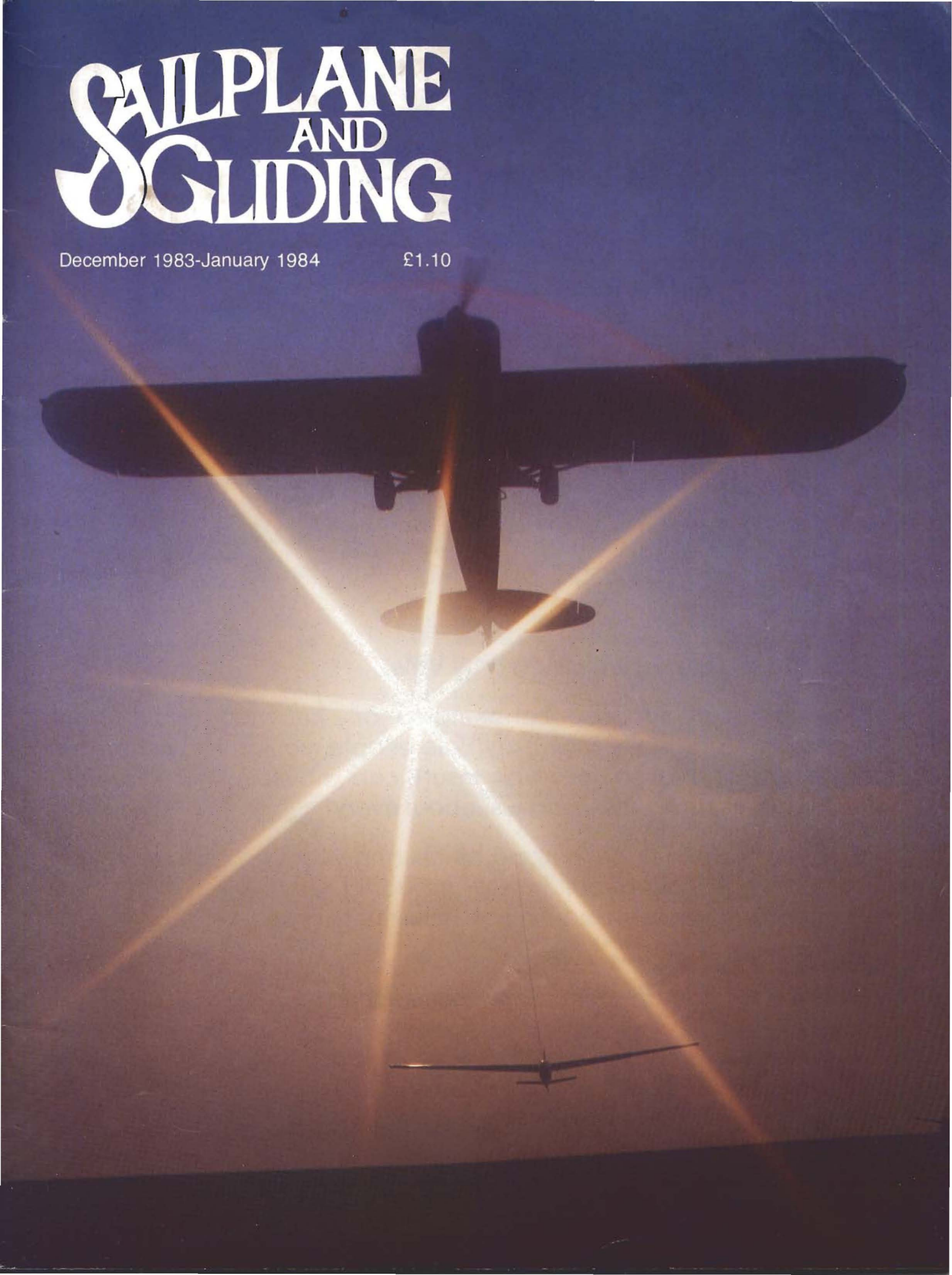
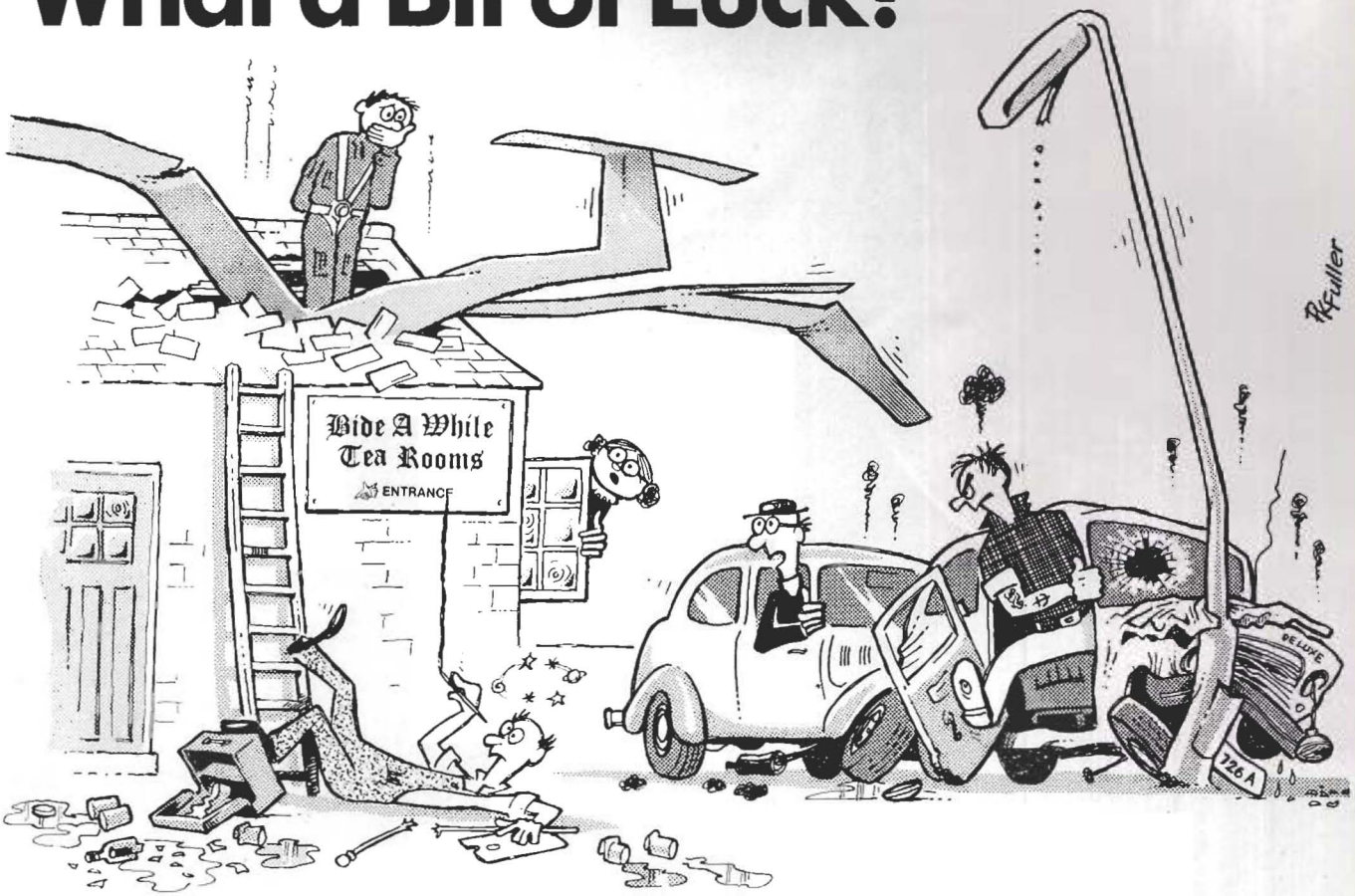
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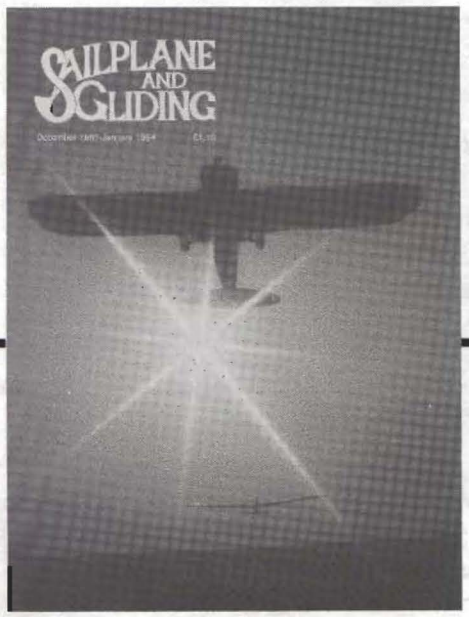
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The BGA have complete sets of S&G covering the last two years and single copies going further back. If interested, please contact the BGA Office.

Cover: Roger Savage took this spectacular picture of the Yorkshire GC's Super Cub towing a Blanik.



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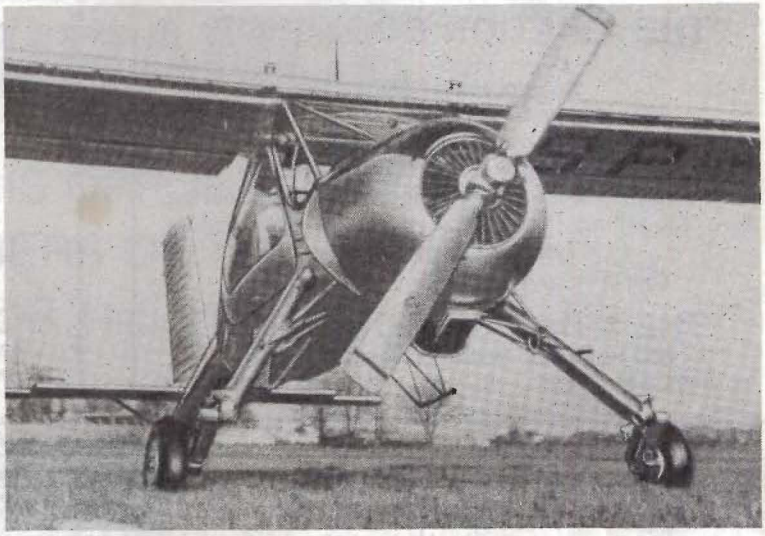
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TOM'S CHANNEL CROSSING

TOM DOCHERTY describes his 666km cross Channel flight from Lasham to the south of Paris in his Nimbus 2C on August 3. It has been his ambition for years to fly from Portmoak to the Continent, but that's for another season!

The forecast at Lasham for Wednesday, August 3 promised good conditions for a longish flight although poorer conditions would affect that area north of Northampton. Alan Purnell was busy preparing for a 600km triangle but found time to discuss conditions and the anticipated cloudbase which by his quick, and as I found out later, accurate calculation would be of the order of 4000ft. Not surprisingly my thoughts turned to that elusive prospect. A higher cloudbase would be a distinct advantage for the Channel crossing. It made good sense to extend the track to Dover by going northwards round the London TMA. With the clag forecast at Northampton I declared Cambridge Airport which if achieved would take me conveniently on to the track previously followed in attempts from Portmoak.

I was in line for a launch about 10.30am with Alan Purnell and Chris Lovell already airborne and reporting weak but soarable conditions. The tug pilot was briefed and everything looked rosy. Too good to be true. Then followed two abortive launches. Well I never, that hadn't ever happened before!



Tom waiting to be launched.

Low level smoke

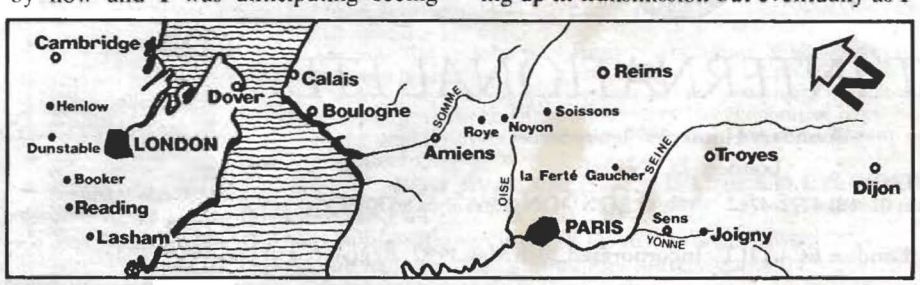
Third time lucky, but to my dismay I was being launched by a different tug pilot. It is rarely very good when you don't get what you want! I was losing out on the launch height of 2000ft with nothing in sight locally, so I burnt my boats, pressed on northwards and ended up using some low level smoke, — what a start! Fortunately I scrambled out of that hole fairly quickly and was soon climbing back to launch height.

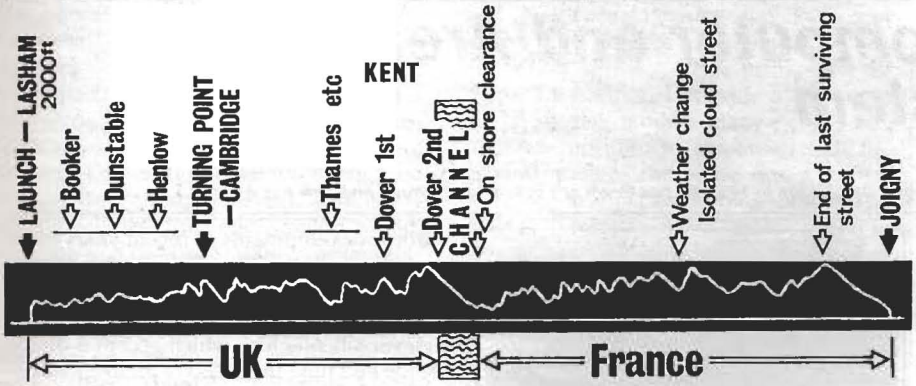
I skirted Booker and Dunstable both eagerly launching their morning queues. Conditions were firming up very nicely by now and I was anticipating seeing RAF Henlow which was hosting the Inter-Services Regionals. Startline chatter was remarkably different from the Lasham brand but equally noisy. A quick flick of the switch silenced all that and left me to concentrate on the much more welcome sound of the Cambridge vario. I passed Henlow which lay slightly south of my track and then through Biggleswade and Bassingbourn. Running quickly into the TP at Cambridge, this was to prove the best part of the entire flight — what a pity the pleasure of rounding a TP is so often marred with a photographic fumble.

Now tracking 150° towards Chelmsford conditions were not holding up just so well. I crossed the estuaries slightly farther east than my previous flight to Challock and benefited immensely in terms of confidence from the last experience. My wife Anne had pre-arranged with a member of the Kent GC to listen out at Challock. My new radio was playing up in transmission but eventually as I went over Challock I was able to pass the message that I was heading for the coast and this was duly telephoned to Lasham. All thanks to my helper at Challock.

Between Folkestone and Dover cloudbase was at varying lower levels with some sea air effect. This was disappointing to say the least. I entered cloud but was unable to make sufficient height above the ragged base around 4000ft asl. I was now obviously wasting valuable time. Eventually I headed back inland to a firmer based cumulus and succeeded in climbing to 5300ft and from there returned to the coast, avoiding the small amount of scraggy cu arriving at precisely 5000ft asl. It is difficult to describe the feeling at that moment. The air was crystal clear over the entire Channel. No visible prospect of any helpful lift and no prospect of adding that extra desirable 500ft. "Will I or won't I?" — a comment made by Justin Wills some years ago about having faith in your glider, flashed through my mind. To hell with it — let's go! If I don't go now, I'll never go! All noble stuff.

With the crossing underway some minutes had passed and still the other side didn't seem any closer. I made the mistake of looking back over my shoulder. Those white cliffs were surprisingly close and the urge to turn back unbelievably strong. I resisted and settled





A drawing of Tom's barograph trace.

This has been a good year for Tom and 727. On June 26 he completed what is probably the first 500km flight within Scotland in wave, starting from Portmoak and turning at Loch Awe on the west coast and Buckle** via **Aboyne on the north-east coast. Heights were between 6000 and 11 000ft to avoid the need for oxygen. The next day he attempted a long run south, first turning at Aboyne, and was back over Portmoak at 13 000ft before 11am. But the weather south of Newcastle didn't match the forecast and he landed after 555km. This was the day John Cadman flew south from Enterprise at Aboyne and Andy Penswick and Jimmy Luke flew from Portmoak to Syerston for Diamond distance.

down to a sedate glide in remarkably smooth air, my eyes shifting from ASI to vario deliberately avoiding too many glances at the altimeter. I took the chance to look at the scene below. Plenty of shipping activity and movements in all directions but very little towards the French coast, where I speculated on the splash down area if all went wrong! Thoughts at mid channel — too late to turn back now.

French coastline

I glanced at the altimeter now below 3500ft but holding remarkably well. Then all of a sudden we were making ground with a chance to look at the French coastline. I aimed to cross at that visible prominence just east of Cap Gris-Nez. I observed that the line of visible convection was well inland. I had used a bit more than half of the total height in the crossing and had to continue very carefully if I was to negotiate the on-shore clearance. The last thing would be to flop near the coast. Eventually a little chirp on the vario gently reminding me that it was still alive. I press on down to 1400ft asl. The patchwork of fields had an even symmetry of golden brown and rich green, quite unlike my usual gliding territory. We reached the slightly ragged cumulus formation and instantly had 2kt . . . 2kt of French thermal, back into the fray, a few gentle turns to make sure it was for real and we gained a bit of height before pushing on for something better.

Hurried along

Quickly back to cloudbase, which was surprisingly still only 4000ft, I set the same 150° course aiming to skirt the Paris TMA on the east side with the line on the French half million map projected confidently to the river Seine through Troyes to Dijon and beyond! I was now trying to make up for lost time and abandoned the hassle of pinpointing those unpronounceable place names. Major rivers and straight line roads were to keep me right as I tried to hurry along. I crossed the river Somme to the east of unseen Amiens down through Roye, Noyon, Soissons with cloudbase rising gradually.

A significant weather change lay ahead to the east of Paris TMA. The convection divided into formidable cloud streets spaced at considerable intervals casting deadly shadows over the intervening areas. Cloudbase was now back up to the Cambridgeshire level of 5000ft and I was able to fly just below base. I could see the adjoining streets; the end of the one to the starboard side was in sight. The other massive street to the portside disappeared into a forbidding black sunless mass. I decided to stick to the one in the middle. Luckily this proved to be the one that went furthest. I was now more or less on a southerly heading and inevitably abandoned the route to Troyes.

Thoughts were beginning to turn to the aim of landing at an airfield if possible. Still high, I passed over an airfield with parachuting in progress, probably La Ferte-Gaucher. The end of the street in sight meant a glide out over the Seine towards Sens, then lots of flat areas by the river Yonne, but no airstrips that I could see. I continued to follow the river getting steadily lower. I hadn't thought I would get this far down the river which now turned abruptly to the east round a hill.

I had abandoned the map a little way back and now concentrated on an early landing. Joigny (I discovered the name later) was out of sight until I rounded the hill. The picture postcard setting of Joigny straddling the river and rising up the hillside was truly a sight for sore eyes. There just had to be an airfield here. I scanned along the flat areas at river level but nothing showed up. I lifted my eyes to the hill just above the township and could just make out a slender black line cut into the forest edge. It just had to be an airfield. I had enough height to fly over Joigny parallel to the strip. The approach was over the edge of the forest and I opted for a landing on the grass parallel to the tarmac runway. The time was 1950hrs (2050 local time).

Joigny airield sported a neat modern clubhouse and a hangar full of light aircraft. The bad news was that everyone including the owner had abandoned the place, put the shutters up and had gone off on holiday.

Sole rescuer

Shortly after parking the Nimbus, my one and only rescuer arrived having seen me gliding overhead. He turned out to be a construction foreman with enough English to deal with the situation. He whisked me off to the local gendarmerie (at my request) in the hope of a quick telephone call to Lasham. No chance!! Oh — they were very helpful. Unfortunately my arrival coincided with the report of a major road accident and a shooting! and boy! do those Frenchmen go on.

Next day the magnificent aerotow retrieve was done by Ray Foot and Johnny Taylor with the Robin arriving exactly on time at 11.30am. The retrieve was a lengthy four hour tow *via* the customs airfield at Troyes, Le Touquet control and back across the Channel under lowish cloud and poor visibility to a customs landing at Lydd, eventually arriving back at Lasham before the light failed. The distance unfortunately fell short of my aim and totalled 666km which means only one thing — if at first you don't succeed — FLY, FLY, AGAIN!!!

Please send your editorial contributions to our Cambridge office. By force of habit many of you still use the Leicester address which wastes valuable time.

An Airborne Computer and Area Navigation System

P. W. JAMES

Peter works at RAE, Farnborough and began gliding at Cambridge in 1958. He has flown at Lasham for 21 years and now has a Vega.

This story really began with an O/R flight from Portmoak to Aboyne on October 22, 1979. I was indeed the "phantom glider pilot" the Bath and Wilts. Club pilots spotted over Loch Muick (S&G, April, 1982, p84). Those pilots will never forget that magnificent wave day, sitting in the sunshine above the brilliant white clouds which stretched as an unbroken layer south of Aboyne as far as the eye could see. However the clouds did make navigation a bit of a problem, and started me thinking about building a practical navigation system for a glider.

The obvious choice is VOR (VHF Omnidirectional Range). This uses the frequency band 108 to 118MHz, just below the VHF communication frequencies, and the antenna is of convenient size for putting in a glider. The fundamental property of a VOR station is that it radiates, for each direction, a signal which is effectively labelled with that direction. The airborne receiver uses a decoder to read off this information, and the result is the bearing of the aircraft as seen from the station, in degrees clockwise from magnetic north.

Stations plentiful

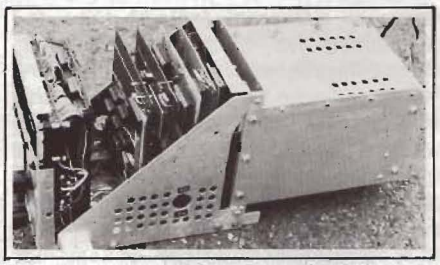
After observing the VOR readout, we know we are somewhere along a certain radial line from the station. Clearly, we need more information to get our exact position. One solution is to use the VOR receiver over again to get a bearing from another station. Our position is where the two radials intersect. Of course this method relies on the stations being sited to make this possible, and fortunately this is the case anywhere over the British Isles, apart from some of the outer islands.

The basic mode of operation could be as follows. First pick two or more stations. Tune the receiver to the first station, observe the bearing and draw the appropriate radial line on the map. Then, before the aircraft has moved too far, tune to the second station, observe the bearing and draw another radial. Although this may be enough for a rough fix, continue with further stations for confirmation and more accuracy.

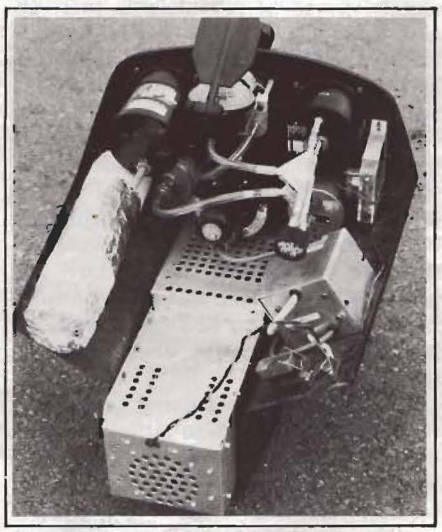
It is not practicable to draw lines on maps in the air, nor, with currently available VOR receivers, to keep up continual rapid retuning. This is where two electronic developments of recent years come to the rescue. The first is the microprocessor, and the second is the synthesiser. The synthesiser consists of some clever silicon chips which accept a digital code and tune the receiver almost instantaneously to a desired channel. The microprocessor, together with other memory chips holding the programme, forms a dedicated computer, which can calculate the aircraft's position using the station positions and the observed bearings. But it can do much more than this, as we shall see.



Equipment fitted in the panel. The position displayed is 51° 11' N, 1° 2' W.



The navigator removed from the panel with the cover taken off to show the computer. The VOR receiver is in the box on the right.



The rear view of the panel showing the navigator. Photos: John Cochrane.

Liquid crystal displays

The choice of display was a problem because the characters need to be sufficiently large and bold, so as to be read with a quick glance. Eyes are better employed looking out for other gliders than for peering at a tiny and complex display. The device uses liquid crystal displays, which are readable in the brightest light and consume negligible power. Their only drawback is that they stop working at low temperatures when the liquid freezes. The photo shows the equipment installed in the lower part of the panel of a Vega. The two windows are for the liquid crystal displays, each with four digits. There are heaters behind the displays, energised below −5°C by a bi-metallic switch. Below is a pad of sixteen keys, arranged in the manner of a calculator. The antenna is a horizontal Vee inside the fuselage behind the pilot's seat.

The computer is built round a Motorola MC6800 microprocessor with 8Kbytes of programme memory, and this sits just behind the panel. The VOR receiver is fitted on the back of the computer. This close placing turned out to be a mistake because of the radio interference from the computer! Current consumption from the 12v battery is 0.5A. The receiver is completely under the control of the microprocessor and cannot be tuned by hand. It cannot even obtain bearings on its own. It just puts out raw signals and the computer does the rest. This approach saves hardware and also makes it easy to apply corrections.

Let us follow the operation of the system from a cold start. The first task of the computer will be to select a group of VOR stations, so it runs a procedure cal-

led the station selector. As the position is unknown, the station selector starts by stepping the receiver through the list of stations. It normally finds one within a few seconds, and this gives a rough indication as to what part of the country we are in. The station selector carries on looking for another station, examining candidates near the one already found. As soon as it has two stations, the computer starts running its main programme, called the measurement cycle.

The measurement cycle tunes the receiver in turn to each station in the active list of stations, checks its Morse identification and measures the bearing. After every measurement it calculates the aircraft position, and will display it if position mode is selected. With two stations the machine is usually up and navigating, but there is no security as the computer cannot detect bearing errors and accuracy can be poor because of bad geometry. So the computer continues to run the station selector as a background activity, stealing the receiver from the measurement cycle from time to time.

The measurement cycle can handle up to four stations. But what happens when the station selector finds a fifth station? Then the computer calculates a geometrical figure of merit for each combination of four out of the five stations, and picks the best group of four. Otherwise expressed, one of the old stations is replaced by the new one if a better configuration thereby results. This mechanism is designed to keep the system navigating on a new optimum group of stations, the group changing as we fly across country.

The primary output of the navigation system is a position expressed in latitude and longitude. Pushing the POS key shows it in degrees and minutes of arc, consistent with the grids printed on air maps. In addition I provide a few more useful display modes. Many people like to relate position to somewhere on the ground, such as the home site, a nearby town, or a goal or turning point. The machine therefore has a "track" mode in which, after a goal has been keyed in, it shows the distance to the goal in nautical miles and the magnetic track in degrees. To enter the goal, we either use latitude and longitude, or select from a built-in table of the more common goals. The device can do everything a final glide calculator can do. A push of the SPD key displays the optimum speed-to-fly and the proper heading. It selects speed to give the best glide angle to the goal, but I can override this and enter any desired speed. The HIT key displays the height at which I need to be to reach the goal. I have to tell the computer the wind vector and how high to arrive at the goal, and whether waterballast is carried. It already knows the polar of the glider. I can enter much of this information on the ground before the flight, so only a single button needs to be pressed for each display.

Since the first flight in April 1982, I have been checking the device over the country near Lasham. It is possible to use the set as a straight VOR receiver and display the bearings. These commonly show biases of up to five degrees, and this leads to typical errors of around two miles. Some way of calibrating out the biases seems to be called for. Another source of error appears to be due to the antenna, which is far from omnidirectional and has several sharp nulls. As the glider circles the rapid fading caused by the antenna can give rise to erratic bearings. A possible solution might be to use more than one antenna and use the one giving the strongest signal at each moment of time.

It is not usually possible to receive signals on the ground but the system seems to be usable down to about 100ft above Lasham. Over Portmoak, VOR stations can only be heard down to about 1000ft, because of the effect of the surrounding hills. An extreme case is the Inverness station, situated at sea level and so badly screened by mountains that it is useless over much of the Scottish Highlands. Clearly it would be dangerous to let down through cloud to a site surrounded by mountains when the cloud is below the mountain tops, as the signals may be lost while still in cloud. For safety we would have to divert and descend over flat, low ground. I had to use the system last October to get back from Aboyne to Portmoak. There were no holes on the way big enough to get a check point, but fortunately the Benarty and Bishop hills were stirring up local waves and created two corresponding holes to let down through.

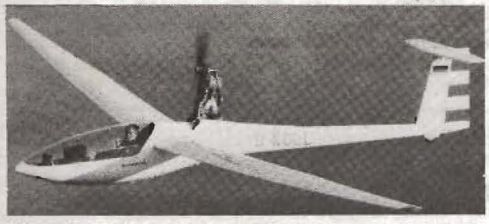
A complete system

What are the possible extensions of the device? An obvious enhancement would be to tell the computers about the aircraft height and what the air is doing. An absolute pressure transducer could be added to measure height, and by differentiation act as a variometer. Then, with an airspeed transducer, we get a complete air data system.

Availability of airspeed opens up the possibility of dead reckoning, provided a suitable compass is added. Perhaps a three-dimensional fluxgate compass could be used. With suitable software taking into account the aircraft kinematics, the computer could obtain an accurate heading in spite of banking. With a mix of dead reckoning and VOR navigation, the reported position would vary much more smoothly than with VOR alone, and as a bonus the system would find its own wind vector.

Another possibility is to connect a cassette recorder and record a continuous log of position throughout the flight. A replay system on the ground would later read the tape and draw a chart of the aircraft path, analogous to a barograph trace but considerably more informative. I can imagine that the time will come when, far from being illegal as at present, such a device will be compulsory in competitions. This will eliminate the need for TP photographs and unfailingly catch those who infringe controlled airspace.

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TAIL FEATHERS



by PLATYPUS

MORE TINSFOS*

A little while ago I kissed a tearful goodbye to my lovely 21 metres and acquired a share in a dinky little glider. I have two thoughts on this change:

(1) Little gliders are ideal for doing the short safe outlandings that you don't have to do if you have a big glider.



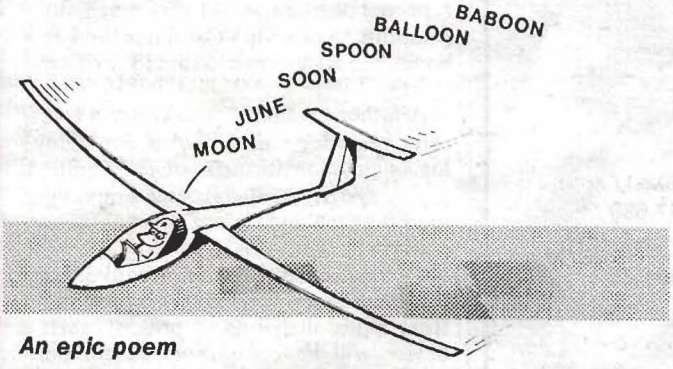
Short safe outlandings

(2) Little gliders are ideal for doing the derigging and retrieving that you don't have to do if you have a big glider.

