. If due to the difficulty of trying to stay airborne one drifts into controlled airspace then PLEASE call the ATC unit and apologise, giving your reason for the intrusion. They DO NOT CARE if you do not have an R/T licence but they DO CARE if the airspace that is in their control is infringed. With the requirement to obtain an R/T licence to fly within Class D airspace, pilots should become more confident in talking to other airfields that they may be flying close by. A brief courtesy call is welcomed by most controllers and will reinforce the position that we are "professional" pilots.

Finally, if you're lost...

Remember if you are truly lost and worried about infringing controlled airspace, call on the distress frequency 121.5. This service can very quickly find an aircraft as long as it is about 2-3,000ft and South of Manchester.

References

The information in this article is only a brief synopsis of the airspace rules as they affect glider pilots and is believed to be accurate at the time of writing. In case of doubt authoritative references should be consulted. These are: *Air Navigation Order 2005* and *Rules of the Air Regulations 1996*. BGA *Laws and Rules for Glider Pilots*, 15th edition, April 2005, is also of use.

Abbreviations: CTA = Control Area; CTR = Control Zone; TMA = Terminal Manoeuvring Area (the lower limit of a CTA or TMA is an altitude or flight level above the surface, whereas a CTR extends to ground level).

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Young blood

Airline pilot Andrew Perkins, had three Diamonds at 21 and was the youngest-ever BGA Regional Examiner at 22. He's been sharing his passion for the sky by telling Debb Evans why he glides...

How did you start gliding?

I started at the Upward Bound Trust, which was founded by members of the Glider Pilot Regiment after World War Two to teach 16 to 21-year-olds to fly. My parents both glide and at three years old I had my first flight with my mum and dad in a T-21. After many years of driving tractors in a somewhat wild fashion and racing hundreds of paper aeroplanes from the top of a winch launch (Only the T-31 landed before the paper aeroplane) I soloed on my 16th birthday in February. Rather chilly in a T-21 and very quiet – I'd flown more than 450 flights before my first solo.

What next?

I became an assistant instructor during my gap year and worked at Booker for the summer as a course instructor. The number of times the dynamic team set off on cross-countries after work at 17:30hrs. As a result all nearly landed out daily but just somehow seemed to make it back most days. Anyway, I enjoyed it and found teaching rewarding, ending up as Deputy CFI. This in turn led to assisting on refresher courses and helping Dave Bullock on several BGA instructor courses. From there I became the youngest-ever BGA Regional Examiner. I think that as it stands Matt Cook and I are the only examiners under 30!

What about racing?

Lots of adventures. The guys hitch-hiking with parachutes. Gliding, landing out, winching my trailer out of the ditch with a tractor and lots of rope and then going clubbing in Exeter all in one afternoon (a long story but a good one...)! Playing tennis with a gorgeous blonde within 10 minutes of landing. I could go on.

If you have never been, you must go. When I get more time I will be back racing.

My time as a Junior is probably the largest single factor in why I glide. Looking back over all my flying I have learned most from flying Junior competitions. The brilliant thing



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Above: Andrew Perkins, 27, who flies from Booker
Right: Andrew's shot of New Zealand's Mt Cook
— one highlight of his gliding career. Others include
ice-creams in a T-21 — and tennis with that blonde...



about competing is flying on the days you wouldn't possibly imagine getting out of bed early, let alone flying — and then pushing yourself to fly efficiently to gain the most from the day as quickly as possible. And being able to make direct comparisons between your flight and others in the same sky accelerates your learning. The daily de-briefs at the British Junior Nationals, pioneered by Justin Wills, consolidating the process. Combine this with some of the greatest outgoing fun people in the country, wicked and wild parties and you'll start to appreciate why the Juniors is so successful.

Having got my hands on an ASW 28 for the 2002 British Junior Championships I came to form, earning a place on the Junior British Team for 2003. It was a great honour representing Great Britain. The whole world wanted to know what the "Brits were up to." Exciting, demanding flying and a lot of fun. Racing in wave, laughing at the French, spending an hour at 1,000ft with four other gliders whilst the day re-cycled, watching your trailer pass underneath you into the mountains at 7pm with 100km to run to the third turn, driving through Slovakia watching Matt Cook's trailer pop open. All amazing experiences.

Had any close shaves?

Well, as Matt Cook will testify, he nearly staged a rescue mission to retrieve me from a mountain ridge in Slovakia. The image of Cookie crash-landing and running a mile uphill to rescue me still makes me laugh raucously. A misjudgment to cross a cloudstreet took me from an 8,000ft cloud-base to treetop level in about two minutes! Fortunately the trees parted and an 8kt climb materialised from rather low down back to cloudbase. Quote from Matt Cook: "Amen."

Any genuine final glides?

I have found myself closing the vents and holding my breath in an attempt to prevent unnecessary movements on the controls. A little marginal. My most memorable glides

are from the British Junior championships. Leaving a weak climb at 1,800ft about 70km out and finding nothing but pull-ups all the way was special. As was leaving Rugby 50ft below glide but with a feeling that it was possible to get home. It was, but that 50ft would have been helpful.

You've just been in NZ: what's it like?

Where to start? For me, this is probably the best gliding adventure playground in the world. There is something magical about flying around snow-covered mountains and creeping the glider gently into untouched domains before blasting away at high speed. I have just been with the *glideomarama.com* team flying over the stunning Southern Alps of New Zealand. The striking blue glacial melt waters, the inhospitable terrain of the Shotover gorge with its narrow twisting valleys and jagged terrain. The browning tussock, shingle ridges and steep shear faces of the main divide all provide superb and wide-ranging soaring. Apart from the diverse scenery the variety of weather in New Zealand provides the most extreme and changeable conditions I have seen. Every source of lift can be used in a single day. One day I took a thermal from 1,000ft, crossed over and ran a ridgeline for nearly 100km to a sea breeze and then glided out over the sea to Shag point. From here I ran the wrong side of the sea breeze convergence (whoops) back into the McKenzie Basin, soared rotor thermal into wave to 13,500ft — 30 minutes later I was more than 50km further west, overhead Mt Brewster on the edge of the divide and within spitting distance of the west coast. I could probably write an entire book on adventures in New Zealand, but I won't spoil it. You should see it for yourself...

And your best memories so far?

Flying over and down glaciers. Ridge soaring Mount Cook with the sun setting. Freezing to death at 6,000ft in the T-21 in shorts and T-shirt. Flopping into the Castaluccio Basin

a mile high and then climbing in one beat to the top of Mt Vittore. Almost landing in the lakes of New Zealand's Fiordland. Pulling out the cables with the tractor at the Upward Bound Trust. Ice-cold beer presented by Hilary on her arrival at every outlanding field. Landing away for a party and gliding home the next day. Climbing away with a farmer and herd of cattle looking down on me and seeing the farmer fall over as I climbed above them. Watching Luke Roberts head straight for me at 400ft and reminding him not to fly into me! Gliding through the snow. Ice creams melting everywhere in the T-21 as I was thermalling. Parties 'til dawn at Bicester, Lasham, Bidford, Nympsfield, Aston Down.

What are your future ambitions?

For the moment I want to explore more areas of the world and fly in some unique conditions. I would also like to see gliding develop in the public eye and to grow as a sport. To this end, I am working with The Air League and the BGA to promote involvement in aviation by young people nationwide. The new gliding scholarships launched this year intend to open up the world of gliding, glider racing and aerobatics to enthusiastic young people. Apply today at www.airleague.co.uk

Where does gliding's future lie?

There are huge challenges ahead. However, ideas such as the glider Grand Prix are a way forward. It's a great initiative — an awesome sight to see firsthand. In-cockpit views and real-time tracking give a stunning insight to the way we race and where we go in gliders. If this format can be encouraged and opened to all to qualify rather than just those already at the top of gliding, we might just have cracked a way to put gliding in the public eye, ensuring it flourishes and enjoys an injection of renewed enthusiasm and young energy.

So why do I glide? I think I have said enough...

When liberation day came

John Weddell of East Sussex describes the best moment of his flying career to date – achieving two legs of his Silver after a frustrating summer-long wait

DURING my 35 years of commercial flying I experienced quite a few memorable moments, some good and some not so good. However, all were eclipsed on Saturday, September 17, 2005.

I had ticked all the boxes for the BGA Cross-Country Endorsement way back in March. In May I spent a frustrating week at Husbands Bosworth trying to achieve Silver tasks but the weather had been unkind.

Since then, I bought a share in Adrian Lyth's Discus at my home club, East Sussex, and spent as much time as possible getting used to the new glider. It's one thing to land out but I did not wish to spoil Adrian's trip to Serres in July by damaging the glider before he was due to go.

I read all the books I could find about cross-country flying and waited for the right day. Strangely, the more I wanted to get to Challock – about 60km away from Ringmer, the more apprehensive I became about actually doing it.

The possibility of landing out was a concern but that was tested in June. I had decided to go for the Silver duration but in a rush of blood to the head found myself out of gliding range of the field. The cloud I was so sure would provide lift didn't. Luckily, I had checked I was in position to land out at a local airfield if it didn't work out, so although the workload was high it was a reassurance of sorts.

I'm not sure Adrian felt the same as he looked down to see the lonely Discus on a deserted strip!

