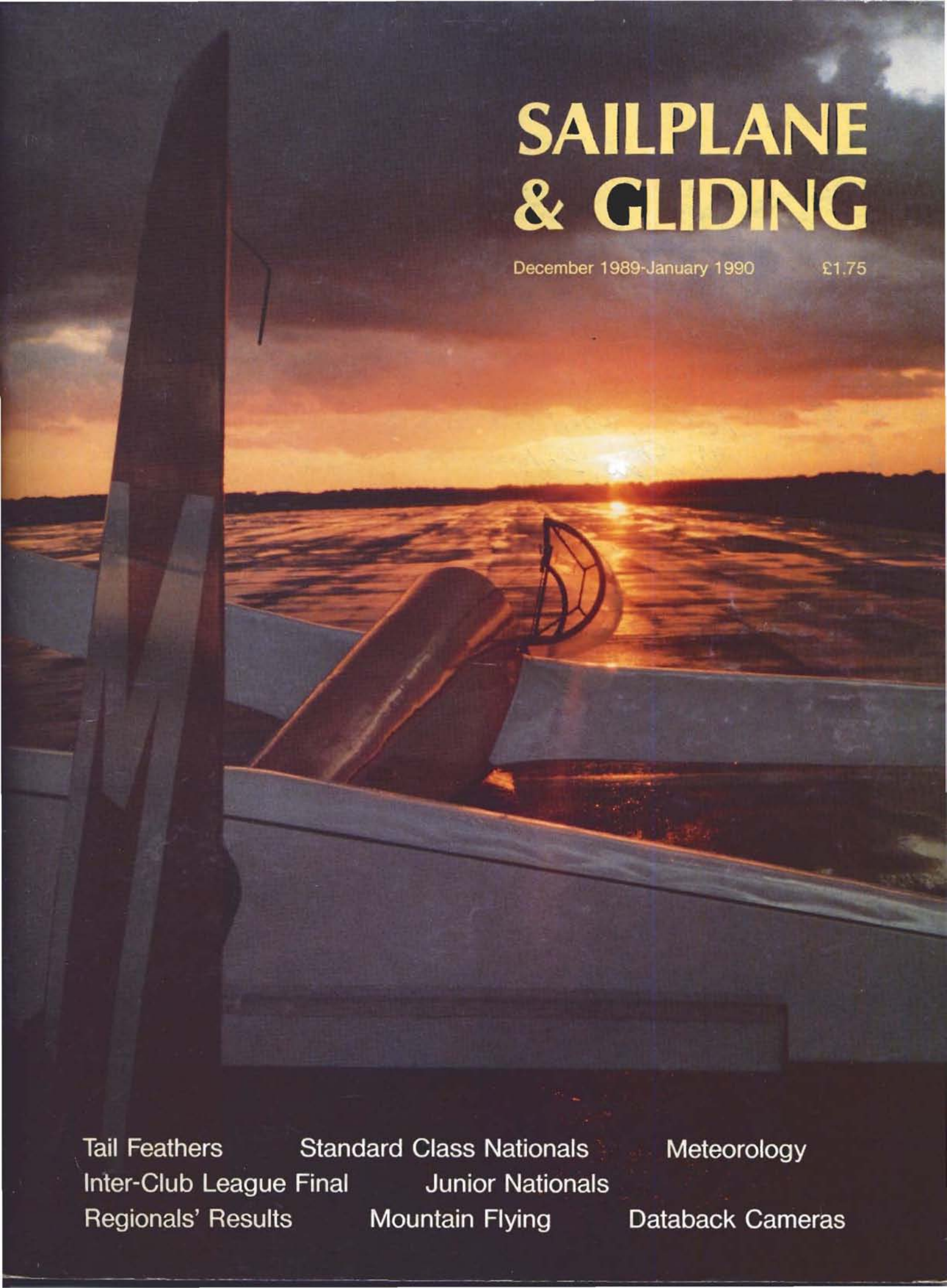

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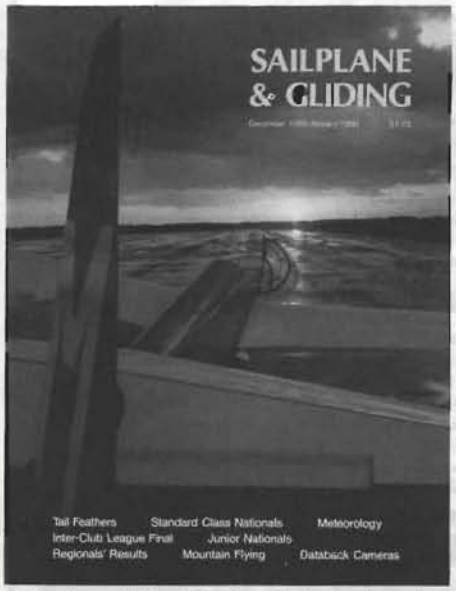

Cover: The end of a winter day. A K-13 on the main runway at Lasham photographed by Mark Wills.

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ACCESS

YOUR LETTERS

ARE GLIDER PILOTS AT RISK?

Dear Editor,

In the autumn of what has been a politically green year one ponders on a glider pilot's place in the scheme of things. To what environmental risks are we especially exposed, we who spent hours circling in what must be the most polluted air in the country. Is being carried aloft above Didcot a mixed blessing? Is this the air which when diluted a million-fold decimates forests and fish in Scandinavia?

Older pilots may recall (but see below) the joy of reaching Corby on a difficult cross-country to find there thermals galore. Rising columns of every hue – orange, green, black and yellow – into which we raced, to cough and splutter as we circled upwards. What did those thermals contain above the multitude of blast furnaces? Presumably lead, arsenic, chromium supported in a thick soup of sulphurous compounds and carbon monoxide. Asbestos from the firebricks must have added to the cocktail.

Nowadays, what do we inhale from the hot rising gases above toxic waste disposal plants? Is oxidisation of the PCB's complete or is a touch of dioxin present? Are all the toxic agricultural chemicals, absorbed by our growing crops, completely incinerated to innocuous by-products in uncontrolled straw ("stubble") fires? Is collision while being tossed upwards with other gliders partly out of control in IMC really the main danger?

There have been many erudite letters on the deterioration of gel coats in British owned gliders. The manufacturers tell us it is a peculiarly British phenomenon; are they right?

One ponders during the autumn months to what intellectual heights we glider pilots might have soared in other fields (Nobel or Pulitzer prizewinners, merchant princes, or even the chairmanship of GEC) if we had not been so intoxicated with gliding. We will see in *S&G* adverts for light-weight gasmasks suitable for the rising young glider pilot – before it's too late.

Finally, do the older pilots remember Corby or have their retentive brain cells succumbed?

TONY WATSON, *Romsey, Hants*

SHOULD THE SCORING SYSTEM BE CHANGED

Dear Editor,

Having witnessed and heard about some frighteningly marginal final glides in competitions over the last few years, one involving a fairly serious crash, I am wondering if the basis of competition scoring should be changed.

The problem with the current system is that it puts tremendous pressure on competitors to finish the task. Landing one field short, however sensible in the circumstances, can lead to a considerable loss of points, especially on a racing day.

During the recent Standard Class Nationals I was twice in marginal final glide situations. On the first occasion I chickened out and selected a field while I still had a sensible amount of height. The second time I deviated well off track to the last remaining cumulus cloud for a top-up, which probably cost me about fifteen minutes. However I was very much an also-ran (or also-flew) in this competition and I am not sure that I would have made the same decisions if I had been in serious contention. The urge to keep pressing on and hoping for the best must be enormous!

Now we have time recording cameras, surely it must be possible to have a scoring system based on a speed × distance formula. Competitors completing the task would be timed across the finish line as present. Those landing out could photograph their tailplanes as soon as possible after landing. The time recorded on this photograph could be used to calculate their speed to that point.

Competitors landing out would still lose out on the distance component (especially if the formula was biased towards distance) and by having to fly a circuit and landing before being able to get out to photograph their tailplanes, but not as badly as in the current system.

The scoring system I am proposing would still reward those who fly the furthest fastest, while removing the risks inherent in the present system.

DEREK COPELAND, *Rickmansworth, Herts*

John Taylor, BGA Competitions and Awards Committee chairman, replies:
Although there have been a few accidents related to marginal final glides in competitions, I don't think it follows that the scoring system is the prime cause. Competition pilots are as motivated as anyone to avoid damage to themselves and their glider, especially for the duration of the competition, and most will calculate a conservative final glide to avoid the loss of points Derek refers to. When a final glide is inevitable, the pilots may well be faced with a critical land out or carry on decision at an altitude dependent on his skills and experience. At this late stage, I doubt that the number of points at stake is going to figure too highly in the decision making – getting back is always going to be preferred to landing out.

The BGA accident statistics have not, to my knowledge, indicated that there is a special problem related to final glides in competitions. Even if they should do so, I would not be keen on a system which allocates speed points for non-completed tasks as this would put pressure on the pilot to waste as little time as possible in selecting a field and getting the glider on to the ground so that the finish photo can be taken.

I would be interested to hear any other views on this topic.

DISABLED PILOTS

Dear Editor,

I am replying to the letter in the August issue, p165, suggesting the BGA should approve a dual flying badge scheme so that disabled pilots could receive recognition. What better recognition if you don't have to bend the rules but beat the able-bodied at their own game?

There are few converted K-13s that can be flown by a hand-controlled rudder, even though the BGA have a quick and easy approved design. If you want to convert your club K-13 so that both the able-bodied and the disabled can fly, then contact me or the BGA for help.

At this point a disabled person can reach the Bronze badge. Now for the rest. I am in the middle of organising a K-6E so that the disabled can fly cross-countries in perfect safety, but I am in desperate need of money. If anyone would like to help then please send contributions to me at the address below.

The glider will be as new, re-covered, resprayed etc, and fitted with a Cellnet telephone (sponsored by Cellnet) to call the crew if you land out, a CB radio so that if the phone packs up you can contact the local CB enthusiasts, plus a 720 channel radio. The cockpit seat unplugs with four pins and underneath are wheels. You plug the wheels on the side of the seat and, presto, a wheelchair.

I hope this glider will soon be available so that the disabled pilot can go all the way, even becoming an instructor. I've got loads of ideas and I hope it won't be long before I get my chance. I am also in the process of setting up courses for the disabled.

My advice to the disabled is to get flying. It's all been done before and the doors are wide open. I speak from experience as I am paralysed from the waist down and have been gliding for 3½ years as well as holding a PPL. I also know how the disabled can get their PPL for nothing, so contact me for details.

GARY BENNETT, *12 Covent Garden Road, Caister, Gt. Yarmouth, Norfolk, Tel 0493 722172*

MORE ON STALL RECOVERY

Dear Editor,

It might seem superfluous to add to the coverage of stall recovery actions in Bill Scull's article (A), February 1989 p14, and letters from Dudley Steynor (B), June p113 and from Ian Strachan (C), October p221, but some further comment seems appropriate. B appears to criticise A for suggesting that after moving the stick forward to recover from a stall with wing drop the pilot should wait "until enough speed has been built up" before levelling the wings. I can't find this in A, which actually says "after the glider is unstalled the wings can be levelled in the usual way". The unstall is a function of angle of attack, as noted in C, and it essentially occurs immediately the stick is moved forward. The ailerons can then be used with negligible delay. Rudder should be used conventionally to co-ordinate, not to "pick up the wing", and this alone determines how much should be used.

It is mysteriously stated in B that aileron drag has almost disappeared at the stall. That would surprise those who use the resulting yaw to help to provoke a spin. It is almost certainly the basis for the old fallacy that down aileron at the stall causes or worsens wing drop by further stalling the local wing. All glider sections I know of show increased lift from down aileron in the stall region, and if sideslip is prevented by rudder, many aircraft and gliders retain effective roll control. Here ➡

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the aileron drag is at its most powerful relative both to rudder power and to yaw stiffness, reducing as angle of attack is decreased, which is why many pilots overrudder their final turns. Hence it is prudent to unstall first, then level the wings with aileron and rudder (not, please, with rudder and aileron!). These actions may well become simultaneous at the last ditch when 20ft from a crash, but the mental priority must be to unstall the glider to restore lateral controllability.
JOHN GIBSON, *Lytham St. Annes, Lancs.*

Dear Editor,

I have followed with growing interest, the discussions upon your pages regarding Stalling and Spinning, and feel certain that a desirable by-product of the correspondence will be the additional thought applied to the subject by all of us.

With regard to the recovery from a stall during which a wing has dropped, may I quote from a **RAF Instructors' Handbook of Flying Training:-**

"When the wing drops, apply sufficient opposite rudder to prevent yaw and, at the same time, open the throttle and ease the stick slightly forward. As the wings become unstalled, the natural stability of the aircraft will cause the wing to come up, but this can be assisted with the ailerons when these become effective."

A spin, which it is presumably the object of the exercise to prevent, requires two ingredients, a stalled condition and yaw. The application of the correct amount of rudder removes one of these. The emphasis is on correct amount, rather than the "unfeeling boots of rudder" which has been quoted, but that surely is what flying instruction is all about.
JOHN PRESSLAND, *Wallingford, Oxon*

SAILPLANE SURVIVAL

Dear Editor,

Whilst agreeing with the concept in Peter Saundby's article "Survival from Sailplanes" in the last issue, p230, I cannot help but feel as one whose other major interest is shooting that any device that incorporates a rifle, rocket or mortar, even though it were part of a mechanism intended to save life, would fall foul of our current firearms legislation.

As for the current 50% survival rate, how many glider pilots have even considered that they may one day be involved in such an emergency and have determined what their actions would be in the circumstances?
HARVEY CLARKE, *Fareham, Hants*

GLIDERS CAUSED CHAOS AT CRANFIELD

Dear Editor,

I would like to make an earnest and urgent plea to all who enjoy the pleasures of cross-country flying? Cranfield is an exceptionally active airfield with daily movements frequently exceeding the 700 mark. The variety is also extreme and ranges from fast military jets to hot air balloons with skydiving, parachuting, commercial flying training, gliding, research flying, kite flying (to 2000ft), airships and microlights all thrown in for good measure. Our Aerodrome Traffic Zone is 2.5nm radius and the instrument approach pattern is in constant use. In spite of all that, we welcome the odd non-based glider if his nerves can stand the traffic.

Recently, however, a Nimbus and others caused chaos by thermalling *inside* the ATZ and low on the upwind end of the active runway and, yes, I know your competition numbers as the trainee airline pilot who narrowly missed you is also a gliding instructor! Total chaos ensued in the circuit and in the airway above where the parachuting aircraft suspended dropping until the gliders left the area. It can do the sport no good whatsoever and it was dangerous as well as illegal. Please, please avoid our overhead and keep your eyes peeled anywhere near Cranfield.
STUART CARRIE, *Airport Manager, Cranfield*

THE HISTORY OF ASTON DOWN

Dear Editor,

It was mentioned several times at the 25th anniversary celebrations that I was responsible for taking the club to its new site and I would like to set the record straight.

When it was evident that we were to lose the right to fly from Long Newton a search was made for an alternative site. I proposed Aston Down and was promptly made chairman with the instruction "to get on with it."

I met the resident Supt at the drome and received his tacit approval, though he doubted the relevant minister would agree. With the then CFI, Roger Bunker, I approached the local MP who could promise nothing. At this point it was taken up by Chris Simpson and the BGA and I believe it was due to his detailed approaches to John Stonehouse, the then Minister of Transport, that permission came through.

In our excitement at moving to Aston Down I believe we forgot all Chris's hard work and I hope this letter will redress the balance. Great credit is due to all members both past and present for the club as it is today. It has come a long way from the days when, quoting from the hilarious speech of another past chairman, Larry Bleakin, "The committee meetings were held in the back of a car."
DEREK VENNARD, *Amberley, Glos*

MORE VERTICAL AIRSPACE

Dear Editor,

With his long experience of contest flying I'm sure Tony Watson will admit that the haunting spectre he refers to (see the last issue, p225) has been around a long time, although I was not aware that penalties based upon a rival's observation and a barograph trace had actually been imposed.

I agree with Tony that the present situation is unacceptable and wish to promote the alternative view that the examination of barograph traces in contests should be confined to the sole purpose for which they provide irrefutable evidence, *ie* that no intermediate landing and launch has taken place. Although it would be irresponsible for contest organisers to set tasks that could give rise to risk of collision with commercial traffic, we all know that 90% of the airspace they have commandeered is permanently empty and BGA officials should not be expected to act as temporary unpaid CAA officers in a Big Brother role.

Like Tony I too have long held the opinion that we are unlikely to achieve greater freedom in the skies if we continue our present complaint attitude and his reference to the packaged tourist identifies the enemy. No time should be lost in linking with those pressure groups representing the interests most damaged by this trade (such as our seaside landladies and hoteliers), and having regard to the package tour industry's negative contribution to our nation's balance of trade, we should invite support from HM Treasury. If our movement's undoubted inventive genius would apply itself to formulating an acceptable alternative to exchange controls, we could make Mr. Lawson our friend for life.
CHARLES ELLIS, *Ilford, Essex*

WHY INCLUDE POWER ACCIDENTS?

Dear Editor,

I note from your review of "Accidents to Gliders 1987" in the August issue, p169, that three pilots were killed *"in two tugs but not while aerotowing"*. May I ask why the BGA is apparently agreeing to include general aviation power accidents, which simply happen at gliding sites, to be included in the gliding accident statistics.

Power pilots are trained in the general aviation world controlled by the CAA. They have no claim to a better safety record than ours, and they should jolly well have their accidents back.
KEITH NURCOMBE, Rugby, War

John Shipley, BGA Safety Panel chairman, replies: Keith Nurcombe's question seems light hearted, but touches on several issues of recent and current interest to both the BGA and CAA. From the tone of Keith's letter perhaps he is against power flying from gliding sites? Putting that option aside, and bringing the issues into perspective, do we have a moral responsibility for all flying from gliding sites? **Laws and Rules** clearly states the CFI is responsible! That unfortunately includes the occasional accident to a tug or motor glider.

Answering Keith's points in order of importance:- accidents to tug aircraft are excluded from BGA Accident Rate calculations and all such accidents are included in the CAA's national Civil Register statistics. As such, accidents to tug aircraft are published as excluded (category 22) in the BGA's **Accidents to Gliders.** From a safety education point of view the best way of informing CFIs, tug masters and tug pilots is through publishing relevant incident and accident details. All power pilots (including tug pilots) initially train to the recommended CAA ➡

Christmas!

Yes, it's that time again, packed shops, crowded roads, the search for presents and of course, the office party!

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syllabus for the General Aviation world. However, for tugging further training and development of skills is essential to become a safe and effective tug pilot.

After a number of serious "tug upset" accidents in recent years to a relatively small group of (experienced) pilots, the BGA and CAA are naturally sensitive to any accident concerning aerotowing. The point being made in the report is defensive towards aerotowing, in that towing was not a feature of the accidents, although the pilots involved were being trained as or were trained tug pilots. I suspect that most power pilots operating from gliding clubs fly exclusively from gliding sites under the jurisdiction of gliding site CFIs.

For all tug pilots, but particularly for this group of pilots, the BGA morally has a post accident review rôle to perform. Where trends are evident, action is taken on a broad front through the various BGA sub-committees to reduce repetitive accidents. Hence, the recent investigations into automatic upward releasing tow hooks, the fitting of nose hooks to (marginally stable in pitch types) such as Oly 463s and K-18s, articles in *S&G* on aerotowing and the publication of the **Tug Pilots Manual** are part of this on going process. "Pilot error" is the usual cause of most flying accidents, whether power or gliding. Other secondary causes are also present in many accidents, but "pilot error" is the basic common factor behind Keith's phrase "they have no better safety record than ours".

Having batted can I now bowl? A review of a summary is always likely to miss the nub of the issues, so I therefore make no apology for publicising tug and motor glider accidents, or labouring the above points. The best recommendation is to read **Accidents to Gliders** for recent years and 1989 (when it's published in the spring) to see how often given the right (wrong!) circumstances accidents happen to otherwise trained and safe pilots, including instructors. We are all vulnerable!

STALL WARNING INSTRUMENT

Dear Editor,

In reference to Frank Irving's observations of my OSTIV stall warning instrument's performance during his recent Janus flight at Wiener Neustadt (see August issue, p192), I would like to add the following comments:

The excessive hysteresis that he observed was likely caused by the attachment of a small lead weight, externally mounted near the trailing edge of the airfoil shaped pivoted sensor vane. I have experienced that same phenomena when some, but not all, of the optional externally mounted ballast weight configurations were used. The hysteresis is likely due to an airflow separation over the small airfoil vane, apparently induced by the ballast weight's disruption of the vane's otherwise satisfactory airflow.

The reason for adding the lead ballast weight to the sensor vane in the first place is to increase the magnitude of the stall warning margin. Alternate methods for achieving the same results are:-

1. Lowering the vane pivot height by using the alternate pivot pin holes, provided at each 1mm of height, or
2. Moving the vane sensor unit aft chordwise on the airfoil where the sailplane's wing airfoil separates earlier.

When properly configured the stall warning unit exhibits about 1kt or less of hysteresis. Generally about 5 to 10% of stall airspeed appears to be an optimum setting for most pilots and sailplanes; at least for those that we tested at Caddo Mills, Texas, during the past 18 months.

The setting I prefer for my Ventus and Nimbus 3 is that which sounds the warning buzzer when the wing profile drag monitor indicates departure from the airfoil's low drag laminar angle of attack region. That aids me in optimising my thermalling performance, and at my age I need all the help I can get!

DICK JOHNSON, *Dallas, Texas, USA*

MEASURING GROUND SPEED

Dear Editor,

I would like to reply to comments in the August issue, p167. On the question of measuring ground speed with Doppler radar, this is one of the standard methods in commercial aircraft and the objection by Ron Smith does not apply since final glides are flown straight and level.

On the question of compass flicking, if you watch your compass of the fluid filled variety, *eg* Airpath or E2A, it is a simple fact of observation that it flicks back at south-east when circling to the right and at south-west when circling to the left. Applied *g* fluid viscosity etc does not apply. The theory was gone into in my article "Clever these Cantonese" in the June 1973 issue, p278.

Similarly stop watch and altimeter are not on. You are far too busy when thermal soaring already. I first reinvented this wheel in 1957 with an "accurate integrating variometer", which I wrote up for the October 1957 issue, p281. This was a clock closing a circuit once a minute to operate a solenoid to vent a sealed altimeter. It works quite well and I might start using it again next year.

BRENNIG JAMES, *Marlow Common, Bucks*

INTER-CLUB LEAGUE FINAL 1989

Mike Jefferyes reports on the climax to a successful year - the Final held during the August Bank Holiday at Bicester

Many requests for interpretation of the rules, or for arbitration, gave an early indication of how much more flying was being achieved in the Inter-Club League competitions during 1989 than all recent seasons, and confirmed that as much energy continues to be put into scoring and analysis of results as into the flying!

All eight leagues were active, with one change reported from the Northern League. RAF Syerston were not yet able to join in (hopefully next year), but a group of their pilots from the Notts Police Force did enter a team, and were helped out by RAF Cranwell who hosted a very successful weekend meet for them. The Services are playing an increasing part in the League, and once again took a dominant role in the Inter-League Final.

In 1987 we had a provisional invitation to hold the 1989 Final at Duxford but with the Cambridge University GC under mounting restrictions, they reluctantly cancelled. The next complication was that the Junior Nationals had been timed to include the August Bank Holiday weekend when the League Final is always held, and we knew of at least one pilot who wanted to fly in both competitions. Booker thought long and hard before concluding that their facilities could not handle both events side-by-side (with common tasks to permit pilots to score in both the League and in the Junior Nationals).

It was therefore at short notice we went on bended knee to RAF Bicester, and very many thanks to Barry Elliot and his team for kindly agreeing to host the weekend. They did ask for help with the scoring, and we were again most grateful to Tim Newport-Peace who, after setting up the Junior Nationals system to be run by the Booker scorers, then brought a second set of computer equipment to Bicester for our use - accompanied on the keyboard by Mike Taylor-Beasley of Nympsfield.

Thanks to the hard work of Tim and Mike, and of many of the Bicester members, the general expenses, including prizes, were kept to a moderate level - and we were delighted that T. L. Clowes (the insurance brokers) kindly agreed to cover these costs so that no pilot entry fees were necessary.

Saturday held little promise but Sunday's weather, viewed with hindsight, proved challenging - some extremely good soaring, some 5/8 alto-cu, some obvious awkward patches and some not so obvious, all set in a stiff north-westerly. Mick Webb of Bicester, with impressive foresight, set perfect tasks - 151km quadrilateral, Newport Pagnell, Gaydon, Moreton-in-Marsh, for the Pundits, a 125km quadrilateral, Mursley Tower, Gaydon, Enstone, for Intermediates and a 85km triangle, Mursley, Enstone, for Novices.

Tasks were completed by three Novices, three Intermediates and all seven Pundits

Those of us who didn't cope too well were relieved to find that neither did Andy Davis in his Discus! Three Novices completed their task - Julian Sakwa-Mante of Booker (Pegasus) at 54.1km/h*, then Al Cleaver of Bannerdown (Astir) at 49.1km/h and Geoff Brown of Cambridge (K-6E) at 43.5km/h. The Intermediates also produced three finishers - Michael Strathern of Bristol & Gloucestershire (Discus) 80.9km/h, followed by Jim Forrester of Essex (Libelle) at 56.6km/h whose photo penalty was not as great as 3rd placed Anne Stotter of Booker (Ventus C) at 58.2km/h. All seven Pundits finished, with Simon Hutchinson of Bannerdown (Ventus) in the lead at 78.2km/h, Basil Fairston of Booker (ASW-19) 2nd at 73.8km/h and Bob Sharman of Avon (LS-6) 3rd at 72.7km/h.

Fortunately none of the retrieves were long enough to keep any of us away from the excellent meal Bicester members had prepared - their efforts were all very much appreciated.

Scores at the end of the first day showed Booker in a narrow lead over last year's winners Bannerdown, followed by Bristol & Gloucester.

Monday's weather was much better. Mick Webb resisted all temptation to be conservative in view of end-of-Comp journeys, or the blue conditions expected by mid-afternoon. Once again his task setting was a perfect match for the conditions - 390km quadrilateral Pewsey, Caxton Gibbet, Leicester M1/M69, for the Pundits, a 308km triangle, Basingstoke M3(J7), Leicester, for the Intermediates and a 192km triangle Chieveley M4/A34, Watford Gap, for Novices.

All Novices completed the 192km - led by Aiden Grimly of Avon (Dart 15) at 79.8km/h, then Al Cleaver of Bannerdown (Astir) 78.9, and Dave Greenhill of Bristol & Gloucester (Std Jantar) at 76.5km/h. Only one Intermediate failed to finish (but still scored 333km distance). Winner for the second time was Michael Strathern of Bristol & Gloucester (Discus) at 85.7km/h, then came Chris Shawdon of Booker (Ventus) at 71.5 and Steve Carver of Derby & Lancs (Astir) at 70km/h.

All Pundits completed the 390km task helping to keep Nettle Hartley, Cary Davy and their team busy on the start and finish line. Sunday's winner, Simon Hutchinson of Bannerdown (Ventus), improved his speed to 85km/h but this only earned him 3rd place behind Phil Jeffery of Cambridge (Pegasus) at 95.9km/h. Phil would have been very proud of this performance had it not been eclipsed by Andy Davis intent on making up for Sunday. Andy gave us our first ton in an Inter-League Final, winning the day at 107.6km/h.

Even without the speedy work of our scorers it was soon apparent that Andy Davis was to be congratulated for the winning performance we had all secretly hoped to see even though he wasn't on our side (after all - he'd obligingly given us the chance to beat him the day before). However, it took rather longer to establish the relative positions of the clubs.

Initial indications were that, with two 1st places and a 3rd for the day, Bristol & Gloucester had pulled up level with Booker and Bannerdown - and re-counts were demanded.

John Wright and Joan Wilson of Bicester spent a great deal of time in the darkroom. At regular intervals the celluloid fruits of their labours were placed under Ken Hartley's magnifying glass, and another score was validated or penalised. It was well into the night before we were able to call together those who had stayed for the prizegiving.

Booker with 15 points remained amongst the front runners, but were overtaken by Bristol & Gloucestershire whose two 1st and one 3rd positions for the day brought them into the lead in both the Pundit and Intermediate Classes with a total of 16 points. However, the consistency of Al Cleaver, in 2nd place on each day, put Bannerdown into overall lead in the Novice Class. Simon Hutchinson had done enough to keep Banner-

** All speeds windicapped (20kts @ 350 on Sunday, 10kts @ 350 Monday).*

The winning Bannerdown team photographed by Alan O'Fee. Simon Hutchinson is at the front with, l to r, Derek Taylor (crew), Mel Dawson (manager), Colin Masters, Derek Findlay and Alan Cleaver.

down Pundits in overall 2nd place behind Andy Davis. With the support of Colin Masters and Derek Findlay in the Intermediate Class Bannerdown pulled into an overall lead with 17 points. So congratulations Bannerdown – winners of the League for the second consecutive year. Congratulations also to all other competitors for a well and enthusiastically fought competition.

Very many thanks to everyone at Bicester for reacting so well at short notice to give us such a super weekend. And many thanks to Darren Smith of T. L. Clowes for arranging sponsorship for the event, and for coming over on the Monday afternoon to award the daily prizes and to present the Douglas trophy to our worthy winners Bannerdown.

Anyone with questions or comments in preparation for 1990 is very welcome to aim them at me at our new address: Mike Jefferyes, Tanglewood, Fingrith Hall Road, Blackmore, Nr. Ingatestone, Essex CM4 0RU. (Tel: 0277 823066).

ODD SHOTS

Mike Sesemann took this self portrait while flying his Kestrel 19 at Aboyne at 13500ft and rather liked the canopy reflections and distortions.

MAN OF THE REGIONALS

In a brilliant season Ed Johnston, National Ladder steward, must emerge as the man of the Regionals after his incredible performance winning Class B at the Westerns with top scores on seven of the nine days. His final tally was 8290pts.

Ed, who is a member of the Cotswold GC and flies a Kestrel 19, started gliding in 1979, going solo at RAF Sealand. However, he feels he started properly at the Kent GC. His first competition was the Booker Regionals in 1983.

We asked Ed if he had any special strategy, "Just the simple one of flying the Inter-Club League, then Regionals and then Nationals with the Ladder competition helping to keep me on my toes between rated competitions," he said.

"I was helped when I got on to the junior training scheme and started flying the Kestrel, but put back when I ran low on funds and had a frustrating and poor start to Regionals. My current strategy is to find someone with a spare Nimbus 3 or LS-6 . . .!"

We asked whether he had any idea why he did so spectacularly well at the Westerns. Ed replied: "By treating each flight as a separate issue, really enjoying the weather which allowed us to race every day and my fellow pilots having really bad luck on at least one day!"

As to advice for competitively minded beginners, Ed said: "Get your cross-country speed and confidence up by learning from your club pundits and 'feeling the air'. In other words, how to find the best energy. Concentrate very hard throughout every flight and if you make mistakes, don't let them distract you. Just accept them and learn how not to make them again. And don't get carried away if things start going very well!"

LOW-DOWN ON THE ALPS

Part 3

William Malpas collaborates with two French pilots for the third article in this series on mountain flying, this time concentrating on safety when gliding in the Alps

William Malpas with Jacques Noel (centre), CFI at La Motte du Caire, and Jean-Renaud Faliu, who teaches English in Paris, flies a Ventus and instructs at Buno Bonnevaux and La Motte. Photo: Dickie Feakes.

Great Britain made a bad start in the Alps. At Samedan in 1948, during the first post-war World Championships, we lost two fine pilots in accidents directly related to mountain flying. Nearly 50 years later we have pilots who have demonstrated ability to exploit the Alps by placing well in competitions but we certainly lack Alpine instructors, and the only text we have been able to find which attempts to give some basic instruction is an excellent but short chapter by Lorne Welch in **New Soaring Pilot** (1968).

Nevertheless British pilots in increasing numbers arrive in Austria, Italy and France where, apart from short briefings and hurried introductory flights by busy locals, they usually have to fend for themselves. This may mean local soaring, although even with this restriction Alpine flying can be very satisfying; with high cloudbases modern sailplanes can go a long way without being out of gliding distance of an airfield.

The two previous articles in this series (April 1988, p66 and April 1989, p79) have tried to widen their possibilities by introducing English-speaking pilots to thermodynamic lift, the key to cross-country flying. Lorne Welch recognised that "Flights in among the mountains are much more difficult than those made higher up, and considerable cunning and courage is needed to do such things as creeping over a pass from one valley to the next." He also pointed to some of the hazards and related how he lost 6000ft in covering eight miles (achieved glide-angle: 7:1!).

This article is devoted to safety when Alpine flying.

