

SAILPLANE & GLIDING

December 1996-January 1997

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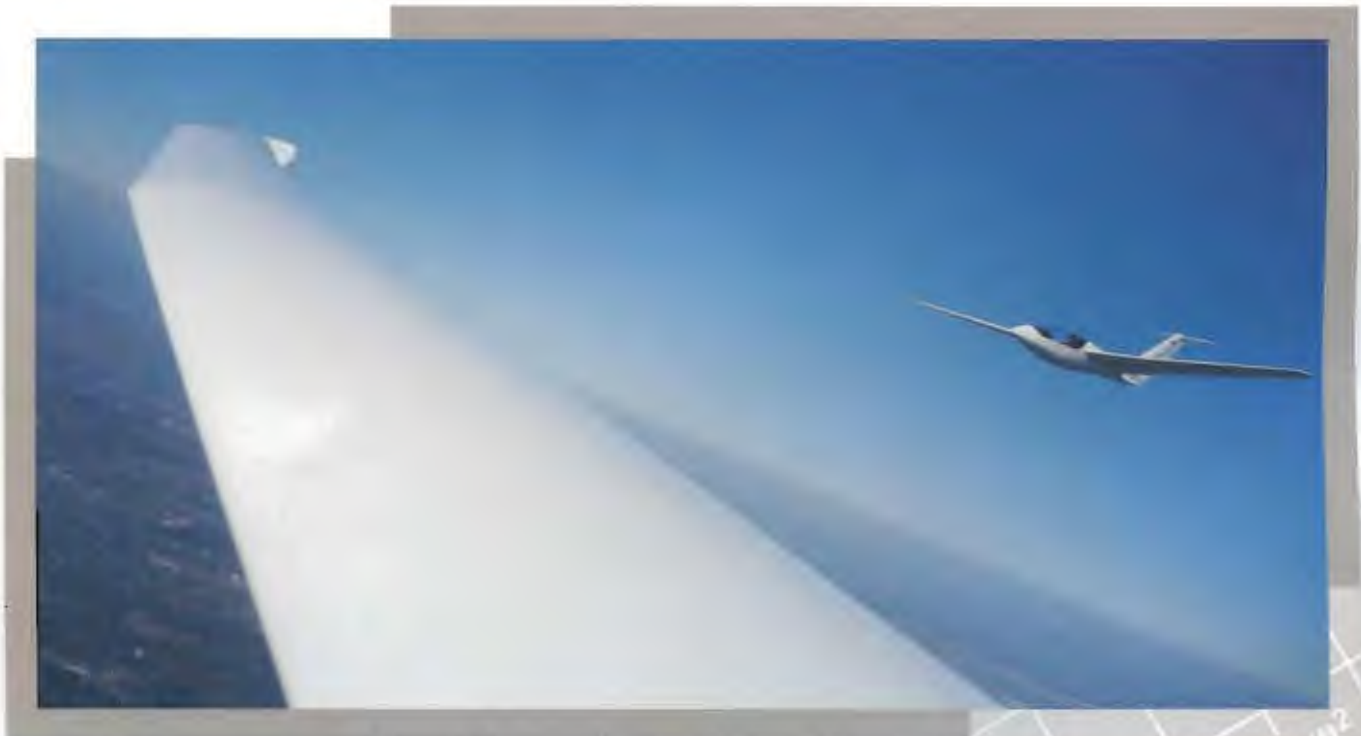
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Magazine of the
British Gliding Association

December 1996-January 1997
Volume XLVII No. 6

EDITOR

Gillian Bryce-Smith
281 Queen Edith's Way
Cambridge, CB1 4NH
Tel 01223 247725
Fax 01223 413793

ADVERTISING

Debbie Carr
BGA Office
Tel 0116 2531051
Fax 0116 2515939

SUBSCRIPTIONS

Bev Russell
BGA Office
Tel 0116 2531051
Fax 0116 2515939

MAGAZINE COMMITTEE CHAIRMAN

C. Pollard

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British Gliding Association
(Barry Rolfe, BGA Administrator)
Kimberley House
Vaughan Way, Leicester, LE1 4SE
Tel 0116 2531051
Fax No 0116 2515939

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Cover: Pete Stratton (Bicester CFI), flying the RAFGSA's Nimbus 30T with Derek Smith, CFI of Cleveland's GC, photographed LS-7 pilot Martin Durham in his balloon over Dishforth during the Cleveland's winter wave week.

SAILPLANE & GLIDING

YOUR LETTERS

D. H. Conway, M. Gee,
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S. Barber, C. J. Chapman

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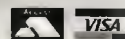
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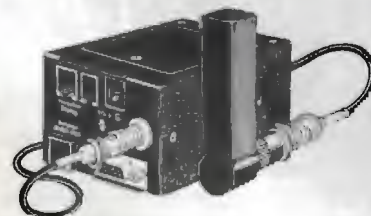




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YOUR LETTERS

WHO CARES FOR THE INSURED?

Dear Editor,

In May my partner had a serious accident in the French Alps from which, thankfully, he emerged unscathed, but our glider required extended intensive care!

The broker was notified and we arranged the helicopter recovery of the wreck from the mountain. On the return to England and given the extensive repairs required it was deposited with the manufacturers' sole UK agent at the end of May.

There then followed a round of 'phone calls, faxes and letters to arrange for an assessor to inspect and agree a course of action. Both partners made numerous calls to the broker, underwriter, loss adjuster and manufacturer's agent in attempts to get a decision on the repair or replacement questions. During this period I was "invited" to take the "wreck" around several non-accredited repairers to get a competitive quotation for the work which might be required.

Eventually, after much bullying and the kind efforts of the manufacturer's agent, written agreement was given at the end of July for repairs to commence.

By this time new aircraft deliveries, repairs and holidays, together with competitions, had been inserted into the factory programme. We now look to mid September for the glider's return.

Thus far we have received no help from our broker - what is his commission for? Nor have we seen evidence of urgency from assessor or underwriter - what are their salaries and my premium for?

Our broker was then surprised that we did not accept his quotation to renew insurance for 1996/97, which contained a 25% increase in premium and a further 30% penalty for flights outside the UK.

Am I alone in being frustrated and angry at this cavalier approach to customer care?
DOMINIC CONWAY, Malmesbury, Wilts
(Dominic's glider was ready on September 25.)

WORLD GLIDING CHAMPIONSHIPS

Dear Editor,

What madness led the IGC to agree to the 1997 Championships being held at St Auban? Is it only those pilots who fly in that region that know of the annual loss of life there, even in non-competitive flying?

Is the IGC unaware that in the last seven months alone 14 glider pilots have been killed there? Or is it simply accepted that mountain gliding is dangerous and that of course "you are bound to lose a few?"

Add to that the competitive element and what will be the result? How many is the IGC prepared to lose in the 1997 Championships? What would be an "acceptable" number for such a prestigious event? In the practice period in June, a very experienced Swiss pilot was killed and 14 gliders were damaged - and that was in only seven days' flying.

In August, on a day when the visibility could not have been better, a British instructor who has flown in the region every summer for the last nine years and the CFI of La Motte du Caire, together with his pupil, were killed when their gliders collided. How will things be in that

mountainous countryside when conditions are less good?

France is a huge country with many gliding sites in open regions. Why pick one in a notoriously risky area in the mountains? Other considerations apart, landing fields are few and far between and a good proportion are so tricky the locals say that reconnaissance on foot is essential. The latest of the 14 fatalities mentioned was apparently in an attempted field landing.

I ask the IGC now to arrange for the venue to be changed to a more open area. If, for some reason that is impossible, then I call upon them to postpone the Championships. The risk to the lives of the competitors and the happiness of their wives and children, parents and friends is not worth the candle. Moreover, what decent glider pilot could feel proud of having won a contest in which fellow competitors have died?

I beg IGC not to wait for unnecessary deaths before banning hazardous areas for future World Gliding Championships. Apart from the reasons already mentioned, there is the important question of the public perception of the sport - that will hardly be enhanced by fatalities resulting from irresponsible choices of venue.
MORAGH GEE, London

A SIMPLE AND POSITIVE CHECK

Dear Editor,

With reference to Plats' GPS error, east/west and banana-like fingers (see the last issue, p264): Certainly with the Garmin 55, having entered the GPS co-ordinates of the TPs, the simple procedure of carrying out a Nav Menu Trip Plan (making up a route can cause problems when one tries to erase or change these co-ordinates at a later date) and checking the bearings and distances between the entered co-ordinates against those on the task sheet immediately reveals if any errors have been made.

I have been surprised at a few recent competitions how few pilots bother to make this simple and very quick positive check.
JOHN HOSKINS, Andover, Hants

GROUNDLOOPING ETC

Dear Editor,

Before commenting on a derivative from his groundlooping accident, I offer sympathy to Phil Jarvis (last issue, p261). The rapid groundloop he describes no doubt came as a nasty shock and he is to be commended for writing about it for the benefit of others.

The letter was interesting for what it indicated: in a long gliding career it seems Phil could not remember having been told of a handling characteristic of a popular (tail heavy) design layout of glider. Since a letter to S&G may only be the tip of a larger iceberg, I am wondering just how many other pilots remain equally unaware and vulnerable.

There are few two-seaters with the same weight distribution and, since demonstration is likely to be as costly as the malady it attempts to cure, briefing for avoidance is to be preferred. Even at small clubs it is likely that some instructors frequently fly single-seaters which have such characteristics and so have appropriate experience to be able to brief converting

pilots about provoking groundloops.

Before rushing into print with a "discovery" it is useful to look at standard textbooks. In several (by Derek Piggott) I found extensive coverage of precisely what Phil describes.

Around a quarter of a century ago, type conversion to such machines was a real problem as few instructors got their hands on the (tail heavy) glass-fibre gliders and therefore hadn't the necessary experience to give a briefing. As a solution, Derek Piggott ran a short course for type conversion appreciation, employing the goodwill of glider agents who brought along their latest machines (and got useful PR). The approach to each type of glider was based on that of a test pilot. One noted and assessed handling factors such as tail skid or wheel and weight on it, ratio of span/fuselage length, size of fin, rudder and the ratio of the two and the length and breadth of the ailerons. One then deduced likely effects on handling, particularly the ground run (for which there is no time for adaptation on take-off).

This serves well, as I found out recently on an overseas trip when invited to fly a single-seater plastic type not seen in the UK - and no one at the club spoke English or either of my other two languages!

In conclusion, in the interests of reducing insurance claims, might Phil's experience be a manifestation of a gap in continuing training/checks which CFIs and club safety officers should address?

TONY GEE, Marlow, Bucks

JARGON AND THE ACRONYMS

Dear Editor,

In my life before gliding (LBG) when I worked for a living, I attended my fair share of meetings, lectures and seminars, and thus became quite conversant with all of the then current buzz words and in-phrases.

Buzz words? Oh, they are what you use when you want to say something in a different way, or to liven up the dialogue to keep the audience awake. Such as "at this moment in time" instead of "now", and "from here on in" in place of "in the future" - firm American favourites - productionisation, downsizing, etc.

And so it came as a bit of a shock when I took up gliding to find that I had a whole new set to learn, mostly initials and acronyms. Well, I studied each new S&G (there's one) assiduously and gradually worked out most of them - Global Positioning Systems, Notices to Airmen and so on, although I never could understand why the CFI (another one!) was not an *ab-initio*, because surely he has been "there from the beginning", (which for page three readers is what *ab-initio* means).

Finally I got down to OSTIV. Try as I might I could not work that one out and was reluctant to ask and thus show my ignorance, and then I bought the latest **Laws and Rules**, determined to read it from cover to cover so that I could become an OO (yet another!).

And there it was, had been all the time - Organisation Scientifique et Technique Internationale du Vol à Voile. Obvious. But, you ask, what is a Vol à Voile? Sounds like Popeye's girl friend to me.

BOB GIBSON, Claverdon, Warwicks

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DISASTROUS COURSE

Dear Editor

Several reasons for the decline in numbers in the gliding movement have already been put forward in S&G. I think I may have another.

Like the would-be glider pilot in the August issue, p221, I cannot devote enough time to fly regularly. So each year, being very rusty, I book an *ab-initio* course somewhere. This year it was an absolute disaster for various reasons, including the weather. I had a fair share of the flying - just four winch launches, including two cable breaks. However, it wasn't the lack of flying that upset me. It was that after a minimal refund, I reckon I paid over £100 for the flying element of the course. Naturally, I feel cheated and not inclined to return to that club.

I have been gliding (albeit irregularly) for too long now to give it up. But I know that the other course members (with no previous contact with gliding) also felt cheated and I fear they may well hold it against gliding in general and won't return. This was a shame for the club members. They were all very friendly and helpful and did their best in the circumstances. But the committee seemed to have a corporate grab-as-much-as-we-can attitude.

I have refrained from naming the club because I think it may not be the only one to run its business like this. Does your club fit the description? Is it also a bad ambassador for gliding?

STEVE BARBER, Winchester, Hants

TOST WEAK LINKS

Dear Editor,

Most weak link systems have one loaded and one unloaded shear element, which are designed to fail sequentially. If the loaded one fails at a low load due to previous stresses, old age, corrosion, a flaw, etc, the second element carries the full load and the launch can continue in safety. A genuine overload causes both elements to fail in quick succession. (See the last issue, p263.)

This is an important safety feature and it should be retained. A launch failure at an abnormally low load is more likely to result in an accident. There is some excess metal on the ends of the Tost link elements which have the round holes. If a small flat is filed on both ends of these elements, it is easy to check visually that an assembled weak link has the two different elements fitted.

May I suggest that the "BGA" recommend some interim method of checking for correct assembly which does not degrade our launch safety and also ask Tost to modify their links to provide an easy visual check, please? This would benefit everyone.

CHRIS CHAPMAN, Petworth, Sussex

We welcome your letters but please keep them as concise as possible and include your full name, address and tel number. We reserve the right to edit and select but point out that the views expressed in letters and articles are not necessarily those of the BGA.

BOOK REVIEW

Slingsby Sailplanes by Martin Simons, published at £39.95 by Airline Publishing.

This book is Martin's second major gliding work and fills a considerable gap, for Slingsby was unique in the UK in trading in glider production continuously for more than half a century from 1931 till 1982.

In one sense it is exactly that: not so much a history of the company and its founder as a comprehensive compilation of data on the types that saw production. Each is given good coverage with a 1/50th scale drawing (apart from the T-18 Hengist at 1/125th) with, attractively, the ply surfaces shown tinted; a boon to the radio control scale model builder.

There is a wealth of photographs throughout, many familiar, though even to this vintage glider buff many are hitherto unseen. There is much very readable narrative, but perhaps at times almost too much individual detail.

Apparent omissions are a formal history of the Slingsby company. I feel this would have provided a better introduction than what is really a potted history of our sport and the developmental design trends of the sailplanes within it.

There are other omissions; while Martin covers well every major type - of which almost 40 merit the full treatment - what of the balance, the projects that never made it? The Vega was the T-65, and mention of the other 25 or so would have been welcome.

A frontispiece of "Sling" would have brought pleasure to many who knew Fred Slingsby, as would have colour reproductions of the various famous SSK winged emblems, still seen on many airworthy survivors. A reference list of all types and, where applicable, production quantities would have been of value. Finally, there is no reference index at the back of the book.

Despite an odd font change, presumably on one side of a four-page set, affecting pages 224, 233, 244 and 253, this is a great work; let my comment not detract from Martin's tremendous effort. Martin is an acknowledged authority on his subject and you will find much to enjoy to deflect you from computer analysis of this season's flights; much excellent fireside reading!

For one who has flown over half of the types described, there is welcome space on my bookcase for this work, nor shall I miss the half-dozen or so winch launches it costs!

MICHAEL RUSSELL

UK 100 KM DIPLOMA

Due to an error not being corrected in the May 1996 issue of **Laws and Rules** the following change is being made to the rules for the UK 100km diploma. The flights for both part 1 and 2 may be flown as a triangle or an O/R. This is back dated to May 1996. The brown claim forms will be amended to agree with **Laws and Rules**.

In addition, from 1997 the flight may take place in Europe but must be under the control of a BGA official observer.

Basil Fairston, FAI badges officer

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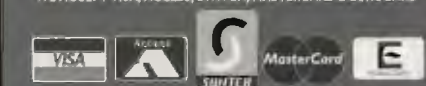
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It is a sad fact that glider pilots still lose control of their aircraft in cloud - sometimes with fatal results. The causes of these incidents and accidents are many. One probable contributory factor is lack of basic instrument flying training and lack of current skill in instrument flying. This lack of skill may be the sole cause of some accidents.

Instrument flying in gliders is a skill which requires an understanding of how a glider flies, how the controls function, the limitations of each particular glider and how the flight instruments work. It is also important to know what information is provided by each instrument and the limitations of these instruments. For a pilot to achieve and maintain the ability to fly safely and accurately on instruments demands structured training by qualified instructors and, most of all, regular practice.

I believe accurate instrument flying without a serviceable artificial horizon is extremely difficult. Flying on a limited panel (without an artificial horizon) should be of a limited duration and is best applied to getting out of cloud under control and as soon as possible. Without considerable training and experience, limited panel flying is very taxing and likely to lead to ragged flying at best and loss of control at worst.

Few club gliders have artificial horizons, so I will concentrate on discussing the instruments we do have. I recommend that everyone takes part in training before trying it solo. This will increase your flying skills and add an extra element of safety to gliding.

Accurate visual flying depends basically on attitude flying. We are all taught to visually select an aircraft attitude and then to cross-refer to our instruments to make fine adjustments to the attitude to achieve the required performance.

Trimming

Glider pilots usually have one trim control - in pitch. I know that a few pilots do not bother to use the elevator trim control regularly. If the aircraft is out of trim the pilot has to apply a pitch force to the stick to maintain the required attitude. This is undesirable for several reasons. The pilot is getting false feedback information from the right hand in that he may be applying a fairly constant push or full force to maintain an attitude. The pilot's body sensors may be recording a nose down push force being applied when the nose is not going down because the elevator trim and the stick are being used in opposition.

You may not be aware of this incorrect tactile feedback while you are flying with an external visual reference. Your brain is programmed to recognise, and react to, strong visual stimuli, and does so every second of your life, while your eyes are open. You lose all valid external visual reference as soon as you enter cloud.

Your brain tries to unravel the weak and unfamiliar signals being passed by your other sensors. It confuses things even more if your aircraft is out of trim and is thus providing false feedback information through the controls to your body. A simple demonstration of visual balance reference is to stand on one leg with your arms outstretched in front of your body. It's easy to maintain your balance...if you're sober. Now close your eyes, and keep them closed. Not quite so easy, is it?

A Sideways Look at - INSTRUMENT FLYING IN GLIDERS

John, a flying instructor for many years, says he has written this article to provoke thought and discussion at all levels of the gliding community and they are entirely his own views

I recommend that you get into the habit of always flying the aircraft in trim. If you do this during visual flying it becomes automatic to do it during instrument flying and will make instrument flying easier, smoother and safer.

On the subject of body feedback, it is very easy to get false feedback information from your eyes, ears and body mass while flying on instruments. You need to learn to concentrate on what the instruments are telling you, believe them and ignore cues from your own balance mechanisms. Humans were not designed to fly in clouds.

A look at instruments

Now we will look at some instruments and discuss the kind of information they can give us and how we can apply that information to accurate and safe instrument flying. Just as our flying controls each have a primary and secondary effect so our instruments each present us with direct and indirect information.

The airspeed indicator takes information from the pitot and static systems and gives a direct indication of indicated airspeed. The ASI can be usefully marked to remind the pilot of the min sink speed, the rough air limitation and the VNE for that particular glider. The instrument gives an indirect indication of pitch attitude. If the airspeed is increasing the nose is below the required pitch angle and if the airspeed is decreasing then the nose is higher than the required attitude. This applies whether the wings are level or not and whether the glider is upright or inverted. The indirect pitch information provided by the ASI is particularly useful, indeed vital, when recovering on instruments from steep pitch attitudes. I will cover this later, when talking about instrument recovery from excursions in pitch.

The altimeter gives a direct indication of attitude, related to the datum selected. If you set the airfield QFE then the altimeter only shows the altitude in relation to that airfield datum. It does not show your altitude above terrain or above sea level. If you set the correct regional QNH then the altimeter shows the altitude above mean sea level for that altimeter setting region for the period during which the setting is valid. Setting QNH allows you to use your charts to calculate your terrain clearance, but does not guarantee your safety height... which is some-

thing else again.

The altimeter can also give you an indirect indication of pitch, but this is of no great use to glider pilots. If you are in strong lift then the pitch attitude may be well below the horizon while the altimeter is happily winding upwards. Conversely, you may have the glider in the min sink attitude while descending like a brick-built outhouse. So, glider altimeters are not much use as pitch indicators unless the pitch attitudes are particularly steep.

The compass fitted in many gliders is totally useless for instrument flying. Theoretically, a compass will give you direct indications of compass heading and indirect indications of bank and yaw. Most glider compasses may give you some indication of heading while the wings are level in unaccelerated flight, but are unlikely to provide other than confusing information in cloud. Most glider compasses have probably not been swung in living memory, so are totally inaccurate and best ignored. Those who have proper glider compasses which are regularly swung and adjusted are pilots who probably do not need to read further.

The T&S (or needle and ball) is, along with the ASI, our basic instrument for glider flying in cloud. If you learn how to use the T&S in conjunction with the ASI then you have the ability, with constant practice, to maintain control of the glider in cloud. The turn needle provides direct indications of the direction and rate of turn. It provides indirect indication of bank and yaw.

Beginners at instrument flying usually tend to over control, and end up thrashing the stick around the cockpit in a frantic and unsuccessful attempt to catch up with the instruments. The key to smooth and early corrections is to scan the instruments continuously in an orderly pattern and to make constant small corrections before large corrections are demanded. Trimming the aircraft accurately at the desired speed will assist smooth flying.

There used to be controversy among flying instructors as to whether or not to trim out the stick loads in a turn. The purpose of cloud flying in a glider is usually to use the strong thermal lift often found in cloud. This will involve a normal thermalling turn on instruments so, hopefully, you will be in a more or less continuous turn once you have found the lift. It is usual to be established in a thermal before you enter the cloud-base so there is no reason, in my opinion, not to

be nicely trimmed out before you even enter cloud.

Getting back to the T&S, the turn needle shows you the direction and the rate of turn which is measured in degrees per second. The instruments we use are mostly designed for powered aircraft and modified for glider use. The first division out from the central position on the T&S indicates a Rate 1 turn which, by powered aircraft definition, is a rate of turn of 3°/sec. This means that a steady and constant Rate 1 turn in a powered aircraft will take 60sec to turn through 180° and 2min to turn through 360°. The second mark outwards from the centre is a Rate 2 turn of 6°/sec and the outer mark is a Rate 3 turn of 9°/sec. Gliders fly around much smaller diameter circles than most powered aircraft and they generate much higher rates of turn. T&S instruments to be used in gliders should be modified (by fitting a stiffer rate spring) so that at 2/3 scale deflection, which is a Rate 2, the glider is turning through 360° in 20sec. This is 18°/sec or three complete 360° turns/min. A glider Rate 1 indication will occur at 9°/sec, three times the powered aircraft rate.

It may be worth mentioning that the ex-powered aircraft instruments often used in gliders are usually designed to operate from a 24v dc supply. If we run them off 12v dc the gyro will not reach full speed and will be less rigid than it is designed to be and thus inaccurate and unreliable. The easy way to overcome this problem is to fit a small transistorised voltage doubler to the back of the T&S which increases the nominal 12v dc supply to a nominal 24v dc instrument supply. These doublers cost less than £20 and are easy to fit.

I would not recommend rates of turn in cloud of more than Rate 1 until proficiency is gained. Thermals in cloud are generally stronger and wider than those in the unsaturated air below that cloud, so steep turns are not usually required anyway.

The ball gives a direct indication of balance and is the instrument equivalent of the yaw string. It is necessary to keep the ball centred to maintain balanced flight. If the ball is out to the right ease it back to the centre with gentle application of right rudder. You can visualise this as pushing the ball back to the centre with the appropriate foot.

The way to visualise the control of the turn needle is to imagine that the needle is attached to the stick by a soggy piece of elastic. If the turn needle is too far to the left, move the stick to the right and then move it back towards the centre as soon as the needle **starts** to correct. The turn needle always lags behind the control input. It needs concentration and regular practice to maintain a smooth and accurate turn on a T&S.

The vario gives a direct indication of the rate of climb or descent and can give an indirect indication of pitch attitude, but this indirect indication is not of any use while instrument flying in cloud.

Flying in cloud on instruments

I will round this off by covering briefly the technique used to control a glider while flying in cloud on instruments, and then cover loss of control in

cloud and the recovery.

It is essential to ignore visual clues while instrument flying. It is also important to realise that your ears and body mass will feed you false information at every opportunity. A simple demonstration of false feedback is to get students to establish a medium rate of turn in visual flight, then ask them to close their eyes as you take control and ease the rate of turn. They will be convinced that you have reversed the turn (too many of these experiments on the inexperienced may induce an unplanned demonstration by the student of a technicolour yawn).

By scanning your instruments in an organised and familiar pattern you will be able to gather all the information you need. Don't be tempted to look out of the cockpit at a sudden flash of sunlight (or lightning!). **Keep your head still.** By keeping your head still you can minimise false balance information being fed from the semi-circular canals of your ears.

Do not fly with a cold or with blocked sinuses. Besides risking painful otitic barotrauma you also risk the most fearful attack of the "leans" when you will lose all sense of "up". If you are going to use oxygen, then get it all fitted, checked and working **before** you enter cloud. By the way, never wear lip salve (or lipstick, ladies) when using oxygen. It could cause an explosion in the mask which would ruin your whole day.

Without an artificial horizon your primary flight instruments in cloud are needle, ball and airspeed. You may find it helpful to mumble "needle, ball and airspeed" to yourself to aid your scan and concentration. The vario and altimeter will, hopefully, be showing a healthy rate of climb. If not, you need to be somewhere else and should level your wing or at least reduce your rate of turn. You can't see where the lift is likely to be, so you have to feel for it in cloud, without taking your eyes off the instruments.

Remember what I said about trimming the aircraft at the required speed before you enter cloud? Let's assume that you are going to fly at 45kt in a Rate 1 turn in cloud. You control the turn (angle of bank) by reference to the turn needle and to the ball. You control the pitch and airspeed by reference to the ASI. Needle, ball and airspeed.

It will make instrument flying a lot easier if you understand the **roll/pitch** inter-relationship. You already know, from visual flying, that as you steepen the angle of bank in a turn it is necessary to apply increasing amounts of up elevator. Conversely, as you reduce the angle of bank coming out of a turn it is necessary to reduce the amount of up elevator being applied. The same rules apply while flying on instruments. Initially, you will find it difficult to co-ordinate pitch and roll corrections while turning on instruments. The following technique will make it much easier to fly accurately and safely on instruments.

If the airspeed in the turn begins to increase then ease off slightly on the **bank** and then correct the pitch. If the airspeed begins to fall then increase the **bank** slightly and then correct the pitch. This technique may sound odd at first, but it works and is the correct way to go about flying a controlled turn on instruments. Remember the lag in the turn needle. Make small, smooth corrections as soon as the needle begins to move from where you want it to be. Don't allow your-

self to become mesmerised by one instrument. Needle, ball and airspeed.

Loss of control and the recovery

Finally, what to do when it gets away from you and there is no safety pilot in the other seat to sort it out for you? There are two basic situations which need to be recognised, differentiated and corrected. The first is a spin, possibly off a thermal turn, in cloud. In my opinion, a spin is unlikely, especially if you keep the ball in the middle and don't thrash the controls about while allowing your speed to decay.

The usual indications of a spin are a low, and possibly fluctuating indicated airspeed, rapid uncontrolled rotation as the glider goes into auto rotation, the needle and ball both probably fully displaced from the centre, and a high rate of descent. Safe spin recovery on instruments is an advanced skill and the majority of glider pilots are unlikely to have the experience or currency in instrument flying to be able to recover to straight and level flight in cloud.

Even if you do manage to stop the spin while in cloud there is a good chance that you will exceed VNE soon afterwards and end up with the glider coming apart around you. I suggest that if you have lost control in cloud and think the aircraft is spinning, your first action should be to **open the airbrakes**. Secondly let go of the controls, relax on the pedals and watch the airspeed. If the airspeed begins to rise smoothly you are no longer spinning. Wait until you are clear of cloud and then recover. You do know the forecast cloudbase, you do know the terrain height below you and you have got the correct QNH set on your altimeter, haven't you? Spinning or diving out of cloud with airbrakes open will allow you to recover visually, assuming there is enough height remaining and you have kept up to date on your visual spin recovery practice. (You can tell if your spin is inverted because the dust will be coming out of your collar.)

The more likely situation, and the more critical, is loss of control leading to a spiral dive in cloud. In a spiral dive your airspeed will increase very rapidly. You can experience high rates of turn without excessive yaw, you may suffer increasing *g* force and, **finally**, you can easily exceed VNE and induce structural failure of the aircraft. The more slippery your glider is, the faster it all happens.

Remember that clouds are often turbulent and you have no visual warning before you hit heavy turbulence in cloud. You should never fly beyond your maximum rough airspeed in cloud. Early in your cloud flying you would be wise to set yourself a personal maximum cloud speed (below max rough airspeed!) and never let your speed increase beyond the chosen figure without immediate and positive, pre-planned, action.

Let's say you are in a sedate glider and aim to climb in cloud at 45kt. You have noted the max rough airspeed to be 71kt and set your personal maximum cloud speed at 65kt. For some reason the nose drops in a turn and the speed increases. You do not react quickly enough to stop the airspeed getting to 65kt. **Get your airbrakes out now.** You are entering a spiral dive and you **must** control the speed. Having got the airbrakes out you can set about returning to controlled, ➤

level flight. The first thing to do is to stop the turn by getting the wings level. Resist the instinct to pull back on the pole in a futile attempt to control the airspeed. That's the way to pull the wings off, especially at high speed in turbulent air. Get the turn needle into the middle and keep it there.

Remember that this needle is connected to the stick by a piece of soggy elastic. As soon as the turn needle begins to move towards the centre, that's the time to start to move the stick back towards the central position. You can make fine adjustments later. Your first and immediate aim is to get the aircraft back under control.

As you reduce the angle of bank the nose will start to come up on its own accord, because the glider is trimmed to 45kt. As soon as the airspeed **stops increasing** the nose is close to the horizon. Hold that attitude with a slight forwards pressure on the stick and, as the speed drops below your decided max cloud speed (65kt), select airbrakes in. There will probably be a transient trim change as the airbrakes move.

Concentrate on making fine adjustments to your instrument flying. Fly quietly out of cloud with your wings level and your airspeed pegged. It is vital not to concentrate your whole attention on one instrument. Keep your scan of "Needle, ball and airspeed" going all the time.

Don't try to hide the fact that the glider got away from you while you were solo in cloud. See your instructor, discuss what happened and have a few dual rides. This will re-establish your confidence and improve your skills.

Cloud flying is not dangerous if you have been trained and keep yourself in regular practice. Have a regular flight with an instructor or nominated safety pilot.

This is nothing more than a **Sideways Look** at instrument flying in gliders aimed at provoking discussion and thought (or vice versa!). It certainly does not equip anyone to go off into cloud and give it a try. Ground and air training are essential for safe instrument flying.

"He who teaches himself instrument flying has a fool for an instructor." ☑

SAFETY ADVICE -

Failed Aerotow

- You should expect a failure/cable break on **every** launch.
- Keep your hand near the release. Watch for wing drop. If it does, **release**.
- Problems may arise at the start of the launch due to PIO (pilot induced oscillations), especially if the glider is flown on to the ground. **Relax**.
- Throughout the first few hundred feet of the launch always keep aware of landing options.
- The main risk is trying to get back to the airfield. It is safer to make a controlled arrival into a field ahead than risk low turns, catching a wingtip, stalling or spinning.
- The risk for the tug pilot is from the glider rising rapidly upwards, especially if the glider has a C of G hook.
- The glider must release immediately an uncontrolled upward movement starts or on losing sight of the tug.

BILL SCULL

TAIL FEATHERS

All shall be revealed - or shall it?

Some Comp officials seem to believe that we should ask contestants' permission before making their GPS logger traces public in any way, for instance in a "Maggot Race". That is where a computer replays the entire race on a three-dimensional display, which can be viewed either on a computer monitor or on a big screen.

As a very unhumble competition director, I don't see why we should grovel about, craving their highnesses' indulgence. The smack of firm government is needed. I'm all for saying that an advance condition of entering the contest is that such traces can be used by the organising club or association in any way they like except on Internet pornography sites. However there are two possible objections to the full availability of such info, from the bottom and top ends of the soaring spectrum respectively.

Publish and be humiliated



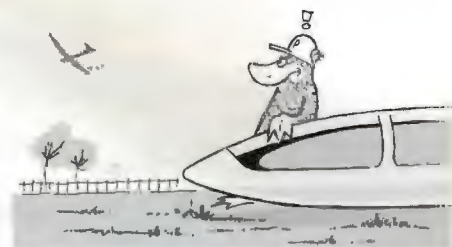
Total loss of face.

First, the coarse pilots like myself are concerned about the opportunities for total loss of face, or worse:

"Heavens, didn't you just waste a load of time by the second TP? Hey, fellas, come and see how Plat snatches defeat from the jaws of victory! I always wondered what your secret was; I thought you did it by flying backwards, but you do it by circling in sink (look, only 500 metres there's Justin going up at 6kt) and then coming out of every thermal 90° off track. And by the way, you've drifted 250 metres inside *verboden* airspace. What's it worth for me not to ring up Heathrow and blow the whistle on you?"