After the Discus returned from France it was all systems go for Challock. I planned the route, marked up my map and regularly checked the NOTAMs but the conditions never seemed right. As time went on, self-doubt set in. Others were getting away while I just did circuits. While I struggled to stay aloft for 30 minutes, others cruised about for an hour or more. I wanted to go but balked at the thought of flying out of gliding range of Ringmer. The more I thought about it the worse it seemed to get.

I nearly didn't go to the field at all on that fateful Saturday: I was going away for three weeks in a couple of days' time and still had loads to do beforehand. But the forecast was reasonable, so why not?

It was Adrian's day for the Discus so I jumped into the little Morris Traveller and set off for Ringmer. I had only the

bare minimum for gliding with me, since I wasn't intending to do very much.

On reaching the field it was obvious that it could be a good day.

Private gliders were being rigged and maps were being studied. Talk of BGA turn points and setting tasks filled the air.

No sign of Adrian, so I rigged the Discus and sent him a text to find out his plans.

Back came the reply: "She's all yours, busy today".

I diffidently approached deputy CFI Steve Barter to ask whether he thought it was on for Challock. "Definitely!" was the reply. "Get on with it!"

The duty instructor, Randall Williams, encouraged me further – "Don't forget to take the claim form and get it signed at Challock. Get an aerotow back to within gliding range – Heathfield would be good. Let me know when you're ready to go."

I hate being rushed, especially where aviation is concerned, but today I had to get moving.

My first job was to collect the gliding equipment I had left at home and change the cars over so I had a proper retrieve vehicle. Then I checked the NOTAMs, the upper wind and filled the camelback. The GPS was nowhere to be found. After a frenzied search I gave up and resigned

**'Now it was decision time.
To go or not to go.
Cut the apron strings or stay
secure within gliding range'**

myself to map reading. Not something to look forward to! No more time to spare – must get back to the field.

The Discus looked very forlorn on my return. Everybody else was downfield or airborne and I should have created time to reflect. Instead, I continued to rush about getting ready. I arranged a retrieve crew – Phil Williams and Val Phillips are very long suffering and agreed to come to get me despite the prospect of driving a Wally Wagon. I remembered to tell them where the ignition key was hidden, and headed off to the launchpoint.

Randall was beginning to wonder where I had gone! I am very grateful to him for his final briefing. "You might not get away first time," he said. "Keep high and remember those landmarks we discussed."

Landmarks? I could hardly remember which way was east!

Did I want the second cable or would I wait? The momentum carried me on; I felt enough time had been wasted so I strapped in and did the checks. No time for second thoughts... one last deep breath!

Not a high launch but into weak lift.

I stayed near the circuit this time and gradually climbed up to 1,500ft. Not high enough yet but the clouds looked good around the field so I stayed near the circuit and continued up 3,500ft. It certainly got easier once I was above 2,000ft.

Now it was decision time. To go or not to go. Cut the apron strings or stay secure within gliding range. The streets looked good and I could think of no real reason to wait any longer except devout cowardice.

Fingers crossed, it was time to go. Check the compass and head for Darwell: that should keep me clear of airspace and the dreaded Headcorn parachutists.

There was a 10kt headwind component according to the forecast so I decided to fly between the thermals a shade faster than best glide, about 60kt. I found that although I was losing height gradually, Darwell Reservoir was definitely getting bigger. I heard the vario tone change, I was climbing under the street, the books were right and what's more, I was doing it!

It was all working out as Randall had told me. Follow the street, keep on track and keep high. I looked back towards Ringmer while I circled again, I couldn't see it. Was I high enough to get past Burwash? Should I go back? Where was a suitable landout field?

Too late for doubts, I was committed.

Lower the nose, 60kt, and head for the cloud south of Etchingham, down to 2,200ft in rising terrain, time to climb, and the lift is where I thought it would be!

This is unbelievable, it's actually working and I am approaching cloudbase.

Where now? I can see Hawkhurst and where Tenterden should be, so I'll check the heading and press on. Over Tenterden now, in good lift, up to 4,500ft, Randall said stay high and lift seems to be everywhere but it looks a bit blue ahead. Great view down to Dungeness and I can see Ashford and what seems to be a quarry to the left, but careful now, that can't be right, it should be too far ahead to see. Heading too far to the right of track. Time to climb before changing streets. 3,000ft and I can't see Challock.

Concentrate and orientate – I suddenly realised that I was looking too far ahead, the North Kent coast was visible and Canterbury was starboard of the nose. Looking down, I saw the motorway, ridge and Challock simultaneously.

I was nearly there but not quite.

There was no response on the radio but I could see the landing direction was northerly. I joined the dead side at altitude and tried to recollect what I had learnt about Challock on the Inter-Club League visit earlier in the year. Do not land to the left of the cables, as it's very rough, and remember it's on top of a ridge so watch out for sink on

the approach. Look out for other gliders in the circuit, brakes out to get down to circuit altitude and fingers crossed.

Checking for at least the third time that the gear was down, I crossed the trees and landed, rolling up the hill towards the clubhouse.

Mission accomplished!

After collecting the required signatures, it was time to get back to the launchpoint for the aerotow home. Not as far as Heathfield, though – the tuggie had other ideas.

I arranged that he would tow me into lift along the homebound track and I left him with a blank cheque to cover it. I hung on until 3,500ft just to the east of Tenterden and then had a very enjoyable flight back home.

It all seemed to work, with lift where I wanted it and no trouble with navigation. Now I had a tailwind, the features seemed to speed past. I still stayed high and kept an eye out for landout fields whenever the altitude was less than 2,500ft.

Soon I was approaching Heathfield and it was easy to pick out Ringmer adjacent to Barcombe Reservoir. I called in to let the launchpoint know I was back in the local area so that Phil and Val could relax, and flew on to Ditchling as I hadn't been that far west before. It was still working well so I stayed up until 17.30hrs and had another go at the Silver height, just in case it hadn't worked on the first leg.

On reflection, after a chaotic start, it all went very well. Better than expected and probably better than I deserved. The cloud-base had been 4500-5,000ft throughout and trying to stay above 3,000ft certainly made things easier. I had decided to look seriously for landout fields below 2,000ft but that didn't happen more than once or twice.

I was very pleased that I went without a GPS, as it would have been too much of a distraction. Map reading wasn't difficult as the visibility had been excellent throughout. Although I followed the "speed to fly" as closely as I could, it wasn't a day to be computing an accurate final glide – it was a day to play it very safe indeed.

I am glad to say that the apprehension that had been building up in the weeks prior to the task wasn't an issue, probably because I didn't have time to let it!

Still, next time I will ensure I do not get rushed and prepare methodically and make time to re-assess the possible options and opportunities. I missed the chance to achieve Silver duration as well. I could have started earlier and not landed at Challock until the task had been achieved. That thought hadn't even crossed my mind but the lesson has been learnt. I now take all my equipment with me in the Discovery whenever I drive to the field, as you never know what opportunities may arise!

Randall had told me what a liberating experience it was to cut the apron strings. He was absolutely right, and if anyone heard the whoop of joy that afternoon as I experienced the best moment of my flying career so far, I hope they will understand.

If you missed

Andy Davis's tips on flying your first competition

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Guy Westgate's out-and-return to Sicily from Southern England

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Club news

Bannerdown (Keeliv)

WE'VE been busy getting ready for soaring season and the club is a hive of industry. The flying has been chilly but good over the winter with wave, ridge and thermal activity. Andy Hill is our new DCFI and will oversee instructor training. Willy Hackett has just earned his full cat, so congrats to both. Half of our bronze students have passed the written exam, the rest are nearly there. Plans to revamp our clubhouse are well underway and we've got a new bar-boss and are having regular club meals on Saturday nights. Please feel free to join us if you're passing through. Finally, our website has had a major facelift and now includes a state of the art webcam so we can look at the fabulous conditions from our desks during the week! Do please check it out at www.bannerdown.co.uk

Debb Hackett

Bath, Wilts & North Dorset (The Park)

ONE Saturday in February produced a beautiful soaring day, enjoyed by all present. The plan for a club expedition to the Long Mynd in May has gained momentum, with more interested members signing up to go. Eddie Gunner's maintenance team of Ron Sexty, Dennis Clack and Norman Hills have are in action with the C of As on the two Puchaz gliders ready for the spring. The club is hosting a Safety Officers' seminar in February, and taking advantage of the presence of so many of them to hold a club safety evening the same day. Small changes in our organization have resulted in Roderick Fisher taking over the flying voucher system from the 1st March. The committee is still looking for members to take on other small jobs around the club.

Jan Smith

Bidford Gliding (Bidford)

BIDFORD has yet again transformed itself, and is looking forward to providing a top quality service for glider pilots and wannabees. We are promoting a family-friendly atmosphere and encouraging many social activities to take place. A rejuvenation of the buildings helps the process. We hope our future *Club News* will be full of the achievements and news from our homegrown and visiting pilots. A quiz night in March, a fun competition over the Easter weekend in April, a Competition practice week in May and the Regional Competition in June are already in the diary.

