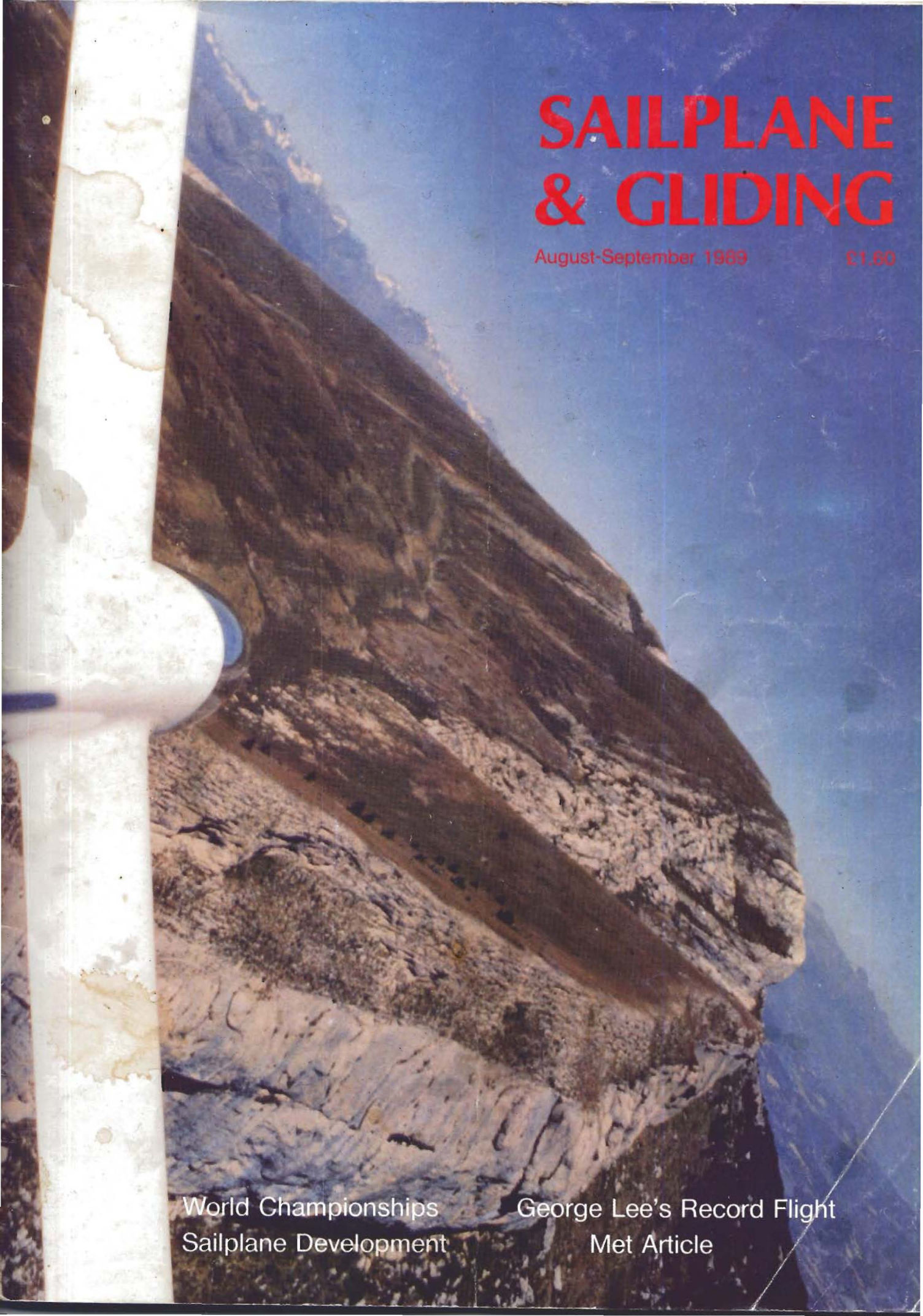


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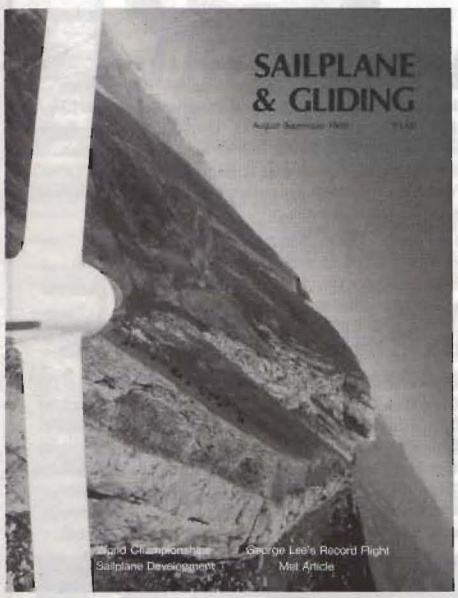
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YOUR LETTERS

RECOGNITION FOR NON SOLO PILOTS

Dear Editor,

Some fly for the fun of it, some to gratify their competitive instinct, others to progress through the badge system; for whatever reason, we all want to achieve and most desire recognition of that achievement.

We all know of the pilots who solo after 30 flights and get Silver badges in one season, but what of the others? They're OK? Some are! However, some will accomplish little and not gain recognition of their skills even though they have shown aptitude. Amongst these are pilots who cannot fly solo and therefore unable to progress due to medical or other reasons and are considered, and rightly so, to be safer pilots with a P1 in the back seat.

They can probably handle the take-off, the landing, contact thermals, use them and fly cross-country as well as any post Bronze pilot, but their undoubted abilities are not recognised because they cannot progress through the system. These flyers are no lesser persons and no lesser pilots, yet they need encouragement to continue flying and to gain a sense of accomplishment.

I read with interest in the last issue, p138, Peter Foster's account of a 150km dual flight with Vic Carr which he obviously thoroughly enjoyed. I observe from Peter's flying history he has a Bronze badge and suspect he's not been allowed to go for Silver because of his disability. But why should he and others like him be denied recognition of his skills in the sport just because of an unfortunate quirk of fate that could strike at any of us?

Gliding is a sport for all and those serious enough to want to fly year in and year out should be encouraged regardless of their shortcomings.

The answer to the problem? What better than a scheme especially devised by the BGA whereby those who wish to can go through the badge system under dual flying arrangements.

DAVE FIRMAN, *Bognor Regis, W Sussex*

RELUCTANT COMMENTS

Dear Editor,