This has already happened to me, so I'm not inventing a word. At the opposite end of the scale the top pilots may not wish their moves to be analysed at leisure, so that inferior aviators can imitate their methods.

They should have little fear of giving away profound secrets of soaring technique. I have flown in Januses and ASH-25s with many of the best pilots and have been greatly impressed but not



Not to the point of being a serious threat.

much improved by the experience, at least not to the point of being a serious threat to any champion.

Cad's comeuppance

However at the level of international contests you might pick up some tactical points, especially when the computer zooms into the fine, close-up detail that technology already makes possible:

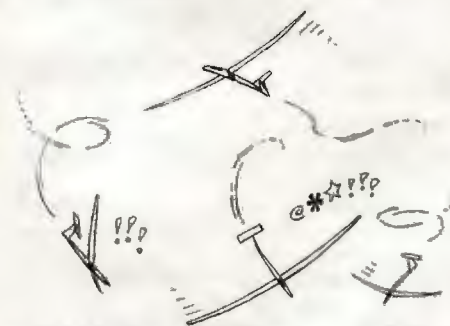
"Look at the way that de Snufflebum *never* leaves a gaggle first! Watch how he demoralises Vermicelli by lurking in his blind spot, at the same time balking Boggmeister's entry into the thermal, and now pulling up so as to make Yakamuchi spin out of the lift, scattering half a dozen other competitors. It's truly outstanding. He's gained 100pts with a few flicks of the wrist..."

However you don't need GPS to know that such tactics are what some people are very good at, so not much is added to human knowledge by replaying it all on screen. It would be different if some effective penalties were entailed by using GPS data. Somebody at a recent Nationals suggested we should develop GPS analysis sub-routines to measure ungentlemanly conduct scientifically (assuming you could define it). For instance, at each morning's prizegiving we could hand out the "Bloodsucker of the day" award. This could be in the form of a live leech in a bottle - they make great pets apparently, they get really attached to you - to be presented, with high ceremony and ribald applause, to the guy whom the computer shows most consistently to have allowed others to take all the risks.

Come back, Official Secrets Act, all is forgiven.

What am I talking about? That's a really lousy idea. On mature consideration, it is far better to keep this dangerous and potentially embarrassing data under wraps for 30 years, or even longer.

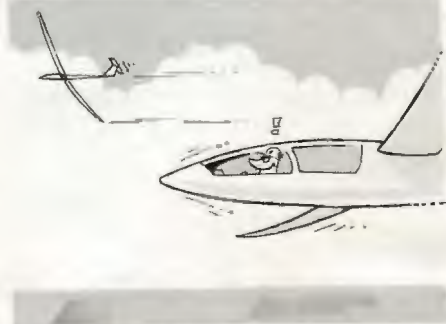
That's the British way, after all.



Scattering half a dozen other competitors.

If you can't beat them...

In the last edition, p264, I whinged about the handicapping system, and the hard time it gives to pilots with more span than talent. I outlined the principles of an alternative system that would put the small gliders back where they belong. However, having little faith that such a complex and sophisticated system would appeal to the Star Chamber that adjudicates without appeal on handicaps, I have decided on an extreme



More span than talent.

move and have bought a share of a T-21, which is identical to the machine - if it is not the actual one - in which I used to practise heavy landings as an Air Cadet in 1950. It's just a tiny share - I calculate that I am the owner of most of the washout on the starboard wing.

"**Proud owner**" is what you were expecting me to write; come on, admit it. Editors may exhort their journalists to avoid clichés like the plague,

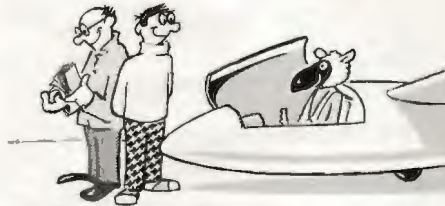


I used to practise heavy landings.

but readers don't mind clichés; they're like comfortable old shoes. All owners - well, all fairly new owners, anyway - are invariably known to be **proud**, just as all auctions are **Dutch** (which of course is wrong), all ends are **bitter**, all repairs are **running** (wrong again), all babies are **bouncing** and all headaches are **splitting**. For a change (don't you mean **refreshing** change? Ed) why don't gliding magazines describe the grinning (shouldn't that be **sheepishly** grinning? Ed) pilots sitting in shiny sailplanes variously as "soon-to-be-divorced owner", "still-to-decide-what-his-new-partners-are-really-like owner" or "blithely-unaware-of-the-vicious-stall-and-spin-characteristics owner"?

Dragging ourselves into the 21st century

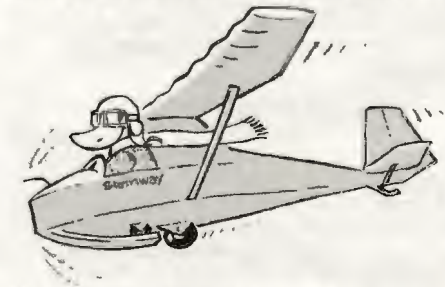
With a handicap of only 56 and some more than 7000ft cloudbases (foreign readers should understand that ordinarily we are happy with half of that in Britain, but our weather has been extraordinary in the past two years) and inspired by the great flights performed in Tutors, Cadets and T-31s, I plan a serious assault on the



Sheepishly grinning.

National Ladder in 1997. You have been warned.

In the meantime there are one or two problems. My Soar Minden hat blew away at 4000ft and I discovered that it is damned cold up there without headgear. So a Snoopy helmet and goggles are needed (**urgently** needed? Ed). There is also a long (**agonisingly** long? Ed) interval between the red ball of the Cosim - ask grandad what a Cosim variometer is - hitting the bottom of its tube and the green ball getting off its backside and creeping upwards. The suggestion that we might improve the T-21 with the 1987 Cambridge vario from my ASW-22 has met with a stunned reaction. I can see a new Bateman cartoon "The man who brought a Minimoa to a



Helmet and goggles are needed.

Vintage Glider Club rally equipped with a Peschges VP3" in which the hair of all the old geezers in their plus-fours and Norfolk jackets is standing on end with shock and indignation.

Wired for sound

It seems that there is a solution. Rather than deface his antique mahogany instrument panel with modern electrics, and so as not to attract adverse comment from the purists, a distinguished VGC member tells me that he takes to the air with a tiny hang glider audio vario in his pocket. In that case I shall have no compunction in stuffing parts of the Cambridge into my Snoopy helmet and running wires and batteries



Wires and batteries.

unobtrusively around the ample clothes that are required at great altitudes in open gliders. If it is true that Kronfeld smuggled a variometer into the Wien in the guise of sandwiches and a flask of coffee, then the ghost of that pioneer will be saying "Attaboy!"

Fenton's Last Flight

The concentration on the consultant's face told its own story. Fenton had first felt the twinges of stomach cramp whilst unwinding in the clubhouse after a particularly long cross-country. A lifetime of heavy smoking, an addiction to strong coffee and a fondness for the amber nectar had evidently taken their toll. But surely there was some mistake? Apart from the odd hangover and occasional headache, he felt fine. No mistake - six months if he was careful and a good deal less if he was not.

In the clubhouse bar, after a breakfast of eggs and bacon, a good Havana and strong coffee, he contemplated what was left of his future. His early life in the East End of London had encompassed the blitz, half a dozen children's homes and a host of dead end jobs. He had survived by not taking things very seriously, that is until he discovered gliding after a trial lesson far from the big city. He was so transformed his foreman wondered whether he had discovered religion.

Fenton had at last found something he was good at and now it was all coming to an end. But perhaps there was some time still remaining - a last cross-country, a final statement, a flight of a lifetime?

His entry into the TMA wasn't picked up on radar. Perhaps he was flying too slowly or his profile was too stealth-like to be detectable. The playground of his youth lay stretched out beneath him. He felt so euphoric and alive it was difficult to believe his days were numbered. But as he recalled that last visit to the hospital, he coughed violently on the cigar clamped firmly between his teeth, removed it briefly and took a sip from a bottle of single malt whiskey.

Tower Bridge came into view at about the same time as the police helicopter. The drone of its engine scarcely registered on his consciousness as it manoeuvred to attract his attention. A few deft movements on the controls brought a proximity which a member of the Red Arrows would have found unnerving. He was alone again and the scene below was dotted with familiar landmarks. He always had a sense of pride in being a Londoner but had never had a chance to visit Buckingham Palace.

By now he was flying on a mixture of will power and pure instinct. Straight down the Mall, a right hand turn over Admiralty Arch and a downwind leg above Birdcage Walk was just enough to give him a diagonal run across the Palace gardens.

A couple of Welsh corgies found him, half buried among the thickets at the Hyde Park end. The cigar had fallen from his lips and the cockpit was filled with an atmosphere which could only be described as spiritual. There was a seraphic smile on his face and he was as unaware of their presence as he was of the letter lying on his doormat. "The Hospital Management Committee wishes to inform you that owing to an error in the magnetic resonance imaging equipment...your legal rights will be fully explained..."

WINTER STORMS

This is the season for tying down trailers and caravans because, as Tom says, while ordinary gales can occur at any time of the year, damaging storms are mostly confined to the winter months

The number of winter storms varies greatly. There were relatively few from 1976 to 1983 but January to March 1990 was one of the windiest spells on record and there were a number of storms in the winter of 1992-93. The Building Research Establishment (which assesses damage to houses) reckoned that there has been an average of 1.4 damaging storms each year since 1962 but the number has fluctuated between zero and seven.

Monthly frequency of stormy days

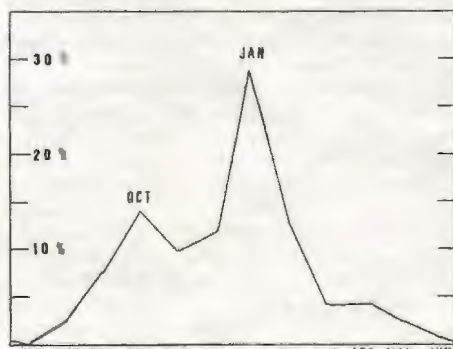


Fig 1. Monthly frequency of storms in the UK (shown as percentages).

Fig 1 shows a monthly plot of stormy days over the last thirty years. The number is very low through the late spring and summer months but starts to rise in September and October. There is a dip in November which is typically the month for foggy anticyclones. Then the rise continues through December to reach a peak in January.

Most gales occur in the north and west

Scotland and the west of Ireland get most of the stormy days and exposed areas like the outer isles are swept clear of trees. Over low ground the highest gusts rarely exceed 100kts but Fraserburgh had a peak gust of 123kts on February 13, 1989. High up in the Cairngorms

the winds have reached 149kts. The Scots have learned to live with storms. South-east England suffers badly on the rare occasions when storms arrive. A wind speed which causes havoc in the south-east of England is just a temporary nuisance to the Shetlanders.

Damaging lows

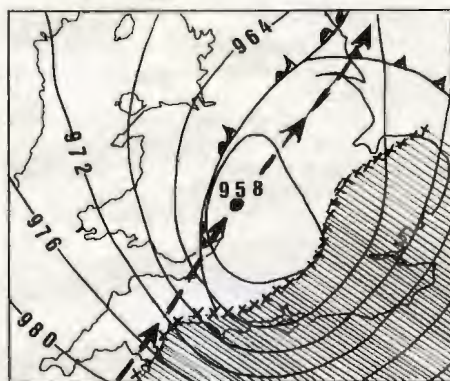


Fig 2. Strongest winds in relation to the track of a fast moving low. Chart for 0400 GMT, October 16, 1987. Wind damage areas are shaded.

It takes an unusually intense low to bring storm force winds inland. When such a low moves rapidly across the country the most severe winds occur on the right hand side of the track. The maximum gusts are often along squall lines near the cold front. Fig 2 shows the area of damaging winds in the last great storm to hit the south-east of England in October 1987.

Development of storms

Most depressions which form outside the tropics start as small waves on the polar front. This is the boundary between warm air from sub-tropical regions and cold air from polar regions. The low deepens most when there is a large contrast of temperature between the two airmasses.

The deepening starts when a trough in the high level airflow arrives over the front. The process works best when there is a lot of moisture in the warm air. This is because when moist air is lifted the condensation releases latent heat. The extra energy helps to deepen the low and increase the windspeed.

Occasionally the finishing touch is given when two originally separate lows merge; the combined system then deepens so explosively that the Americans call it a "bomb".

Jet streams

The position, strength and shape of the jet stream controls the depression. A jet stream is a band of very strong upper winds produced by the contrast of temperature between warm and cold airmasses. Most jet streams are located on the cold side of the surface front and blow approximately parallel to it. The maximum winds are just below the tropopause at levels around 35 000ft.

Jets are strongest in winter

The strongest jets develop in winter when the polar regions are in perpetual darkness and be-

come very cold. When this frigid polar air is moved close to the warm tropical air the jet becomes very strong. The highest speed observed so far is about 270kts. When the sunshine returns to polar regions the temperature contrast is reduced so jet streams weaken as summer approaches.

Changes of jet speed affect pressure

The wind velocity is not constant in a jet stream. The air slows down to round a trough and speeds up at the crest of a ridge. When billions of tons of air are rushing along at well over 100kts any speed changes aloft cause pressure changes right down to the surface. Where the jet accelerates after rounding a trough it draws up air and forms a surface low. When it decelerates it dumps air to build a high. A powerful jet stream can produce both deep lows and big highs.

Pressure gradients are strongest in winter

The contrast in surface pressure is greatest in winter when the jets are strong. This is why so many storms occur in January. There can be a difference of 100mbar between an Icelandic low and an Azores high. The highest MSL pressure ever recorded was 1083mbar at Agata in Siberia on December 31, 1968, but such extreme values do not occur in the Atlantic. The Azores high seldom builds much above 1040mbar. The lowest pressure recorded in the North Atlantic was 912mbar between Scotland and Iceland on January 10, 1993. A particularly powerful jet stream (240kts at 35 000ft) helped to intensify this low.

Storm damage

Isolated wind measurements do not always show how damaging a storm was. The Forestry Commission counts the number of trees blown down and the Building Research Establishment assesses the damage to houses. Since 1962 an average of a quarter of a million buildings have been damaged by high winds every year. In exceptional storms the number has risen to one million.

There have been three exceptionally damaging storms in the last 20 years, these were:

- (A) January 2-3, 1976.
- (B) October 15-16, 1987.
- (C) January 25, 1990.

The three big storms

(A) January 2-3, 1976 - an intense low crossed Scotland deepening to 962mbar over the eastern North Sea. Lowther Hill (727ft) reported 116kts, Middlesbrough had 99kts and Wittering reported 91kts. After the centre had passed the winds veered north-westerly producing a storm surge which flooded part of the East coast and went on to affect Holland and Germany. Traffic was disrupted all over Europe.

(B) October 15-16, 1987 - this storm originally had two centres. It approached across the Bay of Biscay where the two centres merged and then deepened to 953mbar between Cornwall and Brittany at 0000 GMT on the 16th. This was

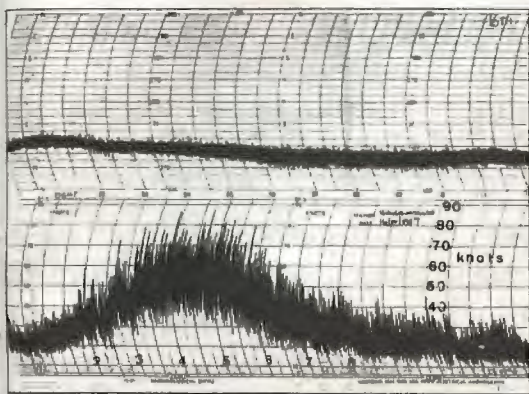


Fig 3. Anemometer trace from Shoeburyness on October 16, 1987. Reproduced by courtesy of Weather

the deepest October depression to cross England for at least 150 years. It tracked across the Midlands to reach the North Sea at 0600. (See Figs 2 and 6.)

The strongest winds were in Brittany. It reached 119kts at Pointe du Raz (48.02N 04.44W) and 117kts at Pointe du Roc (48.51N 01.37W). About 20% of the forests in Brittany were destroyed. At Shoreham by Sea the wind reached 100kts. Twenty-seven aircraft were damaged at Shoreham alone (most were write-offs). Other aircraft were damaged at Biggin Hill, Southend, Brighton and Margate. More than 100 flights were cancelled from Heathrow and Gatwick. Fig 3 shows the anemograph trace for Shoeburyness. Several records were spoilt by power failures or anemometer damage.

Storm damage

About fifteen million trees were blown down in SE England during the October storm, probably because they were still in leaf. The fallen trees damaged many houses and brought down electricity and telephone lines. Many places were blacked out for hours; some had no power for days. Roads and railways were blocked, schools were closed and the stock exchange never opened. Eighteen deaths were reported;

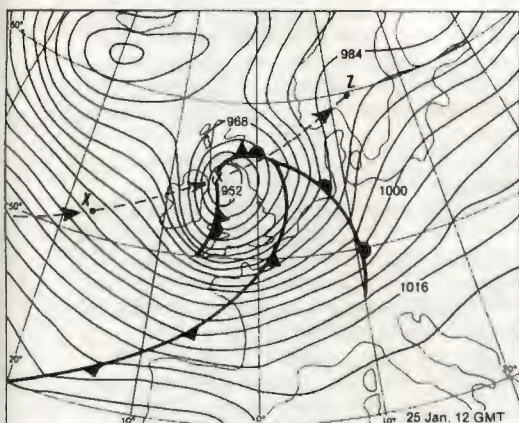


Fig 4. Chart for 1200 GMT on January 25, 1990, showing track of centre (pecked line). "X" marks the centre 12hrs before; "Z" marks the centre 24hrs later. Reproduced by courtesy of Weather.

there might have been many more if the storm had struck during the day.

(C) January 25, 1990 - this storm started as a shallow area of low pressure off the east coast of the USA on January 23. A double frontal system gave it a strong temperature contrast. By 0000 GMT on the 24th it was south-east of Newfoundland with a pressure of 1005mbar. It began to develop under a jet stream of 180kts. The surface low sped across the Atlantic at 50kts deepening 40mbar in a day and reaching 949mbar east of Edinburgh.

Most of England and Wales had storm force winds and Aberporth reported a gust of 93kts. Records were broken at many airfields over cen-

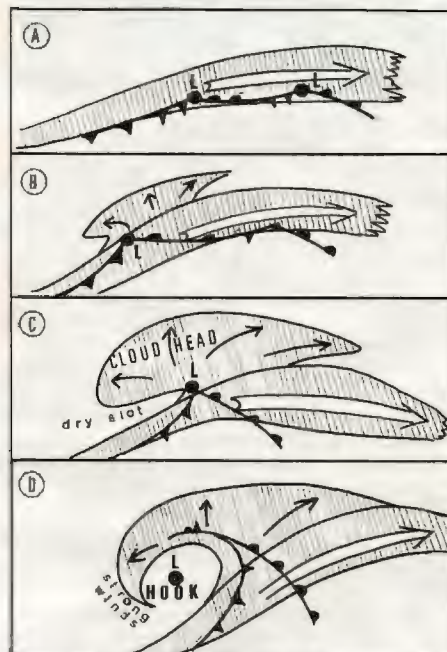


Fig 5. Sketch of satellite cloud patterns. "A" to "D" show changes as low deepens.

tral and southern England. The storm affected a much larger area than in 1987 and killed 47 people, chiefly because it struck during daylight when more were about. Although the winds were about as strong as in 1987 the trees were not in leaf so far fewer were blown down.

A sequence of lows precedes a big storm

Severe Atlantic storms rarely appear out of the blue. The weather first becomes increasingly disturbed by a series of lows. The record low of 912mbar on January 10, 1993, was just part of a much longer stormy spell. There had been several intense lows to the north and west of Scotland since the middle of December, and the stormy spell went on through much of January. One of the storms caused the loss of the big oil tanker "Braer" which foundered off the Shetlands on January 5. A gust to 105kts was reported from North Rona (off Cape Wrath).

Satellite signs

Satellite pictures can help to identify intensifying lows. Fig 5 shows four sketches of the

major cloud band of a rapidly deepening low. The centre of low pressure is marked with a dot identified by "L".

(A) shows a front with a couple of shallow lows under the shaded band of cloud. The arrow shows the warm conveyor belt of the frontal system. (B) shows the start of a cloud head beginning to bulge out from the original frontal band.

(C) shows a fully developed cloud head with a "dry slot" pushing in from the upwind side. (D) shows the peak of the storm when a hook shaped curve of cloud arcs round the surface low. The strongest winds usually develop round the southern edge of this hook.

The dry slot

A dry slot is formed by a thrust of descending air behind the centre. These narrow dry tongues have been seen when the low deepened explosively but they do not always indicate storms. Maximum deepening seems to occur when the dry tongue extends above the surface low.

Rapid pressure changes

Severe gales are often accompanied by dramatic pressure changes. In several cases the pressure fall as the low approached was less rapid than the rise after it had passed. The most rapid fall at a land station was 11mbar/hr at Valentia in the south-west of Ireland. (October 17-18, 1984.) In October 1987 the fall of pressure was only about 4mbar/hr as the low approached but when it passed the pressure shot up at 12mbar/hr. The fastest pressure fall recorded so far in the North Atlantic was 17.2mbar/hr followed by a rise of 22.6mbar in 35min. This was at weather ship Delta (44N 41W) on January 29, 1972). Hurricanes are even more dramatic; in September 1943 the central Caribbean had a fall of 40mbar in 20min near the eye of a hurricane.

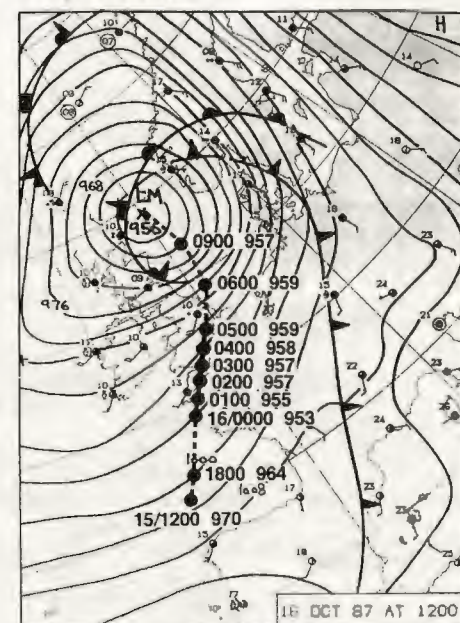


Fig 6. Chart for 1200 GMT on October 16, 1987, showing positions and central pressures over the preceding 24hrs. Reproduced by courtesy of Weather.

Storm tracks

Shallow lows may follow any track and some just drift about in circles, but damaging storm lows tend to rush almost straight across the UK. When a depression becomes very deep it usually slows down and starts to circle to the left but the storm lows generally cross the UK at full speed. Fig 6 shows how the October 1987 storm went straight across the Midlands and made only a gentle turn over the North Sea. It subsequently straightened up and went round the North Cape of Norway towards Novaya Zemlya.

The 1987 storm track was unusual; the majority of storm lows passed north of a line from Anglesey to the Humber and many went north of Scotland. However, in the last 34 years three severe storms headed SE across the North Sea. This track is dangerous during spring tides because the northerly gales can bring a surge of water down the East coast.

Storm surges

In low lying regions the rising sea level may cause more damage than the wind. This is often the case with cyclones in the Bay of Bengal. In the UK storm surges are likely when the low moves past the north of Scotland and heads south-east. As the winds veer north-westerly the surge rounds Scotland and plunges down into the North Sea, growing higher as it reaches narrower waters.

The worst storm surge occurred on January 31/February 1, 1953, when storm force winds blowing down the North Sea coincided with the high tide to raise the sea level far above normal. The sea broke through coastal defences to flood low lying areas of Lincolnshire and East Anglia causing 307 deaths in England. In Holland the dykes collapsed and 1800 died. Dangerous surges depend on the gales and high tides coming into phase. Surges rise higher when the air pressure is low.

There have been several surges since then. A smaller one developed on February 21, 1993, but coastal defences had been improved and a Storm Tide Warning System was in operation so no catas-

trophe occurred. At Cromer the surge was 2.6m (8.5ft) above normal and 400 people were evacuated from the Gorleston area as a precaution. At Sheerness the surge reached 3m (nearly 10ft).

How frequent are severe storms ?

There are statistical methods which use past records to estimate how often extreme winds are likely. A storm like that of October 1987 is very rare in the south-east of England. Winds gusting to 100kts are not expected to return there for more than 200 years. The return period is only 50 years for places NW of a line from Cornwall to Durham and even less for Scotland and western Ireland. Global warming experts say we can expect more storms in future. The table below suggests that maximum gusts have been stronger recently than they were before 1965.

Table showing some peak gusts before and since 1965

Station	Max gust (kt)	
	Before 1965	Since 1965
Records started in		
Aberporth	79	93 1945
Manston	69	86 1943 (some gaps)
Orkneys	87	118 1930 (some gaps)
Shetlands	94	104 1931
Shoeburyness	69	87 1926
Thorney Island	70	90 1943
Great Yarmouth	71	86 1913 (some gaps)

Some powerful gusts in recent years

(Places above 1000ft excluded)

123kts	Fraserburgh	Feb 13 1989
118kt	Kirkwall	Feb 7 1969
116kt	Lowther Hill	Jan 2 1976
105kt	North Rona	Jan 5 1993
104kt	Sumburgh	Jan 23 1994
102kt	Tiree	Jan 15 1968
>100kt	Needles (I.o.W)	Nov 29 1976
100kt	Shoreham	Oct 16 1987

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SAS, the Scandinavian airline, are offering a prize of 50 000 Swedish crowns for the first pilot from one of the Scandinavian countries to complete a 500km flight in the World Class sailplane, the PW-5. This is equivalent of about £40 000.

The pilot of the first successful 300km flight collects a prize of 15 000 crowns. Let's hope the idea catches on in the rest of Europe. - Translated by Alan Harris from *Segelflyg*.



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TURBOS

Having spent over 4hrs flying cross-country in a Ventus CT, never having been above 2000ft, any pilot becomes very tired, particularly when the last hour had been extremely difficult. You also get used to being relatively close to the ground.

I guess this pilot would have picked many fields during that time, and so far had managed to climb away. When the lift finally stopped, a decision was made to start the turbo on the downwind leg into the chosen field. In fact at least two dive start attempts were made whilst flying the circuit. Finally the turbo fired up on the approach into the field!

The chosen field was overflown and just as the glider climbed over the upwind hedge, the engine stopped.

A turn was made with the idea of flying an abbreviated circuit back into the chosen field, but there was insufficient height. Unable to turn further, the field picked the glider. It "arrived" downwind and groundlooped in the corn.

- All this time relatively low altitude had clouded the pilot's judgment of height.

- He left attempting to start the turbo until too late.

- A decision to abandon the engine wasn't made soon enough.

Interestingly, no attempt was made to lower the undercarriage at any stage! This probably reflected the high workload.

Recommendations:

Having chosen your field any attempts to start the turbo should be made between 1500 and 1000ft agl. If it hasn't started by 1000ft forget it and land.

What effect does flying with the engine extended have on your glider?

I refer to stalling speed, sink rate, glider handling etc, engine stopped and engine running. Try it at height first. When you're confident, actually do some landings with the engine extended and stopped. ☒

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Last December (p328) Derek Piggott wrote about the the AMT-200 Super Ximango, Fournier's GRP motor glider RF-10, which is now produced in Brazil with the Rotax-912 engine. Her wooden predecessor, the RF-9, is going into production again, being built by Herbert Gomolzig from Wuppertal/Germany. There were only ten originally, using Limbach engines. I flew the elegant prototype, which has a retractable undercarriage, at the Dahlemer Binz Airfield where the late Alfons Pützer (Sportavia) built the earlier RF series, but not the RF-9.

A lot of pilots ask why wood is being used instead of the modern reinforced resin materials.

Wood has several advantages. There are no life restrictions or limits on flying hours and vintage gliders are successfully flying after more than 50 years - and will stay in good condition if well maintained and carefully housed.

A thin layer of GRP protects modern wooden designs and gives them a superb surface. Wood is easy for maintaining, overhauling and repairing in club workshops and is lighter than GRP. A two-seater motor glider weighs about 100kg more when it is built in GRP instead of wood! A lower weight would only be possible using carbon and aramide (Kevlar) fibres, but then it would be extremely expensive.

Alfons Pützer thought about a RF-9 revival years ago, when Fournier replaced it with the RF-10. The RF-9 was already type certified, so certification costs of a new version should be low. The main thing he needed to build a motor glider from the elegant design was a powerful, reliable engine and now there is the liquid cooled Rotax-912.

Work started on the RF-9 in the old Sportavia workshops, which used to be run by "ABS" (Albert Blum Siegburg). But ABS ran out of money and Herbert Gomolzig took over the project, completing it with the help of Reiner Möller, who was Sportavia's technical director at the very first stages of the RF-9. His considerable knowledge of building and test flying Fournier motor gliders was also very helpful for improving and test flying the motor glider.

A lot of small, but very sensible ideas were added. It was given larger undercarriage wheels to allow it to be flown from rough surfaces. It was given the Rotax-912 A3 version with the Hoffmann hydraulic constant speed prop and a big 80 litre fuel tank. It takes little space in the hangar with its wings folded to 10.16m, using the same easy, safe and fast folding connection found in previous RF motor gliders. Like early RFs, the 17.285m centre-section is fixed to the fuselage which means derigging isn't possible, or not without a lot of work.

The cockpit is roomy and comfortable with a well upholstered back rest cushion which can be taken out to fly with a parachute. The canopy mechanism is spring supported, making it easy to open and close. Visibility is excellent and the panel generous with plenty of space for additional instruments.

The controls are simple to operate and comfortable. The empty weight of the prototype is 530kg, with a maximum AUV weight of 750kg, but for the serial production it is intended to bring the empty weight down to 500kg.

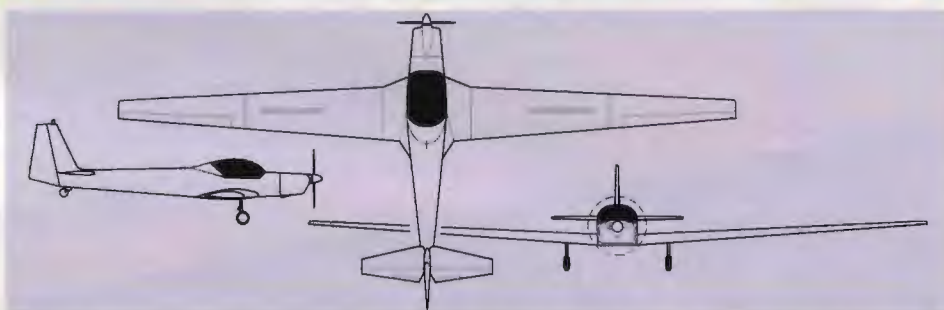
The engine is impressively smooth and quiet, helped by the wooden construction absorbing



Jochen's photo of the RF-9 ABS.

REVIVAL WITH WOOD

Jochen assesses the new German version of the French RF-9



sound, making it one of the quietest motor gliders. Taxying with the wide track undercarriage and effective disc brakes wasn't a problem, even with a strong crosswind and poor surface.

I took off in a turbulent 45° crosswind blowing over the hangars and trees, which wasn't very comfortable for a taildragger. But it did very well and it was easy to keep her on the centre line of the concrete runway. After a short ground run, we were airborne. The take-off run under ICAO standards was measured at 170m and 320m to clear 15 metres with an initial climb rate of 3.7m/sec at about 100km/h. Soon after becoming airborne you can retract the undercarriage. The stick and rudder forces are comfortably low, and the response is excellent due to the lighter weight, especially of the wings.

Reducing the propeller rpm and throttle from maximum power to the standard setting of 5000 (engine) rpm/ 25in Hg is much easier than the switching process of the older three position props and reduces the noise level even more. You will not need your headsets or intercom!

Climbing at about 100km/h in the turbulent air, I sometimes think the fuselage might be a little bit longer to give more stability around the vertical axis, but at a little higher speed stability and comfort are excellent. Flying faster increases the stick forces significantly, preventing overstressing the aircraft at higher speeds. Cruising speed at 75% power is about 190km/h. The stall is gentle - at 85km/h the controls start feeling soft and at 75 to 78km/h the RF-9 ABS starts stalling and staggering with the speed increasing a bit during the stall.

If at this stage the stick is pulled back further, a wing drops. The initial spin is stopped after less than a quarter turn by opposite rudder and relaxing the stick. Lowering the undercarriage

doesn't make much difference but with the big top surface Schempp-Hirth airbrakes out the stalling speed is 5km/h higher. When operating the airbrakes there is very little trim change.

Fully opening the throttle from idle there is a tail heavy trim change - the trim wheel has to be turned forward, while during gliding it is near the aft position. Thermalling at 95 to 100km/h is fun even in rough thermals and feels very much like the K-13 with a similar glide angle of 1:28. Rolling from 45 to 45° at 105km/h takes just over 4.5sec and the co-ordination is as it should be. It really is one of the rare motor gliders in this Class which will not only be used as a cheap cruiser, but will also give a lot of fun and success with the engine off. The recommended basic landing speed is 105km/h. The airbrakes are very efficient. Sideslipping is possible, but not at any great angle or efficiency. Due to the strong turbulent crosswind in the final leg I chose 120km/h and was very glad about the efficient controls.

The landing itself wasn't a problem and the undercarriage has excellent suspension and damping. It is hoped that production will start soon and I think there is a market for this kind of motor glider. Many pilots are looking for motor gliders which fall between the Falke training class, as they like more comfort and performance, and the GRP two-seaters designed for comfortable cruising, but not for soaring or operating from small airfields with bad runways. Not only does the design of the RF-9 ABS aim to fill this gap, but the price, estimated to be around 170 000DM + VAT, is attractive.