**There is no substitute for span.*

PLATYPOMES

Whenever I fly on a task I find myself churning out limericks about the towns that represent the turning points. The limericks have nothing to do with gliding but help keep the mind occupied — so as not to waste time on such trivia as navigation, calculating rates of climb, average cross-country speeds, final glides, etc. Since everyone will soon have computers to do all those things for us, there should be no need for the brain cells to do anything but meditate. Contest pilots could be given a theme by the task-setters immediately before take-off and the winning pilot would be the one who had written the best sonnet — or epic poem if it's a 500km triangle — by the time he gets back. The prizes for speed and distance will of course be awarded to the **manufacturers** of the glider and the onboard avionics.



An epic poem

Thus, for a West Country TP:

A daring young nun of Devizes
Has a habit the Bishop despises
It's not the cut of her cloth
That brings on his wrath
But her love life which rather surprises

I like the *double entendre* on habit, geddit? No? Oh well, please yourself.

Eastwards is trickier. Bury St Edmunds and Cambridge aren't very amenable and the editor won't let me do the one about the young lady from Diss. The number of times she says this is a family magazine — has she seen what they get up to in family magazines these days?

WRITER'S CRAMP

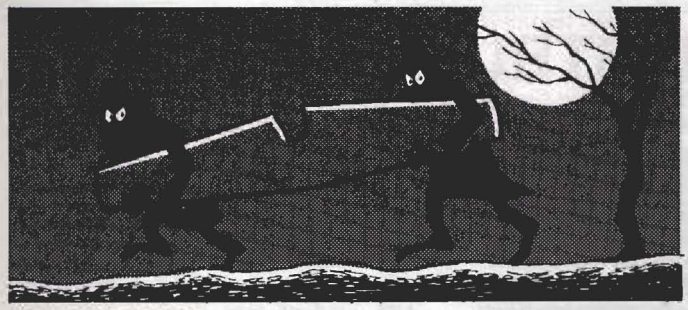
Many people are curious as to exactly how Platypus unleashes his creative genius and generates all this wit, drollery and occasionally profound observation. Actually that's a lie: there's only one person who keenly wants to know and that's the editor, whose interest is not so much in *how* my muse works but *whether* and *when* She (muses are female, as you classical scholars all know) is going to come up with the goods before the printer puts on his little square hat (they make them from bits of scrap paper, of which there's a great deal lying about) and goes home. Come to think of it the printer doesn't wear his little square hat outside the works, but never mind. The fact is I try to think of anything but this column until 24 hours before the presses roll.



Creative genius

Rika Harwood used to send a series of postcards written up in advance saying Nag! then Nag! Nag! then Nag! Nag! Nag!! which constituted a sort of three-line whip: *She who must be obeyed.* Gillian (excuse the familiarity) just sends a small, beautifully typed note praising the last column far beyond its worth and pleading for the next one — with a PS to the effect that my tailplane has been kidnapped and taken hostage and will be returned in exchange for two pages of legible, non-libellous copy (never mind the quality, feel the deadline) so I might as well get to her on Friday if I want to fly on Saturday, mightn't I? Then under the gun, all this tumbles out onto the virgin paper in about an hour. It looks it too, you may say, but at least I deliver it, garbage or not.

I am ashamed to say that my own club, beyond dispute the



Tailplane kidnapped

best club in Britain (I go round other clubs initiating bar brawls like this) fails with almost clockwork regularity to deliver any club notes. I don't know whether this matters all that much, since I find Club News almost as dreary as competition reports (even the comps I've flown in come into this class, and especially ones that I've written up myself under one of my *noms de plume*) but if we're going to have a Club News section, then for Pete's sake the leading clubs in the land have an especial duty to tell the world what they are doing or at least that they are still in business.

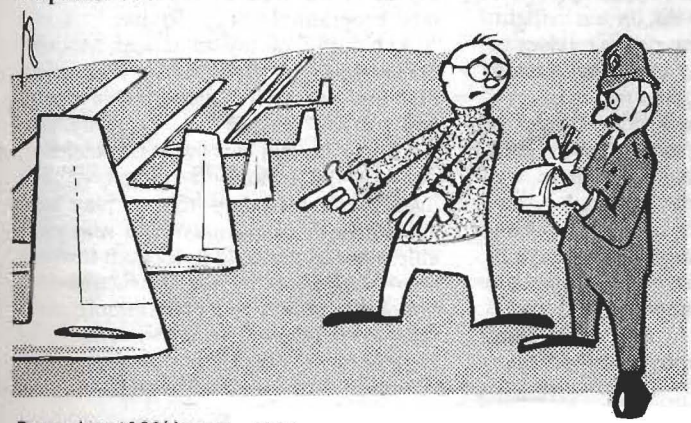


A duty to tell us what they are doing

'I'm not blaming the CFI-manager (else I'm grounded) or the chairman (else I'm expelled under rule 16 — the one about ungentlemanly conduct — and that would be a pity since it's 23 years since I fell foul of that rule, though I've been grounded innumerable times) but someone, somewhere is falling down on the job.

Madame Editor (I'm only allowed to get familiar once a year) has to deal with people sending in illegible club news in pencil on pieces of Bronco, or even trying to dictate it over the 'phone. My robust and insensitive view is that the non-appearance of the required text on the due dates should cause a note to appear in the appropriate space saying "The Bedfordshire Incipients GC has not submitted a report this month — for the third time in a row." Shame, chagrin and public humiliation may bring these slackers to heel. (Some chance, Ed.)

OK, so we drive around in a trailer at dead of night kidnapping tailplanes . . .

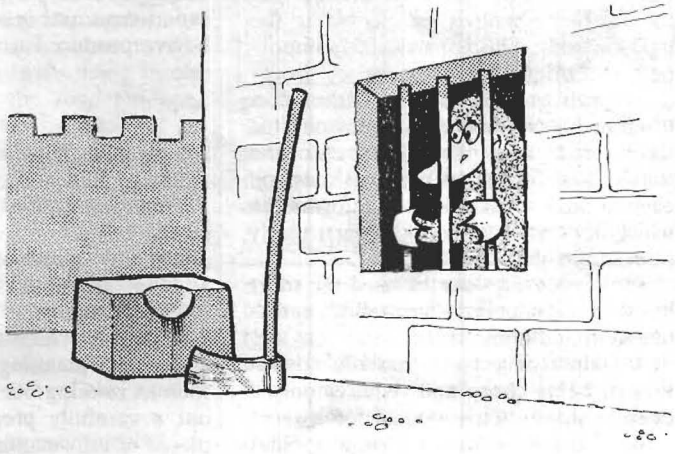


Damn NOTAMS

Being asked to task set at a Comp is a bit like being asked to a party that you know is going to be pretty grim — you don't want to go but you're furious if you're not invited. Once the invitation comes, flattery and vanity work their usual evil spell and you're stuck with it. (Same goes for organising conferences, by the way.) I was contemplating what the nastiest features of task setting were, and wondering what could be done about them.

The worst is the *bumf and bureaucracy*. My pet nightmare is that I will inadvertently send 50 pilots through six purple airways or other prohibited areas in a row because I failed to read all the NOTAMS properly. I imagine the Queen Mum, while quietly doing low level strafing runs in a Tornado in the middle of Birmingham, is suddenly surrounded by clouds of glass-fibre because Platypus mistook the date on one of several hundreds of pieces of essential reading. A long term in the Tower for Plat, prospects of knighthood (previously considered by all in well-connected circles to be a dead cert) irretrievably blasted; ruin, disgrace. Wake up screaming.

All that sort of thing could be computerised: you feed in your task — itself already optimised by a computer using weather data direct from satellite — into the terminal, which is of course updated daily by the Air Ministry, and a synthesised voice booms "OK Plat, you're on", or more often "Another blunder! Try again." Next thing would be to get the NOTAM computer and the weather computer to talk to each other on the phone (they can do that already, honest) and between them decide the task and cut out the middle man. The advantages of this is that a computer can't be psyched out or browbeaten by a bunch of manipulative egotists whose attitude to any task depends entirely on whether they are in the lead or trailing. Especially so when the decision to scrub is hanging in the balance. I don't know what



It's the Tower for Plat

it says about today's pilots but "Scrub" is almost always greeted by hysterical cheering. The only chap who doesn't cheer is the one who is currently second by a few points. It wasn't like that in Rocky Stone's day, I can tell you.

But I'll leave those other bugbears of task setters — the pilots, the weather, the contest director — to another occasion. *When* I've consulted my lawyer. (He's already working overtime. ED.)

Tailpiece, Saturday, October 8, 11.00am

I'm duty pilot and writing this sitting on a pile of tyres in a freezing cold wind with light drizzle. Some fools insist on flying so I'm stuck here. My fingers are frozen so my writing is slowly becoming illegible — I begin now to understand where and how those pathetic club news notes originate . . .

TAPES FOR GLIDING INSTRUCTION

DEREK PIGGOTT

There is nothing very new about using tape recordings as an aid to instruction as I do but I find it surprising that it has not been adopted more widely for gliding. They can offer an attractive alternative or supplement to reading and are relatively inexpensive to make. Because of the individual nature of gliding instruction, it is impractical for the instructor to cover every detail with each student. Usually the instructor has a number of students, all at varying stages. Inevitably some are left to read or to discover for themselves information which the instructor would have wanted to cover if only he had the time.

Many people do not have the time or patience to read and absorb a lengthy book but welcome listening to a tape as they drive to work or to the airfield for their next flying session. You can even listen to them in bed!

There are many different types and forms of tape recordings each with their particular advantages and problems. They all have the great advantage that the instructor knows exactly what the tape contains. This is particularly important with briefings for emergency procedures such as cable breaks. Although a briefing does not constitute a lesson, it is a comfort to know that all aspects of the subject have been covered. It is only too easy to omit a vital piece of information which does not happen to be particularly relevant on that day.

Tape recordings can be used for short briefings, comprehensive talks, entertainment and home study.

A plain tape cassette has the advantage of being cheap and requires only a cassette player. This is ideal for a short subject. Ideally it would have a booklet of illustrations or an automatic slide projector to give the listener visual information at the same time. But this is both impractical and undesirable in a car. Of course, an actual talk by a competent instructor would always be better but tape does have the advantage that it can be played over and over again and perhaps listened to as a refresher at the start of each season.

I use these 15 to 20 minute briefings for launching emergencies on car or aerotow and for a briefing on field landings. They form a good basis for the air instruction and seem to be reasonably effective.

There are a number of exercises in the training of a glider pilot that really do need more than just the air instruction. But how many students actually receive these briefings at the gliding club? Misunderstandings and not being told about various aspects cause problems, slow progress and even accidents. Bad weather programmes are one way of tackling this problem but there will always be a number of students who miss some or all of the sessions. I have produced notes for instructors to help them give comprehensive lecture briefings and these are required to be signed off on a progress sheet before solo. Where this proves impractical the tapes can be used. These lecture briefings are important because they help to extend the knowledge of the student. The pilot who only thinks about and learns about gliding on his training flights at the gliding site often has very little background knowledge. As a beginner it saves time and money to read books and to listen to and discuss other people's problems and experiences and it is for this reason that I have produced a number of tapes for sale.

Some absolutely essential

There are lots of things which might be the subject of talks, but some which are, in my opinion, absolutely essential. Stalling, incipient and full spins, the effect and use of airbrakes, aerotow and wire launch procedures and emergencies and circuit planning including situations such as running out of height etc. Without a carefully prepared briefing, vital pieces of information may be left out.

Personally I do very little pre-flight briefing, I just outline what I expect to do or the student to do on each flight. Instead I introduce my new exercises or manoeuvres in the air and then explain them afterwards.

During the Motor Glider Study in Texas the instructor's time was being paid for by the student and there was seldom time to de-brief at length. After a flight and a brief explanation, I would put on the tape briefing for that stage or refer the student to the appropriate chapter in a book. They also had access to the tape again when they arrived for their next flying session to remind them of their last flight. This proved very popular with the American students.

This kind of tape briefing also provides the instructors with a useful guide and review if they are going to give a similar talk themselves. They also help to keep the general instruction standardised and going along the right lines.

There are several ways of making these recordings. At first you may find that you have to have a live audience: I used to give the talk to a group of students. With more practice you will be able to sit in front of the microphone and give the same briefing and this eliminates most of the background noise. The alternative is to write out the whole briefing and get a good reader to record it. This is a lengthy business and often lacks the enthusiasm and spontaneity of the live recording.

A few sketches or photo copies of drawings help the explanations and keep the students' attention, but even without these visual aids the students seem so highly motivated that they listen intently and often insist on playing the tape through a second time at one sitting.

Where the audience is static, the syncronised tape/slide presentation is very effective but it does need the special projector and it takes an incredible amount of time and effort to collect the necessary slides, record the tape and get it all nicely synchronised. We have a number of programmes made by the staff and members at Lasham on daily inspections, airfield hazards, cloud types and formations and a useful introductory talk on our site which we show to all our course members on arrival. This keeps them happy while we get the gliders inspected or do other Monday morning jobs. However, it is noticeable how after even a year or so these carefully made slide/tape programmes begin to date.

A number of my American students always brought their own pocket recorders and every word I uttered in the air and on the ground was carefully preserved to be run through at home. Students do quite often misunderstand their instructors and being able to play back and relive the flight must be a very valuable asset to learning quickly. It also has a salutary effect on the instructors and, hopefully, makes them think more carefully about their instruction. This is, of course, normal technique on instructors'

courses where it is particularly important for the trainee to be able to hear his own instruction and recognise how he can make it more potent. CFIs might like to try recording their instructors at work with students on training flights. They would be surprised how ineffective many instructors are and would be able to help them to improve their techniques.

The latest thing, of course, is video which offers the possibility of making your own training programmes. Once again it is a very time consuming business and only certain aspects of training may be worth filming. You might think that a film on the effects of controls would be useful but in practice it would only be worth showing to the absolute beginner and to people who might be enticed into trying a flight by seeing how simple it all is. Unless the original is made on professional equipment the quality of the final prints may not be very good and it might not be worth the effort and expense of making them. A number of clubs already have video cassette programmes about their club to show to prospective members. One of my projects for this winter is a trial programme on learning to land and it remains to be seen whether it is a success or not.

Finally, if you don't already use tapes, try them. They won't be as good as an actual instructor talking personally to a student but they are an effective substitute and certainly better than no briefing at all. If you are a student, why not take a small recorder up on your next training session. You will certainly find it interesting and helpful to be able to play it all back and think about things while on the ground.

I expect you will find as I do that not every instructor will agree a 100% with what is said on the tapes. But this is one of the things you have to live with if you make recordings.

HOW SAFE IS YOUR TRAILER?

GEORGE COPPEN

Owners of gliders spend many hours and not inconsiderable sums of money on the maintenance and good condition of their gliders. Conversely however it seems that, in general, little or no attention is paid to maintaining the trailers in which many of the pampered gliders live. Last year we discovered quite by chance that we had two problems on the trailer, both potentially dangerous and damaging to the glider. These concerned the tyres and the suspension.

Tyres We happened to notice deep splits in the treads of both tyres — the splits ran about one third of the way round the circumference of each (see photograph). As the tyres were only



The tyre is being squeezed to make the split more apparent.

about two or three years old and had trailed for less than 4000 miles I phoned the manufacturer to complain.

The tyres were 5.60—13 crossply and I learned that they were rated for a Max of 360kg each (*ie* 720kg for a pair) up to a speed of 50mph and inflated to 29psi. Max. We had a trailer with an AUW of 800kg and had inflated the tyres to 35psi to stop them looking flat and had then regularly cruised motorways (abroad of course) at 65mph!

When I told this to the tyre manufacturer he suggested that far from having a complaint we were a very good advertisement for his tyres. We could easily have burst a tyre when travelling fast . . . The splits were due to overstressing.

I was advised that the Min tyre rating for a trailer of up to 800kg and up to 50mph is 5.90—13 crossply or 155—13 radials. For 800kg at over 50mph we were recommended to go for 165—13 radials. Recommended pressures for either type of tyre were 30psi for that weight.

There is some commonality of rating between the various makes of tyres but to any trailer owner in any doubt may I suggest checking with the manufacturers of whatever tyre you use. I cannot guarantee that the figures which I was given will apply universally.

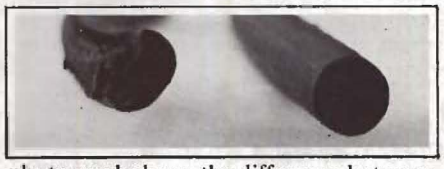
Suspension If the suspension on a trailer is not working effectively, damage can be caused to both the trailer and to the glider inside by shock loads being transferred directly from the road (bumps, potholes, even "joints" in the road or motorway) to the trailer and thus to the glider. The suspension is meant to cushion bumps but if it is worn or overloaded it will not do so.

Many trailers built in the last five years have been fitted with some form of independent suspension units which use the compressibility of rubber to provide the springing. This is the type fitted to our trailer and is the subject of the second part of this article.

The problem we found, and which probably applies to many other owners of similarly equipped trailers, is that the suspension units are designed to be at rest unloaded. Glider trailers however tend to spend most of their time loaded *ie*, with the suspension compressed. After a couple of years of being compressed the rubber tends to lose its springiness and so the suspension loses its cushioning effect. Damage to both trailer and glider can result.

Trailers usually have 15cwt or 1 ton units on them. Bear in mind that 15cwt is 762kg and you will see that where these units are used they are often almost permanently fully laden.

It is quite simple to test whether the suspension is operating satisfactorily. Park the loaded trailer normally on a fairly level and hard surface. Then take the glider out and see if the trailer rises on its suspension. If it does, either the rear of the trailer or else the stand bar at the front will be clear of the ground and the trailer will rock to and fro. If the trailer is still solidly on the ground at both ends, then the suspension is tired. The



photograph shows the difference between the old mis-shapen rubber caused by three years' use and the original round section. There is little spring left in the old piece.

Noticeable difference

We have Indispension units on our trailer which were refurbished last winter for a very moderate cost by the manufacturers in Bolton. At the same time we had them upgraded from 15cwt to 1 ton and the difference was noticeable. (The trailer tows better for one thing.)

To prolong the life of the units one should try to park the trailer as high as it will go on the stand bar when it is empty. If you have to park the trailer loaded, after a retrieve for instance, lift the front as far as you can when putting down the stand bar. Then re-set it when next you take the glider out.

This article does not attempt to cover all that needs to be checked on a trailer. It only sets out to try and identify for others, before it is too late, two possible problem areas which we happened to come across. Hopefully it is conveniently timed for action, should any be necessary, to be taken during this winter.

ROMORANTIN – "VAUT LE VOYAGE"

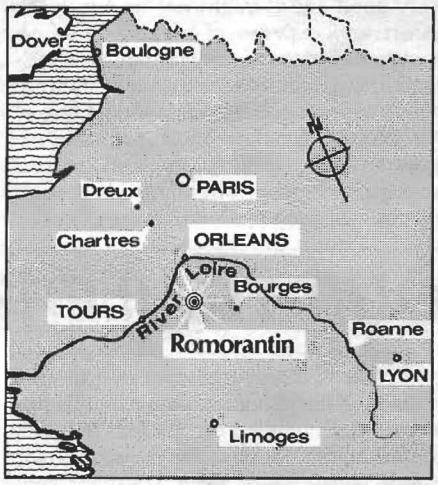
MAX BISHOP describes a gliding paradise on our doorsteps

Gerard Lherm, the French pilot placed sixth in the Open Class at the Hobbs' World Championships, is a warrant officer in the French Air Force. During the 12 months preceding the Championships he flew a staggering 500hrs in a Nimbus 3 belonging to the Air Force. This aircraft is normally based at the FAF Soaring Centre at Romorantin (Loir et Cher). Whereas in Britain direct public financing of gliding is restricted mainly to the Air Cadet organisation (now being re-equipped by Schleicher and Schempp-Hirth), the French government continues to support gliding for regular servicemen, thus promoting airmindedness in those who normally work on the ground. The fruits of this policy can be seen at Romorantin, which is lavishly equipped for advanced soaring and cross-country training (basic training is done at regional clubs). The fleet comprises 26 high-performance gliders (Janus, Calif, LS-4, ASW-20, Nimbus 2 and 3), and the Centre is staffed by 14 very experienced instructors, most of whom are also either administrators or glider repairers.

Classic soaring weather

Each year in June the Centre hosts the French Air Force National Championships, and for several years now an invitation has been extended to a RAFGSA team to compete. This year we were also joined by a team from the German Air Force, and were lucky enough to hit some of the best soaring weather since the legendary summer of '76.

Three tasks of around 200km, three of between 300 and 350km, one of 570km and one of 760km was the final tally. An average task length of 363km and an overall completion rate — in the 15M Class — of about 70%, with average speeds in the high 80s is not perhaps the dreamland of New Mexico or Nullarbor,



but not bad for somewhere that's only half a day's drive from Dover.

Neither Hobbs 1983 (657km) nor Waikerie 1974 (707km) could match Romorantin for task length. The 760km triangle, with TPs near Roanne in the Lyons area, and near Dreux, north of Chartres, was not just a show of bravura. Two pilots — Castel (Nimbus 2) and Bonnot (ASW-17) — actually completed it, and there would undoubtedly have been some 15M finishers if there hadn't been a 25kt headwind to contend with on the second, 360km long, northerly leg.

The competition was conducted in a pleasantly relaxed and democratic manner. Earnestly seeking a signature for my barograph on Day 1, I was told that barographs were not needed. "We always find out eventually if someone is a cheat . . ." A "silent start" ground clock system was used, which worked extremely well because the rules (for penalties etc) were thrashed out and agreed by all pilots at the first morning briefing. The organisers' flexible approach was well illustrated on the 760km day. To give everybody the best chance of completing the task, they declared that there would be no speed points and deleted the startline, allowing everyone to set off straight from tow. Even the three-course lunch with wine — on most days consumed under a succulent sky which would have seen any self-respecting Anglo-Saxon 75km down track — was brought forward an hour so that launching could start early.

The final day was perhaps the most exhilarating — a 300km "butterfly" over the lakes and forests of the Sologne. The scorers wanted everyone back early, so the director, Jean Jacques Couture, announced a "regatta" start. All pilots were timed from the moment the line opened. The numbers in each Class were sufficiently small to ensure that competitive instincts did not endanger flight safety, but when you can actually see the opposition most of the time it certainly sharpens up the aggressive edge. Not to be recommended for British Nationals!

The area around Romorantin is ideal for restful family holidays. Vineyards, rivers, forests, the magnificent Renaissance chateaux of the Loire (good TPs) and historic towns like Orleans, Tours, Amboise and Bourges. There are several well-established civilian clubs in the area which welcome visitors with or without their own glider. The Aeroclub de la Sologne at Romorantin itself is one, and Issoudun another. The Fédération Française du Vol à Voile (29 rue de Sèvres, 75006 Paris) will provide details of all clubs. An off-peak return sailing from Dover to Boulogne in June with P&O cost a total of £162 for a Chrysler Alpine, three people and a Mini Nimbus trailer. A Customs and Excise form XS 29A (Specification for Temporary Exportation of an Aircraft) proved most useful in smoothing the passage through British customs.

Why go all the way to Australia when there is a soaring Mecca on your doorstep . . . and the wine's better! The Romorantin area warrants three stars in any Michelin Guide to gliding. It's worth the journey.

Sailplane & Gliding

The magazine can be obtained from most Gliding Clubs in Gt. Britain, alternatively send £8.75 postage included for an annual subscription to the British Gliding Association, Kimberley House, Vaughan Way, Leicester.

Red leather-cloth binders specially designed to take copies of the magazine and gold-blocked with the title on the spine are only available from the B.G.A.

Price £3.50 (£3.99, including post and packing).

OVERSEAS AGENTS

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BUYING A TUG?

Then the deliberations of Southdown GC which led them to choose a Pawnee 235B might well be helpful. JOAN CLOKE recalls how they reached their decision and reports on the success of the tug after its first season.

Our problem was that the trees were getting taller and the engine of the Super Cub was getting older. The topmost branches of the trees at the end of the runway seemed perilously close to the two-seaters on some days. Our site at Parham in West Sussex is a grass airfield dating from the 1930s. It is a mile from the Downs and is surrounded by trees. The main runway is about 900 yards long and the runway is about 700 yards.

Because of the size of the site we have limited the membership to about 200 flying members and recently the number of privately owned gliders has been pegged at 20. We do just over 6500 launches a year of which some 3600 are aerotows and the rest are winch launches. The increasing number of cross-country pilots has brought a good deal of pressure on aerotowing at soaring times and the growing numbers of high performance gliders on site has emphasised the need for a tug with adequate power. Looking to the future and the possibility of owning, at some time, a glass-fibre two-seater, we realised that the time had come to examine our aerotowing operation.

It seemed to us that we had three options. The first was to replace the 150hp engine in our existing Super Cub; the second to substitute a 180hp engine and the last was to buy a more powerful aircraft.

The three options

The first option was attractive since it was the least expensive and meant that we could retain a well tried and mainly acceptable tug, but it would impose limitations on towing and did not fit our established policy of steadily updating the fleet. The second choice would give us the power we needed initially but would inevitably deteriorate and in the end we might not be much better off. The third option led to a search for a new tug.

Our tugmaster, Angus Buchanan, led the project and after a good deal of research recommended that we should consider buying a Pawnee. These single-seater, low wing aircraft have been used for crop spraying for many years but recent developments of land vehicles with low pressure tyres have decreased their popularity and some have come on the market. Talgarth has used one successfully for some time and John Bally agreed to bring their tug to Parham for trials during September of last year. We had already visited Booker to see their 180hp Super Cubs in action and had a good idea of their performance and of the technical details of conversion.

The Pawnee trials at Parham, in very difficult weather conditions, enabled us to try out take-off and circuit operations and to make noise comparisons with the Super Cub. Noise is important to us and becomes increasingly so as the village expands and the houses creep ever closer. The difficulty of accurate measurement is that the perception of noise is partly subjective and it was clear from the trials that while the extra power of the Pawnee would enable us to avoid locally sensitive areas and use reduced power for much of the time, the sound of the engine and propeller was noticeably different from that of the Super Cub. It was not necessarily louder.

A crucial decision

Dick Stratton, BGA technical officer, has said that the purchase of a tug is probably the most important decision a club has to make (apart from buying a site of course) and the club committee was very aware of this. It considered eight different factors in coming to its decision: noise, safety, reliability, launch turn-round, ease of flying, flexibility of use, running costs and capital costs. The decision was to buy a Pawnee 235. A major consideration was safety. The increased boundary clearance is the major safety factor for both tug and glider pilot, but additionally the Pawnee cockpit is virtually a safety cab mounted above the engine. There is good visibility and excellent manoeuvrability. A disadvantage is that being a single-seater it could not be used for pilot training and checking, nor could it be used for transport or navigation exercises. We made inquiries and found that if the noise really became a problem it might be possible to fit a Hoffmann four blade propeller for which trials are taking place abroad. Propeller noise is the only real problem and then only at Max revs.

Nothing in aviation is simple or straightforward. After a lot of work, many visits, a great deal of help and advice from many people, and several changes of plan we bought a Pawnee 235B (gravity feed system) with a rebuilt engine and a sound airframe in good condition with no signs of corrosion. We think there are advantages in the gravity feed model as opposed to the wing tanks and during the hot, airless summer we had no problems with fuel supply.

We did our financial homework in considerable detail and by the time the Pawnee arrived on site had come to the conclusion that we might just be able to afford to keep the Super Cub as well. So we decided to run an experiment during the summer and if it proved successful we would operate two tugs. We begged our members to realise that the scheme was not necessarily permanent and that in the end we might have to sell one of the tugs.

That was in early summer. The rest of the story will be familiar to all tug operators. We had two tugs on site for two days. Then the Super Cub engine expired. It returned to operations with a replacement engine two months later. The soaring season is over and we have not been able to carry out our experiment and we have not been able to do the technical and operating trials as we had planned. We are still not certain that we can afford two tugs but our cash flow is standing up well and we are hopeful. We normally fly below full power and have had no complaints about noise so far. We have encountered no operating problems. The Pawnee seems to be reasonably economical provided that it is flown competently and it appears to use 1.25 gallons of MOgas for a tow to 2000ft. We should be able to give a more detailed and accurate account next year.

Unstinting help

The project involved a great deal of time and hard work by club members, especially our tugmaster, but it would not have been possible without the help and advice of many others outside the club. We would like to thank everyone who was so generous to us with unstinted help.

If any other clubs are thinking of going "agricultural" and want any advice or assistance Angus Buchanan will be pleased to help.

COMING BACK TO EARTH . . .

NIGEL PRINGLE writes about a potentially dangerous winch launch incident he shared with Trevor Fox in a K-13 at Camphill.

Hang-ups are now very rare, but are an ever-present hazard with all forms of launching. Every pilot should be briefed about the possible ways of dealing with such a situation — but how many instructors prefer to ignore the risks and hope that it will never happen to them or their pupils? This instructor, Trevor Fox, understood the problem when it happened to him, and dealt with it successfully to prevent a serious, if not fatal, accident.

Hills and tiny fields

It was Monday morning, the first day of our visit to Camphill. The prospect of a new site, lots of hills and tiny stone-walled fields to land in gave our "flat earth" contingent from Lasham the incentive to do their check flights and get cracking in spite of the poor soaring conditions.

Camphill uses a very powerful winch for launching. The acceleration is extremely rapid, and you are off the ground and rotating into the climb within a few seconds.

The first launch began. The K-13, with its towing hook on the left of the keel, had been positioned on the left of the cables, so that the cable was brought across the front of the glider. The "all out" was given and the glider started to roll; at that moment the winch engine hiccupped and the cable momentarily stopped. The glider, stil moving forward, ran over the shock rope and became entangled with it. The winch roared again, and before anyone realised what had happened, we were airborne, and with the cable attachment point now shifted back by four feet, pitched immediately into an oversteep uncontrollable climb.

"Hey! Not so steep" I shouted.

"It's not me, the stick's fully forward!"

Immediately I realised what had happened. The aircraft was now being launched by the wheel. After that, we had only one thought, to keep the sticks jammed hard forward against the stops. We were climbing at about 50° and the slightest back pressure during that impossibly steep climb would have immediately stalled the aircraft, with little or no chance of any recovery.

Mercifully, the winch driver was maintaining a steady launch, giving us the chance for height and a few seconds to work out what to do. Uppermost in my mind was the need to get some slack into the cable. At 750ft I opened the airbrakes fully, which gave us just enough slack to regain some degree of elevator control, and I started to dive at about 50° towards the winch to increase the slack. Unknown to me, the winch driver, seeing the dive beginning and the cable still attached, immediately guillotined the cable.

Still maintaining a steep, full airbrake dive, I began a 360° turn to lay the cable out across the airfield and to keep it clear of the glider as it came round the turn. At about 450ft I attempted to break the cable by closing the airbrakes and pulling up sharply, but the cable was brand new and didn't want to break. The drag of the cable along the ground was now so strong that I had to lower the nose again or run out of speed.

By then we were down to less than 150ft. A final, almost vertically banked turn into wind, with the wingtip perhaps 20ft from the ground, and, with the ASI needle flickering around 40kt, the aircraft flopped onto the ground and, with the wheel locked, ground quickly to a stop.

We were down, unharmed and in one piece. It had seemed like ten years. In fact, from the top of the launch to touchdown was probably less than twenty seconds.

* * *

Derek Piggott comments:

Over-runs are common with almost all forms of launching and with every over-run there is a possibility of a tangle with the wheel or skid. This is particularly true with modern machines being launched by aerotow. The rope is thin and the attachment point is frequently within inches of the main wheel. However in many types the pilot can prevent an over-run by applying a little wheel brake at the start of every take-off. With car or winch launches the shock absorber rope or wire should be stiff enough to prevent it being wound into the wheel structure. A length of stiff hose running up to the rings is a good solution and would have prevented this incident.