Lynne & Gordon Burkert

Black Mountains (Talgarth)

THE five-year strategy has now been completed. Input and "wish lists" from members have been voluminous and supportive and the final version will be presented at our AGM in April for approval, after which the real work begins. The new field drains are working well and a new cattle grid will be kinder on visitors' cars. Our super east wave appeared in January taking several members to Gold height and giving Tony Bartlett his Silver Height with a margin of around 5,000ft! Don Puttock is back for the season so we are open 7 days a week into the autumn wave season. Don is brimming with ideas and enthusiasm and will certainly make you very welcome. Prospective visitors should note that the aerotow costs quoted in Mary Meaghers' article in the last S&G do include daily membership costs.

Robbie Robertson

Please send news to editor@sailplaneandgliding.co.uk or Helen Evans, BGA, Kimberley House, Vaughan Way, Leicester LE1 4SE to arrive by April 11 for the next issue (later deadlines at www.gliding.co.uk)



Booker (Wycombe Air Park)

BY the time of reading our new committee and officers should be in place, as our AGM is (no kidding) on April 1. Work has continued on restructuring the club, and the effort should soon be bearing fruit; one of these is likely to be lower soaring charges on some gliders. The normal club activities continue with a very successful dinner dance, where former CFI Malt Cook acted as MC, and presented the trophies. Winner of several was Dave Caunt, who also won the National Distance Ladder with almost 11000km. from just under 40 flights in his Nimbus 2. Spring expeditions are planned to the Long Mynd and Shobdon, and our usual "No entry fee" Regionals is scheduled to start on June 10th. We would like to welcome tuggies Philip Towns, Simon Tizzard and student Emily Todd.

Roger Neal

Borders (Milfield)

CURRENTLY we hardly ever have a non-wave day. In December 2005 there were many good climbs. Andy Bardgett (LS4b) and Jules Sutton (LAK17a) got to over 22,000feet and Derek Robson (ASW24) reached 21,500 and Diamond Height. Friday the Thirteenth (of January) confounded its reputation by producing splendid flying. Friday is Old Farts' Day at Milfield (mostly retired folk) and one septuagenarian, Gordon Pledger (Libelle) reached 16,500 feet. Ian Surley (Vega), not an OF, made Gold Height. The primary wave on this day reached 15kts on the average. Helen Fraser did Silver Height on 22nd January. Dan Hedley soloed on his 16th birthday, joining our growing band of teenage pilots. One of them, Brian Cosgrove, featured, with the K21, on BBC Look North in a programme called "Sportkids". We are a fine wave site, flatlanders. Come and sample.

Len Dent

Bowland Forest (Chipping)

CONGRATULATIONS go to Croft Brown who gained his gold and diamond height at Dishforth in December. Five of our members made the most of the quieter period by taking a radiotelephony course and instructor, George Wearing used the time to run a series of Bronze lectures on Saturday evenings with the help of the other instructors within the club. A great deal of hard work was undertaken by Geoff Guttery and Dean Eden creating a new path on the airfield. Signs have also been erected and both these and the path have significantly improved safety for members and visitors alike. Flying on the field has been hampered a little by wet conditions, but the K-21 was taken over to Dishforth for a spell to enable training for our members, thanks to those at Dishforth who made us welcome.

Tracy Joseph/Phil Punt

Bristol & Gloucestershire (Nymphsfield)

THE new committee has got down to work, leading a clear up of the entrance and car park, plus holding a meeting to discuss the

Photos, clockwise from left: Three of eight glider pilots who benefitted from Royal Aero Club Trust bursaries in 2005: Annabel Magenris, now 22, at *Windrushers*; Robert Starling, 17, at *Newark & Notts GC*; and Andrew Payne, 18, of *PNGC*. Bursaries of up to £500 are available to help you progress your flying; the deadline is April 30. See www.royalaeroclubtrust.org for more details

Below: The Soaring Centre's latest solo, Eleanor (Ellie) Armstrong had a frustrating wait from her birthday on January 9 until the weather cleared on January 21. Here she is with instructor Basil Fairston just after the flight: *Peterborough & Spalding's* Howard Rynston receives his wings from his instructor



Above: Andy Durston recently qualified as an instructor. His first student was his father David, who went solo on New Year's Day at *Portsmouth Naval GC*. Andy starts pilot training with the Navy later this year and follows in his father's footsteps as a Navy pilot. Below: Alan Jordan with instructor Terry Slater after his first solo flight at *Suffolk Soaring Club*, Rougham, Bury St Edmunds



Club news

club fleet. We are also enhancing our fixed-price-to-solo scheme, exploring the possibility of a simulator and organising corporate evenings. A K-21 is being bought. Jon Meyer won a Sports Personality of the Year Award in his hometown. Trophies were awarded at the dinner/dance to Ray Payne, Trevor Stuart, Tim Macfadyen, Jon Meyer, Rob Thompson, Julia Dawson, Tim and Barry Walker, Phil Lee and Fred Hill. The club is helping a TV production company with a film about the late Sir Peter Scott, former British champion and Nympsfield member. We regret to report the death of long-standing member John Wight, 65.

Bernard Smyth

Buckminster (Saltby)

SALTBY has gone cross-country mad, just take a look at the BGA ladder! The season is off to an excellent start with the K-7 using early February thermals to do the first (not very big) cross-country of the year. The motor gliders have been refurbished and are busy doing field landing checks. New privately owned Ventus 2 and LS8 turbos have taken to the skies and the ASW 22 is claiming more span (!) so gets a bigger handicap (118!!). The new private owners' hangar should be finished by the time you read this. Aerobatic training, for pilots and judges is taking place between March and May. Finally the second Wood and Glass competition takes place on the late May bank holiday, all welcome. We are open seven days a week.

Chris Davison

Burn (Burn)

THE Christmas party and flying awards ceremony was well attended and a good time was had by all. Trophies were awarded to Bob Baines, Mutt Ellis, George Goodenough and Alastair Mackenzie. Our annual pantomime was also a great success. Congratulations to all who took part and especially the writer and director Pat Stirk. Soaring got off to a good start in 2006 with Frank Thompson leading the way in exceptional January thermals. Frank, our former chairman, is in his 87th year, still as enthusiastic as ever and showing us all how it should be done.

George Goodenough

Cairngorm (Feshiebridge)

MAY is proving to be a very busy month for us with Mayfest running from 29th April, till the 15th May, and Interclub league on the weekend of the 22/23rd. We are also hosting an open weekend on the 3/4th June in an effort to promote our sport to the public. Our sincere thanks go to Ian Carruthers, our tireless inspector who spent the winter buried in some corner of the hangar keeping our fleet C of A'd and in tip-top condition. As at this moment in time (Feb) the first week of Mayfest is now fully booked out, however we still have places available for the second week (7/5/06 - 15/5/06). Dates for Octoberfest are yet to be set, please check our website www.gliding.org for details.

Chris Fiorentini

Cambridge Gliding Centre (Gransden Lodge)

WE are looking forward to the 2006 season with a new name, Cambridge Gliding Centre, which will act as host to Cambridge Gliding Club and Cambridge University Gliding Club. This arrangement allows us to present a fresher face to the world, whilst preserving 70 years of proud history and achievement. We will be hosting the first-ever GB round of the Sailplane Grand Prix 2006 in early September with 15 of the UK's best and five foreign entrants. Our winter lecture series was a great success covering such topics as: parachuting and Sibson, how to cover more ground in less time (avoiding Sibson), gliding in South Africa with Dick Bradley and a safety lecture by Kevin Molehey. The fleet is maintained and ready for a busy time, with our very successful bookable training scheme extended for 2006.

Preparations for a full season of flying activity including evening courses, task weeks, Regionals and Nationals are in full swing. Sadly, Les Zappe won't be able to tug for us in the future as new age driven insurance restrictions kick in. Les, thank you for many years of midweek sterling service.

Paul Harvey

Carlton Moor (Carlton Moor)

THE maintenance gang have fitted new batteries to the winch, and we have joined the 21st century by fitting a radio link between the launchpoint and the winch. The CFI's return from Australia, where the sun shines all day, has corresponded with

wall-to-wall low cloud, which has curtailed flying, but we started again on February 4. The slope faces north-west, so we need a bit of northerly in the wind for soaring. We held an EGM to develop a formula for our long-term future, which brought forward some positive ideas, but we do still need some more members at a club that must have the cheapest subscriptions in the country.

Nigel Ling

Channel (Waldershare Park)

THE winter months have seen great improvements at the club. A lot of hard work has gone into improving the long track through Waldershare Park, which provides access to the clubhouse. A JCB was hired and using several tonnes of road stone mixed with the blood, sweat and tears of club members the track now resembles a track rather than the Ypres Salient on a bad day. Another improvement has been the acquisition of a forward control caravan which is presently being refurbished and fitted with more suitable wheels. The recent purchase of a K7 from Denbigh will be needed for what promises to be a busy Spring and brings the club's two seat fleet to four. Flying has not been forgotten either with some good days in challenging conditions including a very pleasant, but cold day, gliding in the snow.