For further information contact Herbert Gomolzig, Ingenieurbüro, Höfen 84A, D-42277 Wuppertal, tel 0049 202 6481470, fax 660578. Also if you would like a longer flight report by Jochen, send a sae to S&G for a copy. ✕

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WAY OFF TRACK



How often do you do it?

Most British glider owners will have received a note headed *Flight Safety Survey* from an outfit called the Centre for Human Sciences at DERA. Mine came in a plain wrapper.

I can't be certain but from the address - even down to the building number, F131 - I think it's what we knew for decades as the RAF Institute of Aviation Medicine at the Royal Aircraft Establishment, Farnborough. The latter title served for some 80 years or so until all the public services had to pretend they're Sainsbury's or Body Shop.

It was at the IAM in the late 1950s, when Penguin was still rash enough to volunteer for anything, that he was spun up to some quite frightening *g* force in a centrifuge.

This was in my happily erotic rather than sclerotic youth when every morning after a hard night's bash at the still-then-annual Farnborough show I would clear the resulting hangover in an instant by having myself rocketed aloft aboard the ejection seat rig which Martin-Baker always obligingly showed in the outside equipment park.

The cartridges were of something less than operational potency, otherwise your columnist might still be in orbit.

But I digress. I regard the recent communication with great suspicion although I complied and cravenly returned the attached questionnaire.

Its stated purpose is to assess traffic density in the open FIR below 2000ft. It seeks to determine the seasonal variation in flying activity and the proportion of local gliding around designated sites as opposed to cross-country flights. The information collected will be treated as confidential and published as aggregate statistics, the writer solemnly assures recipients.

That's as may be, but what is the purpose of the exercise if men in suits don't have access to the data when they're seeking to make a case for yet more restrictive and job-creating airspace control?

Could soaring pilots be making a noose for their own necks if they themselves provide the stats which show a big increase in cross-country flying in recent years - as hard as that is to

believe on this particularly wet, grey, misty autumnal afternoon?

One interesting point about this missive is the job grade and description beneath the writer's signature. She is a Higher Psychologist - not a statistician or even an air traffic controller.

Perhaps if she were to probe the psychological make-up of those seeking to glide cross-country in these meteorologically unfriendly and congested islands she'd earn more honour among her peers rather than merely collecting raw data on how often they do it.

Not being trained in psychology, my own assessment is that we're simply MAD

A cynic writes...

I hope the above doesn't upset Bill Scull or the chairman of the BGA Airspace Committee, Carr Withall, who are our chief watchdogs in such matters and serve us expertly. They might argue that glider pilots' fullest co-operation in volunteering data on which air traffic policies can be soundly based will earn us respect, consideration and fair treatment as a responsible body of people devoted to everybody's safety.

But with the ever greater demands for airspace being made by both the steadily contracting armed forces enjoying the full resources of the State, and rich commercial operators with deep pockets filled with megabawbees earned from flying what used to be known as the bucket-and-spade trade to sunny climes, I cynically doubt that real virtue will meet its true reward.

Broomstick soars again

Some longer-term readers of *S&G* still mourn the disappearance from its pages of the name Rhoda Partridge, who kept up a stream of very witty articles throughout the 1970s and 80s when she roamed the skies in *Broomstick*, a K-6E, and its successor, the *Cirrus Glass Broomstick*.

In September, while driving from Talgarth to the Mynd, on impulse Hen Penguin and I routed through Presteigne. I didn't know Rhoda's address but it was the work of an instant to get it from the first high street shopkeeper we asked. We found she lives in a secluded mews house, with a delightful garden and vine-shaded patio, just across the street.

I was happy to find her as witty and active as when we'd last met, at Aboyne, more than 21 years ago. Though we were fellow members of the Midland GC for years, my occasional cross-channel visits to the Mynd never seemed to coincide with hers.

Rhoda's old friends, readers and admirers will be pleased to hear that she is enjoying her remarkably youthful seventies. She gave up pottery several years ago to turn her artistic talents to etchings and pastel drawings which she produces from a studio beside the house and one of which now graces the hall at Penguin Place.

Her last soaring flight before we met again had been a Twin Astir sortie with Justin Wills in New Zealand three years before. But even as we were at Presteigne, BBC Wales was planning, for a TV feature, to take her to Talgarth the following week to fly again.

I've since seen the resulting manuscript: if Rhoda offers it to the *Ed*, *S&G* readers have a little treat in store. (See p342. *Ed*.)

Punning running unczeched

A local resident brought four young Czechs on site one humid, dreary summer Sunday afternoon. There was a light south-easterly, low 8/8ths cloud and intermittent rain. Undeserving southern England was soaring under a baking sun. But at Bellarena we had resentfully resigned ourselves to good works and maintenance around the site.

So our visitors were a welcome diversion. Two sisters and a boy were university students and solo glider pilots. The third girl was a hotel receptionist who had never flown in *anything* before. All were from the southern town of Cseké Budějovice, where Budweiser beer began.

Like many landlocked central Europeans they were fascinated by the mud flats and tidal waters of Lough Foyle over our foreshore fence, while their minds were blown by the nine-mile Magilligan/Benone/Downhill strand a mile or two away.

Their disappointment on finding we weren't flying was manifest. I couldn't let them leave without seeing our stunning setting from the air, or flying the K-13 which none had flown before, despite the cloudbase being scarcely 1000ft.

If students anywhere are always broke, those from hard-up eastern Europe are broker than most when exposed to the higher costs of the west.

Our treasurer instantly agreed to my suggestion to let them have cut-price tows to cloudbase and waive any charge for glider time. So four flights of 10-12min were quickly flown, comprising two-thirds of our entire operations that day.

They went away overjoyed, impressed and relieved of less cash than they had dared to hope. Penguin felt virtuous.

But the puns he had to endure were dreadful. "Get the tug out. We're doing four Czech flights."

"Are they paying cash or Czech?"

"Can't you persuade one of the sisters to stay on here and join the club. We could introduce her to visitors as our site Czech."

A grateful Pavel Mil, who is studying aeronautical design, later wrote a warm letter of thanks, inviting me to their Moravská Třebová club, where aerobatics are a very big thing.

Thanks for the invite, Pavel. Can I take a rain Czech on it? ☒

PAWNEE TUGS

Further examples now available. Completion to your specification. Can consider part-exchange of Pawnee or Super Cub.

PAWNEE AVIATION
01733/202837



The winners: left to right, Dave Allison, Junior Champion, Afandi Darlington (2nd) and Oliver Ward (3rd).

After the excellent weather at Bidford last August, the director, Steve Jones, had a hard act to follow. Fortunately for everyone, the weather was again exceptional producing some superb racing tasks.

The field was once again very competitive with Henry Rebbeck, Dave Allison, Oliver (Oly) Ward and Pete Masson all ruffling feathers at the Standard Class Nationals in July. Henry was joined by three other brothers including Jay, another potential winner following his achievements at Competition Enterprise.

A lot was at stake with three automatic places for the Junior European Championships at Müsbach, Germany to be gained. With this in mind the competition was bound to be close.

Day 1, Friday, August 16

Task: 307.7km quadrilateral. Birdlip, Northampton South, Goring.

Pilots were eager to get going on this task after a late scrub the previous day, with many keen to gain their Gold distance.

With conditions to the north and north-west looking good it took just over 3hrs for the first to arrive back with Afandi Darlington (ASW-24) winning (100.5km/h, 1000pts), with the late starter Dave Allison (LS-8) 2nd at a speed of 96.7km/h.

With only a handful of landouts it was a good start to the contest with Matt Rebbeck, Gavin Goudie, Leigh Wells, Richard Garner and Brian Birlison completing Diamond goals.

Day 2, Saturday, August 17

Task: 240.6km quadrilateral. Gillingham, Bradford upon Avon, Goring.

With similar conditions to the day before, but

1996 MOBIL JUNIOR CHAMPIONSHIPS

Lasham August 15-23

A report by NEIL GOUDIE

with photographs by NEIL STUART LAWSON

with some high cover, it was a surprise to hear that the first leg into the light westerly headwind was causing slow progress for everyone. However, as most reached the second turn conditions improved with Dave Allison the first home at 79.2km/h (1000pts) with last year's winner Oly Ward (Discus) in 2nd place with 76.9km/h.

Mark Irving, the intrepid K-8 pilot who landed at The Park, was found in the bar by the Super Cub pilot sent by Lasham to retrieve him - luckily Sam Morecroft's crew were at hand to help out!

Day 3, Sunday, August 18

Task: 197.7km quadrilateral, Hungerford, Calvert rail junction, Didcot.

Sunday arrived with bright sunshine and a shorter task was set to the north. Conditions were reasonable until the final leg where convection had abruptly ended. This led to some interesting marginal final glides - some more marginal and interesting than others.

Dave Allison retained his lead with 86.9km/h (1000pts) with Oly Ward moving up a place by finishing 2nd (82.5km/h) and Henry Rebbeck (Discus) securing 3rd (81km/h).

Unfortunately, Pete Masson (Discus) landed just short due to a very late restart. He now

needed to work hard to claw back on the leaders. John Tanner (7th) showed that the Vega was still up there with the best. Unluckily Alex Borak's Grob 102 was damaged in the trailer meaning he would miss out on Day 4.

Day 4, Monday, August 19

Task: 346.2km quadrilateral, Bicester, Earith, Oxford East.

This was without doubt the best day of the competition with 30 of the 31 starters finishing. With the morning forecast predicting convection up to 10 000ft in East Anglia, was a 500km on the cards?

In the event an achievable task for everyone was set into the good weather. Speeds were eye wateringly fast with Afandi speeding overhead after exactly 3hrs at 115.5km/h. However, late starter Oly Ward was the day winner at 117.2km/h (1000pts). Anna Wells (LS-8) completed the task at 99km/h and with Jessica Pennant, Steve Foster, Steve Rickett, Paul Murphy, John Gilbert and Luke Rebbeck gained Diamond goal.

Our friend in the K-8 turned Oxford at just past 7pm, almost 8hrs after taking off. With only 3000ft to spare and 45km to run he crossed his fingers (and his legs no doubt) and watched as the GPS told him he had flown past Gold distance.

Left to right, Jay Rebbeck, Mike Miller-Smith and Henry Rebbeck.



Day 5, Wednesday, August 21

Task: 302.7km quadrilateral, Bicester, Grafham Water, Didcot.

With Tuesday scrubbed due to a weak front, Wednesday brought clear skies. Pete Masson found his form again coming back first and winning the day with a speed of 103.8pts (1000pts) but being closely followed by Dave Allison consolidating his lead with 103.4km/h and another solid performance by Afandi to take 3rd.

Mark Davies (Ventus) showed the fighting spirit of the RAFGSA with a well deserved 6th place. Andrew Perkins was the last of the competitors to gain his Diamond goal in the Open Cirrus that had made national news the previous week after being stolen from a motorway hard shoulder.

Day 6, Thursday, August 22

Task: 148.8km/h three legs, Didcot, Woburn Abbey, (remote finish) Bicester.

This day proved to be a task setter's worst nightmare. With a front approaching from the south-west, pilots were first offered a short bow-tie task keeping close to Lasham. This was quickly revised on the grid as the front appeared to be moving quicker than at first thought, so a remote finish at Bicester was the compromise. Many fell down within the first 20km as a large gap developed north of Lasham which proved difficult to traverse. Mark Bainbridge (Discus B) landed 1km away in an attempt to come back for a relight. However, everyone who succeeded in passing this obstacle arrived at Bicester safely.

Afandi elected to ignore the "phantom" front that failed to materialise and started over 1hr later than most of the main contenders to finish at 101.2km/h (736pts) with Dave Allison securing his lead by finishing 2nd at 100.8km/h and Pete Masson climbing back up the leaderboard with 3rd place. Alan Deurden (LS-4), a veteran of the Championships, put in a good performance to move him back into the top ten.

Day 7, Friday, August 23

Task: 104.1km triangle, Hungerford, Isley.

As most pilots sat in the clubhouse on the last day rain and wind lashed the windows with little chance of improvement. Leader, Dave Allison, was not convinced and rigged knowing that he couldn't relax too soon.

As the day unfolded Terry Joint was holding



Afandi Darlington flying his ASW-24 over Lasham.

out for a small window that was forecast to appear early afternoon and by 1.30 the grid was launched. Tom Goodall, who had competed admirably all week and stood 6th in the high handicapped Kestrel 19, decided that discretion was the better part of valour and along with Oly Ward remained on the ground as news that potential future contest winners, Mike Fox (Libelle 201B) and Paul Barker (DG-300) had landed in a field with the others, 10km downtrack. Dave Allison and Afandi had finished up in the same field near the second turn with Henry Rebbeck and Russell Clark the only others closer to home.

Miraculously, out of the gloom, appeared the shape of a lonely Discus flown diligently by Pete

Masson to be the only finisher at 56.4km/h (172pts) and to gain him a worthy 6th position overall. Gordon Smith (SZD Junior) heroically tried the task in reverse to prove that it was just as bad going that way as it was the other!

Conclusions

This was another classic Juniors which was won by consistent and confident flying by Dave Allison with Afandi Darlington 2nd and Oly Ward in a well deserved 3rd place.

With the competition being sponsored by Mobil, the contest had a higher profile than usual and this was greatly appreciated. The shields donated by Mobil for the best pilot under 21 years went to Jay Rebbeck flying an LS-4, and for the best Sport Class winner (handicap of 100 or less) to Mike Miller-Smith in the Grob Acro 3. Thanks must go to David Ellis of Cambridge Aero Instruments for the donation of GPS Secure Flight Recorder Systems to many pilots. Justin Wills was again present in his role as mentor and with his thoughts for the day and evening debriefs (with the help of Tim Newport-Peace and David Ellis on big screen maggot racing) was an inspiration to all.

Again the Juniors were blessed with superb weather and that, with the unfailing organisation of Lasham GS, made the competition as enjoyable as any Nationals.

With excellent forecasting and task setting from Terry Joint and being diplomatically overseen by the omnipresent Steve Jones (including being at the second TP with the rest of the pack on Day 4 in his Discus) Lasham will be another competition difficult to forget.



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FINAL RESULTS
Junior Championships

Pos	Pilot	Glider	Day 1.16.8 307.7km ■ Birdlip, Northampton South, Goring			Day 2.17.8 240.6km ■ Gillingham, Bradford upon Avon, Goring			Day 3.18.8 197.7km ■ Hungerford, Calvert rail junction, Didcot			Day 4.19.8 346.2km ■ Bicester, Earith, Oxford East			Day 5.21.8 302.7km ■ Bicester, Grafham Water, Didcot			Day 6.22.8 148.8km 3 legs Didcot, Woburn Abbey, Bicester			Day 7.23.8 104.1km ▲ Hungerford, Isley			Total Points
			Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	
1	Allison, D. W. K.	LS-8	96.7	2	968	79.2	1	1000	86.9	1	1000	113.7	3	957	103.4	2	996	100.8	2	733	(58.3)	3=	65	5719
2	Darlington, A.	ASW-24	100.5	1	1000	74.1	3	935	73.5	5	849	118.5	2	979	97.5	3	938	101.2	1	738	(58.3)	3=	65	5502
3	Ward, O. M.	Discus B	84.3	3	864	78.9	2	971	82.5	2	851	117.2	1	1000	92.3	5	881	90.0	9	579	(0.0)	15=	0	5246
4	Rebbeck, H. A.	Discus B	80.1	5	829	89.6	6=	878	81.0	3	933	110.5	5	918	85.8	7	813	92.4	6	671	(86.9)	2	126	5188
5	Rebbeck, J. N.	LS-4	85.9	4	835	69.5	5	885	78.5	4	915	107.5	6	884	94.5	4	913	80.6	8	590	(34.9)	10	36	5088
6	Masson, P. J.	Discus	79.4	6	823	71.6	4	903	(170.6)	29	330	111.9	4	935	103.8	1	1000	87.2	3	707	56.3	1	172	4870
7	Goodall, T.	Kestrel	80.3	7=	786	74.7	6	876	75.7	11	809	111.4	7	835	89.2	8	784	101.2	4	687	(0.0)	15=	0	4777
8	Miller-Smith, M.	Grob Aero 3	68.5	7=	789	59.1	10	823	65.5	6	843	90.4	9	785	71.8	11	747	85.4	5	685	(34.3)	8	42	4714
9	Davies, R. M.	Ventus cr	79.2	12	765	68.6	13	787	71.8	15	753	105.2	12	740	96.9	6	840	77.9	14=	516	(0.0)	15=	0	4401
10	Clarke, R. J.	Ventus C	75.8	13=	738	69.4	12	797	78.6	9	823	111.1	8	806	73.5	19	821	82.1	11	544	(60.1)	5	58	4387
11	Duerden, A. W.	LS-4w	73.9	10	782	57.8	16	683	70.9	7=	826	94.2	13	728	76.0	14	670	84.3	7	617	(0.0)	15=	0	4308
12	Fox, M. R.	Libelle 201s	69.6	11	778	60.5	11	813	64.9	12	805	87.5	14	705	70.6	12	705	60.2	19	482	(10.3)	15=	0	4268
13	Wells, L. M. P.	LS-8	75.4	7=	789	69.7	6=	878	68.7	13	794	89.3	27	405	81.0	10	783	(0.0)	22=	0	(49.7)	6	57	3686
14	Rebbeck, L. M.	K-8e	(291.6)	19	540	43.0	20	642	42.2	19	594	71.3	19	597	58.5	16	646	61.5	12	528	(10.3)	15=	0	3547
15	Tanner, J. A. L.	Vega 17	(288.8)	30	379	60.4	15	727	74.9	7=	828	80.5	24	506	75.1	15	669	80.9	20	421	(25.8)	13	16	3546
16	Perkins, A.	Open Cirrus	(306.5)	23	498	59.7	16	726	68.5	10	820	DNF	31=	DNF	71.9	13	694	74.9	16	509	(10.3)	15=	0	3247
17	Barker, P. D.	DG-300 Club	(271.3)	26=	427	65.8	9	870	(190.2)	25	404	88.4	16	679	79.2	9	772	(19.6)	22=	0	(10.3)	15=	0	3152
18	Murphy, P. J.	K-8e	(291.0)	20	538	51.1	14	766	(180.4)	23	442	73.1	18	623	(206.9)	26	277	58.6	17	502	(7.3)	15=	0	3148
19	Pennant, J. H.	KS-1f	(288.8)	24	473	49.0	19	648	(147.1)	31	274	83.1	28	385	70.2	17	642	73.4	10	560	(36.9)	7	44	3026
20	Gamer, R. P. J.	Discus B	68.0	16	727	(89.6)	28=	165	61.2	17	710	101.0	15	699	54.7	23	490	DNF	22=	DNF	DNF	15=	DNF	2791
21	Foster, S. D.	Astir cs	(250.1)	28	395	(229.1)	24	410	(180.4)	28	338	68.0	25	447	62.6	20	617	61.7	18	475	(0.0)	15=	0	2682
22	Birllion, B. A.	Std Cirrus	65.8	13=	738	54.3	17	720	59.8	16	734	78.8	29	279	(95.4)	29	85	(0.0)	22=	0	(34.5)	9	39	2595
23	Gouldie, G. S.	Discus B	56.2	18	628	(89.6)	28=	165	71.5	20	576	66.3	22	568	(95.3)	30	80	71.4	14=	516	(29.1)	12	24	2557
24	Rebbeck, M. W.	K-8e	53.4	17	686	(217.6)	23	431	(158.4)	32	107	66.4	23	525	(203.8)	27	271	60.5	13	519	(10.3)	15=	0	2539
25	Smith, G. M.	SZD Junior	(294.1)	21	526	(229.3)	22	444	(196.4)	22	461	61.3	26	423	63.2	18	626	(17.4)	22=	0	(27.9)	11	31	2511
26	Bainbridge, M.	Discus B	68.1	15	728	(27.6)	30	26	(177.4)	26	350	96.5	11	744	86.0	21	607	(1.1)	22=	0	(7.2)	15=	0	2455
27	Morecraft, S. E.	ASW-19	(290.9)	25	467	(100.1)	27	188	57.8	18	694	81.1	20	586	(90.1)	31	77	59.5	21	393	(18.8)	14	6	2411
28	Gilbert, J. P.	Skyhawk	(271.3)	22	525	(133.1)	25	305	(177.4)	21	465	65.9	21	582	(290.2)	24	422	(11.6)	22=	0	(7.3)	15=	0	2299
29	Wells, A. C.	LS-8	(43.5)	32	36	50.7	21	584	62.6	24	425	99.0	10	775	(261.1)	25	329	(0.0)	22=	0	(0.0)	15=	0	2143
30	Rickett, S. J.	DG-300 Club	(85.2)	31	106	(0.0)	31=	0	64.0	14	787	87.2	17	664	58.1	22	546	(0.0)	22=	0	(0.0)	15=	0	2063
31	Irving, M. J.	K-8e	(221.0)	26=	427	(100.2)	26=	285	(133.5)	30	312	(315.1)	30	265	(80.7)	28	93	(7.2)	22=	0	(0.0)	15=	0	1382
32	Borak, A. J. B.	Grob 102	(260.0)	29	391	DNF	31=	DNF	(161.0)	27	347	DNF	31=	DNF	(80.7)	32	75	(7.2)	22=	0	(0.0)	15=	0	613

BGA Competition Scoring Program by Specialist Systems Ltd.

Neil Stuart Lawson was credited with taking the October cover and the Standard Class Nationals photographs as Neil Stuart. We mistakenly thought this was his professional name. Sorry Neil.

GPS JOTTINGS

Edited by Dickie Feakes

In this issue, I plan to summarise the updates of IGC approvals for GNSS Flight Recorders, discuss the installation problems that can occur with some separate loggers and finish up with some recently introduced changes in the selection of map datums.

The International Scene. The five man international GNSS Flight Recorder Approval Committee (GFAC) have worked hard during the past year. I have been on the fringe of this activity and sometimes carry out baro calibrations and Electromagnetic Interference (EMI) assessments for FRs under test, so I know the enormous amount of work which is involved. Indeed, as far as I am aware this is a "first" for IGC and FAI where equipment used in the validation of flights is subject to an international standard of specification, testing and approval.

Six flight recorders have been approved for IGC/FAI badge and record flights - the Cambridge Instruments Models 10, 20 and 25; Peschges Variometer VP8; Filser LX20 and the Zander GP940. Others are being evaluated and undoubtedly more will be IGC approved in 1997.

You may note that the above list does not include approval of any FRs (loggers) which connect to a separate commercial GPS unit like a Garmin. A statement was issued by the FAI earlier in the year to the effect that the standard electronic data security for flight data transmitted from a separate GPS unit by cable to a separate FR unit (ie a pure logger), should be to a similar standard to that required for the output data from the FR itself. Unfortunately, since com-

mercial GPS units are not designed to incorporate data security protection, manufacturers of separate logger units have so far not been able to satisfy the FAI standard, and all the approved FRs have their GPS receivers and FR memory in one sealed metal box.

UK Competitions. During this year's UK Nationals a number of non-GFAC approved loggers failed to produce flight data (see the box on p275 in the last edition). In particular there are two characteristics that have caused problems. If two particular pins on the interface plug are connected together momentarily, then the recorder's memory can be erased. This can happen accidentally as a result of inferior or hasty wiring in the interface plug when connecting the GPS and power supply.

Secondly, EMI can be a problem. Separate loggers need to be connected to an external GPS. The cable used to connect the units can act as an antenna, picking up strong electromagnetic radiation from, for instance, high powered radars, microwaves or (more often) the glider transceiver, particularly when it is a handheld unit mounted in the cockpit and adjacent to the GPS/logger wiring. The result is that when the transmitter is operated, the signal picked up in the GPS/logger wiring causes interference with the logger memory (sometimes referred to as "zapping").

The Golden Oldies amongst us will remember a similar problem which plagued some early electric variors which went to full scale deflection every time the transmit button was pressed.

The cure for all these problems is the same. Ensure:-

1. Your GPS/logger is connected using high quality, screened cable.
2. A toroid is sleeved on each end of the cable to minimise any strong signals that do manage to get through.

3. That the interface plugs are wired carefully, taking care that unconnected pins cannot be shorted to the incoming wires.

The installation of a GPS/logger system is not something that can be jury-rigged on the grid before the first competition launch; like any avionics, it requires careful and sound installation. Remember, if your GPS/logger wiring looks like a ball of Indian knitting, you will have problems and its time you did something about it this winter. Your logger manufacturer or an avionics supplier will be pleased to advise you.

The problems mentioned are unlikely to occur with current GFAC approved loggers because the units have undergone EMI testing, and the connection between the GPS and the logger is made internally within a sealed metal box. They also have specific devices to protect the integrity of the flight data memory.

The dreaded Geodetic Datum! The IGC have decreed that in the future, all GPS map datums used with GFAC approved FRs for FAI badge and record flights have to be set to WGS84. Resetting the datum in the FR is easy; what is not so easy is converting the BGA TP list from the currently OSGB36 based co-ordinates to WGS84 based co-ordinates. However, this is in hand. The BGA Competitions and Awards Committee will publish some guidance shortly, together with a re-issue in 1997 of a new BGA Turn Point handbook. (See BGA News.) Meanwhile, the best advice I can offer is not to mix datums; if the TP data list you use is OSGB36 based, ensure the GPS is set to OSGB36 datum, and vice versa.

Finally, remember that this is a live column; please let us have some feedback, letters, questions etc. Remember, we will not print your letter in this column, but simply use your point or question to clarify and explain what can be a difficult subject to grasp and understand.

Granny Gets Her Diamond Height At Last!

Some people get lucky right away. On their first trip to Deeside GC they get the right combination of wind, weather and a clued-up tuggie and up they swan to Diamond height. Since October 1984 I've made the trek six times. And never got lucky until this September.

Of course we were told "You should have been here yesterday!" as Pete Coward had once again made an easy climb to Diamond height the day before we arrived.

On my first launch I had no problem finding the wave and cruised to 7000ft before the system ran out of steam and collapsed at noon. The next day the wind went round easterly and blew easterly for ten days. All the visiting pilots with powerful cars dragged their trailers over the Lecht summit to Feshiebridge and four got Diamond height.

At last on September 22, the wave returned to Aboyne. Tuggie Neil Foreman took me over Tarland, and there it was! Though not marked by any cloud. We stopped jolting about in the rotor just over 3000ft - it all went smooth and creamy and up and off I went. It took a bit of sorting to establish where the wave was lying as no other gliders were down at my level. Eventually a wave bar formed along a line between Tarland and the airfield and I was able to improve the rate of climb from 2 to 4 and occasionally 6kts. But as so often, I got to 9500ft and it all seemed to peter out.

I heard them talking over Ballater and looking that way saw a tiny glint in the sky, so far above that you could only glimpse it now and then when the sun flashed on the turn.

Which way to go? Directly ahead lay a substantial wave bar just downwind of that great black mountain Morven. But round by the river Dee it was clear, so I tiptoed round the corner in the clear, and never met sink at all! Half a knot,

half a knot, half a knot onward. And then 1kt, then 2. And then 4kt. Directly under those other bold pilots who were leading on me.

I called "987 at ten, going on oxygen." I'd been so meticulous about checking my oxygen system before launching that a quarter of the tank had gone already, but no problems this time! It was hissing nicely as I fitted the mask over my nose and under my bifocals. And tied the whole assembly in place with my headscarf.

By just tilting the head forward I could still make out the other gliders through the upper lense of my bifocals. Two knots, 4kt, 15 000ft. Ice was beginning to form inside the canopy on the right side. I scraped it away but it just reformed, so left turns only. Gentle left turns. Two knots, 4kt. Clouds to the west but clear over Ballater. There was no need for a GPS: I knew exactly where I was. Nineteen thousand feet.

My hands and feet were still nice and warm but there was a frozen banana in the side pocket! Work it out - if the temperature decreases by height at 3°/1000ft, how cold is it out there anyway? I passed through 20 000ft and called that on the radio, but nobody answered. I began to feel quite lonely. How many minutes do you have before you black out up there? I wondered whether I should change to the higher flow oxygen. Then decided not to mess with anything. I might do something wrong. At 20 300ft the lift wasn't as good. I tried to make a turn but the ailerons didn't move very well. They seemed completely ineffective. Weird. Perhaps because there's not much air up there they felt peculiar? Or some effect as the indicated airspeed wasn't a true reading? I could still turn with the rudder but I was beginning to feel that this was a cold and hostile place. Time to go down - 20 300ft ought to do it anyhow. So carefully I came down, the airbrakes working fine, turning with the rudder until gradually the ailerons came back to life. Dave Richardson explained later that because the glider had been left out in the rain the wet aileron tape had frozen at altitude.

Basil Fairstone downloaded the EW barograph. "Not very clear" he complained. "Can't tell by this what height you came off tow. A 30sec interval isn't good enough." I had belt and braces, however; the trusty Winter clockwork had been ticking away and that trace came out a treat. So triple Diamond!

It cost me £50 in the bar that night - and worth every penny. ☑

INTER-CLUB LEAGUE FINAL

The RAFGSA at Bicester had competed with enthusiasm and with occasional displays of brilliance in the Eastern League for many years, but had never won the League to enter the final. A tactical move into the Midland League for the 1996 season saw their fortunes change, taking them into the final as competitors - and also as our hosts - for the three day August Bank Holiday weekend. Many thanks to CFI Pete Stratten, who offered RAF Bicester for the final, and to Pete Atkinson, the organiser.

He assembled a most effective team, a select number of Bicester members, supplemented by others from The Soaring Centre and Buckminster GC, with Ken Sparkes as our director and task setter. Our thanks to them all, to Bicester members who shared their facilities with us and to T.L.Cloues (insurance) who once again kindly provided prizes.

Other clubs included Essex & Suffolk (East Anglian League), Booker (Southern), The Soaring Centre (Eastern), Bristol & Gloucestershire (Rockpolishers) and a hybrid team from the South Western League who had failed, through weather, to achieve a single contest day. We were sad no Northern club was present.

Day 1's weather (Saturday, August 24) was disappointing - a great looking start but the large Cus were forecast to grow, with showers from midday turning heavier with thunder and 30kt gusts later. Pundits and Intermediates were launched first to fly a 96km triangle, Newport Pagnell Services, M1 J16 at Northampton, Hinton in the Hedges.

The Novices had been held back in view of the Met forecast, but after the other Classes were successfully away we threw caution and the Novices to the wind. Unfortunately this delayed start prevented any of them completing their 78km via Newport Pagnell and Hinton, though six valiant efforts and field landings were made. First indications showed that the one wooden glider (Dart 17) flown by Bob Hitchin, South Western team captain, had flown furthest. Sadly the photos later revealed the right motor-way but the wrong services!

Novice Day 1 winner with 56km was Bob Sinden (Pegasus) of Booker, followed by Andrew Wilson (Pilatus) of Essex & Suffolk and Marcus Collings (Std Cirrus) from Bristol & Gloucestershire. One Intermediate completed, Bob Merritt (Kestrel 19) of South Western at 51km/h, with five outlanders - Graham Thomas (LS-7) of The Soaring Centre was 2nd and John Wright (Pegasus) 3rd for Bicester.

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Wind speed and direction

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INTER-CLUB LEAGUE

In the Pundit Class there appeared to have been three finishers, but it was soon evident that Bicester were short of at least one TP. Pundit Day 1 winner at 54km/h was Simon Housden (ASW-20BL) of Bristol & Gloucestershire followed at 47km/h by Frank Davies (LS-6L) of The Soaring Centre, finishing through the middle of a shower. Third place went to Andreas Jelden (Libelle) of Booker who landed after 73km.

The many retrieves did not keep people away for long from the excellent barbecue. As for scoring - much effort was spent by Max Kirschner and Sue (who played a key role in the organisation) plus John Wright, with a variety of computers and software programmes, until Bicester had finally pulled themselves up into their rightful position on the scoreboard!

Joint leaders were Bristol & Gloucestershire and The Soaring Centre followed closely by Booker and South Western.

For Day 2, stimulated by the competitors' evident enthusiasm on Day 1 despite the weather, Ken set larger tasks:- Pundits a 166km quadrilateral, Chieveley, Membury, Mursley; Intermediates a 143km, Chieveley, Didcot,



**PILATUS
B4**

Andrew Wilson of Essex & Suffolk GC who was the overall top Novice

Mursley and for the Novices a 105km triangle, Didcot, Mursley. Day 2 offered similar Met prospects to Day 1, but this time they meant it. The showers came earlier, larger and heavier - in between were a few useful areas and many large gaps. Most launched before the local showers got going - many setting off, several landing out but a number landing back to wing out and wait for a second chance.

No Novices completed but four landed out. Day winner was Andrew Wilson (Pilatus) of Essex & Suffolk - his efforts and his 37.5km earned him just 88pts and a day's prize. Trevor Barnes (Astrir) from Bicester was 2nd followed by Rolf Tietema (Libelle) of The Soaring Centre.

The Intermediates fared no better with all six landing out to gain valuable experience but sadly no points - none had flown far enough to score. However, a daily prize was awarded to the highest zero, Glen Alison (LS-4) of Booker at 28km, 10km further than John Patchett (Std Cirrus) of Bristol & Gloucestershire (2nd) and John Wright (Pegasus) of Bicester (3rd).

The top three Pundit places went to pilots who



The Champions - The Soaring Centre. Back row, left to right, Mo Jordy, Mike Jordy, Graham Thomas, Mike Hughes, Carl Buzzard and Frank Davies. Front row, left to right, Rolf Tietema, Alan Foxon and Sonya Hornby. Photos: Mike Jefferyes.

set off in the afternoon shift. In 3rd place with 54km were Paul Rice and Chris Price (Janus C) of Essex & Suffolk, with Mike Jordy (LS-6CL) of The Soaring Centre 2nd. The patience of the finish line officials, Neil Scanes (who was also our marshall) and Nick Paterson, plus Mo Jordy of The Soaring Centre, was finally rewarded by the arrival of the day's only finisher - Paul Brice (ASW-24) for Booker at 57km/h. The "How Paul Did It" included talk of cu-nims like vacuum cleaners positioned in all the right places.