Not the place for beginners

Despite glowing articles on how to do 5hrs or a Silver badge in the Alps, this is definitely not the place for beginners unless you live there, in which case you have the advantage of absorbing mountain lore right from the start. It is not possible to stipulate a certain number of hours, or badges, neither are relevant. What is required, even for local flying, is complete control of the machine in all circumstances, including short field landings, crowded ridges and extreme turbulence. If you have any doubts, your CFI is probably the best person to decide if you have these skills. You will know yourself if you have the humility to learn new techniques.

Natural progression

Having arrived at your chosen Alpine field the next step is to fly as much as you can with an experienced (Alpine) pilot in a two-seater. Don't waste valuable instructor time on tourist trips into the high mountains. Time will be better spent perfecting mountain techniques closer to base with thorough briefings both before and after flying. Don't waste time either in the two-seater climbing to the tops of thermals or going up in wave – most British pilots do those things very well indeed and better than most in weak thermals.

Insist on working thermodynamic lift low down on the ridges and turbulent rotors below the waves. Learn when and how to run for safety when things go bad. Sooner or later, if you are bitten by the Alpine bug, you will discover why. (Probably sooner rather than later.) Leave your glider at home and join a course at St Auban, Fayence, Vinon, Sisteron, Gap, Challes-les-Eaux or La Motte de Caire (or in Austria if such courses exist). If you can master thermodynamic lift, the badges will come without even trying. The natural progression from here on is:

1. Local flying;
2. Flying in gliding distance (20:1) of airfields;
3. Flying in gliding distance of landable fields. But no cross-country until you feel at ease climbing the local ridges in weak conditions.

From there the Alps are all yours and like Lorne Welch you will discover that "mountain flying at its best is flying in the supreme form."

Preparing for cross-country

Having marked your map with landable areas and key landable fields you have already taken the first step in preparing for cross-country flying. In addition:

1. Dress warmly – even if it is 25-30° on the ground. Put on warm dry socks, insulated boots and a hat.
2. Take something to eat and drink – dehydration is rapid in the dry Alpine air. Stress plus hunger equal poor performance when you most need it.
3. Plan your route and mark your map with the critical altitudes needed to cross valleys and gaps. These altitudes will change from one flight to the next in differing wind conditions.
4. Decide in advance where you will pass from the locality of one landable area to another, and having passed that Rubicon think only in terms of the new safety field. Think positively about these fields; not primarily as somewhere to land but as beacons which enable you to progress safely.
5. The Rubicon will not be half-way between one landable field and the next. Study your map carefully before you discuss with your instructor the relative possibilities of a low save in the proximity of these fields. Some are remote from mountains and have virtually no hope of recovery, others have multiple possibilities. So if you have a choice it may pay to back-track a long way to the previous field rather than to press on to the next.
6. If you have doubts about any of these fields, visit them on the ground. You will be surprised how good some of them are.
7. If there are dangerous cables on your route, mark them on the map. (Forestry cables are usually invisible.) Fortunately, there are very few in the French southern Alps.
8. Also discuss with the local pundits the standard routes home and the altitudes required at critical checkpoints. Simulate these arrivals during the period of local flying. We all have difficulty in believing that a modern glider can arrive safely at the low glide angle of which it is capable. Com-

pound your disbelief with the menace of high mountains with sinister valleys already in shadow and the practical problem of deploying map, ruler and calculator while flying close to a mountain. You will be glad you have already done this exercise in easier conditions.

9. Above all, study carefully the Met forecasts, in particular the forecast winds. Once in the air you must continually update your information by radio calls to airfields or other gliders. Winds can change radically from one valley to the next and from hour to hour. Many accidents result from misreading winds.

10. Mark your map with all the radio frequencies you may need - including those for special zones where permission is required. Arrange to keep in touch with someone experienced.

11. If you can find 1:250000 relief maps of the area, study them carefully. This will give you much more confidence in passing cols from one valley into another.

12. Keep a survival blanket in the glider.

Vigilance

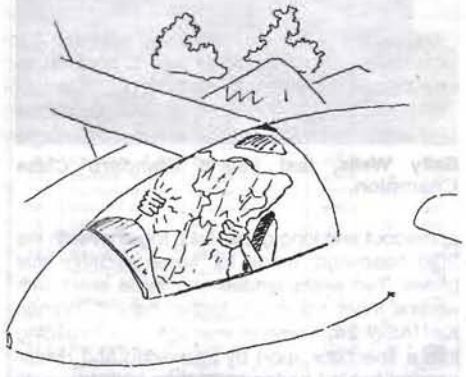
During your flight you will share well-known ridges with many other gliders. Remember the rules:

1. All turns towards the valley with a sharp lookout at **each turn**. The best mountains are always crowded.

2. When two gliders approach head on, the glider with the ridge on his **right** has the **right of way**. The other glider turns to the **right** to give way.

3. A glider making beats or eights has priority over a glider circling below the top of the ridge.

You may find that some experienced pilots prefer to fly further out from a ridge than you would expect, especially if there are trees, because the lift may be better, there are less control movements to make and it is less tiring.



Study your map before you go.

Be alert. Keep your speed up to have a lively ship. Be ready at all times for the occasional "air pocket". It's all very well to tell old ladies that such phenomena do not exist. If you are obliged to approach a ridge from the "wrong" side the bottom can drop out of your world. Heavy sink, no airspeed and the trees coming up fast, you need to act fast. If your old lady is in the front seat, she will say "I told you so".

In a previous article (April 1989, p79) William mentioned the tendency of pilots to veer away from the mountainside with either rudder or ailerons. Inefficient flying can also result from an optical illusion produced by sloping rock strata which the eye wants to accept as the horizon. As with cloud flying you have to overcome what your senses are trying to tell you.

Masochistic delights

Be ready for sudden turbulence at all times. In rotors and in zones of dynamic or thermodynamic lift which are in conflict with rotors from upwind mountains, the turbulence can be extreme with airspeed continually varying from rough air maximum to stall. In such conditions great care must be taken not to overstress the glider. If you don't enjoy such masochistic delights, stay on the ground in high winds, but if you fly, keep in gliding distance of airfields. Even landing on certain airfields in strong winds is quite difficult without a briefing. If you land on an airfield in strong winds, stay in the glider with the airbrakes extended and wait to be rescued.

FEAR!

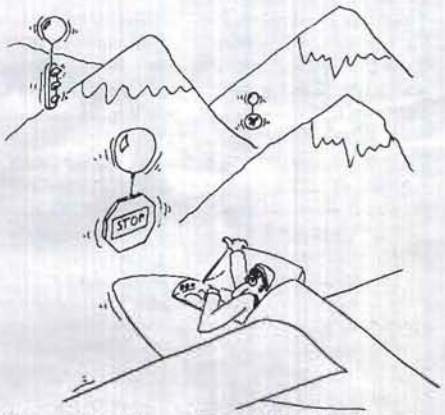
In the first article William discussed fear of the mountains and suggested it might even be a positive factor for safety. In this article we wish to underline the negative aspects. Fear must be overcome to be safe in the Alps, because it leads to inefficient flying just when you most need to be efficient. It also leads to bad decisions. The classic case is the heavy sink which is sometimes encountered just before plunging into a favourable zone, *eg*, in the sink downwind of a ridge which you know is going to work on the upwind side. Unfortunately, fear sometimes induces pilots to turn back and submit themselves to a double dose of sink, instead of pressing on to the lift. Fear is real, it's natural and it is an instinct for self-preservation. It can be mastered.

Field landings in the Alps

This brings us naturally to special safety considerations in field landings in the Alps. All the elements which contribute to safe field landings elsewhere apply to the Alps but there may be additional complications, summarised in three words: **wind/slope/approach**. Let us imagine that your options have been whittled down to one only: a 20:1 glide into a certain field. You start to move towards it. Naturally, you attack every favourable piece of rock *en route* and if you can find a rock face or a line parallel which gives reduced sink, use it. Don't despise −0.5m/s (1kt down). For as long as it holds, your glide angle is 60:1 at 110km/h.

At the same time you recall all you have learned so far that day about the winds and you look for confirmation at smoke, ripples on lakes, ripples on crops and drift in weak thermals. On arrival at your field you look carefully at the slope of the field, and decide on the approach. The standard rectangular downwind and crosswind legs may have to give way to something improvised on the spot which takes into account mounds, trees and wires which abound in Alpine valleys.

If it is a recognised field described in the handy catalogues, there may be only one feasible approach indicated in the booklet. If so, it is useful to have marked this by an arrow on your map together with the altitude of the field. Put 10km radius circles around the critical fields and you will know that at only 500m above the field near its circumference you must switch to survival mode, if you haven't already done so.



Remember the rules. Both drawings by Nicholas Clement.

If you are desperately low in the upper reaches of a mountain valley, do not be tempted by a pocket handkerchief-size piece of flat ground. The glide angle of your machine is better than the slope of the river valley, so if you follow the river it will open out into more hospitable surroundings lower down.

Pair flying

Do not press on if lost, as you may do over flat country waiting to find something you recognise. Retrace your steps to the point where you last had a positive fix. If you are pair flying remember only 100m difference in altitude can sometimes result in the higher glider climbing while the lower glider sinks. Team flying is possible only if a definite agreement has been made previously. One loses sight of the other glider quite easily in such changing surroundings, therefore the pilot who is following a more experienced pilot must not stop in lift, even if it is apparently very strong, if the leader continues. Before embarking on such a flight the leader should think carefully about his responsibility which should include opening his airbrakes if necessary to aid his comrade, even if this leads to both landing out.

Distrust information broadcast by a pilot who flies high over the mountains. If he announces that a well-known rock is not working, it may be because he is too high to know.

Keep reports to three items only: **position, altitude and vario.**

Trustworthy friends

Readers who have followed us this far may have concluded that Alpine flying is all trouble. It can't be, or we wouldn't do it. In fact, as many have already discovered, in good conditions it is easy. Rocks, sun and wind are trustworthy friends. Only when it gets difficult do pilots wish they had prepared themselves more thoroughly.

There is a special exhilaration in completing a task, even a self-imposed task, in the mountains. Proximity to the rock faces give you visual proof that you are actually climbing or burning up the course at high speed. If, in addition, you are doing all this safely it's great sport!

JO & PHIL JEFFERY

STANDARD CLASS NATIONALS

Husbands Bosworth from August 12-20

Steve White in the foreground with his Pegasus.

The 1989 Standard Class Nationals, sponsored by T L Clowes, was won by Martyn Wells in his LS-7 from Dave Watt (ASW-24) and Ted Lysakowski (Discus). In 4th place was Leigh Hood (LS-7), who started the last day a point behind Martyn Wells, having lead from Day 2 - most exciting.

The opening briefing was refreshingly short and this was a feature throughout the nine days, with one exception. On Day 6, Pete Sheard's "howidunit" was quite outstanding; so long in fact that we nearly needed the fall back task. Many clubs are now trying to book him as annual dinner guest speaker!

The overall atmosphere was extremely friendly and informal yet suitably efficient. Much credit for this goes to the organising team led by the laid back director, Claude Woodhouse, and his deputy/task setter, Frank Davies. Met man, Mike Garrod, worked hard to provide daily forebodings with the weather occasionally tearing up his script. Mornings were enlivened by Nomad's daily cartoon and evenings by revelry in the bar. One of the turns was a strange, pigtailed tug pilot, who flew a Chipmunk, two crew with a teddy bear. His singing was not well received by certain sections of the RAF contingent.

Leigh Hood with his son, Richard.

The predominant weather feature was a deep low north of Scotland. This provided strong winds on most days and prevented launching on two days by blowing across the strip. Nevertheless, there were five good racing days and two where everyone landed out; much better than recent years.

Day 1, Saturday, August 12.
Task: 215.8km triangle, St. Neots, Thame.
A very blustery day with the forecast giving winds of 20/25kt at flying levels, mainly 1-2kt thermals and spread out. The thermals were much better than forecast and Jonathan Kingerlee, the winner in a Discus, got round in under 2½hrs at 91km/h, devaluing the day. Mick Boydon, who came 3rd, felt they were the best 1-2kt thermals he has ever used! There was only one luckless outlander.

Day 2, Monday, August 14.
Task: 252.8km triangle, Newark, Bletchley.
An even more blustery day with forecast winds up to 35kts. The RAF contingent showed their true mettle and all bar one pulled to the back of the grid. Ben Benoist (ASW-24) stayed at the front as he was short of flying time after his first day. The blustery crosswind resulted in some hairy take-offs. Tom Zealley (ASW-24) had two attempts to get airborne and at least as many again when he had a relight. This clearly didn't faze him as he came 4th for the day. Cloud cover with showers came in and put everyone on the ground with Chris Starkey (Discus) the winner, still short of the second TP. Some competitors spent a couple of hours on the second leg fighting at least 35kt of headwind in deteriorating conditions, before succumbing. It must be good for the soul!

Day 3, Wednesday, August 16.
Task: 297.3km polygon, Grantham, Potton, Shipston-on-Stour.
On the plus side, the wind had decreased to 20/25kt at flying levels. Unfortunately there was an unforecast band of rain which washed everyone out of the air, mostly on the third leg. The winner that day was Ted Lysakowski (Discus); he almost reached the third TP.

Day 4, Thursday, August 17.
Task: Nominal 149km O/R to Earith, or Caxton Gibbet, or Biggleswade.
Whilst none of the forecast cu-nims materialised in the task area, there were very large cu with

Sally Wells, last year's Standard Class Champion.

spreadout and long gaps. This, together with the 20kt headwind, made for some exciting final glides. Two pilots landed two fields short with several more not much further behind. Warren Kay (ASW-24), however, managed to turn gliding into a spectator sport by appearing and disappearing behind hedges and farm buildings until he finally flopped on to the finish line after scattering the sheep in the undershoot field. In all 29 gliders finished with Dave Watt (ASW-24) first at 85km/h.

Day 5, Friday, August 18.
Task: 384.8km polygon, Lasham, Coleme, Tewkesbury.
This was much the best day of the competition with considerably less wind and excellent climbs, particularly after reaching the Thames when there was a marked improvement in visibility. This was the day Pete Sheard, 15 Metre Champion, finally aced it by winning at 98km/h.

Day 6, Saturday, August 19.

Task: 262.4km triangle, Didcot, Peterborough.

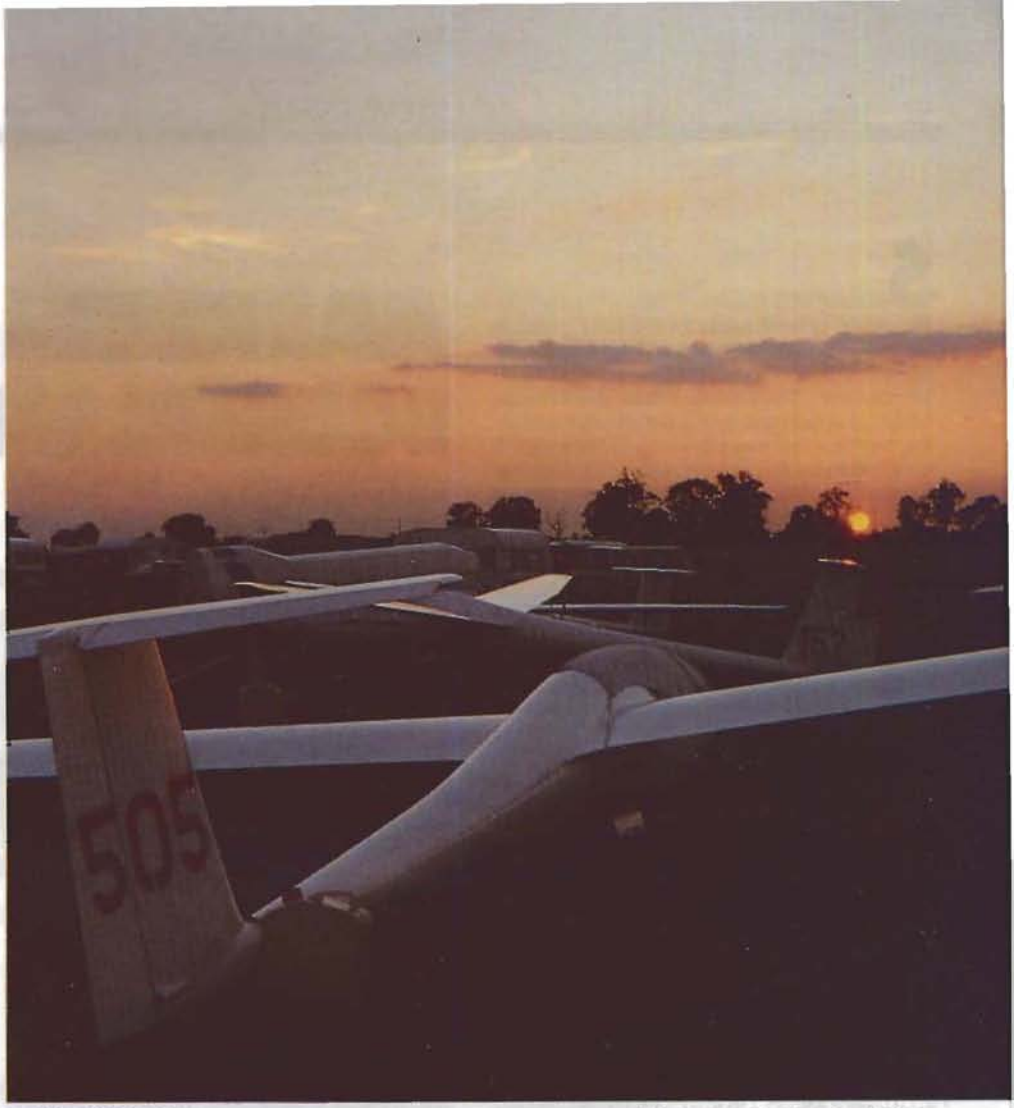
Not many competitors started before about 1400hrs as the conditions took some time to brew up. The forecasted blue thermals were fortunately mostly marked by well-developed cumulus. No great problems were experienced until the final into wind leg, which claimed five victims. This time it was Warren Kay's turn to land two fields short joined by the luckless Ben Benoist. Winner, with a speed of 88km/h was Martyn Wells.

Day 7, Sunday, August 20.

Task: 205.9km triangle, Bicester, Caxton Gibbet.

There was a long wait on the grid for the forecasted blue thermals to get going. The BGA Janus doing duty as "snifter" fell down about five times before conditions improved (they claimed it was training). Most pilots found the going slow until reaching Bicester, then an easy second leg. The final leg against 25kt of wind was again a struggle and claimed the 13 outlanders. Winner at 73km/h was Jonathan Kingerlee, the Day 1 Champion. John Galloway landed in a field of cows and had to arrange his retrieve by radio to protect his glider from bovine attentions. At the prizegiving there was a request from his crew for assistance in negotiating a field of bulls. Naturally, we all took this to be a "load of bullocks".

When the final scores had been worked out, an unprotesting Christopher Simpson, a BGA vice-president, was commissioned to present the many prizes and gifts. This closed what had been a truly memorable competition for all the right reasons.



Another day over. ***Photographs by Jo Jeffery***

FINAL RESULTS

Standard Class

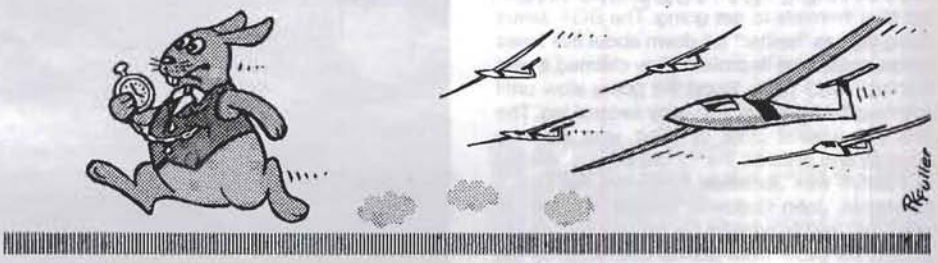
			Day 1.12.8 284.1km ▲ St Neots, Thame			Day 2.14.8 337km ▲ Newark-on-Trent, Bletchley			Day 3.16.8 420.2km polygon Grantham, Potton, Shipton-on-Stour			Day 4.17.8 191.2km Alt ⇄ Earith, or Caxton Gibbet, or Biggleswade			Day 5.16.8 442.1km polygon Lasham, Collerne, Tewkesbury			Day 6.19.8 316.2km ▲ Didcot, Norman Cross			Day 7.20.8 291.4km ▲ Bicester, Caxton Gibbet			
Pos	Pilot	Glider	Speed (Dist)	Pos	Pts	Dist	Pos	Pts	Dist	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Total Points
1	Wells, M. D.	LS-7	101.9	15	740	178.6	14	397	338.2	6	940	105.5	6	565	110.3	2	995	106.6	1	1000	93.5	9	904	5541
2	Watt, D. S.	ASW-24	112.3	7	860	134.0	24	286	344.4	3	958	116.2	1	624	101.7	13	884	100.4	6	927	101.7	3	984	5523
3	Lysakowski, E. R.	Discus B	94.7	27	656	212.1	5	481	358.7	1	1000	95.0	16	506	105.8	5	937	100.3	6	927	95.1	7	920	5427
4	Hood, L. S.	LS-7	119.0	2	937	246.0	2	566	343.9	4	956	111.6	5	599	104.8	6	924	77.1	31	656	80.0	22	772	5410
5	Starkey, C. G.	Discus	101.7	21	p690	260.6	1	603	301.4	11	831	78.9	21	417	109.6	3	986	96.5	11	882	102.3	2	989	5398
6	Galsford, P. A.	Discus B	114.0	5	880	190.5	11	427	338.2	6	940	(169.5)	33	254	104.3	7	917	102.4	3	951	96.7	5	935	5304
7	Wells, Sally	Discus	114.4	4	884	191.6	10	430	323.9	9	897	98.5	13	526	103.5	8	908	91.6	15	825	82.7	19	798	5268
8	Edyvean, J.	Discus	105.0	12	775	186.6	12	417	298.0	17	821	113.5	3	609	107.5	4	959	85.4	22	752	92.8	10	897	5230
9	Kingerlee, J. C.	Discus	120.0	1	949	112.7	32	232	178.7	37	469	112.1	4	601	106.5	12	p896	98.3	8	903	103.3	1	1000	5050
10	Harding, R. W.	Discus B	109.5	8	828	98.4	36	196	288.0	23	791	104.9	7	561	103.1	9	902	91.1	16	819	87.6	15	846	4943
11	Durham, M. W.	Discus B	97.5	23	688	205.6	6	465	338.2	6	940	100.3	11	535	99.5	16	856	71.7	34	592	89.3	13	863	4939
12	Boydon, M. V.	Discus B	118.4	3	931	134.0	30	p256	293.0	20	806	71.2	26	374	91.9	27	758	98.0	9	899	85.0	16	821	4845
13	Clarke, A. J.	Discus	95.5	25	665	182.9	13	408	300.3	12	828	74.1	24	390	87.9	33	706	101.8	4	944	92.3	11	892	4833
14	Dall, R. N.	Discus	101.7	17	737	173.8	18	385	279.6	26	766	101.2	10	540	95.0	23	798	92.3	14	883	78.1	24	753	4812
15	Kay, A. E.	ASW-24	97.6	21	690	136.8	21	293	354.4	2	987	(121.8)	40	173	95.3	22	801	100.9	5	933	95.8	6	926	4803
16	Smith, E. R.	LS-4	107.0	11	798	136.8	21	293	284.4	24	781	74.1	24	390	97.6	19	831	91.0	17	817	82.5	20	796	4706
17	Smart, A. M. B.	Discus B	93.7	28	645	202.1	7	456	299.2	15	824	115.5	2	620	94.0	25	785	103.1	2	959	(230.9)	34	382	4671
18	Hackett, N. G.	LS-7	113.4	6	872	51.3	40	79	290.3	22	796	81.2	20	429	88.8	31	717	96.6	10	863	91.5	12	884	4662
19	White, S. A.	Pegasus 101A	101.6	18	736	51.3	40	79	299.8	14	828	101.6	9	543	100.2	14	865	88.6	20	790	78.3	23	754	4593
20	Strathern, M.	Discus B	103.0	14	752	129.5	27	274	275.5	27	754	78.9	22	416	90.1	28	735	93.0	13	841	90.0	17	p820	4592
21	Metcalfe, G.	ASW-24	109.6	8	828	133.4	25	284	300.3	12	828	103.3	12	a532	102.9	11	899	89.4	19	799	(220.7)	35	364	4534
22	Smith, M. J.	LS-7	95.2	30	a641	175.1	15	389	291.0	21	800	96.3	15	513	98.1	17	837	95.1	12	886	(288.0)	28	485	4531
23	Kay, W. M.	ASW-24	84.6	36	538	194.9	9	438	283.5	25	778	108.2	8	a560	103.0	10	901	(314.4)	35	375	94.4	8	912	4502
24	Langrick, D. J.	LS-4	97.4	24	687	136.4	23	292	315.1	10	871	(151.0)	37	223	88.9	30	719	87.1	21	772	88.7	14	856	4420
25	Cuming, M. F.	Pegasus	108.1	10	812	174.5	16	387	342.6	5	952	(136.3)	39	198	97.7	18	832	88.0	24	p733	(256.8)	31	429	4343
26	Sheard, P. G.	Discus	101.8	16	738	99.2	35	196	189.2	36	499	(177.3)	31	267	110.7	1	1000	79.7	27	686	97.5	4	943	4331
27	Galloway, J. P.	LS-7	93.7	29	644	171.9	19	381	295.5	18	813	69.4	28	364	96.2	21	813	78.6	28	674	(268.8)	30	451	4140
28	Cooper, B. L.	Pegasus	100.2	19	719	234.0	3	a516	77.1	40	169	96.4	14	514	85.4	37	674	84.8	23	746	81.7	21	788	4126
29	Jeffery, P.	Pegasus	95.3	26	663	82.7	39	157	299.2	15	824	88.9	19	472	96.9	20	822	(236.8)	39	276	84.3	18	814	4028
30	Dobson, J. B.	DG-300	104.9	13	774	174.5	16	387	268.5	29	734	(193.2)	30	294	86.5	34	688	(291.9)	38	346	71.6	27	689	3912
31	Marczynski, Z.	LS-4	84.3	37	536	92.3	37	181	290.3	28	p748	71.6	29	a356	90.2	36	p686	74.1	33	620	73.7	26	710	3836
32	Williams, P. R.	Discus B	72.8	40	403	129.5	27	274	258.5	31	704	91.1	17	484	95.0	24	797	80.0	26	689	(153.2)	39	241	3592
33	Pozerskis, A.	ASW-19B	87.2	35	569	128.4	29	272	238.7	34	646	80.0	23	a407	88.1	32	709	80.1	25	691	(113.7)	40	170	3464
34	Moules, K. A.	Discus B	102.6	20	p700	102.3	34	206	258.2	32	703	(147.9)	38	217	84.0	38	656	78.2	30	668	(207.8)	38	p298	3440
35	Cox, A.	DG-100c Elan	75.5	39	434	130.5	26	277	295.5	18	813	70.6	27	371	(431.0)	41	279	75.5	32	637	(238.6)	32	396	3207
36	Benoist, J. D.	ASW-24	(3.5)	42	0	213.6	8	p455	266.9	30	729	90.9	18	483	103.6	15	p859	(314.4)	35	375	(183.5)	37	296	3197
37	King, P. A.	DG-101G	87.3	34	571	92.3	37	181	254.2	33	691	(99.2)	41	135	86.4	35	687	(310.4)	37	370	(287.2)	29	484	3119
38	Stuart, T.	ASW-24	89.6	32	597	12.9	42	0	110.6	38	268	(0.0)	42	0	89.0	29	721	78.7	28	674	76.6	25	739	2999
39	Payne, R. D.	Discus	84.2	38	534	107.5	33	219	30.1	42	30	(152.2)	36	225	73.8	40	524	90.8	18	816	(238.6)	32	396	2744
40	Copeland, D. D.	Std Cirrus	70.3	41	373	148.8	20	323	216.7	35	a561	(171.0)	32	257	78.5	39	585	(225.5)	40	282	(285.1)	36	335	2696
41	Zealley, T. S.	ASW-24	87.5	33	572	216.6	4	493	104.0	39	248	(168.1)	34	252	92.2	36	761	DNF	41	0	DNF	41	0	2326
42	Wells P. M.	LS-4A	92.0	31	625	115.5	31	239	63.6	41	129	(154.6)	35	229	(0.0)	42	0	(0.0)	41	0	DNF	41	0	1222

DNF=did not fly; p=photo penalty; a=administrative penalty. All speeds and distances are windicapped. **BGA Scoring Program by Specialist Systems Ltd**

STEVE EVANS

AVARICE IN BOOKERLAND

One man's impressions of the 1989 BGA intermediate level instructors' cross-country course



Saturday, May 6, dawned clear and sunny. As I prepared to leave home for Booker I gazed at our notice-board and saw the programme from my son's school play, "Alice's Adventures in Wonderland". There was a picture of a bearded white rabbit racing away into the distance and sitting high in a tree was a grinning Cheshire cat. It occurred to me that Booker was a sort of gliding wonderland with pilots regularly completing large tasks at high speeds but I did not realise how close the analogy was to be.

Briefing was at 9.30am and Chris Rollings, BGA national coach, described the task for the day while the ten course members sat open mouthed. It was to be a 310km triangle *via* Nympsfield and Husbands Bosworth with bearded Chris leading in the BGA Janus. This came as something of a shock to some of the course members who had yet to complete a 300km flight. For my part having completed several 300s and a few failed 500s it seemed reasonable with a forecast that promised 4kt thermals with cloudbase at 3000ft becoming 4500ft by afternoon.

We were all launched to 3000ft at around 11am by the very efficient Booker tugs with cumulus popping everywhere. As I set off in my Libelle towards Didcot I realised that Chris and the Janus were taking on the role of the White Rabbit with ten "Alices" running along behind.

Problems developed near Swindon as a "finger" of stable air invaded from the south-west and attempted to squash us against the Brize Norton SRZ. It became a battle for survival with some being forced down at Nympsfield where I had a difficult low point but was saved by gliders turning near Aston Down. The leg to Husbands Bosworth gave better conditions but the cloudbase would not rise beyond 3000ft so progress was slow. After the TP the cumulus began to spread out and once again we were scratching along. One by one our team fell away until the last of us set down in the Bicester-Hinton-Turweston area just as the White Rabbit arrived home. The distances covered by the front runners was 270km - not bad for a difficult day.

We discovered the following day that this had been a "calibration" flight to discover who could do what, Chris's comment being "Now we know you can stay up, we are going to make you go faster!" In this attempt he was joined by Alister Kay, Bernie Morris and Dave Watt who seemed to constantly sport a wide grin, possibly due to his recent acquisition of an ASW-24.

The next two days were spent flying 100km triangles *via* Bicester and Didcot in improving conditions at ever increasing, or in my case decreasing, speeds. I soon learned that although I was travelling faster, I was having more "low scrapes" thus affecting my overall speed. The conditions were not ideal for classic lead and follow, with poor visibility and a 3500ft cloudbase, but on one day we did manage to follow Dave for some of one leg until after a low spot he left us to our own devices. It was at this point that the Cheshire Cat entered my head as Dave disappeared high above me with not even his smile left!

On one day after meeting up with Bernie's group over Didcot we climbed to 4000ft in an exceptional thermal whereupon he remarked "We are at the top; everybody off to Booker, you are on final glide!". Being slightly lower and with inferior performance I decided this was unlikely and headed directly for the Chiltern hills south of track. This was a mistake as after four miles of seemingly endless sink I was down to 1500ft in the hills with over ten miles to home and spent the next twenty minutes climbing in weak lift until I was in range. The moral of this story: follow Bernie's advice!

On the Wednesday we were informed that it was to be a 300km triangle for those who were not shiny Gold and 500km for those who were not sparkling Diamond. I came to the conclusion that the chances of my completing the 500 were slim and as it was my turn to fly dual in the Janus, I elected to go with Chris. This proved to be a good decision as I learnt more on this flight than I have on any other. At last I had the White Rabbit by the tail and could force him to show me the secrets of Wonderland.

"It was amazing how 4-6kt thermals appeared just where we needed them."

We set off at 11am and immediately I discovered the advantages of pulling back flap on take-off and not airbrakes! Moral: know your levers. Under Chris's control we moved rapidly away towards Wales. It was amazing how 4-6kt thermals appeared just where we needed them. As we passed Morton-in-Marsh, 75km out, Chris remarked "Exactly one hour. That will do!" and we pressed on ever faster.

However, things came undone when we reached Craven Arms just short of the Mynd, as the cumulus had spread out and thermals became weak and inconsistent. To make matters worse the line of the next track was covered with flat 8/8 cloud, so the decision to abort and return home was taken. After a slow climb to cloudbase, Chris, with great confidence, handed over to me to fly home while he ate his sandwiches.