Nigel Shepherd

RAFGSA Chilterns Centre (RAF Halton)

COLIN (CFI), Mark 'Minners' and Dave 'Nutterpilot' Chappell received outstanding Chilean hospitality and had some awesome flying in the Andes, with regular trips within sight of Aconcagua. Congratulations to Neil 'Stickman' Beattie on becoming an Assistant Rated Instructor, and Chris McPartlin on his Bronze Badge. Thanks to Guy Westgate (and Windrushers GC) for helping Ian Gallacher successfully complete his CAA Glider Display Authorisation, with both he and Paul Moslin also cleared for display 'tugging'. Well done to both of them - also to Paul for completing his CAA Licensed Engineer exams. As you can see it has been a busy Winter season for many at Chilterns, including the usual ridge running exploits - but we are still all looking forward to some good spring soaring weather with those early thermic cross-country flights and an expedition to Sisteron.

Andrew Hyslop

Cotswold (Aston Down)

SOME of our pilots have been flying in the wave at Denbigh this winter while others have been flying the Cotswold ridges lead by Andy Smith. At the club AGM in January, Simon Buckley took over from Paul Gentil as CFI. We thank Paul for all his hard work and extend best wishes to Simon. We have introduced mandatory refresher training for all non-instructor members of the club, designed to reinforce the recent BGA recommendations on winch launching and circuit planning. We plan to have training completed by April ready for the soaring season. Our annual dinner-dance was held in January and cups were presented to deserving pilots. Congratulations to Robin Birch on becoming a BI and qualifying to become a BGA Inspector. As have I.

Frank Birlison

Cranwell (RAF Cranwell)

CONGRATULATIONS to Gavin Pattinson who on December 10 was able to complete both half-hour durations towards his Bronze. The day was mainly overcast with a light wind from the west: how it was done remains one of those weather mysteries! Additionally Mick Lee also enjoyed the delights of cross-country soaring in South Africa, with thermal strengths and cloudbase attaining those levels that we can only wishfully think about! The clubhouse has now been completely refurbished and is looking very smart. Many thanks Steve Benn, Mick Derwent and Mick Wood and all those members who put in many hours of work on the club fleet and equipment in readiness for the soaring season.

Zeb Zamo

Dartmoor Gliding Society (Brentor)

ALTHOUGH by the time you read this the 'season' will be well underway, it is the first opportunity we have had to report an event that will go down in aviation history at Brentor: the first solo, at 1345 on December 11, 2005, by Jennifer Badcock. After over 180 dual flights, it represents the culmination of her incredible enthusiasm, dedication and sheer determination. Also back in the single-seaters are Simon Mitchinson and Rick Wiles, and also Ian Woolley. The winter easterlies have enabled



Above left: Daniel Hedley of Borders GC soloed in January, two weeks after he turned 16

Above: Emma Clack from Kent GC, pictured in the K-21 during her first solo, on her 16th birthday in January

Left: Barrie Stuckey (left), who soloed at Dorset GC, seen with instructor Guy Jarvis

both Gus Pearce and Dave Jesty to achieve 8,000 ft in wave, whilst on the ground we extend a sincere vote of thanks to Iain Readie on his departure as Site Engineer. In the next edition we hope to report significant initiatives that are to be progressed following ratification at our AGM in March.

Martin Cropper

Deeside (Aboyne)

IT has been the time of year when the weather is often better indoors, and our instructors are running a series of lectures on all aspects of cross-country flying aimed at Bronze/Silver pilots. However the more hardy have ventured out; Bruce Cooper topping 25,000 feet, aiming to win this year's De Havilland Trophy even before he has received last year's, and on the same day, Roy Wilson clocked 355 km. Charlie Jordan has completed his Cross-Country Endorsement and immediately booked our ASW 19 for the UKMSC. The entry for the UKMSC is filling and is likely to be fully subscribed again this year, so enter now to avoid disappointment. And don't forget Competition Enterprise in July!

Mary-Rose Smith

Denbigh (Denbigh)

ON a sad note, our friend Ian Hurle passed away unexpectedly in December. A real character around the club, he will be deeply missed. Our condolences go to his wife and children. At the moment, there is much activity to develop the club. A small group of members are being trained as Basic Instructors. Our K-7 has been overhauled and around the field there have been a number of significant developments that improve the ease with which gliders can be brought to and handled at the launchpoint. Several members have been converted to glass and have been taking advantage of the ridge. This summer should see some cross-country activity encouraged and supported by our CFI with some two-seat training. If you want to enjoy Welsh wave or ridge, call the office: 01745 813774. Visitors always welcome.

Paul Jewell

Derby & Lincs (Camphill)

THERE were some changes at our recent AGM; Tony Smurthwaite took over from Ken Singer as Chairman, and John Shipley from Mike Armstrong as CFI. Our thanks to both outgoing officers for all their hard work on our behalf. Our President, Eric Boyle, presented the annual trophies; recipients were Mike Armstrong (monotonous isn't it?), Nigel Howes, John McKenzie, jointly Sam Barrow & John Shipley, Ross Whittle, Mary Neighbour, and Chris Worrall. John McK. Has been getting used to his new Lak 19 Turbo at every opportunity ready for big things this summer. We have an extensive program of Saturday evening lectures lined up, and speakers include Derek Piggott for a joint meeting with our hang-gliding friends.

Dave Salmon

Devon & Somerset (North Hill)

WINTER was not all bad. Some beautiful crisp blue days with reasonable wave if you knew where to look! Many members used the time to better their qualifications - Bronze goes to Paul Little, and Daniel Johns, with Sandy Harrup completing all her



Above: Phil Flack with a British Disabled Flying Association award that was jointly given to Lasham and ATC, an airliner maintenance firm based there
Top right: Mendip's CFI Tony Webb and daughter Shannon after his 10,000th flight
Right: Another solo at Dorset, this time by Adrian Price (left)

flight tests but needing to revalidate her duration flights. First solos for Mo Rahman, Graham Barden and Harry Berry, well done everyone. Simon Leeson and I have managed to bag our full ratings and several very keen young members are on course for their BI ratings. Exeter airport plan to extend their airspace so we are currently negotiating to limit its effect on gliding. Exciting times ahead with a big push on cross-country training promised from our pundits, including a course run by Ron Johns.
Mark Courtney

Dorset (Eyes Field)

I'm sad to report the passing of my syndicate partner, Basil Lane (see *obituaries*, p60). We've had two solos recently – the first was Barrie Stuckey on January 21 and the second was Adrian Price on the 22nd. Ben Johnson converted to the K-8 in December, and I don't think it will be long before he's in the Astir! We have a new private glider on the field, a Nimbus 2. We have some fairly big wings for a fairly small club three Nimbus 2s, and an ASW 17L. Our newly purchased Astir 77 is proving very popular as an easy way to get airborne this winter, without the hassle of rigging. Mike Slade achieved Gold Height in Omarama, in December and it has been ratified by the BGA.
Colin Weyman

Dukeries (Gamston)

WE have been quiet but very busy. We've found our new site, at Darlton just a few miles down the Lincoln road (A57) from here. This has taken much work by all committee members but special thanks are due to John Talbot and Alan Jones. A 15-year lease has been negotiated and the grass strip is sown. Outline planning consent is granted as is winching permission and detailed planning has been submitted for the hangar, clubroom and other facilities. We move in July to a site with a longer run and into the prevailing wind. Dukeries will go from strength to strength in our new home away from the inconvenience of Finningley's big birds and Gamston's ATZ and beacon. Why not come and join us?
Mike Terry

East Sussex (Ringmer)

WE wish the best to our former Chairman Tony Kirwan-Nye who, after many years of dedication and service, has stepped down. Derek Wilson is holding the reins. The first phase of our field levelling is almost complete and needs to be left to bed down for a while before we swap sides and repeat the process. The Tuesday club is doing a grand job renewing field boundaries and restoring long-disappeared hedges. After five months our tug is back with a shiny new wing. Bonfire Night was a great success as was the first combined (Wed-Sat-Sun) Christmas event for many years. By the time you read this we should be experienced in the art of winch launching with plasma rope. NPPL motor gliding is developing well based upon our Motor Falke.
Adrian lyth

Essex & Suffolk (Wormingford)

THE Club Christmas bash went well and the AGM is scheduled for March 26. One of our two hard working K-13s is undergoing refurbishment and we are progressing with winch equipment

modifications to enable the planned change to synthetic rope. Planning permission has been lodged for a new winch and vehicle shed large enough also to maintain club trailers in. Arrangements for Inter-club are under way in fervent hope that the weather treats us a good deal better than it did last year.

Bob Godden

Essex (North Weald/Ridgewell)

CONGRATULATIONS to Dave Charles on gaining his Bronze Badge. Despite inclement weather flying has continued, and members have been busy preparing for what we all hope will be an even better summer than last. Work continues in our North Weald workshop, under the watchful eye of Ian Barnes, our technical officer, whilst our Ridgewell site and its machinery is kept warm during the winter by resident members Geoff Martin and David Jones. It is with sadness that we report the death of Bob Fade, an enthusiastic member of the club. Our sincere condolences are extended to his family. We will be back at our Ridgewell site by the time you read this. Don't forget a warm welcome anyone pilot wishing to visit us.