John Popika and Andy from Buckminster, who ran control and the telephones, had a busier time than the rest of us. After Day 2 Booker were equal leaders with The Soaring Centre, leaving Bristol & Gloucestershire close behind.

There was little change to the Met for Day 3 - the showers would hold off for longer, but the risk of thunder later in the day remained. Ken, with all his competition directing experience, expressed surprise at the unique atmosphere of the League - the eagerness and team spirit in the face of weather which questioned whether it was worth rigging for local soaring. Ken rose to the challenge, sending us south where prospects were most hopeful:- Pundits 172km, Chinnor, Hurstbourne Tarrant, Calvert junction; Intermediates 139km, Chinnor, Newbury, Calvert; Novices 85km, Chinnor, Mursley.

All six Pundits finished, but the winner's speed of 67km/h, Bob Bromwich (LS-6) for South Western, shows that conditions were not easy. Pete Atkinson (LS-4) at 65km/h was 2nd for Bicester with Paul Brice (ASW-24) 3rd for Booker at 62km/h.

Three Intermediates finished - Iain Cottingham (Ventus) 3rd for Bicester at 57km/h, Rob Hanks (Mini Nimbus) 2nd for Bristol &

Gloucestershire at 66km/h and, keeping The Soaring Centre in their leading position, Graham Thomas (LS-7) 1st at 75km/h. Five Novices landed out: Andrew Wilson (K-6E) for Essex & Suffolk was 3rd with 72km and Martin Greathead (DG-100) was 2nd for Bristol & Gloucestershire with 75km. The only Novice to finish was Rolf Tietema (Libelle), at 49km/h, reinforcing The Soaring Centre's lead. Now it was all up to the scorers and photo and logger interpreters.

Overall weekend Novice winners were Essex & Suffolk - Andrew Wilson's 1st, 2nd and 3rd places making him the top Novice. In the Pundit Class the overall weekend winner was Booker, thanks largely to Paul Brice's convincing win on Day 2. In the Intermediate Class, Graham Thomas's 1st and 2nd places secured the lead for The Soaring Centre.

As for overall positions, 1st place in the Intermediates and their 2nd places in both Pundit and Novice Classes gave The Soaring Centre a secure lead of 16pts, followed in 2nd place with 13pts by Bristol and Gloucestershire (2nd Intermediates, 3rd Pundits and Novices) and 3rd overall with 11pts by Booker.

Well done to The Soaring Centre - League Champions for 1996 - and to all competitors for their team spirit and enthusiasm in the face of such disappointing weather. Our thanks to Ken Sparkes who enabled us to get the most possible flying from the difficult conditions - and our thanks to Bicester and to all who helped with the organisation and running of the event to give us such an enjoyable and successful contest.

Anyone wanting information or assistance is welcome to contact me at "Tanglewood", Fingrith Hall Road, Blackmore, Nr Ingatestone, Essex CM4 0RU (tel/fax 01277 823066).

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The PW-5 World Class sailplane, designed by a Warsaw University group and initially being built by PZL Swidnik in Poland, has so far been looked on rather condescendingly - particularly in Germany. But where else can you find a glass-fibre three-wheeler for early training which can later be used as a racing sailplane in competitions right up to World Championships? The peculiar design with its tandem main undercarriage and small tail wheel has caused derision but, as this test flight showed, this is unjustified.

The PW-5 we flew has been in operation for about a year and proved robust. Even on the way to the launch point it gained points; with a structural weight of 185kg it is very light and extremely nimble with its tandem undercarriage. Balancing, steering and pushing needed no more than two hands and on reasonably firm ground it can be handled by one pilot.

This advantage comes at the expense of a highly unusual silhouette - it would be unlikely to win a beauty contest. The tail unit leaves the forward fuselage as a simple raised tube. At the end a conventional tail unit hangs some distance above the ground while underneath the fuselage tapers to an end with a solid rubber tail wheel.

The large sprung main wheel (300mm) sticks out almost like a foreign body behind the fuselage. It is behind the empty weight C of G, so that with the somewhat smaller nose wheel (260mm) it forms a tandem undercarriage even without additional load. The solid rubber wheel is purely for protection. Both undercarriage wheels are by Tost as are the winch and aerotow releases which come as standard equipment.

Being so light it can be rigged easily. The spars run parallel in the fuselage and are held by four bolts. Only the elevator is fitted with an automatic control. The airbrake and aileron rods are connected using rapid connectors easily reached behind a panel in the fuselage.

Also recent experiences of accident research have only been partly taken into account when designing the cockpit. There is a handle for a safe emergency canopy release in the form of a clip (similar to the ASW-24e), but the back rest does not have a neck support.

Otherwise the cockpit deserves praise. A pneumatically sprung mechanism opens the canopy up and forward and the cockpit is easy to climb into. There is a luggage area, holding up to a maximum of 5kg, behind the back rest.

The range of weights the cockpit can take is considerable, ranging from 55kg to 110kg without the need for ballast to correct the C of G. Of course this means that lighter pilots, who are also likely to be smaller, sit further forward. The conventional pedal arrangement and the adjustable back rest makes this possible and there is plenty of room for larger pilots.

The seating position can be arranged so that even controls at the centre of the instrument panel are easily reached. An unusual feature is the additional grip for the wheel brake (drum brake) on the airbrake lever. The advantage over the single lever is that the PW-5 cannot be landed involuntarily with the wheel brake applied and locked. The need to open the hand using the airbrakes after touch down to operate the wheel brake isn't a problem.

On landing the tandem undercarriage also

PW-5 WORLD CLASS GLIDER COMES TO UK

The PW-5 demonstrator is due in the UK this December and will be based at Lasham. We have taken extracts from a test flight in Finland by Gerhard Marzinzik for *Aerokurier*, translated by Graham Wilson and printed by kind permission of *Aerokurier*



The PW-5 which will cost around £18 000.

makes for directional stability during the ground run. But it is not quite so stable after take-off on aerotow. Turbulence is much more noticeable given the wing loading of under 30kg/sq m. However, thanks to the nose release and the light and effective controls, it is easy to keep well positioned behind the tug.

Easy to rig with a roomy cockpit and good visibility

The good visibility which you notice on first sitting in the PW-5, is not quite so outstanding on aerotow and to keep the tug in view you have to peer round the instrument panel. The side view over the wing is also somewhat restricted with an aft seating position, since your head is behind the leading edge. However, on the whole the visibility can be rated as good.

It is not necessary to glance down to read the instruments. The instrument panel is fully equipped with a radio as standard and includes a compass, ASI, altimeter, a membrane-compensated 5m/sec variometer and an uncompensated 10m/sec vario and a turn indicator. A silly design feature is the emergency canopy jettison handle which obscures part of the ASI and vario at the top of the panel.

Off tow the PW-5 is remarkably stable. Even if you let go of the controls it is stable, whether in straight flight or turning, provided it is not too turbulent. The ailerons and rudder are of ample proportions so this small 13.44m span aircraft can be put into a turn and back into straight flight using only one of the controls. The control forces increase progressively up to full deflection. For co-ordinated flight only small deflections are necessary, which require hardly any force.

The lightness makes you want to make frequent and unnecessary corrections but conscious abstinence from too hasty use of the controls shows how well it stays on course.

The speed can be assessed clearly with reference to the horizon. In slow turns the nose is very high, whereas in the cruise it dips well down towards the ground. Here it is a child of the lower performance class. The speed polar at min wing loading shows a min sink rate of 0.65m/sec at 75km/h. At 100km/h this increases to 1m/sec, at 120 it is 1.43, at 140 2.20 and at 160km/h it reaches 3m/sec. Even with a heavy pilot (max UAW 300kg) this is not much better. At 160km/h it sinks at 2.80m/sec. The min sink rate at max weight is 0.70m/sec at 85km/h.

Cross-country and competition flying in the PW-5 requires a completely new approach - even for Club Class pilots. Yet not that long ago World Championships sailplanes were of this performance - 36 years ago Heinz Huth became the Standard Class World Champion in a K-6.

The PW-5 is similar in performance to the K-6 but with approximately 1.5m less span. The wing

profile by Jerzy Ostrowski gives good slow flying characteristics. At low wing loading in a turn at approximately 30° angle of bank, the stall can be identified by a raised nose and buffeting at less than 70km/h IAS. In straight flight it is even slower but the controls remain perceptibly effective.

If the stall goes further until the PW-5 stops flying, sometimes it tips left, sometimes right. Recovery, even in a sharp stall, is immediate with minimal height loss by relaxing pressure on the stick.

The recommended approach speed of 95km/h at max weight can be controlled effectively using the top surface Schempp-Hirth brakes. These produce a slight pitching moment, so that the speed increases slightly in line with the higher min speed. With brakes fully open, a sink rate of 4m/sec can be achieved. Should this not be enough, the PW-5 can be sideslipped. With medium angles of bank this works well, whereas with greater angles the rudder is no longer sufficient to keep the aircraft on course.

Take-offs and landings require a rethink. The flight manual recommends avoiding tail down landings to protect the tail end from heavy loads. This can be achieved by reducing speed relatively early before touchdown, ie higher than usual, or by landing at a higher speed. A shortage of speed would result in a tail down landing.

On the other hand, the large ground clearance of the tail unit, despite the conventional fin and tailplane layout, are a safety plus when it comes to field landings. On the tandem undercarriage the PW-5 rolls straight along the ground to a standstill with the drum brake giving sufficient deceleration.

This was a most enjoyable flight.

Technical data

Wing span (m)	13.44	Wing area (m²)	10.16	Aspect ratio	17.8
Length (m)	6.22	Height (m)	1.82	Min AUW (kg)	240
Max AUW (kg)	300	Cockpit load (kg)	55-110		
Best glide angle	1:32, 250kg at 85km/h.				
Min sink (m/sec)	0.64 at 73km/h.	VNE (km/h)	250		

(To book a flight in the PW-5 demonstrator contact International Sailplane Services (sole UK agents), tel 01420 88664, fax 01420 542003. See their advertisement in this issue for more details.)

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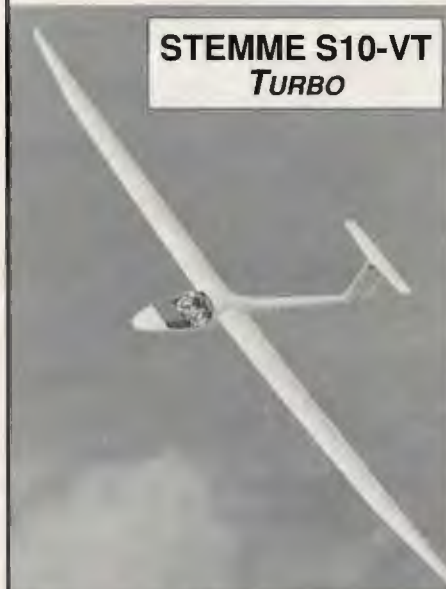
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What Kind Of Glider Pilot Are You?

A lighthearted quiz to set you thinking about yourself

This self analysis quiz is designed to bring our illustrious specific interest magazine down to the level of the mass media publications found at supermarket checkouts everywhere (there Mrs Bryce-Smith, a method of increasing circulation overnight!). (And the only reason you've got away with this Peter is because it is a Christmas issue! Ed.)

The multi choice answers bear absolutely no relationship to those obtuse, right, almost right, answers found in Bronze badge and CAA exams and must be answered instinctively. No chewing of pencils please - I have no wish to be sued for causing a mass outbreak of graphite poisoning.

Any regular or even spasmodic visitor to a gliding club should recognise the various types from the answers. But as self analysis and counselling is a growing trend of the 1990s, this quiz you will save hundreds of pounds that would have gone on an analyst and hours of soul searching simply by finding out the type of pilot you are.

Question 1. If you can think back that far, what were you doing on the last 500km weekend?

- a) Flying of course and I did 750km.
- b) Sat in the back of the K-13 trying not to be sick.
- c) Driving the winch.
- d) Taking the wife shopping because I believed Michael Fish.
- e) In the office trying to get a proposal together.

Question 2. If you can think back that far, what were you doing on the last 500km day which fell during the week?

- a) Flying of course and I did 750km.
- b) Sat in the back of the K-13 trying not to be sick.
- c) Called in sick but then the car wouldn't start.
- d) On holiday in Tenerife with the wife and kids.
- e) In the office in meetings.

Question 3. Your partner says he/she wants a divorce. What's your reaction?

- a) Great! More time to do another 750km.
- b) I wonder if he/she will want half the glider.
- c) Why did he/she cite the winch as co-responder.
- d) Bad! That means I will have the kids every other weekend.
- e) Now I'll have to spend more time in the office to gain promotion to pay the alimony.

Question 4. It's your day on the glider, it's rigged and the cu are beginning to pop. When you arrive at the launch point what's the first thing likely

to be said to you by the launch marshal?

- a) Full water eh? Trying another 750km?
- b) Fred says he wants you to do his Bronze check flights with him this morning.
- c) Can you do a spell on the winch? Tony's hurt his finger.
- d) Your wife called the clubhouse - your youngest is running a high fever.
- e) Are you a new member? Oh it's you. Blimey - I thought you had given up ages ago!

Question 5. A bunch of guys getting a camp together to go to a wave site ask you to join them. What's the likely outcome?

- a) You will need to refill the oxygen every other day.
- b) You spend your time in the back of the K-13 doing site checks.
- c) You end up driving the winch because it's the one week the permanent driver is on holiday.
- d) The family comes along and you are at the sea life centre on the one Diamond day.
- e) You spend most of the time on the car 'phone sorting out problems at the office.

HOW DID YOU SCORE?

Mostly As. Well if you are not in the British team squad you are likely to be shortly. However you are probably an arrogant s.o.b. who has absolutely no idea what your fellow club members had to go through to get their few precious hours gliding. You couldn't care less anyway and you know full well that you are the envy of 90% of the membership who you look down upon - literally. There's something which will put a stop to it though - it's called marriage.

Mostly Bs. You are probably a CFI or DCFI and almost certainly a full Cat. Whilst you are the backbone of the movement, it sure as hell doesn't feel like it when at the end of a long afternoon trying to teach a bunch of chickens how to soar. A comes screaming through the circuit dropping his 400lbs of water and pulling up into a chandelle right in the middle of our overshoot/undershoot demo!

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Mostly Cs. If B is the backbone, to mix metaphors, you are the engine room. Loyal and committed, you are the guys who get the rest of us in the air. However, underneath it all, whilst you whinge constantly about how hard done by you are, you quite enjoy the solitude at the far end of the field. And, perhaps, secretly, it's a very good excuse not to fly when you would have to perform to the equal of your fellows.

Mostly Ds. John Major would be proud of you! Family orientated through and through but with a hobby you are trying desperately to get something out of and a conflicting priority which keeps getting in the way. You would sell your soul for the ability to accurately predict the weekend weather on a Monday night (wouldn't we all?) but however many Tom Bradbury articles you read after the kids have gone to bed, you always seem to be a day out. Never mind, you can always look forward to when you retire to get those Diamonds - just watch out for the grandchildren!

Mostly Es. Oh you poor wage slave! You are running up a down escalator and it's likely that only redundancy or a heart attack will get you off. At least D has only got two conflicting priorities - you've got three! The trouble is you have lost sight of what life is really about and have convinced yourself that you can only afford to go gliding because of your high powered job. You may not be Steve Longland, but plenty of people have done Diamonds in wood - do you really need that brand new Discus?

A mixture of all. Then you are probably a classic, average gliding member. Just remember that gliding is about having fun. Don't get frustrated that you are not gaining badges as fast as you would like. Enjoy the moments you gain aloft - they are very precious. Mind you, if you would like to get some great soaring in, come to Gransden Lodge. It's a fantastic place and I will do a site check for you anytime - oh, but then again it might be my day for the Discus, or I might be shopping... 

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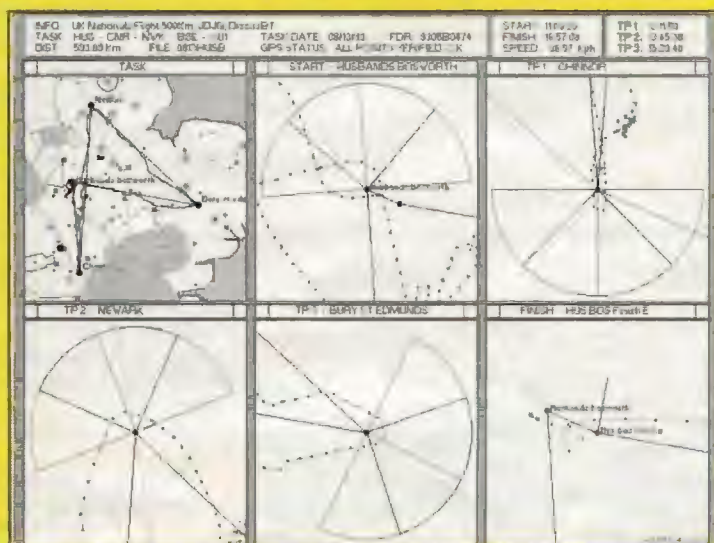
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The day had started much like any other big flight attempt - the tug pilot couldn't be found, both tugs were still in the hangar and when we did get airborne we were towed in the wrong direction. This meant some heated use of the radio to get us going on the right track. So much for briefing the tug pilot!

It was now about 10am and we were off tow and gliding in silk smooth air towards the first cumulus. The initial climb was an encouraging 4kt from 2000ft to the 3500ft cloudbase over Blakehill Farm.

Conditions then slowly got worse. Cloudbase came down to 2500ft as we passed Hungerford, with weaker climbs, but gradually it again improved and we made about 80km/h to Parham, the first TP.

Chris put Welshpool in the GPS, back around the corner of the TMA and away on track. It was fairly straight forward to about Hereford with a cloudbase of around 4000ft and most climbs of 4 to 6kts. Well out to the east we could see quite a lot of build ups and judging from what was being said on the radio, conditions weren't so good out there. This was soon confirmed as we listened to the Nympsfield boys abandoning their tasks and heading for home.

As we pressed on the cloudbase started coming down and the cumulus were turning into showers of snow and spread out. The whole scene began to look rather gloomy and, with an outside air temperature mostly below freezing, even the well sealed cockpit of the Nimbus 30T was feeling a little cold. The snow showers were completely obscuring the ground in places, forcing us more and more east of track on a line due north of the Long Mynd, until we were abeam the TP, though still unable to turn towards it as the ground was hidden by snow.

We held for about 20min, waiting for the TP to clear. As we circled at cloudbase we could hear some of the Nympsfield boys landing out. I really couldn't see us having a chance of completing a 750km, but hung on and eventually it was clear enough to get into the turn and then fly away towards Alton.

I made the mistake of going into cloud for a short while, which very quickly put a line of ice on the leading edge so there was not much future in that.

As we passed east of Leominster conditions improved again and confidence grew a little - but unfortunately this wasn't to last long. Approach-

NOT AN EASY 750KM

May 4 was probably not one of the better 750km days but Paul says that big wings, a turbo and an enthusiastic P2, Chris Taylor, combined to help squeeze all there was out of the day



Paul (left), a BAe 146 airline pilot, has two Diamonds plus the 750km diploma. Since starting gliding in 1970 he has amassed 2500hrs. Chris (right), who is in sales and marketing, has a Silver badge, the 750km diploma (P2), 900 power hours and, since starting gliding in 1979, 1500 gliding hours. Both pilots are members of Bristol & Gloucestershire Gliding Club.

ing the edge of the Cotswolds the sky towards Nympsfield was completely blue, to the east there were large lines of shower clouds and spread out while on track it looked virtually unsoarable. We had just climbed under the last cumulus and had a final glide for Nympsfield. I said I could see no way we were going to complete this task and suggested we headed for the bar.

Somehow Chris talked me out of it so we pressed on. It soon became apparent that another plan was required as we were in totally unsoarable air. We turned left about 120° to the edge of the big shower line and at this point it occurred to me that going nearly in the wrong direction was not a good way to complete a 750km, but I had run out of ideas.

We climbed to about 4500ft and set off on track again and this time there was a small cumulus in the distance. As we got closer I could see that it was right on the end of Brize Norton's runway. Just my luck, I thought (actually I thought something else, but you can't print that). I called Brize who were very helpful and we climbed away from the end of their runway and back to 4000ft.

We made for the only visible cumulus near track somewhere south of Didcot at 60kt. The solitary cloud gave 3kt and as we climbed I could see more cumulus on track. At cloudbase we set off and were soon in better conditions with a good cloud street taking us almost to the turn. Once round Alton we flew back to the street and climbed to the base of the airspace with a Nimbus 3 and were back on our route.

The street ended at Rivar Hill and we were just a little short of a final glide. We headed for a couple of bits of cumulus due north but, of course, they didn't work. Towards Nympsfield it looked completely unsoarable, so we went further north towards Brize again.

We spent the next 30min looking for 1000ft with a tedious climb of 0.3kt, but at last we had a glide. After a few miles the visibility dropped and it was snowing out of a sort of haze, not a real cloud, and the problem was we were falling off our glide. We came out the other side and to our delight there was a nice cumulus on track. It gave us a 4kt climb until we were far too high and had a high speed run home.

For about half the 754km flight I never really thought we would get round. It was an enormous help having Chris Taylor in the back who, although not an experienced cross-country pilot, kept the encouragement coming and just wouldn't let me give up. ✕

INTER-UNIVERSITY TASK WEEK



The 1996 Inter-University task week was hosted by Bristol University at Nympsfield from August 4-19 and was notable for the number of new teams and the absence of many of the larger more established clubs. Blessed with mixed weather we flew on four of the seven days and the two Classes, Wood and Glass, managed some interesting tasks with one or two epic and slightly embarrassing landouts. Bristol dominated the Wood Class taking 1st and 2nd places on every day in the K-6 and K-8. The Glass Class was slightly more competitive with Bristol hanging on to take the 1st in the SF-34 despite a late challenge from Loughborough in the Puchacz. Aside from the flying, there was a wide range of social events from barbecues to a very successful treasure hunt which made for a very enjoyable week. Particularly thanks must go to Sid Smith for his hard work as director and to everyone else who made the week such a success. Next year's task week will again be at Nympsfield.

PETER HITCHCOCK

I was yearning for the day! A film crew, a glider flight from the mountain airfield above Talgarth! Me on the telly! A whole day showing off! AND being paid for it! Bliss!

Jacci Parry (lovely girl) was doing a television programme about the Welsh borders for BBC Wales; she had written to the *Mid West Journal* asking if anyone had information for her. I sent her a piece I'd written last year for an anthology. It was about how I'd discovered Presteigne twenty years ago. I'd been flying my glider (radio call sign "Broomstick") and from 10 000ft I'd looked down through a hole in the cloud sheet and I'd seen Presteigne, sunlit in a grey landscape. I'd fallen in love with the little sunlit town, bought the first house I'd looked at and lived there merrily ever after.

Did Jacci, I asked, know about the weather system - lee wave - that runs along the Welsh borders and that had allowed me to climb my glider so high? It gives us a micro-climate and is why Presteigne has more sunshine than Hereford. Jacci loved the piece: she came to see me, would I like to take part in the programme?

As the date got nearer I became more and more excited. I told everyone I met (even if they weren't interested) and on September 18 I arrived at the gliding site above Talgarth to be greeted by the producer (Jacci), the assistant producer (Janet), the soundman (Brian, who wore headphones and carried what looked like grey woolly toys on sticks) and the cameraman (Tony) who was busily attaching tiny cameras to the K-13 on strategic places.

The crew cost £2000 for the day. I looked at the sky, I looked at the windsock, I looked at the steep ridge to the east of the airfield, I leaned against the roaring, blustering easterly gale and I knew that it would be extremely dangerous to fly, something that the television crew didn't know.

Gerry Martin, the CFI, and I went into a huddle. "What d'you reckon?" "It's on the edge, the rotor is right on the field but we may get a window." "Let's tell them." At 11am we got our window and I was filmed putting on my parachute

"I SHOULDN'T HAVE DONE IT"

Rhoda makes a welcome return to *S&G* after many years out of gliding. See also p331

and clambering painfully into the cockpit. Painfully because I'm arthritic, I'm 76, I hurt my knee recently and it was ten years since I'd flown regularly. Gerry nipped neatly in behind me and we took off downwind behind a bouncing Pawnee (piloted by "Brave Dave" Unwin) into crazy turbulence and with our tummies almost scraping a line of oak trees.

"We were bouncing about like a mad roller coaster"

I'd been told I was to talk about the flight and about how I'd found Presteigne from my *Broomstick* through a hole in the clouds. Normally I'd been delighted to do it, but we were bouncing about like a mad roller coaster and occasionally a specially violent bump would squeeze a cry of "whoops!" out of me.

After a while Jacci came on the radio and said would we move into a sunny patch and would I say my piece again. It sounded absurd the second time. We gradually lost height and then we did a splendid dive bomb landing from 1000ft, rolled to a halt and I was filmed finding it almost impossible to struggle out of the cockpit. It was like that tiger trap for the elderly, a steep sided bath without hand grips. At least I wasn't naked! *Damn and blast old age!*

The day progressed with grey skies, violent wind and cold, but I wasn't allowed to put on a warmer jacket because of the continuity. Jacci asked me to get in and out of the cockpit over and over again; I had to say my piece over and over again until I sounded like a demented Mickey Mouse.

On one occasion I was getting painfully into the cockpit for the umpteenth time when an extra wild gust slammed the canopy down on to my head, clouting me with the metal bold and all but reducing me to tears. I hadn't pictured myself appearing on telly weeping softly and shaking with cold in a howling gale. As the evening drew on I was to be seen shivering, my white hair blown on end, standing in front of a bank of lights saying my piece over and over and over again until it lost all sense.

Finally they said "OK, Rhoda, that's it, you can go." After a flurry of hugs and kisses I slunk off, drove home with exhausted care, poured myself a huge glass of whiskey, drew myself a deep bath, soaked and soaked and then sunk into bed thinking "All that for about six minutes of telly! Serves me right for being such a show off. It was a mistake, I shouldn't have done it." But was it a mistake? I met some smashing people; I realised once and for all that I'm not 35 and I looked down from 4000ft on a peerless landscape of mountains, farms, woods and newly cleared cornfields, all with the river Wye curving through it.

Mmm...I'm really glad I did it. Staying at home wouldn't have been anywhere near such fun. ☑

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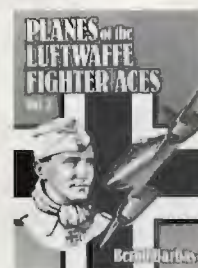


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Provisional Priority and Promotion Lists

These lists were compiled using the method described in the 1996 Competition Handbook and will be used for assigning places for the 1997 Nationals. If you have any queries regarding the compilation of the lists please contact me on 01525 220996 or abo35@dial.pipex.com. The closing date for entries for all Nationals is January 31, 1997.

PAUL CRABB, BGA Competitions and Awards Committee

PROVISIONAL NATIONALS		21 C.C.Rollings	(S)	43 P.L.Hurd	(15)	65 R.L.Fox	(QL)	87 H.S.Franks	(QL)	109 A.R.Hutchings	(S)
Priority List		22 P.G.Sheard	(O)	44 K.D.Barker	(QL)	66 G.N.D.Smith	(15)	88 R.A.Cole	(O)	110 Z.Marczynski	(QL)
1 B.T.Spreckley	(QE)	23 D.S.Watt	(QE)	45 G.D.Morris	(15)	67 A.Pozerskis	(QL)	89 N.A.Weir	(QL)	111 V.F.G.Tull	(O)
2 A.E.Kay	(BT)	24 G.G.Dale	(15)	46 E.W.Johnston	(QL)	68 A.J.Stone	(S)	90 P.A.King	(S)	112 P.Pozerskis	(QL)
3 C.P.Jeffery	(BT)	25 G.C.Metcalf	(S)	47 E.R.Smith	(S)	69 A.J.Clarke	(O)	91 B.C.Morris	(QL)	113 M.Roberts	(15)
4 A.J.Davis	(QE)	26 J.N.Wilton	(15)	48 J.A.Hallam	(15)	70 C.V.J.Heames	(15)	92 L.E.N.Tanner	(QL)	114 A.Hegner	(O)
5 M.J.Young	(BT)	27 D.E.Findon	(O)	49 D.S.Innes	(O)	71 I.P.Freestone	(S)	93 J.D.Spencer	(15)	115 J.B.Dobson	(QL)
6 M.R.Dawson	(BT)	28 G.M.Spreckley	(15)	50 J.R.Edyvean	(15)	72 P.M.Shelton	(15)	94 D.H.Gardner	(QL)	116 E.K.Stephenson	(S)
7 P.J.Harvey	(BT)	29 B.C.Marsh	(S)	51 G.E.McAndrew	(QL)	73 M.Strathern	(S)	95 K.Pickering	(O)	117 P.E.Rice	(QL)
8 R.A.Cheetham	(BT)	30 C.Garton	(QL)	52 P.J.Masson	(S)	74 M.C.Foreman	(O)	96 R.D.Payne	(QL)	118 J.G.Arnold	(QL)
9 T.J.Wills	(15)	31 M.G.Thick	(O)	53J.E.Gatfield	(15)	75 K.Hodgson	(QL)	97 D.J.Langrick	(S)	119 R.J.Toon	(QL)
10 D.R.Campbell	(S)	32 C.C.Lyttelton	(15)	54 A.P.Hatton	(O)	76 J.R.Reed	(S)	98 J.R.Taylor	(QL)	120 J.C.Kingertee	(QL)
11 R.C.May	(O)	33 E.R.Lysakowski	(S)	55 M.J.Jordy	(15)	77 W.M.Kay	(S)	99 I.R.Cook	(15)		
12 P.G.Crabb	(15)	34 T.J.Murphy	(15)	56 M.W.Durham	(S)	78 J.B.Giddins	(O)	100 R.L.Davidson	(S)		
13 H.A.Redbeck	(S)	35 A.P.Moulang	(O)	57 M.F.Cuming	(15)	79 P.Mclean	(O)	101 R.B.Witter	(O)		
14 T.J.Scott	(15)	36 O.M.Ward	(S)	58 P.J.Coward	(S)	80 C.C.Watt	(QL)	102 D.Hilton	(S)		
15 S.J. Crabb	(S)	37 J.P.Gorringer	(O)	59 F.J.Davies	(15)	81 W.Aspland	(15)	103 P.E.Baker	(S)	S=Standard Class, 15=15	
16 R. Jones	(O)	38 P.C.Fritche	(S)	60 B.Elliott	(QL)	82 C.J.Allidis	(QL)	104 A.C.Wright	(O)	Metra, BT=British Team	
17 M.D.Wells	(15)	39 G.P.Stingemore	(15)	61 N.D.Tillett	(S)	83 P.J.Stratton	(S)	105 T.J.Milner	(QL)	(Europeans), O=Open Class,	
18 D.W.K.Allison	(S)	40 N.H.Wall	(QL)	62 K.J.Hartley	(QL)	84 S.A.Adlard	(O)	106 J.Nash	(S)	QL=Qualifying list,	
19 P.R.Jones	(O)	41 D.P.Taylor	(O)	63 J.D.J. Glossop	(O)	85 T.R.Gardener	(QL)	107 M.B.Jefferyes	(15)	QE=Maintained rating from	
20 S.G.Jones	(15)	42 P.F.Brice	(QL)	64 S.J.Redman	(15)	86 R.J.Welford	(15)	108 D.K.Gardiner	(O)	approved European Competition	
PROVISIONAL REGIONALS		21 G.N.D.Smith	(QL)	43 W.Aspland	(QL)	65 P.J.Coward	(QL)	87 B.A.Fairston	(QL)	109 P.R.Stafford Allen	(E)
Promotion List		22 B.L.Cooper	(BA)	44 J.N.Redbeck	(J)	66 J.R.Lyall	(LA)	88 D.J.Langrick	(M)	110 D.leRoux	(QL)
1 H.E.Cheetham	(M)	23 J.A.Hallam	(QL)	45 A.J.Stone	(BB)	67 A.Pozerskis	(QL)	89 D.A.Booth	(QL)	111 B.M.Chaplin	(LB)
2 K.D.Barker	(GS)	24 J.P.Popika	(QL)	46 M.Strathern	(NS)	68 J.A.McCoshim	(BA)	90 N.J.Passmore	(DP)	112 S.A.Hindley	(QL)
3 R.J.Toon	(IW)	25 N.D.Tillett	(DP)	47 T.M.Mitchell	(QL)	69 P.M.Shelton	(QL)	91 J.B.Nicholson	(QL)	113 R.Smith	(IW)
4 A.A.Darlington	(J)	26 L.E.Tanner	(LA)	48 R.Lemin	(DP)	70 D.Hilton	(QL)	92 K.R.Merritt	(LA)	114 P.L.Hackett	(QL)
5 J.R.Taylor	(LA)	27 S.M.Wells	(QL)	49 S.Fujimoto	(LB)	71 S.A.Adlard	(IR)	93 D.W.Smith	(QL)	115 S.E.Hill	(QL)
6 J.D.Spencer	(DP)	28 P.M.Kirschner	(IR)	50 S.J.Redman	(QL)	72 D.A.White	(QL)	94 T.Mason	(IW)	116 J.R.Burby	(LA)
7 R.A.Browne	(IR)	29 P.Davis	(QL)	51 M.Newland-Smith	(M)	73 G.Hibberd	(M)	95 R.A.Cole	(QL)	117 A.Mason	(QL)
8 N.J.Howes	(NO)	30 R.Kalin	(NO)	52 I.R.Cook	(QL)	74 A.R.Hutchings	(QL)	96 R.J.Smith	(WE)	118 P.F.Brice	(BA)
9 R.J.Maisonpierre	(GC)	31 N.V.Parry	(QL)	53 M.Roberts	(QL)	75 J.R.Jeffries	(DB)	97 A.O.Harkins	(QL)	119 D.P.Taylor	(QL)
10 S.R.Housden	(M)	32 A.MacGregor	(GC)	54 R.L.Fox	(IB)	76 J.Nash	(QL)	98 R.Johnson	(M)	120 R.M.Evans	(IR)
11 P.E.Baker	(E)	33 D.P.Francis	(IB)	55 C.J.Teagle	(NO)	77 P.M.Wells	(BB)	99 M.J.Birch	(DB)		
12 M.J.Jordy	(CC)	34 R.D.Payne	(QL)	56 P.L.Hurd	(QL)	78 P.Atkinson	(QL)	100 E.Downham	(QL)		
13 G.W.Craig	(DB)	35 C.R.Ermo	(CC)	57 P.Atkin	(GC)	79 J.Stephen	(NS)	101 M.J.Miller-Smith	(J)	CC=Club Class Championships,	
14 A.Jelden	(BB)	36 P.C.Fritche	(QL)	58 R.L.Davidson	(QL)	80 W.M.Kay	(QL)	102 B.R.Forrest	(BB)	M=Midland, GS,GC=Gransden,	
15 P.F.Whitehead	(NS)	37 C.G.Starkey	(GS)	59 A.D.Piggott	(LC)	81 R.Croker	(IW)	103 R.W.Alicoat	(NO)	IW,IR,IB=Inter services,	
16 M.G.Throssell	(LB)	38 M.F.Cuming	(QL)	60 C.V.J.Heames	(QL)	82 R.G.Smith	(QL)	104 R.D.Tillett	(QL)	J=Junior Championships,	
17 A.S.Green	(IW)	39 R.Dailling	(IW)	61 E.K.Stephenson	(QL)	83 T.Goodall	(J)	105 P.Gentil	(NS)	LA,LB,LC=Lasham,	
18 G.D.MacDonald	(LC)	40 I.P.Freestone	(QL)	62 K.Stewart	(M)	84 D.S.Innes	(IB)	106 A.V.Nunn	(QL)	DP,DB=Dunstable,	
19 D.Westwood	(M)	41 R.Gaunt	(IW)	63 R.J.Welford	(QL)	85 C.J.Short	(QL)	107 M.W.Durham	(GS)	BA,BB=Booker,	
20 O.M.Ward	(J)	42 M.F.Brook	(QL)	64 P.J.Masson	(J)	86 M.I.Pike	(E)	108 D.K.McCarthy	(QL)	NO,NS=Northern, E=Eastern	

S=Standard Class, 15=15 Metre, BT=British Team (Europeans), O=Open Class, QL=Qualifying list, QE=Maintained rating from approved European Competition

CC=Club Class Championships, M=Midland, GS,GC=Gransden, IW,IR,IB=Inter services, J=Junior Championships, LA,LB,LC=Lasham, DP,DB=Dunstable, BA,BB=Booker, NO,NS=Northern, E=Eastern

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Photographs from left to right: the top three with the Champion, Justin Wills in the centre, Paul Crabb (2)



In one of the strongest fields in recent years, 50 pilots competed for the National title over six contest days, with three more flying *hors concours*. This year was to be the first real test of the new generation of 15m gliders such as the Ventus 2 and LS-8 with a reasonable number of each type in contention. Competition director Ron Bridges was assisted by Derek Westwood and Basil Fairston in the scoring and task setting departments, as well as numerous members who gave up a week to help out in the kitchen, control and on the field. Weather reports were supplied remotely by Derek Sear from Dunstable. Having just held a very successful Regionals, the team were fired up and an excellent week looked likely.