With some difficulty I attempted to emulate his technique of ignoring 3kt thermals and only taking 6kt thermals while staying on track. This became even more difficult when I heard the report from Bernie that the TP for the 300km task, St Neots power station cooling towers, had been demolished and only three rings on the ground were left!

After two more hours of intense learning we arrived back at Oxford only to find the cumulus breaking up into wave like bars. "Hmmm. Wind shear!" said Chris and he took over to get us on to final glide after a difficult few minutes. Sometime later the 300km group arrived back including four very happy, now shiny Gold instructors.

The next day the weather broke and although it was still soarable, cross-country flying was not possible. During these days we had numerous lectures on such topics as navigation, cloud flying, instrumentation and speed flying techniques. We also converted to new types, in my case local soaring the Pegasus and Puchaz two-seater.

Our last completed task came on the Saturday which, after being changed at least three times, finally became an O/R to Marlborough into the teeth of a 20kt plus wind. The band of soarable weather finally reached Booker at 3pm and everybody was flung skyward. Starting at 1525hrs I crossed the startline (Lane End duck pond) at 3000ft and made good progress towards Didcot. Glides were fast with 6kt climbs under huge, dark cumulus. My ability to find them in just the right place seemed to have improved and my flying was much more disciplined. Things changed about six miles short of Marlborough where a large blue hole appeared containing acres of sink. I could not raise my leader, Dave, who at that moment was scraping low around the TP, so after spotting a large wave bar ten miles upwind, and putting two and two together, decided to run for home. I discovered afterwards that most of the others had done the same and we had all completed the best part of a 100km O/R

Steve with his wife Janis who died soon after this photograph was taken. See obituary on p319.

in under 2hrs into a 20kt wind taking off after 3pm! Wonderland indeed.

What did I learn on this course? First to have a professional disciplined approach to my flying. Next to work much harder at it! Chris's comment to me in the Janus was "If you can still talk while thermalling, you are not working hard enough!". Also the importance of flying short tasks on good days with accurate recording of your times to improve your cross-country flying speed. Finally, to be greedy, believe you are going to find that 4kt thermal on a 4kt day and not settle for 2 or 3kt. It's one thing to know the theory, but a practical demonstration by a really good pilot definitely helps you to put it into practice.

On behalf of the course members I would like to thank Chris, Bernie, Dave and Alister for a terrific week. My advice to other instructors is to get out of the back of the two-seater for one week next year and visit Wonderland where the White Rabbit, Cheshire Cat and other Lewis Carroll characters I have not mentioned, out of discretion, will be waiting.

MERRI'S PROGRESS

Currency: What it will buy

One thing this summer has taught me is the value of remaining current. No matter how good your motives or how intense your desire, without the edge you get from gliding regularly in different conditions you'll find it much more difficult to achieve anything from a Bronze leg to a 300km flight. I don't mean this to sound like gratuitous advice: I've had to spend the bulk of the summer recovering the three months that I spent doing my PPL. And this was the best summer we've seen in thirteen years. No, I wasn't happy.

I suppose that to an extent it depends on what you want to accomplish. If gliding like a yo-yo (up/down, up/down) is a pleasure, then staying current will mean gliding once in a while, and that's fine if expectations don't exceed what is fed them. It took me a whole summer to regain the degree of currency with which I felt comfortable. It culminated in a 300km attempt (unsuccessful) from which I learned a lot the hard way, and which I'll discuss in the next issue. If I had been up to scratch, then I could have made my bigger mistakes at the outset of the season and progressed from there throughout. Now it looks as though I have to close the season on a down note – a truly galling way to go! It is said that there's no substitute for span. In my case there's no substitute for currency . . .

Thoughts of Mary

Sunny September brings thoughts of years gone by
Of soft white clouds like pillows in the sky.
White wings that flashed
Together as we passed
Over sunny fields below.

Sunny September brings thoughts of love that grew
Of boundless joy and purist love, and yet we knew
We dared not touch
Or say too much
Unless it go.

Sunny September brings thoughts of years gone by
A promise made, again before we die
Our hearts will greet
If we should meet
Beneath a cloud once more.
ANON

JUNIOR NATIONALS

Booker - August 26-September 3

Success! After last year's soggy week there might quite justifiably have been a certain reluctance to come forward and compete again. Indeed, nearly half of last year's competitors were disqualified from 1989s Comp owing to their advancing years (thinks - if you get too old for the Junior Nationals do you go directly into the Open Class, or do you qualify by getting too old in one of the other Classes first?).

The organisation was quintessentially Booker - laid back almost to the point of non-existence I mean, and an average age not much over 25! - but the weather co-operated and on most days we managed to launch the 30 competitors (and around 20 *hors concours*) in about 40 minutes.

There were very few hiccups - apart of course from giving the cup to the wrong chap at the end (but we don't talk about that) and this is pretty good going, taking into account the relative inexperience of all concerned. In fact, quite a few of the competitors were not only under 25, they were under 20 (augurs well for the next few years Comps!). In addition, most had not done a 300 and many had not yet done a 100km triangle on arrival at Booker. That soon changed!

We conducted a sort of Spanish Inquisition at registration (age, experience etc) and this gave us a good idea of what sort of tasks might be appreciated (*eg* 301km rather than 295!) - it also, after meticulously photocopying all the Comp licence photos, gave us a splendid mug shot gallery.

We flew on seven contest days. The first Saturday was lost to bad weather but on reflection this was no bad thing since it enabled long briefings and pre-Comp fettling to take place without a feeling of wasting the day.

Chris Rollings had volunteered to skipper the BGA Janus for the week (it had been hired by the forward-thinking University College London Gliding Group) but he was more often to be seen offering advice to everyone he considered in need of it - the task setter, the director, club officers and the like, along naturally with the odd word of encouragement to the competitors themselves!

Eddie Downham, the Junior Nationals Champion.

Mike Cuming took this photo on the last day which he describes as "possibly the best soaring day I have ever seen."

So we lost the first day. Gloom. Would it rain all week.? Answer - no. Sunday, August 27 was dry - and windy. There were latish starts (around 3pm) for this task, almost a 110km O/R (in fact a flat sort of triangle, Silverstone, Bicester). Super strong thermals enabled everyone to get to Aylesbury into the wind but then it got rather blue. This snookered the bulk of the competitors and only a handful got home. However, the field landings were all pretty creditably performed and at least we had got started. Those who *did* get to Silverstone were treated to the sight of the circuit completely - and I mean completely - blocked by thousands of Minis having some sort of rally.

Day 2 was super. The weather was so good it was almost boring. The task was deliberately set at 240km since the view was that racing training was more important than long grovelly badge flights, but in fact we underset it rather and could have raced the lot around 400km I suspect. Almost everyone got home, the winner only just missing 100 (handicapped) km/h. To make up for this, Day 3 was not until two days later, and even then it was rubbish. Still, two thirds of the competitors had the temerity to set off on what was a pretty vain struggle against the wind. I'm glad I missed this day since I don't much enjoy derigging two-seaters and I was flying Booker's K-21 round the task on most days. Allan Tribe did well actually to get his Vega round the far turn (Membury) but rather blew it by landing at Hampstead Norris on the way home, thus allowing his crew the opportunity to wreck his car and trailer. Luckily he was able to borrow a Vega trailer for the rest of the Comp.

Day 4 (Thursday) was much more fun. Superficially it looked like Day 2 all over again. A 200 plus triangle in terrific conditions, and we all went hammering up the M1 taking photos of service stations. However, a high cloud cover caused most (except the early starters) to park under the last cumulus at Northampton and hope for a break. This came in the form of a few stubble fires and there was feverish anti-collision manoeuvring for some minutes while the survivors(!) got round the turn and set sail for home. By then, the high cloud had shut off almost all the sun, and only stubble fires got the finishers home (I have to say that the northerly wind was a huge help, too!). This was an excellent teaching/racing day with all the usual old lessons being learned/relearned and lots to talk about at briefing next day.

By this time everyone was getting pretty cocky - almost everyone had got home at least once, and so 100km UK Cross-country diploma claim forms were being filled in with great gusto at the

briefings. Day 5 was the first of three consecutive 300km days. The 15 competing finishers included about ten first 300s, although several of these lost their barograph traces or had some other (*ie* photo most probably) problems. It wasn't an easy day and those who did get round had earned their Diamond goal. Three competitors landed quite close to Booker, the nearest being Dawn Bradley (flying an Astir in this, her second, Junior Nationals) who landed just down the road. Better safe than sorry, particularly since she didn't at that time know that two days later she would go hammering around Westbury-Olney at 80km/h!

Another 300km for Day 6 but this one really was a bit overset with only the top five pilots completing the task. The turn at Nympsfield downed most of them although it was never really established whether the sea breeze was the culprit or not.

And so to the last day, Sunday, September 3. This was possibly the best soaring day I have ever seen. Several first 500km flights were done from Booker and one young lady took a K-13 on a first 100km triangle flight since the single-seaters were naturally scarce. Our old favourite, Westbury, Olney - was set (303km) and nearly **everyone got round!** Jane Lewis (there were a lot of girls in this Comp, I'm pleased to say) had a go at 100km in a Club Libelle, got round, found a technical hitch and so launched and went round 100km again. Julie Slater, at 16 the youngest competitor, put quite a few more hours in her logbook that day but landed the SZD Junior on the way home, exhausted.

And for those who think this was a competition only for those with plastic gliders, Jonathan Beard did 83km/h in his Pilatus B-4, John Gardner 75km/h in his Pirat and Chris Ashburn 74km/h in his K-6CR on this last day - John capping his flight with a truly magnificent ground-loop on landing which I only just missed photographing.

Next year the Junior Nationals will move away from Booker but I'm sure we'll host it again before long. The committee and staff of the club were generous in the extent of their co-operation and this, together with the Sports Council grant and the donation of hundreds of films by Kodak, kept the whole affair cheap and cheerful.

How Cheap?

Entry fee	free
Contest aerotows	free
Practice aerotows	£8
Crew flying	£8 a go
Films	free - donated by Kodak

and there was just enough left over to give all the pilots who attended prizegiving a £20 note to help get them home.

Lasham and Dunstable both donated substantial prizes - a week's advanced soaring course and an AEI course, both with board and lodging. This sort of widespread support, plus of course the generosity and farsightedness of clubs and individuals in lending their gliders, is what made the Comp so much fun.

The moral of the story - next year there will be an even bigger even better Junior Nationals. I suspect that most of this year's competitors will be coming back for more so get your name in early if you fancy a go.

FINAL RESULTS

Single Class

			Day 1.27.8 110.3km Silverstone, Bicester			Day 2.28.8 237.5km, ■ Pitsford res, Oxford, Membury			Day 3.30.8 107.5km Membury, Chieveley			Day 4.31.8 205.6km Didcot, Newport Pagnell, Watford Gap			Day 5.1.9 299.7km ■ Westbury, Oxford, Olney			Day 6.2.9 313.2km ■ Lasham, Nypsfield, Towcester			Day 7.3.9 303km ■ Westbury, Didcot, Olney			
Pos	Pilot	Glider	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Total Points
1	Downham, E. H. C.	Std Libelle	(96.6)	1	886	85.4	2	816	43.4	16	100	68.0	4	905	84.2	2	980	108.2	1	1000	102.7	1	1000	5687
2	Jones, S. G.	Discus	125.6	12	528	99.5	1	1000	59.0	9	166	71.6	2	947	86.4	1	1000	91.3	4	a869	101.7	2	986	5496
3	Tribe, A. D.	Vega	(75.9)	2	837	76.8	7	704	113.8	1	400	76.2	1	1000	62.6	10	786	80.8	5	a849	86.7	10	782	5358
4	Croote, P. F. J.	Kestrel	(68.9)	5	*p*776	77.9	5	719	64.2	7	189	65.2	6	873	69.7	6	850	80.0	2	948	83.5	14	738	5093
5	Housden, S. R.	Libelle 201s	137.4	11	*p*543	77.7	6	716	53.0	12	141	56.6	13	774	73.4	4	883	(440.5)	3	872	89.3	5	817	4746
6	MacDonald, G. D. E.	Astir CS	114.7	15	473	75.9	8	692	62.7	8	182	70.0	3	929	70.9	5	861	(384.1)	8	755	90.7	4	837	4729
7	Arnold, J.	Discus	131.0	13	*p*511	71.5	11	635	0.0	=21	0	63.8	8	857	73.7	3	886	(390.6)	9	*p*719	91.4	3	847	4455
8	Marsh, B. C.	ASW-20L	(47.9)	6	771	71.2	12	631	46.2	15	112	55.9	16	766	69.1	9	*p*794	(329.1)	11	641	71.5	26	576	4291
9	Truman, A. G.	Kestrel	(62.6)	4	805	67.9	14	589	20.2	20	1	55.0	17	755	62.3	11	784	(335.0)	10	653	76.2	22	640	4227
10	Fritche, P. C.	DG-300 Club	95.4	18	376	71.1	13	630	58.7	10	165	63.9	7	858	61.9	14	*p*730	(326.3)	12	635	87.5	9	794	4188
11	Hodgson, K.	Pegasus	82.1	22	310	74.0	10	668	63.7	2	272	61.6	12	*p*782	(288.1)	19	471	(397.3)	7	783	88.6	7	809	4095
12	Brooker, S. R.	ASW-19	106.3	16	431	75.0	9	681	0.0	=21	0	62.3	9	840	55.3	15	721	(312.9)	16	608	85.2	12	762	4043
13	May, J. I.	LS-4	133.9	9	569	81.7	3	768	72.1	4	222	(179.7)	22	411	68.2	13	*p*737	(289.0)	19	558	85.7	11	769	4034
14	Garrity, A. J.	Astir CS	81.8	23	309	78.9	4	731	66.6	5	199	67.6	5	901	68.2	8	836	(94.4)	29	154	88.4	8	806	3936
15	Beard, J. R.	Pilatus B-4	157.7	7	*p*644	63.9	18	537	74.6	3	233	(221.8)	19	519	68.8	7	842	(126.7)	27	221	84.1	13	747	3743
16	Adlard, S. A.	Open Cirrus	105.8	17	429	59.0	20	473	0.0	=21	0	56.4	14	771	60.6	12	769	(232.6)	22	441	88.9	6	812	3695
17	Miller-Smith, M. J.	DG-101	(66.7)	3	815	(208.8)	28	231	49.3	13	125	63.0	11	*p*798	(234.4)	22	377	(325.7)	13	634	80.8	16	702	3682
18	Ashburn, C. J.	K-6CR	129.6	10	548	67.6	15	585	65.5	11	*p*154	(171.6)	23	390	(274.7)	20	448	(416.7)	6	823	73.6	24	605	3553
19	Mills, A.	K-23	92.3	19	361	64.6	17	546	46.8	14	114	(223.9)	20	*p*475	(310.8)	18	511	(315.0)	15	612	73.4	25	601	3220
20	Shelton, P. M.	ASW-15a	12.8	=29	0	59.3	22	*p*427	0.0	=21	0	56.3	15	770	(325.3)	17	537	(287.5)	20	555	79.3	=17	682	2971
21	Eyles, S.	Pegasus	57.2	24	186	51.4	24	374	27.2	19	31	61.2	10	827	(94.5)	28	131	(341.0)	14	*p*616	76.4	21	642	2807
22	Thomas, G. E.	ASW-19a	116.1	14	480	71.2	16	*pa*562	0.0	=21	0	(149.7)	26	334	(187.5)	=25	*p*244	(197.2)	25	a268	78.8	19	675	2563
23	Lynch-Jennings, N.	Sport Vega	42.7	28	113	53.4	23	400	64.7	6	190	(164.9)	24	373	(197.3)	23	312	(291.6)	18	563	70.0	27	555	2506
24	France, S.	Std Jantar 2	47.0	26	135	44.0	26	353	0.0	=21	0	(207.2)	21	*p*432	(180.5)	24	282	(259.3)	21	*p*447	77.6	20	659	2308
25	Bradley, D. M.	Astir CS	45.5	27	128	(211.3)	27	234	0.0	=21	0	(122.9)	27	265	(339.7)	16	562	(190.2)	23	353	79.3	=17	682	2224
26	Hands, D.	LS-4	88.3	20	341	70.2	19	*p*519	0.0	=21	0	DNF	=30	0	DNF	=30	0	(173.6)	24	319	83.3	15	736	1915
27	Lewis, J. P.	Club Libelle	134.6	8	572	(152.5)	29	162	34.4	17	61	(105.1)	28	219	(158.8)	=25	244	(368.1)	17	*pa*572	(0.0)	=29	0	1830
28	Emerson, N. H.	Sport Vega	88.1	21	340	51.0	25	369	0.0	=21	0	(158.3)	25	356	(266.2)	21	*p*383	(136.8)	26	242	(0.0)	=29	0	1690
29	Gardner, J.	Pirat	DNF	=29	0	DNF	=30	0	0.0	=21	0	(272.6)	18	650	(106.4)	27	152	(43.6)	31	*a*-51	74.1	23	612	1383
30	Slater, J.	SZD Junior	52.5	25	162	58.8	21	471	28.6	18	37	(79.6)	29	154	(72.3)	29	92	(119.1)	28	206	(205.5)	28	150	1272
31	Adams, D. A.	Discus	DNF	=29	0	DNF	=30	0	DNF	=21	0	DNF	=30	0	DNF	=30	0	DNF	30	0	DNF	=29	0	0

p=photographic penalty; *a*=administration penalty; DNF=did not fly. All speeds and distances are handicapped. **BGA Scoring Program by Specialist Systems Ltd**

AMERICA

Three readers have come back from America with useful information about sites

More to Florida Than Disney

If you are on the Disney trail with the family, Graham Taylor of Mendip GC recommends the Seminole Flying and Soaring Ranch near Orlando. You must take your certificates, logbook etc to get your flying permit, available from the FAA at Orlando International Airport.

Seminole's hire rates range from $19/hr for a 26E to $32/hr for the Pegasus and $16 for a 2000ft aerotow. Once Graham was checked out in a two-seater he was able to share his flying with his wife and two boys in 4 to 8kt thermals "the size of London and not hard to find with a 7000ft plus cloudbase in May."

He was told that at weekends the pundits fly to Georgia, approximately 500 miles.

They are soon to open a new site, Seminole Lake Gliderport, which is only miles from Disney and Sea World and will be offering low cost accommodation.

If you or your club are interested in an inclusive holiday, send a sae to Graham at 48 Silverberry Road, Weston-Super-Mare, Avon BS22 0SD as he is looking at arranged package holidays for 1990 with an ABTA travel agent.

Douglas County

John Gilbert has written to tell us of a trip he made with Jeff Gentry to Douglas County Airport, home of High Country Soaring, at Minden, Nevada which has special interest as the 1991 World Championships will be at Minden

The airport is 15 miles south of Carson City and ten miles east of Lake Tahoe in one of America's most popular recreation regions. The airport is 4718ft amsl and has two excellent runways of 7400 and 5300ft.

Simple circuit procedures maintain satisfactory separation between the gliding operations and the power traffic which includes light aircraft, small business jets and water bombers. The Sierra Nevadas to the west rise locally to between 9000 and 11 000ft and the Pinenuts to the east are mostly between 8000 and 9000ft.

The site briefing by Tom Stowers, the owner of High Country Soaring, included essential information on landing strips. In Nevada it simply does not pay to risk out landings other than at recognised strips. The desert areas have a high density of small boulders and many of the otherwise desirable fields are totally waterlogged from enthusiastic irrigation policies.

The approved landing strips are generally spaced no more than 20 to 30 miles apart but even so, with high mountains in between, it is advisable to stay high whenever possible.

The cross-country and wave flying possibilities from this site are exceptional and should provide tremendous scope for the task setters at the World Championships. Despite our arrival during the "worst early summer for ten years" it was still possible for an Italian visitor to complete a 1000km during our stay. Jeff and I both managed flights in excess of 500km and between us clocked up more than 2000km over two consecutive days.

Thermals of 8 to 10kt were encountered with climbs to cloudbase at between 12000 and 16000ft. Wave frequently appeared and on our last day my climb was terminated at 26 500ft due only to oxygen considerations. So where are the snags? Well one might be the cost. Typical charges for glider hire/hr are: Nimbus 3 ($60), Grob 103 ($40) and DG-300 ($35). The maximum daily charge is for 3.5hrs and an instructor is $20/hr, aerotows $20 for 2000ft and there is a $7/day charge for a barograph, parachute or oxygen mask.

Thermals rarely get going much before midday and low down they can be narrow, very rough and difficult to centre. It is also as hot as hell and you need at least 12000ft before leaving the valley in all but the best ships.

For more information contact High Country Soaring, PO Box 70, Minden, Nevada 89423.

Southern California

Nicholas Mellersh* writes about another site near to Disneyland, Sailplane Enterprise at Hemet on the south-eastern edge of Los Angeles, which he visited last December after the Soaring Society of America gave him the California pages from their guide.

I signed up for several 2hr slots with an instructor as at my stage of training the possibility of going solo was problematical. Costs weren't out of this world, though rather more than at Booker, especially dual as you have to pay for the instructor. For example, a 2000ft tow and 30min dual in a Schweizer 2-32 was £24 compared with £19 for the same flight in a K-13 back home.

I wondered whether a 20 year-old Bronze C and one solo flight in the last 17 years would get me the necessary US glider pilot licence but there was no difficulty. In ten minutes flat I had a temporary Airman Certificate valid for 90 days while Uncle Sam got on with issuing me with a permanent licence - free of charge. All I had to do now was to convince someone I was competent to fly their aircraft.

The Booker rumour was that before you could fly solo, an extremely tough GFT had to be passed. Not so. Two check flights in the 2-32 and I was allowed off on my own. After three solos I was allowed to fly the 1-26.

Hemet lies 500ft up in desert country and in winter at any rate every so often gets a Foehn wind over the mountains to the north known as the Sant Ana. This produces excellent wave, if flying is permitted at all in the gusty wind, and in a Grob Acro with the DCFI in the back we achieved a 7000ft gain. I don't think the site can be recommended for Diamond hunters as upper airspace restrictions mean the only way you can legally get the 5000m gain is by diving to 100ft above the field!

Because of the licensing system, much more responsibility is placed on the pilot to decide what he is competent to fly in what conditions. Fine for pundits, but for early solo pilots this freedom is a bit awe inspiring.

**Nicholas learnt to fly at Lasham in the 1960s and returned to gliding after a 17 year lay off. He now flies at Booker and claims to have made seven "first solos" over the years.*

TURKEY

A large gliding operation has been established at Inonu, about 20 miles from the Turkish town of Eskisehir. The centre trains some 400 high school and university students each year. The fleet comprises ten Puchachz, four IS-29D, four Standard Jantar, three Open Jantar and two RF-5B. The Balkan Gliding Championships will be held there, with 30 pilots from five or six countries.

WINDFALLS

A fulfilling, magical day of aeronautical contrasts

It was a day of colours. I remember the scarlet of the K-6, the mottled grey-green of the Spitfire, and the crimson and silver of the Tiger Moth. The day ended in the golds and lilacs of a cold October sunset.

I had been ill - or believed I was, which amounted to the same thing - and as a result I had not flown for some time. When I strapped into the K-6 again I wondered briefly if I'd forgotten how to fly a glider, but my hands and feet seemed confident and they made the familiar, quick movements around the cockpit.

Once in the air everything was as good as I had remembered it during the months when I could not fly. There was no lift about - not that I was too concerned with soaring on this first flight - but the air was cold, clean and petillant, as bracing as a freshly mixed gin and tonic. I did a chandelle, or what I like to call a chandelle. Nothing went wrong so I did another. A small cloud, plump as a doughnut, rushed towards me and and I banked the glider steeply to fly right around it before straightening up and plunging in, holding my breath as if diving into deep water.

Clouds are like something you find on the other side of Alice's looking glass. Viewed from outside they can seem quite insignificant, but in them is a whole, huge, timeless world. On the K-6's panel the needles moved gently, responding to the gyroscope's mechanical senses, while I sat blind and silent, watching in the great quiet of the interior of the cloud. Then I heard a piston engine. It grew rapidly louder until the glider vibrated with the sound and I knew that this wasn't just another tug diving back to the airfield. I worried that the thing was there inside the cloud, close to me. I imagined how the great circular saw of its propeller could slice through the fragile K-6, and I was afraid.

I burst out from the gloom into sudden sunlight and safety. Just beneath me, curving swiftly away, beautiful in its mottled camouflage and in the graceful precision of its wings, was a Spitfire - a lovely, fierce little aeroplane. In a few seconds it was out of sight, but the way it looked in that moment, sharp in the clear air above the sombre autumn fields, will stay with me for a very long time.

Nobody was interested in my account. They wanted to tells me how it looked to them.

When I landed nobody was interested in hearing my account of the Spitfire. They had all watched it from the ground and wanted to tell me how it had looked to them. That's the way it is.

Confident of the weather, I had left the hood down on my old red TR6 and now I made good time through the lanes, using the gearbox more than really necessary just for the pleasure of hearing the change in note of the straight-six engine. In half an hour I was at the town's airfield helping to push the Moth out from its hangar.

All Tiger Moths should look as good as Zulu Foxtrot. They should all be smartly painted, the fuselage vivid crimson with bold black identification letters, the wings silver but so well finished that they seem metallic. They should all have padded leather rolls around the rim of the cockpit, and smell of oil and dope and hide. The instruments should be big and old-fashioned and arrow-headed needles to point to clear white numbers. And in flight there should be a faint, almost inaudible, hum that makes itself felt through the agricultural puttering of the Gipsy motor and which comes from the wind moving over the bracing wires.

As it rolled towards the sun the prop was a dim fluttering circle

We flew north, the blades of the propeller hacking the calm of the autumn afternoon into noise. The Moth was light and easy to fly. In the turns it needed rudder, just like a glider, though that probably means that it's badly co-ordinated by today's standards. As it rolled towards the sun the prop was a dim fluttering circle, changing to an opaque silver disc as the light caught it from behind. The throttle became the expression of my will and we rose and fell and moved about the sky as I pleased, free from the dictates of a variometer. Cold wind battered my face and tugged at the sheepskin collar of my flying jacket. Ahead the horizon was framed by wing struts and crossed with diagonal bracing wires which gave me the impression of peering through an old, diamond-paned window. On the ground the Moth had looked cumbersome - tied and buttressed like a Gothic cathedral - but in the air it was neat, natural, and pure pleasure. I was sorry when the flight was over and we side-slipped down to land. If ever I become rich a Tiger Moth will definitely by on my shopping list.

I drove back to the gliding club still buzzing with adrenalin from the flight. The lower levels of the roads were already in shadow as the fine, pale blue day quickly became a smokey autumn evening. In the little orchard by Jolley's farm a group of children in brightly coloured anoraks were gathering windfalls from under the apple trees. Winter was in the air.

When I arrived the gliders were being towed back down the field towards the hangar, except for the sleek ASW-19. I had never dared to fly this. At our club a mystique has been created about the difficulties of handling glass-fibre machines and terrible stories are told in the bar of landings which left nothing but a heap of plastic fragments to be swept up. Because of this I had always been reluctant to try the 19. Even though I could deceive an instructor on a brief check flight, secretly I knew how poor my flying really was. But this had been such a good day, the sort of day I hadn't expected to have again, that I was confident that nothing could go wrong. I walked across the damp grass, opened the long slender canopy and slid down into the hammock-like seat. The 19 felt as though it had been constructed with me in mind.

There was some nervousness just before take-off, but only the sort which means that your reactions are fully alerted. The glider flew easily. It flew as it had been designed to do - smoothly and accurately. With the undercarriage retracted it was quieter than anything I had flown before. There were no problems, and I wondered, as I've done so often in the past, why I had been foolish enough to let other people's fears influence my actions.

I released the tow rope and watched the Chipmunk roll on to its back and drop vertically towards the field, leaving me alone in the air. For twenty minutes I had it all to myself - the glider, the sunset, the colours in the sky and the shadows on the land.

It had been an unexpected, good day with much that I would not forget. I had seen a fine aeroplane at home in its natural element. I had flown another. And I had dominated a small personal fear. The one thing I had been learning during the past few months was to know when I was happy and to enjoy the moment. That may seem a very simple thing to you, but for me the learning of it had been long, painful and almost too late.

A LOOK AT TEMPERATURE INVERSIONS

Tom Bradbury continues his popular Met series

The change of temperature with height is called the lapse rate. Altimeters are calibrated on the assumption of a constant lapse rate of 2°C/1000ft up to the base of the stratosphere. Very often the real atmosphere has layers where the temperature rises instead of falling with height. Since this is the reverse of the average trend the layer is called an inversion.

Why inversions are important

Inversions have four main effects:

a. They act as a lid preventing thermals from rising any further and so set a limit to the height of thermal soaring.

b. They tend to separate the air flow above from the flow below the inversion so that very different wind velocities may be experienced after crossing the inversion layer.

c. The existence of an inversion is a major factor in the development of waves, both stationary mountain waves and travelling waves.

d. Haze, mist and fog are trapped beneath inversions.

How inversions are formed

There are four main factors which act to produce inversions.

a. Cooling of the lower air by contact with a colder surface. This may be due to passage of warm air over a cold sea or ground cooled by radiation on a clear night. An inversion forms dividing the cold air near the surface from the relatively warm air aloft. (Fig 1.)

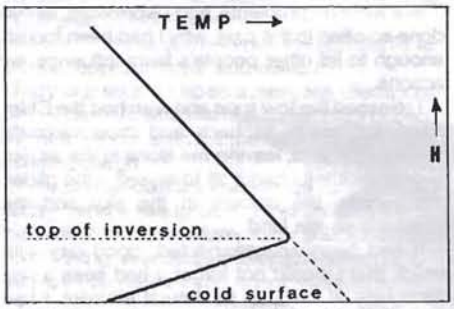


Fig 1. Inversion caused by a cold surface.

b. Subsidence aloft. Where an anticyclone develops there is an extra weight of air above the ground caused by a net convergence of air flow aloft. As the pressure rises at the surface some of the low level air leaks out across the isobars allowing the mass aloft to sink slowly. This sinking is termed "subsidence". When air descends the pressure on it increases and this causes a rise in temperature. So the subsiding air becomes warmer but the air near the ground cannot sink any further and hence is not heated by the subsidence. This results in an inversion some distance above the ground. (Fig 2.)

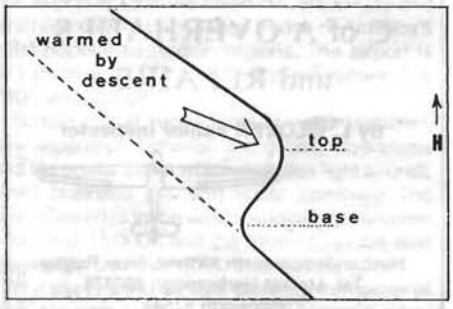


Fig 2. Inversion aloft caused by subsidence.

c. The arrival of a frontal surface separating warm moist air aloft from the cooler air below. This inversion usually has a slope of (roughly) 1:100.

d. Radiation from cloud tops. Much heat is lost by radiation from cloud tops and a sheet of stratocumulus cools the air at cloud top so much that a slightly stable layer can be changed into a very sharp inversion. Fig 3. (The Sc layer is often originally formed by the spreading out of cumulus.)

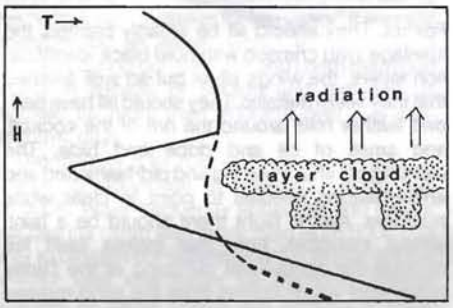


Fig 3. Originally stable layer changed to a sharp inversion by radiation from top of a Sc sheet.

How the inversion changes with time

a. Due to solar heating.

After sunrise solar energy heats the ground, the heat is then transferred to the air in contact with the ground. As soon as the lapse rate exceeds 3°C/1000ft convection currents start to distribute this heat higher and higher, first as myriads of small "plumes" of rising air and later as fully formed and well separated thermals carrying columns and bubbles of warm air aloft. When the thermals encounter the warmer air above the base of the inversion they lose buoyancy and stop rising.

However, since they often hit the inversion with considerable momentum they may penetrate it for several hundred feet. This produces a bulge in the inversion layer and often starts some mixing. Warm air is displaced from above the inversion to mix with the originally cooler air below. The net result is that on a sunny summer afternoon the surface inversion is destroyed and any inversion aloft may be lifted 1000 or 2000ft higher. (Fig 4.) Consequently on cloudless summer days when an anticylone or strong ridge of high pressure covers the country, soaring conditions gradually improve to reach their optimum between about 1500 and 1700 local time.

b. Due to widespread vertical motion aloft.