Two letters (p57) and an advertisement in the April issue make me reluctantly reach for my pen to put my side of the story.

The letters appeared beside each other and both commented indirectly on my article explaining the philosophy behind the VARCOM computer vario (see the December issue, p288). The first writer (Brennig James) wonders why we do not use the same radar technology as that used by the police to measure glider groundspeed and vertical speed. I suggest it is rather a different engineering problem to measure the speed of a metal object travelling substantially towards an observer at a range of a few hundred feet from that of the ground passing 4000ft below a glider. At the expense of a few thousand pounds and a lot of batteries you might measure the speed of the traffic passing below.

As for radar altimeters, they can be used to measure vertical speed but they are of most use in warning of approaching obstructions. I would suggest that this particular engineering solution has found the problem it was searching for and I would not relish flying a radar altimeter "vario" in mountainous terrain.

The suggestion of using the point where an airpath (I presume) compass flicks back to measure rate of turn is, however, quite interesting. I eagerly await further information when the prototype has flown and the software algorithms for relating applied *g*, fluid viscosity and magnetic dip angle have been finalised.

The second writer (John Gibson) appears to take the opposite view and wishes that we were all flying around in Olympia and Skylark replicas watching for a twitch from the green ball of a Cosim vario. Comparing the cost of a 1950s British glider, when the exchange rate was more than DM8 to the pound, with the current generation from Germany at around DM3 to the pound is as much use as complaining about the weather.

My last whinge is about Ralph Jones' advertisement on the back cover where he claims that Discus were 1st, 2nd and 3rd in the 1988 Standard Class Nationals. The last time I looked inside my trailer there was a 1983 LS-4 sitting there; I will delay sending my complaint to the Advertising Standards Authority if it manages to transform itself in time for the next competition.