Day 1, Saturday, August 3

Task: 187.56km triangle, Aylesbury A41/rail bridge, Grafham Water.

Weather: Low cloud at first and the prospect of weak, soarable conditions under the overcast. The outlook was for an improving situation.

As the 50 gliders formed into an impressive looking grid, the sky was grey and unpromising. The first launch was held back and for many a long day's grid squatting looked in prospect. Ron Bridges stuck to his guns, however, and a sniffer was dispatched who reported weak soaring conditions to 3000ft in the local area.

The grid was launched efficiently and before the startline was opened nearly the whole field was circling in only two or three thermals over or near the field. There were a few early starters, then the floodgates opened with the majority starting between 2.30pm and 3pm. Having seen their pilots disappear into the gloom, most crews

Justin Wills (LS-6) finishing.

were pessimistic about the chances of doing a retrieve. In the end the majority of the field got round, reporting improved soaring conditions some 15 miles down track, south of Towcester.

The winner for the day was Justin Wills (LS-6) at 78km/h, having started in the middle of the field at 2.45pm.

Day 2, Sunday, August 4

Task: 350km quadrilateral, Charlbury B4437 rail bridge, Ludlow castle, Bicester control tower.

Weather: Cloudy at first but the airmass will dry as it moves inland, leading to good soaring conditions in the afternoon. High pressure moving in from the west will become more established with best conditions in the south and west.

With improving weather, it was possible to set a better sized task to see how the newer gliders performed in English racing conditions. It took the competitors down south of the Midlands, then across into the west before drawing them back along a similar route, keeping them out of the worst of the airspace. Cloudbase was forecast to be over 5000ft, with strong climbs. The amount of water seen going into some gliders might have made Severn Trent consider a special ballast ban. Start times were widely spread this time and for some a street running into the Ludlow turn meant really fast times.

The day's winner was Steve Jones (Ventus 2) at 112.33km/h. Speeds of over 100km/h were achieved by the first 25 gliders. Oddly, there were a few snags with some electronic barographs switching themselves off near the Ludlow turn caused, it is thought, by the strong radio transmissions from the Wootton masts to the south of Ludlow.

Day 3, Monday, August 5

Task: 324km quadrilateral, Aylesbury A41/rail bridge, Melton Mowbray station/A606, Gransden Lodge clubhouse.

Weather: A similar situation to Sunday, the high pressure moving across the country and drying out. Likely to be little cloud, but strong convection in the blue. Best areas central and eastern.

The run of good weather continued, allowing another large task to be set, this time starting in the middle of the country then heading out into East Anglia, before returning to the Midlands. The forecast for the day was to be blue thermals, but with an inversion of at least 5000ft. In the event, clouds actually did appear and stayed in the task area for the entire day.

Cloudbase got up to 6000ft in the north of the task area resulting in speeds that were even

15 METRE CLASS

TOBY WRIGHT reports on a successful Soaring Centre, Husbands Bosworth Photographs by PAUL TREADAWAY

faster than the previous day. Martyn Wells (LS-8) won the day at 115km/h. Speeds in excess of 100km/h were achieved by the first 30 pilots and again all pilots completed the task. For most the highlight of the flight seemed to be the first leg down to Aylesbury, where the majority of pilots reported not having taken a climb from leaving the start zone to turning Aylesbury, some 60km!

Tuesday, August 6

Weather: Rain, low cloud and little prospect of soarable conditions. The outlook was for an improving situation - a low pressure approaching from the west with an associated cold front. With a poor forecast, and having had three good racing days, the organisers decided to scrub at 11am. In the event there was a break in the weather for around 3hrs with what looked like good conditions in between showers.

Day 4, Wednesday, August 7

Task: 216km triangle, Birdlip A417/A436/B4070, Pitsford reservoir causeway.

Weather: Unsoarable at first, 15kt wind with a possible short slot later in the day.

From the early morning briefing it was obvious that today was going to be more tricky for

The briefing.





(2nd) is on his left with Tim Scott (3rd) on the right. Centre photo: an aerial shot of the grid. Far right: Tony Pozerskis finishing in his Discus.

SS NATIONALS

Successful contest organised by The
from August 3-11.

the director. Having had one scrubbed day, everyone was anxious to get flying again, but from the forecast it looked pretty unlikely. However, Ron insisted there would be a slot later in the afternoon. As a result, at 2pm everyone was on the grid under a totally overcast sky. The sniffer was launched and promptly fell back to earth.

With time getting on a scrub looked inevitable, so Ron decided that he would go sniffing and prove how good it was. At exactly 3pm he called from his LS-7 that it was soarable and to launch the grid. As the field was flung into the air it was clear that if Ron landed back he was going to be lynched by the assorted crews, and to begin with there were a number of reights.

Just as it looked hopeless the sky cleared and good soaring conditions on track were visible. With that the field bounded off on task, leaving very concerned looking crews. There was then a long 2½ hrs wait before the first finishers appeared, much to Ron's relief.

Most then finished in large gaggles from around 7pm. Thirty-six finished, the fastest being John Wilton (ASW-20c) at 79km/h.

Day 5, Thursday, August 8

Task: 209km quadrilateral, Banbury M40 J11/ A422, Corby A427/A6116, St Neots A45/rail bridge.



Weather: Cloudy at first, brighter later with showers. An occluded front over Ireland expected to be in the extreme west by the end of the day. Although the airmass will dry to some extent as it moves inland, the signs are that any spread out will be persistent.

With another difficult but improving forecast, the tasksetters kept the field in the Midlands before sending them out east and back. After the previous two days, the sky actually looked soarable as the grid was launched and there was much hope of a decent racing day again.

Competitors reported excellent conditions with average climbs of 6kt, cloudbases in excess of 4000ft and long streets in the fresh wind allowing much higher cruising speeds than the previous day. After the start nearly the whole field left at the same time down the same street to Banbury, looking from the launch point like an advancing airforce. According to most of the competitors, the only difficult part of the flight was finding the TP at Corby, which is apparently a less than obvious road junction. The majority seemed to think another TP at Corby is needed.

Winners for the day were Alister Kay (Ventus 2) and Justin Wills at a speeds of 91.6 and 91.5km/h respectively. These two were so close that the scoring program could not split them, so the prizes were given equally. The following day at prizegiving, in keeping with this, Justin and Alister each gave half the howldone it in turn. There were 48 finishers on this day.

Friday, August 9

Weather: A weak wavy warm front remains slow moving over the eastern area. A moist south south-westerly airflow covers the region. A 50% chance of soarable conditions after 2pm. Some showers, heavy possibly with thunder.

With the chance of a slot in the afternoon, the normal briefing was put back a couple of hours. A task was set and the grid was duly formed. Once again we sat on the grid under an overcast sky.

With the weather breaks that had occurred earlier in the week the organisation held out for the slot to appear. However, on this occasion it never did. The day was finally scrubbed around 4pm as it started to rain.

Day 6, Saturday, August 10

Task: 243km triangle, Didcot power station's tallest chimney, Manton A6003/rail bridge.

Weather: Low pressure centred over North Wales by the end of the day. Associated cold front clearing to the east during the morning. A showery day, best in central areas.

After a second scrubbed day, everyone was keen to go again despite a poor forecast offering difficult, or as Derek Sear's forecast put it, "challenging soaring conditions". The task was set keeping the field within the middle of the country and an early launch at 11am was set to make the best of the available conditions.

As the start gate opened a few small showers were beginning to fall in the distance, but nothing too bad, and most competitors hung around to make starts between 1 and 2pm. However, within 30min of the last starters leaving, the land-out 'phones started to go.

In the distance a long line of showers around the Bicester and Oxford area were cutting off access to Didcot and those brave enough to head into them quickly landed out. At least half the field landed out in the Bicester area, with around ten actually on the airfield. For those who hung around, conditions improved and they were able to divert easterly around the showers to get in and out of Didcot.

The rest of the flight was a similar struggle, which resulted in only three finishers. The general consensus for the day was that it was a challenging task, which most pilots thought they could have improved on if they hadn't been so bold.

The actual winner for the day was Phil Jeffery (LS-8) at 61.89km/h, however, Phil was flying *hors concours* so the competition day winner was Justin Wills at 55.66km/h. Tim Scott (LS-8) was 3rd at 48.85km/h.

Sunday, August 11

Weather: Low pressure centred on Bristol will move eastwards to be centred over Cambridge ➡

The other Crabb - Steve who came 13th.



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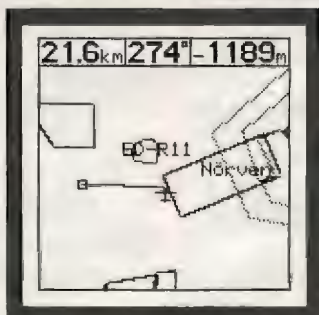
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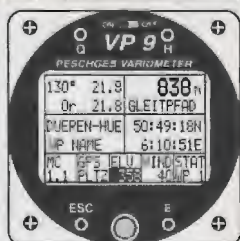
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by the end of the day. A light and variable unstable airflow covers the region. Any convection will be weak, all the airmasses are moist and will readily produce showers.

After a heavy night in the bar with a live rock band, the assembled faces at briefing looked much the worse for wear. This time it looked like the best weather would be early in the day so a grid was formed by 11am.

Despite a promising if showery looking sky,

the thermals never really got going. The sniffer was still reporting cloudbase at 1500ft by 0130hrs and only very weak lift. With the show-ers getting ever more active the day was scrubbed at 2pm, leaving plenty of time for people to pack up.

Justin took a very deserved win, having been in the lead for the majority of the week, with an eager pack not that far behind.

The newer gliders did very well - three LS-8s

in the top four is not a bad record, especially as they are not even flapped.

At the prizegiving Justin praised the organisation for the week, in particular the task setting, which seemed to be just right on each occasion, and the slick tugging operation which got all the gliders airborne within an hour.

Next year The Soaring Centre hosts the Club Class Championships and a Regionals. ✕

FINAL RESULTS

15 Metre Class Nationals

FINAL RESULTS			Day 1.3.8 187.50km Aylesbury, Grafton Water			Day 2.4.8 349.22km ■ Charlbury, Ludlow, Bicester			Day 3.5.8 324.42km ■ Aylesbury, Merton Mowbray, Granden Lodge			Day 4.7.8 216.42km ▲ Birdlip, Pittsford			Day 5.8.8 209.75km ■ Banbury, Corby, St Neots			Day 6.10.6 243.22km ▲ Didcot, Manton			Total Points	
Pos	Pilot	Glider	Speed (Dist)	Pos	Pts	Speed	Pos	Pts	Speed	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts	Speed (Dist)	Pos	Pts		
1	Wills, T. J.	LS-6	78.1	1	951	109.3	4	952	108.5	8	911	73.2	24	923	91.5	1=	916	55.7	1	453	5116	
2	Crabb, P. G.	LS-8	69.3	7=	834	107.9	7	934	114.4	2	988	74.4	21	938	86.1	5	838	(179.6)	14	319	4851	
3	Scott, T. J.	LS-8	67.9	12	814	101.4	18	848	110.5	5	937	76.2	9	964	78.5	14	743	48.9	2	450	4756	
4	Wells, M. D.	LS-8	59.8	24	695	110.9	2	973	115.3	1	1000	77.9	4	981	77.9	20	719	(179.6)	14	319	4687	
5	Key, A. E.	Ventus 2-15	60.3	23	704	110.6	3	970	105.0	15	866	77.9	3	986	81.6	1=	918	(45.7)	40	105	4547	
6	Jones, S. G.	Ventus 2-15	63.6	17	752	112.9	1	1000	105.2	14	868	76.2	10	963	89.2	3	882	(27.8)	47	53	4518	
7	Dala, G. G.	ASW-24	70.0	5	843	101.2	19	845	101.8	20	824	72.9	25	918	75.3	27	681	(211.4)	10	348	4459	
8	Wilton, J. N.	ASW-20c	68.3	11	820	94.3	39	754	99.9	26	799	78.9	1	1000	71.9	33	633	(237.2)	3	422	4428	
9	Spreckley, G. M.	LS-8	68.8	10	826	100.2	22	831	97.1	32	763	75.2	16	949	75.6	24	686	(211.6)	10	348	4403	
10	Lytleton, C. C.	LS-6	63.1	18	744	100.2	21	832	104.1	17	855	76.4	8	965	78.1	19	722	(78.1)	18	199	4317	
11	Murphy, T. J.	LS-7w	65.8	15	783	94.2	40	752	95.7	33	745	75.4	13	952	75.0	28	678	(228.3)	4=	396	4306	
12	Garlon, C.	Ventus 2-15	62.0	19	729	105.8	11	903	105.5	13	872	74.9	17	945	79.9	13	748	(46.7)	39	108	4305	
13	Crabb, S. J.	LS-8	69.3	7=	834	108.0	6	935	109.4	6	923	(215.4)	36	461	84.7	8	817	(179.6)	14	319	4289	
14	Stingmore, G. P.	LS-6	61.3	20	719	106.1	9	910	107.4	10	896	78.0	2	987	80.1	11	751	(0.0)			DNF	4263
15	Hurd, P. L.	LS-6	72.2	3	876	93.4	41	741	100.9	24	812	71.5	27	900	82.8	9	789	(42.6)	41	96	4214	
16	Morris, G. D.	ASW-20L	67.2	13	803	95.4	33	767	106.8	29	786	75.4	13	952	78.2	17	737	(58.5)	22	142	4187	
17	Hallam, J. A.	Discus	69.5	6	837	101.1	20	843	101.3	23	818	68.4	32	857	73.0	31	649	(58.5)	22	142	4146	
18	Lysakowski, E. R.	Ventus 2-15	(182.6)	40	386	90.8	43	707	107.5	9	899	76.5	7	967	79.0	18	735	(220.7)	6=	374	4068	
19	Edyvean, J. R.	Ventus 15	73.3	2	892	105.4	12	901	109.2	7	920	(145.1)	43	321	80.1	11	751	(58.5)	22	142	3927	
20	Gatfield, J. E.	ASW-20	55.3	33	632	95.0	36	763	91.0	37	684	76.7	6	970	79.4	15	741	(54.9)	33	132	3922	
21	Jordy, M. J.	LS-6	80.5	21	709	99.8	23	826	101.6	22	822	(164.4)	40	353	85.5	8	828	(216.5)	9	362	3900	
22	Cumling, M. F.	Discus	66.1	14	788	108.0	5	936	99.9	25	800	(205.4)	37	431	84.9	7	819	(50.8)	35	120	3894	
23	Davies, F. J.	LS-6	64.9	16	770	95.2	35	766	101.8	20	824	66.0	30	873	71.0	38	619	(22.1)	48	37	3889	
24	Fritche, P. C.	LS-4	68.8	9	827	90.4	44	702	90.9	38	683	73.4	23	925	72.4	32	639	(18.0)	49	25	3801	
25	Johnston, E. W.	LS-6	(100.2)	50	175	103.6	15	876	97.4	31	766	76.8	5	971	68.8	41	589	(228.3)	4	398	3773	
26	Redman, S. J.	LS-6	54.4	34	620	102.7	17	865	111.0	4	944	(132.1)	44	299	75.3	26	682	(211.5)	10	348	3758	
27	Sheard, P. G.	Discus	60.5	22	707	103.1	16	871	83.9	45	542	72.9	25	918	71.9	33	633	(28.3)	46	55	3726	
28	Smith, G. N. D.	LS-7	51.1	37	572	96.6	27	784	104.8	16	863	75.2	34	749	71.5	35	627	(49.5)	37	116	3711	
29	Cheetham, R. A.	LS-8	51.3	36	575	107.6	8	930	106.5	11	886	(115.8)	47	272	67.6	4	859	(65.1)	21	162	3684	
30	Heames, C. V. J.	Ventus 15	59.1	26	687	104.0	14	882	67.8	50	382	74.5	20	940	70.9	39	618	(58.5)	22	142	3651	
31	Shelton, P. M.	Discus	57.6	30	664	96.1	31	777	102.7	19	836	70.5	35	686	66.8	45	559	(42.4)	41	96	3618	
32	Marsh, B. C.	LS-8	70.8	4	853	105.6	10	904	103.5	27	796	(113.1)	48	268	75.7	23	687	(42.4)	41	96	3604	
33	Pozerskakis, A.	Discus	(149.4)	48	299	94.7	38	759	98.5	30	782	73.9	22	931	77.6	21	714	(49.5)	37	116	3601	
34	McAndrew, G. E.	Ventus 15	(177.3)	41	372	95.4	33	767	106.4	12	884	69.1	31	866	70.9	44	568	(58.5)	22	142	3599	
35	Hartley, K. J.	ASW-20w	(174.1)	43	364	96.2	30	778	100.1	35	702	74.8	18	944	74.1	30	665	(58.5)	22	142	3595	
36	Aspland, W.	ASW-24w	(176.9)	42	371	96.6	32	771	87.2	41	635	76.1	11	962	77.1	22	708	(42.6)	41	96	3543	
37	Elliot, B.	Ventus 15	(171.2)	44	356	91.0	42	709	103.6	18	848	71.0	26	892	69.3	40	595	(58.5)	22	142	3542	
38	Welford, R. J.	LS-7w	62.0	35	585	89.8	46	693	88.8	40	655	75.4	12	953	60.3	48	466	(50.7)	35	120	3472	
39	Aldis, C. J.	LS-4	67.8	29	669	95.0	37	762	91.4	36	689	(108.5)	49	260	74.3	29	667	(211.4)	10	348	3395	
40	Spencer, J. D.	DG-600 15	58.5	27	678	82.2	49	593	79.5	46	534	70.0	29	678	64.8	47	530	(58.5)	22	142	3355	
41	Dawson, M. R.	Ventus 15	(188.4)	45	349	104.3	13	885	111.9	3	956	(145.7)	42	322	79.4	16	740	(42.4)	41	96	3348	
42	Cook, I. R.	Ventus 15	(156.7)	47	318	90.4	45	701	99.7	27	796	75.3	15	951	67.7	43	572	(0.0)			DNF	3338
43	Freestone, I. P.	Discus	55.4	32	634	99.3	24	819	90.1	39	672	(132.1)	44	299	82.5	10	785	(51.9)	34	123	3332	
44	Fox, R. W.	Discus	58.3	28	675	98.2	25	805	82.8	44	574	74.6	19	941	(14.2)	51	8	(58.5)	22	142	3145	
45	Wall, N. H.	Discus	50.6	38	585	97.1	26	791	83.8	43	590	(167.0)	38	390	68.7	42	587	(65.6)	20	163	3086	
46	Jefferyes, M. B.	DG-600 15	55.7	31	638	75.7	50	506	86.4	42	624	(146.7)	41	323	65.3	46	538	(216.7)	8	383	2992	
47	Glossop, J. D. J.	Discus	59.5	25	693	96.4	29	782	82.5	49	473	(121.1)	46	281	71.0	37	620	(58.5)	22	142	2991	
48	Payne, R.	Discus	(133.1)	49	257	96.5	28	783	101.1	34	715	(186.1)	39	389	71.4	36	626	(78.8)	17	204	2974	
49	Roberts, M.	Discus	(161.8)	46	332	89.0	47	682	83.7	48	488	66.3	33	829	(45.6)	50	72	(58.5)	22	142	2545	
50	Davidson, R.	LS-4	51.0	39	521	86.5	48	650	80.0	47	490	(0.0)		DNF	80.3	49	465	(0.0)			DNF	2126
Hors concours																						
	Watt, D. S.		860		71.1	914		106.4	842		103.2	890		70.9	709		77.2	199		(76.0)	4414	
	Cooper, B.		734		82.4	838		104.5	847		103.6	886		70.6	686		75.6	374		(229.6)	4365	
	Jeffery, C. P.		819		68.3	844		101.1	918		109.0	408		(198.1)	729		78.8	457		61.9	4175	

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BGA & GENERAL NEWS

FROM THE BGA CHAIRMAN

With Barry Rolfe, Roger Coote and Keith Mansell I attended a Sports Council meeting in September to negotiate the BGA's grant for the next financial year. At the time of writing we are still awaiting the outcome, but I am hopeful we will be successful and enjoy the benefit of an, albeit quite modest, subsidy once more.

Whilst on the subject of grant money, I am delighted the BGA has received a very substantial offer from the Foundation for Sport and the Arts towards buying a new Duo Discus. (See also Development News.) The glider will greatly improve our scope for effective cross-country training at all levels and we hope to have it operational by next season. Our thanks to Roger and all the others involved in the preparations and presentation of the BGA's bid.

Have you noticed how the BGA is organising a "Happening" on Saturday, February 22 at Hopcrofts Holt Hotel? The venue is reasonably central, being near Oxford, and in response to popular demand we are trying a new format which I am confident will have a wide appeal.

Gerhard Waibel, the renowned designer of Schleicher gliders, will be our guest speaker, and in addition there will be a fascinating range of talks, meetings and discussion on all sorts of topical gliding matters. Added to this there is the chance to inspect the new World Class glider, see some of the very latest in high tech gadgetry and view some spectacular new videos.

Dancing into the small hours will bring the day to a close, and I believe we have the formula for an interesting and enjoyable occasion. Do come along and join in - even, perhaps, pop into the AGM and let us have your views on what is, or should be, going on!

Tom Zealley, a BGA vice-president and past chairman, has been awarded the prestigious FAI Bronze medal in recognition of his many years service to IGC and also representing the RAc at the main FAI Council and international conferences. Tom is retiring from all this globetrotting and I am happy to have the opportunity to thank Tom on behalf of the Executive, and indeed the whole gliding movement, for the superb work he has done on our behalf over so very many years.

Well as you read this Christmas will be rushing at us and we will soon be thinking of 1997 and the opportunities which will open up to us. Whatever your own personal goals, I do wish you all a safe and successful season in 1997 and I am sure you will join with me in hoping that the "powers that be" with whom we have to deal and negotiate, continue to allow us to operate with responsibility and freedom so that we can enjoy the privilege of access to the open skies.

Dick Dixon

BGA 1000 CLUB LOTTERY

The September draw results are: First prize - A. Towse (£49.25) with the runners up - M. Pleasance, S. Hill, G.H.N. Chamberlain, M. Gee and J. Hartley - each winning £9.85.

October: First prize - J. Scibor-Kaminski (£49.50) with the runners-up - M. Pleasance, M. J. Wilshire, F. Strathern, A. Galbraith and J. Allen - each winning £9.90.

DEVELOPMENT NEWS

Upgrading the club fleet - a sting in the tail?

The availability of grants from the Lottery Sports Fund and the Foundation for Sport and the Arts has encouraged many clubs to upgrade their fleets to include better, more sophisticated and more expensive aircraft. Many clubs and, indeed, the BGA have been successful in gaining grant aid for this purpose.

Unfortunately, whilst there is cash available for buying the improved gliders, there is no grant available, as yet, to cover the increased operating costs that will inevitably follow.

So what should clubs charge their members for the use of these better and more expensive machines? Clearly, there has to be an increase in the amount charged per minute of flying time or otherwise the club must subsidise the cost of operating the new aircraft in some other way.

The most immediate increase in cost is from comprehensive insurance which is calculated as a direct percentage of the hull and instrument value. If a club were to replace a K-13, valued at say £20 000, with a K-21, valued at say £50 000, then the comprehensive insurance costs would increase by a factor of 2.5.

At the top of the market with a Duo Discus at say £80 000, the cost increases fourfold. Similarly, the cost of repairs over the life of a glider can also be expressed as a percentage of the hull value, as will depreciation (if the club has adopted an accounting convention to depreciate its gliders).

There is very little information available on the cost of annual repairs as a percentage of insured value but 10% is not unreasonable, judging from individual club accounts. If one disregards depreciation (and many clubs adopt a convention of doing just that) then the cost per minute of operating club two-seater training gliders can be expressed as follows:-

Value of hull and instruments	£80 000	£50 000	£20 000
Running costs			
Insurance	£	£	£
Third party £1m	350	350	350
Comprehensive 4% hull value	3 200	2 000	800
Total insurance	3 550	2 350	1 150
Repairs 10% hull and instrument value	8 000	5 000	2 000
Operating costs before depreciation	11 550	7 350	3 150
Cost/min at 400hrs/year	48p	31p	13p

If the club aircraft or the upgraded models fly less than 400hrs/year, then the cost/min will be proportionally greater.

These are rough and ready figures and are by no means absolute, but they do illustrate the principles involved and the need to recover the additional operating costs associated with higher value aircraft. If any club has more accurate figures on the operating costs of club gliders, then I shall be interested to see them.

Meanwhile, this is an important factor which should be given due consideration in preparing club business plans when applying for grant aid for fleet upgrading and members must recognise and accept the need for higher flying fees for more expensive club gliders.

Foundation for Sport and the Arts

The Foundation has offered a grant of £74 000 towards the cost of a new Duo Discus for the

BGA coaching operation. Needless to say, the offer which represents approximately 80% of the project cost, has been gratefully accepted and with luck this new glider will be available for the 1997 BGA soaring and instructors' courses.

Since gliding became accepted by the Foundation as an eligible sport, the following clubs have also been successful:-

Nene Valley, £8000 for site improvements.

Southdown, £26 500 for an underground aviation fuel storage tank.

Deeside, £34 000 for a Discus for the club fleet.

Bristol & Gloucestershire, £60 000 for a new two-seater.

Northumbria, £23 000 towards a new winch. Roger Coote, BGA development officer

NATIONAL LADDER

With a few potentially significant scores still to arrive Peter Baker from Cambridge GC tops the Open Ladder with the assistance of an impressive 770km in June and a blisteringly fast 370km (111.6km/h) in late August, both achieved in his syndicate Discus.

Steve Crabb of The Soaring Centre, pipped by Peter in the Open Ladder, receives some consolation in heading the Weekend Ladder by a healthy margin. Final results will be in the next issue.

Open Ladder

Pilot	Club	Pts	Flts
1. P. E. Baker	Cambridge	11 965	4
2. S.J. Crabb	The Soaring Centre	11 775	4
3. T. Maccladyen	Bristol & Glos	11 686	4
4. J.L. Bridge	Cambridge	10 361	4

Weekend Ladder

Pilot	Club	Pts	Flts
1. S. J. Crabb	The Soaring Centre	10 028	4
2. J. L. Bridge	Cambridge	9214	4
3. S. J. Mynott	Cambridge	7432	4
4. G. Thomas	The Soaring Centre	6463	4

I would welcome any views on the way the ladder is run and suggestions for improvements. Please contact me either through your own club ladder steward or via the BGA office. John Bridge, National Ladder steward

SAFETY ADVICE

Parachute Dropping Zones

A recent incident in which a glider flew in close proximity to a group of parachutists in free fall relative work gives cause for concern. The glider was within 100ft of the parachutists and the whole event was captured on video.

The status of dropping zones varies. Some will be marked on the half million chart with a parachute symbol and some will also have the warning - **intense parachuting**. Some will have a danger area into which pilots are well advised not to fly. Sometimes the potential for conflict is spotted by the pilot or jump master of the aircraft carrying the parachutists.

They might rightly feel frustrated if they have to hold for a glider thermalling in their dropping zone (DZ), especially if the glider lingers. Apart from the evident poor airmanship of loitering in a DZ it is difficult, maybe impossible, to keep a lookout for parachutists, particularly if they are in free fall. The only safeguard is to stay clear.

In addition there are some points that every

pilot should know about parachuting:

1. Depending on the strength of the wind, parachutists may start their descent from a position well outside the DZ.

2. Although the modern parachute is steerable and highly manoeuvrable, you can't expect the parachutists to give way to you in your glider. In free fall there is, of course, little scope for steering.

3. The rules for avoiding aerial collision (rule 17) don't specifically mention parachutists. The logic behind the marking on the charts is to warn all pilots of the risk involved. Avoiding the marked areas is the only way to keep parachuting safe - at least from the risk of mid-air collision.

Make sure you know where parachuting takes place and always avoid the marked zones.

NEW BGA TP BOOKLET FOR 1997

The 1:500 000 (1/2mill) maps which we must carry to fly cross-country are changing in 1997. Instead of being compiled with reference to the UK Geodetic Datum, known as Ordnance Survey of Great Britain 1936 (OSGB36) they will be compiled to the international Geodetic Datum, known as World Geodetic System 1984 (WGS 84).

What it means for the **BGA Booklet of Turn Points and Sites**, is that all the current information will still be OK, **except for the lat/longs** which were to OSGB36. When the booklet is re-issued in 1997, the lat/longs will have been converted to WGS84 values.

The change is not very great - the equivalent of about 140 metres in Kent and 80 metres in the Hebrides. **The TP is the same, it is only the reference datum for the lat/long figures that has changed.**

Formulas for converting lat/longs from OSGB36 to WGS84, and from UK grid references to WGS84 lat/longs are available. Software which does this is available from Ian Strachan, the BGA office, Tim Newport-Peace (Specialist Systems Ltd) and Ken Sparkes

(Taskfinder software). Send a disc and a sae (addresses from the BGA).

The BGA Competitions Committee recommend that all pilots make a conscious effort to ensure consistency between the TP list being used and the datum set on the pilot's GPS.

Competition pilots will be reminded at competitions to ensure that their GPSs are set to the correct datum.

A complete list of the new figures for all BGA TPs is already available in software form. Printing the complete new 1997 booklet will take longer but will be available at the AGM on February 22. A charge may have to be made for the new booklet.

Max Kirschner, BGA Competitions and Awards Committee

NAOMI CHRISTY

In the June issue, p167, Donald Scarfe wrote giving the address of Naomi Christy - long time BGA development officer - and suggested gliding enthusiasts should write and tell her about their flying.

Splendid people have started to contact her and hopefully others will do so at Crispin's Nursing Home, 43A Waverley Lane, Farnham, Surrey GU9 8B.

She has had a wonderful day out - and a flight - at Lasham. If any reader is in the area and has time for a visit, do call her first on 01252 733987. Unfortunately in June there was a printing error in the code.