Large scale descent of air in regions where ridges or anticyclones are forming produces inversions which often lower with time; the reverse process, ascent of air ahead of an advancing trough or depression, causes the inversion to rise and break down. As a result the inversion seems to behave rather like a vast trampoline, being gradually pushed down by the extra weight of air in an anticyclone and bouncing (slowly) back when the weight of air aloft is reduced. Where it rises convective currents ascend higher and (for a time) soaring improves. Where it sinks thermals are confined to a shallow layer and may be supressed entirely.

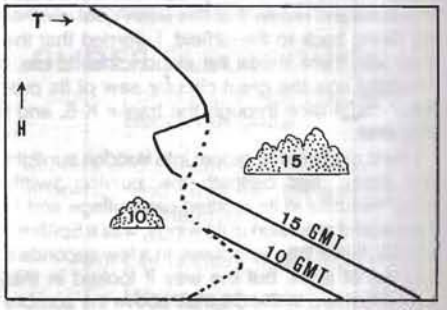


Fig 4. How heating can raise the inversion between 10h and 15h.

c. If cooler air from the sea penetrates inland during a warm day an inversion is often formed where the sea air undercuts the land air. This commonly occurs after a sea breeze has moved inland during the afternoon but it also occurs because an on-shore gradient develops due to the movement of a distant depression.

d. Temporary inversions covering a relatively small area may form when air sinks outside a region of heavy showers or thunderstorms. In mountain areas one may see that small cu over the plains vanish when bigger cu form over the high ground. Even over flat country the development of a large mass of heavy cumulus in one region tends to suppress the little cumulus which had formed all round earlier in the day.

This effect can also be seen when flying high over tropical oceans. In some regions there is a field of relatively small cu, none of them reaching very high. Then a minor disturbance sets off the development of cu-nim. As the massive clouds grow the flocks of little cu all round become sparse and most of them disappear in the wide region of sink between storm clouds.

Multiple inversions

There are many days when there is a surface inversion and also an upper inversion. On sunny mornings in summer the surface inversion usually breaks down fairly quickly and it then becomes soarable, but for some time the thermals are disappointingly weak. This is the period when the rise of temperature has not yet managed to break the second inversion. When (and if) it does the conditions quickly improve.

The forecast problem

One essential for all gliding forecasts is a recent set of upper air soundings measuring the temperatures aloft. From these one may, with luck, be able to draw a rough contour map showing the inversion level over the country. The contours are seldom very accurate because most of the upper air reports are some 300km apart. The balloons carrying the sondes are released at about 1100 and 2300 GMT. The 1100 soundings are too late for any soaring forecast so the forecaster makes use of those made just before midnight on the previous day. Inevitably there is a delay of nearly half a day between the time of sounding and the time of most soaring flights. Much may change in that time.

Making local soundings from aircraft

A gliding forecaster prefers to have a morning sounding. There are some special morning soundings made (mainly) at artillery and rocket ranges but these are not transmitted on routine radio broadcasts so are rarely available to us. Instead one can make a sounding using an aircraft. There are now cheap digital thermometers with some nine feet of cable between sensor and LCD readout. Provided the sensor is placed in the air flow away from heat from the engine and shielded from direct sunlight the instrument is accurate to about ½°C, which is adequate for gliding purposes.

The thermometer lag is a problem. Some systems have a very slow response rate. This error can be reduced by making a slow ascent and taking readings both on climb and descent. Comparison between up and down readings lets one see where instrumental lag may be spoiling results.

It is slower but cheaper to use a very low powered aircraft such as a Falke or RF4 rather than a more powerful glider tug. Temperature errors are less when the airspeed and rate of climb are low. (With a two-seater there is the added advantage of giving a pupil a little training too.) In the early morning the gliding frequencies are mercifully quiet so the data can be radioed back and plotted on the ground before the aircraft returns.

This is almost essential when a Falke is used because soundings take rather a long time. Problems arise if you need a second sounding later in the day. Then the radio channels are apt to be blocked by pilots who use their radios like a teenager on the telephone.

When aircraft soundings are useful

In England it is seldom worth the trouble of making a local sounding if the winds aloft exceed 20kt or if the midnight radio sondes show a good depth of instability suggesting thermals will start early and be marked by cumulus. The local sounding is most worthwhile in fairly calm, stable, anticyclonic conditions when a difference of 1000ft in the level of the inversion may make all the difference between a fair task of 300km and a wretched grovel round 150km.

Making use of local soundings

Meteorologists plot upper air temperatures on a Tephigram which uses pressure rather than height and has a complicated set of lines showing different adiabatic lapse rates and vapour content lines. If all that is wanted is an estimate of the time blue thermals will reach a specified height the local sounding can be plotted on a simple temperature height diagram. (Fig 5.) The essential features of this are temperature (along the base line) and height up the side. This gives a basic grid. Two additional sets of lines are needed:

a. The first set has a slope of 3°C/1000ft and represents the rate at which a blue thermal cools as it rises. The slope represents the "Dry Adiabatic Lapse Rate" which is constant.

b. The second set of lines shows how the vapour content changes with height. On the diagram this has been marked as "dew point line" since it also shows how the dew point varies with altitude. The dew point lines are not so easy to draw as the dry adiabats but a lapse of 0.57°C/1000ft is a reasonable approximation for typical summer conditions in England. The graph shows there is a small variation between individual lines.

If you have wet and dry thermometers and the appropriate slide rule or tables it is possible to work out the dew point from the dry and wet bulb readings. If not one can usually get nearby values from the latest "Volmet" broadcasts.

Finding the top of blue thermals

Get the forecast max temperature from the local forecast (TV, sound or telephone) and mark the value on the base line. Follow one of the dry adiabats up till it meets your local sounding. The height it meets the sounding is the probable top of blue thermals.

Finding cloudbase

Plot the dew point on the base line and follow up a dew point line until it meets the dry adiabat from the max temperature. Where the two cross is the condensation level; this should be very close to the base of cumulus. If the two lines meet to the right of the sounding there should be cu; if they do not meet until both have crossed over to the left of the sounding cloud should not form.

In order to work out the tops of cumulus one needs a third set of lines showing saturated adiabatics; these are a family of curves representing how the air cools inside a rising mass of cloud. If you must have this extra detail it is better to plot the sounding on a Tephigram. Many people are put off just by the sight of this; it complicates matters for club use because the altimeter readings must be converted into pressure values. Altogether it seems too much trouble! For our purpose it is easier to stick to the simpler diagram, hence no complicating curves have been added.

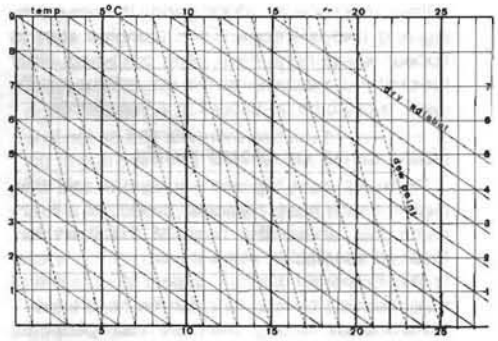


Fig 5. A temperature height diagram for plotting local aircraft sounding.

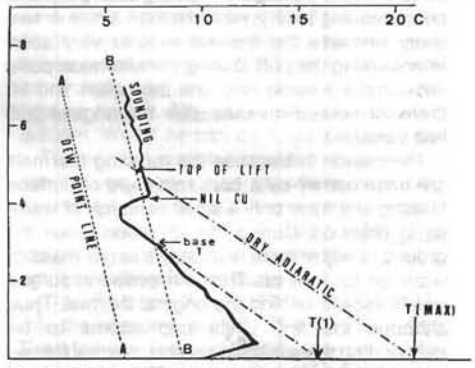


Fig 6. Predicting tops of thermals and cloudbase on a temperature height diagram.

Construction lines

Fig 6 shows a sounding made by an RF4 from Nympsfield early on June 24. The temperatures found are plotted as a heavy black line on a simplified temperature height diagram like Fig 5 (but leaving out the extra lines). The dew point line A..A shows air too dry for cloud since it lies to the left of the sounding. The dew point line B..B does cross the sounding so cumulus can be expected. B-B is a higher dew point produced by the arrival of moister air during the morning. A dry adiabat (shown by the dot-dash line) from this point down to the surface gives a temperature marked T(1). This is the temperature which must be passed before cu appear. The condensation level is marked as "base 1". Higher up, where line B-B lies to the left of the sounding curve, is a level marked NIL CU. When the cloudbase reaches this height one might expect cumulus to disperse.

A dot-dash dry adiabat from the forecast max temperature T(MAX) shows the top of lift at the time of max temperature. The top is so close to the dew point line B-B that the momentum of a rising thermal might well take it high enough to form a puff of cumulus.

Blue thermals or cumulus?

There are many summer days when forecasters find it hard to say if there will be any cumulus to mark the thermals. When the temperature and dew point values are entered one may find that the two lines cut just above the inversion level and it is doubtful if cu will form or not. On a cloudless day in the middle of summer the sun's heat may produce such strong thermals that the inversion ➡

is lfited 1000 or even 2000ft during the late morning and mid afternoon. Then cumulus start to appear where none have been predicted. Near the centre of anticyclones this may still be insufficient to produce cu except in a few places.

Haze caps or cloud puffs

Thermals carry up extra moisture and this, together with haze particles, produces a fuzzy patch just above the base of the inversion. Polaroid spectacles make these patches easier to see. Some pundits can dolphin along a line of blue thermals by watching for the haze caps.

Particularly strong thermals can penetrate several hundred feet into the warm air above the inversion and these may be marked by very brief puffs of cloud. During the morning such puffs can be misleading to anyone more than a mile or two away because the thermal expires very soon after forming the puff. During the afternoon puffs seem more reliable and one can often find lift there for several minutes after the original puff has vanished.

The reason is because the morning thermals are often set off by a bare minimum of surface heating and have only a small reservoir of warm air to draw on. During the afternoon when the ground is hotter there is usually a larger mass of warm air to draw on. This is released in surges which ascend behind the original thermal. Thus although the tiny white cap seems to be evaporating there is often another thermal following up. By late afternoon these tenuous wisps of cumulus persist for many minutes and one can head for them with a fair chance that the lift will still be there when you arrive.

Variations in inversion level and dew point

Anticyclonic conditions often look meteorologically simple but the forecaster seldom knows how the inversion is undulating in space and time. It is rare to find that the inversion remains level over a large area. There can be significant changes even along a leg as short as 50km. A drop in dew point of a degree or two may be enough to prevent any cumulus while an undulation of 1000ft in the inversion changes easy soaring into a tedious grovel.

Valleys and hollows in the inversion layer

There are days when a tongue of sea fog or very low stratus spreads far inland during the night. Aircraft soundings have shown that the inversion sometimes dips down in this region forming a shallow valley. During the morning the sun warms up all the air and (in summer) the stratus usually burns off inland. However, the previously stratus filled zone warms up less than the cloud free surroundings because heat has been wasted in evaporating the early morning low cloud or fog. As a result the valley in the inversion is never completely filled up. Flying across it from either side one finds much weaker thermals and often a layer of thicker haze where the stratus had been. This can be a real problem when task setting; it can result in "Group A" gliders sent along the inversion valley landing near the first TP while "Group B" flying just outside the "valley" have a successful flight.

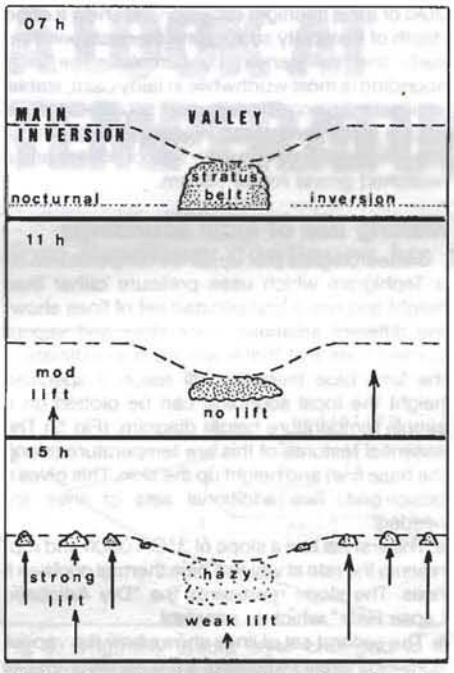


Fig 7. A valley in the inversion showing changes during the day.

A similar effect occurs on calm days where there has been thick fog in one region. Then a hollow occurs in the inversion layer and thermals are late in starting and lift may never become really good.

Fig 7 shows a cross section of a valley in the inversion associated with a tongue of low stratus. Fig 8 is a sketch map showing the extent of stratus which spread from Liverpool bay. The shading shows where it was at 7.00am on July 16. It subsequently went even further south and nearly reached the Channel before heating started to burn if off. Similar effects have been found when NE winds bring low stratus in from the North Sea to spoil the soaring over the Cotswolds. One usually finds that sunshine burns these cloud tongues in from the sides and back from the leading edge so that only a narrow strip remains poor all day.

Fig 8. Low stratus associated with the inversion valley.

Waves at and above the inversion

Some of the best lee waves develop when there is a well marked inversion not far above the level of the mountains. Other kinds of wave often appear near the inversion level. Some waves have been set off by distant disturbances. These waves travel along the inversion just like waves on the surface of a pond when you throw a stone in; they are interesting but usually transient phenomena. Soaring pilots can make use of various kinds of wave which develop when there is a wind shear through the inversion.

This may be produced when the wind is stronger above the inversion than in the convective layer underneath. While the cumulus are active they produce wavelike undulations at the inversion. The stronger wind aloft then develops a wave motion above and often slightly upwind of the active thermal. There is not always cloud to indicate this effect.

Billows

It is quite likely that the waves found at low inversions are similar to those which produce billow clouds higher up. Billow clouds are very short wavelength bars usually lying across the wind direction. They are not caused by any upwind mountains but are due to the shearing effect when a strong wind blows over a slower moving layer. These billows travel with the wind and, if the air is moist, produce a wave pattern in a layer of altocumulus. Since the wave pattern depends on the shear it is not invariably at right angles to the wind at one particular level. A large sheet of altocumulus may have its billows aligned in several different directions.

An approaching front often produces billows in the upper cloud sheet but the pattern is usually short lived.

So far I have not heard of any soaring pilot using these billows; the lift is probably too weak to be useful. However, billows sometimes rear up and break just like waves running up a beach. When this happens the layer containing them becomes very turbulent for a while. Much of the turbulence which troubles high flying airliners is due to billows which have curled over and broken. Perhaps the same effect causes the rough and distorted thermals sometimes encountered just below the inversion.

THE BIG HEAT

London, October 1989

By Captain Kirk (with a deep bow to Raymond Chandler)

It's one of those special days, when the air is as cold as ice and the sky as blue as sapphire. The sort of day you work all year for, sweating your guts in a steamy office with a crowd of deadbeats because they tell you that's your job. Each day, face against the glass, waiting for the time to come. "Hey, Kirk!", screams the boss from his hole across the room, "When are you gonna stop looking outta that god damn window and start doing some god damn work? Just for a change, huh?" I guess I pay no attention, because the next things I remember are his mouth an inch from my face and an angry whisper: "Listen, kid – this is your last chance; we ain't gonna carry freeloaders no more. Shape up, or get the hell out". I remember I don't like the guy. He walks away, moping his brow with a week-old facecloth, still muttering; "God damn glider pilots –crazy to fly with no engines". I remember why I don't like him. No imagination.

The forecast was good – Mac was right. You can feel the air snap between your fingers. Toots is here, Big Jake too – they'd seen the signs. We rig, no words wasted; we know each other's gliders like each other's sisters. We've been waiting for the big day for months. We'd tried before, many times before, each day starting out like this. Each time we'd be sure we'd make it, but it's been a bad year. No one ever got back. No one except Toots, that is. We'd get shot down by the weather, time after time. It hurts, you know? You work hour after long, mind-sapping hour to get your ship round the task. Then on the last leg you listen to the guys on the cans, dropping like flies as the day dies. You keep going because you've got no choice. In the end I guess you just give up trying. After hitting the field, the world turns silent, except for your own heartbeat pounding like a steam-hammer and your lungs gasping for air and your voice cursing Dame Fortune. You get out the cockpit and you feel sick. You really want to quit this heartbreaking sport. But when you really need to be alone, do you get the chance?

"Hey, you OK?", yells the farmer. "Wind dropped, huh?". I tell him "Yeah", 'cos I ain't in the mood to explain it all again. He fixes me up a beer, a long cool beer and I guess I'll live. What the hell, it's no big deal, no end of the world, just another land out. I get to the phone and call up the Main Man at the ranch to fix me up a retrieve. He tells me that Toots got back, but that he wouldn't say how. That Toots – no one knows how the guy does it; flies further than anyone and always gets back. The man really bugs me, like an itch on your nose you can't reach.

Now the morning thermals have started. Spider grins at me from the Pawnee. He's just a kid, but he flies the tug like an old pro. He calls me; "Where ya goin', Jimmy? Two grand enough, huh?" I grunt nothing in particular and just point upwards. Today looks good. The clouds look right, I can't waste time, I've got to go now. Spider slaps on the power. We bounce into the air and the rush hits me, better than a bottle of bourbon, it hits me in the head and the guts like a sledge-hammer. Hitting two thousand I pull the hook and start the first climb. A cinch. I reach cloudbase and look over my shoulder at the ants on the ground; those crazies staring in the mud, day after day, fighting like animals for a piece of nothing. Then I remember I've got a flight to make, so I gulp a mouthful of juice and leave the zoo behind.

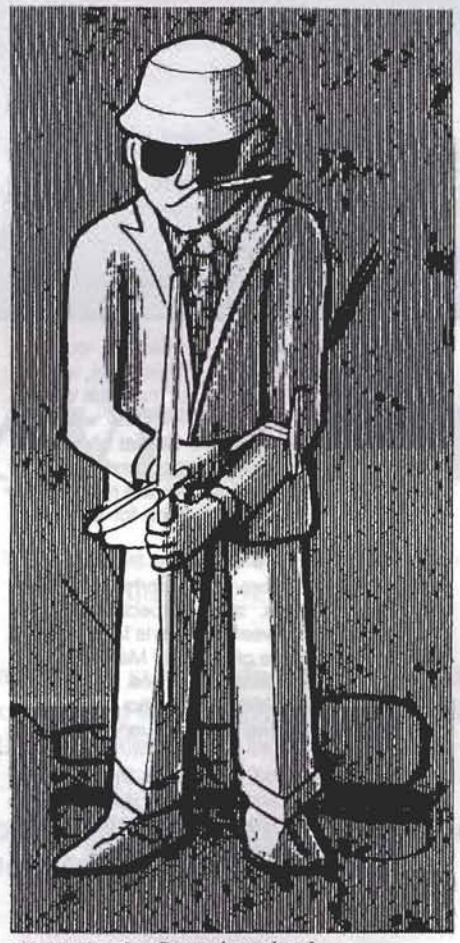


Illustration by Steve Longland.

Easy to the first TP, downwind. It's always like this. Ma Nature's joke, make it easy to start with to fool the suckers on to the ground. She can't fool me; hey, I've been around too long to let it happen again. I speak to her as I round the TP, just to let her know I'm still here. Leg two slips by easy –too easy maybe. Plenty of day left, I begin the final leg trying to keep thoughts of finishing out of my head; but some demon pumps the image of a final glide in my mind, and the sky goes blue.

Ok, ok, let's not panic, right? So there's no clouds anymore, but there's got to be still plenty of thermals. The fields ain't got me yet, not by a long shot. Searching for the hot spots, it don't feel right. Climbing OK, but cobblestones all the way and not so fast anymore. What's the weather trying to pull this time? After an hour of this I reckon Ma Nature's got the edge. But I've still got a trick or two left, no way was I gonna quit now. Not with only 50km to go.

I smell the air – something different about the smell this time of year. Then it clicks, like a gun shot and I know exactly what to do. I switch off track, to a pale brown field on the horizon. Like all the others except this one has a column of smoke climbing from it. As I get closer, the smoke gets thicker, reaching into a cloud like a snake looking for a strike. I heard about these from Toots, how tough these smokies could get, he was always telling us to keep away from them, like these were terminators. I grin to myself. Yeah, I think, so that's how he does it. Always the longest flights in the autumn. Well if he can do it, sure as hell I can.

This one is a monster, smoke so thick you can't see through to the other side. I sidle up to it from downwind, around 1000ft, wondering when the action would start. Nothing. Getting closer, I get impatient. Come on, where are you? I split the smoke, waiting for the surge.

Then it hits me. Airspeed hitting 100kt as I pull into the pumping air, only to drop into nothing. Everything in the cockpit hits the roof. Camera slamming into the perspex, mud from the footwell spitting back into my face. My seat jumps out of its hooks and stays out, so I can only just reach the pedals. I swear I can feel the wings beginning to snap. Jeez am I scared. I reckon that maybe Ma Nature has won the big one this time. Still more smoke to get through. I keep the speed down and just aim to get out of the smoke, whispering a quick prayer, just in case somebody's listening. I must have struck lucky, 'cos after a few more seconds I'm out, still in one piece.

After a couple of moments, I'm back in flying mode. No way am I gonna try that one again; there are enough psychopaths out there who enjoy that sort of thing, you know, like the old guys who used to get their badge heights in thunderstorms. Hell, they can keep it.

So I've still got to get home. I take a bite just beyond the fire and start turning. I look back at the field, and see for the first time why my smokie was so unfriendly. The field is large, square, and has been given the old-fashioned treatment – I see a line of orange sparks all the way around it – not just along one edge like they do all the other fields these days. I watch the smoke get sucked up the middle, like a vortex, like the volcanoes you see in the TV. I chew my lip, and hitting 5000ft I set off for home.

I don't remember the final glide, or the beat-up, or the duty instructor pounding me in the chest yelling that it was too damn low. No afterglow this time, I was just happily counting my lucky stars.

I see Toots back at the trailers and I'm beginning to wonder whether he ever risks the smokies. Hell, maybe the guy really does avoid them and his talk isn't all bull. I just know he ain't saying, and there's no point me asking. He just looks at the soot on my leading edge and smiles.

S & G CLASSIC

CHOSEN BY THE ARM-CHAIR PILOT

Here is a special Christmas *Classic*. In 1974 there was a Christmas Competition in *S&G*. Then, as now, glider pilots complained about the broadcast weather forecasts, so the following competition was set. Alan Purnell's entry was judged the best, showing him to be as skilful at interpreting the forecasts as he is at interpreting the weather itself. *S&G February-March 1975, p13.*

CHRISTMAS COMPETITION RESULT

Our Christmas Competition, set and judged by the Arm-Chair Pilot, asked for a weather forecast aimed at a particular sport though in reality giving the glider pilot the maximum information. We had a batch of ingenuous and entertaining entries with Alan Purnell's version, printed below, winning him the year's subscription to S&G.

Here is the weather forecast for cricketers and it covers the whole country.

There will be no interruption due to rain or showers and it will be fine and sunny with the chance of a few scores of 500.

The opening fast bowlers should start from the west with what little wind there will be. There will not be enough lift off the slope at Lords to be useful, even to slow bowlers. At Hove the wind will swing round to the seaside end by mid-afternoon.

On the hard pitches, there will be quite a few bumpers and these will rise to four feet and later get up to a height of five with a few rising quite sharply to six later in the afternoon.

Catches difficult

The ball should be kept well up but even so there will be plenty of fours with the occasional six. On damp grounds, catches will be difficult low down since it will be awkward to turn, and slips will not be needed.

Those bowling first should aim to take an early lunch and declare early in case of a late finish.

Umpires will need their sunhats as the shade will only occur for about two or three overs in every eight with no wispy cloud to lessen the glare. All areas of the ground will be clearly seen.

The outlook for the Test Match at Headingly, Leeds, for the weekend is for strong winds from the Pennine end with unbroken sunshine through a long gap in the clouds. The pitch will be smooth with lots of green and plenty of lift for the fast bowlers up to about 12 in the morning. Pressure will remain high on the England team.

That is the end of the forecast for cricketers.

BOOK REVIEWS

Meteorology And Flight by Tom Bradbury, published by A. & C. Black and from the BGA at £13.45 including p&p.

Glider pilots know a lot more about the weather than most aeroplane pilots, but often have to acquire this knowledge slowly. They learn the hard way, usually starting by driving long distances only to find the wind too strong for flying, or later outlanding because of misinterpreting thermal behaviour. Luckily **Meteorology And Flight** is now available to reduce the need to learn through making mistakes, as Tom Bradbury not only knows about the weather problems of glider pilots, both new and old, but has written a book of great clarity supported by 162 diagrams plus photographs.

Although many glider pilots may turn straight to the chapters on convection and wave which, rightly, occupy a good third of the book, the earlier chapters on Lows, Highs and Jet Streams should not be skipped by any pilot brought up on the simplistic diagrams of depressions and anticyclones. It is easy to criticise a forecast as being "wrong" if the complex processes involved are not appreciated. A study of these first chapters, which are easy to read and clearly illustrated, make for a much better understanding of the weather systems which assault our island.

There is the same study in depth in the chapters on soaring weather, ranging through the structure and behaviour of thermals, cumulus and inversions, wave and thermal wave, and airflow in mountains. Throughout the book the text is broken down into short sections with subheadings and the diagrams almost always immediately adjacent to the relevant text. To further help the reader a few diagrams are repeated so that it is not necessary to search for a previous reference.

The later chapters deal with the making of weather maps and forecasts, information obtainable from satellites, and a special reference chapter on gliding weather. This is followed by a really useful 12 page glossary of Met terms containing explanation of coriolis force. Finally there are appendices on Met abbreviations and types of forecasts followed by that rare animal, a good index.

Meteorology And Flight has the quality of being just as interesting and useful to the experienced soaring nut as to the beginner pilot; having been forecaster at countless gliding championships Tom knows well what pilots want to know.

ANN WELCH

Sir Peter Scott at 80, A Retrospective, published by Alan Sutton Publishing at £8.95.

This lovely little book was published to accompany the retrospective exhibition of Sir Peter Scott's work organised by the Cheltenham Art Gallery and Museum. It is full of examples of his paintings together with photographs showing how full a life he had and which included a highly successful period in gliding. What a pity he died just weeks before his 80th birthday.

He said in the preface that his life had been hugely enjoyable, fortunate and happy. It is fortunate that we have this book to remind us of his work – it is a fitting tribute to a remarkable man.

B. H. BRYCE-SMITH

Is There Sex After Soaring? by Trish Durbin and from the BGA at £3.95, including p&p.

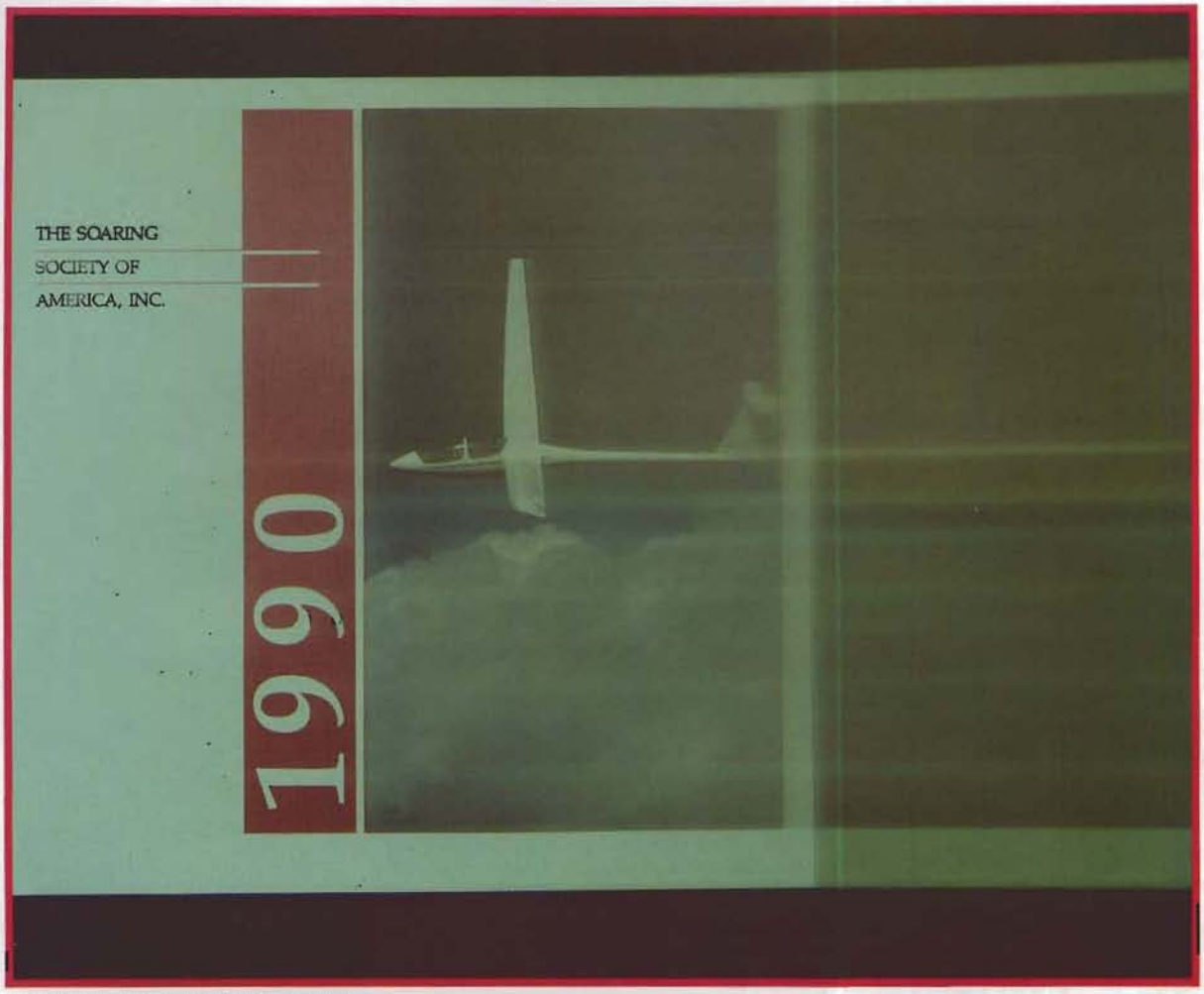
As you would expect from Trish's pen, this little book is a great laugh and will make the ideal stocking filler. And you'll love the drawings.

INTERNATIONAL VINTAGE RALLY

The 17th International Vintage Glider Rally was held at the end of July near Budapest and close to the two famous pre-war Hungarian gliding sites. It was a great success with over 2000 launches in eight days from which 1260hrs were flown. There were no accidents or cases of structural failure.

Gliders taking part for the first time were an Austrian Mg 19a; the Hungarian 1944 Futar prototype; Attila Ziermann's Swiss registered Super Futar which he found in Austria, restored in Hungary and exquisitely finished in transparent fabric; a Swallow and a Czech Lunak, the last survivor of 83 built in 1950, except for five in museums.

When new, it was fully aerobatic and cleared to fly at 420km/h but could be slowed up for thermalling with Fowler flaps. All the others were grounded in 1953 for feared glue failure but the prototype, which was owned by Ladislav Marmol, was emphatically claimed by the Czechs to be languishing in some English hangar roof! – *Chris Wills.*



PHOTOGRAPHY BY STEVE HINES

THEY'VE ARRIVED!

A simple glance at the wall to the new 1990 Soaring Calendar will rekindle the excitement for the sport we all enjoy so well.

A functional design enhanced by superb photography from our diligent volunteers has resulted in a choice addition to any home or office. This new calendar also serves as an excellent gift idea that will certainly be appreciated.

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Cold Turkey

I know what you're saying: "Oh Lord, he's* back. We should have known he couldn't keep a promise. No staying power. Temperamental type. A whim of iron. Useless." Indeed, I have kicked the habit, but this is just what you might call an Occasional Piece, by Special Request of HRH the Editor, the occasion being of course the Season of Goodwill to All Men and Some Women, so damn well shut up and listen. If you measure the amount of verbiage I and my *alter ego* have churned out over the past 30 years, with no time off for good behaviour (there hasn't been any, Ed), to the extent that the editions in which I have *not* written are rare, not to say priceless, collectors' items, then you would agree that I might reasonably fear I was going to run out of ideas. Moreover, meeting deadlines is a nightmare – *no matter how much advance notice one is given.* Indeed the more notice one gets the worse it is. You can't imagine my relief to have Penguin, who is a real writer who understands deadlines and not an amateur like me, keep the chat flowing. I have to admit I was slightly bemused to see Penguin looking just as Platypus would do if he'd had his duckbill rammed into an electric pencil-sharpener (something that many readers would doubtless love to do to me) so that I hardly noticed the join. I would be half way through a Penguin piece and wonder why I couldn't remember having written it; this loss of memory I attributed to senile decay. Thank you, Penguin, may your pen and your barograph never run out of ink.