Peter Perry

Fenland (RAF Marham)

THANKS to Paul and Graham for their back seat work on the trial lesson days and to all who helped. Welcome to Tim Ewhank as the new OIC. The end of January saw John Doubleday soaring for the first half hour of the year. The recent AGM was well attended. Pete SA again wins the Speed and Distance trophies and Steve Saunders again wins the Efficiency trophy. The Ladder trophy went to Jon Oakley and The Al Ruffan trophy for services to Bull**** went to Del Ley. The Au Vache trophy for the shortest retrieve on record went to Moira Saunders and Mike O'Brien for Steve's landout at the ISRC. The CFI's trophy for sterling services went to me. The biggest cheer went to Mike O'Brien for winning the Trubridge trophy for keeping the Kings Lynn firemen busy!
Graham French

Four Counties (RAF Wittering)

WE recently gained a new clubhouse, generously donated from the Station, and priority tasks have been completed, the bar is up and running! A workshop building is in the pipeline. The C of A's are progressing well, with the Acro returned to service and the Discus well on the way to completion. Congratulations to Chris Armstrong and Dave Neve, our first two solos at Wittering, although both cheated, having flown with the Air Cadets. Wittering also saw another first this month, welcoming its first private single seater in the shape of an ASW 20 syndicate. Following a brief stop to Saturday flying over the Christmas and New Year periods for annual maintenance, we are flying both days of the weekend, and are now gearing up for what we can only hope is another great year of gliding.

Pete Davey

Imperial College GC (Lasham)

WE went to Portnook for the Winter Tour with four full days in Scotland, and three gliders: the Grob 103, the Discus and a borrowed Skylark 2. Unfortunately for two of the days, the fog was too bad to fly, but the other days were flyable, with one day being excellent and even wave set up on Benarty. On the ground, a snowman and igloo were built and we went to Edinburgh for

Hogmanay. Thanks to instructors Neil Goudie and Brian Birlison. We also had another solo in January – congratulations to Andrew Cockerell! The Easter Tour is at Lasham at the end of March – there will be a mini competition including spot landing tests, Bronze confuser questions and welly wanging!

Sally Longstaff

Kent (Challock)

WE look forward to returning to full-time operation with our resident instructor and ground team offering holiday courses as well as our popular flying evenings. At the end of 2005, we saw the soloing of Alex Bartsch (16) on Christmas Eve watched by Dad Tim (a Club BI), and further then the soloing of Emma Clack on her 16th birthday in January, watched by piloting Dad, Andy. Both successfully participated in our Scholarship Scheme, which has seen an encouraging number of young people progress in the Sport. Congratulations to both, and not forgetting Roy Musselwhite, too, on his long-awaited first solo in February. We're looking forward to a successful summer with an impressive fleet and excellent facilities. Why not sample a Kentish Gliding experience if you're in the area? Log on to our new-look website at www.kent-gliding-club.co.uk for more details.

Darren Palmer

Kestrel (RAF Odiham)

AFTER over half a century as an AGA club on an RAF station, we are finally becoming an RAFCSA club. Our fleet will retain a similar profile with the addition of a motor glider. The club was founded in 1949 to provide adventurous training for officer cadets at Sandhurst using gliders liberated from the Luftwaffe. Its Chief of Staff, General Erhard Milch opened RAF Odiham when it was made a permanent airfield. He is reputed to have told Hitler: "When we conquer England, Odiham will be my Air Headquarters", and he ordered his pilots not to bomb it. True story or not, Odiham was never bombed during the war. Many thanks to Giles Austin for the energy and enthusiasm he brought to the chairmanship role as he steps down for a well-earned rest.
Simon Boyden

Lasham Gliding Society (Lasham)

LASHAM'S training hits a new high with fresh initiatives paving the way for the future. The first simulator-taught pilot has soloed (see *Platypus*, p16). Winter Wednesdays (see p27) are a runaway success with flying when weather permits and Bronze study when rain stops play. Highlights include several first cross-country flights, a Bronze pass and field landings with picnic at Dave Bowtell's farm. The *Advanced Meteorology for Soaring Pilots* course has been very well received. Congratulations to Hugh Kindell and Andy Aveling for their winter flight along the South Downs. 5hrs and 330km in January! Congratulations to Lasham and ATC who on February 4 were jointly awarded the Jim Parkinson Award for services to disabled flying by the British Disabled Flying Association. For course (including simulator) and expedition booking call Lasham or see www.lasham.org.uk.

Mary Allen

Lincolnshire (Strubby)

CONGRATULATIONS to Mick Whittbread on going solo. Mick then showed all the better pilots up by soaring for a B Badge in

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Above: New national registration letters, G-CKMC, on Astir CS77 owned and flown by Laurie Gregoire, seen over Portsmouth Harbour. Photo by Andy Blundell, with thanks to Andy Payne
Below: Nene Valley's refurbished K-7K-13 is back in action



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Club news

January. This is almost unheard of over our boggy marsh airfield. The club has embarked on a massive task to fly up to 300 underprivileged children with the aid of a grant from the Lincolnshire community fund.

Dick Skerry

London (Dunstable)

NEW Year started with revellers celebrating at a party in the bar. The Club's 75th Anniversary Dinner and Annual Awards was a sell out. A number of expositions are being eagerly awaited including Cerdanya, Jaca, Saal and Gap. We have had good north-west winds allowing us to soar the hill above the site. We are running seventeen courses of Bronze lectures during January and February and Saturday evening social lectures. Thanks go to CFI Andy Roch for arranging a Christmas Lunch to the wily band of winch drivers for their efforts in successfully launching gliders throughout the year and to Geoff for cooking an excellent feast. We welcome back into the fleet our K-17 HUD having undergone a face-lift. The Dunstable Regionals competition entry in August is already full with reserves now being taken.

Geoff Moore

Mendip (Halesland)

JANUARY 1 was a big day for Tony Webb. He was taking over as CF and needed just one flight to bring his total launches up to 10,000. Eventually a short clear spell gave him the break he needed. Two of our BIs decided that gold heights would look good and that the obvious thing to do was to nip up to Aboyne during the Christmas break. They returned full of praise for the warmth of the Deeside GC and the efficiency of the wood burner when temperatures outside reach -13°C. Next time they are hoping to do some flying although, to be fair, Andy did manage a brief site check. Following interview sessions we have enrolled four new juniors under the BGA scholarship scheme.

Keith Simmons

Nene Valley (Upwood)

WE have finally got our refurbished K7/13 back on site (picture above left). Our January shutdown saw the nearly new Transit tow out vehicle fitted out, both tractors have had their brakes overhauled and both winches have been serviced. The K-7 has had some more TLC. Thanks to all those members who came and helped get through the long list of "things to do". We are now eagerly awaiting the new soaring season.

Dave Mansfield

Newark & Notts (Winthorpe)

DUE to our impending loss of flying field in June we decided to make an early start to the year by not having our usual month's shutdown in January. Anyone who has always wanted to fly from Winthorpe should hurry along before June 11. Before then we plan to squeeze in two flying weeks, during which we would be happy to see you. Please have a look on our website for details. Congratulations to John Salvin on getting his Bronze badge.

Noel Kerr

Norfolk (Tibbenham)

WE welcome Mark Wright as our New DCH (you know what's coming next Mark) and Gium Ashworth as Chairman. Tim Davies has the Standard Aerobatic Badge and Andy Videon, Ben Magnani and Phil Foster can now instruct aerobatics thanks to a course led by aero champion pilot Stewart Otterburn. Chris Lawrence went solo on Boxing Day (his 16th birthday) and was featured both on TV and in the local newspapers. We wish Chris all the best for all of his future aviation ambitions. NCC Racing is up and running again and there are still some places available for the Eastern regionals; application forms available on line at www.easternregionals.co.uk.

Ray Hart

North Wales (Llantysilio)

WE had a good turnout for Christmas dinner, raised a little money for the club funds and made a presentation to our young newly soloed pilot of his wings; a proud moment for his mother, who was present. The flying has been pretty good, most weekends have allowed us to keep ourselves current with quite a lot of visitors turning up. Our trusty Blanik has had its C of A with many hours spent by Ken Pixter aided by Tony Cummings in

refurbishing her. Ken made trips as far as Norfolk to gather replacement parts. We start the year still with our four club aircraft and no plans to replace or increase the fleet at the moment. Let us hope that the coming year affords us plenty of safe flying and an increase in membership for our sport.

Brian Williams

Northumbria (Currock Hill)

GORDON Dixon, John Hire and Alisa Cooper have all qualified for their NPPL SLMG on our Grob 109B motorglider – a special achievement in Alisa's case, since she was three months pregnant at the time. After a long time trying Frank McLaughlin finally achieved his Bronze – and his cross country endorsement on a visit to Sutton Bank. Our survey to find out if there were any areas in which members thought club operations could be improved came up with no surprises, re-emphasising the need to offer full value for time and money, and to give members the opportunity to do enough flying. It also highlighted the need to help new members feel welcome, to ensure training meets members' needs and to improve communication between the committee and members. Practical actions will put in place as soon as possible.

Richard Harris

Oxford (Weston on the Green)

PREPARATIONS for the summer months are continuing apace. The Tuesday night work teams are busy with C of As and the renovation of ground equipment. We are also looking forward to our new cable towing Range Rover being serviceable. A huge thanks to those who give time, experience, skills and labour. On the flying front, we have a host of new BIs in training. Jon Christensen has completed his Bronze – well done, Jon. Congratulations also go to Paul Smith, who soloed recently. Our well-travelled T-21 "Daisy" is off to the VCC rally in France.