These problems also highlight the need for a positive **stop** signal which can still be given after the glider has started to roll and which can easily be seen by the tow plane pilot, winch or car driver. It must be clearly understood that anyone at the launch point seeing a glider over-run should shout out stop to the signaller and on hearing a shout of **stop** the pilot must always release. This ensures that if the launch does continue the pilot is fully aware that he has a hang-up. The pilot should keep the stick hard forward and try not to let the aircraft leave the ground. If the launch continues, keeping the stick hard forward will ensure a recovery from the steep climb if the cable breaks. Remember, if this happens you may have a few feet or half a mile of cable still attached to your glider. The drag of the cable on the ground may be very high so if possible pick up plenty of speed and land ahead.

Once launched the essential thing is to keep slack in the cable by using airbrakes and circling or S-turning over the winch. Do not assume that the winch or car driver has guillotined or released the cable.

Keep over open area

If the cable comes tight or catches in a tree or object on the ground the glider will be pulled into an ever-steepening dive requiring a severe snatch to break the cable or weak link. A dangling cable may catch and pull you into the ground at any time until you are safely down, so keep over an open area and get down quickly, flying a fast approach speed.

With a modern glider having the wheel well ahead of the C of G, it may not be obvious that the rope is jammed in the wheel. In this case the first indication of trouble will be the glider suddenly nosing over into an ever-steepening dive. A steady pull on the stick may not break the cable; a quick turn might produce some slack, but otherwise the cable must be broken with a severe snatch. In our briefing we recommend pushing forward for a few seconds to slacken the cable and build up speed, followed by a rapid pull out to try to break the weak link or a weak point in the cable.

At Lasham all our students are given a briefing about hang-ups and over-runs when they are briefed about cable break procedures and this is signed for in their logbooks. I wonder if this is a common practice at other clubs?

THE DAY OF THE GAGGLE

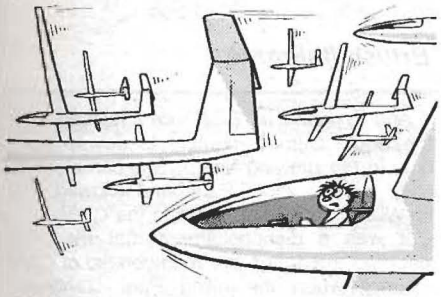
IVOR SHATTOCK

A dearth of good gliding weather this spring made even a few hours soaring memorable and so it was when the gaggle flying week arrived. Ken Stewart, national coach, came with the BGA Twin Astir and a car boot crammed full of the latest gadgetry for teaching mere mortals things like final glide and computer cockpit games.

And didn't we need them! Monday was very wet — have you noticed that Mondays aren't what they used to be? One could depend on a Monday at work in office or workshop being a superb gliding day. Not any more.

Gather errant flock

This one was no exception so the day was spent learning the ways of the gaggle pilot. My role was to help Ken gather his errant flock and advise on the local weather lore. Apparently Ken had on one occasion flown three O/Rs in one day, each time with a gaggle! This was going to be a new experience! Since we often flew in company — we had flown to Ammanford and back in a trio on a sea breeze front a few weeks previously — any new techniques to keep groups together would be welcome.



"Your rabble joined my gaggle".

However Tuesday dawned fair and bright and then went grotty as did Thursday but two days were of soarable quality. Having practised follow my leader around the circuit through the sink to the ground (Hugh, Astir 214) we were ready for big things.

Wednesday saw my gaggle of three assembled over Raglan and moving to Monmouth where we became four. We were myself (PIK 20), Earl (Jantar 2), John (Jantar 18m) and Paul (DG-200).

Apart from Paul's inability to climb we had no trouble keeping together and rounding the TP of Hereford before heading for Shobdon. Here the cloudscape looked dismal so further progress, although possible, seemed fraught.

You know it's quite a responsibility leading a gaggle. Although it's every man for himself when a predetermined height level is reached, one is still inclined to choose the soft option.

And so it was on the final glide from Hereford. On the one hand one could glide over broken countryside and a dark large spent cumulus cloud or try around it *via* arable areas.

I dismissed the gaggle and headed around the cloud with the DG-200 following, as he put it, "in the low tow position." We didn't make it but landed safely whilst the two Jantars got home easily.

Never mind, there was the big day to come! Friday looked better so the task was the M4 M50 junction and Hereford, making it 130km.

As Ken had yet to marshal a gaggle he assembled Hugh (Astir) and Eric (Libelle) and elected to launch first. By the time he had gathered his gaggle we were launching ours with my old Club Libelle 773, flown by Dave as a new participant.

Jolly Ho off we go. By the time we reached Monmouth it was organised chaos!

Two gaggles — one frequency, 130.4.

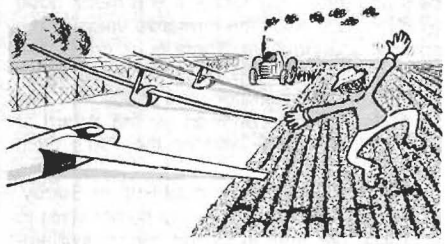
"Maypole gaggle on track"
(That's mine)
"48 getting behind"
(Ken's)
"Keep out of my turn"
(Ken 97)
"Acknowledge"
(97)
"Breaking left Maypole"
(Me)
"I've only got 1300"
(48 Ken's)
"Carry on"
(Ken)

and so it went on.

"Who is that?"
(Someone near London)
"J.J."
"Oh"
"773, do you know your gaggle has turned for home?"
(Ken)
"No"
(773)

Finally we caught up the orderly trio and seven gliders were in a gaggle of gaggles at Ledbury.

In the words of the national coach, "Your rabble came and joined my gaggle." At the TP it was every man for himself to go home or whatever. Can you imagine it, three gliders in the same grass strip becoming thinner and thinner under the plough?



Strip became thinner.

Imagine the confusion when on landing the pilot you have been flying with turns out to be someone else? We had pollinated Ken's gaggle with our Libelle (Dave) whilst their Libelle (Eric) has sneaked away to his own field landing. Presumably he got fed up doing right-hand circles to his much preferred left.

Returned *via* traffic lights

Meanwhile Maypole gaggle, sorry, rabble did the honourable thing and returned to the site, admittedly *via* the traffic lights at Monmouth, and set about hitching up the other *menage a troi* trailers.

At the field there was less confusion now, four pilots, three gliders, three retrieve cars, three drivers — no trailer key. Perhaps someone had already put a glider inside and locked it up! Then we would be in a mess, four gliders, three trailers, four . . .

In the end all was well. We got the gliders stowed and set off for Usk.

Our day was not complete however as on the run down into Monmouth we espied the Jantar (John) trailer in two. Split like an eggshell vertically down the middle with both ends on the floor — like our gaggle really.

Within the hour half the entire club members had diverted traffic, fetched a trailer, loaded the Jantar and dragged it off to safety. So ended John's 300km attempt.

Now, if he's been in my gaggle that day — but then you can't gaggle on a 300km badge flight. Just as well too, we should have known two's company, three's a crowd and four a rabble.

When are you coming back Ken?

SOARING'S SUPER STAR

CHRIS RIDDELL reviews **Happy to Fly** by Ann Welch, published by John Murray at £10.50 and available from the BGA at £10.95 including p&p.

That Ann Welch has written her autobiography. **Happy to Fly** is an event. Full of incident and often very funny, it is a damn good read that describes the formative years of the sport of soaring flight. There is no doubt that Ann's contribution has been immense as an instructor, adminstrator and publicist. Her work has been recognised by the award of the CBE and MBE and by the FAI's Gold medal.

Born in London but brought up in Surrey, Ann's early life was influenced by her visits to stay with her aunt in Devon. Henry Williamson, the author, lived close by and often visited the house — sometimes entering by the window. It was he who first showed the 15 year-old girl the gannets and falcon flying the Devon cliffs. He must have recognised something unusual in the girl who talked to him of areoplanes and her desire to fly. Henry did not laugh as others did at these ideas, instead he discussed them with her. He admired the models that she had made.

Studied drawing

The unconventional child who cycled to Biggin Hill to watch the silver biplanes and prepared her own plans for the models she made for each type of light aircraft of the day, was clearly going to be difficult to place in life. She disliked her school but showed some aptitude for drawing. Following an introduction by Henry Williamson, her parents sent her to Cheshire to study drawing with Charles Tunnicliffe. They hoped that this would lead her interest away from aircraft but down the road from the Tunnicliffe's was the Lancashire Aero Club . . .

On returning to Surrey she managed to get sufficient funds together to take a flying course. As it was cheaper to learn to fly at Barnstaple, she spent a summer there and went solo in a DH Moth in September 1934. At home after the flying course she joined the Brooklands Aero Club and her description of the carefree life of the dawn patrols, the parties — Pimms was the No. 1 drink — are a reminder of the days that led up to the Second World War.

Ann's first experience of gliding occurred when she took part in a course at Dunstable run by the Anglo German Foundation. She soon became proficient and it was not long before she was helping those who were just starting with hops down the Dunstable slope.

She was then living in South London, Ham Common, and the journey to Dunstable was demanding. She realised that there was a need for a gliding club to the south of the capital. She was successful in her approach to Graham Douglas, the proprietor of Redhill Airfield, and he agreed to put up £300 to start the Surrey Gliding Club. That sum bought two gliders, a winch and retrieve car and just paid for the printing. Ann was the first and only instructor. She was 21.

The club flourished and Ann took up skiing. With other members of the Surrey Club she attended three ski holidays organised by the Anglo German foundation in Southern Germany. On one occasion she met Rudolf Hess. She was impressed with his dreamy eyes but not his skiing.

On the outbreak of war, her husband, for now she had married Graham Douglas, was posted to RAF Carlisle to command. She followed him, but when Graham was posted to a Fighter OTU she applied to join the ATA and was accepted by No 5 Ferry Pool at Hatfield. She had about 65 hours in her logbook.



The two chapters covering the period in the ATA are particularly fascinating. She flew some 27 different types of aircraft from Tiger Moths and Spitfires to Hurricanes, Blenheims and Wellingtons. She ferried over 100 Spitfires from the small assembly factories set up on minimal airfields over the south of England to the maintenence units where the guns and radios were fitted.

Sense of caution

She describes one Spitfire delivery from Chattishill near Stockbridge to Coleme where the cloudbase was 300ft and visibility 700yd. The sense of caution these activities developed served her well and twelve months later she was the only pilot left alive among those she had joined at Hatfield. If the Surrey Club had been her secondary education, then the ATA was her university. It formed in her the ideas that were to play so important a part in the instruction of glider pilots when she served as chairman of the Instructor's Panel. The BGA system of instruction was accepted world wide as the standard to set.

She left the ATA after rather more than two years to have her first child, Vivienne. The second, Elizabeth followed a year or so later, while Janet was born some time later. As soon as hostilities ceased she and Wg Cdr Douglas resumed their pre-war activities at Redhill.

The Surrey GC was one of the first to resume flying after the war. Initially without equipment, it started with a nucleus of five members. Ann's story of how they acquired the Weihe and research contracts to develop sailplanes — they had a Cirrus engined Auster — to bring the club back to life makes excellent reading.

She is very frank in her description of how she became the British team manager for the 1948 International meeting at Samedan in Switzerland. She was in the right place at the right time. Ann continued as team manager until 1968 but she was not elected for the 1970 Marfa meeting and went there as a member of the international jury. The international meeting of 1965 held at South Cerney in Gloucestershire was Ann's high point. She was the competition director and principal organiser. The great success of the meeting was due in no small part to Ann's ability to pick the right people to help run the organisation and letting them get on with it once she was satisfied that they knew what to do. To this end her work book was a great help. It showed her immense capacity for hard work and attention to detail.

British delegate

Ann resigned as BGA vice-chairman after the South Cerney meeting to devote more time to her growing family. She continued to chair the Instructors' Panel and followed Phillip Wills as British delegate to the CIVV.

It was a disappointment that the BGA declined to confirm her membership of CIVV Council when the ailing Pirat Gehringer, whom she greatly admired, was about to retire as president. As president elect she had hoped to follow Gehringer but the American Bill Ivans did so. He had no wish to lose the good sense and experience of Ann Welch and he invited her to become the chairman of the International Jury. In this capacity she attended the international meetings and her descriptions of them give a wealth of anecdote and her sense of fun is very evident.

In 1972 the BGA had started to take a benevolent interest in hang gliding. But the two activities of soaring and hang gliding developed separately. On its formation Ann was invited to become president of the British Hang Gliding Association. Her activities at CIVV were extended to include this as well.

I suspect she was a little surprised to find the same eager enthusiasm among the hang glider pilots that she had found so attractive

among soaring pilots thirty years before. It was, she says, like writing the rules for gliding all over again. There was one difference: unlike soaring she did not fly hang gliders extensively. Instead she took a few flights to familiarise herself with it.

Hang gliding did one more thing for Ann. It brought her a wider circle of friends throughout the world. There is a delightful account of staying with FAI colleague Bob Purves and his wife and of flying in their Cessna float plane to the Canadian lakes, there to picnic and fish in the remoteness of the Canadian summer.

Has the real Ann Welch stood up out of these pages? I think so. She is there, shadowy, elusive, but there nevertheless. Her simple style of writing and direct approach to problems remind me that hers is an aviation culture. The work is done within the defined limits and that is an end to it. Her explanation of her decision after a flight with Alvarez Orleans de Borbon of Spain to stop flying at the age of 60 showed her objectivity. She still held the British women's distance record, and she did not wish to do something by incapacity or ill judgment that might damage an aeroplane or sailplane and thus break the near perfect relationship that she has had with them.

Some see Ann Welch as an enigma: a power seeker in a man's world. There is, I suppose that risk when young women are allowed to fly Spitfires in wartime. Had she wanted the glory, she might have flown the Nationals to win as Ann Burns did. This would have led the way to the Internationals. She did fly in the 1956 meeting at Camphill, with Lorne Welch in the back seat of the Eagle. Her interest was influence. The influence that is the counterbalance to the power of men, a role that women have played since the beginning of time.

Ann Welch has a very simple message: "It is always more fun to do something than to be somebody." In her rationale of her attitude to instruction she makes it clear that people have to think for themselves if they are to be able to control their situation and enjoy it. She emphasises the importance of learning to fly at an early age as she did. In hang gliding and microlight she sees the means to cheap flying. I feel, myself, that she under-estimates the technical difficulties.

Not enough family detail

Now this is a book about flying. As an autobiography, I would criticise it because we are told very little about her family. I would like to have known the name of her mother and father, and where they came from. What did her father do apart from those years in the Army? Although she says that money was sometimes scarce, they were comfortable, and she always had enough to learn to fly and to run a small car. What happened to brother John who went to public school and then no more is told? I would like to have known more of her aunt in Devon, at Torcross. Was she eponymous? What has happened to Graham Douglas? We are told that they lived apart for five years before she married Lorne Welch. She is also uncommunicative about the progress of her daughters. I would like to have read more about them. Behind the persona there is a very private person.

So could Ann Welch have happened at any other time? I think not. She needed the affluent and relatively open society of the thirties in which to develop. The war glamorised flying and created a large number of people who wanted to take it up. Many found in soaring the means to do so. She perceived the need and had the inclination of the aristocrat to start at the top and the ability to stay there for forty years. Her intuition guided in her choice of able support for the Nationals and Internationals, and she was a good listener. She is very bright but in today's world no girl without O or A levels would be accepted as a pilot. She is an efficient executive, but one born a generation or so later might well have been inhibited in this by the ideas of her time. In her enthusiasm and humour she is uniquely Southern English.

Now a grandmother who went as a deckhand on a sailing ship in her sixties, she still retains that zest for life and that interest in the things that still have to be done. The girl who went to fly on a motorbike now walks with princes but has never lost the common touch. Be it at Cirencester this year, or in a packed hangar in darkness of an Icelandic December, she still has the power to enthrall. She is our Soaring Super Star.

Now Get Out of That — in a glider

CATRIONA TAIT, the 15 year-old member of a gliding family, describes how two Scottish clubs became involved this summer with making a television programme

Recently our small Scottish gliding club (Highland) and RAF Kinloss GC had the unique opportunity to assist in the making of the television series "Now Get Out of That". For the uninformed this programme choses two teams, one from America and one from Britain and gives them an aim. The contestants follow a gruelling 36hr course of physical and intellectual tests. You may well ask what gliders or pilots had to do with this!

Something more original

In the previous series the contestants were flown-in by helicopter and dropped into water but the BBC wished something more original! The task appeared simple or so we thought. The contestants would be given parachutes, strapped in a glider and flown to a field near to the "research station" (this being Brackla distillery). The unsuspecting contestants were informed that they would jump with parachutes but of course no one was risking tailplanes or canopies.

After a great deal of fuss and bother which I won't go into and many lengthy and expensive telephone calls to and from Birmingham Pebblemill studios, it was arranged for two RAF two-seaters (a K-21 and a K-13) and our Bocian 1E to be launched from Dalcross Airport at 6.30am and to land at Rosefield where the contestants would be dispatched to rescue a chemist?! So Jim Tait, his ever-willing offspring, with Angela Veitch and Alan Clark left their beds at 3am on Monday, June 6. Destination Dalcross.

We assembled along with Mick Simmonds and Oscar Constable, the Kinloss pilots, at 5am at Dalcross. The weather untypically was perfect, the gliders lined up on time. The BBC made their arrival with four enthusiastic British contestants (they knew they wouldn't be jumping out). Nothing could go wrong or could it? The tug Sierra Alfa was late due to a drop in oil pressure and it costs £10 000 an hour for a camera crew! Finally that sweet sound "Sierra Alfa cleared for landing" floated across the air. Apart from a Dan-Air flight to London there were no other delays and all three gliders with their televised pilots were safely *en route* for Rosefield. The rest of us made all speed to meet them. Unfortunately we missed the landings but witnesses said that there was some spectacular flying, aeroplanes included!

The BBC, having departed, left us the problem of launching through a 30 yard gap in a nil wind — I was fascinated by the Bocian's 90° turn at 50ft! The gliders were safely bedded down among their powered compatriots at Dalcross ready for Thursday when we were greeted by a terrified American foursome. They had spent the previous day learning how to bale out and since one of the girls had broken a leg in a previous parachute jump, they were to say the least apprehensive. I suppose our "Paras" imitations didn't help! The weather was satisfactory and guess what? The tug was late due to bad weather! TV licences are on the up!

I believe the landings were less spectacular this time but now we had a new problem. To take-off into wind would mean passing over the farmhouse with no let out if things went wrong. At least if things went wrong the other way there was only a fence to clear and 300 yards longer ground run. Eventually tug pilot, Mick Orr, organised John Macfarlane in the Bocian to take off downwind across the fence and they made it. The RAF gliders did not get off till the next day and incidentally, or should I say unincidentally, they towed out over the house with at least 10ft to spare!

We flew briefly at Dallachy but retired at lunch to the pub in a state of nervous exhaustion. A job well done, particularly by the pilots. Look out for us in April 1984 — we're the ones who do it quietly!

GLIDING OPPORTUNITIES OVERSEAS

A marked feature of S&G in recent years has been the increasing number of articles inspired by British pilots flying abroad, which obviously reflects the trend towards greater opportunities to travel. But just what is the chance of the casual flight wedged in between the family holiday or business trip? This issue we have accounts from ALISON CAMPBELL, LAURENCE MATTHEWS and CHRIS LYTTELTON who happened to call in on clubs without making elaborate prior arrangements.

Experiences of California

This May I visited three Californian gliding sites, and I would like to offer some brief impressions of Californian soaring from the point of view of a Brit touring *sans* sailplane.

Before leaving England, I wrote to several "gliderports" on my track from Hawaii to Tucson, Arizona, requesting information about tow prices, check rides, sleeping arrangements etc. I had several rather daunting replies from gliderport secretaries, enclosing glossy brochures and ending with phrases like "Thank you for your interest", or "We hope you will fly with us soon!" My British gliding certificate would not be acceptable, but a student pilot certificate could be issued (usually on site) without FAA paperwork, which would enable me to fly solo. Would I please bring my logbook: I never travel abroad without it!

My apprehension about the atmosphere at American gliding sites was unfounded; the operators are mostly instructors themselves and have tremendous enthusiasm. They are in the flying business not because it is lucrative, but because flying is their life. Almost all gliding operations are run commercially: any clubs which do exist are more or less just large British-style syndicates, who have problems getting launched and so fly from commercial gliderports anyway. There are rates for hire of aircraft and for instructors' time (which includes ground briefing), as well as for tows; instructors and aircraft are bookable.

No "club feeling"

This leads to a rather different approach to the sport, the pattern of training and atmosphere on the airfield are particularly so. In many ways the latter is very pleasant! No launch queues, no waiting about (except for the weather!), no hangar packing — the aircraft are for the most part left tied down outside. On the other hand, there is no "club feeling": very few people are in syndicates and owing to the booking system there is sometimes a shortage of bodies around to help rig, or to collect you from a field 300 miles away! The aircraft and buildings tangibly "belong to someone else".

Training is almost exclusively from aerotow, and many solo after around 30 flights (though this could mean 15hrs!). However after solo, new pilots are on their own — most people don't take post-solo training and have to learn soaring techniques by trial and error. To fly cross-country, it is necessary to have your own aircraft, and many people jump straight from a 13m Schweizer 1-26 with a L/D of 25:1 to a glass-fibre flapped glider.

But they certainly do get the soaring weather! Every type of lift you can think of is there; some sites seem to have everything. Ten knot thermals and 20kt waves are common — one pilot told me he wouldn't dream of stopping for anything less than 4kt! My first stop, Tehachapi (near Bakersfield), is a beautiful site; the atmosphere is professional, but relaxed and enthusiastic. The owners' fleet is entirely metal — Blaniks and Schweizers. Everyone was very sorry that the weather didn't come up to Californian scratch and didn't, in fact, produce much of anything while I was there!

Impressive mountains

My second stop was Hayward, in the Bay Area near San Francisco. It was the weekend, a fairish day, and the airfield was full of laid-back young Californians, pop cans, radios, chewing gum and Space Invaders. The immediate area was festooned with power cables and a ride in an IS-28B was going to cost around $70, so all things considered, I decided not to fly there. But again, the site is beautiful, with some impressive south-west facing mountains only a couple of miles away.

My final stop was California City, where the world altitude record was set. This site recently had 13 good wave days out of 30. It's near the northern edge of the Mojave Desert, just five miles or so downwind of the Tehachapi mountains and the end of the Sierra Nevada range. If you like scrub desert, this place is fantastic. After a check ride in an IS-28B in the roughest conditions I've flown in (and in the company of jets from neighbouring Edwards Air Force Base!), I set off to do a little blue thermalling — not a cloud in the sky. After half an hour of lumpy scraping about, I ran into a huge bubbly area of lift. I was at 7000ft and just thinking, what a curious thermal, when everything went smooth and at 14kt I shot up to 12 500ft — a monster wave was lurking almost directly over the field. However, having no oxygen, no barograph, no camera and not much daylight, I descended, much against the efforts of the air to prevent this! During my flight, the wind had veered 45° and was now perpendicular to the mountains; the conditions had become classic. At dusk, an enormous text-book roll cloud many miles long formed in the lee of the Tehachapis and the manager started muttering something about two-seater distance attempts.

The following day, the wind had backed again; it was very strong and rough, but at 45° to the mountains. No one was surprised to see no sign of the wave. However, by the afternoon, wispy rotor clouds began forming upwind and my friend and I set off to explore in the Astir Twin II — with oxygen and camera! After a very interesting tussle with the rotor, on tow (just), we contacted the wave and rode it to 24 500ft, eventually topping out when the Twin's L/D collapsed at 75kt — the air was still going up. Needless to say, the view was magnificent, with the Sierras unfolded upwind and to the north, the Mojave with its salt lakes spread out to the south and east, and beautiful lenticulars forming and dissipating way below. Later on, and with much more — very amorphous — cloud around, I went back to 25 000ft in the Pilatus, complete with loaned barograph, and at the top, headed crosswind to EAFB. The other direction looked very unlandable and strictly for the locals (in fact the whole area is pretty grim). After a time, I found I couldn't feel my feet up to the knees, let alone the rudder pedals, so raced back to the airfield looking for sink (honest!). Not finding any, I let down through some incredible turbulence, with gusts taking the Pilatus from just above the stall to Max rough air — I was very thankful for that good strong oilcan!

A 500 mile flight that day would have been no problem at all. Goodness knows how strong the wave would have been if the wind had been perpendicular to the mountains. When I got down, I apologised to the tug pilot for almost having both of us upside down: "No problem at all", he said, "Hardly noticed you". There is a Californian who is **really** laid-back!

I think it is fair to say that my impressions of soaring in America are very good. You lose in some areas, but gain in many others. Training is purposeful, efficient, but limited, and the cost is rather higher than here, unless you own your own aircraft (in which case, aerotows cost about the same). With two days of such fantastic flying I didn't regret a cent of the $135 it cost me! I know where I'm headed the next time I'm in the western USA.

ALISON CAMPBELL

Gliding in Germany

An early solo pilot finds a sudden opportunity to spend two weeks in Germany. Should the logbook get packed along with the toothbrush? After visiting four gliding clubs around Cologne my answer would be a definite yes.

My first visit was to the Bayer Leverküsen club, which I tracked down after a glider flew over the autobahn I was driving along. This club is heavily subsidised by the Bayer chemical firm who, not satisfied with this contribution, also help by kicking off thermals from their huge works across the road.

I spent the morning chatting in between the inevitable glider-pushing and picked up some German gliding vocabulary. Did you know that the most widely-used word for thermal is "bart" meaning "beard"? When I asked why, one lad said that perhaps it was because

somebody had thought thermals looked like beards. Well, ask a silly question . . . And then it was my turn to fly. So there I was in the rear seat of a K-13, ready for my first flight abroad. Predictably, it was all in sink but the second turned out to be the best flight I had in Germany, out to a power station 23km away and back.

The second club I visited was at Hangelar airfield, near Bonn. Perhaps I should say the second to eighth clubs inclusive since Hangelar out-Lashams Lasham by having no less than seven clubs all based at the same airfield. This is the only place I turned up to twice, once during the week and once at the weekend. At weekends there are three two-cable winches operating in parallel as well as an aerotow queue so that what with all the light powered aircraft also using the airfield you have to keep your eyes open.

In the afternoon I found that even Germans are not immune to wind changes and the operation of changing ends when you have three winches and about 50 gliders on the field is something to behold. (**Question:** How do six people and one car get three gliders to the other end of the field? **Answer:** Form a train, roping the second and third gliders to the tail-skid of the one in front. And three gliders is by no means a record, either.)

More like home

Lindlar, out in the rolling hills of the Sauerland to the east of Cologne, felt more like home: no huge spotless hangars here, only a bumpy field with lots of mud. In fact they went one better than Ringmer and had cowpats as well. There were even old tyres to plonk on the glider wings, a custom that was sadly absent elsewhere. A modest operation, Lindlar; just the one winch.

As with all sites I visited, glider retrieve was by hand and it seems to be the done thing for almost everybody at launch point to participate even if this means that there are more than a dozen people retrieving one glider. The cables are hauled back to the launch point by a vehicle which is usually an ancient and artistically painted VW Beetle and which is widely referred to as a Lepo. (Legend has it that in olden days it used to be predominantly old Opels that performed this job).

The fourth and final club I managed to get to (after the conference which was the main reason/excuse for my being in Germany) was at Langenfeld between Cologne and Düsseldorf. This is another club with financial support; in this case the Land (Federal State) had chipped in with some two million DM to help buy the field. The club has been established at this site for two years and already have a very impressive hangar, workshop and clubhouse facilities. As was the case at Leverküsen, a strip for landing had been marked out. The attitude towards landing aircraft is fairly casual as long as the landing strip is clear — there's no stopping vehicles on the field while aircraft are on the approach or anything like that. In fact at one time the tug aircraft landed (slightly downwind) on the landing strip while about 30 yards to one side a winch launch was taking place in the opposite direction.

In general I found everybody friendly. As over here, people are happy to chat and answer questions, especially if willingness is shown in pushing gliders about and helping in general. Interest was shown as soon as it transpired that I was English and only diminished marginally when they found out that I didn't know George Lee after all. Prices for a winch launch varied from free to 15DM (around £3.50) but with the accent on free. Even the place charging 15DM more than redeemed itself by letting me have a free ride in a Cessna. On my second visit to Hangelar I got cleared to go solo, but as that was about the last flight of the day and I was leaving the area early the next morning, I never did fly by myself over there. Clearly all you people with Bronze Cs and above will have few problems should you go over and fly in Germany. Being able to speak the language certainly helped, but this would be by no means a necessity, especially in the big centres, and frequently people are only too happy to practise their English.

Saw what could happen

And, finally, the most "exciting" incident I saw was at Langenfeld and it convinced me that the little game we play between pilot and handler of reciting "canopy closed and locked, airbrakes closed and locked" is a good idea after all. Until now, the airbrakes half of this is the one I have heard mostly emphasised; now I have seen what can happen when canopies get forgotten about.

A Speed Astir is being launched on aerotow. A wingtip touches the ground soon after "all out" and the pilot is unable to lift it, so he pulls off into a graceful groundloop. Up goes the canopy, but the pilot is pushed back to the launch point still sitting in the cockpit while the tug turns round and taxies back. The rope is re-attached, the pilot no doubt still having his mind on groundloops. Aerotow, take two. About 50ft up and maybe threequarters of the way down the field, it happens. The canopy, hinged at the rear, flies open. Before it wrenches off completely, tearing a chunk out of the fuselage as it goes, the drag pulls the glider up into a steep climb and the rope breaks. This all happens in a couple of seconds. At the launch point there is just time to realise that something is wrong and then there is this glider where it shouldn't be, with bits flying off.

The next ten seconds go by in slow motion. Ahead, a pine forest starts at the field boundary and there is no room for a straight-ahead landing. We watch the glider regain flying speed and wonder where it's going to land. Everybody around me stares in horrified silence as it starts a wobbly turn to the left. Adjacent to the gliding site on that side are two fields, one with a root crop, about knee height and, a little further on, another ploughed. Somehow the glider's left wingtip just misses the ground, the right wingtip just misses the pine trees and down goes the Astir into the root crop. There's a pause and then we're running to the scene where we find a relatively undamaged glider and, thankfully, an undamaged if rather shaken pilot. I don't want to overdramatise this incident but it was as near to a nasty crash as I want to see for some time and a reminder to early solo pilots like me, if one were needed, not to skimp on the checks. Even abroad!

LAURENCE MATTHEWS

A visit to South Africa

A business trip to South Africa in March left me with a free weekend — too good an opportunity to miss given the wonderful conditions that were all too evident from a variety of office windows.

I had been given the name of Carol Clifford, secretary of the Witwatersrand Gliding Trust, and she directed me to the club which is about 45 minutes SW of Johannesburg. There I was installed in the Twin Astir for a check flight by Dave Boome, CFI, after reading various medical notes. These are necessary, for as the site is 5200ft asl, and with very high temperatures, dehydration can be a major problem. As we pulled off tow at 1600ft into smooth 5kt lift, Dave muttered bleakly something about a low cloudbase. As this was 10.30am and it was already 12 000ft asl and rose during the day to 14 000ft asl, I suspected a leg pull. It was only after the comment had been repeated by a number of other club members that the truth dawned — this was merely a mediocre day in this gliding Mecca.