** Yes, by popular request and we have persuaded him to keeping re-appearing as the mood takes him, while welcoming Penguin's contributions. Penguin has also been very well received and it is obvious there is room for two flightless birds. Ed.*

The seven deadly sins of gliding. Number One: Sloth

(This is intended to be a series, but I'm not sure what I'll find to say when I get around to Lust)

Time was, if you said to your CFI "Chiefy –" (I'm assuming he was not the sort that would pronounce an instant grounding for calling him Chiefy, though personally I would never have dared to, not even when I was young) "– on my next gliding holiday I want to put as many hours in my logbook as possible and fly as many miles as possible and to see the widest variety of countryside and generally get the most out my glider, my talents and the British weather, all of which are pretty limited. What do you advise?" then the instant answer would have come winging back "Enter a competition, of course! Best of all, see if you can get into a Nationals."

And of course a Comp was indeed the ideal way to achieve all those noble aims. With expert Met briefings and aerotows laid on; with a crew madly eager to drive thousands of miles from dawn to dusk, and from dusk to dawn again; and finally with distance tasks that started in the very first thermal of the morning and ended in a long, floating descent from the last thermal of the evening – well, many pilots, in gliders of lower performance than those in which people now go solo, averaged seven hours a flight, seeing not just the countryside but the coastline, often from many miles out to sea, from Cornwall to Scotland in the same week. It wasn't just worth 50 hours in the logbook, it was beautiful and hard to forget.

Dreadful tales are told of the extermination of the American bison in the 19th century; people would shoot the poor beasts just to cut out the tongue as a delicacy and leave the carcase to rot. That's what the unholy alliance of competition pilots and organisers increasingly do to magnificent, broadshouldered soaring days that could effortlessly carry hundreds of gliders round this land for seven, eight hours or more. They carve out a two or three hours in the middle of the afternoon and discard the really interesting bits at either end. Like a dead buffalo, a great soaring day never, ever comes back. It is lost for all eternity.

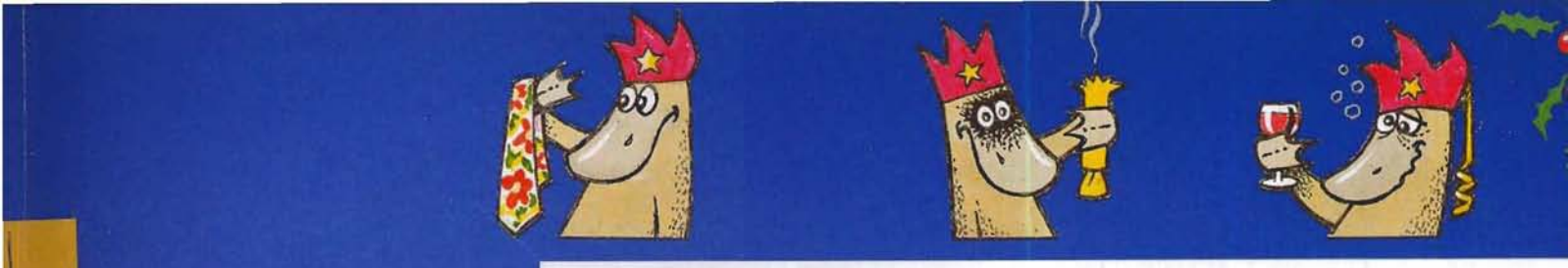
Forget lunch, launch!

A few times I have got my act together just about in time for an early launch, and I have been continually astonished how soon in the day the good soaring weather can start. On so many days thermals are bubbling at 1000 (0900 GMT) and I realise I could already have been 40km or more down the first leg of some vast task. Don't say that this is all to do with 1989 being a freak year; it *was* a freak year, but the principle applies every year – some days are perfectly usable a good three hours before the typical competition pilot crosses the line.

Years ago I arrived overhead a famous club more than 250km out from home in an ASW-20 on a Sunday lunchtime – about 1.30pm – and people were saying on the radio that they'd just discovered it was a rather nice day and maybe they ought to aviate a bit. On the ground high performance gliders could be seen preparing for their first, leisurely launch of the day. They would have discovered that it had been fantastic since 9.30am if only they'd got off their backsides. (To be fair, I'm sure the same leisurely carry-on was taking place back home.) It wouldn't matter so much if were not the same people that whinge about the horrendous cost per hour of gliding, the rarity of good days, the difficulty of getting utilisation etc, etc.

If you want a worthwhile resolution for the New Year, it is this: get up early; get the equipage and all the assorted junk out on the launch point and get your behind, and all that is strapped to it, into the empyrean at the earliest opportunity. If you are a slow pilot like me, the only way you will ever cover the ground is to use all the soaring hours that God sends. A few more touches of the blindingly obvious:

- It helps to pairfly with friends; tiptoe along at Max L/D, and stay in touch by radio and eyeball.
- Remember that when cloudbase is low the thermals are closer together, so it isn't so difficult as it looks. The lift at breakfast time is not strong but is almost continuous. That is how Hans-Werner Grosse used to do 1000km flights in his ASW-17 years ago.



• Try to set a task such that there is a friendly airfield on track in the first 20 or 30km; then you can be reassured that if you do burn your boats too early you can get a relight and not waste the whole day in some meadow glaring up at the clouds and cursing Platypus. Take a good book along, though, just in case.

• If you really have launched prematurely, and the tug pulls you through dead air all the way to 2000ft, carry on to 3200ft over the site, announce Start in a clear, confident voice and glide out on track, praying. You are giving the thermals 20 minutes in which to wake up. (You are also impressing the hell out of your friends, who are listening to the radio still in their pyjamas and eating toast and marmalade. The lower the performance glider you do this in, the more impressed they will be, especially if they have shares in it.) If you get nothing by the time you get down to 2000ft, you either press on or turn back as the mood takes you. I take no responsibility from here on.

In the greatest flight ever done in this country, 808km from Lasham to Durham and back in that other *wunder-jahr*, 1976, Chris Garton was 30km along track in his Kestrel 19 and down below 1000ft, with no usable airfield in range, before he got his first thermal. *That's the way* to write a big flight not just into the logbook, but into the record book.

There is no substitute for PMA[1]

You will note that the sailplanes referred to in the foregoing piece are all available at reasonable prices these days, being to greater or lesser degree obsolete, but capable of terrific performance. So it is not a question of this being advice for Nimbus 3 owners which all others can ignore. It is a question of *attitude*. Lastly, if flying for seven hours and more does not appeal, then land at lunchtime and throw your partners into the air.

[1] *Positive Mental Attitude. Of course, Span does help the PMA no end ...*

(Pleafe ftop all thif mock olde Englifh – ere ye typefetterf go on ftrike: Ed)

January: Unusually mild weather; global warming blamed. Robin May and John Jeffries fly ASH-25 to Blarney and back in Limerick wave. Peebag inadvertently dropped on Mayor of Cork, causing serious Anglo-Irish diplomatic rift.

February: Unusually cold weather, global warming blamed. BGA Conference snowed in; Brennig James takes opportunity to tell life story to captive audience. Pete Saundby awarded the "Mowbray Vale" medal for patenting new parachute that saves the glider and dumps the pilot.

March: Cold snap continues; so does Brennig. Frenzied mass breakout of middle-aged conference delegates across frozen Bristol Channel. All senior figures in UK movement lost beneath the ice. (Furious debate ensues in *S&G* re impact on future of British gliding: nil or positive?)

April: Unusually windy weather; global warming blamed. Platypus breaks 100km triangular speed' record, but forgets to switch on barograph. Schempp-Hirth bring out 27 metre glider, announcing "This is positively the limit on span". Ferranti sponsor Standard Class Nationals: hospitality tent and all prizes stolen by American conman before Day 1.

May: Ralph Jones vows publicly to give up threatening pilots, tasksetters, editors and columnists. *Get Well Soon* letters pour in to Ralph. Platypus breaks 200km triangular speed record but one side of triangle is only 27.99% of total distance; disqualified under 28% rule.

June: Unusually calm weather; global warming blamed. Cloudbase goes to 8000ft. Platypus breaks 300km triangular speed record but flies wrong way round task. Schleichers bring out 29 metre glider, announcing "This is positively the limit on span".

July: Unusually hot weather; global warming blamed. Cloudbase goes to 9000ft; new airspace regulations bring ceiling down to 3000ft over UK. Ninety-eight top pilots slammed in Wormwood Scrubs for infringements.

August: Cloudbase goes to 10000ft. Frenzied mass breakout of the 98, in gliders made from bedsteads and prison sheets, comes too late for Open Class Nationals, which has only two entrants. Platypus leads sole rival (16 year-old Silver badge pilot) by 7000 points, but incurs 7001 photo penalty points; comes bottom.

September: Platypus breaks 500km two seater triangular speed record but forgets to take passenger in back seat; disqualified. Schempp-Hirth bring out 31 metre glider, announcing "We have positively no more territorial ambitions". UK National Ladder won by Dagling.

October: Season of mists and mellow fruitfulness; global warming blamed. Ralph Jones threatens Platypus after airmiss and latest column in *S&G; Get Well Soon* letters pour in to Platypus. P. vows publicly to give up writing for *S&G*.

November: Schleichers bring out 33 metre glider, announcing "The Sailplane to end all Sailplanes," Schleicher factory strafed by squadrons of Venti, Nimbi and Jani; Henry Kissinger called in to arrange non-aggression treaty. Editor of *S&G* gets Club News from Dunstable: another record broken.

December: General astonishment that this month is somewhat colder than August; Tom Bradbury blamed. *S&G's* Almanack for 1991 faxed from Alice Springs, under the mysterious pen name of Dingo; *S&G* readers complain all the seasons seem back to front.

Mad dogs and Englishmen go up in the midday sun ...

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DATABACK CAMERAS

After opening our eyes to sunglasses in the June issue, John Wright now puts us in the picture with an article on cameras

Almost every glider pilot will need a turning point camera at some time or other. Whether it's for a UK Cross-Country diploma, a 500km Diamond or a competition flight, cameras are now an important piece of ancillary equipment. There are literally hundreds of models, but from the pilot's point of view the compact type of camera is the best choice due to the lack of space in the cockpit.

For those of us with the competitive urge there is a second consideration – a databack to print the time of our starts, TPs, lunch break, finishes, field landing, or whatever else the Competitions Committee will require. The extra cost of a data back on most compacts is only about £5 – £10 therefore even if you are not interested in competitions, the extra expenditure is worthwhile just in case you change your mind. You can always lend it to a friend who does compete and needs a back-up camera or, worse, whose main camera has just broken down. You may even want to record the time you round a TP, or reach a particular waypoint, just to see the time taken for the various legs to assist in post-flight analysis. Although hrs:mins:secs may be required for National Championships, the cameras here unfortunately only print hrs:mins so you'll have to time your start carefully, just after the change occurs, to incur the minimum penalty.

Many pilots seem to automatically choose the Konica Pop due to its ready availability, low price, their friend's got one or they don't know of any alternative models. Yet for very little extra there are now a large number of alternatives with more facilities to improve your photography; cameras that you will be likely to use more often on holidays, birthdays, special events, etc. "But I get nice little piccies with my old PicyPopoMatic and its less than 17 years old! I don't think there's any difference between the photos from one camera and another." Oh yes there is! I once spent almost two hours in the darkroom trying to produce a few decent quality prints from a friend's 300km flight and the results were very disappointing due to the cheap old camera he used.

Compare critically (focusing, general sharpness, exposure) photos taken on an old or cheap camera with those you see in magazines. Look critically at some readers' photos in *S&G*. Many cheap cameras give poor results when it's dull, or very bright, or when using flash, compared to what you can get from a slightly more expensive camera. Indeed most cheap cameras actually depend on you only taking pictures when the conditions are good – when the differences between cameras admittedly become less noticeable – to get acceptable results. Now obviously you aren't trying to get TP photos which compete in quality with an Ansel Adams' landscape, but when extra quality is possible for so little extra effort, why miss out on it?

Focusing systems

1. Focus-free, or fixed focus to be more accurate. At first glance this seems great, but it isn't. Such cameras often say "everything between 3ft and infinity in perfect focus". In reality the lens is focused at somewhere between 8-10ft, and with a short focal length lens and a narrow aperture this gives results that are almost in focus most of the time. It's a compromise and is only found on the cheaper cameras. Picture quality is reduced and is not as sharp under dull conditions as a good camera can give. Yet some adverts make a big selling point out of the camera being "focus-free"! Don't be fooled by them.

2. Zone or symbol focusing. Here a symbol such as a head and shoulders, three people, or two mountains is set on the lens at click stops corresponding to say 5ft, 15ft or infinity. This is better than fixed focus and should give sharper focusing, but it too is a bit of a compromise and is found on inexpensive cameras. It's a bit limited for the keener photographer. However for TP photos, if you remember to set the lens to infinity after your close up of the taskboard, it should give reasonable results.

3. Manual focusing, sometimes called scale focusing. Here you set the distance your subject is on a continuously variable scale on the lens. With practice this gives much better results than the above methods, and small errors in estimating the distance are not important. Again you must set it to infinity before take-off. Rarely found now on modern compacts, but a good system widely used on older, better quality cameras.

". . . not really a good idea to be peering down a viewfinder in the air . . ."

4. Rangefinder focusing. The rangefinder superimposes a second image in the centre of the viewfinder; you adjust the lens until you see just one image and the result is fast, accurate focusing. Obviously much better for general photography than the first three methods as you choose exactly what is focused on, but it's not really a good idea to be peering down a viewfinder in the air. However, there is a scale on the lens as well which can be set before take-off as in manual focusing. It is an excellent system still found on professional cameras such as Leica but unfortunately now rarely available on modern so called "point and shoot" cameras.

5. Autofocusing. Here the camera sets the point of focus for you, and while this is possibly the easiest to use for TP photos, there are some details that should be born in mind.

The original Honeywell Visitronic system had two additional little lenses to measure the contrast in the exact centre of the viewfinder (contrast is at a maximum when the focus is perfect), then adjusted a mechanical "trap" to limit how far forward the lens would be pushed at the instant you took the photo. This gave fast, accurate focusing. But the system used visible light from the subject and could give poor results under poor illumination, such as a TP under cloud shadow. This system is now only found on older or cheaper cameras. Infra-red systems have now been developed which are smaller, and some can use visible as well as IR light. These are now widely used on good quality compacts.

Most systems cannot easily detect small changes in the distance of the subject, but they don't need to anyway because with a short focal length lens and a narrow aperture, a reasonable distance in front and behind the subject will appear in focus, as with the fixed focus and scale focusing methods. So to simplify the mechanics, they focus in steps – the trap moves to one of several predetermined points. With 2-3 steps, say 5ft, 15ft, infinity, this is just like automated symbol focusing. The quality improves substantially at 5-8 steps, and with 12, 15 or even more steps it becomes almost as accurate as continuously variable focusing, *eg* a rangefinder. As you've probably realised of course, extra steps and extra cost go hand in hand. For general photography you want as many steps as you can afford, but for TP photos it is acceptable to have only a few as infinity will always be included.

Watch that the wingtip is not in the autofocusing zone, the centre of the viewfinder, or the camera will try to focus on it and will reduce the sharpness of the TP. With the tip in the centre of the frame, the camera is pointing slighly up rather than down and this will require steeper turns, more extravagant manoeuvring and greater height losses, and there will be less room at the bottom of the frame for the actual photographic zone.

Shooting through a window from a few feet may cause problems with the camera locking on to a reflection, but none of these cameras can focus at 2-3in, so up against a canopy is not a problem, according to the manufacturers I've spoken to. Also most fall back to infinity in the event of a system failure so this is no problem either. For general photography, focus lock is a useful extra as the main point of interest is not necessarily in the dead centre of the frame. You focus on what you want, lock it, then reframe the shot to suit your aesthetic taste. When first introduced, most serious photographers laughed at the thought of autofocus, and many still use manual SLRs or range finders, but it is becoming the standard fit on most new designs. ➡

Focal length

Short focal length lenses are called wide angle lenses; long focal length lenses are telephoto lenses. The FAI rules limit 35mm cameras to lenses of fixed focal length between 56mm and 30mm, *ie* zoom lenses are out, as are twin or dual lenses, and SLRs. Almost all the models here have a 34 or 35mm lens, the standard semi-wide angle lens. (The one with a 32mm lens will have a wider angle of view, the 38mm model will have a narrower view.) This has the advantage of quite a wide depth of field - the distance in front and behind the exact point of focus over which things seem, almost, to be in focus. Wide angle lenses have a much greater depth of field at any given aperture than a telephoto lens. Narrow apertures give greater depth of field than wide ones, so fixed focus cameras tend to use narrower apertures.

Apertures and shutter speeds

These control the amount of light reaching the film emulsion. The aperture is the hole behind the lens through which light enters the camera, and on inexpensive models it is set when selecting film speed or flash. Measured in f-stops, the smaller the f-stop, the wider the hole, the "faster" the lens. F-stops vary as follows: F1.4, 2, 2.8, 4, 5.6, 8, 11, 16, 22, with each narrower stop letting through exactly half as much light as the previous one (intermediate values are possible). On compact cameras, a lens wider than f4 is considered fast, and one narrower than f4 is slow. Manufacturers limit the maximum possible aperture to prevent loss of image quality, so those which quote a wide maximum aperture, *eg* f3.5 or even 2.8, have usually had more care taken in their design and are usually only available on the expensive models from the top manufacturers. Under average lighting conditions, almost all compacts are using about f8, ±1 stop, and have a minimum of f16 or f22.

A range of at least 8X in shutter speed (*ie* 1/30th or 1/40th to 1/250th) is a good starting point. Higher speeds, 1/500th, 1/800th, are better still, enabling the camera to "freeze" moving objects but require a fast lens when conditions are dull. If possible avoid using speeds less than 1/125th for TP photos and most general photography. If it is slower, camera shake - blurring of images due to tiny vibrations - will occur and spoil many shots. Slow speeds, 1/15th, 1/8th, are of little use to the average photographer, and far less use for glider pilots, without a solid, ground based tripod. To check the range of exposure control available, add how many times you halve the slowest shutter speed to get the fastest to the total number of f- stops available, minus 1.

Exposure control

1. Fixed exposure, sometimes called exposure free. These cameras offer no exposure control in reality and it helps to avoid them if possible. The aperture is fixed and is only changed for different film speeds or for flash photos. The shutter speed is also fixed, usually at 1/125th of a second. So the same exposure is given under very dull, average, or very bright conditions. These models rely on the high quality of modern film emulsions to give acceptable results even if slightly over or under exposed, coupled with the printer's computer at the developing lab adjusting the exposure it gives. They give very poor results with slide film. Often found on fixed focus cameras, yet the adverts make a big point of saying "great, look, no fiddling with exposure or focusing controls". (This is a bit like saying a K-8 is a great cross-country racing machine, because you don't have to worry about when to carry/dump water, no remembering to retract/extend a wheel, no hassle with selecting flaps, yet it's fitted with rudder, ailerons and even an elevator, and is available in a variety of colours too.)

2. Weather symbols, such as clouds, cloud and sun, bright sun. This is a little bit better than fixed exposure, and is about the absolute minimum you should accept on a simple TP camera. Usually the shutter speed is fixed and the aperture is varied as you select film speed and weather conditions. Gives acceptable results over a wider range of illumination than fixed exposure, but not wide enough for quality results, again relying a bit on the high quality of films currently available.

3. Manual control, using a built-in meter seen in the view finder or a hand held one. You set the aperture and shutter speed, usually over quite a reasonable range, giving much finer control and significantly better results. This is the method preferred by professionals, but it's just a bit tricky to use at a TP. It is available on some high class compacts and some older good designs. The trend, unfortunately, is away from this method towards automation.

4. Automatic or programmed exposure. Here the camera measures the light intensity and adjusts the exposure accordingly. Inexpensive cameras use either speed priority, where the shutter speed is fixed and the aperture size is varied, or aperture priority, where the aperture is fixed and the shutter speed is varied. When you select the film speed you are usually setting the aperture or shutter. This is acceptable for TP photos as you have no in flight adjustments and can get reasonable quality results. Better models cover wider ranges of illumination. More sophisticated models automatically vary both the aperture size and the shutter speed according to a

CAMERA DETAILS

Prices quoted (September) assume you buy from a camera shop, not a video, washing machine, or chemist shop. All the cameras have a built in flash.

(a) Fixed focus, fixed exposure, 1/125th sec. shutter.

£40	**Goko UF-10 Date**	34mm f3.8 lens, thumbwheel, winder†
£50	**Goko UF-20 Date**	34mm f3.8, auto winder†
£50	**Konica Pop Date**	36mm f4.0, lever winder*
£50	**Konica EFJ Date**	another name for the Pop
£50	**Orion AW-35D**	34mm f3.5, auto winder, 1/100th sec†
£55	**Konica Super Pop**	34mm f4.5, auto winder, DX sensor
£60	**Konica Jump Date**	35mm f4.0, thumbwheel winder†

(b) Symbol focusing, programmed exposure, DX sensor, auto winder.

£80 **Olympus AM100 Quartz Date** 35mm f3.5 lens, 1/45-1/400th sec
This camera needs two hands to hold the infinity setting and press the button!

(c) Autofocus, ( )= no. of a.f. steps, automatic programmed exposure, DX sensor, auto winder.

£60	**Halina Vision 500 D**	(2), 34mm f4.5, 1/100-1/250th
£65	**Hanimex 35AFXD**	(3), 34mm f3.8, 1/40-1/500th
£70	**Halina Vision 600 D**	(2), 34mm f4.0, 1/40-1/250th
£70	**Orion AF-XD**	(2), 34mm f3.5, 1/40-1/180th†
£75	**Halina AF810D**	(2), 34mm f3.8, 1/40-1/250th
£85	**Goko UF-50AF Databack**	(2), 35mm f3.8, 1/90-1/360th†
£90	**Ricoh AF-55 D**	(3), 35mm f3.9, 1/30-1/500th
£90	**Ricoh AF-60 D**	(3), 35mm f3.9, 1/30-1/500th
£90	**Miranda 35AZ Quartz**	(2), 35mm f3.6, 1/30-1/400th
£90	**Panasonic C520 D**	(3), 35mm f3.5, 1/40-1/250th
£90	**Praktica Sport AFQD**	(2), 35mm f3.6, 1/32-1/400th
£100	**Canon Sureshot EX Date**	(2), 35mm f4.5, 1/40-1/125th‡
£100	**Samsung AF-300 QD**	(4), 35mm f3.5, 1/70-1/300th
£105	**Yashica AF-J2 Databack**	(4), 32mm f3.5, 1/30-1/500th
£105	**Nikon RD 2**	(5), 35mm f3.5, 1/40-1/215th
£105	**Olympus AF10 Quartz**	(5), 35mm f3.5, 1/45-1/400th
£115	**Ricoh FF-9D**	(6), 35mm f3.5, 1/4-1/400th
£125	**Pentax PC-555D**	(8), 35mm f2.8, 1/30-1/500th
£130	**Samsung AF-500QD**	(9), 35mm f2.8, 1/30-1/500th
£130	**Nikon AD3 Onetouch**	(16), 35mm f2.8, 1/11-1/500th*
£135	**Canon Sureshot Ace QD**	(9), 35mm f3.5, 1/40-1/125th
£145	**Canon Sureshot Supreme QD**	(11), 38mm f2.8, 1/8-1/500th
£150	**Sigma AF-35D-TF**	(12), 35mm f2.8, 1/4-1/500th
£170	**Yashica T3 AF-D**	(16), 35mm f2.8, 1-1/630th
£180	**Nikon L35AWAD**	(continuous!), 35mm f2.8, 1/8-1/430th, wp

*=takes filters, †=no tripod socket, ‡=multi shot mode, wp= waterproof down to 3m.

pattern likely to give good results over a wider still range. Some even offer a choice of "action mode" where the shutter is kept as fast as is practical to freeze moving objects (like a TP) or "landscape mode" with the aperture as narrow as practical for a wide depth of field. The extra choice costs more of course and is found mainly on good SLRs, along with manual override, as preferred by serious photographers.

Wind-on mechanism

1. Thumbwheels, found only on inexpensive cameras, are a real pain to use in the air as two or three strokes are required and therefore they are somewhat slow if you have two such cameras and want two shots per TP on each.

2. Lever action. All modern lever actions are single stroke and most have a stand out position for fast easy access. But check the size of the lever's swing as some older designs go so far forward the canopy can get in the way.

3. Auto wind and motor wind. For TP photos this is probably the easiest to use - one press, click, and it winds on in about one second, ready for a second shot if necessary. Many compacts are single shot auto wind on, *ie* a separate press for each shot. Motor winds can be set to fire continuously as long as the button is held down, usually at two frames/sec. If you realise you are just on the edge of the TP zone as you press and leave your finger on the button you risk running out of film sooner than you'd expect! Use this facility with caution. Some now offer a multi shot mode where a set number of shots can be taken in a couple of seconds for one button press, which could be quite useful, unless you've just turned at the wrong point and have wasted extra film.

Battery life

Most of these cameras use very little power with the lens cover open; the main power drain is using the autofocus and the wind on. Also when you first touch the button (or open the cover), more power is used for about 30 seconds then it switches off, almost, until you press the button again. Detailed calculations by a friendly electronics/satellite designer on a worst possible power drain situation show that you could use 34 20-shot films on the Hanimex 35AFXD before flattening the batteries. There is no reason to believe the others would give significantly less shots. Change the batteries if the wind-on or rewind slows up.

Camera Mounts

Elastic bands or bungys are out with these auto-everything cameras due to the possibility of obscuring one of the many sensors they use. A tripod socket is a must for screwing on to a fixed mount.

Film

Slow films, 25-50 ASA/ISO, although giving excellent results, require slow shutter speeds and wide apertures, and so are not suitable for TP photos as blurring of details will occur. Fast films, anything greater than 400 ASA/ISO, are likely to demand a shutter speed in excess of these compacts' maximum and could give over-exposed results on bright days. They are also a bit grainy looking. Use 125 ASA/ISO film, such as Ilford FP4, Kodak Plus X or Tmax 100, for the best compromise on quality *vs* speed. Jessop's KB 100 and 200 ASA/ISO films seem of higher contrast than normal and this could help in photo interpretation. 400 ASA/ISO, *eg* Ilford HP5, Kodak Tri X or Tmax 400, is about the fastest most compacts can handle reliably. (But note that Kodak cassettes are hard to open in the darkroom.)

DX coding is a series of black and silver markings on the side of most film cassettes which are read electrically by the camera and include details such as film speed, manufacturer, number of shots, B&W or colour, which some cameras use to set the film speed automatically. Some even display this data on a small LED screen. If you bulk load film, either use a cassette with the same speed or blank out the DX area, and the camera will then set its default speed which is often 100 ASA/ISO. It's better if your camera lets you override the DX sensor, but few do.

Recommendations

No one recommendation would suit all tastes in cameras (or all wallets either), but I've tried to find the best value for money in several price ranges.

If all you want is an inexpensive TP camera with a databack, with only a little use outside of the cockpit planned, you are obviously looking at the £50 - £75 range. Auto wind on and autofocus are worth the little bit extra for ease of operation, and programmed exposure is almost a necessity. The Hanimex 35AFXD, at £65, has all these features at a very sensible price. With less focusing steps and a narrower range of shutter speeds, the similar Halina AF81D and Vision 600D, are just a bit more expensive at £70 and £75 respectively, while the Vision 500D, at £50, has a slow lens and a restricted range of shutter speeds, thus reducing their value for money rating a little.

For those after a better camera which will get a lot more use outside the cockpit, for whom quality results are reasonably important, the Olympus AF-10 Quartz Date at £105, the Yashica AF-J2 D at £105 or the Ricoh FF-9D at £114 are all good cameras from well known high quality manufacturers. All have a range of useful features to improve your photos. There are several other cameras at similar prices but with lower specifications then these.

Finally, for those to whom quality is the main concern and price is less important, and for any friends of mine reading this, which one would I like for Christmas? It's a very close race for top place between the Nikon AD3 at £130, the Canon Sureshot Supreme QD at £145, and the Yashica T3-AF D at £170. The Nikon can take filters to improve haze penetration (unlike almost all the others) and, with the Yashica has the most a.f. steps (16 versus the Canon's 11) but the Canon tells you more in the viewfinder. The Yashica has a wider range of shutter speeds. I think I prefer the Nikon's value for money, but I'd accept any of these three.

BGA & GENERAL NEWS

NATIONAL LADDER

A flight by Andy Davis on August 1 was described by Ed Johnston, National Ladder steward, as the single most outstanding flight of the year, if not in the history of the Ladder. He flew a 600km quadrilateral at 106km/h in his Discus for 4800pts. Two 500kms and a 400km at an "indecent speed' clinched the competition and gives Andy of Bristol & Gloucestershire GC the Enigma trophy for the third year running with the L. du Garde Peach trophy for the Club Ladder going to Jonathan Walker of Coventry GC.

As an indication of the quality of the season, Andy amassed 5629pts more than last year.

Ed mentions Trevor Stuart's last two flights from Dunstable. On September 2 he went to the Humber lighthouse and the next day to Portland Bill lighthouse. Norman James, the Tutor pilot, has dropped to 2nd place with a slight dip in score because of a change in his handicap.

In the battle between the clubs, London is top with Coventry 2nd and Cambridge University 3rd.

Open Ladder

Leading pilot	*Club*	*Flts*	*Pts*
1. A. J. Davis	Bristol & Glos	4	15428
2. N. James	Coventry	4	12437
3. P. Jeffery	Cambridge Univ	4	11438
4. N. G. Hackett	Coventry	4	11183
5. G. Metcalf	Lasham	4	11121
6. R. J. Baker	Cambridge Univ	4	10499

Club Ladder

Leading pilot	*Club*	*Flts*	*Pts*
1. J. Walker	Coventry	4	7183
2. P. Crabb	Coventry	4	6629
3. S. Crabb	Coventry	4	5259
4. D. Taylor	Yorkshire	4	3912
5. I. C. Baker	Cambridge Univ	3	3882
6. A. Foxon	Coventry	4	3639

TEAM MANAGER FOR 1990/91

Nominations are invited for the post of British team manager to cover the 1990 European Championships at Leszno, Poland; the Pre-Worlds at Minden, Nevada, USA and the 1991 World Championships at Minden.

Anyone interested should contact the BGA office before January 31. Terms of reference are available.

1990 COMPETITION DIARY

The following competitions have been identified on going to press:-

January 6-20: Australian Nationals, Benalla.
May 27-June 9: European Championships, Leszno, Poland.
June 16-24: 15 Metre Class Nationals, Nympsfield.
June 30-July 7: Competition Enterprise, North Hill.
June 30-July 7: Pre-Worlds "Ameriglide", Minden, Nevada, USA.
July 14-22: Standard Class Nationals, Booker.
July 28-August 5: Open Class Nationals plus Regionals, Lasham.
July 28-August 5: Northern Regionals, Sutton Bank.
August 11-19: Regionals, Enstone.
August 11-19: Junior Nationals, Dunstable.

The date of the proposed competition at Roanne, France has changed to the first week of June (See the last issue, p252).

National entry forms will be available from the BGA from mid-December and must be in by January 31 (April 30 for the Junior Nationals).

John Taylor, *BGA Competitions and Awards Committee chairman*

MORE COMPETITIONS

The European Club Class Championships are at Arnberg, Denmark from May 5-19. Contact the BGA office for more details.

A competition is being run alongside the French Club Class Championships at Le Blanc for a week from June 30 with 20 places for foreign pilots plus subsidised aerotows for the under 25 year-olds. If interested, contact Brian Spreckley at Les Ages, Le Blanc, France 36300.

The 18th International Vintage Glider Rally is from July 16-26 at Keiheuvel Airfield, near Antwerp, Belgium. Details from Colin Street, tel 0293 54832.

TIME TO CLAIM

All claims for the BGA annual awards for the longest, fastest flights etc during this season must be with the BGA by December 31 at the latest, marked for the attention of Martyn Wells.

RECORD BREAKERS

The 1989 season has produced a good crop of eight United Kingdom Records which have been homologated as follows:

Single-Seaters: Standard Class

300km goal and return, 104.09km/h by Alister Kay (ASH-24) from Booker to Sutton Bingham Reservoir and return on April 28.

500km goal and return, 75.66km/h by Philip Jeffery (Pegasus) from Duxford to A40/A4215 junction between Brecon and Llandovery on September 3.

500km triangle, 89.90km/h by Andrew Davis (Discus) from Nympsfield to A4/M4 Reading, Marchington railway/A515, Cray Reservoir Dam (Powys) on July 4.

Multi-Seaters:

300km goal and return, 91.15km/h by Ken Hartley and Andrew Hillary (Nimbus 3DT) from RAF Bicester to rail bridge over A620 NE of Retford and return on April 15.

100km triangle, 123.99km/h by Robin May and Edward Morris (ASH-25) from Dunstable to A418/B4011 roundabout (Thame), Castlethorpe road over railway bridge (Newport Pagnell) on July 27.