Simon Walker

Peterborough & Spalding (Crowland)

OUR Christmas and committee dinners were both well attended. Adam Laws has bought a beautiful LS8/18 and Merv Bull is now the proud owner of an ASW27. It was a close call between an ASW28 and an ASW27 and we would like to thank him for consulting all of us individually at the Christmas dinner. We definitely need more members with similar problems! Well done to Howard Rynston and Chris Moseley, who both soloed in our Puchacz. We also celebrated Reg Glenn and Bob Darby's 150 years of experience and congratulate them both on their joint 75th birthdays.

Robert Theil

Portsmouth Naval (Lee on Solent)

CAT Stevens and his band of helpers have been busy filling the long winter evenings preparing the club fleet for the coming season. Without their hard work our flying would be severely curtailed (not to mention more expensive) and we owe a debt of gratitude to Cat and his men. HMS Collingwood hosted our annual dinner and dance and we thank the staff there for looking after us. All the ladies came properly dressed but the gentlemen turned up as James Bond, although it was easy to see through their disguises. Andy Durston recently qualified as an Assistant Instructor. His first student was his father David, who then soloed on New Year's Day. Andy starts pilot training with the Navy later this year and follows in his father's footsteps as a Navy pilot. Congratulations to them both.

Steve Morgan

Rattlesden (Rattlesden)

WE have continued to fly off our concrete runway during the winter. Bill Morse and Karen Wright have both soloed on aerotow, and Paul Roche has converted to the K21. Alan Towse and Kevin Moloney had the first thermal soaring flight of the year in January, which hopefully promises well for the rest of the year. Dawn Goldsmith began our winter talks with "What I learned at the Junior Nationals" which was very interesting. On February 25th there'll be a club strategy meeting where a task group will present options on how to take the club into the future. Our flying weeks are May 1st – 5th and August 14th – 18th, visitors are always welcome.

Helen Page

Scottish Gliding Centre (Portmoak)

WE expect to be very busy over the summer. If you are planning to visit us at Portmoak, please ring Irene directly on 01592 840543. Our annual dinner was well received, with the following taking home awards: The Thorburn Two-Seater Trophy – Mike Carruthers and John Tanner; The Boyle Altitude Trophy – Kevin Hook; The Marshall 100km Triangle Trophy – Kevin Hook; The Andy Penswick Trophy – Kevin Hook and Bill Laking; The Parker Distance Trophy – Z Goudie; The Docherty Handicapped Distance Trophy – Sant Cervantes; The Sutherland Owl and Return Trophy – Z Goudie; The Lomond Trophy – Z Goudie; The McClay Championship Trophy – John Williams; The Peter Copeland Trophy – John Williams; The "Hot Wings" Trophy – Z Goudie; The Helght Gain Ladder Trophy – Kevin Hook; The Darren Powell Shield – Hamish Eagleton; The Nick Wales Trophy – John Dunnington; Instructor's Quail – Ricky Jackson; Service Salver – David Hyde.

Ian Easson

Shalbourne Soaring Society (Rivar Hill)

BEATING the winter blues wasn't that difficult at Rivar Hill this year having had some excellent cross-country lectures from Jerry Pack, Liz Sparrow and Tim Robson. Two of our Tost winches are back on-line (many thanks to everyone involved); and not one, but two ex-world champions, in the shape of Steve and Ralph Jones, presented the awards at our annual dinner. We have also had two more members of the Pirat syndicate being signed off-checks (including the new Chairman Alan Holden) and more of the Wednesday fliers going solo. Well-done guys! If that wasn't enough, we also have a new CFI, Jim Gavin.

Dave Hailey

Shenington (Shenington)

WE'VE enjoyed a busy winter at Shenington! Most exciting of all was Fantastic February; on the Wednesday 8th, our own Lightning Les Hatcher took advantage of a strong north-west wind and flew the club's Astir for more than five hours on our ridge. Says Les "It was nail-biting stuff for the first two hours... perhaps my greatest achievement was not getting bollocked when I got back". Les certainly deserves the award of the numb bum at our Annual Dinner! On the following day, John Rogers and Steve Codd enjoyed over two hours thermalling, and Eric Lown more than an hour. The following Monday Phil Lacey renewed his back seat rating, Mary Meagher took up a handsome young man on his 21st birthday, Christine Bell flew the tug, and good old Les Hatcher drove the winch all day.

Mary Meagher

South London Gliding Centre (Kenley)

JANUARY was a disappointing start to 2006 but we are looking forward to the new season. I am sorry that I upset the RAF by referring to "our" runways when I invited members of other clubs to come and fly with us during the winter. They are of course their runways, which we have a licence to use. English Heritage has identified the whole of Kenley Airfield, or RAF Kenley, as the best preserved World War Two fighter station in the country and it has recently been designated as a conservation area and heritage site. We intend to improve our buildings in keeping with the site's new status, thanks to the generous donation of some portakabins that are fitted out as office accommodation. Mick Hughes, our new manager, has started with the refurbishment of our clubhouse and rationalisation of our vehicle fleet.

Peter Bolton

Southdown (Parham)

THANKS to Jim Heath for organising the Christmas Awards Evening. Among the winners we should congratulate Ian Ashdown, for his enterprising, but safe flying, from Parham. Southdown has changed its status to a "Community Sports Club". The CFI reported the acquisition of a K-21 from Sutton Bank, and we have hired the DG-505 from the Faulkes Foundation so we can offer advanced cross-country training, which has long been an objective. Jackie Williams and Tom Wickersham soloed in time to follow a series of lectures on "From Solo to Cross Country Without Tears". Our consistent run of northerly winds has brought enthusiasts from as far afield as Bicester, but the latest "White Knuckle" sport lies along the Downs! When the wind is

Mark Botwinski - Lasham

MARK Botwinski, one Lasham's newest instructors, died peacefully at home on January 2 after a brief illness. Born in Barnsley, Mark (1956-2006) was an international health and safety manager, who made a significant contribution to accident prevention within a number of major companies, including BOC, Balfour Beattie and, at the time of his untimely death, Network Rail. He was uncompromising in promulgating safe working practices and, when accidents did occur, he was rigorous in his investigations – yet sensitive to the feelings of those involved and of their loved ones. Mark loved gliding, training as a hang-glider pilot and then as a glider pilot while in South Africa. On his return to the UK he joined Lasham Gliding Society and Surrey & Hants GC. I (as then leader of one of Lasham's weekend groups) valued his loyalty, hard work and safety awareness as a Basic Instructor on my team. Three years ago he became co-owner of a Ventus CT, which helped him to broaden his soaring horizons, and achieve his 300km. In August 2005 he attended an instructor's course. Tragically, his brain tumour was diagnosed that same month. In spite of this, he achieved his ambition of qualifying as an Assistant Instructor, carrying out his completion flights with Lasham Deputy CFI Colin Watt in the autumn. Apart from gliding, one of Mark's most memorable – and envied – aviation experiences was a flight in a two-seater Lightning jet while on holiday in South Africa. Mark will be sadly missed and long be remembered by his work and gliding colleagues. Our sympathy goes to his wife Gail, sister Diana and other members of his family.

Bob Pirie

Norman Jones – Devon & Somerset

MANY who have attended courses at North Hill will remember Norman Jones (1918-2006), who served the club for over three decades as, inter alia, Course Secretary and Membership Secretary, both of whose offices he applied himself to conscientiously, quietly and always with good humour. Norman was a true club stalwart: always ready to lend a hand to his fellows and be involved in all ground tasks, even to his very last days he would be out at the launch point or driving the winch in all weathers when younger members sought refuge in the clubhouse. He was a good audience, ever appreciative of a joke or quip, and a good listener with a strong sense of fairness. We shall remember him for his friendship and kindness – we shall miss his chuckle.

Barbara Fairclough

Basil Lane – Dorset

BASIL was born on May 1937 in Southampton and died in Southampton General Hospital on January 8, after a valiant year-long battle against cancer. He completed his later school days at St Mary's college, Southampton, and on leaving school he did a motor mechanic's apprenticeship, going on to work all his life in the motor trade. 'Baz' – as he preferred to be known – was well liked and well regarded at Dorset GC. He had been a member for a long time, and must have been pretty keen to do a 100-mile round trip every time he came to the club. His face will be sadly missed, as will his engineering knowledge, and happy-go-lucky outlook on life. He did some offshore sailing in his younger days, but his main interest was private flying, both powered aircraft and gliders. He flew from the then Eastleigh Airport as a pilot and instructor with the Southampton Flying Club. In later years he became a valued member of the Dorset GC, owning a share in Libelle 832. Baz was a private person, with friends in the motor trade, Dorset GC and his home town of Holbury. His funeral was full of mourners paying their last respects to a man well thought of in the motor and flying spheres. He leaves a brother and niece.

Colin Weyman



blowing from the south, the cliffs at Beachy Head offer some truly exciting opportunities for soaring.