Dave checked me out to fly the club Astir, and a very pleasant hour ensued, spoilt only by having to come down to let somebody else have a go. However, such is the hospitality, that my flying for the day had still not ended. Grant Jenkins, owner of the original demonstrator Janus C, had heard that there was a visitor about and landed to give me another flight with Dave Boome in his glider. The two-seater flights totalled just under two hours and with the hour in the Astir this doubled my hours for the winter.

Building new clubhouse

Every Saturday the barbecue is lit for a "Braai", and convivial conversation becoming slightly blurred as the evening progresses. The club has recently moved to its new site at Donaldson Dam, near Western Area, and the members are building a new clubhouse. Plans are in hand for a swimming pool, and impatient syndicate partners can windsurf on the dam while waiting for the latest 500km to be completed. The club fleet consists of three tugs (180 Super Cubs), the Twin Astir, two K-7s and an Astir, while the 30 privately owned aircraft include a Ventus, LS-4, ASW-20, two Janus and a second Twin Astir.

Sunday was a repeat of the Saturday, marred by the discovery that good lift can be accomplished by very strong sink. I probably hold the record for the shortest flight from a 2000ft tow, but the locals did not seem to have the same problem. Towards the end of the day there was quite a display as the cross-country types returned at high speed, dumping water-ballast.

I can thoroughly recommend that anyone who is lucky enough to be within the area at a weekend calls Carol Clifford — 615 2461 from Johannesburg — as this was an entirely enjoyable experience. Many thanks to all concerned.

CHRIS LYTTELTON

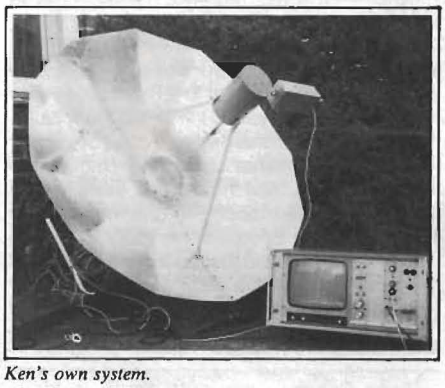
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WEATHER SATELLITE RECEIVER

KEITH MITCHELL writes about a system for displaying weather pictures and facsimile charts

Earlier this year at the BGA Weekend at Cirencester, I managed to borrow for demonstration a fascinating piece of gear which took recordings of weather satellite transmissions and turned them into pictures on a television screen. The complete outfit was borrowed for the 15 Metre Nationals at Booker and live pictures from Meteosat were available for the first half of the competition which allowed everyone to see immediately why conditions were so awful.

I have now assembled my own system in a reasonably transportable form which is, I hope, sturdy enough to survive the average



Ken's own system.

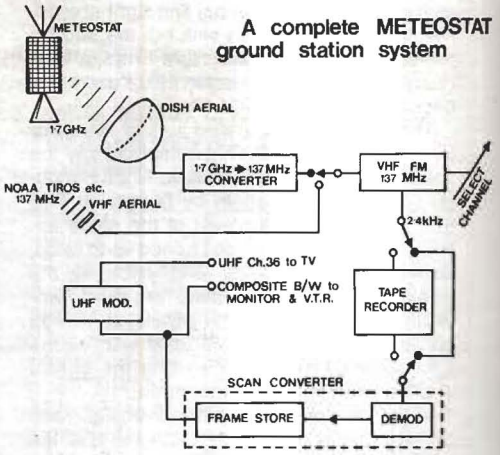
gliding competition. The diagram shows the equipment involved. The 1.2 metre portable dish aerial is made from segments of aluminium sheet pop-riveted together but an alternative construction could use moulded GRP covered with kitchen foil. The first piece of electronics converts the Meteosat signal at 1700MHz to a more manageable frequency of about 137MHz. It is mounted as close to the aerial as possible and is fitted in a weatherproof box. This is a professional item made by SSB Electronics in Germany.

The 137MHz VHF FM receiver was modified from a kit produced by Ambit International and described in an article in *Radio and Electronics World*[1]. It is crystal controlled on up to six channels and can receive signals from the American and Russian Polar orbiting satellites as well as Meteosat.

The scan converter is an electronic FAX machine with the disadvantage that it does not produce permanent pictures, but its picture quality can only be equalled by very expensive machines which use photographic techniques. The signal picture information, which comes in at four lines a second, is converted to digital form and stored in computer type integrated circuit (silicon chip) memories. Circuitry similar to that in video games and home computers reads the information out of memory and presents it in the form of a standard video signal which can be viewed on a monitor or, after going through a VHF modulator, a standard television set.

Meteosat is a geo-stationary satellite in a fixed position over the Equator at zero longitude so setting up the dish aerial is very simple. In south-east England it points due south with an elevation of about 30°. Visible light, infra-red and water vapour pictures are transmitted regularly throughout the day while at night the visible light pictures are omitted. The pictures are particularly easy to use, as the continental outlines are added by the computer at the satellite's controlling ground station in Germany.

As the scan converter is readily switched to decode various facsimile formats, I have also used it to display weather charts transmitted by Met stations on long and short wave bands, and have made a simple receiver for the long wave transmissions from Paris and Offenbach[2].



A complete METEOSTAT ground station system

A further development which I am pursuing is the use of a video tape recorder to record a sequence of Meteosat pictures which are updated half-hourly, and to animate them so as to estimate the rate of movement of weather systems.

Detailed technical information on the set-up is available from the appended references, or I may be contacted through the BGA office. Throughout the development of this project I have had continuous support and encouragement from Ambit International of Brentwood, Essex.

References: 1) *Radio and Electronic World*, May 1982, "UOSAT Receiver", Graham Leighton; 2) *Radio and Electronic World*, September 1983, "Weather Facsimile Reception", Keith Mitchell with additional information given in the following *Radio and Electronic World* articles — August 1982, "Meteosat", Terry Weatherley; August 1983, "Digital FAX Conversion"; and March 1983 and August 1983, "Polar Orbiting Satellites", Terry Weatherley.

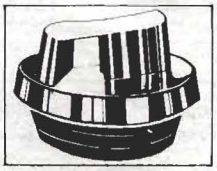
The actual cost was about £500 to £600, making as many parts from kits as possible, and the box was acquired from the local electronics junkshop.



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WELL AND TRULY KIPPERED!

The story of the 1983 Standard Class Nationals at Husbands Bosworth from August 13-21 by JOHN WILLIAMSON. Kipper: "fish . . . cured by suspension in smoke for several days."

Anyone who has flown a sailplane in August, south of about Sunderland, knows all about stubble fires. When 45 of us Brits and one brave Frenchman assembled at Hus Bos on August 13 we might have known what was in store!

The newly extended clubhouse was used for briefing and very civilised it was too. New briefing boards in virgin blue, yellow and red on purest matt black; plenty of tables and chairs (but pilots only, please — it still isn't *that* big); good acoustics and a good team. Director Frank Davies set his mark early on by decisive answers to the usual crop of questions posed by pilots who hadn't read the rules. Claude Woodhouse set the tasks — and got a bit of stick at times, but was usually right! — Mike Garrod arranged the weather for our delectation and delight, with the most pretty pictures of what the weather might look like. He tended to be pessimistic and one or two tasks were marginally under-set. The startline no-nonsense team was headed by Eileen Cooke, whose professional training occasionally showed through if we got our procedures wrong. Nick Manley attended to the needs of the scoring computer while Mike Smith — the *other* Mike Smith — manned control, apparently without sleep or rest for the entire week. There were many others.

So, to the flying . . .

Day 1, Saturday, August 13

Task: 202.5km ▲, Dunstable, Chipping Norton.

Weather: *A high over Ireland (it had been there for weeks!) moving slowly east. Light northerly flow, inversion at 3500ft. Started cloudy; broke to scattered shallow cumulus.*

Straight away the French ASW-19 *look*-alike, the Centrair Pegasus 101, showed us that it wasn't necessarily an ASW-19 *fly*-alike. First and 2nd places went to Brian Spreckley and Al Kay. Brian started later than he had intended because he got a negative start (eventually) and had to turn back from 15 miles out, only to be told when he got back that he needn't have bothered, his start was OK after all. Apart from that he had a straight forward flight, turning in 82,5km/h for his 1000pts. Al Kay found it a bit bothersome between Dunstable and Bicester, and several pilots got swom at, at some length, on 130.1 by the parachutists at Weston on the Green. We felt a bit grieved at this since Weston's danger zone is presumably not active above 2000ft at weekends. The normal NOTAM specifies Monday to Friday. Anyhow, no one got size twelves through the canopy and all was well.

Third place went to Mike Smith (the *other* Mike Smith!) who timed his start just right. "It went 'bang' just as I crossed the startline!" Six pilots found the photographic zone orientation at Dunstable beyond their comprehension and got penalised. Mary Charlett-Green, the only female pilot and in her first Nationals, had a good day, finishing well inside the first half of the field at nearly 68km/h. Yves de la Casiniere, our French guest who lives and flies near Paris, managed 77.5km/h for 8th place.



Brian Spreckley, winner of Days 1, 4 and 7, and "King-Kipper!" Standard Class Champion. Photo: Laurie Watts.

Day 2, Sunday, August 14

Task: 250km ▲, Winthorpe (nr Newark), Caxton Gibbet.

Weather: *The high had slipped SE to the English Channel. (Sorry, Yves, La Manche.) Slack westerly flow with instability to 5000 or 6000ft. Small amounts of cumulus and moderate to strong thermals lasting until 8pm.*

This proved to be the best day of the Comps for pure racing. Everyone got round at speeds ranging from 93.4km/h (Mike Smith — LS-4) to a shade under 60 (Steve Nash — Cobra). The day devalued itself to effectively the difference between the two scores — 544pts. This was one of the under-set days. It could have been 400km but no one was inclined to grumble — we had had a super flight. Justin Wills didn't think so however. His 82.11km/h put him at an unaccustomed 19th. He, quote, had "A bad first leg; a bad second leg and a bad third leg." Gillian, added tactfully, "We aren't talking about today." In spite of his gloom, though, it cost him only one place overall. Mike Smith now held the overall lead and his pleasure at this situation was evident at briefing next day when he got one of the biggest rounds of applause all week!

For me the flight was uneventful round to Caxton Gibbet by which time I had got ahead of the field. My one mistake was to take the wrong stubble fire (choice of three) after rounding the Gibbet, near St Neots. I recorded at the time "This will lose the day for me." It did. Brian Spreckley chose the right one from about a minute behind me, rushing in at 900ft and climbing, varios pegged off the clock, to 5800ft for a fast glide home. He had especially enjoyed the second leg, philosophising afterwards, "Slightly out of form, and you stop at the first thermal of a street; one notch up and you wait for the second or third. But *on* form and you really push on for the *good* one, which you *know* is there! Your 'form' is self-fulfilling." His 93.1km/h was achieved with less than half ballast, all of it in one wing! On dumping a little early on, to get his new Pegasus "feeling right", one dump valve stuck open and emptied its wing. He found he could circle at 40kt one way but had to keep 45kt the other. Martyn Wells showed us why he is in the British team by pulling up three places to 3rd overall, and was 2nd for the day. Tony Watson, marginally the oldest pilot in the Comp, was third. Bob Fletcher broke his Libelle on arrival and was out of the Comp. He continued to fly *hors concours* in a borrowed Astir.

Day 3, Monday, August 15

Task: A flat 148km ▲, Dunstable, Towcester.

Weather: *A strong SW wind developed ahead of a cold front moving south over Scotland. Convection limited to about 4000ft.*

After the very slack winds of the last three weeks this one felt *windy*. So much so that some were psyched out and pressed far too far upwind for fear of being drifted away, losing out overall. Winning speed by a very large

margin was set by Ben Benoist at 81,5km/h. He started early, thought he had made a mistake in so doing, and decided to just fly fast and ignore weak thermals. He flew entirely alone — the gaggles were huddling together for company — found streets most of the way and didn't circle much at all. His barograph trace was a revelation. It looked as though he had been hill soaring (at 3000ft) or as though the instrument had stuck!

Justin Wills came home far too high and reckoned to have wasted at least ten minutes getting 1000ft more than he really needed. I did it the other way, squeezing over the fence with only enough to turn crosswind and land. I wish someone could tell me if adrenalin is good or bad for you! Phil Gaisford had the misfortune of a collapsed wheel frame. Luckily it was only a (protracted) nuts and bolts job once he had got the bits, and he was able to get it done the following day . . .

. . . which turned out to be duff. Brief, hold, rebrief, scrub. Then a whole day wet and miserable until 1630 when the front went through.



Mostly it was hot and we spent a lot of time waiting. Photo: Laurie Watts.

Day 4, Thursday, August 18
Task: 320km ■, Stratford on Avon, Ludlow, Nympsfield (clubhouse).
Weather: *Yesterday's front turned round and went back north, fortunately far enough away to leave the Midlands in a slack south-easterly flow, unstable to about 7000ft.*

The Stratford turn was added to ensure pilots wouldn't stray into the Birmingham Zone. Twenty-seven got round. Mister Speedy being Brian Spreckley at almost 90km/h. The computer couldn't separate him from Martyn Wells so they both got 1000pts, but Brian got the hot-kipper award by just 0.02km/h = 20m/hr! Which means that had they started wings level, Brian would have crossed the finish just 80yds ahead! Makes you think, doesn't it? Steve White had his best day yet, being 3rd at 87.2km/h. Dave Watt, meantime, in Mike Carlton's ASW-22, plunged off into the distance and back again to set a new UK record for the 300km goal and return speed at some indecent speed, showing that the gap between a leisurely lunch and early tea need never be the same again — if you've got forty grand to spare!

The Winner's HowIDunnit each day has a slightly depressing effect on those that "also flew" so for once let's have a humbler story.

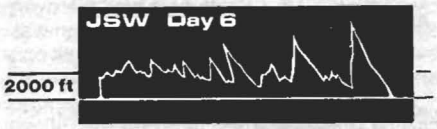
Also flew . . .

By 1300 the day was brewing nicely and it was a question of guessing the best time to start. Away at 1330, a poor first thermal at five miles persuaded me to go back. Then I noticed tape apparently streaming from aileron gaps on both wings. As the streamers lengthened I called the crew to meet me with new tape and fresh water and landed just as the last gaggle was leaving. Refurbished and with half water I was on my way only half an hour later from an excellent climb straight off tow. No problem — until I almost landed 20 miles out without a sniff of a thermal on the way! Dumped most of the water and promptly went into survival mode. And that's how I stayed, thoroughly psyched out and feeling very much alone. Treating every thermal as though it were the last — and to be honest it always looked as if it were — I plodded round Ludlow and south towards Malvern. 130.1 was very quiet and I consoled myself that at least we were all in the same boat. And then I heard Brian calling final glide to Hus Bos! And me only half way round!

To cut a sad story short I crept round Nympsfield as the proper thermals were dying and joined Yves as we groped through the murk looking for stubble fires. My last was at Banbury where I shared a good black one with fellow-kipper Brendan Chaplin in his Cirrus. He got back. I got lost!

Day 5, Friday, August 19
Task: 186km double O/R, Kineton (nr Gaydon), Tamworth.
Weather: *A freshening ESE airflow. Initially unstable at medium levels, by the time ground convection began a strong inversion had formed at 3000ft.*

With the low level air already pumped full of smoke from the day before, on this day we were due to get well and truly kippered! With the corn harvest 90% cut the yeomen of England put their homeland to the torch this day. We *had* to use them, the thermals were pathetic! The sun shone all day; it was hot and murky. The sailplanes were getting tanned along with the faces! Howard Jarvis won the day, getting the edge because he followed the A5 back from Tamworth — there wasn't much else to follow with any certainty, so close to Birmingham's private airspace. But he followed it at exactly the right moment to see a frenzied burn-up getting under way before his very eyes, which took him nicely back to final glide height. Most of those still airborne, and it wasn't many by this time, were lured further east and from three miles away couldn't have seen his good fortune. Ted Lysakowski had his best day as well, coming home at nearly 54km/h in 2nd place. Four others completed but not everyone had passed Y so the day was devalued to 526pts.



John's barograph trace on Day 6.



Claude Woodhouse gives a field brief on Day 5.
Photo: Laurie Watts

Perhaps it's time for yet another appraisal of the scoring system. This, our worst day, produced just the same effective points as the best day, when all raced round the triangle so easily. "Sumpin" wrong somewhere?

Day 6, Saturday, August 20
Task: 165km ▲, Caxton Gibbet, Henlow airfield.
Weather: *A thundery trough crossed the area during the night, replacing the easterly flow by a cooler southerly. After a cloudy start the day improved to give good soaring conditions well into the evening.*

By now kippering was in everyone's blood and the route, through the granary of England, ensured plenty of dense black smoke. Except that preoccupation with stubble fires might distract one from the occasional advantages of more normal thermal and cloud possibilities. Today's super-kippers were LS-4s flown by Justin Wills at 76km/h and Martyn Wells at 73.5. The day was devalued yet



Mike Smith grins happily after winning Day 2 to go into overall lead. Photo: Jim Cooper.

THE TOP SIX

Their overall placings day by day. Day placings in circles

DAY	1	2	3	4	5	6	7	FINAL
Spreckley	1	1	2	2	8=	2	1	1 Spreckley
Kay	2	4	6	1	5	5	7	2 Wells
Smith	3	2	13	12	4	3	5	3 Kay
Wills	4	8	1	5	3	1	4	4 Wills
Metcalfe	5	19	12	4	6	12	6	5 Smith
Wells	6	5	4	13	8=	16	2	6 Benoist



"Kippering" getting a bit close to home! The field next door was set alight as we waited on the grid. Photo: Laurie Watts.



again by the unexpectedly rapid progress of the winner, to 872pts. Third place went to Al Kay (Pegasus), and fourth to Warren Kay, no relation to Al, and by now thoroughly used to and enthusiastic about, the DG-300. The latter, on it's debut in England, was the designer's own personal aircraft, loaned for the occasion because Warren's own could not be delivered in time. It has a blown wing in the style of the ASW-22 and there were some mutterings about lift-enhancement devices in the Standard Class. But of course the blown wing is to remove a drag-bubble from beneath the wing, not to enhance the lift. Warren was very happy with it and it did look very nice and clearly had a bit of urge to it. This one, a prototype, is about 50lb overweight, as is Warren by his own admission. This day he flew with half water, about 180lb, so effectively had 280lb of ballast. He felt he had a poor first leg but it bucked up approaching Caxton Gibbet from whence he flew a single street to Henlow. He arrived very low, having spotted a fire nearby. He didn't cloud fly at all but used the cloud patterns conventionally to keep his speed up.

The radio was pretty busy on 130.4 with cloud calls and I used three clouds myself. The barograph trace is perhaps of interest. The consistent low points are all to stubble fires not all of which worked as anticipated. These fires "pulse" quite markedly, typically every two or three minutes, so that if you miss a "pulse" you may have to hang around at low level for the next to gather up its skirts and go.

Day 7, Sunday, August 21

Task: 175km O/R to alternative TPs, Ely, Cambridge or Duxford.

Weather: *The southerly flow persisted but became more unstable. By mid-day showers had developed, mixed in with good thermals from mid-morning. Cloud cover increased up to 7/8ths stratus at times, later.*

Yesterday the startline had been almost parallel to track, causing some bother to pilots who, of course, cannot see exactly where they are laterally in relation to it as they transit from the gate. Today we had a change, with the *finish* line roughly parallel with the inbound leg. It would pay to cross the line at the *east* end, furthest from the observers. Hope they will see our fin numbers!

Head kipper today was Brian Spreckley. He started early but 15 miles out climbed up high in cloud and was able to come back in VMC to recross from on high and at VNE. He then found good streets to Duxford where he ran for a growing cumulus. The lift built to 9kt on the averager and he took it to over 9000ft from where he could glide home. His speed was almost 83km/h and the day was again devalued by being won in under the 2½hrs. But not by everyone. Speeds for the finishers ranged down to 51km/h, and ten landed out.

* * *

So it ended. The Great Kipper-Fest, 1983, was over. We had had a good time. Undoubtedly the contest was vastly affected by the stubble fires — the contestants, too. I was still coughing a week later! — but the diagram perhaps shows that it wasn't unduly flukey. Five of the first six pilots by Day 7 were in the same segment on Day 1. From Day 3 on they swopped places amongst themselves but by the last day only the last swop remained, with Brian Spreckley narrowly replacing Martyn Wells as King Kipper. There were no outrageous upsets. The winners proved their consistency, which is what matters.

We said goodbye to Hus Bos, and the 60-odd helpers who made it possible. The beautiful task and Met boards went back into storage for another year, another harvest time. We packed up our tents and stole away. By Monday morning there remained only sun-starved patches of pale green, and an empty, echoing clubhouse.

FINAL RESULTS

Standard Class

Pos.	Pilot	Glider	DAY 1 13.8 202.5km ▲ Dunstable, Chipping Norton			DAY 2 14.8 250.1km ▲ Winthorpe, Caxton Gibbet			DAY 3 15.8 148.1km ▲ Dunsteble, Towcester			DAY 4 18.8 320.1km ■ Stratford-on-Avon, Ludlow, Nympsfield			DAY 5 19.8 186.4km double O/R Kineton, Tamworth			DAY 6 20.8 165.7km ▲ Caxton Gibbet, Henlow			DAY 7 21.8 175km O/R Ely, Cambridge or Duxford			Tot. 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.	Speed (Dist.)	Pos.	Pts.	
1	Spreckley, B. T.	Pegasus	82.48	1	982	*93.07	4	945	65.17	13	528	89.15	1	1000	50.10	5	517	67.65	5	768	81.39	1	878	5618
2	Wells, M. D.	LS-4	77.39	6	895	93.19	2	997	74.25	2	638	89.13	2	1000	(178.2)	8	448	73.47	2	841	68.86	7	722	5541
3	Kay, A. E.	Pegasus	82.13	2	976	86.72	8	893	65.27	12	529	84.91	5	956	52.68	3	522	71.85	3	820	72.94	5	773	5469
4	Wills, T. J.	LS-4	79.77	4	935	82.11	19	819	70.74	4	595	86.44	4	972	(178.2)	8	448	76.00	1	872	73.20	4	776	5417
5	Smith, M. J.	LS-4	80.21	3	943	93.38	1	1000	68.23	6	565	75.99	12	864	51.91	4	520	82.97	12	710	70.40	6	742	5344
6	Benoist, J. D.	LS-4	76.15	7	874	83.19	15	836	81.55	1	727	75.78	13	862	*52.65	6	496	58.46	16	654	79.57	2	855	5304
7	White, S. A.	Pegasus	71.30	9	791	82.62	16	827	*66.03	15	502	87.20	3	980	(178.2)	8	448	62.40	13	703	67.33	10	703	4946
8	Kay, W. M.	DG-300	70.30	13	774	86.40	9	888	52.21	35	370	81.94	7	926	(50.8)	38	87	71.13	4	812	74.62	3	794	4651
9	Williamson, J. S.	ASW-19	*73.37	12	777	89.58	5	939	72.35	3	615	(305.2)	30	513	(171.4)	13	428	59.17	15	663	56.60	23	570	4505
10	Lysakowski, E. R.	Std Cirrus	60.41	32	605	81.50	22	809	53.71	34	388	77.69	9	882	53.92	2	525	51.19	25	564	65.69	12	683	4456
11	Bromwich, R. C.	Std Cirrus	64.28	29	671	79.63	30	779	66.07	11	539	87.59	19	777	(179.8)	7	452	53.76	20	596	55.67	26	559	4373
12	Metcalfe, G. C.	ASW-19	78.21	5	909	86.84	7	895	(142.5)	40	221	77.69	9	882	(44.5)	41	69	64.80	10	733	62.61	16	645	4354
13	Jarvis, H. R.	LS-4	71.09	10	787	83.39	14	840	56.85	28	427	(288.9)	32	484	54.63	1	526	57.28	17	640	56.18	24	565	4269
14	Stewart, K.	Cirrus 75	66.80	24	714	73.32	39	678	63.01	17	501	69.25	17	795	(172.8)	11	432	44.91	30	486	60.28	18	616	4222
15	Gorringe, J.	Std Cirrus	67.04	21	718	77.29	35	741	60.60	23	472	72.78	15	831	(157.4)	15	389	44.14	31	477	55.03	30	551	4179
16	Smith, G. N. D.	Std Jantar	61.18	31	618	87.15	6	900	49.61	38	339	75.45	14	859	(52.6)	35	92	61.01	14	686	64.63	14	670	4164
17	Starkey, C. G.	ASW-19B	69.39	15	758	86.27	10	886	63.01	17	501	(312.6)	29	526	(37.9)	42	51	64.10	11	724	67.85	9	710	4158
18	Throssell, M. G.	ASW-19B	70.23	14	773	72.88	40	671	57.97	27	440	68.82	18	790	(93.4)	19	208	65.63	8	743	55.51	29	557	4128
19	Allds, C. J.	Std Cirrus	64.75	28	679	74.58	37	698	56.56	30	423	70.26	16	805	(79.7)	23	169	49.79	27	547	65.07	13	675	3996
20	Marczynski, Z.	LS-4	65.24	27	688	84.48	12	857	(113.9)	41	170	59.30	24	692	(65.3)	32	128	67.60	6	768	64.41	15	667	3970
21	Smith, D. A.	LS-4	66.87	23	715	82.62	16	827	66.49	10	544	84.13	6	948	(75.4)	27	157	(87.3)	40	186	56.71	22	572	3949
22	Gaisford, P. A.	Astir CS	67.48	19	726	81.70	21	812	59.75	25	462	76.37	11	868	(82.4)	21	177	51.39	23	567	(151.5)	37	309	3921
23	Harding, R. W.	Cirrus 75	63.91	30	665	79.84	29	782	52.12	36	369	(138.4)	41	213	(147.8)	16	362	65.11	9	737	68.21	8	714	3842
24	Camp, G. W.	DG-100	70.87	11	784	74.02	38	689	67.07	9	551	(312.7)	28	527	(51.9)	36	90	53.95	19	598	57.06	21	576	3815
25	Forsey, L. K.	ASW-15B	60.21	33	602	81.03	24	802	68.19	7	564	(220.0)	36	360	(80.5)	22	171	53.03	21	587	66.39	11	692	3778
26	Cockburn, D.	ASW-19	66.90	22	716	84.34	13	855	63.38	14	506	(80.0)	43	72	(64.3)	33	125	67.29	7	764	59.35	19	604	3642
27	Chaplin, B. M.	Std Cirrus	60.17	34	601	79.98	27	785	59.29	26	456	48.30	27	578	*(137.9)	17	308	(149.8)	32	359	53.13	32	527	3614
28	Cockett, T. F.	Libelle	57.87	37	562	79.95	28	784	61.63	20	485	(298.0)	31	500	(68.6)	29	138	50.03	26	550	55.52	28	557	3576
29	Sheard, P. G.	LS-4	(93.7)	45	129	85.38	11	871	69.65	5	582	81.62	8	922	(89.1)	20	196	(111.4)	37	253	58.15	20	589	3542
30	Evans, C. J.	LS-4	*(181.4)	44	200	†79.41	33	756	67.35	8	554	59.32	24	692	(98.8)	18	223	47.76	28	522	51.62	33	508	3455
31	Forrest, B. R.	Libelle	72.46	8	811	81.12	23	803	61.53	22	483	*(291.3)	34	438	(78.4)	25	165	(88.9)	39	190	54.47	31	544	3434
32	Smith, E. R.	Astir CS 77	57.07	38	548	80.39	25	791	53.97	33	392	(283.1)	33	473	(48.2)	39	80	51.54	22	568	55.60	27	558	3410
33	Watson, A. J.	ASW-19B	*65.02	39	537	90.28	3	950	50.62	37	351	62.67	22	727		43	0	51.22	24	564	(139.4)	40	280	3409
34	Langrick, D. J.	Std Cirrus	65.65	26	694	68.72	42	604	63.09	15	502	(131.2)	42	200	(172.8)	11	432	56.95	18	636	(147.6)	39	300	3368
35	Sheffield, R. J.	ASW-19	67.55	18	727	61.42	44	487	56.76	29	425	60.55	23	705	(67.0)	30	133	(83.2)	41	175	61.12	17	626	3278
36	Hayes, D. M.	ASW-19B	*64.58	35	578	82.60	18	827	60.60	23	472	*67.91	21	731	(75.4)	27	157	(135.2)	34	318	(51.0)	42	73	3156
37	Dean, M. J.	DG-100	*68.92	25	701	68.95	41	608	61.55	21	484	(157.9)	39	244	(166.5)	14	414	(95.6)	38	209	(164.0)	35	338	2998
38	Parker, T. J.	ASW-19	53.55	41	488	79.30	32	774	55.79	31	414	65.63	20	757	(53.9)	34	96	(62.2)	42	117	(161.6)	36	332	2978
39	Stephenson, B. K.	Astir	58.03	36	565	75.23	36	708	DNF			(203.5)	37	330	(79.7)	23	169	45.72	29	496	55.77	25	560	2828
40	Keogh, B.	LS-4	56.11	40	532	77.82	34	750	54.13	32	393	(222.5)	35	364	(66.7)	31	132	(119.2)	36	274	(150.1)	38	305	2750
41	Harkins, A. O.	Cirrus 75	46.01	42	359	80.11	26	787	61.98	19	489	53.67	26	634	(48.2)	39	80	(123.1)	35	285	(41.7)	43	51	2685
42	Giddings, J. B.	Std Cirrus	67.27	20	722	79.41	31	776	47.24	39	310	(138.4)	41	213	(76.2)	26	159		43	0	(139.0)	41	279	2459
43	Nash, S. R.	Cobra	41.47	43	282	59.52	45	456	(107.9)	42	159	(203.5)	37	330	(51.9)	36	90	(145.3)	33	346	(166.8)	34	340	2003
44	Fletcher, R. W.	Libelle	68.66	16	746	*85.22	19	819	DNF			DNF			DNF			DNF			DNF			1564
45	Charlett-Green, Mary	Std Cirrus	67.57	17	727	66.11	43	562		43	0	(52.6)	44	59	DNF			DNF			DNF			1348
Hors Concours																								
14	Casiniere de la, Y.	LS-4	*77.51	8	848	84.49	12	857	68.75	6	571	(255.6)	35	424	(68.8)	29	138	60.49	15	680	69.43	7	729	4247
36	Fletcher, R. W.	Libelle/Astir	68.66	16	746	*85.22	19	819	DNF			(196.6)	39	322	(68.6)	29	138	50.18	26	*552	67.01	11	699	3276

* = photographic penalty; † = barograph penalty; DNF = did not fly.

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THE FUTURE OF GLIDING

After the healthy boom years of the early 1970s when gliding grew steadily, the total membership is now the same as it was in 1976 — 10 200. Bill Scull, BGA director of operations, discussed this in his article in the April 1982 issue, "Where is Gliding Going?" p68, and now Alan Austin, Anthony Dicks and Jeff Smithers have prepared a paper analysing recent trends.

They reach the conclusion that it probably does matter that gliding has not expanded as predicted — in 1976 it was thought that by 1982 there should be 12 000 members — simply because most organisations and businesses need a steady increase in business to be financially viable.

Apart from considering the lack of growth, they emphasise that private ownership has increased substantially while the number of club gliders has grown much more slowly. In fact there are now fewer club single-seaters.