400km triangle, 91.11km/h by Barrie Elliott and Robert Braithwaite (Nimbus 3DT) from RAF Bicester to railway/A1 N of Newark, Ludlow Castle on September 2.

Single-Seaters: (women)

Goal distance, 324.4km from RAF Odiham to RAF Dishforth on April 15.

300km goal and return, 80.60km/h from RAF Odiham to Leicester Forest East and return on June 4.

100km goal, 135.39km/h from Leicester Forest East to RAF Odiham on June 11.These three flights were flown by Jane Nash in a Ventus B (16.6m).

British National: Single-Seaters

1000km triangle, 112.15km/h by George Lee (ASW-20B) from Waikerie, Australia on January 25.

Rika Harwood

BGA PROGRAMME FOR 1990

Soaring & Cross-Country Course No. 1	Dunstable, April 28 to May 4.
Soaring & Cross-Country Course No. 2	Long Mynd, June 9 to 15.
Soaring & Cross-Country Course No. 3	North Hill, June 23 to 29
Instructors' Cross-Country Course No. 1 (For instructors with little or no cross-country experience.)	Booker, April 14 to 20.
Instructors' Cross-Country Course No. 2 (For experienced cross-country pilots to learn to teach cross-country flying.)	Booker, May 12 to 18
Instructors' Cross-Country Course No. 3 (For moderately experienced cross-country pilots.)	Lasham, May 26 to June 1
Instructors' Cross-Country Course No. 4 (For all comers.)	Duxford, August 25 to 31

Junior National Championships at Dunstable, August 11 to 19.

There will be **Instructors'** courses and **Completion** courses throughout the year at various locations.

Course fees for Cross-Country courses will be £85, reduced to £65 for instructors.

Instructors' courses will be £165

For Completion courses there will be no charge if it follows a BGA Instructors' course, otherwise it will be £20.

For all courses, expect to add to the fee flying charges and temporary membership of the club hosting the courses.

Hors concours flying in the Janus in National Championships will be available - contact the BGA office for details.

Wave courses will be available at the end of the season - contact the BGA office for details.

OBITUARIES

Basil Meads

Basil at a BGA conference. Photo: B. H. Bryce-Smith.

When Basil died on August 23 he was president of the BGA, the Lancashire Aero Club and the Derbyshire & Lancashire Gliding Club.

He joined the Royal Navy at the age of 13 in 1918, hoping to serve in blimps on anti-submarine patrol. Hauled out by his parents on account of his age, he began a career in insurance. He joined the Lancashire Aero Club in 1923 and flew with them regularly. He was an assistant instructor and when, in answer to the threat of German re-armament, the Civil Air Guard was formed he flew with the cadets.

In 1939 he joined the Royal Navy again and became an instructor in the Fleet Air Arm. It is said that returning home just before D-day, and deciding the greatest armada the world had ever seen was not a sight to be missed, Basil ventured over the Channel in a Harvard for a look-see. Unfortunately engine failure landed him in the drink and he was fished out by two Wrens from a patrol boat. It is understood that the MBE awarded to him was nothing whatsoever to do with this exploit!

After demobilisation, Basil became co-trustee of the Kemsley Flying Trust, a task he was uniquely fitted to carry out. As chief executive officer he visited gliding clubs and advised on their organisation, in particular helping with funds generously provided by Lord Kemsley. At this point it would be unreasonable not to mention the very important part played by the late Terence Horsley in interesting Lord Kemsley in the gliding movement.

In spite of his interest in general aviation over seventy years, Basil's abiding love was gliding. He was a member of the BGA Council and elected treasurer in 1929, as well as being one of the original members of the Royal Aeronautical Society (Manchester branch).

The gliding section of the MAS built a BAC VII two-seater in a cellar under a main street in Manchester. This was the main stay of the gliding section, operating from Woodford aerodrome until eventually transferred to Camphill in 1935 where its delicate undercarriage collapsed regularly, giving rise to the ditty in the Camphill psalter.

Basil had a BAC
Its wings as white as snow.
Its weakest part was its undercart
But don't say I said so.

This is going ahead too fast. In 1935 the government allocated £5000 a year for five years to be distributed amongst all the BGA clubs, subject to certain conditions on the tenure of lease. Basil was largely instrumental in forming an amalgamation between MAS, the Derby GC and the remains of the Matlock GC, flying from Camphill farm. Basil became chairman for the next 27 years and was the first CFI. Under his experienced guidance, Camphill rapidly became one of the three most important sites in the country.

Until 1985, Basil never failed to attend the BGA conference in spite of later infirmities and, with his stick and a shoulder to lean on, he was a familiar and ever popular figure at official gatherings. So eager was he not to miss any annual meeting he would start making anxious inquiries about transport etc six months in advance.

During the course of a long and distressing illness he was cared for and loyally supported by his wife Queenie to whom our heartfelt sympathies are extended.

Basil's passing, for many of us, marks the end of an era.

BERNARD THOMAS

Sir Peter Scott

Peter, the guest speaker at this year's BGA conference, photographed by D. G. Roberts.

It is indeed a privilege to be invited to write this appreciation on behalf of the gliding movement in memory of Sir Peter Scott who died on August 28 at Southmead Hospital, Bristol.

To do justice in a few words to such a distinguished person and all that he achieved in his long and productive career to the benefit of mankind is beyond my humble capability. His world-wide reputation as a naturalist and the need for the preservation of wildlife is well known and one sincerely hopes these endeavours will continue with the same determined efforts so ably pursued by Peter.

In each of his fields of interest, and these ➡

Our ground support service is held in high regard.

We've always aimed to give flyers the best possible service. So when we were appointed Licenced Repair Agents by Grob, we responded by considerably increasing our stock of spare parts for their gliders, motor gliders and light aircraft. So the chances are, we'll be ready if you have a need.

Similarly, being stockists for Tost launch equipment and exclusive agents for their winches, gave us a bit of a lift.

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Every repair by Chiltern is backed by a customer protection policy with full product liability cover – a mark of confidence in both the products and our workmanship.

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were many and varied, he always reached the top by single-minded determination. There must be many who can look back on Peter as a mentor in a wide range of skills. His attention to detail in whatever subject, such as his wartime exploits, artist, broadcaster, the Wildfowl and Wetlands Trust at Slimbridge, TV nature/wildlife series, yachtsman (including the America's cup) and sailplane pilot all exemplified his skills of leadership and excellence.

Many of his skills and achievements are known through the media and it is interesting to recall how these were applied in a relatively short time to gliding. One only had to fly with him to see he was a natural pilot.

This was later confirmed when he became National Champion, League 1, in 1963. Peter was the BGA chairman for two years from 1968 and later elected a vice-president. He was also president of the Bristol & Gloucestershire GC.

His association with royalty assisted the fortunes of gliding, in particular the Bristol & Gloucestershire GC which moved to Nympsfield in 1956 as a result of the foresight of the late John Parry-Jones. It wasn't long before Peter arranged for HRH the Duke of Edinburgh to experience the thrills of soaring with a flight from Nympsfield in May 1957.

His gliding career from 1956 to the late 1960s was certainly an era we can look back on with nostalgia. Competing against Peter was an education and again, as with all his other pursuits, his attention to detail was an integral part of single-minded determination.

Peter will be sadly missed by so many and we in the gliding movement extend our deepest sympathy to his widow, Lady Philippa.
DOUG JONES

NEW IGC (CIVV) PRESIDENT

The new president of IGC, Peter Ryder of W. Germany, photographed during the FAI general conference in Bulgaria by Tom Zealley, our delegate, who will be reporting on the conference and the IGC meeting in the next issue.

BRENNIG'S SUMMER

This year Brennig said he was lucky enough to gorge himself on the delights of Fuentemilanos, Spain and flew over 22000km including ten 750km triangles. The wave soaring was also good with many flights to 15000ft, his best height being 25600ft.

Correction: We are sorry Tony Danbury was denied the credit for his excellent 15 Metre Nationals photographs in the last issue - the honour went to Ted Lysakowski.

GLIDING CERTIFICATES

ALL THREE DIAMONDS

No.	Name	Club	1989
278	Riddell, J. C.	Yorkshire	24.6
279	Gilbert, J. E.	Surrey & Hants	25.6

DIAMOND DISTANCE

No.	Name	Club	1989
1/404	Wells, S.	Booker	9.8
1/405	Riddell, J. C.	Yorkshire (in France)	24.6
1/406	Duffin, E. R.	South Wales	3.7
1/407	Wright, D. T.	Avon (in France)	14.7
1/408	Gilbert, J. E.	Surrey & Hants (in USA)	25.6
1/409	Hallum, A. D.	Booker (in France)	29.6
1/410	Bishop, G. C.	Bristol & Glos	27.7
1/411	Cluskey, A.	Buckminster (in France)	27.7

DIAMOND GOAL

No.	Name	Club	1989
2/1648	Elden, J.	Booker	6.5
2/1649	Baker, I. C.	Cambridge Univ	10.5
2/1650	Kirschmer, P. M.	Bicester	30.5
2/1651	Gascoigne, P. E.	Bath & Wilts	4.6
2/1652	Hyslop, A. D. W.	Chilterns	4.6
2/1653	Pugh, S.	Booker (in France)	8.6
2/1654	May, J. J.	Bicester	6.5
2/1655	Barrie-Smith, N. J.	Lasham	24.6
2/1656	Marsden, R.	Phoenix	16.6
2/1657	Gibson, W. R.	Phoenix	17.6
2/1658	Wood, M. J.	Yorkshire (in France)	21.6
2/1659	Dolphin, M. G.	Kestrel	24.6
2/1660	Lawrence, D. J.	Surrey & Hants	24.6
2/1661	Evans, S. R.	Cotswold	24.6
2/1662	Kelly, P. J.	Cotswold	24.6
2/1663	Bleasdale, J. G.	Heron (in Australia)	28.5
2/1664	Ellner, J. P.	Surrey & Hants	10.7
2/1665	Hannah, D. C.	Lakes (in France)	8.6
2/1666	Lewis, P. A.	Lakes (in France)	9.6
2/1667	Poole, P. L.	Surrey Hills & Kent (in France)	24.6
2/1668	Stringer, M. G.	London	24.6
2/1669	Barrett, G. L. J.	Oxford	24.6
2/1670	Philpott, M. J.	Booker	3.7
2/1671	Truman, A. G.	RAE	18.7
2/1672	Ennis, P. J.	Booker	19.7
2/1673	Everest, J. T.	Lasham	11.7
2/1674	Neal, R. E.	Booker (in France)	12.7
2/1675	Lloyd, G. F.	Cotswold (in France)	14.7
2/1676	Stephen, W. S. Y.	Deeside	15.7
2/1677	Higgins, E. J.	Cotswold (in France)	15.7
2/1678	Stotter, A.	Booker (in France)	14.7
2/1679	Franks, H. S. M.	Cambridge Univ	24.6
2/1680	Smith, M. S.	Bath & Wilts	24.6
2/1681	Gardiner, J.	Essex	24.6
2/1682	Haseler, P. J.	Avon	23.7
2/1683	Coombs, A. W.	Deesdie (in US)	25.6
2/1684	King, D. M.	Midland (in France)	12.7
2/1685	Kynsey, P. G.	Lasham	3.7
2/1686	Meakin, A. R.	South Wales	14.7
2/1687	Hindmarsh, G. J.	Surrey & Hants	14.7
2/1688	Wright, D. T.	Avon (in France)	14.7
2/1689	Logan, M. W. B.	Bannersdown	7.5
2/1690	Stewart, D. A.	Deeside	16.7
2/1691	Adam, K. J.	Deeside	16.7
2/1692	Meagher, M. W.	Booker	18.7
2/1693	Hallum, A. D.	Booker (in France)	14.6
2/1694	Watt, J. A.	Surrey & Hants (in France)	18.7
2/1695	Waldron, D. I.	Kent	18.7
2/1696	Green, G. R.	London	23.7
2/1697	Morris, C.	Avon	5.8
2/1698	Woodhead, M. J.	Lasham	22.7
2/1699	Hurley, D. R.	London	27.7
2/1700	Tait, D.	Strathclyde (in France)	27.7
2/1701	Rees, M. S.	Booker	27.7
2/1702	Malam, R. N.	Wyvern	18.7
2/1703	Goulding, N. B.	Cleveland	18.7
2/1704	Browning, G. R.	Wyvern	18.7
2/1705	Roberts, M.	Southdown	2.8
2/1706	Fall, D. A.	Herefordshire	23.7
2/1707	Ivey, G.	Booker	1.8
2/1708	Cox, G. E.	Booker (in France)	1.8
2/1709	Hill, S.	Southdown	2.9
2/1710	Pringle, N. C.	Lasham	1.8
2/1711	Macalpine, C.	SGU	1.8
2/1712	Gatfield, J. E.	London	5.8
2/1713	Atkinson, K. R.	Humber	18.7
2/1714	Gill, P. J.	Shropshire	5.8
2/1715	Lowe, H.	Midland	6.8
2/1716	Millar, J. A. R.	Enstone	7.8
2/1717	Beer, C. N.	Kent	8.8
2/1718	Atkinson, P.	Bicester	18.7
2/1719	Eyles, S. J.	Booker	8.8
2/1720	Smith, I. D.	Bristol & Glos	8.8
2/1721	Crawford, J.	Bicester	8.8
2/1722	Madelin, R.	Shalbourne	5.8
2/1723	McQueen, B.	Deeside	3.8

DIAMOND HEIGHT

No.	Name	Club	1989
3/892	Cossey, S. D.	Deeside	11.7
3/893	Symon, D. N. K.	Deeside	15.7
3/894	Carswell, R. D.	SSA	11.3

GOLD BADGE

No.	Name	Club	1989
1339	Jelden, A.	Booker	6.5
1340	Baker, I. C.	Cambridge Univ	10.5
1341	Dunthorpe, P. A.	Bristol & Glos	20.6
1342	Smith, M. S.	Bath & Wilts	24.6
1343	Haseler, P. J.	Avon	23.7
1344	Coombs, A. W.	Deeside	25.6
1345	Stewart, D. A.	Deeside	16.7
1346	Adam, K. J.	Deeside	16.7
1347	Hallum, A. D.	Booker	24.6
1348	Matthews, G. V.	Wrekin	18.7
1349	Fall, D. A.	Herefordshire	23.7
1350	Green, G. R.	London	23.7
1351	Morris, C.	Avon	5.8
1352	Tait, D.	Strathclyde	27.7
1353	Carswell, R. D.	SSA	11.3
1354	Goulding, N. B.	Clevelands	18.7
1355	Ivey, G.	Booker	1.8
1356	Cox, G. E.	Booker	1.8
1357	Pringle, N. C.	Lasham	1.8
1358	Gill, P. J.	Shropshire	5.8
1359	Lowe, H.	Midland	6.8
1360	Millar, J. A. K.	Enstone	7.8
1361	Smith, I. D.	Bristol & Glos	8.8
1362	McQueen, B.	Deeside	3.8

GOLD DISTANCE

Name	Club	1989
Jelden, A.	Booker	6.5
Baker, I. C.	Cambridge Univ	10.5
Dunthorpe, P. A.	Bristol & Glos	20.6
Smith, M. S.	Bath & Wilts	24.6
Gardiner, J.	Essex	24.6
Haseler, P. J.	Avon	23.7
Coombs, A. W.	Deeside (in USA)	25.6
Kynsey, P. G.	Lasham	3.7
Meakin, A. R.	South Wales	14.7
Hindmarsh, G. J.	Surrey & Hants	14.7
Stewart, D. A.	Deeside	16.7
Adam, K. J.	Deeside	16.7
Meagher, M. W.	Booker	18.7
Hallum, A. D.	Booker (in France)	24.6
Watt, J. A.	Surrey & Hants	18.7
Jury, J. G.	Fenland	18.7
Waldron, D. I.	Kent	18.7
Farrely, P. E.	Wyvern	18.7
Matthews, G. V.	Wrekin	18.7
Atkinson, P.	Phoenix	18.7
Atkinson, K. R.	Humber	18.7
Fall, D. A.	Herefordshire	23.7
Green, G. R.	London	23.7
Morris, C.	Avon	5.8
Woodhead, M. J.	Lasham	27.7
Hurley, D. R.	London	27.7
Tait, D.	Strathclyde (in France)	27.7
Rees, M. S.	Booker	27.7
Malam, R. N.	Wyvern	18.7
Goulding, N. B.	Clevelands	18.7
Browning, G. R.	Wyvern	18.7
Roberts, M.	Southdown	2.8
Ivey, G.	Booker	1.8
Cox, G. E.	Booker (in France)	1.8
Hill, S.	Southdown	2.9
Pringle, N. C.	Lasham	1.8
Macalpine, C.	SGU	1.8
Gatfield, J. E.	London	5.8

1990 NATIONALS QUALIFYING LISTS

The provisional Priority and Promotion lists were compiled using the method described in the 1989 Competition Handbook. In addition, after requests from competing pilots, the BGA Competitions and Awards Committee has rated several foreign competitions with appropriate percentage devaluations. Entry forms for the 1990 Nationals are available from the BGA and must be returned to the BGA office by January 31. Compiled by GUY CORBETT, BGA Competitions and Awards Committee

PRIORITY LIST 1990

1	Davis, A. J.	(BT)	25	Roberts, D. G.	(15)	50	Fox, R. L.	(O)	75	Langrick, D. J.	(S)	100	Smith, R. J.	(O)
2	Wills, T. J.	(BT)	26	Kingerlee, J. C.	(S)	51	White, S. A.	(QL)	76	Eagles, T.	(QL)	101	Moules, K.	(S)
3	Garton, C.	(BT)	27	Jeffries, J. J.	(O)	52	Smart, A. M. B.	(S)	77	Galloway, J. P.	(15)	102	Evans, C. J.	(QL)
4	Spreckley, B. T.	(BT)	28	Cook, I. R.	(15)	53	Scott, T. J.	(15)	78	Gorringe, J. P.	(QL)	103	Spencer, J. D.	(15)
5	Wells, M. D.	(BT)	29	Smith, D. A.	(QL)	54	Hutchinson, S.	(QL)	79	Miller, A. S.	(15)	104	Mitchell, K.	(O)
6	Jones, R.	(BT)	30	Harding, R. W.	(S)	55	Davies, F. J.	(O)	80	Odell, J. H.	(O)	105	Cox, A.	(S)
7	May, R. C.	(BT)	31	Jones, S. G.	(JE)	56	Alldis, C. J.	(15)	81	Baker, P. E.	(15)	106	Lyttelton, C. C.	(15)
8	Sheard, P. G.	(15)	32	Innes, D. S.	(QL)	57	Cuming, M. F.	(QL)	82	McAndrew, G. E.	(QL)	107	Joint, T. A.	(O)
9	Lysakowski, E. R.	(15)	33	Elliot, B.	(15)	58	Docherty, T. P.	(O)	83	Taylor, J. R.	(O)	108	Smith, G. N. D.	(QL)
10	Watt, D. S.	(S)	34	Richards, E. W.	(O)	59	Jordy, M. J.	(15)	84	Szulc, B.	(QL)	109	Logan, M. W. B.	(QL)
11	Stewart, D. R.	(15)	35	King, P. A.	(15)	60	Downham, E.	(JE)	85	Redman, S. J.	(15)	110	Wright, R. H.	(15)
12	Webb, M. J.	(O)	36	Boydon, M. V.	(S)	61	Strathern, M.	(S)	86	Bird, M.	(QL)			
13	Edyvean, J.	(15)	37	Clarke, A. J.	(S)	62	Davis, C. M.	(O)	87	Corbett, C. G.	(O)			
14	Hood, L. S.	(S)	38	Murdoch, M. L.	(15)	63	Campbell, D. R.	(QL)	88	Benoist, J. D.	(QL)			
15	Hawkins, P. S.	(O)	39	Dall, R. N.	(S)	64	Metcalfe, G.	(S)	89	Dobson, J. B.	(S)			
16	Copper, B. L.	(15)	40	Jefferyes, M. B.	(O)	65	Davey, G. R.	(O)	90	Wells, P. M.	(QL)			
17	Starkey, C. G.	(S)	41	Hartley, K. J.	(15)	66	Brown, H. F.	(QL)	91	Marczynski, Z.	(S)			
18	Bally, J. D.	(O)	42	Young, M. J.	(QL)	67	Smith, M. J.	(S)	92	Bridges, R. C.	(O)			
19	Gaisford, P. A.	(S)	43	Findon, D. E.	(O)	68	Forrest, B. R.	(QL)	93	MacPherson, D. J.	(15)			
20	Kay, A. E.	(15)	44	Morris, G.	(QL)	69	Thompson, M. H.	(O)	94	Williams, P. R.	(S)			
21	Wells, S. M.	(S)	45	Cunningham, G. W.	(15)	70	Moulang, A. P.	(QL)	95	Zeally, T. S.	(QL)			
22	Rollings, C. C.	(O)	46	Smith, E. R.	(S)	71	Kay, W. M.	(S)	96	Murphy, T. J.	(15)			
23	Durham, M. W.	(15)	47	Stafford-Allen, P. R.	(QL)	72	Lincoln, A. K.	(QL)	97	Pozerskis, A.	(S)			
24	Glossop, J. D. J.	(O)	48	Jeffery, P.	(15)	73	Knight, R. J. S.	(15)	98	Jones, P.	(15)			
			49	Hackett, N. G.	(QL)	74	Pozerskis, P.	(O)	99	Gardiner, D. K.	(QL)			

(JE = Junior Europeans; O = Open Class; 15 = 15 Metre Class; S = Standard Class; QL = Qualifying Lists; BT = British team)

PROMOTION LIST 1990

1	Atkinson, K.	(IB)	25	Sampson, S.	(LB)	50	Wright, J.	(IB)	75	Cousins, R.	(B)	100	Piggott, A. D.	(LB)
2	Jeffery, P.	(LB)	26	Smart, A. M. B.	(QL)	51	Strathern, M.	(QL)	76	Spirling, A.	(NS)	101	Claughton, N. I.	(NS)
3	Campbell, D. R.	(B)	27	White, S. A.	(B)	52	Darby, M.	(WA)	77	Somerville, A.	(QL)	102	Spiller, R. W.	(WA)
4	Clarke, A. J.	(IA)	28	Odell, J. H.	(QL)	53	Williams, P. R.	(QL)	78	Gildea, C.	(IB)	103	Watson, A. J.	(QL)
5	Payne, R. D.	(WA)	29	Arnold, J.	(IB)	54	Mitchell, K.	(QL)	79	Roberts, P.	(NO)	104	Bishop, M.	(IO)
6	Boydon, M. V.	(IO)	30	Jordy, M. J.	(QL)	55	Eade, D. J.	(LB)	80	Harkins, A.	(IA)	105	Richardson, J. L. R.	(IA)
7	Johnston, E. W.	(WB)	31	Stratten, P.	(IA)	56	Ashcroft, J. P.	(B)	81	St. Pierre, A. H. G.	(WB)	106	Pick, K.	(IB)
8	Olender, S.	(NO)	32	Cardiff, J. D.	(QL)	57	Knight, R. J. S.	(QL)	82	Cunningham, G. W.	(QL)	107	Robson, D.	(QL)
9	Baker, R. J.	(LA)	33	Parker, S.	(WA)	58	Murphy, T. J.	(NO)	83	Merritt, K. R.	(LA)	108	Cumner, G. M.	(EO)
10	Corbett, C. G.	(EO)	34	Farmer, A.	(IO)	59	Heames, C. V. J.	(QL)	84	Metcalfe, G.	(IS)	109	Russell, F. K.	(QL)
11	Cheetham, R. A.	(ES)	35	Hawkins, G. P.	(QL)	60	Elwood-Wade, R.	(IA)	85	Matyear, A.	(IB)	110	Meagher, M. W.	(QL)
12	Armstrong, J.	(IB)	36	Fox, R. L.	(NO)	61	Johnston, E. W.	(QL)	86	Gardner, D. H.	(QL)			
13	Alldis, C. J.	(LB)	37	Gaunt, T. R.	(IB)	62	Croote, P. F. J.	(WB)	87	Starling, R. T.	(LB)			
14	Giddins, J. B.	(B)	38	Bond, M.	(QL)	63	Dobson, J. B.	(QL)	88	Hickling, C.	(B)			
15	Brook, M.	(NS)	39	Metcalfe, J.	(WB)	64	Bradney, F. G.	(LA)	89	Galloway, J. P.	(QL)			
16	Armstrong, P.	(IA)	40	Wright, R. H.	(QL)	65	Moules, K.	(QL)	90	Lemin, R.	(WA)			
17	Farrelly, P.	(IB)	41	Norrie, A. J.	(LA)	66	Goulding, N.	(IB)	91	Nash, S. R.	(QL)			
18	Throssell, M. G.	(WA)	42	Millson, A.	(QL)	67	Kay, W. M.	(QL)	92	Feakes, R.	(IO)			
19	Batty, C. J.	(IO)	43	Langrick, D. J.	(LB)	68	Steiner, P. H.	(EO)	93	Gardner, T. R.	(EO)			
20	Ellis, J.	(NO)	44	Warren, J.	(B)	69	Walker, P. B.	(ES)	94	Boik, M.	(IA)			
21	Bishop, G.	(WB)	45	Sanders, N.	(QL)	70	Dunthorpe, P.	(WA)	95	Brownlow, S.	(QL)			
22	Dale, G.	(LA)	46	Stott, B.	(NS)	71	Hogg, A. J.	(QL)	96	Eagles, T.	(IB)			
23	Reed, J.	(EO)	47	Hodge, B.	(IA)	72	Foreman, M. C.	(IO)	97	Andrews, P.	(QL)			
24	Craig, G. W.	(ES)	48	MacPherson, D. J.	(QL)	73	Morris, B. C.	(QL)	98	Nash, J.	(WB)			
			49	Dall, R. N.	(QL)	74	Bromwich, R. C.	(LB)	99	Terry, C. J.	(QL)			

(B = Booker; EO = Enstone Open; ES = Enstone Sport; IA = Inter-Services A; IB = Inter-Services B; IO = Inter-Services Open; IS = Issouden; LA = Lasham A; LB = Lasham B; NO = Northern Open; NS = Northern Sport; QL = Qualifying List; WO = Western Open; WS = Western Sport)

Gill, P. J.	Shropshire	5.8
Lowe, H.	Midland	6.8
Madeleine, R.	Lasham	6.8
Millar, J. A. K.	Enstone	7.8
Eyles, S. J.	Booker	8.8
Smith, I. D.	Bristol & Glos	8.8
Crawford, J.	Essex	8.8
Madelin, R.	Shalbourne	5.8
McQueen, B.	Deeside	3.8

GOLD HEIGHT

Name	*Club*	*1989*
Kohnstamm, S.	Deeside	16.7
Morrison, A. D.	Cairngorm	14.7
Carswell, R. D.	SSA	11.3
Carter, A. G.	Cairngorm	15.7
Reeves, G. W.	Derby & Lancs	3.8

SILVER BADGE

No.	*Name*	*Club*	*1989*
8053	Brockington, M.	Black Mountains	27.7
8054	Pike, M. I.	Fenland	23.6
8055	Sharp, K. R.	Fenland	24.6
8056	Ottner, S.	Shalbourne	23.7
8057	Wyer, B.	Deeside	26.7
8058	Harris, A. L.	Bristol & Glos	15.6
8059	Barter, S.	East Sussex	2.8
8060	Joly, C.	Portsmouth Naval	1.8
8061	Housley, D.	Buckminster	6.8
8062	Craggs, P. T. W.	Devon & Somerset	3.8
8063	Hebdon, K. E.	Dukeries	22.7
8064	Pridal, J. J.	Lasham	2.8
8065	Tyler, R. M.	Lasham (in S. Africa)	25.9
8066	Robinson, C. M.	Southdown	24.6
8067	Deb, M. N.	Booker	28.6
8068	Hamblin, P. R.	Lasham	11.7
8069	Hocking, J.	Midland	12.7
8070	Cuming, C. E.	Booker	23.7
8071	Mee, P. M.	Booker	23.7
8072	Atley, P. G.	Swindon	27.7
8073	Palfreyman, A.	Stratford	5.8
8074	Levien, D. A.	Cambridge Univ	27.7
8075	Ray, A. K.	Midland	5.8
8076	Doran, M. R.	Essex & Suffolk	2.8

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JJ Associates
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Dunstable
Beds LU6 2LB

Sole UK agent for ALEXANDER SCHLEICHER

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8077	Crewe, J. M. E.	Aquila	5.8
8078	Thompson, M. J.	Wolds	5.8
8079	Laidler, K. P.	Midland	23.7
8080	Shackleford, F. R.	RAE	1.8
8081	Tunstall, I. E.	Four Counties	5.8
8082	Owen, C.	Bicester	7.8
8083	Hazell, F.	London	5.8
8084	Smith, M.	Lasham	24.7
8085	Turner, S. M.	P'boro & Spalding	6.8
8086	Howard, C.	Anglia	5.8
8087	Morgan, F. N.	Norfolk	8.8
8088	Hibberd, W. R.	Marchington	5.8
8089	Nicholson, P. F.	Sackville	24.6
8090	Shirvell, J. E.	Oxford	6.8
8091	Clay, W. R.	Coventry	10.8
8092	Emms, R.	Nene Valley	12.8
8093	Brown, S.	Lasham	8.8
8094	Houghton, J.	London	23.7
8095	Vaughan, R. A.	North Wales	12.8
8096	Hallam, J.	Bicester	8.8
8097	Sanders, J. M.	Bristol & Glos	22.6
8098	Harrison, D.	Lasham	5.8
8099	Atherton, H. J.	Four Counties	6.8
8100	Lawrence, R.	Coventry	8.8
8101	Marshall, J.	London	10.5
8102	Humphreys, F.	Shropshire	8.8
8103	Keeping, R.	Cornish	2.7
8104	Coombs, A. W.	Deeside	25.6
8105	Hopkins, S. R.	Avon	24.6
8106	Dale, C. J.	Yorkshire	17.8
8107	Foster, I.	Cornish	19.7
8108	Duffin, P. D.	Essex & Suffolk	2.8
8109	Hennessy, P.	Lasham	13.7
8110	Harris, C. I.	Staffordshire	6.8
8111	Eastburn, M. P.	Brackley	19.8
8112	Williams, S. E.	Trent Valley	14.8
8113	Cross, H.	Lasham	19.8
8114	Kench, G. C.	P'boro & Spalding	6.8
8115	Elgsas, S.	Booker	18.8
8116	Harris, R. M.	Booker	22.7
8117	Briscoe, A.	Midland	3.8
8118	Child, P. J.	Cranfield	6.8
8119	Webb, C.	Anglia	19.8
8120	Rawlins, B. N.	Southdown	31.5
8121	Hancock, C. D.	Southdown	27.7
8122	O'Fee, P. E.	Bannerdown	12.8
8123	Levy, S. J.	Aquila	12.8
9124	Wasey, R. I.	Bristol & Glos	15.6
8125	Birtwistle, D.	Booker	18.8
8126	O'Hagan, J.	Booker	19.8
8127	Drury, G. K.	617 VGS	22.8
8128	Letties, G. T.	Two Rivers	5.8
8129	Prinsen, D. J.	Bicester	16.8
8130	Bedford, J. E.	Essex & Suffolk	19.8
8131	Warner, P. J.	Booker	19.7
8132	Moxham, M. P.	Cranwell	28.8
8133	Wills, M. A.	Lasham	28.8
8134	Dowden, M. J.	Bicester	19.8
8135	Smith, M. J.	Cranwell	19.8
8136	Ferguson, L.	Four Counties	28.8
8137	Dale, T.	Wolds	28.8
8138	Lewin, M. H.	Aquila	28.8
8139	Beams, D.	Kent	19.8
8140	Allen, F.	Booker	28.8
8141	Fox, P. C.	Bristol & Glos	23.7
8142	Skelly, G. P.	Surrey & Hants	13.5
8143	French, M. E.	Southdown	28.8
8144	Parry, J. R.	Midland	24.8
8145	Britton, W. R.	Bristol & Glos	5.8
8146	Owen, D.	Dorset	28.8
8147	Bennett, R.	Midland	18.8
8148	Bushby, A. J.	Southdown	28.8
8149	Barratt, D.	Dukeries	28.8
8150	Dewick, P. W.	Trent Valley	28.8
8151	Oram, S.	Shalbourne	28.8
8152	Wardell-Yerburgh, R.	Bath & Wilts	31.8
8153	Scott, C. R.	622 VGS	28.8
8154	Kincaid, D.	Bicester	19.8
8155	Foreman, N. R.	Cambridge Univ	21.8
8156	Boddington, J.	Stratford on Avon	4.8
8157	Laws, P. G.	Bannerdown	28.8
8158	Frazier, T. J.	Wolds	2.9
8159	Kelly, N. A.	East Sussex	28.8
8160	Findlater, J.	Surrey & Hants	1.9
8161	Parkinson, A.	Kestrel	2.9
8162	Newell, P.	London	3.9
8163	Ball, A. L.	Kent	3.9
8164	Bhachu, D .S.	Booker	28.8
8165	Smith, G.	Lasham	28.8
8166	Hawley, N. H.	Bicester	2.9
8167	Williams, M.	643 VGS	2.9
8168	Brown, C.	Booker	5.9
8169	Dillon, K.	SGU	2.9
8170	Maddison, J. B.	Newark & Notts	28.8
8171	Williams, D.	Essex	24.6
8172	Lee, K.	Rattlesden	20.8
8173	Smith, F. J.	Burn	2.9
8174	Barratt, G. M.	Dukeries	2.9
8175	Howard, J. E.	Oxford	21.8
8176	Parker, J. B.	Oxford	12.6
8177	Ross, K. W.	Oxford	16.6
8178	Underwood, G. J. T.	Midland	29.7
8179	Fordyce, A.	Lasham	28.8
8180	Worrell, N.	Lasham	28.8
8181	Holland, P.	Trent Valley	28.8
8182	White, C. J.	RAE	28.8
8183	Johnston, W. R.	P'boro & Spalding	3.9
8184	Pengilly, P. J.	Culdrose	7.8
8185	Pretty, J. R.	Booker	18.7
8186	Purvis, C. A.	London	3.9
8187	Carter, A. G.	Cairngorm	15.7
8188	Braithwaite, R. A.	Bicester	3.9
8189	Brind, G.	Shalbourne	31.8
8190	Mason, A. D.	Four Counties	3.9
8191	Walsh, M.	Lasham	19.8
8192	Yaxley, B.	Surrey & Hants	6.9
8193	Hutchinson, K.	Buckminster	28.8
8194	Bowes, D.	Wolds	28.8
8195	Kentish, S. C.	Deeside	16.9
8196	Bray, D. M.	Cambridge Univ	19.8
8197	Newton, N. I.	Booker	26.7
8198	Hayward, P.	Norfolk	10.5
8199	Graham, M. D.	York	2.9
8200	Pearce, M.	Cotswold	20.8
8201	Bass, G. J.	Kent	28.8
8202	Hutchinson, M. A.	Buckminster	19.8
8203	Barnes, S.	Four Counties	6.5
8204	Taylor, D. S.	Norfolk	20.8
8205	Reading, I. W.	Lasham	28.8
8206	Rouse, P. A.	Bristol & Glos	23.7
8207	Wright, J. P.	Booker	5.9
8208	Coker, D. A.	Four Counties	24.9
8209	Davis, C. K.	Cambridge Univ	8.9
8210	Farmilo, E. A.	Coventry	24.9
8211	Farmilo, D.	Coventry	3.9
8212	Hughes, D. J.	Midland	4.8
8213	Randall, J. P.	Cranwell	28.8
8214	Heriz-Smith, N. P.	Midland	5.8
8215	Pengilley, D. J.	Bath & Wilts	1.8
8216	Athey, D.	Derby & Lancs	6.8
8217	Amor, J.	Essex & Suffok	4.8
8218	Jones, D. W.	Humber	5.8
8219	Golling, M.	Pegasus	19.6
8220	Jones, P. B.	Lasham	31.8
8221	Adams, G. A.	Devon & Somerset	13.5
8222	Worrell, C.	Lasham	23.7
8223	Moden, G. H. J.	Altair	3.9

UK CROSS-COUNTRY DIPLOMA

Complete

Name	*Club*	*1989*
Livings, G. E.	Two Rivers	29.4
James, C. V.	Two Rivers	7.5
Marshall, A. J.	Wrekin	4.6
Dutton, S. T.	Surrey & Hants	4.6
Basak, R. M.	Bicester	24.6
Marsden, R.	Phoenix	16.6
Danbury, A. J.	London	24.6
Wright, J. S.	Booker	24.6
Jenes, B. A.	London	23.7
Brett, R. C.	Wyvern	5.8
Sentance, J.	Newark & Notts	6.8
Browne, R. A.	Humber	5.8
Hoolahan, J. B.	Kent	22.7

Part 1

Bardgett, A. J.	Borders	13.5
Gatfield, J. E.	London	15.5
Graves, A. T.	RAE	27.5
Starling, G.	Bristol & Glos	30.5
Judd. D. M.	Wrekin	4.6
Gardiner, J.	Essex	11.6
Lealand, M. N.	Booker	28.5
Etchells, A.	Avon	6.5
Davenport, M. T.	RAE	28.5
Slipper, T. W.	Cambridge Univ	2.6
Fisher, R. B.	RAE	24.6
Cresswell, W. A.	Wyvern	24.6

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Further details from

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CLUB NEWS

Copy and photographs for the February-March issue of *S&G* should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, tel 0223 247725, to arrive not later than December 5 and for the April-May issue to arrive not later than February 6.