ANDY SMITH, *Cannes La Bocca, France*

GRASS ROOTS GLIDING

Dear Editor,

As an aspiring entrant in the Wolds GC's Two-Seater Competition (who needs all the help I can get), I really must speak up for Simon Parker (February issue, p5).

Messrs Platypus and Angus (two letters for the price of one) Munro, in the April issue, p59-61, seemed to have totally missed the point of Simon's letter.

Like all my acquaintances who saw it, I found the Equinox programme enjoyable, informative and well made. In "showing the dream" it was superb.

However, not one of my non gliding friends felt at all encouraged to try the sport, as it was not portrayed as something available to the ordinary man in the street. Like Grand Prix motor racing, three day eventing or the America's cup, the impression (say again, impression) was of an exciting sport for the wealthy.

I am not criticising the programme, and I don't think Simon was either, but pointing out that the gliding movement should also make use of television and other media to show that the sport is accessible to ordinary folk.

Show the dream, and show it can come true. While you are re-reading Simon's letter, and noticing that he said we should minimise the cold muddy bits, can I suggest you remind yourself what Dennis Neal said about the media just two columns to the left.

JERRY NIMAN, *Stockport, Cheshire*

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SIMON REPLIES TO PLATYPUS

Dear Platypus,

People have been saying here for some time that I've made it in the gliding world. Forget 1000km triangles in a K-6 or winning the Nationals in the Tutor – no, I've actually been slagged off (by name no less!) in your column and in bold type. (See the April issue, p65.).

I'm somewhat piqued, however, with your suggestion that I made up the figure of £80000 as the value of the ASH-25. This was, I'm sure, quoted in the Equinox programme so I can't be blamed for journalistic licence on Channel 4's part.

My crack at "plummy Queen's English tones" was purely tongue in cheek and on reflection was probably a mistake as it detracted from the main thrust of my letter which I feel both yourself and Mr Munro missed somewhat.

I firmly believe that if our movement is going to survive, grow and beat off the growing ogres of airspace restrictions, civil and military aviation, local objections to gliding etc then we must speak with a louder voice. And the only way to increase our output of decibels is to popularise and broaden the appeal of our sport. There is genuine strength in numbers – the road transport and farming lobbies confirm this admirably.

I don't think many will disagree with my general views on the subject but how to bring it about may be the centre of much debate. Certainly most of the expansion work must be at club level with us hanging on to our *ab-initios*. But I do feel there must be some kind of mass campaign by the BGA at national level to provide the raw material of membership clubs need.

Now I must ask you if you are serious about chucking in your column. This sounds like hideous toadying, but to be honest your piece ➡

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in *S&G* makes the whole magazine worth buying. To go as far as suggesting that I write a column in *S&G* confirms you have never met me. If you knew the hours spent thumbing through **Roget's Thesaurus** just to compose somewhat pompous letters (even then the point of which people miss) I would be the last person you would have volunteered.

So please Platypus, keep on writing. From a purely selfish point of view, I'd hate to be the subject of the last paragraph of the last Platypus column - not a nice way to go down in history!

SIMON PARKER, *c/o Wolds GC.*

(The good news Simon is that Platypus has promised to make a grand appearance from time to time, just to sort us all out. Ed)

WORLD CLASS SAILPLANE

Dear Editor,

I write to urge the Executive, the Competitions' Committee, and everyone else, to create the positive climate of opinion necessary to support the concept of the World Class sailplane. In line with the gliding tradition which requires that people put back in as much as they take out, this is a chance for the competition community to help the majority by promoting the idea that it is OK for less than the ultimate performance to be considered for "everyman's glider" in return for affordable costs.

The distortion of the market in glider design caused by the domination of competitive flying, to the extent that the sport may well be dying slowly, was well remarked upon at the BGA Weekend, but it has been visibly coming for a long time to anyone who looked. Ann Welch marked it as having begun at Marfa, 1970 - "glider performance now exceeded that actually needed to provide top competition flying ... a heretical concept; except to those pilots or countries which could no longer afford to go in to win". What is all this continued technological advance doing except to make gliders more expensive?