The UK gliding movement is traditionally based on clubs and depends entirely on them for launch and other facilities, but the authors wonder whether this move to private ownership will effect the financial viability of clubs.

They admit that there is little firm evidence to show whether the stagnation is coming from established members deciding to give up gliding or a drastic slowdown in recruitment. If it is the first reason, then there is obviously a significant loss of revenue but the latter cause could create bigger problems in the future.

For the purpose of general discussion, the authors assume it is a bit of both and that one is not more significant than the other. They go on to make the following points.

Costs have increased significantly since 1976 — administration, fuel, insurance, repairs, equipment etc — but there are only the same number of members paying. This obviously forces more people out and may have already increased the cost of starting to glide to a point where it discourages newcomers.

If membership remains static or decreases further, it is going to cost us all more each year.

If recruitment is slow, it won't be long before we feel the effect on income by less usage of the training fleet and early solo machines, which are usually club owned, and in the utilisation of staff, particularly the very important nucleus of professional instructors.

This will effect some clubs more than others with perhaps the vitally important big ones with a depth of expertise such as Booker, Lasham and Dunstable suffering most. Though it will be bad news for all other clubs.

The authors think it would be valuable to have a view from each club on recent trends on membership, the attitudes of their members on the cost of gliding and how close they are to being under sufficient financial pressure to make it impossible for them to continue.

The next point they raise is the significance of the changing club glider/private owner ratio.

While agreeing that to some extent the move is inevitable with the emphasis now on cross-country flying and training and a keen determination to exploit the few good days of the year, they wonder whether private ownership threatens the viability of clubs.

We all need clubs whether we fly club aircraft or not since the UK system is based on club sites, hangarage and launching facilities. This means that all private owners are also club members and it is in their interest to keep these clubs viable. But, the authors stress, if club fleet usage diminishes, then clubs may well have to increase their income from private owners to cover the overall costs — not forgetting that private owners do need the club to have two-seaters for check flights and further training facilities.

Alarming Trend

The authors pinpoint another alarming trend. With the increase in private ownership, often soon after training, clubs now have smaller single-seater fleets which restricts those who can't afford a share in a glider. This may well mean a move back to an older membership and a narrowing of the broad range of people at present in the sport.

They conclude that we must have clubs and their facilities and it could be that a greater percentage of the money will have to come from private owners. It is vital to retain the *ab-initio* facilities and a high level of training expertise. The single-seater club fleet is most at risk but there will always be a demand if costs can be kept significantly below those of private ownership.

Clubs will have to keep a watch on their finances and be flexible enough to change policies or charges annually. It is worthwhile encouraging the use of club single-seaters by reducing the costs at certain times and encouraging private owners to fly them at a reduced membership fee (again with a limited use), so providing extra income when it isn't worth rigging.

They say that while it wouldn't be right to dissuade people from starting new clubs, it would probably be better to encourage them to put their efforts and resources into existing ones that may have the benefits of security of tenure. It is a danger too that small clubs may discourage potential members by the frustrations likely if resources are limited.

What can be done?

1. They want more information from clubs to find out whether there is a general trend of less new members or whether the average figures mask a widely differing situation for each club. Also to find out whether the clubs that are financially better off are of a particular type, *ie* big, small, offering holiday courses, private owner or club fleet orientated.
2. They expect the private owner trend to continue but want to ensure that this doesn't threaten facilities by reducing the income to clubs. This should be discussed within the gliding movement so that all views are aired and to emphasise the responsibility private owners have to their clubs.
3. They contend that training and two-seater gliders remain a vital part of all clubs and we must take advantage of any public interest we can generate. Single seater club gliders need to offer an obvious financial advantage over private ownership and fleet size must be flexible. Too few club gliders discourages interest or encourages private ownership, whereas too many club gliders are expensive since under-utilisation could put a club under serious financial pressure in just one season.
4. They stress that recruitment is important and we should consider whether a BGA recruitment promotion would be more effective than the present methods and decide how this could be made practical financially and in sharing out the response.
5. We should decide how many people we want in the gliding movement, taking into account the number of sites, their potential for development, their security of tenure, the existing and forecast airspace regulations, the overall training quality and ability to monitor safety standards.

REGIONALS' RESULTS

WESTERN REGIONALS — June 11-19

No.	Pilot	Sailplane H'cap	Day 1.12.6 181km ▲	Day 2.13.6 165km goal race	Day 3.14.6 242km goal race	Day 4.15.6 253km ▲	Day 5.17.6 242km ▲	Day 6.18.6 226km ▲	Day 7.19.6 174km ■	Total Points
1	Jones, R.	131 Nimbus 3	714	568	896	1000	891	*942	864	5875
2	Roberts, D. G.	118 Nimbus 2	641	527	932	920	927	309	908	5164
3	Hodsman, D.	108 Mini Nimbus	*725	513	281	910	932	762	927	5050
4	Cole, R.	114 Ventus 16.6	669	470	700	770	898	1000	309	4816
5	King, P. A.	106 Mini Nimbus	715	570	266	1000	858	954	422	4785
6	Tull, V. F.	114 Kestrel 19	677	488	842	849	326	829	539	4550
7	Harrington, T.	108 Vega	304	152	780	914	625	237	703	3715
8	Andrews, P.	96 Libelle	62	411	727	840	384	872	*342	3638
9	Lyttelton, C.	111 ASW-20L	†563	412	195	622	374	182	324	2672
10	Bleaken, L.	116 Nimbus 2	580	192	0	781	103	691	303	2650
11	Furley, R.	106 ASW-20	147	*304	338	721	226	410	371	2517
12	Pennycuick, C.	108 Vega	164	*473	140	340	445	285	0	1847
13	Lane, I.	108 LS-3A	460	321	79	327	78	547	0	1812
14	Roberts, D.	90 K-6E	—	65	—	110	294	—	0	
	Gibbons, J.		467	—	0	—	—	363	—	1299
15	Dixon, R.	108 LS-3A	*0	121	663	245	78	‡187	DNF	1294
16	Walker, R.	96 Sport Vega	0	172	*0	479	0	313	DNF	964
17	Johns, H.	92 Bergfalke 4	450	59	0	46	0	182	0	737

*DNF = did not fly; * = photo penalty; † = RTI penalty; ° = barograph penalty; ‡ = airspace penalty.*

BOOKER REGIONALS — July 9-17
Open Class

No.	Pilot	Sailplane H'cap	Day 1.9.7 152.25km ▲	Day 2.11.7 150.3km ▲	Day 3.12.11 152.6km ▲	Day 4.13.7 202km O/R	Day 5.14.7 177.8km ▲	Day 6.15.7 189.9km ■	Day 7.16.7 192.8km ■	Day 8.17.7 177.9km ■	Total Points
1	Campbell, B.	111 ASW-20L	498	694	447	879	760	979	698	365	5320
2	Kay, A./Watt, D. S.	111 ASW-20L	405	718	384	818	713	977	767	301	5083
3	Stone, A. J.	109 Ventus	520	635	393	864	710	859	741	219	4941
4	Withall, C.	111 ASW-20L	391	629	376	874	667	943	744	179	4803
5	Jones, R.	131 Nimbus 3	322	711	310	792	771	866	707	257	4736
6	Woodford, J.	111 ASW-20L	498	598	346	801	674	827	560	252	4556
7	Ellis, J.	106 ASW-20F	401	384	226	849	640	784	640	215	4139
8	Glossop, J. D. J.	118 ASW-17	346	621	338	712	702	736	556	81	4092
9	Emmett, M.	107 Ventus	96	544	62	810	632	846	723	226	3939
10	Murphy, T.	106 PIK 20b	367	364	373	612	424	823	584	242	3789
11	Hegner, A.	111 ASW-20L	390	90	384	739	386	866	577	214	3646
12	Sheppard, F. J.	106 Vega	98	586	286	773	244	826	664	127	3604
13	Curtis, C.	108 ASW-20F	430	275	133	834	273	872	656	116	3589
14	Harborne, P.	118 Jantar 2	378	219	0	560	653	878	506	0	3194
15	Stafford-Allen, P. R.	106 PIK 20b	367	597	148	541	227	799	510	0	3189
16	Walsh, A.	108 Mosquito	280	349	0	738	399	215	529	0	2510
17	Read, G.	111 ASW-20L	89	586	269	0	236	349	547	260	2336
18	Davey, R./Gunner, E.	106 Mini Nimbus	79	173	0	299	409	260	399	0	1619
19	Cousins, R.	106 ASW-20	163	6	43	288	0	300	0	0	800
20	Watson, Trish/B.B.C.	118 Nimbus 2B	340	0	0	0	0	0	0	0	340
21	Ashurst, R.	108 ASW-20	51	32	0	0	0	0	0	0	83

Sport Class

No.	Pilot	Sailplane H'cap	Day 1.9.7 114.1km■	Day 2.11.7 135.4km O/R	Day 3.12.7 152.6km ▲	Day 4.13.7 146.2km O/R	Day 5.14.7 151.2km▲	Day 6.15.7 148.9.2km ■	Day 7.16.7 171.5km ▲	Day 8.17.7 163.4km O/R	Total Points
1	Sheard, P. G.	101 LS-4	500	654	154	739	793	860	929	59	4688
2	Freeman, D.	96 Libelle	431	98	397	764	*923	823	920	249	4605
3=	Aldis, C. J.	100 Std Cirrus	373	609	318	596	726	832	759	156	4369
3=	Aspland, W.	102 ASW-19	495	702	158	645	*644	721	783	221	4369
4	Hunt, S. G.	103 LS-4	412	638	0	756	725	869	776	0	4176
5	Keogh, B.	101 LS-4	457	473	378	630	*696	652	651	176	4113
6	Hutchinson, S.	98 Std Cirrus	0	556	393	671	682	740	795	245	4082
7	Alway, J.	103 Pegasus	355	651	369	771	773	130	773	218	4040
8	Brownlow, R.	102 ASW-19B	422	238	0	315	748	728	831	221	3503
9	Gorringe, J. P.	98 Std Cirrus	448	189	318	564	808	396	730	0	3453
10	Baker, P./Baker, R.	100 Cirrus	270	478	0	704	642	651	606	75	3426
11	Belbin, E.	103 Phoebus 17C	258	281	280	581	561	531	732	149	3373
12	Warren, G.	100 Std Cirrus	384	15	0	653	510	768	698	0	3028
13	Parker, T.	100 ASW-19	369	480	163	690	661	0	571	0	2934
14	Ellis, C.	82 EoN 4601b	383	555	292	380	634	0	521	0	2765
15	Stringer, N. F.	94 Dart 17R	0	324	0	515	573	0	429	200	2041
16	Gill, P./Lipski, E.	94 Dart 17R	316	380	180	0	254	599	300	0	2029
17	Gibson, N.	98 ASW-15B	374	0	68	291	254	68	507	156	1718
18	Wathen, A.	96 Libelle	159	3	72	342	80	0	465	198	1319
19	Busby, I.	94 Dart 17R	0	0	0	0	526	0	0	0	526
20	Levi, A./Whitehead, P.	96 Libelle	310	0	0	0	0	0	0	0	310

° = penalty.

LASHAM REGIONALS — July 23-31
Class A *(handicaps ≥ 104)*

No.	Pilot	Sailplane H'cap	Day 1.23.7 110km O/R	Day 2.25.7 186km ▲	Day 3.26.7 156km ▲	Day 4.28.7 145.2km ▲	Day 5.29.7 125km ▲	Day 6.30.7 316.2km ▲	Total Points
1	Kay, A. E.	111 ASW-20FL	587	—	—	1000	—	—	
	Watt, D. S.		—	965	696	—	800	662	4710
2	Randle, M.	115 Kestrel 20	663	873	589	853	723	1000	4701
3	Norrie, A. J.	109 Ventus B	681	641	475	817	666	986	4266
4	Watson, A. J.	106 Mosquito	673	890	427	859	776	*523	4148
5	Pentecost, P. R.	106 Mosquito	810	654	600	488	713	783	4048
6	Cook, I. R.	106 Mini Nimbus	630	869	335	805	598	691	3928
7	Hogg, A. J.	108 ASW-20	616	661	372	854	621	552	3676
8	Cunningham, G. W.	108 ASW-20	622	866	508	418	211	990	3615
9	Tapson, B.	118 Nimbus 2	613	837	216	416	619	613	3314
10	Bradney, F. G.	108 Vega	735	636	456	*767	151	545	3290
11	Cousins, R.	106 ASW-20L	631	522	449	861	139	590	3192
12	Watson, Trish	118 Nimbus 2B	628	847	316	360	489	341	2981
13	Gentry, J. M.	112 Kestrel 19C	612	—	336	—	—	—	
	West, D.		—	0	—	746	718	499	2911
14	Corbett, C. G.	106 Mini Nimbus	0	439	376	763	591	669	2838
15	Bell, J. G.	108 Mosquito	151	560	526	275	565	562	2639
16	Light, P. D.	108 Glasflügel 304	682	664	399	269	0	579	2593
17	Evans, M. J.	113 Kestrel 19	614	87	436	328	573	415	2453
18	Haszlakiewicz, M. J. C.	109 Ventus B	541	0	316	499	*168	531	2055
19	Sampson, D. L. H.	112 DG-202	659	124	267	393	0	555	1998
20	Rolls, J. L.	118 Nimbus 2	44	613	316	126	*211	601	1911
21	Swoffer, P. A. de C.	108 Mosquito	30	0	336	280	0	561	1207
22	West, J. M.	108 Vega	264	0	92	114	0	605	1075

° = penalty.

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JOHN MURRAY

Class B *(handicaps ≤ 103)*

No.	Pilot	Sailplane H'cap	Day 1.23.7 110km O/R	Day 2.25.7 186.4km ▲	Day 3.26.7 156km ▲	Day 4.28.7 145km ▲	Day 5.29.7 125km ▲	Day 6.30.7 225km ▲	Total Points
1	Eade, D. J.	101 LS-4	401	951	876	716	650	954	4548
2	Smith, D. A.	103 LS-4	853	895	857	704	187	983	4479
3	Breeze, D.	100 SHK	804	723	766	582	643	820	4338
4	Wilby, C.	98 Libelle 201B	840	957	907	185	332	1000	4221
5	Allan, M. D.	100 Std Cirrus	694	731	817	710	71	888	3911
6	Smithers, J. W.	100 ASW-19	618	466	884	447	292	955	3662
7	Harwood, H. K.	97 Astir	835	0	664	547	656	820	3522
8	Bastin, J. C.	97 Astir CS	855	225	819	287	0	858	3044
9	Nicholls, R. J.	102 Cirrus	123	580	884	309	189	853	2938
10	Terry, C. J.	103 LS-4	798	492	766	33	0	716	2805
11	Disdale, P. J.	95 K-21	325	621	803	0	188	834	2771
12	Evans, M. F.	90 K-6E	784	189	136	715	0	937	2741
13	Weston, J.	100 DG-100	120	731	824	0	622	286	2583
14	Stewart, K.	96 Twin Astir	198	0	891	405	86	386	1966
15	Guthrie, P. A. I.	102 ASW-19B	78	659	303	500	0	275	1815
16	Goodman, R.	102 ASW-19B	148	0	842	94	276	266	1626
17	Trice, H. A.	100 Std Cirrus	82	0	737	379	91	303	1592
18	Giles, E. E. F.	94 Foka 5	0	16	240	235	0	48	539

ENSTONE REGIONALS — August 28-September 4

Open Class

No.	Pilot	Sailplane H'cap	Day 1.27.8 189km ▲	Day 2.29.8 250km double ▲	Day 3.30.8 292.5km ▲	Day 4.1.9 189km double ▲	Total Points
1	Pozerskis, A.	118 Nimbus 2C	873	986	998	57	2914
2	Randle, Jane	113 Kestrel 20	742	929	970	124	2765
3	Szulc, R.	109 Ventus	750	967	752	0	2469
4	Durham, M.	111 ASW-20L	684	949	825	0	2458
5	Costin, M.	118 Nimbus 2C	934	1000	†393	114	2441
6	Murphy, T.	106 PIK 20D	841	577	1000	0	2418
7	Brisbourne, R.	106 DG-200	492	918	759	12	2181
8	Wilson, T.	112 Kestrel 19	558	905	546	154	2163
9	Bobbin, T.	112 Kestrel 19	650	977	532	0	2159
10	Cox, F.	106 PIK 20D	565	—	581	—	
	West, S.		—	904	—	0	2050
11	Cumner, G. M.	106 ASW-20	700	355	804	0	1859
12	Herringshaw, G.	113 Kestrel 20	685	481	578	4	1748
13	Mottershead, J.	111 ASW-20L	618	918	201	0	1737
14	Pozerskis, P.	116 ASW-17	*596	453	668	0	1717
15	Phillips, D.	112 Jantar 1	585	346	755	0	1686
16	Darby, M.	102 Cirrus	709	312	268	47	1336
17	Zealley, T. S.	106 ASW-20	DNF	281	658	0	939
18	Clarke, C.	106 Vega	413	—	174	—	
	Morley, A.		—	301	—	0	888
19	Thick, M.	111 ASW-20L	DNF	DNF	759	34	793
20	Nicholls, G.	106 LS-3A	*187	267	191	0	645

Sport Class

No.	Pilot	Sailplane H'cap	Day 1.27.8 131.5km ▲	Day 2.29.8 148.75km ▲	Day 3.30.8 201km O/R	Total Points
1	Hawkins, P.	100 Std Cirrus	652	885	930	2467
2	North, S.	96 Std Libelle	659	779	1000	2438
3	Jones, P.	100 Std Cirrus	545	795	951	2291
4	Sharman, R.	96 Std Libelle	*521	816	940	2277
5	Hamill, E.	88 Olympia 419	568	815	897	2275
6	Palmer, G.	84 K-6CR	—	670	—	
	Gardner, D.		*535	—	950	2155
7	Jordy, M.	84 K-6CR	411	663	891	1965
8	Webster, M.	84 K-6CR	*537	725	660	1922
9	Wise, B.	96 Std Libelle	450	620	815	1885
10	Craig, G.	100 Std Cirrus	466	548	838	1852
11	Roberts, D.	90 K-6E	398	*626	553	1577
12	Sleigh, K.	96 Sport Vega	†88	623	817	1528
13	Wesley, J.	98 Std Cirrus	572	612	339	1523
14	Kelly, N.	92 Pilatus B-4	*379	690	413	1482
15	Edwards, D.	98 Std Cirrus	—	*219	—	
	Born, A.		221	—	874	1314
16	Lawrey, M.	98 DG-100	455	617	201	1273
17	Hull, J.	88 Dart 15	*324	350	440	1114
18	Lassan, M.	103 LS-4	*333	509	232	1074
19	Findlay, D.	90 K-6E	304	595	125	1024
20	Ellis, C. A. P.	94 Dart 17R	374	540	DNF	914
21	Roberts, J.	94 IS-29D	520	100	217	837
22	Jones, N.	92 Bergfalke 4	—	143	—	
	Johnson, E.		279	—	400	822
23	Cox, A.	94 Foka 5	*313	65	146	524
24	Nash, J.	96 Cobra	67	†13	379	459
25	Dent, E.	95 Club Astir	—	170	DNF	
	Davies, M.		47	—		217
26	Mace, J.	94 Cobra 15	96	—	DNF	
	Jarvis, P.		—	97		193

*DNF = did not fly; * = photo penalty; ° = barograph penalty; † = no control.*

NORTHERN REGIONALS — July 23-31

Open Class

No.	Pilot	Sailplane H'cap	Day 1.26.7 131km ▲	Day 2.28.7 124km ▲	Total Points
1	Hill, D. J. M.	101 LS-4	730	373	1103
2	Bromwich, R. C.	98 Std Cirrus	704	360	1060
3	Fox, R.	96 Cobra	609	435	1044
4	Swannack, J.	112 Kestrel 19	628	—	
	Rice, J.		—	382	1010
5	St Pierre, A. H. G.	106 DG-200	748	257	1005
6	McLane, L.	106 Vega	538	356	894
7	Keogh, B.	101 LS-4	663	90	773
8	Walsh, A.	106 Mosquito	330	410	740
9	Hawkins, P.	106 Mini Nimbus	657	80	730
10	Luke, J.	103 Phoebus	359	358	717
11	Austin, D. C.	106 DG-200	313	382	695
12	Cervantes, S.	106 Vega	627	59	686
13	Mortimer, R.	112 Jantar	649	DNF	649
14	Ramsden, P.	112 Kestrel 19	297	339	627
15	Duffin, E. R.	99 Std Jantar	DNF	420	420
16	Taylor, C.	98 ASW-15B	DNF	324	324
17	Reeves, C.	98 DG-100	143	DNF	143
18	Sutton, D. R.	106 Vega	DNF	DNF	0

Sport Class

No.	Pilot	Sailplane H'cap	Day 1.26.7 96.6km ▲	Day 2.28.7 124km ▲	Total Points
1	Ward, M.	78 SF 26A	772	497	1269
2	Taylor, K. R.	84 Skylark 3	712	429	1141
3	Beniston, G.	94 Dart 17	663	388	1051
4	Brook, M. F.	96 Vega	709	253	961
5	Baines, R.	96 Libelle	404	—	
	Holland, P.		—	435	839
6	Ellis, C.	82 Olympia 460	492	338	830
7	Hannigan, R.	84 Skylark 3	459	—	
	Rogers, N.		—	357	816
8	Purser, H.	88 Olympia 419	463	313	776
9	Middleton, A.	90 K-6E	363	364	727
10	Morrison, P. R.	90 K-6E	301	—	
	Stott, B.		—	389	690
11	White, M. D.	96 Libelle	404	253	657
12	Taylor, J.	86 Skylark 4	—	0	
	Stoker, T.		645	—	645
13	Griffin, B. J.	78 Skylark 2	397	135	532
14	Acey, E. A.	90 K-6E	0	419	419
15	Bond, M.	96 Cobra	97	297	394
16	Svenson, B. W.	82 Olympia 463	0	369	369
17	Olender, S.	96 Silene	263	0	263

S&G PRICE RISE

We regret that after holding the price of S&G at £1.10 for two years it will be increased to £1.20 per copy from the February-March issue. The annual subscription, which includes postage, will be £8.75.

BRING BACK THE CHARTS

As we went to press, the BBC launched their Sixty Minutes news programme complete with a revamped weather spot replacing the old, competent forecast. The BBC, while admitting to us that there had been complaints, were unable to promise they would reinstate the familiar forecast. We can only hope that by the time this issue is in print they will have had second thoughts and Michael Fish *et al* are back with their charts.

HAPPY CHRISTMAS

We send all our readers the very best wishes for Christmas and the New Year and our grateful thanks to contributors for keeping our tiresome deadlines during 1983.

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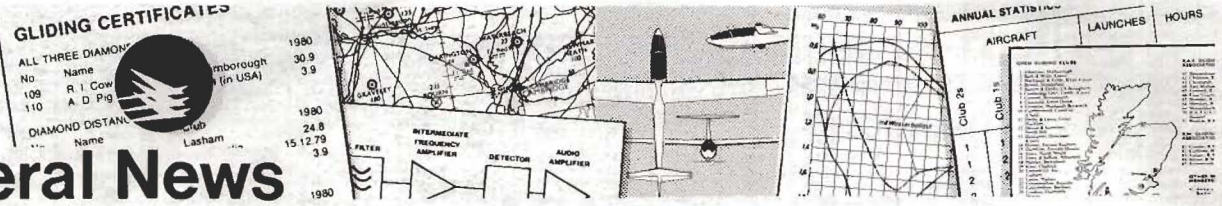
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BGA and General News



NATIONAL LADDER WINNERS

Two Lasham pilots claim the National Ladder trophies this year. Chris Lovell heads the Open Ladder to win the Enigma trophy and Roy Pentecost is top of the Club Ladder to gain the L. du Garde Peach trophy.

Open Ladder

Leading pilot	*Club*	*Pts*	*Flts*
1. C. Lovell	Surrey & Hants	8548	4
2. N. Hackett	Coventry	8409	4
3. R. May	London	7716	4
4. L. E. Beer	Booker	7245	4
5. F. J. Sheppard	Booker	7061	4

Club Ladder

Leading pilot	*Club*	*Pts*	*Flts*
1. R. Pentecost	Surrey & Hants	3577	3
2. C. Starkey	Surrey & Hants	3279	3
3. T. S. Hills	RAE Farnborough	2929	2
4. J. Walker	Coventry	2584	4
5. M. F. Brook	Yorkshire	2134	4

COMPETITION NEWS

Ted Lysakowski, *chairman, BGA Competitions' Committee*

1984 Squad. The British team squad for the 1985 World Championships at Rieti comprises,

the 1983 National Champions and runners up, **Ralph Jones** and **Johnny Taylor** (Open), **John Cardiff, Chris Garton** and **Chris Starkey** (15 Metre), **Brian Spreckley** and **Martyn Wells** (Standard).

Nine pilots selected by a voting panel of 40 (top 12 from each Class plus the 1983 Hobbs team pilots) and listed in alphabetical order: **Denis Campbell, Andy Davis, Bernard Fitchett, Al Kay, George Lee, Ted Lysakowski, Chris Rollings, Dave Watt** and **Justin Wills.**

The team for Rieti will be evolved in early September 1984 from the squad, except that the 1984 Champions (if not already in the squad) will also be eligible.

1984 Nationals. The highly successful structure of running the three FAI Class Championships on separate dates and venues remains unchanged. The Nationals will be unhandicapped and each Class will produce one National Champion; the Open Class will additionally have two supplementary awards for best performances in sailplanes up to 21m span and up to 19m span. The dates and venues are as follows:

Standard: June 2-10, Nympsfield
15 Metre: July 14-22, Dunstable
Open: August 11-19, Lasham

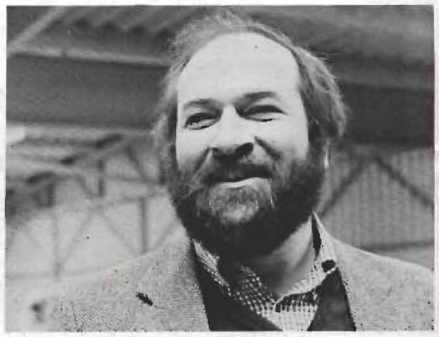
Entries will be limited to **40** in each Class. Application forms are available from the BGA office and the closing date is **Tuesday, January 31, 1984.** Priority will be decided by the pilot's positions on the 1984 Nationals Qualifying Lists.

1984 Competition Calendar. The dates of other competitions confirmed at the time of writing are: **Competition Enterprise,** June 30-July 8 at Aboyne; **Inter-Services Regionals,** July 31-August 10 venue to be arranged; **Lasham Regionals,** August 11-19 (to be run concurrently with Open Class Nationals). Applications are invited from clubs wishing to run competitions. The preferred dates to minimise overlap are May 19-28, June 16-24, June 30-July 8, July 28-August 5. For an up to date position please contact the BGA office or myself.

European Championships. The 2nd European Championships will take place at Vinon, France, in the three FAI Classes, between June 20 and July 9, including a compulsory training period from June 20-26. The UK intends to field a team of six pilots, *ie* the maximum number of places offered by the organisers. The BGA funds will not be used to finance this event, and the candidates for the team should be prepared to self-finance

FROM THE SECRETARY's DESK

Barry Rolfe, BGA administrator



Have you been gliding abroad this year? If so we would like to hear about it. Please let me have a brief summary along the lines of countries visited, own glider or rental abroad, clubs visited, paperwork and qualifications required, and if you are willing to pass on details of your experiences (gliding only!) to other pilots. We get a lot of inquiries every year from people wanting to take their gliders on an overseas holiday and needing this sort of advance information. The best way that we can help is by putting them in touch with another member who has boldly gone before etc so please volunteer to join our foreign information service.

Speaking of travel reminds me that the BGA chairman will be unlocking my ball and chain from the Secretary's Desk four times during the winter months to attend regional open meetings with club officials and discuss what the BGA is or isn't doing for you. Two meetings at Booker and Nympsfield in November will have been held by the time you read this but on Sunday, February 12 we shall be visiting Saltby and on Sunday, February 26, Sutton Bank. Further details have already been sent to club secretaries and we hope that clubs within reasonable reach of the meeting venues will all be represented.

Perhaps when we get together one of the old favourite topics will be the 50p subscription levy which goes into the British team fund every year to help towards the costs of sending our representatives to the World Championships? At present this is raising less than £5000 annually or about £9500 towards each Championship whilst they are held biennially. This is the third year of the 50p levy whilst inflation continues and it has been suggested that each member should contribute £1 per head in future — what do you think?

Over the last ten years or so about 250 young pilots have benefited from the generosity of Whitbreads, who through the Sports Council have financed every year the Whitbread bursaries which were awarded to pilots achieving the Bronze badge before their 19th birthday to help pay for some more flying. We have now exhausted the fund and unfortunately Whitbreads are not renewing the sponsorship for 1984 so there will be no further bursaries awarded, but we should like to thank the brewers for their backing. Cheers!

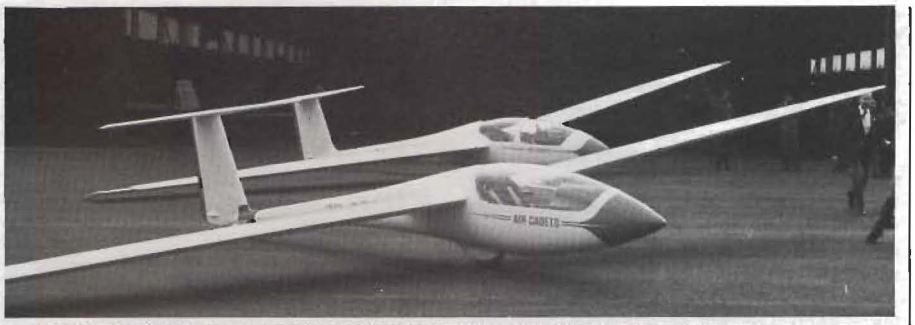
Abused by clubs

The telecommunications section of National Air Traffic Services have asked us to remind members about the operating terms of the radio licences granted to gliding clubs. The frequencies 130.1, 130.4 and 130.125 are for use in communications between ground sets and gliders and 129.9 is solely for ground to ground contact in glider recovery operations. Because the ground station is confined to communications with gliders on these frequencies the requirement for examinations and granting of operators' licences have been waived by the regulatory authorities. It is alleged that these terms are being abused by clubs in communications with other general aviation aircraft. We shall, of course, take this opportunity of repeating our offer to the authorities for the BGA to take over administration of radio licences for gliders in the hope of keeping down the exorbitant charges which are presently made.

the event. Assistance from the Sports Council may be available, but cannot be guaranteed.

Those pilots who wish to be considered for the team should apply to the BGA office by Monday, January 9, 1984. Priorities will be determined by the applicant's position on the 1984 Priority List, except that the order of the top 25 places will be notionally changed (for this purpose only) so that the 1983 Hobbs' team pilots assume positions 21 to 25, whereas the No. 5 position becomes No. 1, No. 6 becomes No. 2 etc.

Italian Championships, Rieti. At the time of writing no details are available but it is expected that the BGA will be offered some places as in previous years. This event is of interest as Rieti is the venue of the 1985 World Championships. The priority will go to the team squad and within the squad to those pilots who have not previously flown at Rieti. If the squad does not take up the available places the priority will be decided by the applicant's position on the 1984 Priority List. Applications to the BGA office by Monday, January 9, 1984, please.