1997 COMPETITION DIARY

May 17-25: Overseas Championships, Le Blanc, France.

May 24-June 1: Scottish Regionals, Deeside GC.

May 24-June 1: Eastern Regionals, Norfolk GC.

May 31-June 8: Motor and Turbo Glider Competition, Bidford GC.

June 7-15: 15 Metre Class Nationals, RAFGSA, Syerston.

June 21-29: Western Regionals, Bristol & Gloucestershire GC.

June 30-July 12: World Gliding Championships, St Auban, France.

July 5-July 13: Open Class Nationals, Enstone Eagles GC.

July 19-27: Booker Regionals, Booker GC.

July 26-August 3: Club Class Championships, The Soaring Centre.

July 26-August 3: 18 Metre Championships, Norfolk GC.

July 26-August 3: Northern Regionals, Yorkshire GC.

August 8-22: European Junior Championships, Müsbach, Germany.

August 9-17: Inter-Services Regionals, RAF-GSA Centre, Bicester.

August 9-17: Standard Class Nationals, Lasham GS.

August 9-17: Lasham Regionals, Lasham GS.

August 16-24: Dunstable Regionals, London GC.

August 17-23: Two-Seater Competition, Wolds GC.

August 23-31: Gransden Regionals, Cambridge GC.

August 25-September 1: Junior Championships, Bidford GC.

Ken Sparkes, BGA Competitions & Awards Committee

GLIDING CERTIFICATES

BGA 750KM DIPLOMA

No.	Name	Club	1998
23	Cook, Ian	Lasham	23.6

ALL THREE DIAMONDS

No.	Name	Club	1998
504	Prestwich, Richard	Shropshire	11.7
505	Johnson, Rosemary	Midland	13.6
506	Lynch-Jennings, Nigel	Strathclyde	5.1
507	Witter, Rodney	Glyndwr	11.7
508	Mansfield, Clive	Lasham	12.6
509	World, Tony	Portsmouth Naval	25.7

NATIONAL GLIDING COACH

1) The BGA requires a National Coach to start work early next year. This full time position will concentrate on the training and development of Instructors for both gliders and motor gliders. Full instructor rating and a BGA Motor Glider Instructor rating required, A CAA SLMG Flying Instructor rating preferred.

Please send full CV to Chris Pullen, c/o BGA, Kimberley House, Vaughan Way, Leicester LE1 4SE

2) The BGA require a part time National Coach to run soaring courses throughout the summer period. Full instructor rating and considerable two seater cross country experience preferred. There is a possibility of extending the employment period for a suitable applicant.

Please send full CV to Chris Pullen, c/o BGA, Kimberley House, Vaughan Way, Leicester LE1 4SE

The closing date for both vacancies is 31st December 1996

PLEASE INDICATE WHICH POSITION WHEN APPLYING



THE CHANGING GLIDING SCENE

Peter Warren took these photographs of two-seater wing shapes which show an interesting contrast. The Harbinger on the left was designed in 1958 and photographed at the Yorkshire GC and the Duo Discus, produced in 1993, was at Lleweni Parc.

BGA & GENERAL NEWS

DIAMOND DISTANCE

No.	Name	Club	1996
1/739	Prestwich, Richard	Shropshire (in France)	11.7
1/740	Johnson, Rosemary	Midland	13.6
1/741	Emck, Adrian	Lasham	25.7
1/742	Westwood, Derek	The Soaring Centre	13.6
1/743	Thompson, Paul	The Soaring Centre	13.6
1/744	Lynch-Jennings, Nigel	Strathclyde (in Australia)	5.1
1/745	Witter, Rodney	Glyndwr (in France)	11.7
1/746	Hanks, Robert	Bristol & Glos	12.6
1/747	Mansfield, Clive	Lasham	12.6
1/748	World, Tony	Portsmouth Naval	25.7
1/749	Hall, Andrew	Lasham	13.6

DIAMOND GOAL

No.	Name	Club	1996
2/2468	Porteous, David	Deeside	18.7
2/2469	Smallbone, Edmund	Lasham	7.7
2/2470	Morrison, Graham	Deeside	18.7
2/2471	Bates, Jack	Lasham	11.1
2/2472	Balshaw, Geoffrey	(in Australia) North Wales	10.4
2/2473	Hahnfeld, Max	Southdown	25.7
2/2474	Dandle, John	SGU (in Australia)	19.2
2/2475	Turner, Graham	Vale of White Horse	4.8
2/2476	Hughes, Anthony	Booker	12.6
2/2477	Kidd, Christopher	Shenington	16.8
2/2478	Bennett, Derek	Stratford on Avon	4.8
2/2479	Gilkes, Nigel	Portsmouth Naval	4.8

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THE SOARING SOCIETY OF AMERICA, INC.

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2/2480	Hull, John	Fulmar	16.8
2/2481	Bryce-Smith, Keitha	Cambridge	4.8
2/2482	Birkbeck, Ashley	Booker	4.8
2/2483	Hill, James	Yorkshire	25.7
2/2484	Higgs, Gerald	Lasham	4.8
2/2485	Ashton, Ian	Bowland Forest	19.8
2/2486	Robinson, Stephen	Bowland Forest	19.8
2/2487	Evans, Mark	Bicester	16.8
2/2488	Evans, Helen	Bristol & Glos	21.8
2/2489	Astle, Lindsey	The Soaring Centre	16.8
2/2490	Gilbert, John	Essex & Suffolk	19.8
2/2491	Pennant, Jessica	Shenington	19.8
2/2492	Wells, Anna	Shenington	19.8
2/2493	Wells, Leigh	Shenington	19.8
2/2494	Fielder, Robert	Lasham	1.8

2/2495	Crowhurst, James	Pbboro & Spalding	5.8
2/2496	Whittaker, Alan	Derby & Lancs	19.8
2/2497	Davies, Jeremy	Cambridge	18.8
2/2498	Morgan, David	Bath, Wilts & N Dorset	12.6
2/2499	Lambert, Graham	Surrey & Hants	1.8

2/2500	Haughton, John	ESC	20.7
		(in France)	
2/2501	Viner, Paul	Lasham	27.6
		(in France)	

2/2502	France, John	Herefordshire	13.7
		(in France)	
2/2503	Davis, Maurice	Southdown	19.8
2/2504	Hall, Andrew	Lasham	4.8
2/2505	Jones, Mary	SGU	19.8
2/2506	Smith, Jonathan	York	31.8
2/2507	Mitchell, John	Bowland Forest	19.8
2/2508	Lynchehaun, James	Glyndwr	5.5
2/2509	Goudie, Gavin	SGU	16.8
2/2510	Kenny, John	Vectis	24.7
		(in France)	

2/2511	Foster, Gavin	Glyndwr	5.3
		(in Australia)	
2/2512	Hitchcock, Julian	Southdown	19.8
2/2513	Martin, Kenneth	Herefordshire	13.6
2/2514	Hall, Andrew	Lasham	13.6

DIAMOND HEIGHT			
No.	Name	Club	1996
3/1322	Young, Stephen	Highland	13.7
3/1323	Williams, Grant	Deeside	11.9
3/1324	Moloney, Darren	621 VGS	21.5
		(in USA)	

GOLD BADGE			
No.	Name	Club	1996
1905	Porteous, David	Deeside	18.7
1906	Smallbone, Edmund	Lasham	7.7
1907	Morrison, Graham	Deeside	18.7
1908	Weaver, Roderick	South Wales	29.6
1909	Balshaw, Geoffrey	North Wales	10.4
1910	Weaver, Maureen	South Wales	29.6
1911	le Roux, Damian	Lasham	30.6
1912	Ferguson, Michael	Cranwell	31.7

1913	Foster, Gavin	Glyndwr	5.3
1914	Dandie, John	SGU	19.2
1915	Turner, Graham	Vale of White Horse	4.8
1916	Hughes, Anthony	Booker	12.6
1917	Bennett, Derek	Stratford on Avon	4.8
1918	Gilkes, Nigel	Portsmouth Naval	4.8
1919	Hull, John	Fulmar	16.8
1920	Birkbeck, Ashley	Booker	4.8
1921	Hill, James	Yorkshire	25.7
1922	Ashton, Ian	Bowland Forest	19.8
1923	Robinson, Stephen	Bowland Forest	19.8
1924	Evans, Mark	Bicester	16.8
1925	Evans, Helen	Bristol & Glos	21.8
1926	Astle, Lindsey	The Soaring Centre	16.8
1927	Pennant, Jessica	Shenington	19.8
1928	Brewis, William	Midland	29.6
1929	Fielder, Robert	Lasham	1.8
1930	Perkins, Andrew	Upward Bound	16.8
1931	Lambert, Graham	Surrey & Hants	1.8
1932	Haughton, John	ESC	20.7
1933	France, John	Herefordshire	13.7
1934	Davis, Maurice	Southdown	19.8
1935	Jones, Mary	SGU	19.8
1936	Smith, Jonathan	York	31.8
1937	Lynchehaun, James	Glyndwr	5.5
1938	Jerman, Mark	Buckminster	31.7
1939	Goudie, Gavin	SGU	16.8
1940	Irving, Mark	Yorkshire	19.8
1941	Kenny, John	Vectis	24.7
1942	Martin, Kenneth	Herefordshire	13.6

GOLD HEIGHT			
Name	Club	1996	
Goudie, Gavin	SGU	29.6	
Weaver, Roderick	South Wales	29.6	
Weaver, Maureen	South Wales	29.6	
Scott, Gregory	South Wales	29.6	
Robinson, Stephen	Bowland Forest	10.7	
Le Roux, Damian	Lasham	30.6	
Griffin, Rowan	Midland	29.6	
Ferguson, Michael	Cranwell	31.7	
Irving, Mark	Yorkshire	31.7	
Perkins, Malcolm	Yorkshire	3.7	
Robinson, Stephen	Bowland Forest	10.7	
Brewis, William	Midland	29.6	
Lynchehaun, James	Glyndwr	5.8	
Jerman, Mark	Buckminster	31.7	
Pratt, Edward	Fulmar	13.7	
Moloney, Darren	621 VGS	21.5	
	(in USA)		

GOLD DISTANCE			
Name	Club	1996	
Porteous, David	Deeside	18.7	
Smallbone, Edmund	Lasham	7.7	
Morrison, Graham	Deeside	18.7	
Bates, Jack	Lasham	11.1	
	(in Australia)		
Balshaw, Geoffrey	North Wales	10.4	
	(in Australia)		

le Roux, Damian	Lasham	23.6
Busby, Ian	Booker	4.8
Hahnfeld, Max	Southdown	25.7
Brown, Laurence	The Soaring Centre	27.7
Foster, Gavin	Glyndwr	5.3
	(in Australia)	

Dandie, John	SGU	19.2
	(in Australia)	

Turner, Graham	Vale of White Horse	4.8
Hughes, Anthony	Booker	12.6
Kidd, Christopher	Shenington	16.8
Bennett, Derek	Stratford on Avon	4.8
Gilkes, Nigel	Portsmouth Naval	4.8
Hull, John	Fulmar	16.8
Bryce-Smith, Keitha	Cambridge	4.8
Birkbeck, Ashley	Booker	4.8
Hill, James	Yorkshire	25.7
Tietema, Rolf	The Soaring Centre	27.7
Higgs, Gerald	Lasham	4.8
Ashton, Ian	Bowland Forest	19.8
Robinson, Stephen	Bowland Forest	19.8
Evans, Mark	Bicester	16.8
Evans, Helen	Bristol & Glos	21.8
Astle, Lindsey	The Soaring Centre	16.8
Gilbert, John	Essex & Suffolk	19.8
Pennant, Jessica	Shenington	19.8
Wells, Anna	Shenington	19.8
Wells, Leigh	Shenington	19.8
Fielder, Robert	Lasham	1.8
	(in France)	

Crowhurst, James	Pbboro & Spalding	5.8
Perkins, Andrew	Upward Bound	16.8

Whittaker, Alan	Derby & Lancs	19.8
Davies, Jeremy	Cambridge	18.8
Morgan, David	Bath, Wilts & N Dorset	12.6

Lambert, Graham	Surrey & Hants	1.8
	(in France)	

Haughton, John	ESC	20.7
	(in France)	

Viner, Paul	Lasham	27.6
	(in France)	

France, John	Herefordshire	13.7
	(in France)	

Davis, Maurice	Southdown	19.8
Hall, Andrew	Lasham	4.8

Jones, Mary	SGU	19.8
Smith, Jonathan	York	31.8

Mitchell, John	Bowland Forest	19.8
Goudie, Gavin	SGU	16.8

Irving, Mark	Yorkshire	19.8
Kenny, John	Vectis	24.7
	(in France)	

Hitchcock, Julian	Southdown	19.8
Martin, Kenneth	Herefordshire	13.6

Hall, Andrew	Lasham	13.6
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SILVER BADGE			
No.	Name	Club	1996
10 086	Tatlow, Robert	Newark & Notts	21.7
10 087	Tweddell, Colin	Northumbria	15.7
10 068	Hudson, Graeme	Shenington	21.7
10 069	Sheahan, Philip	Black Mountains	18.7
10 070	Hood, Jeremy	Four Counties	4.5
10 071	Miles, Michael	Shenington	19.7
10 072	Wright, Graham	Bidford	25.7
10 073	May, Norman	Connell	26.7
10 074	Roberts, Luke	North Hill	28.7
10 075	Bryson, Richard	Wyvern	21.7
10 076	Ginsburg, Raymond	Vectis	24.7
10 077	Matson, David	Wyvern	2.6
10 078	Young, Leslie	Shalbourne	25.6
10 079	Martin, Geoffrey	Essex	27.7
10 080	Hughes, Duncan	London	18.7
10 081	Kitchen, Jeanette	Lincolnshire	4.8
10 082	Hart, Andrew	Essex	3.8
10 083	Preston, Andrew	Aquila	27.7
10 084	Howells, Andrew	Rattlesden	9.8
10 085	Donovan, Timothy	Shenington	4.8
10 086	Siddall, David	Surrey & Hants	3.8
10 087	Robinson, Nicholas	Cambridge	20.7
10 088	Playle, Robert	Shenington	27.7
10 089	Kerley, Malcolm	Kent	3.8
10 090	Rebbeck, Luke	London	26.7
10 091	Bennett, Adrian	Norfolk	3.8
10 092	Coppin, Garry	Lasham	5.8
10 093	Evans, Philip	Booker	4.8
10 094	Suter, Christopher	Lasham	3.8
10 095	Pennet, David	Lasham	3.8
10 096	Tomlinson, Andrew	Anglia	2.6
10 097	Atkinson, Philip	Bowland Forest	7.8
10 098	Robertson, Rupert	London	3.8
10 099	Bassett, Keith	Lasham	4.8
10 100	Pickett, David	London	21.7
10 101	Sage, Jamie	Wyvern	16.8
10 102	Cain, Chris	Lasham	3.8
10 103	Parker, Richard	Cotswold	17.8
10 104	Wilkinson, Alan	Shalbourne	16.8
10 105	Hill, Stephen	Yorkshire	15.8
10 106	Kennington, Elaine	Shenington	19.8
10 107	Briggs, Andrew	Norfolk	17.8
10 108	Friend, Richard	The Soaring Centre	15.8
10 109	Palmer, Brian	Nene Valley	18.8
10 110	Timlett, Raymond	Portsmouth Naval	18.8
10 111	Yates, Glyn	Staffordshire	4.8
10 112	Brown, Derek	Essex & Suffolk	17.8
10 113	Cotton, Geoffrey	Buckminster	19.8
10 114	Watt, Joseph	Devon & Somerset	25.7
10 115	Colton, Clare	Cambridge	13.8
10 116	Metcalfe, Colin	Trent Valley	21.7
10 117	Harman, Julian	Shenington	23.6
10 118	Hodge, Robin	London	4.8
10 119	Borak, Alex	Imperial College	28.7
10 120	Moulang, Alan	Kent	17.8
10 121	Harder, Clive	Shalbourne	3.8
10 122	Whittaker, Kay	Derby & Lancs	31.7
10 123	Beale, Michael	Bath, Wilts & N Dorset	17.8
10 124	Whittaker, Alan	Derby & Lancs	19.8
10 125	Linton, Charles	Cotswold	19.8
10 126	Spooner, David	Stratford on Avon	31.8
10 127	Stewart, Duncan	Southdown	31.8
10 128	Hood, Robin	Lasham	1.9
10 129	Boyle, John	Thurston	4.8
10 130	Hudston, Michael	Bicester	27.4

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10 131	Lee, Anthony	York	31.8
10 132	Mackenzie, Kenneth	Cleavelands	8.8
10 133	Hall, David	Dukeries	31.8
10 134	Shaw, Michael	Booker	18.8
10 135	Thomson, Christine	Fenland	1.9
10 136	Smith, Robert	Bannerdown	4.5
10 137	Canning, Paul	York	1.9
10 138	Martin, Patrick	Chilterns	4.8
10 139	Keepin, John	Vale of White Horse	3.8
10 140	Burling, Peter	Essex	22.8
10 141	Hamilton, Roderick	Booker	6.9
10 142	Mole, David	Sackville	1.9
10 143	Maddams, Hugh	Essex	1.9
10 144	Collier, John	Newark & Notts	31.8
10 145	Nunwa, Raj	Lasham	5.8
10 146	Schwarzer, Elisabeth	Phoenix	28.7
10 147	Judd, Steven	Wrekin	27.7
10 148	Pittaway, Roy	Bidford	15.8
10 149	Bradley, Claire	ESC	7.7
10 150	Heslop, Dennis	Mendip	7.7
10 151	Kelsley, John	Trent Valley	4.8
10 152	Wakefield, David	York	31.8
10 153	Wilford, Paul	Chilterns	1.9
10 154	Thacker, Robert	Marchington	31.8
10 155	Gray, Douglas	Essex & Suffolk	21.8
10 156	Smith, Philip	Bicester	7.9

UK CROSS-COUNTRY DIPLOMA

Complete

Name	Club	1996
Gilbert, John	Essex & Suffolk	19.8
Jones, Mary	SGU	16.8
Hook, Kevin	SGU	19.8
Hamilton, Roderick	Booker	19.8

Part 1

Name	Club	1996
May, Norman	Connel	26.7
Allender, Colin	Aquila	14.7
Whyte, Jean	Bath, Wilts & N Dorset	12.6
Gilbert, John	Essex & Suffolk	19.8
Jones, Mary	SGU	16.8
Dyer, David	Essex & Suffolk	27.7
Huddart, Malcolm	Vectis	19.8
Leonard, John	Vectis	16.8

Part 2

Name	Club	1996
Weston, Michael	Enstone	5.8
Gilbert, John	Essex & Suffolk	19.8
Jones, Mary	SGU	16.8
Hook, Kevin	SGU	19.8
Hamilton, Roderick	Booker	19.8
Leonard, John	Vectis	19.8

Wanted: To help at the 1997 World Games in Turkey, Turkish/English bilinguals. Must have knowledge of gliding. Please fax Angela Sheard on 00 48 61 627352.

Planning and Airfield Safeguarding

Max Bacon, chairman of the BGA Development Committee, says they fully recognise that site security is a major factor in promoting a club's success. Accordingly the BGA has produced guidance on how to tackle planning matters and specific advice is available through Roger Coote, your development officer. The following article explains how CAA support can be utilised to ensure that your club continues to enjoy the flight paths necessary for safe future operations. Roger is ever willing to help with any particular problems.

This August a private jet overran the runway at RAF Northolt, leaving the airfield through the perimeter fence to arrive unceremoniously on a busy adjacent road. It was an event given much media attention and can have done little to promote aviation in the minds of the public. It also served to highlight that we live in a crowded island where competing demands for the use of land are inevitable and have, in theory, to be balanced by the planning system.

Most glider pilots are well aware of the implications of the planning system for their sport. For some clubs it has been a costly and confusing experience. It is also true that planners don't generally have an excess of aviation experience and probably find gliding equally confusing.

A very real consequence of this could be that having won planning permission for your site, the planning authority could easily grant a subsequent planning permission on the land next door. Even worse, that development could very well be a radio mast or sizeable industrial building which could make your gliding operation quite horrendous. As at Northolt, roads can be just as problematic.

Safeguarding is a CAA sponsored mechanism under which such conflicts may be avoided, giving private organisations a primary input into the decision making process by ensuring that airfields and aviation sites are not inadvertently closed by careless planning permissions.

It can be defined as the establishment of protective measures to ensure that an aviation site is not prejudiced by any potentially adverse developments. It is as relevant at a gliding site as at a major international airport. Aviation demands that not only the site but the airspace in

its vicinity is safe, so a gliding site makes a claim over the land around it and beyond its legal and physical boundaries.

The CAA takes the view that existing planning consents for airfields can only properly be revoked by set procedures given under the planning acts and should not be denied or obviated as an accidental by-product. Under these procedures the matter must be given a proper hearing and compensation may be payable.

Safeguarding is usually achieved by formal consultation, such as on planning applications where the planning authority seek the views of the safeguarder on a particular proposal who then can make relevant comments for the planning authority to take into account in making a decision. He may seek further modifications to make the proposal acceptable or suggest appropriate conditions.

The importance of safeguarding is such that the CAA sponsor set criteria for certain aviation sites, primarily licensed aerodromes, and suggest a simplified standard for unlicensed aerodromes. The licensed standards in CAP 168 (a CAA publication) provide for a complex map based procedure dependent upon airfield size and usage and operated by the CAA in its role as official safeguarder (OS) of certain aerodromes. These OS aerodromes are mainly large airports and when dealing with planning applications affecting them the CAA may formally ask the Secretary of State to decide the matter if their advice to the planning authority is not followed.

The safeguarding of other airfields, including gliding sites, is unofficial but strongly recommended by the CAA. As such it is a matter of agreement between planning authorities, gliding clubs or site operators. CAP 428 gives CAA guidance on safeguarding for unlicensed aerodromes but there is no set format, although the CAA recommends the preparation of a safeguarding map as probably the most effective method. It is also perfectly feasible to adapt and develop the CAA's guidance to suit your airfield.

This map must show take-off and approach paths as well as circuit and non-standard, perhaps precautionary, flying, so that you can establish the location and height of obstacles critical to flying at the site. Also, take into account such things as roads, other airfields, shooting ranges etc which could be detrimental.

It should be sent to the planning authority, pointing out that it has the backing of the CAA and the Department of the Environment. Once agreed, one may be optimistic that consultation will occur whenever there is a conflicting application. While not every consultation will signal the closure of the airfield, the exercise will enable the club or site operator to vet proposals and make appropriate observations.

A safeguarding map is a consultation exercise which does not incur fees to the planning authority. The only costs are in the preparation and operation but you may prefer the help of a planning consultant.

Do you think your airfield is safeguarded? If you do, is it safeguarded enough?

Philip Isbell is a chartered town planner and director of "The Planning Office" consultancy. The views expressed are his own.

GLIDER INSTRUMENTS

(M. G. Hutchinson)

Repairs and overhauls
carried out

P.Z.L. Sales and Service
Barograph Calibration centre

Write or phone:

'Tanfield'
Shobdon

Nr. Leominster
Herefordshire HR6 9LX

Tel: 01568 708 368
(answering machine)

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 01223 247725, fax 01223 413793, to arrive not later than December 3 and for the April-May issue to arrive not later than February 11.

GILLIAN BRYCE-SMITH October 16



Debbie Bilham of Midland GC photographed by John Wood after she had been presented with a medal and tankard having won the Sportsman Class at the National Aerobatic Championships, hosted by Buckminster GC. This is the second year this Class has been won by a female pilot.



Above: Portsmouth Naval GC member Tony World having flown what is believed to be the first 500km from Lee on Solent. Below: Glyndwr Soaring Centre's ("Last of the Summer Wine") SF-27 syndicate.



AQUILA (Hinton in the Hedges)

A very successful season was rounded off by an equally successful two week expedition to Aboyne. Diamond heights were achieved by Jeff Luck, Steve Bates and Pete Nicholson with Gold heights for Tim Wheeler, Keith Chichester and Phil Dolling.

Mike Roberts and James Ewance - at 17, one of our youngest - have gone solo and Ian Hammond has a cross-country endorsement.

The club cross-country ladder was won by Doug Edwards and, with seven field landings, Andy Preston won the "Where's he calling from now" award, kindly donated by his syndicate partner. C.A.

BANNERDOWN (RAF Keevil)

Al Stacey is now CFI. In an indifferent season Andy Blake and Mike Knell gained Bronze badges, the latter joining the K-6E syndicate, and Bob Smith has a Silver badge.

The motor glider is at last back and Simon Duerden has a SLMG PPL. With the start of the university year a number of *ab-initios* have flown their first weekend with the ridge working. D.C.F.

BATH, WILTS AND NORTH DORSET (The Park)

Ian MacDougall went solo on his 16th birthday. He is the first of our bursary pupils to go solo and has been a member since he was 14.

Mike Beale from the USA completed his Silver badge with his distance in the club K-6E and John Boyle completed his with a 5hrs. Dave Marsh flew Silver distance in his Skylark 3 in difficult conditions and the following day his syndicate partner, Simon Northway, completed his Silver

with a duration flight.

A very successful corporate day was organised by Paul Wade with the help of many members and the provision of a delicious buffet lunch.

After many months of work Ed Gunner's syndicate have at last flown their Olympia 2B.

BICESTER (RAF GSA Centre)

Another interesting year ends with a successful Aboyne expedition. Plans are in place for Chile in February and Sisteron in March. The 1997 flying programme is our busiest ever, with a mix of RAFGSA and BGA courses as well as our day to day soaring and cross-country flying.

Fleet changes include replacing our Janus C with a Duo Discus in April, and a couple of newcomers in the private owners' fleet. Harry Chapple's Primary has been bought by the Luftwaffe Museum in Berlin.

Service postings and deployments continue to cause upheaval, but thanks to the efforts of our members and staff, we're still doing lots of adventurous, fun and safe flying.

P.S.

BOOKER (Wycombe Air Park)

The Aboyne expedition is in full swing as this is written. Already Mary Meagher and Paul Mellor have Diamond heights and we have at least seven Gold heights. About 50 club members, led by three professional instructors, are operating five club (K-21, Duo Discus, two Pegasus and a Junior) and nine private gliders. So far they've flown in wave on all but one day in the first two weeks.

We have winter trips to the Mynd and informal days at Dunstable for winch launching, still a novelty to some pilots at all aerotow Booker!

The committee are planning a grant application for an additional tug; possibly a 265 Pawnee to reduce take-off distances for the big heavy machines on hot calm days.

The very successful cadet scheme continues for next season and has been given local press coverage. Richard Garner created quite a stir at the Junior Nationals with his very fast 300km in the Booker Discus for Diamond goal.

The airfield now has a new manager, British Airways Concorde pilot Tim Orchard. R.N.

BORDERS (Galewood)

We had some good hill and wave soaring in October. Keith Latley gained his 5hrs but Roger Cuthbert missed out by 15mirt.

Our new site has been levelled and building work starts soon. We are expecting our new K-21 around June/July, just in time to start flying from the new site, providing the grass establishes quickly.

The new clubhouse will have bunk rooms and showers and the improved facilities should enable us to run more visitor weeks. So if your club wants to organise an expedition to explore the Northumberland borders, give us a call. B.C.

BOWLAND FOREST (Chipping Airfield)

We have had a very good season with hours and launches up on last year. Rachel Brown and Emma Norris, our 1996 cadets, have gone solo. Expeditions to The Soaring Centre gave Gold



Left: Shirley Barker (Kent GC) with her instructor Alan Clarke. Centre: Margaret Childs (Lincolnshire GC). Right: Stacey Wilkinson (Sackville GC) who soloed soon after her 16th birthday.



Two 16th birthday solos - left, Ian McDougall of Bath, Wilts and North Dorset GC with his instructor Alastair MacGregor. Centre, Nicola Claiden, daughter of Peter Claiden, with instructor Alex Hartland. Nicola is one of the London GC's cadets. Right: Tony Nicoll of Deeside GC.



Above: Steve Bennett of The Vale of White Horse GC and the last in this collection of first solo pilots.

distance/ Diamond goals to Steve Robinson, Ian Ashton and John Mitchell, while Feshiebridge produced Diamond heights for Darren Evens, Alan Roberts and Allison Myers with Gold height for Mark Knowles.

Our pilots did well in the Northern Regionals and the Wold's Two-seater Comp. We have maintained our numbers, including two cadets for 1997, with a steady trickle of new members. S.R.

BRISTOL & GLOUCESTERSHIRE (Nympsfield)

We had a successful expedition to Sutton Bank, with Paul Gelsthorpe reaching 11 000ft in his T-shirt. Vice-chairman Geoff Lloyd and syndicate have brought a Pegasus on site and sold Cirrus 81 to the Skylark 4 team. We are in the process of appointing a new staff instructor. B.F.R.S.

BUCKMINSTER (Saltby Airfield)

Father and daughter Trevor and Kate Henson soloed in September, Kate beating her dad by

just four days! Linden Wood and Norman Willett have also gone solo. Norman Revell, a full Cat, joins our growing instructor team. We have courses on offer throughout the winter.

Saltby again hosted the National Aerobatics Championships and a vintage glider weekend which attracted a Harbinger, Kite 1, Petrel and a T-31 as visitors, although the weather was so bad only club member Neil Scully's T-31 flew. At least the Saturday dinner and Sunday breakfast were a roaring success. N.R.

BURN (Burn Airfield)

Derek Wilson again organised an enjoyable visit to Germany for a group of members, this time for the centenary commemoration of the death of Otto Lilienthal at Stöln, near Berlin.

A Twin Astir and our club K-21 competed in the Wold's Two-Seater Comp.

Dave Lockwood, Jeff Smallman and Phil Read have gone solo, Dave gaining a Bronze leg soon after. Dave Johnson has Silver dis-

Below left: Deaf and hard of hearing aviators had a day's flying at Lasham in the T-49 with instructor Mervyn Saunders (far right). Photo: Joan Hartley. Right: Kate and Trevor Henson (daughter and father) of Buckminster GC who went solo within a few days of each other.



tance; Tony Flannery and Alan Jenkins have AEI ratings and Pete Clayton a PPL. A.J.

CAIRNGORM (Feshiebridge)

More than 150 pilots from 20 clubs all over Britain enjoyed wave, ridge and thermal flights at the annual Octoberfest at Cairngorm.

In the six week camp at least ten Diamond heights and ten Gold heights were achieved, apart from many other good climbs.

The event was organised by CFI Trevor Wilson with the help of Mo and Barry Meeks, who did the tugging with their Rallye. To book for 1997, write to the club secretary Ray Lambert at 48 McIntosh Drive, Elgin, Moray IV30 3AW. B.F.R.S.

CAMBRIDGE (Gransden Lodge)

Another Regionals is behind us with success to members Richard Maisonnier (Club Class - Libelle) and John Morris who was P2 in the winning Andy Davis/Ken Barker Duo Discus.

Richard Maskell has Diamond distance; Jem Davis and Keitha Bryce-Smith have Gold distance/Diamond goal and assistant Cat ratings and Neil Foreman has Diamond height. K.M.B.S.

CHILTERN (RAF Halton)

Paul Wilford, who is only 16½ years-old, has completed his Bronze and Silver badges. Gordon Howarth also has a Silver badge; Neil Beattie a Bronze badge and Ian Harman has gone solo. D.S.

CORNISH (Perranporth Airfield)

The Bishop of Cornwall visited us to bless our fully restored K-7/13 "The Spirit of Cornwall". We flew him and his brother on a very blustery, bumpy aerotow day.

We had another successful wave soaring trip to Aboyne in October. Peter Bone achieved Gold height - the highest he has been since flying Spitfires. Some of us reached Diamond again.

The summer season has helped us break recent club records for numbers of flights and hours - well done to the seven day a week team! We are back to three days a week until next May and visitors are still welcome! S.S.

COTSWOLD (Aston Down)

Three of our younger pilots, Oliver Ward, Russell Clarke and Brian Birlison competed in the Junior Nationals with Oliver coming 3rd.

Mary Verdon has a Bronze badge and Alastair Harrison, Tony Moore, Mark Parker and Alan Weeks have soloed.

We were dismayed by the accident close to Aston Down during August, in which two gliders collided in mid-air. Les Akehurst was fatally injured in his K-6 and the other pilot, Jeff Fellowes parachuted from the K-8 and is recovering well from the injuries sustained in the collision. M.S.

Obituary - Wg Cdr Leslie Akehurst

Les, who was 74 years-old, was a very modest man and his distinguished record came as a surprise to many of us when we learned more about



Three of Booker GC's cadets, Edward and Richard Garner and Andrew Betteley. Photo by kind permission of the *Bucks Free Press*.

him after his death. He volunteered to join the RAF in 1939 and as a wireless operator/air gunner in Bomber Command, flew in slow, poorly armed Whitneys and later Lancasters.

When the war finished, Les was flying from Cornwall on patrols over the Western Approaches, prior to taking a commission and joining air traffic control. Later Les was awarded the OBE for his dedicated work as an air traffic controller during the Berlin airlift.

He retired from the RAF in 1976. He had a number of hobbies and joined the club within the last ten years, flying on Wednesdays with a keen group of mainly retired members. He gained his Bronze badge at the age of 70 and made a lasting impression.

Leslie was a gentleman in every sense of the word. He is survived by his wife Erna and their three daughters and will be fondly remembered by his fellow gliding club members.

"Whizz" Wheeler

CRUSADERS (RAFSGA Cyprus)

Tom Hardy, Andy Murray and Dave Mowbray have gone solo and Mike Webb is an instructor.

Chas Caley flew the first Bronze leg of our soaring season, which is from October to April.

At the annual prizegiving night awards went to Dimitri Savva, Mike Webb, Andy Doo, Hugh Moonie and Karen Hardy. H.M.