Peter Holloway

Staffordshire (Seighford)

MEMBERS enjoyed the Annual Awards Dinner. Paul Cooper was awarded the Early Bird Trophy for the first 100km of the season, and also the Height Boomerang. Rangi de Abaffy took the Distance Boomerang, Avro Trophy and The Ken Sheriff Trophy for his numerous 300km-plus flights. The Chairman's Cup went to Derrick Miles for work on the fleet, and the Vice Chairman's Cup to Geoff Sutton. The Secretary's Trophy went to John Bates for his work on the Cadet Programme, as did the George Glass Trophy for his flying achievements. The CFI's Cup was awarded to Bill Henderson and The Vulcan Trophy to Dan Yates for his progress over the season. The 2-Seater Award went to Chris Fox and Henry Teasdale. The K13 FFA is back in service, thanks to all for their hard work. For more info, see www.staffordshiregliding.co.uk

Paul (Barney) Crump

Suffolk Soaring Club (Bury St Edmunds)

NEWS this month of our first solo. Despite not offering *ab initio* training at our site, Alan Jordan decided to join Suffolk Soaring Club. He went on a one-week course at Husbands Bosworth, and then purchased a share in a Twin Astir. On February 11 I had the pleasure of sending Alan on his first solo flight, in his own glider! He already has his eye on Bronze and beyond! We are steadily growing, with eight gliders now based on site, and are looking forward to a summer of cross-country flying. Many of our pilots have entered regional and national competitions. Some members are going to Jaca for two weeks in May. We will be hosting the East Anglia Inter Club League this year. Visitors are welcome; please call us first.

Terry Slater

The Soaring Centre (Husbands Bosworth)

CONGRATULATIONS to Eleanor Armstrong on going solo, aged just 16. Also well done to all those club members who completed 750km flights in Australia this winter (names to be confirmed when they return!). Ian Willows is our new club technical officer – thanks to Basil Fairston for all his work in this area over recent years. All our tugs and the winch are serviceable ready for the start of the new season – happy soaring everyone.

Siobhan Hindley

Ulster (Bellarena)

WINTER flying at Bellarena has been exceptional with wave and many a flight over 10,000ft. Our AGM has passed with a few new additions to the committee, Moore Campbell as tugmaster and Stephen Johnston who takes over the position of Honorary Secretary from Tom Snoddy who stands down after 10 years' invaluable service. We also welcome Michael McSorley as a new director. Jaca in Spain has been chosen as our club expedition for this year. One of our aspiring young cross-country pilots has booked a training session in Spain with British Team Manager Brian Spreckley. The 2006 Bronze course is well under way with lectures in full swing. Congratulations to Keith Loughrey, who went solo in only a few months. For anyone who hasn't visited us we have an excellent ridge and a combination of mountains lending themselves to excellent soaring for the cross-country pilot.

Finbarr Cochrane

Welland (Lyveden)

CATCHING up, last years trophy winners were as follows: Ray Clarke Cup, Stephen Burgess; Best in Wood, Michael Neal; 267 Cup, Mark Rushton; Sedburgh Cup, Jo Cooper; CFI Shield, Mike Taylor; and the Rigging Pin, Dick Short. Strzeb and Michael Neal took the Club Open and Weekend Ladder Trophies. Amazingly the field has been usable to fly from mostly all winter and still some of the winter maintenance jobs are being done and lectures are being organised. Special thanks goes to Dick Short for repairing the winch guillotine in -2°C to keep us flying.

Strzeb

Windrushers (Bicester)

DESPITE being a bit of a foggy, chilly and generally miserable couple of months, we've had great fun! Windrushers played host to The Vintage Aircraft Club members, who have attempted two



Ed Watkinson (above) and Matt Oakey have gone solo at York Gliding Centre, hard on the heels of 16-year-old Sam Doherty

events from our airfield (Bicester) this year, the last one being the Valentine's Rally on a February Sunday, both of which got rained off! Bicester is hosting the Standard Nationals this year, taking place between July 8-16, and the Bicester Regionals will take place from August 5-13. Roll on summer! Bicester also played host to Oxford University's pre-solo training week in December. Many congratulations go to Philippa Roberts and John McLean, who completed first solos during the week. We're always keen to welcome new and prospective members – please see our website www.windrushers.org.uk for more information.

Rachel Brewin

Wolds (Pocklington)

THE annual dinner dance and awards evening was excellent. Awards went to Charlie Tagg for Club Ladder, John Norman for Midweek Ladder and Derrick Roddie for most meritorious flight. Apologies to the winners that I have not had room to mention. Thanks go to Tim Milner on a sterling presentation on cross-country flying and weather. The novices, and most of the pundits, learned a lot. Work is underway on the new clubhouse with half of the old one already knocked down. The shiny new SkyLaunch winch (oooh) has been ordered and delivery is expected late February, complete with new plasma rope (oooooh). Wolds members will be zooming skyward and getting even higher in 2006. Remember to get your entries in for the 21st internationally renowned Two-Seater Competition. This year's dates are August 20-27. Hope to see you all there!

Sam Roddie

Wyvern (Upavon)

THERE have been many more hours spent repairing and refurbishing than actually flying over the last two months! The Tost winch has had two reconditioned scroll gears fitted and oil leaks fixed. Then the SkyLaunch was stood down for preparation for use with Dyneema cables. On the airfield the first two QinetiQ Airman's Programme students, Bryan Somerset and Dave Kay, achieved first solos, Paul Lutley re-soloed and Nobby Reed gained his SLMC licence. The redecoration of the Wyvern GC clubhouse is underway. Finally, our K21 HYT returned from Poland after re-gel, cockpit refurbishment and C of A. It looks like a new glider, right down to the shiny new brass cup-washers for the seat pan screws and members are looking forward flying such a pristine machine. Anyone with muddy boots or greasy hands need not apply to fly it!

Andy Gibson

York Gliding Centre (Rufforth)

IT'S been quite a while since we managed to get a report into S&G due to a series of communications problems. Everything seems to be back on track now. Apologies to those many members who have achieved such a lot over the past few months but who have not had the recognition they deserve. To start to put things right, here are a few samples of what York Gliding Centre members have been up to: Distance claims include Pete Wilson 200km, Tom Stoker 250km, Mark Shuttleworth 240km, Dawn Hammond 100.2km (the .2 is very important to Dawn!) Mark Boyle and Barry Douglas, 200km, Richard Kalin and Pam Shuttleworth 200km, Richard Kalin and Hugh Etherington 300km... a grand total of nearly 1,300km over a few weeks at the

BGA Badges

AAIB Update

end of a summer of achievements. On June 26 Pam Shuttleworth and Keith Batty both get their five hours duration joined on July 3 by Craig Olley. Mark Shuttleworth managed an amazing Diamond height gain to 20,300ft on a cold December day in wave over Ripon. Only the failing light forced him down. Commiserations to Roy Nuza, who (unable to make it to the club that day) relinquished his slot in the syndicate DG-202 to Mark. To cap it all, the Harris-Etherington-Rogers team managed 30 acres of mowing on September 2. What stars they all are! Following on the heels of Sam Doherty, who soloed on his 16th birthday on November 1, congratulations are also due to Matt Oakey and Ed Watkinson, who both went solo on the same cold day in January. The club has great plans for 2006, including some systematic work on the new clubhouse and possibly introducing a booking system to streamline the training process.

Keith Batty

Yorkshire (Sutton Bank)

THE first of the year's thermals in early February saw cloudbases to 4,500ft and 4kt and several trips to the seaside by glider – bring it on! The CFI and DCFI are programming an abundance of new instructors, including Kelly Teagle, John Marsh, Tony Wadup and Chris Teagle. Our brand new K21 is up and running and we have replaced our Astir. We have fitted a retrieve winch to one of our Pawnee's: if it proves successful the other will be converted. Anne Silver has been fattening up the club members and visitors over the last few months, while Peter Clay and team have ensured they have somewhere to put it afterwards – completing a much-needed renovation of the Gents! We're happy to share our toys and site, so why not come and play this spring?

Annette Smith

S&G's thanks go to Debb Evans for editing Club News down from the 10,937 words that were submitted to the 7,950 words that were all the editor could find the space for this issue – and many thanks to all Club News authors for your unsung heroism in submitting stories and photos to deadline, issue after issue... We're sorry it's not always possible to use everything you send

No	Pilot	Club (place of flight)	Date
DIAMOND BADGE			
708	Randall Williams	E. Sussex (New Tempe)	7.12.05
Diamond distance			
1-1049	Peter Desmond	Bowland (New Tempe)	19.11.05
1-1050	Randall Williams	E. Sussex (New Tempe)	7.12.05
Diamond goal			
Anne Chapman		Booker (New Tempe)	2.11.05
Diamond height			
3-1656	David Champion	Southdown (Minden)	18.5.05
3-1657	Mark Shuttleworth	York	11.12.05
3-1658	Croft Brown	Bowland (Dishforth)	11.12.05
3-1659	Derek Robson	Borders	11.12.05
GOLD BADGE			
2398	Croft Brown	Bowland (Dishforth)	11.12.05
Gold distance			
Anne Chapman		Booker (New Tempe)	2.11.05
Gold height			
David Champion		Southdown (Minden)	18.5.05
Croft Brown		Bowland (Dishforth)	11.12.05
Richard Abercrombie		Borders	27.10.05
Cliff Beveridge		VoWHGC (Minden)	24.7.05
SILVER BADGE			
11620	Anne Chapman	Booker	2.11.05
AEROBATIC BADGE			
Int Kwn	Steve Jarvis	London	17.6.05
Int Unk	Steve Jarvis	London	17.6.05

In the latest of our regular series gleaned from UK Air Accident Investigation Branch bulletin, here are two recent relevant summaries from the Department for Transport website:

Scheibe SF25B, G-AXEO

Location: Milfield Airfield, Northumberland

Date: July 9, 2005

The pilot planned to fly the aircraft once it had returned from a previous flight. Prior to take off the aircraft had to hold for 5 mins, on dry grass, while a glider that had just landed was recovered. During this period the engine speed was maintained at 1,100 rpm. The OAT was +25°C. Soon after take off there was a progressive reduction in engine power. Being at about 80 ft, the pilot realised that he was too high to land in what remained of the airfield ahead. The engine then stopped completely and the aircraft descended striking the airfield boundary fence before coming to rest. The pilot vacated the aircraft unassisted and without injury. Given that the engine was already warm from its previous flight and the normal air supply to the carburettor would have provided very warm air as a consequence of its low flow rate through the engine compartment in the absence of any ram effect. It is therefore considered that these conditions were ideal for the formation of a vapour lock in the fuel line.