The ASW-19 (Valiant) and K-21 (Vanguard) which were formally given their names and accepted into Air Cadet service by Mr Colin Humphreys, deputy Under Secretary of State (Air) at a ceremony at the Air Cadet Central Gliding School at RAF Syerston on September 20.

TWO FATAL ACCIDENTS

Fred Sage of the Essex GC was killed in his Mini-Nimbus at Roanne, France, on June 22. (reported in the last issue, p222.) The glider was on final approach when it was observed to enter a dive — hitting the ground at approximately 70°. There is no obvious explanation other than negative *g* and perhaps subsequent disorientation.

On September 1 there was an accident to a Bocian at Nympsfield in which James Findlay, the instructor, and David Pearson, a student who had recently soloed, were both fatally injured. There was a cable break at 2-300ft and although a landing straight ahead was probably possible the glider made a turn to the right towards the ridge (which was working at the time). The turn developed into a spin from which there was insufficent height to recover.

W. G. Scull, *Director of Operations*

THE BIRTH OF BURN GC

The Doncaster GC have a new site and a new name — they have installed their fleet in the new hangar at Burn and at their dinner-dance in October toasted the passing of the old club and the birth of Burn GC.

The new postal address is Burn Gliding Club, Park Lane, Burn, Selby, N Yorks YO8 8LW.

INTER-UNIVERSITY TASK WEEK

This year Imperial College were the hosts at Lasham from August 7-13 with six universities competing on the five contest days. The Surrey team won with their Bocian; Essex (K-6CR) were 2nd; Cambridge (K-13) 3rd and Imperial College (Bocian) 4th.

It was a most enjoyable and well organised event. Edinburgh University came the furthest and while the 1984 task week will again be at Lasham, there is talk of holding it at Portmoak in 1985 and hopes that more universities will send teams in the future.

KIDS!! WHO WOULD 'AVE 'EM?

This spring Barry Pearson, CFI of North Devon GC, casually suggested to a leader of activity holidays for children aged ten to 18 years that some of the visitors might enjoy an air experience flight. Three months later he

1984 BGA CONFERENCE

HOTEL NORWICH

Saturday, 17/Sunday, 18 March, 1984

Pilots! Get your new 1984 diaries out now and mark March 17 and 18 as **The Weekend.** This is when you will be brought right up to date on:

New glider designs — Cross-country flying techniques
New instruments — Winning contests

and other essential knowledge on gliders and how to fly 'em in 1984, presented by top designers and pilots.

Our hosts will be the Norfolk Gliding Club, presenting a dazzling social programme, the highlight of which is the BGA BALL on Saturday evening.

Special Ladies' Programme. Special facilities for computer buffs and a contest for the best gliding computer game.

Note: Special low rates for under-25's.

(Full programme contents and list of speakers to be announced in February-March 1984 S&G.

EXHIBITION of GLIDERS, INSTRUMENTS and ACCESSORIES

DON'T MISS IT!

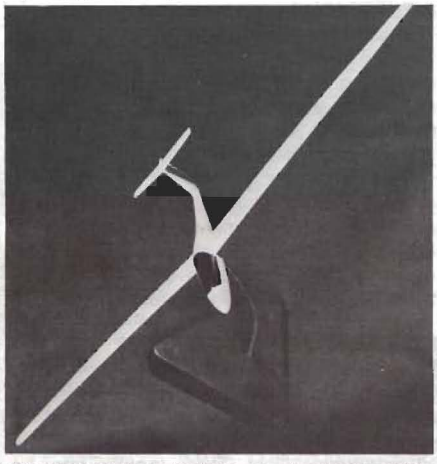
On going to press we heard that Hans-Werner Grosse of West Germany, the breaker of countless long distance world records, and Kees Musters of Holland, the new 15 Metre Class World Champion, will be special guest speakers.

realised the scale of the operation — in July the demand was for 200 flights a week and they finished the season having introduced more than 2000 children to gliding in their Bergfalke 2 and Grob 109. The record was 52 flights in one day.

It meant pulling in friends from the Bristol & Gloucester GC, see the club news contribution, and as they are hoping to continue the scheme in 1984 Barry is inviting *fit* passenger carrying pilots to join them for a Devon week with the promise of doing 120-185 flights.

They are also looking for a winch driver for the season who will accept a MG PPL as payment. If interested contact Barry, tel No: 0271 78204.

MODEL GLIDERS



This beautiful model is the work of Peter Miller, an experienced and acknowledged model maker with 30 years' experience who has recently launched his own model making business — Miller Aviation Models.

He will accept orders for any type of model from a 1/100th scale sailplane embedded in clear resin to a ¼ scale SB-10 with a 24ft

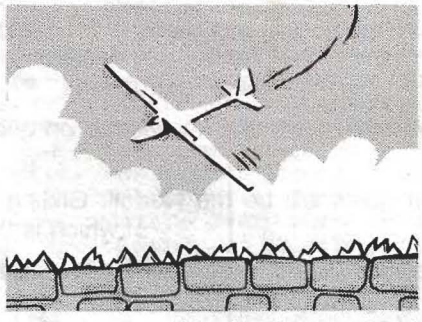
BGA ACCIDENT SUMMARY —

Compiled by KEITH MITCHELL, Chairman, BGA Safety Panel

Ref. No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew			SUMMARY
						Age	Injury	P/Hrs	
70	Skylark 2	1089	M	2.6.83 ?	Challock	55	N	92	Pilot left hill lift low to land on site. Extended circuit downwind resulting in low final turn and no-brake approach to rough undershoot area. With canopy misted over glider groundlooped and hit pile of tyres.
71	Carnan	2593	S	19.6.83 15.30	Postland A/F	46	N	107	Pilot released towrope after second wing drop with aircraft at 45° to runway. Aircraft continued turning, rose 3-5ft into the air and then landed heavily.
72	Kestrel 17	1720	M	26.5.83 17.15	Nympsfield	52	N	246	Whilst watching other aircraft movements pilot made a hurried short circuit allowing the airspeed to build up and being anxious to get glider onto the ground touched down with starboard wing hitting the ground first.
73	Astir CS	2185	M	25.5.83 ?	Nr Basingstoke	53	N	93	Pilot elected to land on golf course fairway as other fields in area very soft. After normal landing into wind pilot unable to prevent wingtip striking one of the banks on either side of fairway.
74	Std Cirrus	1915	S	15.6.83 16.00	Finedon	59	M	1294	Whilst making an uphill but downwind approach into chosen field pilot decided to land in the overshoot field but caught two concrete posts in boundary fence causing the glider to slew and break the fuselage.
75	Cobra 15	1867	M	28.4.83 15.00	North Weald	57	N	14	Undercarriage gradually retracted during landing run allowing fuselage to contact runway. Probably not locked down.
76	K-6E	1487	M	4.6.83 11.30	North Weald	11	N	40	Speed high on autotow and pilot lowered nose. Drogue cable chute hitting wing. Pilot released cable and waited for chute to fall before landing ahead.
77	Libelle 201B	1887	S	22.6.83 17.08	Midland	39	N	75	After making a satisfactory landing an unnoticed sheep jumped into the air and was hit by the port wingtip causing the aircraft to slew, bounce and land heavily sideways. The sheep was killed.
78	K-13	1436	M	19.6.83 ?	Doncaster	51	N	400+	P2 failed to round out after prompt P1 took over, but too late to avoid heavy landing.
79	K-6CR	2870	M	17.6.83 16.30	Parham	55	N	15	Winch launch in light crosswind. Into wind wing held height on ground run and downwind wing dropped into long grass initiating groundloop. Cable released but glider airborne and touched down on nose then heavily on tail.
80	M100 S	2867	M	14.6.83	Falgunzeon	65	N	240	After an apparently normal landing run, fuselage was found broken 3ft forward of tail. During the flight both trim position and rudder control were not as usual. The break occurred in the area of a recent repair.
81	Cirrus 75	2138	S	27.6.83 16.00	Arvan, Loch Lomond	54	M	750	During a long wave cross-country flight, dropped below wave lift and after a further hour of thermal soaring selected small cut field. Approach over trees to uphill slightly downwind landing. Pilot presumes aircraft stalled after crossing boundary and whilst side slipping.
82	Astir CS	2329	M	12.5.83 14.45	High Clere, Berks	30	N	66	Approach into field of short crop into wind and across slight slope. Rounded out a little high on landing, first one wingtip then the other touched ground and glider ground looped 80°. Undersurfaces of both tips damaged by large stones.

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83	ASW-15	1582	M	2.7.83 12.30	Dunstable	35	N	65	Pilot left decision to pull off a slowish crosswind launch too late. Turning into wind to miss the ridge the wingtip caught long grass causing the glider to turn right before dropping onto the ground tail first.
84	Libelle	1665	S	26.6.83 14.00	Hunsdon disused A/F	27	N	159	Pilot selected field of beans in rows giving appearance of furrowed surface. Landed near boundary which appeared level with adjoining track. Steered glider along row in crop not realising this converged with boundary. Wingtip struck unnoticed bank on boundary inducing ground loop. Surface actually quite flat.
85	Swallow	?	M	3.7.83 12.55	Eaglescott	26	N	21	Winch launch failed at about 700ft. Pilot lowered nose but used airbrakes before sufficient speed acquired. Glider landed heavily on skid. Pilot known to have been flying in fatigued condition.
86	L Spatz	2498	S	5.7.83 19.05	Top of Bishop Hill	55	N	30	Hill soaring in weak hill lift allowed glider to drift back over hill and while banking way from hill, port wing touched ground and aircraft cartwheeled.
87	PIK 20b	?	M	18.6.83 15.00	Marchington	44	N	800+	Attempting a short landing due to obstructed runway, aircraft hit undetached obstruction in the grass causing damage to underside of wing.
88	K-13	2191	N	20.6.83 12.40	Camphill P2	47 31	N N	440 18	Slight hesitation in launch after "all out", landing to over-run followed immediately by full acceleration causing uncontrollable steep climb but at safe speed of 50kt. At 750ft speed reduced to 40kt but still with steep angle of climb with stick fully forward. Airbrakes were then opened to slacken cable, and on regaining elevator control a steep spiral descent was commenced during which pronounced cable drag was felt. Brakes were closed at 150ft for final turn and a safe landing was made. Shock rope jammed in wheel box. Winch driver cut cable as soon as glider entered diving turn.
89	Olympia 2B	678	M	18.6.83 13.00	Rothercombe Farm, Peterborough	33	N	68	Pilot selected field at 700ft. Field small, steeply sloping with rough surface and approach was 90° crosswind. Landed heavily damaging trailing edges and cockpit.
90	K-7	2489	M	4.6.83 18.00	Camphill P2	44 —	N N	202 —	Pupil flew circuit at excessive speed and approach was too fast and steep with too much airbrake. P1 rounded out at last moment but too late to prevent heavy landing. P2 early training on spoilered aircraft where full spoiler for landing was the norm.
91	PIK 20b	2235	M	4.7.83 17.07	Husbands Bosworth	61	N	325	Undercarriage collapsed after a normal landing.
92	Libelle	1671	S	13.7.83 14.30	Nr Henley on Thames	23	N	35	Competition flight. Field selected and circuit commenced at 600ft. On approach pilot realised he would not clear trees on downwind boundary. Attempted to turn 90° and land crosswind in undershoot field, but height insufficient and glider struck ground heavily. Possibly downdraughts on approach due to rising ground and trees.
93	Nimbus 2c	1673	S	9.7.83 17.45	Eastbury Grange Farm, Lambourne	53	N	1127	Pilot selected grass field on ridge top bounded by standing barley on slope over which approach made. Late on approach recognised undershoot and closed brakes, but wheel hit concealed bank between fields. Glider thrown into air and groundlooped on grass breaking fuselage. Possibly curlover from ridge on approach.
94	Blanik	2106	M	22.5.83	Dishforth P2	26 66	N N	160 —	Landed across abrupt tarmac/grass junction and undercarriage strut broke. Approved smooth landing area was on 10yds to one side. Fractured strut showed signs of fatigue at point of failure.
95	ASW-19	2727	M	15.7.83 18.00	Bix Common, Henley	26	N	250	Pilot did not see power wires across approach path, despite planning circuit to avoid others which he had seen. Undercarriage struck wire breaking it. Normal landing made.
96	K-10	2158	S	12.7.83 18.55	Rhigos	42	N	215	After ridge soaring in weak lift pilot attempted to land on sloping ground at bottom of the hill. Starboard wing hit a low wall causing aircraft to groundloop.
97	K-13	?	M	20.6.83 N/K	Duxford	60+	N	963	Returning to home airfield after it being used for an air display glider hit some steel stakes left on the normal glider operating area by the display organisers.
98	K-6CR	?	N	26.6.83 16.30	Keevil	42	N	?	At beginning of autotow launch glider swung into crosswind and bounced on a drain. Pilot operated release but launch continued, glider climbing steeply with shock rope wrapped round wheel. At the top of launch, car driver released cable and pilot flew short circuit at high speed landing with the cable trailing.
99	Blanik	1712	S	3.7.83 N/K	Saltby	29	N	550	After 200ft cable break P2 retracted flaps and turned steeply causing an incipient spin. P1 took control but wingtip caught in long corn causing ground loop.
100	LS-3A	2639	W/O	15.7.83 15.00	Talgarth	45	N	395	Whilst circling in thermal lift inside mountain bowl, aircraft failed to clear spur, ground looped breaking off the tail.
101	Libelle	1519	M	7.4.83 12.30	Langorse Lake	52	N	830	Pilot decided to land in ploughed field with undercarriage retracted after ridge lift ceased on passage of snow storm. Stony ground damaged underside of glider.
102	K-13	N/K	N	3.7.83 16.30	Long Mynd	35	N	247	Glider pilot commenced a turn into a thermal about 800ft above launch level only to find a hang glider in steep right turn into glider's flight path.
103	Mini Nimbus	2248	W/O	22.6.83 12.45	Roanne, France	43	F	440	After short local soaring flight pilot flew normal downwind and base legs. After completing the final turn the glider's nose was seen to drop considerably, the airbrakes were opened briefly and entered a vertical dive striking the ground near perimeter fence.

F = fatal; S = serious; W/O = write-off; M = minor; N = nil.

wingspan. The standard model is hand carved in limewood with basic surface detail and can be finished as a natural wood model or painted in one colour with a black canopy. It comes complete with a base and support rod for standing or hanging on the wall.

Peter has developed a new technique to allow the accurate representation of fabric covered areas even on a polished natural wood finish.

The scale will normally be 1/32 and costs £50 plus £2.20 p&p.

GLIDING CERTIFICATES

ALL THREE DIAMONDS

No.	Name	Club	1983
147	J. C. Bastin	Surrey & Hants	3.8
148	R. Penswick	SGU	27.6
149	B. L. Cooper	Buckminster	3.8
150	R. A. Pye	Eagle	27.4

DIAMOND DISTANCE

No.	Name	Club	1983
1/224	J. C. Bastin	Surrey & Hants	3.8
1/225	R. Penswick	SGU	27.6
1/226	A. J. Norrie	Surrey & Hants	3.8
1/227	B. L. Cooper	Buckminster	3.8
1/228	L. E. Frank	Coventry	3.8
1/229	L. J. Sole	Lasham	3.8
1/230	R. A. Pye	Eagle	24.4

DIAMOND GOAL

No.	Name	Club	1983
2/1219	A. Ratcliffe	Humber	3.8
2/1220	D. M. Parsons	Booker	3.8
2/1221	D. J. Minson	Devon & Somerset	3.8
2/1222	C. Wilby	Essex & Suffolk	5.8
2/1223	I. Corkell	Avro	3.8
2/1224	J. A. Bell	Booker	3.8
2/1225	A. Yorkas	South Wales	3.8
2/1226	D. Thomas	Bristol & Glos	3.8
2/1227	J. H. Belk	Bicester	3.8
2/1228	I. Benzie	Kestrel	3.8
2/1229	J. Evans	Cambridge Univ	3.8
2/1230	C. C. Lyttleton	Bristol & Glos	3.8
2/1231	E. W. Johnston	Cotswold	13.8
2/1232	M. E. Newland-Smith	Essex	3.8
2/1233	D. S. McKay	Aquila	13.8
2/1234	P. H. Little	Bristol & Glos	3.8
2/1235	A. W. F. Edwards	Cambridge Univ	3.8
2/1236	R. Millington	Cranwell	14.8
2/1237	P. Fincham	Cranwell	14.8
2/1238	R. N. Terry	Booker	3.8
2/1239	R. N. Cook	Buckminster	3.8
2/1240	M. F. Webster	Buckminster	5.8
2/1241	M. J. Young	Booker	3.8
2/1242	C. A. Marren	Deeside	21.1
2/1243	S. M. Smith	Cambridge Univ	3.8
2/1244	P. G. Becker	Cranwell	14.8
2/1245	R. S. Walker	Cranwell	14.8
2/1246	S. Savage	Surrey & Hants	18.8
2/1247	G. Sharpe	Wyvern	3.8
2/1248	E. W. Lipski	Essex	13.8
2/1249	J. M. Ley	Essex	3.8
2/1250	M. T. Collins	Booker	18.8
2/1251	M. A. M. Pirie	Cotswold	3.8
2/1252	G. E. McAndrew	Northumbria	3.8
2/1253	D. Latimer	Aquila	18.8
2/1254	R. Parsons	London	18.8
2/1255	G. F. Bailey	South Wales	3.8
2/1256	W. T. Murray	Inkpen	3.8

DIAMOND HEIGHT

No.	Name	Club	1983
3/592	R. Witham	Hambletons	3.7
3/593	T. R. Jackson	Lakes	26.6

GOLD C COMPLETE

No.	Name	Club	1983
948	D. J. Minson	Devon & Somerset	3.8
949	C. Wilby	Essex & Suffolk	5.8
950	I. Corkell	Avro	3.8
951	J. A. Bell	Booker	3.8
952	A. Yorkas	South Wales	3.8
953	C. C. Littleton	Bristol & Glos	3.8
954	E. W. Johnston	Cotswold	13.8
955	M. E. Newland-Smith	Essex	3.8

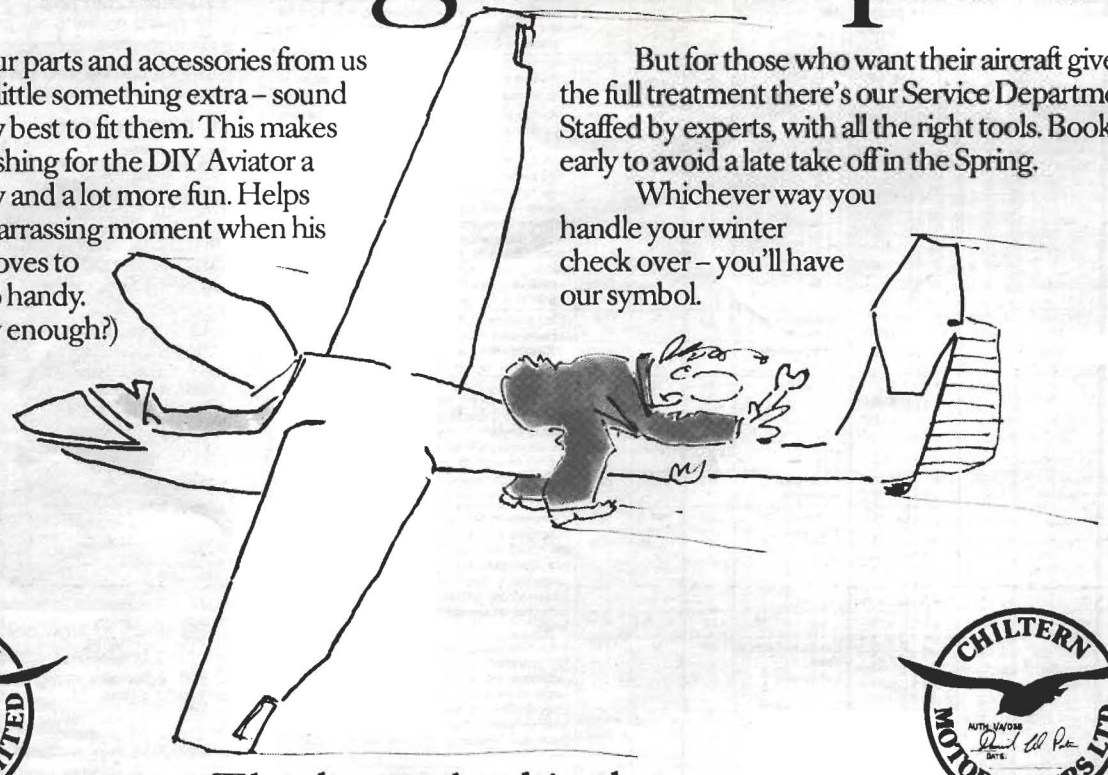
(Continued on p275)

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1984 NATIONALS PRIORITY LIST

The National Qualifying Lists, which simply decide the order of acceptance if any of the 1984 National Championships events is over-subscribed, have been compiled as stated in S&G, December 1980 (p297), except that the previous year's lists are now dovetailed into the respective lists into every other place from position 26 onwards. The Regionals Promotion List has not been published because the final competition results from two Regionals are still awaited. When these are available the list will be published in the BGA newsletter and in the next issue of S&G. If there are any queries please contact the undersigned *via* the BGA office.

J. D. Benoist, *BGA Competitions and Awards Committee*

1	Fitchett, B.	(WC)	30	Throssell, M. G.	(15)	59	Zealley, T. S.	(QL)	88	Redman, S. J.	(QL)	116	Murdoch, M.	(15)
2	Lee, D. G.	(WC)	31	Brown, H. F.	(O)	60	Morris, G. D.	(15)	89	Young, J. R.	(O)	117	Blackmore, R. H.	(QL)
3	Wells, M. D.	(WC)	32	Bromwich, R. C.	(S)	61	Marczynski, Z.	(S)	90	Heames, C.	(15)	118	Gardiner, D.	(O)
4	Davis, A. J.	(WC)	33	May, R. C.	(15)	62	Parry, N.	(15)	91	Evans, C.	(S)	119	Hanfrey, A. W.	(QL)
5	Cardiff, J. D.	(15)	34	Metcalfe, G. C.	(S)	63	Smith, D.	(S)	92	Gorely, T.	(QL)	120	Stephenson, E.	(S)
6	Spreckley, B. T.	(S)	35	Stone, A. J.	(QL)	64	Barrett, J. W.	(QL)	93	Murphy, T. J.	(15)	121	Steiner, P. H.	(O)
7	Jones, R.	(O)	36	Jarvis, H.	(S)	65	Mather, H.	(15)	94	Smith, E.	(S)	122	Harkins, A.	(S)
=8	Garton, C.	(15)	37	Taylor, J. R.	(O)	66	Pozerskis, P.	(O)	95	Reading, P. T.	(O)	123	Walker, D.	(QL)
=8	Starkey, C. G.	(15)	38	Hood, L. S.	(QL)	67	Gaisford, P. A.	(S)	96	Ellis, J.	(15)	124	Giddings, J.	(S)
10	Taylor, J. J. T.	(O)	39	Curtis, C.	(15)	68	Harding, R.	(S)	97	Stafford-Allen, P. R.	(QL)	125	Wand, J.	(15)
11	Kay, A. E.	(S)	40	Stewart, K.	(S)	69	Aldous, R. F.	(QL)				126	Nash, G.	(S)
12	Roberts, D. G.	(O)	41	Carlton, M. R.	(QL)	70	Hartley, K.	(O)	98	Langrick, J.	(S)	127	Manley, K.	(O)
13	Wills, T. J.	(S)	42	Elliott, B.	(15)	71	Bishop, J. M.	(15)	99	Bird, M.	(O)	128	Corbett, G.	(15)
14	Watt, D. S.	(15)	43	Fleming, A. M.	(O)	72	Keogh, B.	(QL)	100	Hackett, N. G.	(QL)	129	Pope, M. H. P.	(QL)
15	Cook, P. G.	(O)	44	Gorringe, J. P.	(S)	73	Bridges, R. C.	(15)	101	Thick, M.	(15)	130	Charlotte-Green, Mary	(S)
16	Smith, M.	(S)	45	Innes, D.	(QL)	74	Farmer, A. T.	(QL)	102	Dean, M.	(QL)			
17	Campbell, D. R.	(15)	46	Hodsman, D. A.	(15)	75	Forsey, L. K.	(S)	103	Sheffield, R.	(S)	131	Shephard, E. G.	(15)
18	Benoist, J. D.	(S)	47	Purdie, P. G. H.	(O)	76	Sole, L. J.	(QL)	104	Clarke, M. A.	(QL)	132	Mitchell, R.	(QL)
19	Rollings, C. C.	(O)	48	Dixon, R. T.	(QL)	77	Szulc, B. J.	(O)	105	Morris, B.	(15)	133	Ellis, J.	(O)
20	White, S. A.	(S)	49	Smith, G. N.	(S)	78	Piggott, A. D.	(QL)	106	Russell, F. K.	(O)			
21	Lysakowski, E. R.	(15)	50	Watson, A. J.	(15)	79	Cockburn, D.	(S)	107	Hayes, D.	(S)			
22	Docherty, T. P.	(O)	51	Sheard, P. G.	(QL)	80	Forrest, B. R.	(QL)	108	Hynes, K.	(15)			
23	Kay, W.	(S)	52	Batty, C. J.	(O)	81	Cumner, G. M.	(15)	109	Torrode, H. A.	(QL)			
24	Cooper, B. L.	(15)	53	Camp, G. W. G.	(15)	82	Davies, F. J.	(O)	110	Macfadyen, T. E.	(O)			
25	Glossop, J. D. J.	(O)	54	Cruse, C.	(QL)	83	Chaplin, B.	(S)	111	Woodford, J. M.	(QL)			
26	Williamson, J. S.	(S)	55	Moulang, A. P.	(O)	84	Hunt, S. G.	(QL)	112	Fletcher, R. W.	(15)			
27	King, Sally	(15)	56	Jefferyes, M. B.	(15)	85	Cockett, T.	(QL)	113	North, S.	(QL)			
28	Pozerskis, A.	(O)	57	Alldis, C. J.	(S)	86	Shephard, E. G.	(QL)	114	Tull, V. F.	(QL)			
29	Delafield, J.	(QL)	58	Foot, R. A.	(O)	87	Read, G. F.	(15)	115	Parker, T.	(S)			

WC = 1983 World Championships
O = 1983 Open Class Nationals
15 = 1983 15 Metre Class Nationals
S = 1983 Standard Class Nationals
QL = 1983 Priority List

GLIDING CERTIFICATES — *continued from page 273*

956	D. S. McKay	Aquila	13.8
957	P. H. Little	Bristol & Glos	3.8
958	M. F. Webster	Buckminster	5.8
959	C. A. Marren	Deeside	21.1
960	S. Savage	Surrey & Hants	18.8
961	E. W. Lipski	Essex	13.8
962	M. T. Collins	Booker	18.8
963	G. E. McAndrew	Northumbria	3.8
964	R. Parsons	London	18.8

GOLD C DISTANCE

Name	Club	1983
J. R. Cooper	Coventry	9.4
A. Ratcliffe	Humber	3.8
D. M. Parsons	Booker	3.8
D. J. Minson	Devon & Somerset	3.8
C. Wilby	Essex & Suffolk	5.8
I. Corkell	Avro	3.8
J. A. Bell	Booker	3.8
A. Yorkas	South Wales	3.8
D. Thomas	Bristol & Glos	3.8
J. H. Belk	Bicester	3.8
I. Benzie	Kestrel	3.8
J. Evans	Cambridge Univ	3.8
C. C. Littleton	Bristol & Glos	3.8
E. W. Johnston	Cotswold	13.8
M. E. Newland-Smith	Essex	3.8
D. S. McKay	Aquila	13.8
P. H. Little	Bristol & Glos	3.8
R. Millington	Cranwell	14.8
P. Fincham	Cranwell	14.8
R. N. Terry	Booker	3.8
R. N. Cook	Buckminster	3.8
M. F. Webster	Buckminster	5.8
M. J. Young	Booker	3.8
C. A. Marren	Deeside	21.1
S. M. Smith	Cambridge Univ	3.8
P. G. Becker	Cranwell	14.8
R. S. Walker	Cranwell	14.8
S. Savage	Surrey & Hants	18.8
G. Sharpe	Wyvern	3.8
E. W. Lipski	Essex	13.8
J. M. Ley	Essex	3.8
M. T. Collins	Booker	18.8
M. A. M. Pirie	Cotswold	3.8
G. E. McAndrew	Northumbria	3.8
D. Latimer	Aquila	18.8
R. Parsons	London	18.8
G. F. Bailey	South Wales	3.8
W. J. Murray	Inkpen	3.8

GOLD C HEIGHT

Name	Club	1983
R. Witham	Hambletons	3.7
G. Carr	Borders	3.8
J. A. Stephen	Deeside	15.7
M. N. Gnap	Deeside	15.7
J. Harkie	Cairngorm	29.7
E. M. Johnston	Cotswold	29.7
A. N. Ely	Strubby	2.7
N. Braithwaite	Lakes	26.6
J. H. Fox	SGU	3.9
R. C. M. Payne	Cambridge Univ	5.8
P. Tickner	East Sussex	29.7

SILVER C

No.	Name	Club	1983
6455	D. J. Laird	Lasham	28.6
6456	R. Stoward	London	16.7
6457	C. Richards	Enstone	20.7
6458	A. P. Hunn	Bath & Wilts	16.7
6459	P. L. Hurd	London	12.6
6460	Carol Bevan	Booker	3.7
6461	G. Soars	Pegasus	17.7
6462	D. Hilton	Booker	12.6
6463	D. Harris	Avon	19.7
6464	P. Marsh	Cotswold	3.8
6465	R. C. Mummery	Lasham	16.7
6466	M. J. Golder	Staffordshire	3.8
6467	C. J. Pollard	Essex & Suffolk	3.8
6468	P. Meads	Coventry	3.8
6469	Alison Rumbelow	Cotswold	3.8
6470	E. G. Leach	Essex & Suffolk	3.8
6471	E. W. Illett	Cotswold	3.8
6472	R. C. Willis-Fleming	Chilterns	7.8
6473	C. A. Meir	Staffordshire	2.8
6474	M. J. Odell	Booker	5.8
6475	B. J. Howett	Stratford	6.8
6476	N. Dower	Booker	6.8
6477	D. Moorman	Kent	6.8
6478	S. McNeil	Wolds	7.8
6479	A. R. Jones	Staffordshire	3.8
6480	C. Crabb	Mendip	23.7
6481	R. E. McCallum	Bicester	4.7
6482	N. Dufty	Booker	3.4
6483	Joanna Dannatt	Cambridge Univ	5.8
6484	R. D. Bryce-Smith	Cambridge Univ	5.8
6485	J. P. G. Maller	Oxford	10.8
6486	K. J. Jones	Herefordshire	5.6
6487	A. Marczewski	Lasham	14.8
6488	M. J. Woodhead	Lasham	30.7
6489	Julia Stamp	Shalbourne	14.8
6490	D. L. Collingwood	Surrey & Hants	13.8
6491	J. S. Goddard	Dorset	13.8
6492	I. R. Tapson	Cranwell	14.8
6493	D. Gidney	Shalbourne	14.8
6494	M. Hackett	Avon	13.8
6495	E. Gibson	Doncaster	13.8
6496	P. H. Newby	Trent Valley	5.8
6497	Wendy Harper	Inkpen	13.8
6498	P. J. Kelly	Fenland	14.8
6499	P. C. T. Whitmore	East Sussex	14.8
6500	R. P. Edgson	Inkpen	14.8
6501	J. E. Daisley	Cambridge Univ	13.8
6502	N. Pringle	Lasham	3.8
6503	W. J. Veitch	Cranwell	13.8
6504	R. M. Mills	Wyvern	13.8
6505	D. M. Byass	London	3.8
6506	R. A. Weston	Wrekin	14.8
6507	J. E. Leonard	Stratford	14.8
6508	C. A. Weyman	Dorset	14.8
6509	D. Bowsher	Kestrel	13.8
6510	H. B. D. Jeans	Dunkeswell	7.8
6511	M. Duncombe	Booker	15.8
6512	F. B. Jeynes	Stratford	13.8
6513	R. Hewitt	Surrey & Hants	3.8
6514	R. J. Ellis	Kent	15.8
6515	M. G. Griffiths	Norfolk	3.8
6516	C. J. Fane	Coventry	18.8
6517	K. J. Trudgian	Kestrel	13.8
6518	D. V. Declancy	Wyvern	14.8
6519	G. D. Brocklehurst	Shropshire	14.8
6520	R. I. Thomson	Ouse	14.8
6521	J. E. Kaye	Buckminster	30.7
6522	P. R. Williams	Bannerdown	14.8
6523	D. L. Clarke	Booker	18.8
6524	A. J. Bennett	Wolds	14.8
6525	Sharon Piercey	Bicester	21.8
6526	D. Roddie	Wolds	21.8
6527	R. D. G. Hill	Pegasus	19.8
6528	B. Kirby	Stratford	14.8
6529	M. J. Ustianowsky	Pegasus	15.8
6530	A. Barnes	Oxford	14.8
6531	Annabel Lucas	Lasham	18.8
6532	N. J. Tranter	Cotswold	3.8
6533	G. Muggeridge	Imperial College	12.6
6534	S. Charlett-Green	Bicester	29.8
6535	D. B. Feenan	Surry & Hants	3.8
6536	N. R. Crowcroft	Trent Valley	14.8
6537	M. C. Heelis	Anglia	26.8

Your Letters



EUROPEAN CHAMPIONSHIPS

Dear Editor,

Having flown in the World Championships I came home with the strong feeling that European countries treat the European Championships as almost a mini World Championship and certainly as an elevated training ground well above any National competition.