DEESIDE (Aboyne Airfield)

Thanks to a generous grant from the Foundation of Sport and the Arts we have a new Discus B on order for early 1997.

Craig Robb, Mike Burnett, Graham Cawthorne and Tony Nicoll have gone solo and Nick Bill has a Bronze badge.

After four years as CFI Dave White is taking a well earned break, handing over to Al Eddie.

We are taking bookings for the 1997 wave season. Contact Mary-Rose Smith at the club or on 01569 730687.

We were at 19 000ft in August and 26 000ft in September. G.D.

DERBY & LANCS (Camphill)

Darrell Athey, Ian Thompson and Stuart MacArthur are full Cat instructors; Don MacKenzie an assistant instructor; Brian Curran, Nigel Page and Jonathan Thorpe have Bronze badges and Patrick Spink has gone solo.

Our new winch has arrived and we are now on our winter flying timetable which is Wednesday to Sunday inclusive.

We are hosting the Vintage Glider Rally from

May 24 to June 1. For further information contact Ian Dunkley c/o Camphill. W.T.

DEVON & SOMERSET (North Hill)

August and September brought a mixture of weather and some interesting flying although our task week was almost wiped out.

Luke Roberts and Mike Sansom completed Silver badges with distance legs, Luke at Portmoak. Isobel Jennings and David Jones have gone solo and Paul Carpenter and Robert Lee have cross-country endorsements.

Roger Coote and Max Bacon flew in for a day's meeting with our committee to discuss options for future club development - this was both constructive and enjoyable.

S.C.L.

DUKERIES (Gamston Airfield)

Members and families enjoyed a very appetising barbecue in September.

David Hall flew Silver distance to complete his badge; Roy Lunn has Silver height and John Swannack has flown 100km.

J.C.P.

ESSEX (North Weald & Ridgewell)

Yes, we are still here. We have been flying from Ridgewell every weekend during the summer and autumn and are determined to continue here next year. Club and AEI flying carries on at North Weald throughout the winter months.

With the easier access to free airspace at Ridgewell, Silver badges have been achieved by Andy Hart, Geoff Martin, Hugh Maddams and Peter Burling. The essential facilities are available at Ridgewell (phone and loo) and visiting pilots are welcome.

G.M.

ESSEX & SUFFOLK (Wormingford)

Another two cadets Bruce Sexton and Matt Cade have gone solo. The club has another single-seater, a K-6E, which with the completely refurbished K-6 will allow plenty of gliding.

We won our section of the Inter-Club League for the second year with Andrew Wilson 1st in the Novice Class in the final. Chris and Rupert Price with CFI Paul Rice finished 4th in Wold's Two-seater Comp and we won the Anglian TV trophy.

Tony Brown delivered the "Sixa" parrot to Tibenham claiming Silver distance to complete his Silver, but the parrot was soon back with us for the winter, brought by a Norfolk GC member.

John Horne has acquired an SF-27 and Peter Wilby, Angus McDonald and Chris Nunn have a

DG-202/17m. Tom Brenton went solo on his 16th birthday and soon gained his Bronze badge and two Silver legs.
C.B.

FOUR COUNTIES (RAF Syerston)

Gary Bridgeman has gone solo; Pete Dixon and Jim Cox have Silver durations and Jeremy Hood has Gold distance/Diamond goal. Dave Ruttle with Ivan Cartes and Greg Wheldon (Nottingham University) won Best Wood and came 2nd in Wold's Two-seater Comp.

Ian Tunstall came 2nd (Unlimited) in the National Aerobatic Championships at Saltby and Mark Davies won the Intermediate Class. Chris Gildea and Stu Mulholland have bought into an ASH-25. We are to receive the RAFGSA's first Duo Discus early in the new year.
D.M.R.

FULMAR (RAF Kinloss)

Eddie Pratt has Gold height and Mark Whitaker, Martin Pearce and Tim Baxter Silver heights.

During our ASH-25 week John Hull gave several members air experience flights.

Once more we pooled our resources with Connel GC for their very successful open day in September. John Hull and Jonathon Joynton did well in the Inter-Services Regionals.

After a very successful amalgamation with Highland GC we are hoping to be back at Kinloss by the end of November. We were sorry to say goodbye to Keith Earnden on his promotion.
J.P.

GLYNDWR (Lleweni Parc)

We have had 13 instructional flying weeks for members and visitors.

Peter Manchett frequently soared the Welsh wave between May and August. Jessica Pennant, only two years after going solo, has achieved Diamond goal, flown in the Junior Nationals and gained an AEI rating. Chris Bolton has his SMGPPL; Derek Heaton a Bronze badge and Berangere Marceau and Garry Jones have gone solo.

Our Pawnee tug is back after an extensive and expensive C of A. Paul Roberts continues to keep our ground equipment in good fettle.

Soon after buying a K-6cr, Derek Heaton and John Bedingfeld have their 1 and 2hr soaring flights towards their cross-country endorsement.

We welcome visitors wanting to explore our Welsh wave.
M.P.O.

HEREFORDSHIRE (Shobdon)

We are sorry to record the death of Walter Jenkinson, our oldest member, a veteran WW1 pilot and a member of 12 Squadron between the wars. He discovered gliding late, in his 95th year, but was carried away, declaring that it had given him a new lease of life.

He flew regularly until his health deteriorated last year. Though he flew only as a passenger he was right on the ball with theory and practice and read aviation magazines avidly and S&G from cover to cover. He will be much missed.

We have visitors arriving for the wave season. One, John Evans, climbed in excess of 12 000ft during a 6hr flight.
R.P.

HIGHLAND (Easterton)

Summer was disappointing but we did have some good wave days with Steve Young gaining Diamond height and Eddie Pratt (Fulmar) Gold height.

The Inter-Club League weekend produced poor gliding but an excellent barbecue and Sunday lunch. Phil Penrose is an assistant instructor; Geddes Chalmers and Stuart Harris have AEI ratings and Larry Wilmott and Ian Grant have soloed.

Our club K-8 now belongs to a resident syndicate of ten. We hope to get our lottery aided K-21 about Christmas. We will miss Fulmar GC when they leave us in late November. Grateful thanks for their efforts, especially the soup dragons. I think both clubs have benefited.
A.G.V.

KENT (Challock)

Some members have been in competitions. Tony Moulang (ASH-25) having most success coming 7th in the Open Class Nationals.

We had a large entry for our annual task/fun week which was won by Kevin Vincent.

Five of the eight on our recent Aboyne expedition achieved Diamond heights.

Two gliders were displayed at a local airshow and members handed out our gliding brochures.
A.R.V.

LAKES (Walney Airfield)

We are pleased to welcome Peter Spofforth as our new president. Peter is the chief pilot and manager of air operations at VSEL who own Walney Airfield.

John Martindale gained Gold and Diamond heights at Aboyne in the BGA Discus and his wife, Lyn, reached 23 100ft in the BGA DG-500. Lyn also has a Bronze badge.

A number of members returned to Thouars, France, this summer including John Burdett who flew 300km for his Diamond goal and Gold badge. Roger Copley, John Martindale and Graham Welch have AEI ratings and Keith Whitworth has gone solo.
A.D.

LASHAM (Lasham Airfield)

Lasham pilots did well in the Junior Nationals we hosted with Afandi Darlington coming 2nd, Peter Masson 6th and Mike Miller-Smith (Grob Acro 3) 8th with Matthew Smith as P2.

Tug pilot Shona Buchanan flew 700hrs this season and has started a CPL course. Dave Bullock is servicing our gliders. David Masson is acting chairman of Surrey & Hants GC.

Phil Phillips is leaving as manager of Lasham after 14 years. He re-introduced winch launching, organised a five year programme to level the airfield grass and led the VE Day anniversary flypast by 19 tugs and 19 gliders.

He led expeditions to Aboyne for eight years. His success was due to his love of flying. He flew Gnats and Hunters, and instructed on Jet Provosts (from which he and his pupil safely ejected) in the RAF. Phil was Wg Cdr and CO of RAF Kemble, the base for the Red Arrows.

He has built a Sirocco and a Taylor Monoplane aircraft. During his time at Lasham he gained his three Diamonds. A thank you dinner is being organised for Phil.

We sadly report the death of Richard Cowderoy following a mid-air collision in France with a two-seater glider. We give our condolences to his widow Liz, herself a glider pilot, his son Philip and daughter Grace, and the families of the two French pilots.

Richard started gliding at the age of 16 years in the ATC. He then flew at Weston on the Green, following which he founded the Oxford University GC, of which he was the first president. He flew at Farnborough for ten years before joining Lasham. Richard was a full Cat instructor and has three Diamonds.

He was very keen on cross-country and mountain flying and flew for many years at Le Motte du Caire where he and his family were regarded as part of the village. The day following his death the weather was bad, and a French woman said "It is not raining, it is crying". He will be greatly missed by his numerous friends in England and France.
A.M.S.

Obituary-Lt Col Sir Charles Dorman

Lt Col Sir Charles Dorman died aged 74 after a short illness.

He started gliding in 1938 as a member of the Oxford University GC where his instructor was that great gliding pioneer, Robert Kronfeld. After the war Charles was one of the hardest working committee members of the newly formed Army GC and founded the Army Gliding Association of which he was vice-president.

When the club moved in 1950 from RAF Odiham to the nearby disused Lasham Airfield, to be joined by the Surrey & Imperial College GCs he, with a few others, developed the concept and creation of the Lasham Gliding Society which today is the largest gliding centre in the world. He was vice-chairman of the Society from 1958 until 1964, sponsored Ken Fripp to found Southdown Aero Services and served as its chairman for many years.

He was an early private owner of a modern sailplane which he generously lent to the Canadian team for the World Championships in 1954. He also competed in numerous Inter-Service contests.

His wise counsel, his application and ever willingness to undertake any task, his engineering skills and lastly his spontaneous and infectious laugh will be sorely missed by his many friends.
Wally Kahn

LINCOLNSHIRE (Strubby Airfield)

Dave Lorimer and Jamie Tumber have gone solo; Patricia Ridger has part of the cross-country endorsement; Peter Grant and Dave Lorimer have Bronze legs, Dave's qualifying as the hour of his cross-country endorsement. Steve Sykes has a Bronze badge and Dave Fenn flew Silver distance.

Gordon West and Angie Hearn have retired from the committee as chairman and secretary respectively and been replaced by Dick Skerry and Dave Ruttle.
R.G.S.

LONDON (Dunstable)

Derek Sear has resigned as CFI, but remains as a staff instructor. He wants more time to develop his weather forecasting business. Bob Bickers



Burn GC's Otto Lilienthal expedition to Germany.



US swimmer Angel Martino, who won two gold and two bronze medals at the Olympics, being introduced to gliding by John Hull, CFI of Fulmar GC. Angel was visiting her sister. Photo: Joyce Andrews.

will act as temporary CFI.

London Sailplanes has recovered the Schleicher agency, now that John Jeffries is back with us, and has greatly enlarged the club's shop to stock a much more extensive range of gliding requisites. JJ's cross-country soaring courses have been very popular.

New arrivals include Richard Abraham's dainty ASW-27 and Jeremy Beringer's peculiar Fauvel flying wing. Jeremy is also organising a club review planned for the early spring.

Autumn expeditions have been to Aboyne, Long Mynd and Talgarth, with Shobdon planned for the spring. Members continue to make personal expeditions to clubs such as Oban, Perranporth, Feshiebridge and Saal.

Robin May led a gypsy expedition to the continent by aerotowing an ASH-25 across the Channel, while the K-21 went by ferry to spend a week of daily leapfrogging down to the Alps and back.

R.C.

MARCHINGTON (Tatenhill Airfield)

We have signed a 25 year lease on 70 acres of land subject to planning permission. The site is approximately 1000 metres on an EW configuration and only two miles from our current base.

With the licensing of Tatenhill now complete, it is imperative we move because of the difficulties in operating alongside the growth in powered movements. If planning goes through, we will operate a winch as well as aerotows and be able to offer local cadetships.

The club ladder is fairly short reflecting the advances in badge claims last year compared to this. However, our CFI, Sid Brixton, completed his Diamond goal in May - from Bicester so no ladder points! An October visit to Portmoak is planned.

We welcome visitors at weekends and on Wednesdays and charge no reciprocals for BGA members.

I.N.

NENE VALLEY (RAF Upwood)

We have been given a project support grant of £8000 from the Foundation for Sport and the Arts which is funded by subscriptions from Littlewoods, Vernons and Zettlers football pools. This will help considerably towards the move to the new site. (See BGA News.)

The move has been delayed until Easter which will give us time to fully prepare the new airfield, buildings and facilities. The next few months will be busy with the majority of the project being achieved through the hard work and efforts of members.

Steve Codd is an assistant instructor and Brian Palmer has his 5hrs.

A.F.

NORFOLK (Tibenhams)

Neville Harrison has collected Silver distance and height in his 70th year having only gone solo last year. Godfrey Powell has soloed; Lorraine Walker and Jack Sillis have Bronze legs; Ian Walters Silver height and Brian Kennard the



An impression of Gransden Regionals by Bob Fleuret, a Cambridge GC tug pilot. For the full Regionals Results see p366.

100km diploma (part 1). Mike Hellewell, John Kinley and Dave Taylor have a Vega.

Our harvest task week was won by Ray Hart. The Anglia TV trophy held at Tibenham in September was won by Essex & Suffolk GC.

At the evening barbecue, over 200 came to honour "Woody" Woodhouse with a presentation to mark his retirement as CFI after 17 years - a suitably engraved yard of ale. Eric Arthur is our new CFI.

B.W.

NORTH WALES (Bryn Gwyn Bach)

Although for much of the summer we had a predominance of easterlies, we had another successful course season with several *ab-initio*s going solo. Happily we have also had a steady influx of new (and younger) members.

Ken Payne is CFI in place of Ray Ball who is now working away from Wales. Our thanks to Ray who was CFI for most of the time since our move here from Pen-y-Parc.

N.D.J.C.

PETERBOROUGH & SPALDING (Crowland)

The private fleet continues to grow apace with new syndicates being formed by Sheena Fear and Manuel Williamson (Dart), Mike Edwards and Bryon and Jean Smith (Carman) and Pstzeb Pstrzebabarski (Skylark 3g).

Glenn Rodrigues has a Silver duration. Noel MacLaughlan (Sky) was 2nd on both days in the Anglia TV cup weekend at Tibenham.

Peter Crowhurst flew Gold height at Aboyne.

At one of our few non-flying days Simon Cook (RAF Odiham) gave a well attended fire safety demonstration. We have many new members and the AEI pilots are occupied every weekend. F.R.P.

PORTSMOUTH NAVAL (Lee on Solent)

Rumours of our demise have been greatly exaggerated. Despite the closure of the parent establishment, Lee on Solent Airfield remains active for gliding and some other civil aviation. However, we think we are the first service club to have to pay rent for its airfield.

Despite our reputed sea breeze affliction, and always having an into wind first leg in favourable (northerly) weather conditions, we have had some excellent soaring this year. Tony World completed his third Diamond with what we believe is the first declared 500km O/R from Lee.

We had a good turn out at the Inter-Services Regionals with Richard Croker coming 5th in the Club Class. Our thanks to those who helped on our three *ab-initio* courses. We have an expedition to Aboyne. E.K.S.

RATTLESDEN (Rattlesden Airfield)

As a result of our air experience evenings and weekend courses we have had an influx of *ab-initios*. We also have three new solo pilots, most recently Roger Coton and Peter Jones, two have gained Bronze badges (including Ian Hembling) and three their Silver badges. Richard Goodchild has an assistant instructor's rating.

Financially we have had an excellent year and hope to add another two-seater to our recently upgraded training fleet. H.J.S.

SACKVILLE (Riseley, Beds)

Stacey, the second daughter of CFI Tim Wilkinson to fly at Sackville, went solo soon after her 16th birthday. Four generations of Wilkinsons have now flown at this site.

Visits from the motor glider from Husband Bosworth, coupled with periods of intense study, have resulted in a large number of Bronze badges. We gave trial lessons to a number of German exchange students and there has been a recent expedition to Aboyne and an imminent one to Talgarth. D.C.W.

SCOTTISH GLIDING UNION (Portmoak Airfield)

We are winners of the 1996 Scottish Inter-Club League. Our thanks to all the host clubs for their hospitality and to our competitors.

Dave Clempson flew 500km for all three Diamonds. Tony Brown, Ian Dandie, Mags Doig, John Ferguson, Gavin Goudie and Mary Jones have completed Gold badges with Diamond goals. Peter Black flew Gold distance in Australia. Fred Joynes and Roddy Ferguson have Silver badges.

October 5 was a classic wave cross-country day with a cumulative total of 3000km by eight pilots with others easily reaching Diamond heights from a Supercat launch. Mike Carruthers and Vic Blaxill are full Cats.

Improvements to the airfield and club facilities continue with a comprehensive field

drainage programme. Our club K-21s now have a GPS for cross-country training.

Visitors are always welcome. We're 5min drive from junction 5 on the M90. Follow signs to Scotlandwell. N.F.G.

SHALBOURNE (Rivar Hill)

We have had a very successful summer with membership (a record 112), flying and income all up on last year's figures. Newcomers say they joined because the club is so friendly. It has been club policy to try and ensure that new members and visitors are not left on their own and this practice has paid dividends.

Mid-week flying has also increased with many visiting gliders and pilots. This has been due to Geoff Nicholls, our professional winch driver, who also winches for the trial instruction evenings which have also increased. Anyone wishing to fly during the week should contact Geoff directly on 0585 215938.

We are grateful to Bannerdown GC and their CFI Al Stacey for checking out members for aerotowing in time for our annual expedition to Aboyne. We don't have aerotow permission at our site.

Dave Hill has flown 300km for Diamond goal and Alan Wilkinson completed his Silver badge with a 5hrs. J.R.

SHENINGTON (Shenington Airfield)

We held an EGM in September to report on the successful summer operation. We will be operating seven days a week throughout the winter and continue to welcome visitors.

Daniel Paxton, Dave le Maistre and Bob Mathie have gone solo; Bronze was achieved by Bill Bench, Andre Stokes, Tom Green and Frank Broom; Lu Kennington has a Silver badge; Paul Ward flew Silver distance and Tom Green and Mike Nelson Silver heights. Gold distance was flown by Chris Kidd, Ian Atherton, Anna and Leigh Wells and Jessica Pennant. Mary Meagher flew Diamond height for all three Diamonds at Aboyne. Ian Atherton and Mark Stevens are full Cats and Lu Kennington and Jessica Pennant have AEI ratings.

Our Christmas party will be at the clubhouse on December 7. T.G.W.

SOUTHDOWN (Parham Airfield)

Members have visited a number of sites this autumn including Portmoak, Aboyne, Long Mynd and Sutton Bank. Les Blows gained his Diamond height; Mo Davis Diamond goal; Julian Hitchcock completed his Gold badge; Peter Clowes his Silver badge and Duncan Stewart flew Silver distance.

Guy Westgate is the National Aerobatics Champion. P.J.H.

SOUTH WALES (Usk)

Summer wave enticed many into the air recently with Gold heights for Nigel Spencer-Jones, Greg Scott, Brian Crow, Peter Holden and Maureen and Rod Weaver, which completed Gold badges for Maureen and Rod. Enzo Casagrande and Hugh Rattray have Bronze badges and Gareth

Davies and Roger Ellis have gone solo.

We have applied to the Lottery Sports Fund. Our thanks to those involved, with special thanks to Roger Coote (BGA) for his invaluable advice. M.P.W.

STAFFORDSHIRE (Seighford)

After a full summer with very few non-flying days, and the last of the University GC courses running to a successful conclusion, September saw almost 700 launches. The National Students GC has an aircraft based at Seighford for the winter and we continue to welcome visiting students on weekends.

George Hassall, Terry Jones, Tony Waldron and junior member Simon Kirkland have soloed.

We have acquired a twin drum Wild winch as a standby so the Tost winch can be serviced without losing flying time. In-house winter aircraft maintenance and Cs of A are underway.

We are disappointed in not gaining a Lottery Sports Fund grant to help buy our site. S.K.

STRATFORD ON AVON (Snitterfield Airfield)

Our site improvement programme is continuing with complete rewiring to mains standard and remote control switching for all buildings, thanks to Barry Monslow, Derek Batchelor and David Johnson's combined efforts. The new trailer park and additional car-parking areas for visitors will be in use by early 1997.

Peter Blair, David Spooner and Bill Tromans have Silver badges; Brian Banks went solo and Mike Bell and Mark Connaughton re-soloed. Vernon Brown and Derek Bennett flew 300kms, Vernon to complete his Gold badge, and Frank Jaynes flew 500km for all three Diamonds.

The club ladder trophy was won by Frank Jaynes with Derek Bennett 2nd and Phil Pickett 3rd. The award for the best flight in a club aircraft went to David Johnson and for most progress to Peter Blair.

The NUSGC students are full of enthusiasm. Maurice Noxon has joined the committee with Geoff Butler and Peter Fanshawe re-elected as chairman and vice-chairman respectively. H.G.W.

THE SOARING CENTRE (Husbands Bosworth)

After a close battle, The Soaring Centre are the Inter-Club League Champions. (See p335.)

Our winter courses in aerotowing, aerobatics and motor gliding are for members and visitors.

The Puchacs and one of our Supermunks are being refurbished with an overhaul for the four drum winch. The peritrack has been repaired.

Next season we are hosting the Club Class Championships and a Regionals. T.W.

ULSTER (Bellarena)

An indifferent summer gave way to a dire autumn. Tom Snoddy and Alan McKillen enjoyed the Dunstable Regionals, Tom achieving his Gold distance and both logging over 1000km.

A smaller than usual contingent attended the annual Kerry safari with the Dublin GC, taking three aircraft to encounter good but not exceptional flying for this always exciting expedition.

There has been a sudden and gratifying surge

in recruitment, no doubt helped by a successful open day in late August. For the first time in years we have more than 50 full members and since the academic year began there's been a marked influx of Queen's University students - the university club operates integrally with us. R.R.R.

VALE OF WHITE HORSE (Shrivenham)

Graham Turner has completed his Gold badge. John Keepin, Chris Key, Tony McNicholas and Andy Vallis have Silver badges while Steve Bennett, Tim Clark, Daniel Court and Matthew Foggin have gone solo.

Platypus will be guest of honour at our annual dinner on November 30. J.K.

WELLAND (Lyvedon)

Richard Todd has gone solo. Our recent visit to Aboyne resulted in 102hrs, three climbs to Diamond height and 11 Gold, including Gold heights for Roger Gray, Werner Leutfeld and Michael Neal. Our thanks to Deeside GC. R.H.S.

WOLDS (Pocklington)

The Two-seater Comp in August was a great success with over 30 entries and was won by Mike Jordy (Puchacz).

Husband and wife team Stacey and Jed McCann have soloed. We have yet more private gliders - Mike Fox with a Libelle and Ken Rowley with a Discus. M.F.

YORK (Rufforth)

A late burst of cross-country weather has yielded a 300km Diamond goal for Jay Smith in the club Astir, and on the same weekend Steve Hopkins, Val Green, Tony Lee and Malcolm Wood flew Silver distances. Two others achieved triangular flights of over 300km.


Paul Canning has a Silver badge and Dave Wakefield's 100km O/R gave him Silver distance. Sixteen year-old Michael Purcell went solo and Andrew Naylor has his Bronze three months after going solo. Many of our newer solo pilots are well on their way to Bronze badges with cross-country endorsements.

Nine motor glider pilots have completed PPLs recently including the husband and wife Wiseman team.

The club has reduced its debt on the purchase of land to half that of three years ago. M.D.C.

YORKSHIRE (Sutton Bank)

Dean Grosby, Andy Ditchfield, Chris Reacroft and Martin Johnson have gone solo. Andy Wiggins has 5hrs and Steve Hill Silver distance, (with the marginal distance of 160km!).

We wish all the best to Mike Wood in his retirement after many loyal years as DCF. Richie Toon takes over at the end of the year. C.L. 

Club new reporters: If you would like photographs returned please put your name and address on the back of the prints.

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British Gliding Association THE 1000 CLUB MONTHLY LOTTERY

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1000 is the target number of members to participate in this monthly lottery which started in July 1992. When 1000 members subscribe £1.00 a month each then the monthly first cash prize will be £250.00.

HALF of the proceeds go to the Philip Wills Memorial Fund to help with its work in developing BGA clubs and the other HALF is distributed each month in the form of 6 CASH PRIZES. The more participants we have, the greater the prize money pool.

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

5 Runner Up Prizes of 10% each of the prize money pool.

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

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

Barry Rolfe
Promoter

To: Barry Rolfe, British Gliding Association, Kimberley House, Vaughan Way, Leicester LE1 4SE
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REGIONALS' RESULTS

EASTERN REGIONALS – May 25 – June 2

Pos	Pilot	Glider	Day 1.25.5 212.8km Chevron	Day 2.28.5 125.9km A	Day 3.30.5 180.7km A	Day 4.31.5 127.8km	Day 5.1.5 208.6km	Day 6.2.5 310.2km Chevron	Total Points
1	Davis, A.	Discus	1600	0	281	567	1000	1000	3948
2	Barker, K.	Discus B	808	7	400	788	841	834	3508
3	Baker, P. E.	LS-4c	813	83	378	878	837	834	3485
4	Fox, R. A.	Discus	760	17	707	855	785	841	3423
5	Pike, M.	Discus CS	637	142	5	887	881	843	3423
6	Stanford-Allen, P. R.	Ventus B	780	0	0	710	885	843	3417
7	Gaunt, R. J.	Kestrel 19	728	8	241	705	740	740	3256
8	Welsh, J. H.	Discus	814	8	365	815	226	872	3028
9	Freestone, I. P.	DG-300	758	17	188	884	884	743	2858
10	Nash, S.	Ventus 2c1	800	0	318	438	888	813	2855
11	Sargeant, B.	ASW-20c	802	20	387	883	241	880	2853
12	Wilton, J. M.	ASW-20a	886	15	386	500	793	804	2858
13	Arthur, E. A.	Kestrel 19	765	18	108	883	841	841	2789
14	Glasbrook, G. R.	ASW-24	277	0	0	887	942	784	2688
15	Forster-Lewis, I. J.	SHK-1	588	0	177	410	878	881	2684
16	Westwood, D. J.	LS-4	587	0	89	388	732	2308	2308
17	Hart, R.	Kestrel 19	285	0	0	882	735	844	2321
18	Crowe, N.	ASW-20c	885	0	0	888	818	2207	2207
19	Cooper, D.	ASW-20a	411	0	0	308	818	881	1885
20	Matthews, G.	Discus	445	0	388	284	818	808	1884
21	Crawshaw, H.	Discus B	487	0	0	70	334	833	1834
22	Tapsen, B.	ASW-20	481	0	0	80	158	883	1481
23	Bradford, S. W.	Std Anstr 2	0	0	238	238	0	805	881
24	Bradbury, J.	Astr CS	180	0	0	0	127	0	883
25	Micklewright, S.	ASW-22	380	0	288	388	0	0	648
26	Barringer, J.	ASW-22	380	0	288	388	0	0	648

ROLEX WESTERN REGIONALS – Nympsfield, June 22-30

Pos	Pilot	Glider	Day 1.22.6 284.7km	Day 2.23.6 195.8km A	Day 3.24.6 256.8km	Day 4.27.6 137.5km O-R	Total Points
1	Barker, K. O.	Duo Discus	883	837	1000	854	3574
2	Brown, R. A.	LS-5	1000	788	987	737	3503
3	Coward, P. J.	LS-4a	880	828	804	827	3340
4	Smith, R.	Ventus	721	821	885	740	3277
5	Warren, J.	LS-7	747	788	840	705	3182
6	Darlington, A.	Sport Vega	861	801	862	753	3187
7	Lewis, J.	ASW-24w	868	770	881	675	3092
8	Palmer, R.	ASW-20c	838	851	814	783	3064
9	Angeli, J.	Discus	887	808	880	188	2853
10	Galloway, J.	Discus	821	817	784	701	2823
11	Parker, A.	Mosquito B	778	875	828	731	2807
12	Hindley, S. A.	Discus	445	814	828	805	2793
13	Reid, A.	Mosquito B	888	822	754	638	2784
14	Westwood, D.	LS-4	580	822	775	552	2508
15	Staley, J.	LS-4	738	858	683	383	2481
16	Monte, C.	LS-6c	808	805	818	274	2176
17	Stuart, T.	LS-6c	274	1000	0	594	1868
18	Hook, K.	Mosquito B	232	719	988	217	1851
19	Mercante, J.	Ventus 16.6	133	825	122	583	1723
20	Mountain, L.	Discus	244	712	758	0	1714
21	Lomas, B.	DG-300	114	177	807	853	1451

LASHAM REGIONALS – July 13-21

Class A

Pos	Pilot	Glider	Day 1.15.7 205.8km	Day 2.16.7 233.8km	Day 3.17.7 238.8km	Day 4.18.7 308.8km	Day 5.19.7 301.8km polygon	Day 6.20.7 302.8km polygon	Day 7.21.7 370.8km	Total Points
1	Taylor, J.	LS-6c	788	888	1008	1000	388	1000	882	6143
2	Jones, R.	Nimbus 4	808	1000	742	987	348	831	881	5808
3	Tanner, L.	Vega	748	800	888	860	422	878	784	5514
4	Cook, I. R.	Ventus C	632	874	811	788	400	932	752	5484
5	Lynn, J. P.	ASW-20a	842	878	883	818	388	885	885	5458
6	Merritt, K. R.	Kestrel	810	930	887	830	348	—	—	5086
7	Berry, J.	LS-6c	777	783	882	782	380	847	826	5086
8	Quinn, J.	ASH-25	812	847	788	788	315	807	880	5052
9	Innes, D. S.	Nimbus 3i	848	888	800	708	344	884	882	5025
10	Mason, D. P.	Ventus C	888	773	847	880	388	788	888	5025
11	Brown, T.	ASW-20a	858	805	810	788	7	878	883	5014
12	Brielschmidt, R. P.	DG-300	103	888	788	788	378	787	482	4808
13	McAndrew, G.	Nimbus 3or	1000	881	282	880	257	821	878	4807
14	Hall, A.	LS-8	838	741	348	771	388	938	800	4628
15	McAndrew, J.	ASW-20	788	840	440	487	388	781	1000	4534
16	Copeland, D. D.	Nimbus 2	828	788	788	322	880	—	487	4831
17	Marsfield, C. A.	ASW-20	870	883	—	355	—	748	—	4430
18	Jenkins, R.	Nimbus 2a	388	878	888	840	354	880	8	4430
19	Day, M. T.	Ventus	280	833	853	800	388	833	880	4320
20	Williams, D.	Kestrel	847	780	758	251	288	587	851	4214
21	Moulton, M.	ASH-25	181	380	378	752	280	734	848	4048
22	Connolly, W. L.	—	—	—	—	—	—	—	—	3707
23	Hook, K.	Mosquito	388	888	880	358	380	865	804	3707
24	Welsh, A.	Mosquito	788	374	345	—	307	—	580	3638
25	McAndrew, J.	Kestrel	808	843	428	528	338	877	868	3578
26	Guthrie, P.	ASW-20a	180	821	878	888	388	348	0	3312
27	Altwood, S. W.	Mosquito s	813	544	0	564	307	742	838	3288
28	Hart, T.	Ventus s	—	—	—	—	0	14	832	—
29	Bellamy, R.	—	—	—	—	—	—	—	—	2891
30	Lewis, J. P.	ASW-20	180	438	402	343	DNF	788	885	2888
31	Eddis, A. J.	Duo Discus	408	440	888	788	350	DNF	DNF	2843
32	Smith, D. B.	—	—	—	—	—	—	—	—	—

Class B

Pos	Pilot	Glider	Day 1.15.7 161.8km O-R	Day 2.16.7 188.1km	Day 3.17.7 207.4km	Day 4.18.7 301.8km polygon	Day 5.19.7 304.1km polygon	Day 6.20.7 223.8km polygon	Day 7.21.7 288.3km	Total Points
1	Thornsett, M.	Discus	883	838	808	887	288	910	888	5889
2	Fujimoto, S.	LS-8	888	880	818	888	415	888	888	5814
3	Shelton, P.	Discus w.	838	877	888	1000	374	801	732	5881
4	Chaplin, B.	Pegasus 101a	878	882	848	878	828	810	1000	5785
5	Murphy, Z.	SD-45	888	888	888	888	415	734	888	5678
6	Murray, W. L.	Discus sw	808	834	888	888	418	838	727	5658
7	Hunn, A.	—	848	8	1000	817	415	1000	988	5241
8	Davson, M. T.	ASW-19	815	788	888	738	430	782	840	4783
9	Hill, S. E.	Pegasus 101a	731	882	888	888	415	882	888	4404
10	Dixon, R.	LS-4	884	874	883	883	82	881	388	4383
11	Healy, E.	ASW-19	480	882	782	717	430	833	288	4300
12	Brooke, M.	ASW-24w	888	338	388	847	288	840	80	3575
13	Hitchcock, J. T.	LS-7	445	781	804	887	387	878	0	3300
14	Ellner, J. P.	Discus	474	884	0	738	282	801	848	3188
15	Brown, S.	Pegasus	888	830	0	703	83	888	474	2737
16	Harris, S.	Pegasus	733	0	148	0	88	567	0	1515
17	Palmer, W. J.	DG-300	DNF	DNF	478	288	54	385	0	1211
18	O'Donnell, P.	LS-7	DNF	DNF	DNF	DNF	DNF	DNF	DNF	0
19	Miller, T.	PK 20a	0	DNF	DNF	DNF	DNF	DNF	DNF	0