DG-800B, G-MSIX

Engine: Solo Kleinmotoren GmbH 2-625-01 piston

Year of Manufacture: 1999

Date and Time (UTC): June 23, 2005, at 15.30hrs

Location: Near West Trading Estate, south of Gloucester

Injuries: None

Nature of Damage: Landing gear collapsed and lower fuselage damaged

P1's Licence: Private Pilot's Licence

P1's Age: 74 years

P1's hours: 2,506 hours (of which 202 were on type)

The pilot reported he was flying in a gliding competition, on what he described as a "very hot" day. He took off from the launch site under the glider's own engine power and, at the end of the self-launch, noted that the engine coolant temperature (displayed digitally in the cockpit) was high. The soaring conditions became difficult, and the pilot decided to end the task. At about 1,200 ft above ground level, the pilot raised the propeller mast and started the engine, with the intention of flying back to the airfield under power. The engine started without difficulty, and achieved full power, but after climbing about 600 ft, the engine high temperature warning began to flash, indicating that the temperature of the coolant had reached 95°C. The pilot shut the engine down, and established a circuit around a "good looking" hay field. The pilot was unable to centre the propeller, and thus could not lower the mast fully. Instead, he lowered the mast about half way. Using 8° of positive flap and an approach speed of 60 kt, he flew the approach to the field. After a fully held off landing with a small amount of airbrake, the glider touched down. Soon after touchdown, there was a "high impact" and the landing gear collapsed. The aircraft ground-looped and came to rest erect, and the pilot vacated the aircraft without difficulty. After the accident, the pilot noted that there were severe ruts throughout the field, and the landing gear had collapsed where the aircraft ran over one rut. He found that the engine had seized, and concluded that this had been caused by loss of coolant, although the coolant level had been normal when last inspected, two days prior to the accident flight. Inspection of the engine after the accident identified that there was significantly more than normal white staining around the radiator filler, consistent with a coolant loss in flight. A maintenance engineer, familiar with the engine, offered the opinion that the position of the radiator within the mast made positioning the cap onto the filler somewhat awkward, and that it was possible to replace the cap incorrectly, allowing coolant to escape under pressure.

Accident/incident summaries by Dave Wright

AIRCRAFT				DATE	PILOT(S)			
Ref	Type	BGA No	Damage	Time	Place	Age	Injury	P1 Hours
071	LS1C	4750	Substantial	12-Jul-05 1537	N522306 W0023761	63	None	219
During a competition flight the pilot had to land out in an area of crops and chose an upstopping stubble field. After a normal approach he rounded out too high due to the unusual appearance of the ground ahead. This, combined with a lack of extra speed, resulted in the glider stalling onto the ground and collapsing the undercarriage.								
072	Vega	2797	Substantial	18-Jul-05 1308	Kenley	56	None	70
After encountering heavy sink in the circuit the pilot turned in early but failed to line up with the runway centre. Undershooting, he tried to float the glider over the peritrack and caught the wing in the tall grass on the edge of the disused part of the runway. A vicious groundloop followed causing substantial damage.								
073	SZD Junior	3268	Minor	20-Jul-05 1046	Talgarth	45	None	58
The visiting pilot, after a check flight and briefing, was making his first flight on type. A downslope caused a slight overrun and subsequent snatch at the start of the aerotow and, finding pitch control difficult, he pulled the release. A PIO developed and, upon opening the airbrakes, the glider landed heavily, damaging the nose.								
074	ASW 20L	2707	Minor	01-Jul-05 1230	Near Stowmarket	38	None	305
During a competition flight the pilot encountered deteriorating soaring conditions and so chose a harvested hay field. During the landing roll he saw a wire sheep fence across his path and so induced a ground loop to avoid hitting it head on. The glider slid into the fence sideways causing damage to the wing and flap.								
075	Kestrel 29	1763	Substantial	13-Jul-05	Rowton	—	None	1000
During a competition flight the pilot decided he had to land out. Soaring a ridge at 700ft he prepared for landing but found no good fields and had to choose an uphill barley field. He held off above the crop to reduce speed but the glider stopped rapidly, causing wing and flap damage								

Available via: www.aaib.dft.gov.uk/publications/index.cfm

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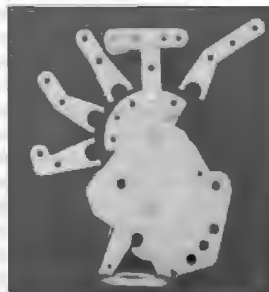


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INDEX TO DISPLAY ADVERTISERS

Advertiser	Page
AFE/RD Aviation	inside back cover
AFEX	46
Air League	11
Airborne Composites	58
Anthony Fidler	66
Baltic Sailplanes	54
British Gliding Association courses	32
British Gliding Association glider hire	46
British Gliding Association shop	53
Bicester Aviation Services	62
Bidford Gliding Centre	50
Black Mountains GC	6
Cair Aviation	62
Cambridge Gliding Centre	37
Carole Anderson	64
Cerdanya	6
Cotswold Gliders	64
CP West	63
Crabb Computing	7
Deeside Gliding	54
Emfo	64
European Soaring Club	65
EW Avionics	46
Flightmap Software	22
Glider Instruments	62
GPS for Less	50
Grett Optics	42
Hill Aviation	37
HSBC Insurance Brokers	14
Jaxida Cover	22
John Delafield LX Avionics	13
John McCullagh (<i>Bronze & Beyond</i>)	64
Joint Air Services	7
Lake Keepit	65
Lasham Gliding Society	42
Loch Kinord	66
Mason Restoration	64
McLean Aviation	26
Midland GC	42
North Yorkshire Sailplanes	22
Oxfordshire Sportflying	58
Pilot Flight Training	62
Premier Electronics	66
Roger Targett	54
S&G Subscriptions	53
Scottish Gliding Centre	62
Severn Valley Sailplanes	63
Shenington	58
Skycraft Services	63
Skywings	65
Soar Minden	54
Soaring Oxford	22
Southern Sailplanes	outside back cover
Southern Soaring	62
Sportavia	58
Stemme Motor Gliders	62
Stratmaster	46
The Soaring Centre	11
The Soaring Centre	65
Wells Design	57
Windrushers GC	inside front cover
www.refinish.biz	26
York Gliding Centre	6
Yorkshire GC	14
Zulu Glasstek	37

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Typical prices for ASW20 and DG1000 are shown; please call for a quote for your sailplane type.

EMFOASW20 £875.00

EMFODG1000 £1075.00

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GELHYDROPAC £22.95



Liquipak 'Pilot' hydration pack

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SCHROTH Harnesses

AFE is proud to be the UK agents for SCHROTH as we recognise the importance of their exceptionally high standards of design and manufacture – after all, one day you may need to trust your life to your seat harness.

Schroth harnesses are custom-built for added security; simply complete a measurement chart (available on request) and we will have a Schroth harness made to your requirements. Standard four and five point harnesses are available in black or blue, with matt black metal work. Other colours are available on request. Secure fittings are available either as a three bar slide or metal with 8mm hole.

SCHROTH aviation seat belts are JTZO/TSO C114/C22g approved. All SCHROTH harnesses supplied by AFE come with JAA form 1 as standard.

Prices are for 'standard' installations and intended as a guide only. Price may vary depending on exact specification.

Schroth 4 Point Harness

SCHRO4PT £310.00 H

Schroth 5 Point Harness

SCHRO5PT £330.00 H



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It's that time of year again. The 1:500,000 Southern England chart has recently been published and the 1:250,000, England South and Borders charts are to follow in mid April. With a number of airspace changes incorporated in these charts, all pilots are respectfully reminded not to fly with an out of date chart. For other 1:500,000 and 1:250,000 chart publication dates please see the table below.



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Northern England & Wales	28
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North Scotland West	3
North Scotland East	3
Northern Ireland	4
The Borders	4
Central England & Wales	6
England East	6
The West & South Wales	5
England South	9

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13 April 2006

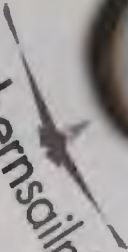
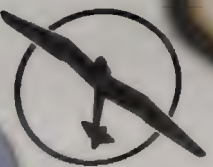
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