I am sure our relatively poor performance at Hobbs could well have been improved by proper use of this sort of contest. The World Champion in my Class was the European Champion, and many of the top pilots competed at Rieti.

It is time we woke up to the fact that the European Championship is a major competition, and decided upon a way of representing our country with the best chance of bringing home European Champions. At present the system is controlled in such a way that it is degraded down to about National level.

I would be interested to know how other pilots feel regarding the selection for this competition, and indeed how other European countries select their teams.

MARTYN WELLS, **Shipston-on-Stour, Warwicks.**

WOMEN'S ATTITUDE TO GLIDING

Dear Editor,

The correspondence in recent S&Gs concerning women pilots and some of their problems has been interesting to me. It so happens that I have recently carried out a survey on women and their attitude to gliding with particular regard to equality, and hope to have processed the results into an article for a future issue.

I tried very hard to reach every gliding female in the UK with a questionnaire, *via* club secretaries. 250 were sent out and to my delight more than 80 returns were made. So stand by please to receive plenty of points of view, including my own!

TRISH WATSON, **London.**

HOW ABOUT AN 18 METRE CLASS GLIDER?

Dear Editor,

Steady progress in Standard Class performance and the recent great leap in the Open Class have resulted in an uneven performance distribution between the three FAI Classes as is illustrated by their BGA handicaps of 103, 109 and 131 for recent designs in the Standard, 15 Metre and Open Classes respectively. There is little incentive for a manufacturer to tailor a glider to any other specification, but the widespread use of extended tips on 15 Metre Class sailplanes shows the demand for a glider which spans the gap between the present 15 Metre and Open Classes.

Here is a description of the glider I would like to fly and see compete: It would have an 18 metre flapped two-piece wing — the maximum which can be trailered easily. With modern materials and design its rigging and handling qualities would be good and its performance would almost match the Nimbus 2 with a best L/D of around 47:1 and a BGA handicap of around 116. This glider would have a really exciting cross-country potential without being impractical or completely unaffordable. In competition it would stand squarely between the Standard and Open Classes and could if desired complement rather than replace the 15 Metre Class.

I believe that the interests of both general cross-country flying and competitive soaring would be served by the re-emergence of an 18 Metre Class glider.

JOHN GALLOWAY, **Glenrothes, Fife.**

ENSTONE LANDINGS

Dear Editor,

The letter in the last issue, p227, from David Johnson, secretary of Enstone Eagles, explained the restriction on mid-week flying at Enstone. I endorse all that David says, but would like to add that a new grass runway 08/26 of 800m length and 50m wide runs along the south side of the Esso tarmac task-track.

This runway, which is owned by Gordonair and operated by Oxfordshire Sportflying Club flying motorgliders every day, is available as a safe haven for gliders landing at any time, and to retrieve tugs by prior permission. After landing report to the Oxfordshire Sportflying hangar for tea, telephone and assistance.

GORDON CAMP, *Gordonair Ltd, Enstone*

DO YOU KNOW THIS POEM?

Dear Editor,

How do you convey with words the joy and exhilaration of real flying to earthlings whose aviation is limited to reading a paperback *en route* to Majorca?

After about 40 years' experience of little aircraft in general and gliders in particular, I have enjoyed numerous How-I-Dunnits written by pilots for pilots, but only twice have I read something that a pre-*ab-initio* could really grasp as conveying the sensation of flight. One of the two is **Jonathan Livingstone Seagull,** and the other is the reason for writing this letter.

I refer to a short poem written by a contemporary wartime Canadian pilot who was killed aged 19. His name was Magee (spelling?) and I am ashamed to say that all I can remember of his poem is:

"Oh I have shed the surly bonds of earth,
And danced the skies on laughter-silvered wings."

The last line ended: ". . . and touched the face of God."

Do any of your readers remember this poem?

TOM WESTMAN, **Isle of Skye.**

(If anyone could send us a copy we would like to reprint it. Ed)

BOUQUET FOR SLINGSBY

Dear Editor,

Having recently returned my glider to Slingsby's for repairs, I was most impressed by the first class service, workmanship and pleasant attitude of both management and shop floor. What a great pity they are not making gliders now. However, they have numerous projects in hand and I wish them every success in their new ventures.

J. P. BEARDMORE, **Thrapston, Northants.**

50 YEARS AT OXFORD

Dear Editor,

Referring to my letter in the August issue, p177, John Simpson, a founder of Cambridge University GC in 1935, writes that the club's first flying meeting was on May 29, 1938 when, according to his logbook, he had an aerotow to 2000ft in his Kirby Kite. Robert Kronfeld and Amy Johnson were there. This was in a field near Oxford; but I remember attending an indoor meeting in some hall at which the club was officially started, and I sent a piece about it to *The Times* and it should be in their file.

John Simpson has made himself a leading authority on the "sea breeze" and the lift it provides. He is just off to China to contact people working on the subject there.

During the war John was driving ambulances along the Burma Road when he reached China and contacted a gliding group who let him fly their Rhönsperber down from a mountain top.

A. E. SLATER, **Cambridge.**

TRAILER SPEED LIMITS

Dear Editor,

No sooner had I pointed out in the August issue, "Snaking Woes", p177, the anomaly in the law allowing certain types of four wheel trailers to be towed at 70mph on motorways, than the Department of Transport announced new rules shortly to be introduced which will remove this anomaly.

Basically it is proposed that the 50mph trailer limit be increased on the motorways to 60mph, whilst those categories of trailer previously permitted to do 70mph will be reduced to 60mph. Thus there is no longer any point in planning a glider trailer with the previously permitted 70mph wheel layout.

However the new 60mph limit reinforces once more the desirability of fitting a good anti-snaking stabilizer.

RODNEY B. WITTER, **Chester.**

INSTRUMENTATION AND STANDARD PANEL LAYOUTS

Dear Editor,

Like Ralph Dixon, I read Harold Dale's article on "Ergonomics and Glider Instrumentation" in the April issue, p64, with some interest, but rather more resignation, feeling that such ideas on the design of instruments and the layout of panels had been put forward, in virtually identical terms, often enough, over so many years, that if the regulating

authorities and individual owners had not got the message yet, when would they ever.

It was gratifying, therefore, to see from Ralph's letter in the August issue, p177, that the RAFGSA at least, has done so, and made the standard instrument layout suggested by Don Austin a mere 20yrs ago, mandatory for all its own machines. What really fascinated me about the details of this layout, though, was its similarity to the standard layout which I introduced in the London GC's fleet in the early part of 1951, when I was, for my sins, in charge of the club's instruments. This layout was not just suggested, but was fitted, each panel, adapted to the peculiarities of the individual cockpit, cut out with my own hands during a series of cold nights in the workshop at Dunstable.

I described this standard layout, and the principles behind it, in an article in your predecessor, *Gliding* in July 1951, p60, illustrated by diagrams to show how it worked out in examples such as the Prefect, Olympia, and Gull 4, so there was ample opportunity for other people to try it out. From the tone of the present discussion, the idea seems to have made no lasting impact; I wonder how much benefit the pilots of the club machines noticed from it. Of the sailplanes involved, the Gull 4 was written off later in 1951, and one Olympia about three years later. The Grunau Baby and Prefect survived a good deal longer, as Platypus described being brought up on them in the late 1950s, in a recent article. Some time, perhaps he would care to say whether he found the standard panel layout helpful — or even whether he found it at all.

As I remarked above, the cardinal point of my layout and the RAFGSA one was very similar, with the ASI to the left of the main variometer, at the top of the panel. In my case, they were located on either side of the centre line, with the Turn & Slip indicator central and immediately below, so that the three instruments formed the closest group possible for blind flying, while the horizon ahead combined with the upper two instruments to form a similarly close group in clear air. The altimeter was placed low down on the right of the panel, and the compass at the same level on the left — with the style of cross-country flying then prevailing, the compass was associated more with blind flying. I did not use the term ergonomics, as the word had not been coined then, or if it had, was not in general use.

It rarely seems possible to mention the origin of any meritorious idea or action in the press without some shadowy figure materialising out of the mists of the past, to claim precedence, so I shall not be in the least surprised to hear of an earlier application of standardisation than mine — so, any advance on 32 yrs?

PETER RIVERS, **Buxton, Derbyshire.**

MEMORABLE MNEMONICS

Dear Editor,

Jon Leonard (see August issue, p179) rightly reminds us to use mnemonics which are easy to remember under conditions of stress, but surely his seven letter WASSSSP is virtually a field landing check list.

Even our club-taught USTAL is a mouthful for students and contains a mixture of control setting reminders (undercarriage, trim) with elements of airmanship but, regretfully, it relegates "look-out" to the very end of the sequence which, in the case of a stressed pilot, may be quite late in the circuit pattern.

I have adopted the landing mnemonic TUF (trim, undercarriage, flaps) which covers the basic mechanical settings of most glass aircraft; is simple to remember and quick to complete in emergencies and the rest of the time can be spent on those elements of airmanship involved in landing, whether at base or in a strange field.

Perhaps it should include a reminder that water should be jettisoned before landing but I haven't yet found a way of incorporating the letter J or W into the sequence — crossword enthusiasts might give it some thought.

PETER WILDBUR, **Tonbridge, Kent.**

THE ART OF LANDING OUT

Dear Editor,

After reading the February issue, I couldn't help but reply to the article by Bernard Smith — "Novice drops in on a monastery", p21.

As a hang glider pilot (a what?), I must say I find it unusual **not** to receive such a welcome after a cross-country. Sailing clubs, stately homes etc become targets when landing looks probable; just a month ago I landed on a prep school. Okay, so a football field lined with 80ft oak trees is a bit tight, but use of the telephone, food, drink and a swimming pool while surrounded by young ladies was quite passable.

I had an excellent cup of coffee at the Usk GC, but full marks must go to the Chelmarsh Sailing Club who, after a defrosting with coffee and sandwiches, opened up their bar at 4pm! Here's to many hours of concentric circling.

NEVILLE ALMOND, **(Thames Valley HGC)**

ANOTHER CASE OF EGO?

Dear Editor,

I was astonished to read Dr Brennig James' letter, "Instructor's Ego Trip" in the June issue, p128. This seems to have its origin among a confusion of facts and unsubstantiated generalisations, macho ("I once *had* to belt an instructor on the chin") (emphasis supplied), and crushed ego. There is no logic to support the implication that a Gold C pilot is necessarily more knowledgeable, more experienced, or safer than a Silver C instructor, nor that "most pupils are self-taught . . . despite many instructors." I hope any instructor, regardless whether the club is large or small, will take the opportunity to point out to Dr James his slip in final turns. Accidents happen to the unwary, the inaccurate and the careless as well as the inexperienced. Perhaps it is time that Dr James had a thorough dual check with a suitably experienced and critical instructor.

DEAN CARSWELL, **Texas, USA.**

Stuck for Christmas presents? Then how about a set of coasters (£5) and table mats (£11) designed by Dave Parker for the World Championships fund. They are available from the BGA.

50 YEARS AGO

A. E. SLATER

Although the BGA was formed in December 1929 as a result of spectacular distance and altitude flights made in Germany that year, it was not until August 23, 1933 that any British pilot used anything other than hill lift to cover distances. On that day Eric Collins, flying the London GC's Professor, used thermal lift under clouds in a WNW wind to go about 20 miles.

This was Philip Wills's first year's gliding, but his delight in this marvellous aerial sport was brought up sharp in September by the resignation of the London Club from the BGA. Philip thought he ought to do something about it, and he did, but it was not until early 1935 that he and others got the BGA constitution changed so that it represented the clubs and the London Club could rejoin.

National soaring site

Another example of Philip's initiative was the feeling that British gliding needed something like a national soaring site on the scale of the Wasserkuppe in Germany, and though we had nothing suitable of that height, he fixed on Sutton Bank as the nearest possible and preliminary trials were held there at the weekend of October 18 when a few short cross-countries were made.

It was my first year of editing S&G and one of its problems was that so many people regarded a copy of a magazine not as something you actually own, but as something you see lying around, pick up, glance through and throw down again. Another problem was to get readers meteorologically minded, often to the disapproval of the previous editor, Frank Entwistle, a professor of meteorology, who disapproved of anything which had not yet got into the standard textbooks.

I thought of offering a prize for the best answers to the usual silly questions, but could not raise enough questions: there were only "Why don't you put a little engine in?" and "How can you control them without an engine?"

Another widespread belief was that all an editor does is to take something out of an envelope and put it straight into another one addressed to the printer; even Philip Wills thought this, as he once wrote congratulating S&G writers on the correct English.

Who's right of way? Anthony Edwards, Cambridge University GC's president, was on a marginal final glide into his home site at Duxford wondering whether to carry on over the last mile-and-a-half when the decision was taken out of his hands: straight ahead on the reciprocal heading was — **an airship doing a beat-up.** The Airship Industries' machine was showing its paces to spectators at Duxford whilst on its way back to base at Cardington. Not sure whether he had right of way, Anthony went into a field.



Southdown GC thought this photograph of their president, Les Allard, who died this summer, was typical of him – a bulwark against the storms! It was taken in a snowstorm at the club's old site on Firle Beacon during the 1960s. The obituary is on p282.

CLUB NEWS

Copy and photographs for the February-March issue of S&G should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, tel 0223 247725, to arrive not later than November 29 and for the April-May issue to arrive not later than February 7.

October 12, 1983

GILLIAN BRYCE-SMITH

AVON SOARING CENTRE (Bidford-on-Avon)

Apart from the rash of prangery just as the diabolical spring turned into a marvellous summer, we have had another year of steady consolidation with membership increasing. A lot of our launches were by visitors.

Our days of operation in the winter months are reduced to five (we are closed on Monday and Tuesday) and our airstrip width has been extended a further 25% to cope with the increased utilisation.

R.J.

BATH & WILTS (Keevil Airfield)

The Bronze C course run at the weekends has proved invaluable. Members have gained experience in thermal, ridge and cross-country flying, field landings and aerobatics.

We now have the use of a farmer's field near Roundway Down from which we are able to tow the two-seaters onto the ridge in SW-W winds. Our northerly ridge (Westbury) has been explored as far as Alfred's Tower from Urchfont (40km) and there is now talk of exploring it even further.

We are looking forward to our annual trip to the Long Mynd.

J.L.

BOOKER (Wycombe Air Park)

The season has produced too many club statistics for even Ann Welch to enumerate. We have had the oldest, the youngest; the fastest, the slowest; the ugliest, the prettiest; the shortest and the longest time to . . .; etc (only modesty and the laws of libel prevent us naming names). But despite being bigger and better, the friendly atmosphere of a smaller club flourishes.

The 1983 Bad Egg award gets thrown at Lasham for their dismal disregard for the Inter-Club League.

P.R.

BUCKMINSTER (Saltby)

At last we have our own access to the site, off the Sproxton/Skillington Road and hopefully this could mean we will be allowed to have a bunkhouse.

Our thanks to Don Bricknell, a founder member, on his retirement as chairman after 14yrs' service.

Congratulations to Mick Webster on completing his Gold C and for his Diamond distance, all in a wooden ship; Mike Jordy and Jeff Roberts for Gold distance and to Bruce Cooper and Trevor Murphy on Diamond distance.

We have sold our K-8 and hope to buy another two-seater. Our early solo pilots will now convert to the Astir as their first single-seater. We say goodbye to Roy Lancaster who has gone to the Isle of Skye.

E.A.S.

CAMBRIDGE UNIVERSITY (Cambridge and Duxford)

Paul Gelsthorpe gained his duration and Silver height for the second time; Richard Baker his Diamond goal and Gold distance; Graham Miller logged five hours: Ian Ely gained Silver height and Paul Ruskin and Penny Minnitt flew Silver distances to Tibenham and Husbands Bosworth.

The annual Long Mynd Camp in September was very successful despite poor weather in the second week. Robin Payne and Peter O'Donald achieved Gold heights in wave, Peter at last remembering to take his barograph and so complete his Gold C. Alison Lee, Steve Cooke and Phil Atkin did their five hours, Phil to complete his Silver C, Neil Scott and Steve Cooke achieved Bronze legs and Dave Picking claimed both and on the last day when wave reappeared Steve Cooke took the K-8 to 7500ft for Silver height. Our thanks to the Midland GC and Jill and Tony Spicer for their customary hospitality.

More recently Gillian Foreman completed her Bronze C and Peter Treadaway (junior) went solo on his 16th birthday. Our congratulations to everyone who has achieved badge flights or gone solo during an encouraging season.

P.E.S.M.

COTSWOLD (Aston Down)

July and August saw us operating virtually full time with task weeks and well-subscribed courses as well as passenger evenings. We had a bumper crop of first solos and Bronze legs, ten Silver distances, six on August 3, while Mike Pirie raced round the Sherborne, Alton triangle to complete his first 300km in a creditable 4¾hrs.

On July 2 Ruth Housden (SHK) landed at 8pm after an epic 400km triangle, while on August 14 she flew her other ship (Libelle) to Tees-side Airport in a 313km straight line. Prior permission had been obtained, making this our first ever "scheduled" flight.

Stubble fire ace Chris Batty heads the Club Ladder with some consistent performances on the blue days. David Roberts and Dave Breeze came 3rd in the Open Class Nationals and Lasham Regionals respectively, while CFI, Trevor Wilson, was 8th in the Enstone Regionals.

T.H.

COVENTRY (Husbands Bosworth)

The season gave us more than 7000 launches, 4000 by the end of June, and our new winch has been very popular with 1200 launches.

The first date for the Inter-Club League finals at our site were cancelled due to appalling weather but the following week we emerged triumphant as winners, thanks to Mike Jefferyes, a guest pilot from Essex GC who was flying for us.

Highlight of the season was the Standard Class Nationals, see p263. This enjoyable Comp ended with a barbecue and party in the clubhouse. Our thanks to all the helpers.

We had the annual farmers' party in early October when our special guests were farmers in whose fields we have landed. The ladies' committee organised the buffet and disco. The annual dinner-dance is on December 10 and the children's party on December 17.

N.B.

DEESIDE (Aboyne Airfield)

We are not just a soaring site. *Ab-initio* training continues throughout the year, with courses in the spring and summer. Visitors are well aware of the peculiarities of our airfield, so the challenge of training can be imagined.

There is a single narrow EW tarmac runway some 600m long. The rest of the airfield is unusable because of the rough surface (except for a short emergency landing strip. There is no under/overshoot, the E end dropping down a 20ft bank, the W end being bounded by a stone wall. Running off the side into the rough is not advised. The runway must be kept clear until immediately ready to launch, and the glider pushed off after landing. Problems can arise when two or more gliders wish to land in quick succession. The standard procedure is to make a normal approach, but once a safe landing is assured the glider is held off or allowed to roll to the end so that another aircraft can land behind. Visitors sometimes misinterpret this need to reach the end and make high approaches which result in near-overshoot "excitement".

Yet, despite these problems, our instructors manage to train pilots to solo in some 40 launches. It is often said that going solo at Aboyne is worth a Bronze anywhere else. Then the easy bit starts. Golds and Diamonds are a piece of cake by comparison.

K.A.H.

DEVON & SOMERSET (North Hill)

Congratulations to Philip Whitehead and Steven Fitzgerald on going solo, Steven on his 16th birthday. He converted to the K-8 the next day and flew both Bronze legs a week later. Dave Roberts, Tony Price and Barry Gage also have both Bronze legs.

John Parker (Oly 463) completed his Silver C with a flight to Sturminster Newton while David Wolff's barograph failed on a Silver height.

One experienced pilot was set upon and beaten up by a stubble fire. It then threw him, thoroughly bruised and disorientated, into the nearest convenient cloud which extended rather murkily from West Somerset to mid Dorset. Eventually returning to clear air with the sea to his right, he landed in a desolate region — Exmoor.

The second task week was convivial with visitors from Mendips and Usk, three task days and creditable performances with a total of 4111km flown. Our Dave Reilly (Libelle) won with Phil Hogarth and Colin Watt (Skylark 4) 2nd for the visitors, Colin flying under his Mendip hat.

I.D.K.

DORSET (Old Sarum)

Although we didn't have a task week this year due to our restricted weekend only flying, we had a successful expedition to Nympsfield on August Bank holiday, taking the club K-13 and K-6, plus a privately owned Libelle and Dart 17. We clocked up 30hrs flying in three days, Neil Davidson narrowly missing Silver distance with a 2hr 19min flight and Mike Watt doing his first cross-country with Richard Ough in the K-13.

We are losing our temporary hangarage and are looking for accommodation for our fleet.

Congratulations to Jim Linnegar, Hugh Stewart and Nick Wall on their Bronze Cs; David Scott on gaining a Bronze leg; Joan Dyson and Mike Watt on two Bronze legs; Jim Linnegar and Bill Cook on Silver height; Nick Wall on Silver distance; John Goddard on his duration and to yours truly on completing the Silver C.

We were hosts to the BBC South camera crew on September 25. They are making a programme about gliding featuring our club, due to be screened in the spring.

Bob Harvey and Julian Rees have moved from the area and we welcome Barney McCann back from Canada.

C.A.W.

DUMFRIES & DISTRICT (Falgunzeon)

Summer lasted about nine weeks and we are now in the grips of frequent depressions with few flying days. But members have been visiting other clubs.

Ian Carruthers and Frank Smith took Ian's Oly 460 to Booker to help instruct on holiday courses; John McIver went to Portmoak and joined Ken Stewart, a national coach, for a two-day course; several went to the Cairngorm GC in September and Mike and Peter Richardson went to Australia and flew at Kingeroy and Benalla.

Next season we hope to run holiday courses for the first time and with some help from the Manpower Services Commission plan to make more site improvements.

F.S.S.

ENSTONE EAGLES (Enstone Airfield)

Unfortunately the long hot summer broke in the middle of our Regionals and a promising competition was cut short by high winds and rain. Some of the campers were forcibly removed from the airfield with gusts of wind up to 50kt. A. Pozerskis won the Open Class and P. Hawkins the Sport Class. Congratulations to them both.

Our autumn open weekend brought many visitors and some publicity with a spot on Radio Oxford. The club fleet will soon be up to strength with another K-7 to replace the one with the failed mainspar. Our thanks to Tony Cox on acquiring the glider and congratulations on gaining his inspector's ticket.

Steve Williams has gained his Bronze C and bought into the Skylark "900" while Dave Johnson and Ken Sparkes are now flying a Kestrel.

G.D.

ESSEX (North Weald)

It is with deep regret we announce the death of Bob Brown. He was taken ill at the club in August and died in hospital a week later.

Bob joined the club in 1976, going solo in a K-13, later flying a Pirat and progressing to a PIK. He was a very active member, both as an instructor and on the committee. Bob was liked by all who came in contact with him. Our sympathy goes to his wife and family.

M.R.T.

ESSEX & SUFFOLK (Whatfield)

Paul Robinson made an exemplary contribution in the Inter-Club League at Crowland by coming 1st on both days in the Novice Class to bring us 3rd overall. Paul and Gary Blythe flew their five hours during our October expedition to Portmoak and Garry, David Odhams and Gordon Chalmers have completed their Bronze Cs. Congratulations also to Steve Hornung on going solo.

Robbie Hatwell, who is tugging with us, came 2nd in the Inter-University Competition at Lasham in the new club K-6CR. The K-21 has now arrived.

Summer evening flying was at Whatfield and Ipswich where Pete Collier went solo on his third flight — is this a record in modern generation training?

R.C.A.

NB. Pete is the CFI of the local power flying club.

HAMBLETONS (RAF Dishforth)

The summer finished with some moderate thermal and wave days giving several Bronze legs. We also have a healthy number of new members to start the winter.

Congratulations to Roger Mann on going solo and to Richard Letts who on his first solo managed a soaring flight of over 30min.

Clive Stainer has successfully completed an instructors' course and the Blaniks, after their undercarriage trouble, should be flying again soon.

J.P.

HEREFORDSHIRE (Shobdon Airfield)

August and September have been marvellous with a lot of hours logged and numerous cross-country flights. The end of September showed the wave season is back and as usual Mike Costin flew in excess of 10 000ft.

Dunstable are coming for a wave week at the end of October and quite a few members spend part of the Christmas holiday wave flying. If anyone wants to come along with their glider, or would like to utilise our fleet, ring us on Kingsland 369.

Unfortunately our tug was overturned by a freak gust with our tug pilot, Andy Williams, still strapped in. Andy was unhurt but the tug will be out of action until January. Thankfully we have a replacement.

B.J.H.

INKPEN (Thruxton)

There have been many achievements worthy of congratulation. Mike Lamb and Mark Baldwin have gone solo; Mike Thorne, Steve Lambourne, Charlie Davis, Harry McBride, Jim Nipe, Wendy Harper and Robert Edgson have Silver heights, Wendy and Robert completing their Silver Cs; Bill Murray (SHK) has Gold distance and Diamond goal and Bryan Taylor flew 260km in August and contacted our wave in June.

Several members are going to Aboyne on an expedition.

T.D.

KENT (Challock)

The improved weather in the latter part of the season has resulted in numerous badge flights. Congratulations to Barrie Newman, Sylvia Priestly and Don Puttock on going solo; Stuart Ray on completing his Bronze C; Roger Ellis, Alison Firth and Malcolm Smith on their durations and to Dave Moorman, Julie Williams, Roger Ellis, Anne Johnson, Ken Davis, Dave Beams and Geoff Johnson on Silver distances.

Our task week in August was undoubtedly our best ever with seven out of nine contest

Club News Contributors:
Please note that due to Christmas the deadline for the next issue is November 29.

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days. Tony Moulang (ASW-20) won League 1 and Dave Moorman (Skylark 4) League 2.

There have been numerous enjoyable expeditions to other sites this year. Our commiserations to Don Connelly (Libelle) who flew 297km on his Gold distance attempt from Husbands Bosworth.

An expedition to Bidford was enjoyed by many members who had the use of a Janus. We are hoping to augment our fleet with a glass-fibre two-seater when funds permit.

Our barbecue in August was well attended. Congratulations to Doug Berry and John Reeves on gaining their instructor ratings.

J.B.

LAKES (Walney Airfield)

In August Peter Redshaw (Kestrel 19) landed 15km short of completing the first 300km triangle from Walney. He flew to Penrith, Consett, Sutton Bank and returned *via* Penrith.

Ray Jackson is still top of the Club Ladder. The Capstan has been given a brand new canopy.

E.K.

LONDON (Dunstable)

Despite the poor weather earlier in the season, we have managed to fly more than 26 000km, largely contributed to by Robin May who completed his third Diamond with a 500km triangle. For an encore he did it again a few days later and extended the flight after finishing to 650km, probably a club record!

Congratulations to Warren Kay on a fine performance in the Standard Nationals flying a glider he had only received three days before the competition started.

Recent first solos have included Edwina Austin, Martin Adams, Michele Collingham, and Clive Bird.

D.S.

MIDLAND (Long Mynd)

Congratulations to Ted Holmes and Kevin Hounsom on going solo, to David Cole on completing his Bronze C, Adrian Ridley on Silver distance and John Stuart on his Diamond goal. This was a very well-deserved achievement for John, who had attempted his 300km in the Cobra on several previous occasions.

Our task week at the end of August went well, although beset by weak conditions and very poor visibility. We managed five contest days as well as a spot-landing contest and a trailer-reversing competition. Ben and Trish Watson from Lasham won the trophy for the 3rd year running, although they had to bring a Nimbus 2 into play to defeat us this year. Diana King was 2nd and Chris Alldis 3rd.

We have started to convert our winches to run on LPG with, so far, excellent results and, we hope, substantial savings in the long run.

D.M.K.

NORFOLK (Tibenham Airfield)

Thanks to the sterling efforts of team manager Mike Lee, we enjoyed a second victory in the Inter-Club League. Our harvest task week was flown in the murk of stubble fires and won by Norman Clowes (Pirat).

Ernie Cunningham has completed a successful tour of air shows displaying Rumanian aerobatics in the IS-30.

Plans are well in hand for the BGA Weekend at the Hotel Norwich in March and we are looking forward to the influx of visitors.

N.F.S.

NORTH DEVON (Eaglescott)

It is 12 months since we moved to this site and we have now bought the land and completed a 60ft by 60ft hangar for the Grob 190 and other light aircraft. It has proved to be a good thermal site and wave has been explored in the motor glider to the lee of Dartmoor.

Congratulations on going solo to Bob Peake, the first this year and in his own Swallow, and to Chris Pittaway, a Boscombe Down helicopter test pilot. Dave Harris was the first to solo in the Grob followed soon after by Robin Boyes. We welcome Duncan Andrew back to gliding and he hopes to have his Kirby Kite ready for Easter.

Our thanks to Bristol & Gloucestershire GC friends, Pete Florence, Paul Little, Sandy Rham, Chris Taylor and Ian Hey who knocked up some 120 to 180 air experience flights each week in July (see BGA news).

The field will be open seven days a week as a limited facility airfield from April 1 to September 30 and if flying in, avoid over-flying the radar station on south side circuits and on landing beware of the cable run on the north side of the strip.

B.P.

NORTHUMBRIA (Currock Hill)

The July expedition to Coventry GC resulted in Graham McAndrew completing his Gold C with a 300km triangle in his SHK.