Class C

Pos	Pilot	Glider	Day 1.15.7 101.2km O-R	Day 2.16.7 112.3km	Day 3.17.7 154.3km	Day 4.18.7 208.7km	Day 5.19.7 102.8km A	Day 6.20.7 204km	Day 7.21.7 241.8km	Total Points
1	MacDonald, G. O. E.	G103 3c	731	677	888	918	800	638	518	5248
2	Piggott, A. D.	Astr 103c	880	880	880	880	788	888	888	5238
3	Darlington, A.	Other, A.	154	831	1000	1000	881	818	818	5088
4	Tippie, K.	Skylerk 4	—	488	—	823	—	887	882	4718
5	Hoskins, J. W.	Std Citrus	885	—	841	—	827	—	788	4687
6	Piggott, M. R.	Std Citrus	—	415	—	701	—	882	—	4639
7	Thomas, C.	Std Citrus	888	381	614	788	328	1800	428	4588
8	Carnell, M.	Std Citrus	881	881	881	881	784	1000	488	4588
9	Owens, C. J.	K-4e	858	881	140	700	481	718	—	4003
10	Todd, A.	Astr 103	378	422	877	488	388	778	883	3822
11	Smithers, J.	DG-101	854	888	821	845	34	787	878	3885
12	Saunders, D. J.	Std Citrus	488	213	878	884	488	788	63	3888
13	Piggott, N.	DG-101	480	—	243	—	418	—	218	3178
14	Whitney, I.	—	—	381	—	738	287	—	—	3178
15	Rendall, T.	Jeane Astr	388	375	485	487	858	788	8	2701
16	Birtle, J. C.	K-21	388	—	144	838	18	858	44	2748
17	Chandler, A.	Walker, R.	—	—	—	—	—	—	—	—
18	Pridal, B.	K-6a	418	380	0	323	233	824	DNF	2154
19	—	—	—	—	—	—	—	—	—	1844

DNF=did not fly

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BOOKER REGIONALS - July 20-28

Class A

Pos	Pilot	Glider	Day 1.20.7 185.4km	Day 2.21.7 161.7km	Day 3.22.7 177.7km	Day 4.23.7 250.6km polygon	Day 5.24.7 329.2km	Day 6.27.7 277.5km	Total Points
1	Alison, D. W. K.	LS-4	857	973	725	1000	962	947	5478
2	Cooper, B. L.	LS-4	929	923	789	948	969	918	5381
3	Cambridge, D. R.	Discus	919	886	780	914	939	727	5378
4	McCaughy, J.	LS-4	789	984	810	949	983	990	4985
5	Johnson, E.	ASW 24a	946	861	—	—	720	—	4985
6	Angland, W.	LS-7	—	—	578	943	913	—	4748
7	Morris, B.	LS-7	861	838	783	921	1000	728	4741
8	Pryor, G. K.	ASW-20a	795	862	378	927	914	1000	4718
9	Bird, M.	ASW-20a	939	834	—	668	982	1000	4682
10	Barrill, M.	LS-4	857	985	989	981	929	730	4470
11	Parke, T. J.	ASW-22a	660	721	528	820	867	981	4387
12	Wheeler, C.	ASW-25	674	648	625	567	864	988	4107
13	Sherratt, P. C.	Discus	779	873	475	732	818	673	4042
14	Wheeler, L.	LS-4	878	888	888	789	915	638	3448
15	Russell, G.	ASW-20	880	784	568	883	981	727	3733
16	Sherratt, P. J.	LS-4c	640	322	587	778	472	670	2374
17	White, J. A.	Mini Nimbus	594	42	434	446	347	90	2114

Sport Class

Pos	Pilot	Glider	Day 1.27.7 167km O/R	Day 2.28.7 123km	Day 3.31.7 190km	Day 4.1.8 190km	Day 5.2.8 258km O/R	Day 6.4.8 158km	Total Points
1	Whithead, P. F.	Discus	380	190	889	28	1000	885	3410
2	Stratton, M.	LS-7a	316	408	858	40	878	782	3235
3	Stephens, J.	DG-100	354	187	853	78	878	664	3182
4	Gault, P.	SHK	784	189	180	100	823	798	2882
5	O'Donoghue, P.	LS-7	0	141	849	0	767	1000	2867
6	Piggott, A. D.	LS-4	800	237	347	153	838	288	2643
7	Dillon, K.	Sport Vega	782	288	274	82	288	2605	2605
8	Devey, C.	Discus	382	98	221	81	865	780	2439
9	Robinson, D.	LS-4	1	188	588	51	787	885	2430
10	Wheeler, G.	Open Cirrus	88	188	488	80	718	688	2154
11	White, A.	ASW-19	382	251	414	38	370	688	2095
12	Fack, R. J. H.	Discus BT	0	50	883	0	782	884	2038
13	Griffin, B.	DG-100	0	148	777	48	807	807	1888
14	Brown, A.	Libelle H210a	288	—	—	80	321	814	1858
15	Marshall, G.	SHK	188	280	188	50	888	170	1805
16	Brook, M. P.	LS-4a	0	282	495	45	364	871	1807
17	Tillett, R.	Discus B	78	188	388	0	808	321	1688
18	Roberts, S.	LS-7	288	218	0	43	888	132	1552
19	Kaleidos, J.	Sport Cirrus	188	188	488	0	321	300	1488
20	Fairman, M.	ASW-19a	0	0	112	0	234	825	1088

Class B

Pos	Pilot	Glider	Day 1.20.7 165.1km	Day 2.21.7 130.5km	Day 3.22.7 134.4km	Day 4.23.7 250.6km polygon	Day 5.24.7 308.2km	Day 6.27.7 130.3km	Total Points
1	Jordan, A.	Libelle	779	888	888	888	1000	894	4697
2	Stone, A. J.	Discus	855	752	680	981	987	361	4626
3	Wells, P. M.	Discus	888	881	880	981	980	400	4591
4	Forrest, B. R.	LS-7	842	885	625	1000	542	691	4385
5	Hughes, A.	ASW-19a	794	737	567	859	881	838	4268
6	Maugher, M. W.	Pegasus	488	700	559	803	978	672	4208
7	Talbot, J.	K-6a	639	352	577	809	982	886	4015
8	Byass, D.	ASW-24	701	871	528	838	914	373	3825
9	Lamb, D.	LS-4	—	613	—	859	—	381	3710
10	Elgass, S.	SZD Junior	700	—	580	—	584	—	3710
11	Cooper, D.	ASW-15a	573	—	585	—	544	—	3302
12	Smith, A.	ASW-24	511	757	482	802	478	338	3348
13	Layton, A.	Pegasus	481	812	511	650	586	311	3051
14	Moore, J.	—	588	—	481	—	458	—	2999
15	Perley, A.	LS-4	—	338	—	758	—	117	2998
16	Harris, R. H.	—	681	—	454	—	480	—	2998
17	Handwick, M.	Discus	62	197	788	577	615	2899	2899
18	Stotherland, G. D.	Pegasus Club	540	671	143	682	422	302	2865
19	Bass, G. J.	PRR 20a	508	651	432	638	247	98	2650
20	Alston, G.	LS-4	410	481	—	738	—	343	2427
21	Lawford, A.	Discus	559	0	162	—	332	388	2427
22	Luxton, J.	—	—	0	0	840	—	348	2123
23	Luxton, H.	—	—	—	—	—	—	—	1795
24	Spill, D. T.	K-6a	282	431	105	282	480	188	1795

NORTHERN REGIONALS - Sutton Bank, July 27-August 4

Open Class

Pos	Pilot	Glider	Day 1.27.7 288km O/R	Day 2.28.7 158km	Day 3.31.7 190km	Day 4.1.8 190km	Day 5.2.8 328km A	Day 6.4.8 158km	Total Points
1	Hewson, N.	ASW-20a	874	847	746	118	1000	917	4300
2	Kelly, R.	Nimbus 3	916	888	435	88	917	361	3900
3	Thompson, C.	Nimbus 2a	420	420	887	87	888	788	3721
4	Thick, M.	ASH-25	943	828	384	0	947	810	3690
5	Alcock, R. W.	DG-500	808	389	800	17	881	778	3587
6	Malville, J.	OG-500	888	—	738	—	815	782	3587
7	Annairong, M.	ASW-22	838	437	780	180	104	788	3498
8	White, D.	Vega 17	780	916	374	58	708	845	3444
9	Blackmore, R. H.	ASH-25	838	283	187	34	947	844	3143
10	Carruthers, M.	ASH-25	750	230	741	7	887	748	3044
11	Harris-Smith, N.	Ventus CT	450	248	883	88	800	700	2980
12	Sims, J.	OG-500a	808	337	888	80	220	787	2876
13	Roberts, D.	ASH-20a	111	608	188	87	941	882	2876
14	Quartermaster, J.	ASW-20a	829	304	—	—	253	888	2488
15	Posner, P.	Ventus BT	880	282	488	40	458	151	2379
16	Bromwich, R. C.	LS-6	378	808	188	20	857	248	2378
17	Davidson, J.	OG-200 17	583	322	0	28	838	688	2358
18	McGregor, J.	LS-3	81	184	870	0	831	818	2352
19	Pythard, B.	OG-308	888	248	0	48	801	881	2072
20	Turner, P.	Keatrel 19	0	129	758	8	888	0	1781
21	Wagh, S.	Nimbus 2a	103	372	855	0	888	0	1788
22	Ramden, P.	Keatrel 19	—	—	—	—	—	—	1418
23	McDermott-Rowe, H.	—	1	109	—	—	278	229	1117
24	Martin, D.	Mosquito	0	288	887	30	278	229	1117
25	White, M.	Junior 1	488	128	0	—	941	888	874
26	Miller, J.	—	—	—	—	—	—	—	874
27	Pice, J.	Keatrel	47	0	344	—	250	0	641
28	Dell, R.	—	—	—	—	—	—	—	641

Our thanks to all the scorers who sent us the results with, again, a very special thank you to Tim Newport-Peace of Specialist Systems Ltd who has produced a programme which matches the S&G format and saves us considerable time.

INTER-SERVICES REGIONALS - RAF Centre, Bicester, August 6-15

White Class

Pos	Pilot	Glider	Day 1.8.8 148.3km	Day 2.10.8 135.5km	Day 3.13.8 114.9km	Day 4.15.8 150.47km	Total Points
1	Toon, R. J.	K-21	1000	188	803	820	2691
2	Green, A. S.	ASW-19a	818	332	865	773	2788
3	Gault, R.	K-21	958	173	800	830	2770
4	Sage, J.	K-21	847	223	778	903	2732
5	Mitchell, T.	Junior	915	—	886	782	2743
6	Heneghan, M.	—	—	180	—	—	2697
7	Mason, T.	ASW-19x	810	182	783	822	2697
8	Smith, R.	K-21	884	88	782	843	2675
9	Sharmar, B.	K-41	850	107	785	785	2647
10	Atkinson, P.	K-6a	886	240	715	776	2627
11	Hull, J. A.	Astric CS77	788	816	744	707	2445
12	Watson, A. F.	Astric CS77	819	63	729	838	2440
13	Thornhill, M. G.	Viking	729	0	811	815	2365
14	Dickson, M. W.	Astric CS	419	279	874	759	2327
15	Stevens, A.	Astric CS	880	87	810	—	2323
16	Barnfather, C. L.	Std Cirrus	793	—	568	812	2302
17	Pitchfork, G. R.	—	—	186	811	—	2242
18	Popik, J. P.	ASW-19a	508	178	782	776	2242
19	Akerman, T.	Astric CS	484	84	843	748	2188
20	Pike, M.	Acro	531	114	728	774	2139
21	Ley, D. R.	Astric CS77	516	0	775	882	1883
22	Duncan, J.	Astric CS	188	188	853	661	1907
23	Moss, D.	Astric CS	814	29	701	507	1851
24	Ockleton, D. R.	Junior	850	137	167	625	1788
25	Pettman, I.	K-6a	848	—	101	—	1687
26	Anson, B.	—	—	67	—	551	1687
27	Hood, J. M.	ASW-19x	487	178	280	661	1582
28	Feak, K. G.	Libelle	819	0	147	580	1518
29	Cock, P. G.	K-21	444	210	146	715	1515
30	Bryson, R. N.	—	—	—	—	—	1448
31	Bradbury, J. V.	Astric CS	385	10	673	370	1448
32	Clark, A.	Puchacz	522	0	746	—	1422
33	Clark, G.	—	—	—	154	—	1398
34	Ollivier, D. M.	ASW-19x	148	88	876	498	1388
35	Andrews, P. W.	IS-290	528	0	318	448	1281
36	Peck, J. D.	OG-100	218	0	318	388	931
37	Moyes, T.	Astric CS	233	0	170	434	827
38	Burrows, M.	Astric CS	7	188	73	150	438

REGIONALS' RESULTS

Red Class

Pos	Pilot	Glider	Day 1.7.8 158.85km ■	Day 2.8.8 215.7km ■	Day 3.10.8 152.16km ■	Day 4.13.8 227.73km ■	Day 5.15.8 198km ■	Total Points
1	Browne, R. A.	LS-8	968	1000	553	1000	932	4453
2	Kirschner, M.	Vega	881	841	426	825	982	3937
3	Dalling, R.	Janus	805	807	419			
4	Hood, L.					806	1000	3836
5	Adlard, S. A.	Janus CTe	848	879	20	900	901	3629
6	Pasmore, N. J.	Discus	860	574	483	806	912	3615
7	Evans, R. M.	Discus	905	923	483	490	780	3574
8	Dean, M. J.	Discus	678	844	180	977	882	3521
9	Marweha, T. S.	LS-4a	774	803	28	989	903	3475
10	Gough, N. J.	Discus	688	844	210	880	824	3456
11	Wright, J.	Pegasus	758	844	417	828	778	3425
12	Hackett, P. L.	Discus	847	759	313	557	869	3383
13	Stephenson, E. K.	Discus	862	489	130	959	943	3363
14	Thomas, G. N.	Discus	973	574	0	811	886	3254
15	Clarke, A. J.	Janus Cc	909	585	157	587	823	3141
16	Mountain, A.	Discus	1000	810	315	582	241	3058
17	Tribe, A. D.	LS-7	859	184	360	569	688	2818
18	Cottingham, I. M.	Discus	443	901	401	533	364	2749
19	Arnall, R.	Janus Cu	884	587	359	584	136	2480
20	Smith, I.	Janus C	474	905	126	0	873	
21	Sharp, K.							2323
22	Rickers, A.	LS-4	242	345	0	587	801	1985
23	Brunning, S. M.	Discus	366	370	213	170	481	1622
24	Melthues, G.	Discus	359	222	418	448	343	1791
25	Hessellwood, M.	Discus	230	487	0	300	781	1777
26	Barnes, T.	Discus	238	583	2	336	202	1372
27	Gazzard, M. L.	Discus	189	244	0	38	153	621
28	Crawshaw, N. C.	Discus	368	0	25	52	DNF	445
29	Joynson, J.	Discus	37	60	0	25	154	288

Blue Class

Pos	Pilot	Glider	Day 1.7.8 186.38km ■	Day 2.8.8 242.1km ■	Day 3.10.8 209.7km polygon	Day 4.12.8 194.9km ■	Day 5.13.8 279.72km ▲	Day 6.13.8 243.2km ■	Total Points
1	Francis, D.	LS-5c	978	1000	238	—	—	932	4671
2	Halham, J.	Nimbus 3	937	803	867	558	983	726	4851
3	Innes, D. B.	Nimbus 301	932	745	407	391	954	534	4593
4	Smith, D. W.	Duo Discus	943	848	482	0	602	1000	
5	Seaman, G.								3843
6	Willett, M.								3521
7	Burry, J.	LS-6c	967	782	51	287	430	894	
8	Moules, K.	Kestrel	—	682	—	0	—	730	
9	Farnley, P.		810	—	105	—	360	—	2677
10	World, T. M.	ASW-20c	872	648	115	32	789	382	2580
11	Welsh, J.	Kestrel	286	647	—	—	732	594	
12	Welsh, S.		—	—	255	—	—	—	2544
13	Hornsey, L.	ASW-20	889	357	313	270	398	358	2365
14	Binnie, G. J.	Mini Nimbus	222	865	76	0	852	652	2265
15	Hanner, P. M.	Nimbus 30a	825	552	0	0	50	135	
16	Ferguson, M.	Ventus cr	689	53	13	0	30	848	1411

GRANDSEN REGIONALS – August 17-26

Club Class

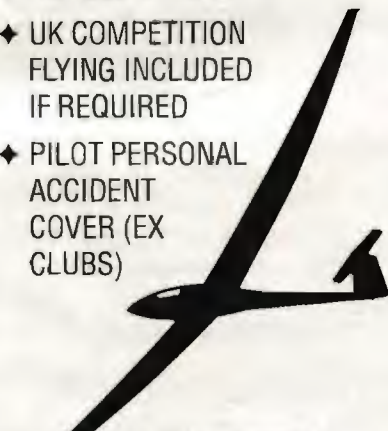
Pos	Pilot	Glider	Day 1.17.8 152km ■	Day 2.18.8 273km ■	Day 3.19.8 301km ■	Day 4.20.8 152km ▲	Day 5.21.8 212km ▲	Day 6.22.8 198km ▲	Day 7.24.8 185km O/F	Day 8.25.8 130km ▲	Day 9.26.8 125km O/F	Total Points
1	Melsonpiers, R. J.	Std Libelle	888	888	1000	479	1000	938	222	480	448	6368
2	MacGregor, A.	DC-300 Club	999	949	997	312	888	821	97	898	490	6295
3	Atkin, P.	ASW-19	835	833	864	308	982	1003	177	608	260	6185
4	Perry, N.	LS-4	1000	898	844	474	792	788	188	375	408	5835
5	Brook, M. F.	SHK-1	940	917	891	300	829	910	84	338	494	5683
6	Healy, P. T.	ASW-19	570	1080	938	293	871	889	125	526	380	5568
7	Baker, P. E.	Acro Twin 2	—	988	—	—	—	—	—	—	—	—
8	Welford, R. J.	LS-4a	444	—	787	—	980	—	87	—	179	5482
9	Mee, M. P.	Pegasus	349	918	882	182	888	881	288	448	517	5412
10	Smithers, C. R.	LS-4	243	868	812	108	782	690	644	444	400	5272
11	Birkbeck, A. J.	ASW-19b	370	798	825	481	718	81	690	388	5028	
12	Armstrong, S.	LS-4e	348	727	739	279	886	724	176	420	900	4884
13	Weatherhead, A.	Std Cirrus	888	788	787	211	765	718	80	439	210	
14	Merritt, R. J.											4817
15	Enock, A.	K-6a	441	874	880	283	818	777	47	8	413	4810
16	Welford, A. C.	PK 200	509	813	878	134	887	818	3	307	187	4904
17	Duffin, P.	Club Libelle	418	788	853	313	481	725	74	938	342	4548
18	Drury, G.	Pegasus	686	785	443	228	724	877	78	410	228	
19	Decloux, A.	Pegasus	880	917	882	74	88	728	78	388	487	4468
20	Stuart-Menieth, O.	Std Cirrus	644	648	671	510	881	814	78	0	189	4240
21	Nicolson, K.	Acro Twin 3	0	343	844	518	773	743	64	288	281	
22	O'Donnell, P.											4185
23	Birch, J. L.	Pegasus	887	487	728	481	182	788	78	0	454	6074
24	Woolford, M. G.	Std Cirrus	0	—	788	—	982	—	187	—	428	
25	Woolford, S. J.		—	430	—	212	—	748	—	255	—	3882
26	Turner, R. N.	Std Libelle	—	722	—	415	—	851	—	480	—	
27	Jones, D.		0	—	34	—	528	—	0	—	274	3312
28	Jones, M.	Janus Std 2	0	488	676	371	858	543	77	0	375	3084
29	Slipper, T. W.	K-6c	381	238	272	247	502	528	10	0	88	2280

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REGIONALS' RESULTS

Sport Class

Pos	Pilot	Glider	Day 1 18.8 322km	Day 2 19.8 372km	Day 3 21.8 352km polygon	Day 4 22.8 257km	Day 5 24.8 245km	Day 6 25.8 195km A	Day 7 26.8 160km	Total Points
1	Barker, K. D.	Duo Discus	1090	1000	1000	994	1000	1000	1000	6294
2	Davis, A. J.	LS-8	982	982	981	982	982	982	982	5917
3	Starkley, C. G.	ASW-20	904	934	979	904	918	989	992	5651
4	Reidman, B. J.	LS-8	953	909	902	998	989	989	989	5695
5	Wilton, J. H.	ASW-20c	979	938	985	1000	918	918	939	5774
6	Shelton, P. H.	Duo Discus	995	995	995	995	995	995	995	5936
7	Dunham, M. W.	LS-7	938	998	954	910	959	979	959	5800
8	Hendrick, S. A.	Discus	988	902	899	899	899	840	946	5472
9	Parkinson, R. P.	LS-8	951	942	877	118	998	954	985	5278
10	Johnson, R. A.	LS-7	938	998	954	910	959	979	959	5800
11	Edwards, R.	Discus	918	987	988	979	946	936	999	5645
12	Payne, K.	Discus	988	927	713	718	965	999	999	4925
13	Wheathead, P.	Discus	919	979	999	949	939	939	939	5336
14	Hill, D.	Ventus 2	911	794	939	931	939	942	982	4798
15	Parkinson, B. A.	LS-8c	934	930	727	807	149	991	934	4991
16	Gardiner, T. L.	ASH-25	—	—	900	718	—	489	482	4432
17	Moulton, A. P.	ASW-24	742	971	—	—	964	—	—	4432
18	Forster-Lewis, L.	ASW-24	618	945	992	795	945	979	918	4371
19	Langford, D. J.	Discus	988	931	712	854	918	955	91	4361
20	Knight, R.	LS-7	922	747	949	923	918	949	0	4312
21	River, T. D.	Discus	953	989	999	719	959	949	921	4298
22	Graves, R.	LS-8	794	754	948	985	0	921	937	4117
23	Ward, R.	Mosquito	799	939	922	710	927	941	930	3995
24	Ed, S. R.	Mosquito	957	759	999	989	919	939	999	3187
25	Arthur, E. A.	ASW-20c	989	900	919	995	999	991	951	3774
26	Smith, K.	Kestrel 19	744	930	955	749	0	954	949	3776
27	Glendon, G. R.	Kestrel 19	772	972	979	999	929	907	929	3735
28	Russell, M. C.	ASW-22	911	981	910	949	929	929	919	3187
29	Wright, P. G.	LS-7	794	710	0	922	999	974	91	3171
30	Kay, P.	LAK-12	938	931	909	999	919	946	49	2981
31	Payne, D.	LS-8	919	949	949	919	949	949	949	2981
32	Verder, R.	ASW-20	749	979	999	922	999	999	999	2977
33	Ferguson, J.	Nimbus 2	982	984	997	947	999	999	999	1979
34	McIntosh, R.	OG-900	17	940	999	935	999	999	999	1790
35	Evans, M.	Discus	0	100	944	129	48	953	9	987

DUNSTABLE REGIONALS – August 17-26

Pink Class

Pos	Pilot	Glider	Day 1 17.8 138.5km O-R	Day 2 18.8 300.7km polygon	Day 3 19.8 372.7km polygon	Day 4 21.8 324.4km polygon	Day 5 22.8 305.3km polygon	Day 6 23.8 199.3km A	Day 7 24.8 167.8km O-R	Total Points
1	Spencer, J.	OG-900 18a	618	919	981	975	999	919	991	6482
2	Tillett, R.	Discus	912	925	934	987	916	918	478	5342
3	Lewis, R.	Discus	999	929	949	999	999	999	999	5181
4	Fraser, L.	Discus	948	987	945	944	937	937	937	5095
5	Parkinson, N.	Discus	972	935	958	948	943	918	946	4961
6	Chambers, H.	LS-8	917	1000	992	992	1000	15	481	4916
7	Newland-Smith, M.	Discus	935	997	949	919	919	919	919	4885
8	McCaughy, J.	ASW-24	493	979	985	939	947	972	972	4781
9	Lynn, S.	ASW-22	474	792	722	747	989	983	973	3950
10	Wheathead, P.	ASW-25c	797	949	947	983	799	992	989	4432
11	Cole, E.	LS-8	274	194	—	991	939	939	199	4432
12	Kay, W.	ASW-27	730	995	999	734	974	987	—	4297
13	Wilton, L.	Discus	—	—	739	934	948	948	—	4188
14	Wright, T.	Mini Nimbus C	572	959	904	797	999	991	—	4098
15	Lewis, J.	Discus	997	949	919	793	919	119	199	3922
16	King, R.	ASW-20c	974	974	799	941	999	999	974	3794
17	Wheathead, J.	Ventus C	939	984	794	794	981	918	0	3719
18	Payne, A.	ASW-22	617	985	972	743	754	64	172	3687
19	Langford, D.	Discus B	274	946	—	779	948	129	0	3680
20	Russell, P. K.	LS-8 18a	918	953	957	799	729	—	418	3623
21	Stewart, P.	ASW-20	993	927	933	997	997	—	—	3571
22	Dray, D.	LS-7	651	989	799	999	999	11	149	3048
23	Hughes, M. E.	Discus	999	999	939	999	994	0	0	3054
24	Harris, N.	LS-7	199	793	915	139	999	0	0	2498
25	Bell, M.	ASW-20c	999	984	914	999	999	999	999	1799
26	Warner, P.	ASW-20	—	179	997	979	939	919	—	1511
27	McIntosh, R.	ASW-20	0	218	922	999	74	919	—	1499
28	James, B.	ASW-20	235	971	149	999	99	919	—	1299
29	Parker, J.	OG-400	939	920	997	997	997	997	997	9298

Blue Class

Pos	Pilot	Glider	Day 1 17.8 140.3km O-R	Day 2 18.8 228.3km polygon	Day 3 19.8 344km polygon	Day 4 21.8 245.3km polygon	Day 5 22.8 305.3km polygon	Day 6 23.8 159.3km A	Day 7 24.8 167.8km O-R	Total Points
1	Craig, G.	LS-8	999	999	1000	1000	1000	924	999	6249
2	Wheathead, D.	LS-8	999	1000	972	919	1000	914	999	5922
3	Jeffery, J. R.	K-8	999	999	999	999	999	999	999	5911
4	Birch, M.	LS-8	999	999	999	999	999	999	999	5909
5	Hughes, J. T.	LS-8	999	979	701	791	999	142	991	4933
6	Davidson, R.	LS-8	999	999	999	974	999	974	999	4929
7	Brinkfield, R.	Pegasus	999	999	999	999	999	979	999	4925
8	Roch, A.	Astr CS	741	939	949	999	999	997	99	4279
9	Garwood, M. R.	Janus A	799	940	709	999	999	921	—	4179
10	Brookman, M. S.	ASW-15	799	—	930	—	999	—	—	4179
11	Dunbar, A.	ASW-15	799	931	930	935	999	999	999	4142
12	Hicks, P.	LS-8	999	799	799	999	999	999	999	3914
13	Snoddy, T. E.	Std Cirrus	999	999	912	970	999	999	999	3749
14	Candies, P.	ASW-15a	979	979	999	999	999	999	999	3191
15	Miller, D. J.	K-21	999	999	999	999	999	999	999	2727
16	Cornhill, D.	Std Libelle	—	940	—	744	—	—	—	1999
17	Lewis, P.	Std Libelle	—	940	—	744	—	—	—	1999
18	Ward, P.	PIK 20a	—	925	—	771	—	—	—	1691
19	Stanton, D.	LS-8	107	975	991	171	999	999	999	1899
20	Woodgate, L.	LS-8	—	—	—	999	—	—	—	1497
21	Harris, P.	LS-8	—	—	—	999	—	—	—	1497
22	Oliver, R.	LS-8	—	—	—	999	—	—	—	1497
23	Stones, R. J.	Std Libelle	—	—	—	999	—	—	—	1497
24	Shelf, D. T.	K-8	—	—	—	999	—	—	—	999

LATE NEWS

BRITISH TEAM SELECTION

On going to press we have been given the names of the pilots selected by the 33 strong voting panel as possibles for the British team for the 1997 World Championships at St Auban, France, from June 30-July 12.

The panel are made up of the 16 members of the team squad plus two current National Champions and the first five in each of the

Nationals who don't already qualify for a vote.

Justin Wills gained most votes followed in voting order by Andy Davis, Brian Spreckley, Martyn Wells Alister Kay, Steve Jones, Chris Garton, Robin May, Phil Jones, Mike Young, Denis Campbell, Russell Cheetham, Phil Jeffery, Jed Edyvean, Pete Harvey, Graham McAndrew, Ted Lysakowski and Mel Dawson.

It is possible that up to nine pilots will be chosen to fly in all three Classes. Bob Bickers will again be the team manager.

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Hopcrofts Holt Hotel (N^r Kidlington, Oxfordshire) Saturday 22nd February 1997



BRITISH GLIDING ASSOCIATION

Starting at 11am and continuing through to 5.30pm, the 1997 annual BGA conference will be packed full of interesting talks, discussions, and events. The afternoon will be divided into a number of presentations, including our guest speaker, Mr Gerhard Waibel from the ASW factory in Germany.



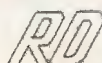
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The conference is also to include a meeting given by the national coach and his deputy, to which all AEs and instructors (or indeed anyone else) are encouraged to attend.



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If you get the chance, you can also relax and watch a few gliding videos, including the new "Champions of the Wave" and "Wind Born", courtesy of RD Aviation.



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Following on from the conference, there will be the dinner, at only £16 per person. This will include entertainment in the form of a live band until the small hours of the morning, for those with enough stamina.



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For more information, or to order your tickets, contact:

Claire Thorpe on (01280) 705741/(0836) 512857, or Sylvia Bateman on (01509) 415710

To book hotel accommodation, contact Hopcrofts Holt Hotel directly on: (01869) 340259

SENIOR NATIONAL COACH

The BGA has conducted a thorough investigation concerning articles on corporate hospitality events which were published recently in the national press. As a direct result of this investigation the BGA has terminated its contract of employment with Chris Rollings.

The BGA is now advertising for National Coaches and will be informing Club CFIs of the revised coaching programme for the 1997 season in the very near future. The Chairman of the Instructors Committee has assured the Executive Committee that the coaching operation will still be able to provide a full coaching programme for next year.

CLASSIFIED SECTION

TO PLACE AN ADVERTISEMENT IN THE CLASSIFIED SECTION, please send your remittance together with a copy of your wording to Debbie Carr, BGA, Kimberley House, Vaughan Way, Leicester LE1 4SE (Tel 0116 2531051 or Fax 0116 2515939), before January 4 for next publication. Any advertisements received after this date will be carried forward to the next edition of S&G. Rates 70p per word with a minimum of £14.00. Black & White photographs accepted £6.00 extra. Box No. £3.00 extra. Prices include VAT.

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Traveller's Tale - JAPAN

MIKE LINDSAY from the Norfolk GC writes about a Japanese gliding club he first found during a visit in February, 1988

During a visit to our son in Sendai, a coastal city about the size of Sheffield, 200 miles north-east of Tokyo, he arranged a visit to the local gliding club.

At the airfield we saw a sailplane thermalling away like mad although it was the middle of winter. Before going on the airfield we had to call the guardroom to get permission, which was forthcoming after about ten minutes. They said one of the club members would come for us and, indeed, after a few minutes someone appeared in an old Datsun. Immediately all sense of being in a strange country vanished as I found myself perched on an old tool box between a pair of jump leads and a pile of the kind of things you get in any car at a gliding club.

The instructor, Kinya Umetsu, speaks English pretty well. There are few Japanese clubs and they rely on home built winches, tugs being very expensive. At the time of my visit there were only three clubs with several university gliding clubs.

Cross-country flying is very difficult. The land area is about the same as the UK with twice as many people and three quarters of the area is mountainous. What flat land exists it is all in tiny fields or has a town built on it. The best thermals appear from about November to April, but the mountains near Sendai make it one of the best wave sites in Japan.

The site is shared with the university gliding club who have about six aircraft including a K-13 and a home built two-seater, which was the only locally made glider flying. Surprisingly they don't make any other gliders in Japan, although they used to build the Pilatus B-4 under licence. There was a deal of difficulty about getting GRP gliders repaired, although this is improving.

Kinya and his wife Makiko and elder son stayed with us in 1990 when he took my Skylark 4 to 5000ft in 1hr. Five years later, having learned some Japanese, I returned and stayed with Kinya and his family when I had an enjoyable flight in a Blanik.

It was interesting to see GPS fitted in cars. You can alter the display so that the whole of Japan is visible with major roads or just the section you happen to be in.

Although there are differences in the club operation, one of the things we could learn from them is the way they make you feel at home, even when you have no common language.

ASW 15A. Good condition, A/T Hook, EB 80 parachute. Aluminium trailer, tow out gear. Did 3,500km cross country in 1995! £9750. Tel: 01480 880238

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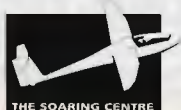
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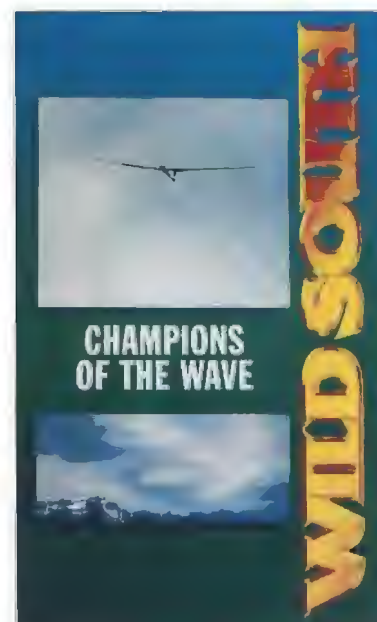
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