GILLIAN BRYCE-SMITH
October 11

AVON (Bidford-on-Avon)
We won our Inter-Club League group. Well done, especially to Barry Meeks winning his day and Aiden Grimley for winning his day at the final.

The Feshiebridge expedition gave Gold heights to Richard Palmer, Roger Yates and John Hadley, Aiden with 20000ft without a barograph. Richard Palmer won the club ladder with Chris Morris (including Diamond height) 2nd and Dave Finden (including Diamond distance) 3rd. There was a good effort from Dennis Wright and, in particular, Bob Sharman at the Enstone Regionals, Bob winning a day.

Congratulations to Bob Holland on his Silver badge. Our thanks to "Birdman" Lewis for helping with the fuel installation and we are having a new hangar.
D.T.W.

BANNERDOWN (Hullavington)
Despite fierce competition we again won the Inter-Club League finals. (See report in this issue.) Congratulations to the ten pilots who kept up a good standard of flying and especially to those in the final. Thanks also to Mel Dawson for keeping us on our toes and to the crews.

Paul Griffiths, Pete O'Fee, Dave Simmeous and Pete Lawes flew distances for their Silver badges. Dave must have set some sort of record with 8000 launches prior to the flight while Pete O'Fee gained his PPL shortly afterwards.
D.C.F.

BATH & WILTS (Keevil Airfield)
Several weekends of total exclusion from the airfield by the military has seriously affected our flying. We desperately need our own field.

Malcolm Smith won the Open Ladder trophy and David Pengilley the Club Aircraft Ladder trophy, both by a resounding margin. The new trophy presented by Mike Gilder in memory of Jeremy Menzies who died recently is for photographing seven white horses in the shortest time and was won by Bob Hitchin.

A very smart K-8 replaces one of the club K-6CRS, which is for sale, and a Pegasus swells the private owner fleet.

Jean Smith, Colin Hitchin and Brian Headen have their Silver badges and Paul Salter his Bronze. Well done. The "how I nearly did it" award goes to Graham Calloway for landing 7km short of 300km.

It's good to see Dave Morgan back and raring to fly after writing off his Oly 463 in June – he was heard asking for help to rig his Nimbus 4 (wheelchair).
B.H.

Gillian Wyatt of Cairngorm GC photographed after going solo on her 16th birthday by Bill Longstaff.

BICESTER (RAFGSA Centre)
Congratulations to B. Braithwaite, D. Kincard, D. Prinsen, C. Owen and M. Dowden (Silver badges); P. McAuley and V. Broderick (Silver heights); D. Pemberton and A. Mills (5hrs); R. Pepper (UK Cross-country diplomas) and P. Atkinson, J. Crawford and R. Basak (Gold distances). Tom Eagles, John Armstrong and Gareth Cunningham have their 500kms, Gareth within two days of his wife Viv going solo and getting both Bronze legs.

We have two new record holders: Ken Hartley (300km O/R) and Barrie Elliott 400km triangle). Not a bad season!
M.H.

BORDERS (Galewood)
The good weather gave plenty of soaring and a spate of badge claims. Congratulations to Spencer Busby and Andy Henderson (going solo) and Graham Blair (Bronze badge).

A weekend of northerly winds gave us superb ridge conditions and an average flight time of nearly 2hrs with 5hrs for Kevin Burns, Leon Adamson, Dave Holland, John Romanes and Martin Soulsby, Martin also gaining Gold height on his second attempt when he remembered to take his barograph

George Brown, one of our longest serving instructors, has completed 6000 launches. It's hard to value such sterling service.

We have several visitors for our November flying week and the use of the BGA Janus.
A.J.B.

BLACK MOUNTAINS (Talgarth)
Ten minutes of prime television produced a flurry of phone calls, brought a few new members and enhanced local awareness.

Our Junior, with its single payment scheme for a season's flying, is very busy. We have welcomed visitors from East Sussex, York, Southdown, Kent, London and Sackville GCs. Winter courses have taken off well, making us busier than in the summer.
T.J.W.

BRISTOL & GLOUCESTERSHIRE (Nympsfield)
Work has continued on improving the winch track, three quarters of which has now been surfaced with motorway asphalt planings. We have permission for a major bout of field levelling in the interests of flight safety.

Congratulations to our Inter-Club League team who lost by a narrow margin in the final. (See report in this issue.)

We wish speedy recoveries to Rosemary Sandford and Frank Molloy from their illnesses. We were saddened by the death of Peter Scott, our life president. Only last summer he presented the prizes at the Standard Class Nationals at Nympsfield. (See BGA News.)
S.R.

BUCKMINSTER (Saltby Airfield)
We have had much progress and many achievements. Roger Hamilton has gone solo; Alan Middleton, Kathy Lawrence, Mike Hinder, Helen Cheetham, Mike Entwistle and Jan Bassett have Bronze badges; Mike Entwistle, Jan Bassett and John Harwood have Silver heights and distances and Helen Cheetham, Dave Housley, Dave Epton and Martin and Kate Hutchinson their Silver badges. Jim Airey, Frank Cox, Russell Cheetham and Geoff Roberts have flown 300kms.

The milk run 100km has been attempted by many, Russell being the fastest. The new Puchacz is very popular.
A.B.

Andy Henderson of Borders GC being congratulated on going solo by Alastair Fish, his instructor.

This spectacular photograph was taken by Moir Clement at Portmoak.

BURN (Burn Airfield)
Recent acquisitions to our fleet include a K-8, SF-27 and an Astir - our thanks to those who brought them from Germany. The four blade propeller on our Pawnee has cut the noise level considerably, furher improving relations with neighbouring villages.

Our weekday and evening courses have been a huge success. Our thanks to all involved. One of our two winches is having a new road engine fitted and our new tea bus is being given a kitchen.

Well done to Bill Jepson on becoming an instructor and we welcome Bill Craig, an instructor and regional examiner.

Congratulations on going solo to D. Kirkby, N. Lyons, S. Martin, G. Hirst, S. Jack, J. Garner, A. Thornhill, P. Sinclair, R. Roberts, G. Schofield and J. Travers and to G. Goodenough, P. Clayton, B. Peaks-Wood, R. Jones and H. Candow on gaining Silver badges.

We have had a barbecue, scavenger hunt, race night and our annual dinner-dance when Martin Ellis was awarded the Pennine cup (furthest) and the Chairman's cup (highest); Alan Dalgety the Durdy cup (furthest in a club glider); Bob Peekswood the award for the most improved pilot with the Muggin's cup going to Ken Brown, Colin Braithwell and Bill Shaw for keeping our power fleet running.
M.T. & V.F.F.

CAIRNGORM (Feshiebridge)
Congratulations on going solo to Tish Johnston and Gillian Wyatt, Gillian on her 16th birthday from her father's winch launch.

The courses were very successful thanks to the hard work of Andy Carter and Allister Morrison, with Sinclair Bruce and Steve Firth resoloing.

The good weather gave visiting Fulmar GC several badge claims and our own inspector, Alan Carnegie, completed his Silver badge with a distance flight in his Skylark 3.
S.M.

CAMBRIDGE UNIVERSITY (Duxford Airfield)
Neil Foreman, who went solo last year on his 16th birthday, completed his Bronze and Silver badges within three days of each other. At 17 is he the youngest UK Silver?

Congratulations to Peter Poole, Alan Dibdin and Robert Bryce-Smith (Gold distance and Diamond goals); Harry Boal (Gold distance); Jane Whitehead, Robert Welford, Duncan Bray, Hazel Pearson, Terry Willis, Frank Zachariasse and Claudio Villa (Silver distances); Barry Beasley (Silver height) and Martin Kendall, Rod Turner, Gordon Hannah, Nick Berry and Alistair Murray (going solo).

We came 4th in the Inter-Club League final, thanks to Phil Atkin, Sandy Torrance and Geoff Brown - Alison Barnet and Iain Baker didn't fly due to poor weather on the first day.

The weather wasn't kind for our Portmoak expedition but Andy Sanderson and Steve Gibson managed Gold height; Chris Davies Silver distance and Mark Emerson and Colin Smithers, Silver height. Our particular thanks to David Evans and Sandy Torrance for ferrying our Super Cub to Scotland and tugging.

Well done to Phil Jeffery on his record. (See BGA News.)
J.L.B.

CLEVELANDS (RAF Dishforth)
It was a quiet but successful summer, with Dave Stewart taking the Ventus to 3rd place in the 15 Metre Nationals. Jill Campbell has gone solo and Chris Ballard achieved his 5hrs just before leaving us. Deputy chairman Neil Goulding has also left, but not before completing his Gold badge - thanks for all your work, Neil.

Neil Claughton has his PPL and tug pilot Colin Walker has clocked up 2000hrs.
J.P.

Obituary - Dot Clark
We are all saddened by the death of Dot Clark whose husband Jack is our longest serving member. Since suffering a stroke many years ago, Dot had become very much part of our club, although she did not fly. At the launch point, rain or shine, she always had a friendly word for everyone, and her wheelchair was an essential adjunct to all our social activities. Patiently bearing her disability, she was always ready with a joke and a smile, and took a particular interest in our youngest members. She will be very much missed.

Our deepest sympathy goes out to Jack and his family; and our admiration for his years of devoted care.
Jill Povall

CORNISH (Perranporth)
Congratulations to Martin Keer. While strong winds stopped him soloing on his 16th birthday, he was successful the following day. Congratulations also to Tom Cullen on Silver distance. Unfortunately he has now broken a leg and cracked some ribs at work - we wish him a speedy recovery.

Pete Arthur, CFI, and Pete Bone took the K-6E to the North Hill task week and achieved some cross-countries. Our course season was well subscribed.
G.A.H.

COVENTRY (Husbands Bosworth)
Statistics for this season are breaking all our previous records with over 50000km flown and badge claims too numerous to mention. Notable flights were by Steve Crabb, Jonathan Walker and Alan Foxon (300km in the SF-27); Paul Crabb (300km in the Junior) and Nick Hackett (604km in his LS-7).

Norman James continued to excell in his Tutor with a 110km O/R to Milton Keynes, putting him 2nd on the National Open Ladder. This has created much enthusiasm for Tutor cross-countries with his syndicate partner Mick North

Ashley Little, who went solo just after his 16th birthday, is photographed by his father, Paul Little.

AWH

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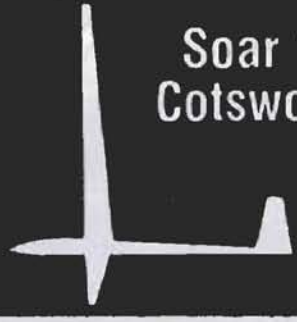

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flying to Dunstable and Keith Nurcombe an O/R in the other HusBos Tutor.

Congratulations to Guy Westgate on winning the University task week and to Bill Clay, our oldest flying member, who achieved his Silver badge at 70 plus in the K-8

We held a very successful celebration in September to commemorate 25 years at Husbands Bosworth. Harry, our manager, is busy organising *ab-initio* weekend training courses throughout the winter.
D.L.S.

CRANWELL (RAFGSA)
We have the exclusive use of the Cranwell North airfield, the power club having moved to the south (main) airfield. Pilots visiting us please fly circuits to the north of Cranwell North and you will be most welcome (weekends only).

The good weather has resulted in a crop of Silver legs with a distance for Julia Shearwood and completed badges for Meryl Moxham, Mick Smith (5hrs), Graham Stubbs (distance) and Jim Randall (height). Graham Felks went solo in our newly acquired K-21 and Barry Briggs and Geoff Bolter have UK Cross-country diplomas. Congratulations also to DCFI Ray Walker on his SLMGPPL.

The LS-4 is being replaced by a Ventus CT. Are we the only UK club to have an all GRP fleet?
B.S.

CRUSADERS (Cyprus)
With the parachutists away in August the sea breeze front was soaring to 5000ft on quite a few occasions. Sue and Tony Mann are off to Germany and will be missed.

For all ex members, we will be celebrating our 30th anniversary on August 29 with a large party. Visitors are always welcome.
I.P.

DARTMOOR (Brentor)
After rain ended the long SW drought, soaring and building weather returned in late September. Dick Toop and Colin Sanders have kept the gang at work laying the hangar foundations. We are also fencing the site.

Martin Cropper, Phil Jarman, who is partially disabled, and Alistair Clarkson, a schoolboy member, went solo after the latest course run by Trevor Taylor. Don Futtock from Eaglescott GC has joined our instructors.
F.G.M.

DEVON & SOMERSET (North Hill)
Don Jones and Dav Puttock in the Libelle outflew local and visiting hotrods to win the task week with Ian King, in the club's K-6, a commendable 3rd.

The dry summer gave continuous but not outstanding soaring enabling Richard Bonner to solo and Stan Yeo to resolo after 28yrs. Phil Whithead gained Silver height, Mike Sanson his 5hrs and Peter Craggs completed his Silver badge. Mike Fairclough found 300km no more difficult from North Hill than he had in Florida and Martin Fisher enjoyed wave flying over the clubhouse.

Jo Acreman's gang delight in their lovingly restored T-21.
G.P.

DORSET (Old Sarum)
We have had our most successful season for years with as much soaring as we could take and too many badge claims to mention. And it is still going on.

Our winter programme of refurbishing equipment and a new winch project is underway. Membership continues to grow but a shortage of instructors may force us to stop the flow. We are also considering whether we need three two-seaters.
D.N.

DUKERIES (Gamston Airfield)
Loans for the K-7 have been repaid and we plan to erect our own hangar.

Peter Turner is an assistant instructor; Dennis and Glen Barratt and Keith Hebdon have Silver badges; Alan Marshall Silver height; Tony Smurthwaite has resoloed and Nick Wilson-Wright, Trevor Price and Bob Cartledge have soloed.

Enormous goodwill from members has allowed us to give many trial instruction lessons generating a healthy income and finding some fine new blood.

Our chairman, Tim Bowles, hosted a pleasant barbecue then took the Swallow to over 7000ft.

We winch launch from Gamston airfield next to the A1 in N Nottinghamshire and give a friendly welcome to anyone on weekends and Bank Holidays.
N.W-W.

EAST SUSSEX (Ringmer)
Roger Warren has flown a creditable Gold distance in his K-6. Congratulations also to Steve Barter and Nick Kelly (Silver badge); Clive Hawkes (Silver distance); Steve Smithers (Bronze badge) and Trina Reason and Alan Castle (going solo).
L.M.

ESSEX (North Weald)
Due to the height restriction above North Weald (2500ft amsl) expeditions have been made by syndicates to several sites including Bidford, Husbands Bosworth, Nuthampsted, Sackville, Le Blanc and Aboyne.

We have had the following successes – Simon Attwood (Gold badge and two Diamonds); John Rollason (Gold badge and one Diamond); John Gardiner, Dean Williams and Julian Old (Silver badges) and Jane Attwood, Len Munday, John Minnis and Alan Bishop (Silver legs).

The winter routine begins of repairs and servicing with bar activity on the first Friday evening of each month, to which all thirsty readers are most welcome.
J.A.R.

HEREFORDSHIRE (Shobdon Airfield)
Good weather and courses have added new members to our tiny club, John Lloyd being one of them. He re-soloed and promptly got a Bronze leg.

Also in July, Dave Fall flew his K-6CR for 7hrs and completed a 300km Diamond goal.

We have a new CFI, John Hunt.
J.W.

Obituary – Dennis Johnson
Dennis died recently in Spain while flying the Grob motor glider in which he had spent so many hours.

He had devoted most of his spare time in the past 15 years to flying and to the well-being of our club. It is difficult to imagine Shobdon without him.

His enthusiasm was boundless and infectious, whether he was instructing, raising sleeping pilots at 5am to find wave or encouraging participants in local competitions. Everyone at Shobdon has a fund of Dennis stories as befits such a character.

He will be greatly missed. Our sympathies are extended to his family and to his close friend Helen.
John Warbey

HIGHLAND (Dallachy)
Summer has been beautiful but hopeless for gliding. Congratulations to Dick Hawkes (Bronze badge); John Thomson (Silver height); Bill Scott (going solo) and Neil Anderson (AEI rating). Steve Young is refurbishing our K-8 which will soon be like new. Our thanks to Terry Slater and the BGA Falke – we had lots of enjoyment and many ideas for the future.

A small group made a reciprocal visit to our twin flying/gliding club at Ladshut near Munich where they were looked after like royalty.
A.G.V.

Obituary - Colin Foreman
After a long illness Colin has recently died. He joined us many years ago and very soon became involved in all aspects of the club.

Colin always had a cheery outlook and was willing to do any task no matter how menial. He even managed to keep in touch during his illness. Colin will be sorely missed by all, especially the older members.

Our deepest sympathy goes to Winefred, Mike, Brian and Jacqui.
Angela Veitch

IMPERIAL COLLEGE (Lasham Airfield)
This is our 16th season and we have a new surge of interest. George Lock, Nina Nowicki, Paula Turner, Nicholas Merriam and Andrew Bell have gone solo (Nina, Nick and Andrew now having Bronze legs); Nick Lay and Jane Lewis have Silver badges; Martin Delaney Silver height and distance and Pete Healey and Steve Brooker have Gold distance and Diamond goals, Steve achieving this at the Junior Nationals where he came 12th in our ASW-19.
N.M.

Richard Bell of SGU after his 16th birthday solo.

KENT (Challock)
Our open task week in August was very well organised in good conditions, but sadly few members took part. We have had our usual annual visits to other clubs and thank them for their help and hospitality.

Several members have been in Regionals and Competition Enterprise in France when we hired the BGA Janus. Our new SZD Club Junior has been well used and given many their first glass glider flight. We have had several 300kms.
A.R.V.

KESTREL (RAF Odiham)
This excellent season ended with many achievements - Tom Russell gained 5hrs; Tim Hale 5hrs and Silver height; Paul Ellis Silver distance and Alison Parkinson completed her Silver badge with an 80km flight.

Jane Nash has broken three British women's records, the last a 100km at 135km/h (see BGA News) and flew with the chairman of the Army Gliding Association, Col Abbot, when he visited in September.

Alan Tribe flew exceptionally well in the Junior Nationals, finishing 3rd.

We have planned a string of gliding lectures for the winter and, as usual, there is a small Christmas wave expedition to Dishforth.
J.N.

Phil Jarman (right) with his instructor, Alan Holland, after going solo at Dartmoor GC.

LASHAM (Lasham Airfield)
Two factors have given us a superb season - the weather and our new organisation. The two new winches are fully operational, running on "green" LPG, the new launch point organisation is tried and tested and the launch rate vastly improved.

Another K-13 has been ordered for next year, taking our fleet to nine K-13s, a Janus, Grob Acro and Falke with the possibility of a K-21 later on. We have an additional instructor, with the objective of totally reorganising our advanced training programme.

Below Lucy Poole of Surrey Hills GC who went solo, aged 17, this summer, is photographed with her instructor, Ian White.

Our autumn expedition to Aboyne resulted in lots of Diamonds and Golds.

Lasham is now re-shaped and reorganised for the 1990s. Please visit us; there's lots on offer.
M.T.C.

Instructor, Brian Fowkes, congratulates Bob Cartledge on going solo at Dukeries GC.

MARCHINGTON (Marchington Airfield)
The good weather produced a late crop of achievements - a first 300km for Paul Shelton at the Junior Nationals; a Silver badge for Russ Hibbert; height and 5hrs for Ian Walker and Graham Taylor, Steve Hunt, Keith Nichols and Geoff Lowe have gone solo. Well done.

Our special thanks to Jim Robinson for his energy and enthusiasm in organising the many trial intruction lessons and the course weeks. Our new winch is a success.
P.A.W.

MENDIP (Halesland)
Our first year at Halesland has been very successful. We have full use of the hangar, the clubhouse is being refurbished and we hope to negotiate a long term lease on the airfield.

Congratulations to Bob Merritt on the first 300km from Halesland and achieving 6th place in the Lasham Regionals, his first Comp. Peter Croote did well coming 5th in the Western

Regionals and 4th in the Junior Nationals.

During our first task week in August Tim Hogarth completed his Bronze badge and gained Silver distance and height in one day. Congratulations on going solo to Bill Lowndes, Will Leach, Mike Ponting and Bob England.
T.A.D.H.

MIDLAND (Long Mynd)
Our task week was a great success with over 5000km flown. The overall winner was Harry Lowe (ASW-20).

Roger Andrews has achieved 500km, the first ever starting from the Mynd, in between building trailers, repairing gliders and overseeing the design and building of our purpose built tow out vehicle, the Myndi Cooper S, ably constructed by Mike Stuart.

Clive Crocker has soloed; Graham Underwood, John Parry, David Taylor, Alan Briscoe, Andrew Ray and Richard Bennett have Silver distances; Denise Hughes gained her Silver badge in three flights in 1½ weeks; Roland Bailey has 5hrs and Silver distance and numerous visitors gained Silver legs.

We are hoping to persuade our pilots to use our wave to go and chase Vic Carr and his crew around Wales a little more often.
R.D.

NEWARK & NOTTS (Winthorpe)
Near the end of a successful season we congratulate Rance Noon (Gold distance and Diamond goal); John Sentance (UK Cross-country diploma); John Maddison and "Cocker" Marshall (Silver badges); Frank Hunt (Silver height and duration) and Lesley Noon, John Collier and Mike Abrahams (Silver heights). John Maddison wins the "golden spectacles" awards for flying to Halton in mistake for Husbands Bosworth.
M.A.

NORFOLK (Tibenham Airfield)
There was a successful expedition in August to Sutton Bank with Dave Stabler (Dart 15) managing a 7½hr flight.

The courses have been well attended with a number of solos and Bronze badge lectures are planned for the winter.
G.E.

OXFORD (Weston on the Green)
In what must be a record breaking season we have flown almost 29000 cross-country kms with 31 flights of over 300km compared with one last year.

Congratulations to John Howard (5hrs); David Weekes (Silver distance); Malcolm Moxon (Silver height) and Brian Payne (Diamond goal).
F.B.

Obituary - Janis Evans (nee McGill)
It is with infinite sadness that we report the death on September 6 of Janis Evans after a long illness against which she fought with great courage and determination, ably supported by her husband Steve.

Janis joined the club in 1969. Her natural ability and enthusiasm were soon very evident and in due course she qualified as an instructor. She was also an excellent cross-country pilot and did well in various Regionals. She made many friends in other clubs in this country and abroad. This was particularly so at Nympsfield, which was always a special place for her.

In more recent years her rôle as a mother gradually took precedence over much of her gliding activities. We offer our deepest sympathy to Steve (also one of our instructors) and to their two young sons, David and Peter.
David Roberts

Jane Nash of Kestrel GC photographed with the chairman of the Army Gliding Association, Col Abbot, after their flight.

PETERBOROUGH & SPALDING (Crowland Airfield)
Our flying week was an outstanding success with numerous Silver legs, several first field landings and Silver badges completed by Graham Kench, Steve Turner and Bill Johnston.

A party visited Portmoak in September and although there were no badge claims it was enjoyable. Commiserations to Roger Gretton whose barograph ink froze at 8000ft during a Gold height attempt.

Best wishes to Ernie (Mart) Martin for a speedy recovery from illness.
M.J.

RAE (Farnborough)
We have flown thousands of cross-country kilometres including several UK Cross-country diploma legs, Dave Pearson completing both parts. Congratulations also to Frank Shackleford and Chris White (Silver badges) and Paul Stephens (Bronze badge).

CFI Mick Wells flew Diamond height at Aboyne and Fergus Buchanan has become an instructor. The Junior Nationals gave Neil Emerson and Alex Truman valuable competition experience, Alex coming 9th in his first Comp.
M.T.D.

RATTLESDEN (Rattlesden Airfield)
Our clubhouse is becoming civilised with hot and cold running water, new furniture and lunches prepared by social secretary Mark Wright in our fully equipped kitchen. Well done Mark.

We have another Pirat on the site and a Fournier 5 gives us three syndicate motor gliders. Our display at a local exhibition brought a lot of interest.

Congratulations to Keith Lee (Silver distance) and Martin Raper, Tony Emmerson and Mark Taylor (AEI ratings).
R.W.

SACKVILLE (North of RAE Bedford)
Congratulations to Nick Cutler on going solo and to Peter Nicholson for completing his Silver badge. We had visits from Essex, Cranfield and Cambridge, membership has doubled and our tug is in for a new engine.

Is there anyone reasonably local who can help us with instructing?
T.J.W.

SCOTTISH GLIDING UNION (Portmoak)
Our summer has been marred by the death of Darren Powell and Marcello De Felice when the Super Cub crashed as it was in the circuit on the evening of August 24. Darren had been our tug pilot for the season and Marcello was preparing to do the same for us next year. Both will be greatly missed and our sympathy goes to their families and friends.

The loss of the tug caused some problems and we are grateful to Cambridge University GC for bringing a tug on their autumn visit, and especially to David Evans and other pilots for launching our members as well as themselves. Tug problems and some appalling weather in September meant that some had a less than fruitful visit, but I hope that will not deter them from returning.

Congratulations to Richard Bell (going solo on his 16th birthday); to Allan Davie (Bronze badge); Kevin Dillon (Silver badge) and to David Hatton (assistant instructor rating).

We plan to offer launches midweek whenever the weather is promising and a group can get themselves together, so if you are passing on a decent day it may well be worth dropping in.
M.J.R.

Obituaries
Darren Powell
Darren came to Portmoak in the spring, having spent last season at Sutton Bank. He made many friends and was a popular member and tug pilot. He rapidly became part of the Portmoak scene, always willing to tug in his quiet and efficient way. He contributed much to the running of the courses and will be greatly missed by his family, friends and club members. ➡

Marcello De Felice
Marcello had only recently joined the SGU having completed his PPL as a popular member of Edinburgh Flying Club, and his death in the tug accident was a great shock to his family and friends, coming as it did at the beginning of what Marcello had hoped would be a successful path to becoming a professional pilot, an ambition he had held for a long time.
Mike Richardson

SOUTHDOWN (Parham)
We had a crop of 500kms in August, our first since 1985. Congratulations to Dick Dixon (who now has all three Diamonds), Peter Hurst and Mark Darby, Mark completing his 500 in just over 6hrs, a club record.

Also to all those who flew badge legs and to Les Blows, Sue Hill, Mark Collins and Paul Fritche (Diamond goal), Paul during the Junior Nationals and Mark, having done the hard work, got his film cut!; Richard Cooper and Roger Coote (Gold heights), Roger completing his Gold badge; Andy Bushby and Malcolm French (distance flights for Silver badges), Andy flying all three legs in the Eagle; Ken Walker (Silver height); Derek Stevens (Bronze badge) and John Havenhand and John Robbins (solo flights).

Chris Hancock has transformed the bar and with John Hawkins organised the annual barbecue superbly, John donating numerous raffle prizes.

Don Irving is taking over from Dick Dixon as CFI. We thank Dick for all his good work over four years.

Our syndicate Eagle has gone to Talgarth (where we have a club expedition) for winter wave.
P.C.F.

SHALBOURNE (Rivar Hill)
Summer has gone but flying isn't slowing down with earlier starts thanks to an influx of new members. Our expedition to Sutton Bank was enjoyable with Gold heights for Ken Porter and Richard Dann.

We had a taste of competition flying with the Inter-Club League and the task week - our thanks to Ken Reid for running the latter.

Congratulations to Les Young and Mike Benton (going solo); Dennis Maynard (Bronze badge); Steve Glassett (Silver height and 5hrs); Andy Brind (Silver height); Paul Nickson (Silver distance); Stephen Ottner, Phil Clayson, Richard Dann, John Parsons, Gillian Brind and Alan Pettitt (Silver badges) and Roger Madeline (Gold distance and Diamond goal).
S.C.O.

STAFFORDSHIRE (Morridge)
We welcome Roger Bostock, previously CFI at Avro

Congratulations to Ann Walklate, Zeb Peace and Ken Amos (going solo); Ted Hobby and Bob Crinean (Bronze badges); Eddie Willis (Silver badge); Chris Harris (AEI rating) and Phil Wild (instructor's rating).

The mayor of Congleton flew with us in September as part of a charity record breaking attempt.
K.A.