Our courses and passenger flying evenings during the summer seemed to attract reasonable weather which never stayed around at the weekends. Congratulations to Alan Scott on his passenger rating, to Roy Mitchison for gaining his Bronze so quickly and to David Henley (now back at Cambridge) for going solo.

L.F.

NORTH WALES (Pen-y-Parc, Nr Holywell)

Our secretary, J. Nicholson, is retiring due to pressure of work and will be succeeded by B. Sedgwick. We have fitted a new engine to our winch to give better launches.

Lack of soaring days has been compensated by the quantity of launches. Saturday, July 29 saw a club record of 78 launches for one day.

First solos on our 50 year-old Grunau Baby were by D. Sprake, I. Walton, A. Sinclair and E. Deyes. B. Tweed gained his first Bronze leg during his first solo bungy launch at the Long Mynd.

Our Christmas dinner-dance is on December 10.

B.S.

OUSE (Rufforth Airfield)

Our efforts at publicity and recruitment have brought an influx of enthusiastic new members and our flying evenings were a considerable success. We flew handicapped teenagers from a local club and it was such a shared pleasure we hope to make this a regular fixture.

Congratulations to Wally Hayward, Steve Kirby and Pam Bottomer on resoloing, Wally after 25yrs, and to Richard Thomson on completing his Silver C. John Cheeseborough retired as CFI and our thanks to him for two years' hard work. At the AGM in August Richard Challand, John Reed and Hugh Etherington retired from the committee to be replaced by Steve Lee, Neil Ashworth and Mark Thompson.

R.T.

OXFORD (Weston on the Green)

Our numerous new members have been encouraged by our pilots' achievements this season. We congratulate Ian Piggott on going solo; Ian Mailer, Colin Shepard, Phil Barlow and Nick Porat on Silver distances, Phil and Nick also on gaining Bronze Cs, and Steve Druce on completing his Silver C with a duration.

Phil Hawkins came 1st in the Enstone Regionals' Sport Class and Jane Randle was 2nd in the Open with Mike Randle 2nd in the Lasham Regionals' Open Class.

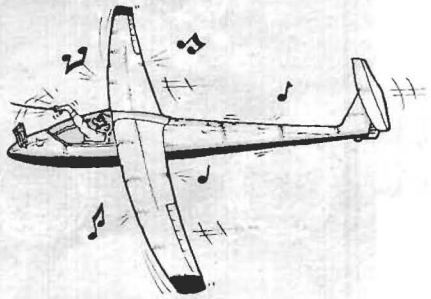
Glen Bailes and Tom Lamb are new assistant Cat instructors. During our August flying week Dave Roberts organised a trip to Enstone where members gained valuable aerotow experience.

In our continued search for a new site we visited a disused airfield at Berinsfield in August. A farmer kindly made the land available to us after harvesting his wheat but while it was a successful and interesting experience, the long term prospects aren't good mainly because of the site's proximity to Benson.

P.W.

RATTLESDEN (Rattlesden Airfield)

Our August flying week again escaped the rain and we took advantage of numerous thermals. Our thanks to the Essex & Suffolk GC for the use of their Pilatus B-4 during the week — the tuneful "bong" which accompanied strong lift made a pleasant change from the usual "creak"!



The tuneful "bong" which accompanied strong lift.

Our congratulations to Keith Miller, Paul Gooch and Carl Shedden on going solo; Rob Smith and Tony Emmerson for completing their Silver Cs and to Colin Poole for Silver distance. Humphrey Chamberlain and Charles Portway have successfully completed instructors' courses.

R.W.

SOUTHDOWN (Parham Airfield)

Poor conditions have limited soaring since the end of the summer but still allowed our team to win the SE Inter-Club League. The regular Tuesday evening course has finished for the year and was again a good success

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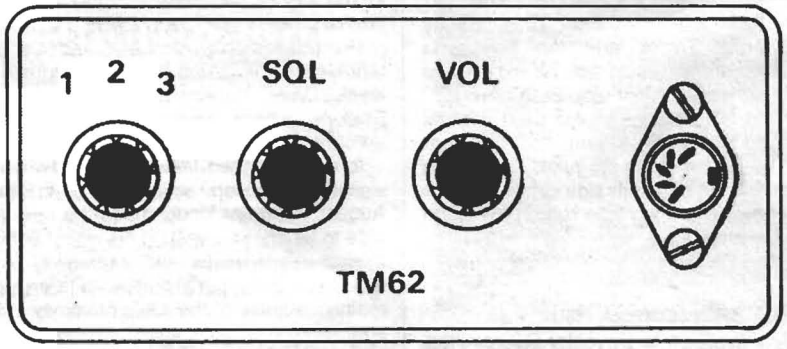
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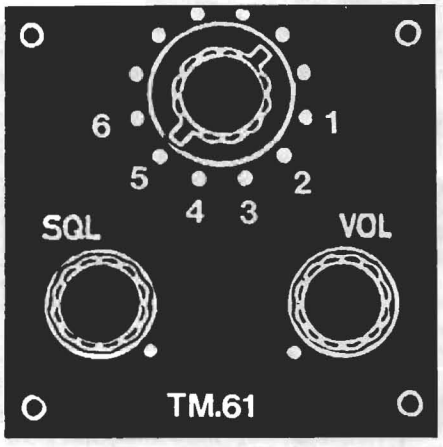
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Congratulations on going solo to Paul White, Finola Cuthell and Jeremy Cook. Also to Naomi Collier on completing her Silver C.

The syndicate Blanik narrowly missed a 300km in mid-August and put several solo machines in the shade.

The September expedition to Portmoak with seven gliders was voted a success even though the weather was not too good, and Jim Heath reached 10 000ft!

R.W.

Obituary — T. L. Allard

Leslie Allard, chairman of the Southdown GC for over twenty years and latterly its president, died on August 12 after a long illness. He leaves a gap in the club which is shaped characteristically by that large and generous personality.

When he first joined the club he was a national figure as a member of a famous motoring family with outstanding successes in racing and rallying. During his first winter with us he astonished, delighted and scared us by winning the Monte Carlo Rally with his brother Sydney. His interest in motoring continued throughout his life but in gliding he found a fascination which was a constant pleasure to him. Long cross-country flights were not for him, but he would squash himself into the little Tutor, elbows sticking out, for half an hour on the hillside at Firle which seemed to give him as much delight as the most outrageously exciting rallies of his earlier years.

He became chairman at a time when it was becalmed on a site where there was no security of tenure and where the flying was limited. He saw the future clearly and led the search for a long-term home with conditions which would allow the club to develop its potential. His reward came when the club established itself at Parham in 1974 and the flying achievements which followed proved that his vision was a true one.

He gave us leadership of a very high order. It was compounded of goodwill, integrity and wisdom. For this the BGA awarded him its Diploma and the club gave him all the honours it could command. But we shall remember him also as our friend who made us laugh at his stories, supported us with his strength and in whom no pettiness was possible. He was a big man.

Joan Cloke

STAFFORDSHIRE (Morridge)

The Shropshire Soaring Group were our hosts again for their two task weeks at Chetwynd. Our thanks to them for their help and hospitality. Alan Jones, Mike Golder and Ken Whitton completed their Silver Cs and John Graham managed his five hours.

Alan Jones and Mike Golder have also completed their instructors' courses and with David Thorpe, who qualified earlier this year, and Dick Bowyer from Challock, our instructor strength is now up to ten, the highest since we moved to Morridge.

The season has given plenty of flying days but produced little cross-country activity. A

small group are taking the club K-18 on an expedition to Portmoak.

B.G.

STRATFORD ON AVON (Long Marston Airfield)

Good old Fred! (Fred Barratt that is) cracked it at last, Bronze after 12yrs. Go on Fred you can do it — Silver; Gold; Diamonds even.

Congratulations to Bob Hatton, Roy Hinchley, Mike Ferguson and Alan Broadbridge on going solo. Silver Cs have been completed by Maureen and John Leonard (same day), Peter Fanshawe, Frank Jeynes and Barry Kerby. Colin Bushell has his duration and special congratulations to Vivienne Wright on her Whitbread bursary award for completing Bronze before her 17th birthday.

Our Inter-Club League team have done expecially well, winning the area title for the third successive year.

One for the winter social diary — Christmas Party, Saturday, December 10.

M.M.

STRATHCLYDE (Strathaven Airfield)

Membership is now 54 following a welcome intake of new members in recent months. Our open days on June 26-27 were an unqualified success with 93 flights logged, including 28 on the Falke. Our thanks to everyone concerned.

Congratulations to Alan Kennedy on gaining his PPL; to Arthur Hughes, David Johnstone and Jeff Henderson on their Falke solos and to Jim Murdoch and Alex Findlay on going solo.

We are negotiating to buy a 34ft by 128ft hangar for £6000 which we will erect ourselves.

A.F.

SURREY & HANTS (Lasham Airfield)

Congratulations to Steve Savage on his Diamond goal in what has otherwise been a relatively quiet second half to the season, unless you count August 3.

Ignoring the many worthy flights of less than 500km on that day, the Lasham tally ran as follows: Diamond distances, Lionel Sole, Tony Norrie, John Bastin, Geoff Gentry (though he already has a plastic one made in the USA), visitor Tom Docherty (who flew 660km into France, see p246), Chris Lovell, (605km triangle), Chris Starkey, (680km of a curtailed 750) and Alan Purnell who is claiming a 633km triangular distance record.

John Bell (Mosquito), Phil Guthrie (Astir) and John Bastin (Astir) competed in the Lasham Regionals while Bob Szulc proved that the Ventus in 17m configuration is a match for Nimbus 2s in the Open Class Nationals.

The annual expedition to Portmoak is already under way and as popular as ever.

C.G.S.

SWINDON (South Marston)

Our disco-barbecue in August was as successful as ever. The next social event is a Guy Fawkes party — the fire to consist of the remains of the Pirat trailer which Al McCaffrey "field landed" whilst *en route* to Nympsfield. Somehow the Pirat was removed undamaged from the wreckage but his car was altered a little and the trailer a lot. Al was shaken but not stirred.

A welcome visitor was Air Marshal Sir Michael Beavis, president of the RAFGSA, who landed on a cross-country flight from Bicester. Once he had overcome his astonishment at the red tape which greets those who land at South Marston, the Air Marshal proceeded to cut a polite but firm swathe through the Air Traffic Controller's rule that no "foreign" tugs will be allowed in on retrieves.

The clubroom wall now sports a handsome plaque presented to us by the gliding club at Salzgitter, Swindon's twin-town in Germany. We hope to organise an expedition to Salzgitter to sample soaring in the Hartz Mountains.

Steve Foggin has taken over from Dave Schofield as CFI — our thanks to Dave for his efforts. Richard Chapman is back on two feet but swears that he will never again be seen on two wheels. Congratulations to Andy Smart on re-soloing after a lay-off of some years.

P.M.

TRENT VALLEY (Kirton Lindsay)

We were pleased with our progress in the Inter-Club Northern League, beating Derby & Lancs into second place, Doncaster into third and Newark & Notts into fourth. Congratulations to the pilots.

Eight of our members completed in the Northern Regionals, our Mick Ward winning the Sport Class for the third successive year. John Swannack and John Rice came fourth in the Open Class, sharing a Kestrel 19.

Congratulations to Nick Crowcroft, Paul Newby and Nigel Bull on their Silver Cs, Nigel gaining all three legs in one flight, and to Chris O'Sullivan on going solo.

Our new clubhouse is almost ready for the official opening.

R.H.

ULSTER (Bellarena)

We've had a spate of first solos — Andrew McKibben, Campbell McCaughrain converting from power, Alan Sorrens, a US visitor who'll soon be leaving us, and Carson Boyd. On our second *ab-initio* course Carson soloed in only nine flights after a break from flying of almost 40yrs. He hadn't piloted a thing since 1945 when he was demobbed after RAF service flying Master IIIs towing GA Hotspurs at a wartime GPTS. For all his tugging, he'd never been in a glider before. Charles Hill is a rather newer tug pilot.

Cross-country opportunities have been few since June though there have been some good ridge days and, on September 11, excellent NW wave in which Billy Craig and Alan Sorrens, on a check flight, rocketed in the Twin Astir to 15 000ft where it was still going strong. Alan McKillen and Laurence McKelvie gained Gold heights in the ASW-20 and DG-400 respectively and the writer Phoebussed twice to Letterkenny at 10-11 000ft.

A mid-winter trip to high-summer Australia is on the cards for a small Ulster/Dublin party. Meanwhile, the PIK 20D has gone; the Blair/Farrell/Martin Monerai being built in Larne should appear shortly; Alan Sands is making good progress restoring an old Grunau Baby II as a change from glass and two other restoration projects involve a Blanik and a K-6CR. The club Capstan is to be re-covered with a colour change.

R.R.R.

WELLAND (Middleton)

Congratulations to Doris Bryant, our CFI's wife, on going solo; Tony Fisher who has re-soloed after an eight year lay-off; John Hytch on his first Bronze leg and to Dick Short on completing his Bronze C.

Our membership is over 40 with new members still coming. The flying nights have been very popular and contributed to club funds — our thanks to the helpers.

We are going to re-cover the Bergfalke fuselage ready for winter expeditions; Bronze C lectures are planned for the winter evenings and some syndicate changes are imminent.

R.H.S.

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WOLDS (Pocklington Airfield)
Thanks to the incredible versatility and untiring efforts of many of our members, the site is looking very smart and efficient. We have moved into our new clubhouse and the structural testing of the magnificent bar is well underway.

The season has been good for organised visits and in nearly 60 evenings we have entertained over 1000 visitors.

Congratulations to Sue Room on going solo on her 16th birthday and to the many others who have gone solo, as well as to Steve McNeil, Avelyn Bennett and Derrick Roddie on completing their Silver Cs. One of the most notable flights this year was Alan Hunter's climb to 12 500ft in wave (equalling the club record) in early July.

H.L.

YORKSHIRE (Sutton Bank)
Congratulations to young Newitt on going solo. Jeff Larkin is our newest instructor and Ian Stromberg a fully fledged tug pilot. Dick Stoddart is in his usual place on the Club Ladder — top.

Part of the airfield has been reseeded in the hope of stopping the heather from taking over. The two K-21s are proving extremely popular.

Bristol and Gloucestershire GC visited us and achieved three Silver heights and one Gold. We are now looking forward to our winter visitors.

The Vintage Glider Club have been discussing their involvement in our jubilee week next year to celebrate our 50th anniversary, to which everyone will be welcome.

H.H.

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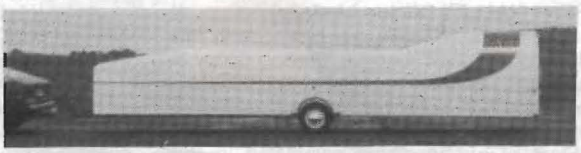
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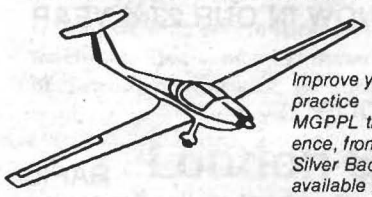


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SERVICE NEWS

BANNERDOWN (RAF Hullavington)



Brian Logan who won the Inter-Services Regionals' Club Class in the K-18.

August was super with a record number of cross-country kilometres flown. All the club single-seaters went on tasks and one memorable weekend every single-seater went cross-country, most on both days. Several attempted goal flights — "Noddy" Williams completed his Silver C with a 70km flight and Andy Stenton gained Gold distance and Diamond goal. Commiserations to Keith Darby (297km) and to Pat Rowney (430km).

Congratulations to Brian Logan on winning the Club Class at the Inter-Services Regionals in the K-18. Derek Findlay flew his first Comp, the Enstone Regionals, in the K-6E. Brian Law has gone solo, Paul Mason has his second Bronze leg and Phil Sheard has both.

Our late "soaring" week in September had plenty of flying but no soaring. A few pilots and aircraft recently went to Talgarth for an enjoyable week.

V.R.D.

BICESTER (RAFGSA Centre)
The Inter-Services Regionals was well represented by our pilots in all Classes, Terry Joint coming 2nd in the Open Class and Jeremy Beringer 3rd in the Sport. Martin Lowrie and John Hull flew the Enstone Regionals. Among the badges gained recently were Silver Cs by Simon C-G, Andy Foster and Shaz Pearcey, Shaz completing hers at the Ladies' Gliding Weekend at Cranwell. Jim Belk achieved Diamond goal in the Cirrus.

Pete Abbey has a full permit for his home-built Currie Wot (SE5) and generously let club members fly it. Pete is also masterminding the move of the bar to the airfield side of the hangar.

Paul Steiner is planning another Talgarth expedition for April. As a result of the success of last year's visit, this one will be for a fortnight. The Janus will be spending the winter months at Dishforth fully kitted out for high altitude flying.

S. & J.

CLEVELANDS (RAF Dishforth)
Our competition pilots did well with a special mention to Kev Kiely (second in the Inter-Services Regionals) and Ben Benoist (sixth in the Nationals), both in Standard Class gliders. Congratulations to Mark Mercer on Silver distance in his Blanik and Neil Evans on going solo. Andy Smart is now an assistant Cat instructor.

We have suffered a series of Blanik undercarriage collapses but they are now back on line. The first of the winter's visitors have arrived to sample the delights of wave.

P.W.

FENLAND (RAF Marham)
A disappointing summer for achievements ended with our "professional" pupil, Dave Hazelton, ruining an unbroken run of five years' of instruction by going solo. Pat Heady and Steve Hall have gained Bronze legs, Steve having since converted to the K-8. Pete Kelly completed his Silver C by doing five hours in the SF-26, a feat of endurance in more ways than one, and Andy "Yank" has Silver height. Andy Stenton flew a 300km triangle at Hullavington and Pete Williams has regained his instructor's rating after a long absence from gliding.

Alf Warminger, an old club member, dropped in when on a cross-country from Tibenham, and John Whitworth landed out one mile from the airfield, the first time in 15yrs of continuous gliding!

S.L.

HUMBER (RAF Scampton)
At last an Inter-Services Regionals where the weather was warm and sunny and thermic the whole ten days! Is this a record? The club put up a very creditable performance, with all pilots doing well. Dick Gibbs was 4th in a K-18, Alan Clarke 7th in an ASW-19, Chris Gildea 10th in his SHK and Andy Ratcliffe a close 11th in the club Astir 77.

Mike Kent has completed his Bronze C, and gained Silver height along with Sandy Weaver. Colin Wylie has converted to the K-8 and flown his first Bronze leg, while Barry Munday has re-soloed after several years away from gliding.

We have had another influx of pupils which should keep us busy through the winter months.

K.M.G.

KESTREL (RAF Odiham)
We say farewell to Alpha 2, the elder of our K-13s, to make room for the new K-21.

We are happy that Lynn Griswood has recovered from the injuries she received in Northern Ireland last Christmas and, in addition to recently soloing, has been to tea at Buckingham Palace! Other recent solo flights were by Mark Cooper, Adrian Willis and Dave Holt whilst Bronze legs have been flown by Adrian Gardiner, Paul Ross-Smith, Sally Andrea and Geoff Seaman, Sally and Geoff have also flown Silver legs, as have Ron Mitchell and Peter Swinhoe, and Ian Seabrook and John Trudgian have their Silver Cs.

The Mini-Nimbus is at Aboyne chasing Diamonds and a visit is planned to Talgarth in the spring. Finally ownership of the Swallow EMK has passed to Ian Gorton.

P.A.

PHOENIX (RAF Brüggen)
Our cross-country mileage is up on last year but individual achievement isn't as high as was hoped. John Marriott flew his Diamond goal in July and Dave Stewart managed 285km. Bob Little, Tony Duignan and John Allison have Silver heights and solo flights were by Katherine Allison, boosting our female pilots' union by 33⅓%, Dave Tassel, Steve Westlake and Clive Robinson.

The K-13 has been sold to a German club and the proceeds will help to buy the second K-21, due in February. Membership has fallen and a recruiting drive is having scant success.

John Norman and Ian Smith are taking the K-18 and Blanik to Bisperode in October hoping for a repeat of last year's crop of durations.

A.F.M.D.

TWO RIVERS (Laarbruch)
We have had a reasonably successful summer, the high point being Simon Hutchinson's 507km triangle. There have been many 500km attempts, the most notable being by Al Thomson, Bob Dall and Mick Mahon.

The hangarage problem has become more critical and we are faced with having to rig and de-rig each weekend.

We welcome Gordon Parker, our new DCFI, Pete Stratton and Mitch Page with Barry Elliott due in January to take over as CFI. There are sad farewells to a number of club stalwarts including Bob and Jane Longmore, Adrian Thomas, Andy and Lynn Powell, Simon Hutchinson and our CFI, Mick Mahon.

Congratulations to Al Thomson on becoming a full Cat; Steve Tape and Les Fellows on passing their assistant Cat courses and to Graham Eccles, Stan Stanley and Shaun Ellis on going solo.

We are just setting off on our ridge soaring expedition to Bisperode with the Phoenix GC. Our AGM is in December and we are planning to replace our Cirrus with a DG-300.

M.C.M.

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11th INTERNATIONAL VINTAGE GLIDER RALLY

July 23-August 3, Budakeszi-Farkashegy Airfield, nr Budapest

CHRIS WILLS

This was the first time the VGC had held a Rally behind the Iron Curtain. Due to the nearness of Budapest, airspace restrictions were imposed, but these did not prevent the 41 gliders flying 630 hours amid beautiful surroundings. The Hungarians were perfect hosts and even provided hangarage for rigged gliders. The weather was fine and hot with temperature soaring to 36°C. Food and drink were very cheap.

Teams from Belgium and Austria were with us for the first time as were the following gliders — the recently restored 1950s built Hungarian Junius 18; a Belgian Schweizer 2-22; the Zugvogel 1 in which Hanna Reitsch won the 1955 German Nationals; the Wasserkuppe Oldtimer Club's recently restored ES 49, one of five examples built in 1951 by Schleicher's to an Edmund Schneider design and the first two-seater built in Germany after the war; Guy Hamon's Breguet 904; Marc Bourdon's C 800 and a Fauvel AV 36 flying wing registered in Germany. which is the first time we have had a flying wing glider at our Rally.

We believe Peter Bourne's Scud 2, recently restored to original finish, caused the greatest impression of any sailplane at the Rally and the sight of it soaring in the blue sky at 4000ft with all Budapest as a backdrop, will linger with us for ever. Colin Anson and partners' T-31 was also at the Rally.

We were honoured with the presence of Alexander Schleicher's son who has a Gold C and All Three Diamond. He is a member of the Wasserkuppe Oldtimer Club and we were pleased he flew the British Rhönbussard for an hour in thermals. He was most enthusiastic about the machine which his father's firm had built, together with 219 others, in 1937.

Launching was by PZL Wilgas, Gavrons and a winch. The Hungarian Vöcsök primary could only be winch and bungy launched.

Among the visitors was Erno Rubic, father of the inventor of the Cube, who designed nearly all the Hungarian vintage gliders, many Hungarian veteran glider pilots and Wolfgang Späte and his wife, who hoped to visit Ludwig Rotter, the father of Hungarian gliding, who is dangerously ill in a Budapest nursing home. Wolfgang was a famous pre-war Wasserkuppe pilot and won the 1938 Rhön Contest flying the prototype Reiher.

The Hungarian authorities, who had given the Rally full support, were pleased with the event and we believe they are now going to give the Hungarian vintage glider movement encouragement. Already three Hungarian vintage gliders have been restored and two more should follow them next year.

Vintage Glider Club's (*Rendez Vous*) Rally

CHRIS WILLS also reports on the Rally held at Lasham from August 13-29

During the two weeks 27 of our gliders, some of which were not taking part for the whole period, flew more than 400 hours without accident in conditions more suited to duration flying in thermals rather than cross-country flying. This is not to say that cross-countries were not done but often the poor visibility made navigation hard and the fresh wind made returns to Lasham difficult.

Colin Street was the organiser with considerable help from members of his T-21C syndicate and we thank them for their hard work.

The overall winner and therefore this year's winner of the Rodi Morgan trophy was Bev George (Bergfalke 2) who once remained airborne, after an aborted 300km O/R, for over 8hrs. Ian Smith (Slingsby Tutor) was only three points behind and on the last day he flew for 5hrs 20min in thermals up to 4700ft near Odiham. It was cold in open gliders at these heights.

All lift during the Rally was from thermals but when these gave out gliders were flown in smoke lift from stubble fires of almost volcanic violence and strength. This lift would take gliders from 700ft to over 4000ft at more than 1000ft/min, so that a hopeless situation at 700ft became startlingly changed two minutes later. We believe that never before have vintage gliders been flown in such violent lift.

We were glad to welcome Hugo and Ursula Roth from Switzerland with their Spyr 5 and Neelco Osinga and partners from Holland with their Grunau Baby 2B.

A particularly good impression was made by the Hütter H174 which won a day (if not two days). Bim Molineux brought this aircraft from Kenya last year. It had originally been built in Holland. It was also exciting seeing the first two flights of the "new" King Kite, which were very successful. David Jones had managed to finish it after days and nights of work at the Rally and his flights were the culmination of 3½yrs work.

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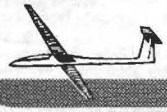
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Overseas News



Please send news and exchange copies of journals to the Overseas Editor: A. E. Slater, 7 Highworth Avenue, Cambridge, CB4 2BQ, England.

The European Two-Seater cup was held at Poitiers from August 2-13. There were 33 entries including four foreign entries. Pilots selected their own tasks and points were awarded for distance only. The best distance flown was 502km.

The Bailleau Competition (August 1-11) saw 66 pilots competing in the Standard and 15m Classes. The winner of the 15m Class was Patrick Stouffs, son of the well-known Belgian veteran World Championship pilot.

The Glasflügel 304 15m glider is to be produced once again. Georg Bräuchle, a well-known German trailer manufacturer has bought the moulds and the manufacturing rights. He has signed an agreement with JASTREB of Yugoslavia for the aircraft to be built there. The firm has previously built the Cirrus under licence. Three to four 304s per month are expected to be built. As there will be no development costs and as labour in Yugoslavia is cheap, the price will be very competitive — DM42 000, some DM10 000 cheaper than its main competitors.

Glaser-Dirks celebrated their tenth birthday this autumn and in the decade have produced 500 gliders — 105 DG-100s (G); 189 DG-200s; 50 DG-400s; 151 DG 100 (G) Elans and 5 DG-300s. At present the production rate is ten aircraft per month and work has started on the two-seater family, the first of which will fly late in 1984.

The Issoudun Competition (July 4-13) was highly successful. Eight tasks were flown including five in excess of 300km. There were 16 foreigners among the competitors.

Vinon European Mountain Competition. There were no fewer than 101 entries in this Competition (July 18-27). There were six task days with an average of 400km in the Open Class and 325km in the Standard Class. The winners were Jacques Rantet and Francois Ragot respectively.

The LS-6, the 15m successor to the LS-3, was due to fly in September. Series production will start in January 1984.

The Italian Championships at Rieti were won by Brigliadori, Standard Class, Peter, 15 Metre Class and Vergani, Open Class.

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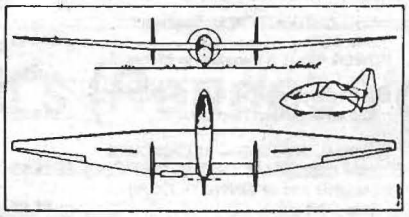
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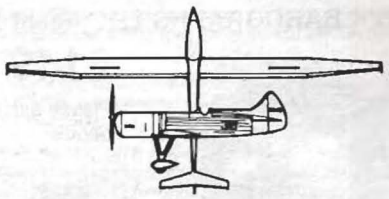
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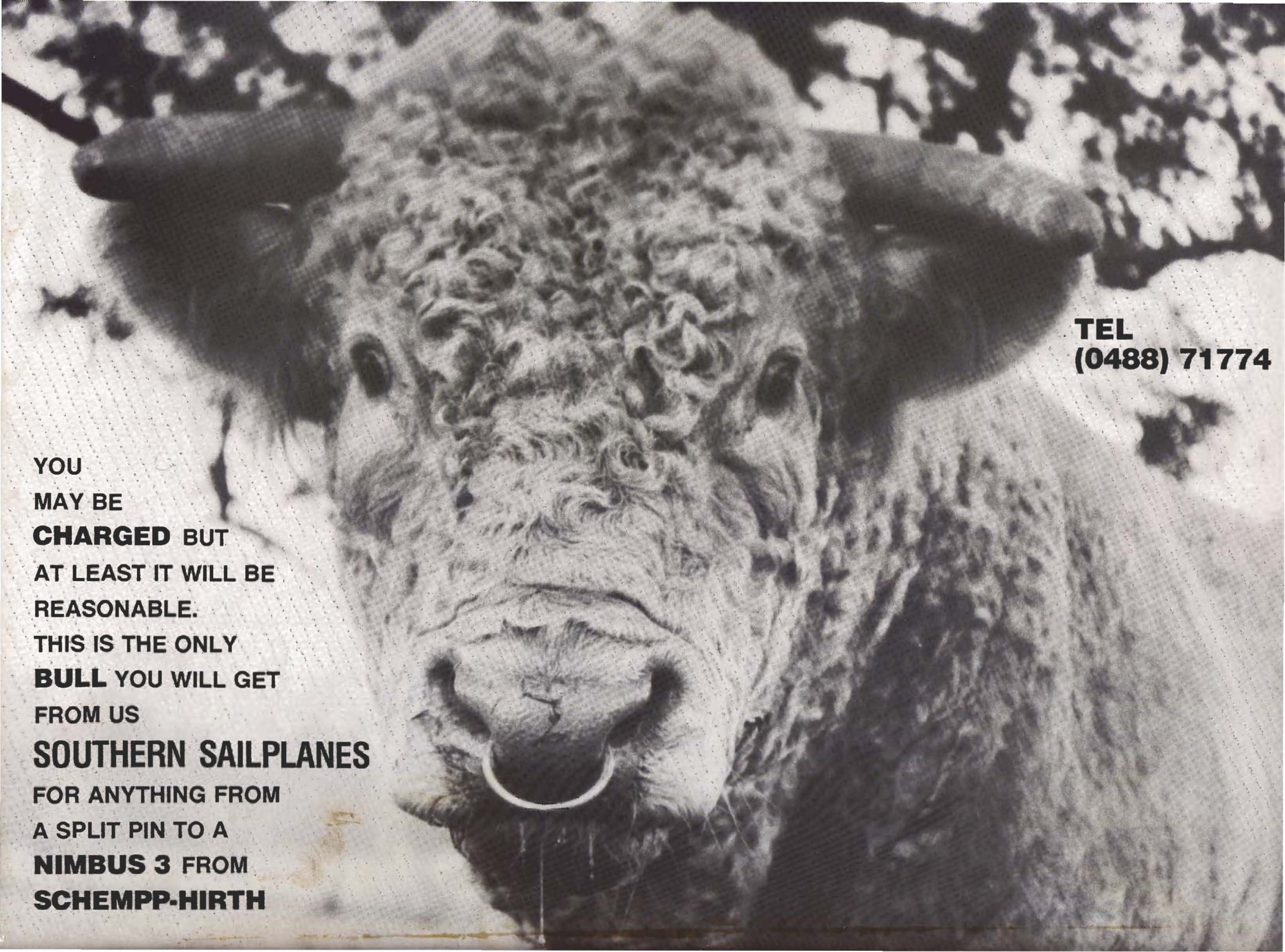
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