STRATFORD ON AVON (Snitterfield Airfield)
Congratulations to Jeff Gale and Jonti Boddington (Silver badges); Tony Palfreyman, Bob Horsnell and Martin Greenwood (Silver distance); Caroline Coates (5hrs); Vernon Brown, Maurice Noxon, Geoff Butler, Karin Hulsemann, John Grimmett and Brendan Connor (Bronze legs) and Derek Bennett, Neil Campbell, Gillian Ghee and Joan Ferguson (going solo), Derek collecting a Bronze leg.

Frank Jeynes achieved a UK Cross-country diploma the day he was checked out to fly his Acro. We also have a new Dart 15 syndicate.

The AGM was well attended with plans finalised for workshops adjoining the hangar. We welcome Geoff Butler, Gillian Ghee and Joan and Mike Ferguson to the committee - judging from Joan's frenzied sorties with the collecting tin social events are in the pipeline.
H.G.W.

SURREY HILLS (Kenley Airfield)
Please note a correction to our report in the last issue - we operate weekdays and not weekends. The airfield belongs to the MoD and the 615 VGS Air Cadets use the field at the weekends. But we have lots of opportunity to fly during the week from 0900hrs to dusk all year.

Congratulations on going solo to Pete Sparrow, Chris Macdonald, Bob Chandler, Martin Davies, Iain Innes (resoloing), Peter Young (conversion from power flying) and Lucy Poole, our first home-grown female solo pilot and daughter of Peter, our CFI; to Mikal Wilkins and Bob Young (Bronze badges) and Steve Dawes (AEI rating).

We have planning permission for a hangar, which should be able to house private gliders, and some hard working members have given our high power winch a new engine.
H.S.M. & R.G.

SWINDON (Sandhill Farm, Shrivenham)
We are changing our name to the Vale of White Horse Gliding Centre but remain at Sandhill Farm which, thanks to the landlord, should be better drained this winter.

This amazing year has given every kind of achievement. Congratulations to Mike Clay (going solo); Dave Davies (re-soloing); Dave Foster (Bronze badge); Helen Peplar and Martin Sawyer (Silver height); Gerry Brown (300km) and John Ashcroft (5th place in Booker Regionals).

Gilbert Burge and Dave Foster move into the Std Cirrus syndicate and John Ashcroft and Gerry Brown are buying an LS-7.

We have improved the clubhouse facilities, thanks to Gloucestershire County Council giving us some Portkabins and provided our DIY specialists with a winter project.
J.A.

TRENT VALLEY (Kirton in Lindsey)
Our tug has converted a few of its critics to aerotowing. Humber were very helpful when we were briefly evacuated to Scampton.

Paul Gardner, David Rendall, Peter Walker, Alan White, Matthew Tierney and Norbert Stumm have Bronze badges and Norbert a Silver height; Patrick Holland, Barry Rendall and Wayne Dewick have Silver badges; Tim Wollard the UK Cross-country diploma (part 1); Roy Dell Gold distance and Diamond goal and our K-13 pilots won the Two-seater Competition at Wolds, John Williams and Roger Cullum also achieving 13000ft in a late wave flight setting a Pocklington two-seater height record.

Linda Wollard, Barry Rendall and Patrick Holland have AEI ratings and congratulations to Roger Brennan and Clive Brown on going solo.

We have increased the club fleet to three two-seaters with a K-7 from Germany with a lot of help from Norbert Stumm.
M.P.G. & L.W.

VINTAGE GLIDER CLUB
This summer has given us our best flying ever by members in their vintage gliders. Norman James coming 2nd on the National Open Ladder in a Slingsby Tutor is a magnificent achievement. He has already won the Enterprise trophy and by July was so far ahead he couldn't be caught by his fellow Coventry GC members.

Richard Moyse (Sky) flew a 272km triangle from Lasham; Ron Davidson (Petrel) climbed in wave to 8700ft over Sutton Bank during the Slingsby Rally at the end of August and among the many cross-countries was a 100km triangle from Dunstable by Ted Hull (Rhönbussard).

From abroad we have news of a 420km goal flight by Gerhard Kiefer in his L-Spatz 55 from Bourges, France to his home club at Mullheim, W. Germany. This is the longest distance and goal flight by a VGC member in a vintage glider.

But all this has delayed some of the restorations. However, four projects, the Hols der Teufel, BAC VII, Gull 3 and Weihe are well advanced, and a Kranich 2, Grunau Baby 2B and Grunau Baby 3 (in Northern Ireland) did fly this year.
C.W.

WELLAND (Middleton)
Barry Chadwick (Dart 17) flew our first 300km for Gold distance and Diamond goal, completing his Gold badge, on August 28 while Dick Short, starting an hour later, landed at Saltby for 284km. A week later Keith Scott, Barry's partner, also completed his Gold badge with a Gold distance and diamond goal.

Kay Gordon is our first female to have a Bronze badge. Wallace Wilson has Silver distance and height; Paul Warburton Silver distance and Merryck Jones has gone solo. Congratulations.

Gerard O'Callaghan has bought Keith Tinker's Cobra. The K-7 trailer is finished, thanks to members' help.
R.H.S.

WEST WALES (Templeton Airfield)
Since our last entry in early 1987 we have suffered a near complete change of membership with Peter Sturdgess as CFI, John Rogers, secretary, and Tony Cowley, treasurer.

John Rogers, Darryl Lloyd, Ray Scourfield, Suzzane and her brother Antony Thomas, David Charles and Brian Quinn have gone solo and John Rogers has the club's first Bronze badge in many years.

We have two winches, a new airfield control unit and, best of all, after many years without a single-seater, a K-8.

We welcome new members. Tel Fishguard 873205.
P.S.

WREKIN (RAF Cosford)
Ronnie McKee, Martin McKeen, Paul Holmes, Eugene Gilkes and Martin Short have gone solo. Bob Wyatt and Brian Wilkinson have Silver heights and Noel Hawley and Graham Bell completed their Silver badges - Graham is now an instructor.

Al Marshall and Dave Judd have UK Cross-country diplomas and Richie Toon Gold distance and Diamond goal. Mick Boydon and Mick Davis won the Open Class of the Inter-Services Regionals in Roanne, flying the Numbus 3DT. On four days they had winning speeds in excess of 100km/h. Dave Gordon and Simon Pascoe have tug ratings, Simon joining us from Kinloss.
R.J.

WYVERN (RAF Upavon)
Congatulations to Rik Malam, Graham Browning and Pat Farrelly on their Gold distances and Diamond goals at the Inter-Services Regionals; to Bob Brett (100km Cross-country diploma); to Lara Brownlow (Bronze leg and Silver height) and Phil Bonner (going solo).

Eric Smith and Ken Moules flew in the Standard Class Nationals and Andrew Mills and Dawn Bradley in the Junior Nationals. Apologies to Penny Smith (see last issue). She is in fact 21!
D.B.

YORK (Rufforth Airfield)
With *ab-initio* courses fully booked this year and reservations made for next season, we are increasing our range from Bronze badge to winter wave soaring.

Alan Swales claimed the site height record with 20300ft; Clive Stainer flew 470km; Mark Boyle came top in the club ladder and Richard Stembrowicz had the winning height in the Northern Inter-Club League. We have had several Bronze legs and Alan Kilbridge went solo after 20 launches and got both Bronze legs within two months of starting flying.
A.W.

WAY OFF TRACK

Class, glass and grass

Disaffected Brits often allege that our's is a uniquely class-ridden society. Hence recent references in *S&G* to "plummy Queen's English tones", "elitists" and the supposed deterrent effect upon recruitment of well-shod pilots flying £80 000 superships.

In contrast, the colonial rebels scoffing hamburgers and quaffing Budweiser 3000-plus miles to the west are often perceived as uniquely egalitarian and entirely free from any consciousness of class.

But it ain't so - as I learned while gliding, crewless, in Nevada ten years ago with that *rara avis*, a modern and exported British sailplane. A Slingsby Vega, in fact.

Staked out beside me at Minden was a carpenter from San Francisco, complete with partner and child, a "camper" and a gleaming new Mosquito... "Hi - I'm Steve..." he volunteered in that open, glad-handed US way which uptight English elitists either admire or abhor. "I'm the only working class pilot in the west flying glass".

Steve and I set out together on a 300km/ O/R to Derby, in a huge desert area to the NE ominously named on the "sectional" (50 cent FAA airmap to you stay-at-homes) as the Carson Sink.

We landed out at Fernley, a well-known desert TP where my Vega stopped beside a rather ripe three-days-dead rattlesnake. Steve had landed first, while I stayed airborne in weak local lift, to talk in his lady bringing his camper and trailer to start the first retrieve.

I used as airborne relay another pilot, who was being crewed by his daughter. Though all politeness and charm to me, his incandescent language and attitude to her, over the airwaves, probably indicated an earlier acquaintance with the US counterpart of the NSPCC.

It was many hours after sundown when, having already taken Steve's aircraft back to Minden, we were returning from Fernley again with mine. We were bowling along in the camper, partner and child asleep in the back, under a bright desert moon when my nose was assailed by an aroma I'd last encountered in a disreputable and now closed Dublin Smokey Joe's.

"It's grass. I grow my own" said Steve, as my nostrils twitched inquiringly. "D'ya want one?"

In the best traditions of my profession, I am supposed then to have made my excuses and left. But how can one safely disembark from a camper bowling along at nearly 60mph?

REGIONALS' RESULTS

ROLEX WESTERN REGIONALS - June 17-25

Class A (LOW speed index)

Pos	Pilot	Sailplane	H'cap	Day 1.17.6 189km ▲	Day 2.18.6 126.4km⇄	Day 3.19.6 136.2km ▲	Day 4.20.6 302.4km ■	Day 5.21.6 106.1km⇄	Day 6.22.6 159.1km ▲	Day 7.23.6 255.2km ■	Day 8.24.6 309.3km ■	Day 9.25.6 146.6km⇄	Total Points
1	Payne, R. D.	102 Discus B		970	863	715	944	534	851	1000	991	914	7777
2	Throssell, M. G.	101 LS-4		1000	442	562	946	658	931	933	1000	916	7472
3	Parker, S.	101 LS-4		879	823	688	1000	486	785	949	872	860	7440
4	Darby, S.	99 Std Jantar		779	793	577	912	509	944	890	915	935	7254
5	Dunthorne, P.	101 LS-4x		745	770	645	889	391	873	866	907	921	7077
6	Lemin, R.	102 Discus B		*740	747	*628	825	426	*762	904	832	891	6755
7	Spiller, R.	103 LS-4		761	706	544	746	475	881	880	841	858	6722
8	Walker, P.	101 DG-300		960	128	560	*919	587	*695	*790	*815	1000	6474
9	Jones, S. G.	104 Discus B		879	746	875	872	497	925	962	314	322	6392
10	Wall, N.	97 Astir CS		337	784	DNF	748	519	806	857	768	826	5666
11	Roberts, S.	104 Discus		747	737	*575	877	0	383	825	274	DNF	5270
12	Hood, L. S.	94 Acro (G103)		502	0	594	442	496	328	*842	868	436	4906
13	Ferguson, S.	90 Sie 3		444	84	516	436	429	589	395	642	448	3983
14	Woollard, M.	90 K-6x		-	333	-	470	-	472	-	691	-	-
	Woollard, Sue			99	-	569	-	257	-	*416	-	294	3555
15	Bromwich, R. C.	103 LS-4x		781	87	DNF	DNF	DNF	DNF	DNF	760	782	2410
16	Johns, H.	94 SF-34		16	*38	*413	339	203	0	267	40	DNF	1316
17	Parsonage, S.	102 Cirrus 17.7		17	82	279	447	0	0	*306	*159	DNF	1270
Hors concours													
	Mills, J.	78 Berglalke 4		21	-	81	-	372	-	467	-	-	
	Nicholls, G.			-	2	-	239	-	145	-	278	DNF	1625

Class B (High speed index)

Pos	Pilot	Sailplane	H'cap	Day 1.17.6 216.6km ▲	Day 2.18.6 159km ▲	Day 3.19.6 162km ▲	Day 4.20.6 356.3km ■	Day 5.21.6 153km	Day 6.22.6 177.2km	Day 7.23.6 309.6km ■	Day 8.24.6 407.1km dog leg	Day 9.25.6 146.6km⇄	Total Points
1	Johnston, E.	112 Kestrel 19		1000	1000	945	1000	785	737	*950	956	917	8290
2	Jones, R.	131 Nimbus 3		986	944	892	918	705	867	896	1000	423	7611
3	Bishop, G.	111 ASW-20x		989	917	875	592	572	730	888	807	852	7122
4	Metcalfe, J.	112 Ventus		902	81	850	921	639	887	948	973	784	6935
5	Cloot, P.	112 Kestrel 19		874	847	*791	*813	443	499	896	819	844	6826
6	St Pierre, A. H. G.	106 DG-200		532	804	707	894	575	783	685	833	596	6409
7	Nash, Jane	112 Ventus		542	609	806	859	142	575	809	786	734	5662
8	Cumner, G.	106 ASW-20		587	766	662	866	441	543	814	801	230	5510
9	Duffin, E.	118 Nimbus 2c		*279	800	*693	838	442	566	*308	675	413	5417
10	Harrington, T.	108 Vega		660	831	*752	591	475	651	42	768	498	5268
11	Smith, I.	112 Ventus 16.6		434	569	799	209	482	462	*525	798	535	4813
12	Mills, J.	110 LS-3		-	836	-	668	-	*531	-	733	-	-
	Nicholls, G.			224	-	-	*562	-	348	-	771	-	4674
13	Clarke, C.	110 Vega		-	42	-	502	-	*256	168	-	0	-
	Roberts, D. G.			923	-	895	-	673	-	-	858	-	4313
14	Hey, R. I.	106 Mini Nimbus		274	731	798	371	459	536	*606	390	0	4165
15	Gardner, T.	106 Mosquito B		323	507	827	603	297	568	309	376	0	3810
16	Lane, I.	106 LS-3x		348	335	*35	598	391	286	680	314	-	2997
Hors concours													
	Roberts, D. G.	114 ASW-20c							783				783

INTER-SERVICES REGIONALS, RAF Bicester - July 11-20

Sport Class

Pos	Pilot	Sailplane	H'cap	Day 1.11.7 256km ▲rs	Day 2.13.7 222km ■	Day 3.14.7 200km ▲	Day 4.15.7 219km ▲	Day 5.16.7 131km ▲	Day 6.17.7 206.6km ■	Day 7.18.7 309.4km ▲	Day 8.19.7 240km ▲rs	Day 9.20.7 196km ■	Total Points
1	Clarke, A. J.	102 Discus		1000	1000	998	875	901	1000	318	1000	1000	8092
2	Armstrong, P.	104 Discus		*663	896	943	768	822	963	1000	785	915	7755
3	Stratten, P. J.	104 Discus		800	941	952	939	660	748	911	854	845	7731
4	Hodge, B.	104 Discus		905	847	871	543	739	914	878	996	998	7691
5	Elwood-Wade, R. D.	103 Pegasus		881	893	945	825	628	883	995	*793	677	7520
6	Harkins, A.	104 Discus		930	769	906	643	705	842	947	729	761	7232
7	Boik, M.	103 LS-4		820	995	1000	889	768	91	922	883	645	7013
8	Richardson, J. L. R.	104 Discus		810	503	*748	768	694	819	958	855	646	6801
9	Duncan, J.	109 ASW-20B		230	827	824	714	682	976	831	733	772	6589
10	Smith, M.	102 ASW-24		854	387	838	738	773	463	904	804	650	6412
11	Tribe, A.	108 Mini Nimbus		*625	436	837	826	539	803	699	*767	699	6231
12	Jury, J.	102 ASW-19		419	891	950	422	505	435	745	861	842	6070
13	Kirschner, M.	106 Vega		392	430	897	418	659	670	864	738	707	5775
14	Evans, R.	104 Discus		775	856	683	768	26	225	905	871	595	5706
15	Woodman, P.	104 Discus		*290	233	861	869	711	333	883	591	730	5521
16	Bleasdale, G.	108 Vega		722	305	*188	826	682	268	*725	796	601	5111
17	Wright, E.	108 Diamond 18m		0	658	268	0	579	765	867	754	591	4482
18	Lutley, P.	103 LS-4		270	0	554	623	*622	787	334	0	492	3682
19	Dambrook, E.	103 LS-4		257	430	208	264	73	404	265	460	528	2889

Club Class

Pos	Pilot	Sailplane	H'cap	Day 1.11.7 193km ▲rs	Day 2.13.7 134km ■	Day 3.14.7 176km ▲	Day 4.15.7 180km ■	Day 5.16.7 113km dog leg	Day 6.17.7 158km dog leg⇄	Day 7.18.7 309.4km ▲	Day 8.19.7 195km ▲rs	Day 9.20.7 164km ■	Total Points
1	Atkinson, K.	101 DG 300		*923	876	895	694	792	1000	866	1000	880	7926
2	Armstrong, J.	97 Astir		*924	923	943	609	814	860	962	908	759	7702
3	Farrelly, P.	94 ASK-23		*888	916	725	802	732	766	859	780	618	7066
4	Arnold, J.	97 Astir		914	743	678	609	714	712	901	766	855	6892
5	Gaunt, T. R.	95 ASK-21		153	1000	1000	672	698	769	997	795	794	6878
6	Wright, J.	97 Std Libelle		537	678	959	694	760	765	779	924	881	6877
7	Goulding, N.	88 Dart 15		529	440	*729	717	766	879	1000	930	828	6818
8	Gildea, C.	100 SHK		865	874	755	580	642	690	936	741	699	6782
9	Malyear, A.	97 Astir		*883	877	629	609	602	609	881	826	782	6698
10	Eagles, T.	100 Std Cirrus		319	967	974	302	872	258	986	817	1000	6495
11	Pick, K.	101 LS-4		*603	789	756	571	568	762	807	602	747	6205
12	Dean, D.	98 DG-100		872	851	681	268	538	614	722	846	490	5882
13	Atkinson, P.	90 K6e		844	762	844	306	271	730	776	848	352	5733
14	Cook, P. G.	95 ASK-21		*0	228	813	630	678	719	812	696	1000	5576
15	Gordon, D.	99 Astir		880	*690	765	313	649	261	883	897	101	5449
16	Browning, G.	94 ASK-23		466	667	748	222	646	782	782	784	316	5413
17	Malam, R.	97 Astir		177	*749	0	628	602	669	*843	694	853	5214
18	Campbell, D. R.	98 Std Cirrus		*24	*782	495	0	642	709	883	745	791	5071
19	Pitchfork, G.	97 Astir		367	340	706	609	583	305	262	805	567	4544
20	Matthews, G.	97 Astir		97	369	483	556	516	491	725	559	502	4298
21	Mason, P.	97 Astir		150	152	833	609	251	662	*0	789	764	4210
22	Loraine, D.	97 Astir		*47	720	169	609	573	335	751	751	44	3999
23	Bamfather, C.	97 Astir		200	340	471	323	511	473	318	600	549	3785
24	Davey, C.	101 Pegasus		3	610	170	0	475	682	290	28	732	2990
25	Andrews, P.	95 SZD Jnr		*0	392	217	0	125	114	259	149	560	1816
26	Batchelor, A.	97 Astir		352	DNF	DNF	DNF	DNF	DNF	DNF	DNF	DNF	352

rs=remote start

LASHAM REGIONALS - July 15-23

Class A

Pos	Pilot	Sailplane	H'cap	Day 1.15.7 165km⇄	Day 2.17.7 200km dog leg	Day 3.18.7 400km ■	Day 4.19.7 250km dog leg	Day 5.20.7 190km dog leg	Day 6.21.7 130km ▲	Day 7.22.7 260km ▲	Day 8.23.7 225km ■	Total Points
1	Lysakowski, E. R.	105 Discus B		900	1000	1000	935	905	754	1000	908	7402
2	Baker, R. J.	108 ASW-20		894	762	886	843	986	869	928	1000	7148
3	Dale, G.	114 Jantar 1		838	806	927	1000	1000	799	682	846	6698
4	Norrie, A. J.	116 ASW-17		886	653	842	796	848	734	806	889	6454
5	Brisdney, F. G.	105 Discus		886	926	837	801	917	367	851	724	6309
6	Merritt, K. R.	112 Kestrel 19		1000	320	722	764	923	507	697	704	5837
7	Cousins, R.	106 ASW-20L		911	683	551	655	831	346	782	730	5489
8	Lincoln, A. K.	106 PIK 20e		248	801	437	732	878	775	578	872	5321
9	Murray, W. J.	108 Mosquito		307	703	484	600	876	665	644	933	5214
10	Watson, A. J.	106 Mosquito		821	696	853	45	800	665	0	899	4759
11	Hoolahan, J. B.	111 ASW-20L		812	659	436	403	714	333	604	786	4747
12	Brisbourne, R. P.	106 DG-200		774	588	526	681	804	0	590	636	4598
13	Randle, Jane	118 Nimbus 2		316	569	749	581	450	634	436	733	4468
14	Sampson, D.	110 DG-200/17c		800	315	517	148	761	561	422	688	4212
15	Collingwood, D.	112 Ventus 16.6										
	Partridge, R.			96	628	521	527	249	498	364	740	3625
16	Bryant, C. J. H.	108 Mosquito		275	302	436	0	228	534	251	702	2788

We are grateful to the scorers who sent us results, particularly to Tim Newport-Peace of Specialist Systems for all his excellent tables covering both the Nationals and many of the Regionals

* * *

DNF=did not fly; *=penalty

This classic gliding year stretches on. Mike Cuming was involved with the BGA wave soaring course during October at Portmoak and tells us that three gained Diamond heights and four Gold heights during the week. And Nick Leaton went from Bronze badge to 12hrs PI, completing his Gold badge and gaining Diamond height in eight days.

* * *

To commemorate the 50th anniversary of the Battle of Britain next year, the Guild of Aviation Artists are showing a collection of some 80 paintings at the RAF Museum's art gallery at Hendon from February 24 for four months.

Class B

Pos	Pilot	Sailplane H'cap	Day 1.15.7 105km⇄	Day 2.17.7 145km dog leg	Day 3.18.7 325km ▲	Day 4.19.7 190km dog leg	Day 5.20.7 190km dog leg	Day 6.21.7 110km⇄	Day 7.22.7 260km ▲	Day 8.23.7 170km ▲	Total Points
1	Jeffery, P.	101 Pegasus	788	933	992	1000	948	648	959	874	7142
2	Aldis, C.J.	101 LS-4	748	819	950	886	971	694	931	750	6750
3	Sampson, S	102 Discus	619	687	949	843	928	690	1000	791	6647
4	Langrick, D. J.	101 LS-4	647	656	954	848	983	708	972	814	6582
5	Eade, D. J.	101 LS-4	829	652	890	856	879	704	963	647	6411
6	Bromwich, R. C.	103 LS 4a	855	750	840	848	784	578	950	803	6408
7	Starling, R. T.	100 ASW-19	622	584	891	857	874	683	970	723	6204
8	Piggott, A. D.	97 Astir CS	708	870	931	833	1000	694	964	0	6000
9	Smithers, J.	102 Discus	586	590	855	794	879	600	738	700	5772
10	Jones, S. G.	104 Discus B	335	715	941	991	0	682	693	866	5223
11	Waldron, D. Connolly, J.	104 PIK 20e	94	638	839	638	850	301	807	611	4778
12	Matthews, R. E.	98 Std Cirrus	531	608	250	658	755	605	694	560	4661
13	Disdale, P. J.	94 Twin Astir 2	406	626	670	688	478	349	591	643	4451
14	Burry, Jill	103 DG-300 Club	621	494	144	572	806	529	248	700	4114
15	Elmer, J. P.	98 DG-101	666	481	434	44	736	263	637	606	3869
16	Meagher, Mary	101 Pegasus	703	494	701	289	278	0	722	668	3855
17	MacDonald, G. D. E.	97 Astir CS	381	624	806	606	460	352	0	608	3843
18	Harwood, H. K.	103 Pegasus	673	0	412	865	147	354	650	583	3684
19	Thomas, C.	97 Astir CS	0	87	426	386	0	0	50	108	1075
20	Preston, A. M.	104 PIK 20e	0	178	55	0	45	0	0	0	278

INTER-SERVICES REGIONALS – Roanne, France, July 27-August 4
Open Class

Pos	Pilot	Sailplane H'cap	Day 1.27.7 311.9km ▲	Day 2.28.7 232.2km ▲	Day 3.29.7 104.1km ▲	Day 4.1.8 314.4km ■	Day 5.2.8 513.5km ■	Day 6.3.8 252.2km⇄	Day 7.4.8 113.5km⇄	Total Points
1	Boydon, M. V.	128 Nimbus 3DT	904	856	466	1000	1000	879	601	5806
2	Batty, C. J.	106 ASW-20	952	958	467	*867	993	437	851	5525
3	Farmer, A. T.	108 Mini Nimbus	736	850	311	867	628	994	852	5238
4	Odell, J. H.	110 Vega 17L	809	997	110	723	875	980	694	5188
5	Foreman, M. C.	106 ASW-20	*480	1000	446	762	984	437	831	4960
6	Feakes, R.	126 ASH-25E	595	679	436	785	*839	1000	580	4914
7	Bishop, M.	108 Janus	755	921	0	734	922	868	614	4814
8	Mitchell, T. M.	104 Discus	1000	939	59	870	908	381	657	4814
9	Heames, C. V. J.	106 ASW-20	882	751	114	826	610	980	609	4772
10	Norman, L.	114 Ventus	614	806	289	696	560	988	786	4739
11	Arnall, R.	108 ASW-20	707	750	276	735	954	26	612	4060
12	Saundby, R. P.	104 Janus	645	693	0	737	589	381	468	3513
13	Barley, P. R.	104 Discus	730	120	59	817	624	775	0	3125
†14	de Jong, M. B.	100 DG-100	703	677	316	754	588	0	0	3038
15	Sherlock, C. C.	104 Discus	749	798	0	5	589	786	57	2984
16	Sullivan, J.	103 DG-300	586	494	0	584	414	399	0	2477
17	Lee, M. E.	108 Janus	9	612	0	14	465	573	604	2277
18	Conyers, P. B.	104 Discus	0	699	0	86	560	0	582	1927

†=Dutch national.

NORTHERN REGIONALS – Sutton Bank, July 29-
Open Class

Pos	Pilot	Sailplane H'cap	Day 1.29.7 146km⇄	Day 2.31.7 188km ▲	Day 3.1.8 197km ■	Day 4.2.8 198km⇄	Day 5.3.8 312km ▲	Day 6.4.8 171km ▲	Day 7.5.8 248km ▲	Total Points
1	Olender, S.	100 ASW-19	566	0	851	872	1000	828	833	4951
2	Ellis, J.	108 DG-400	433	22	1000	902	717	848	860	4783
3	Fox, R. L.	112 Ventus	583	13	761	321	655	328	788	4649
4	Murphy, T. J.	106 ASW-20	129	0	913	1000	661	789	1000	4492
5	Roberts, P.	110 DG-202/17	547	0	914	774	579	900	734	4448
6	Bromwich, R.	101 LS-4a	412	28	950	490	595	886	777	4138
7	Smith, M.	102 LS-7	0	6	105	928	733	1000	960	3732
8	Nash, S.	112 Ventus	529	83	815	954	578	640	0	3599
9	Jones, B. Griffiths, P.	101 LS-4	- 0	0 -	- 760	259 -	- 356	617 -	- 599	2591
10	Beardsley, C. E. Davis, K	101 LS-4	355 -	- 0	248 -	- 422	595 -	- 438	532 -	2590
11	Collingham, C. E.	106 ASW-20	19	0	505	641	331	545	481	2522
12	Aitken, P. M.	106 LS-3	0	0	214	365	418	642	690	2329
13	Mortimer, R.	112 Jantar 1	0	60	657	817	503	176	0	2213
14	Fairman, M. C. Marrow, T.	100 ASW-19	70 -	- 0	795 -	- 0	0 -	- 247	620 -	1732
15	Townsend, C. J. White, M. D.	112 Kestrel 19	- 187	25 -	- 635	720 -	0 0	0 0	0 0	1567
16	Ashworth, N. J.	112 Kestrel 19	116	0	94	531	350	190	181	1462

Sport Class

Pos	Pilot	Sailplane H'cap	Day 1.29.7 116km⇄	Day 2.1.8 142km ▲	Day 3.2.8 121km ▲	Day 4.3.8 178km ▲	Day 5.4.8 132km ▲	Day 6.5.8 136km ▲	Total Points
1	Brook, M.	100 SHK	224	749	904	891	1000	943	4711
2	Stott, B.	90 K-6e	266	497	857	916	817	974	4327
3	Spiring, A.	99 Jantar 2	32	500	966	1000	228	1000	3726
4	Claughton, N. I.	97 Astir	82	650	801	347	772	870	3522
5	Sear, D. Young, M.	94 K-23	0 -	604 -	- 869	707 -	- 561	- 256	2997
6	Rice, J. Bell, R.	76 K-13	0 -	804 -	690 -	900 -	518 -	0 -	2912
7	Turner, P. H.	82 Pirat	105	21	597	783	60	804	2370
8	Slater, S.	94 Dart 17	38	373	267	0	757	850	2285
9	Griffin, B.	78 Skylark 2	0	83	243	205	337	399	1247
10	Blake, M. P.	98 Std Cirrus	0	547	0	250	0	282	1072

ENSTONE REGIONALS – August 12-20
Open Class

Pos	Pilot	Sailplane H'cap	Day 1.12.8 155.2km ▲	Day 2.13.8 121.5km ▲	Day 3.14.8 194km ▲	Day 4.16.8 158.5km ■	Day 5.17.8 194km ■	Day 6.18.8 328km ■	Day 7.19.8 157km ▲	Day 8.20.8 159km ■	Total Points
1	Corbett, C. G.	111 ASW-20L	845	248	527	982	969	787	864	558	5780
2	Reed, J.	106 ASW-20	614	91	569	765	957	850	671	748	5465
3	Johnson, E. W.	112 Kestrel 19	100	51	423	1000	971	999	791	804	5135
4	Steiner, P. H.	115 Ventus CT	992	0	630	74	900	1000	601	861	5058
5	Gardner, T. R.	106 Mosquito B	745	417	376	774	749	730	772	482	5045
6	Cumner, G. M.	106 ASW-20	117	365	32	959	953	836	649	785	4696
7	Hutchings, A. R.	111 ASW-20L	804	384	*322	910	264	792	366	467	4309
8	Shannan, R. C.	109 LS-6a	164	87	411	767	1000	874	491	386	4180
9	Roberts, J. H. West, S.	106 Mosquito B	875 -	- *246	0 -	- 362	810 -	- 610	634 -	- 402	3939
10	Nash, S. R. Nash, Jane	112 Ventus B	824 -	- 84	552 -	- 308	667 -	- 724	286 -	- 384	3839
11	Reid, A. G.	106 Mosquito B	*368	266	*341	962	447	641	330	354	3697
12	Wright, D. T.	112 Kestrel 19	723	0	214	*6	583	582	393	408	2909
13	Maynard, V. H.	111 ASW-20L	101	85	308	716	815	*243	364	79	2509
14	Hogg, A. J.	130 ASW-22	782	57	DNF	DNF	DNF	DNF	DNF	DNF	839

Sport Class

Pos	Pilot	Sailplane H'cap	Day 1.12.8 134km ▲	Day 2.14.8 124.5km ▲	Day 3.16.8 147.5km ■	Day 4.17.8 162.5km	Day 5.18.8 328km ■	Day 6.19.8 157km ▲	Day 7.20.8 159km ■	Total Points
1	Cheetham, R. A.	101 DG-300	697	395	952	1000	974	967	731	5716
2	Craig, G. W.	100 Std Cirrus	645	491	871	943	902	832	775	5459
3	Hawkins, G. P.	100 Std Cirrus	767	*444	391	938	963	964	867	5334
4	Walker, P. B.	101 DG-300	653	476	879	*853	1000	828	368	5057
5	Gardner, D. H.	97 Astir CS	511	411	467	896	931	783	725	4724
6	Terry, C. J.	101 LS-4	451	DNF	127	932	914	1000	600	4024
7	Johnson, R. M.	100 SHK-1	*521	385	143	785	733	640	562	3769
8	Wilson, T. G.	84 K-6cr	397	*363	251	531	662	*696	363	3263
9	Roberts, S.	102 Discus	37	372	146	887	786	232	718	3178
10	Ranson, J. B.	101 DG-300	523	465	926	342	DNF	DNF	DNF	2256
11	Barry, J. R.	103 DG-300	542	*325	213	96	309	704	0	2189
12	Becker, P. G. Tapson, B.	84 K-6cr	147 -	- 0	261 -	- 204	52 -	- 171	449 -	1334
13	Waterhouse, P.	94 K-23	326	0	191	149	*0	204	421	1291
14	Harvey, R. F.	97 Astir CS	177	0	162	473	DNF	DNF	DNF	812

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