Nearly 40 years in the high-tech world of advanced military aircraft has taught me that the best is the enemy of the good. Technological advance in glider design is both inevitable and desirable, but it ought to be directed to necessary rather than ultimately achievable ends. Being steeped in technology may give one a more selective outlook on it - Neil Armstrong, the first man on the Moon, aims to complete all his Diamonds in a Schweizer 1-26. Pinching some phrases from the Kearney report on computer integrated manufacturing, recent glider design has too often been technology-led, not people-led, adding cost but not value. Yet technology could provide us with affordable gliders which have the user-friendly qualities of low circling and landing speeds of the eminently soarable K-8 and the mid-range cruise of the early glass Standard types, for example. We don't have to reinvent the Grunau Baby.

I doubt if the majority of pilots extract more than a third of the performance potential of their gliders. It seems accepted that 90% of pilots do not fly competitively, and of these a considerable proportion fly too little to perform significantly advanced flying of any sort, and many don't even want to. Nobody is making gliders of ample performance to suit such pilots and those with relatively limited means. The Competitions' Committee have taken the view that "the existing Class structure generates a second-hand market that offers better price-performance to the gliding movement" than would the new proposed Class, which they are against. Do I need to say that a Ventus or ASW-20 in the hands of a 5 to 15hrs/year pilot is not one of the best ideas ever heard? And are we not supposed to want new affordable gliders?

When I criticised this attitude to a member of the Committee at the Weekend, he suggested that if for example the K-6 represented a suitable minimum performance standard for the new Class, then his advice was to go and buy a hang glider, since these were just as good. Was this a joke?

JOHN GIBSON, *Lytham St Annes, Lancs*

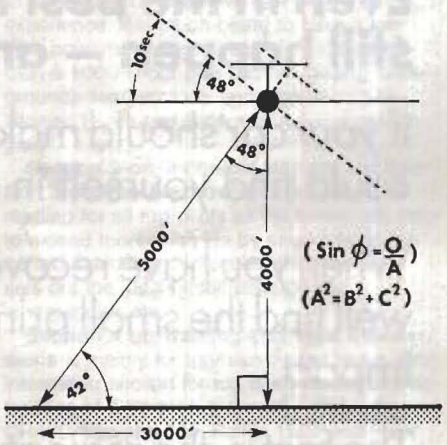
(John originally wrote this letter to Ben Watson, BGA chairman, who suggested that he gave it wider readership.)

COMMENT ON BRENNIG'S LETTER

Dear Editor,

In reply to Brennig James' letter in the April issue, p57, on air data computers, I wish to make a few points.

As an electronics technician on Doppler radar, I would like to point out that a radar gun has a "pencil beam" and can only measure velocity components directly towards or away from the gun. Therefore, if fixed to a glider this instrument would be inaccurate, *ie* if a glider flying straight and level at 4000ft took 10sec to roll to 48° bank, the instrument would record a rate of climb of 6000ft/min. Simple trigonometry will confirm this.



(Remember the 3-4-5 triangle.) An increase ➡

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of indicated height of 1000ft in 10sec gives a rate of climb of 6000ft/min or 60kt up when it is, as we all well know, zero. For the above instrument to be accurate, some form of inertia system would be required to maintain it in the vertical.

Secondly, on the compass solenoid theory, I can only comment on the erratic compass errors whilst accelerating, decelerating and turning in a thermal and say they are too unreliable.

In conclusion, for vertical speed calculations use an altimeter and stop-watch, for centring in a thermal use your backside and watch birds and other aircraft in the same thermal and for final glide calculations use a map and MK1 eyeball with a John Willy calculator for reference.

RON SMITH, *Fenland GC*

REVIEWS

Accidents to Gliders 1987 is available from the BGA sales department at £1.25p including p&p.

This BGA publication, with a foreword by John Shipley, chairman of the BGA Safety Panel, makes more encouraging reading than usual with the accident rate for 1987 (0.33/1000 launches) being the lowest in ten years. And although the memory of 1987 is of yet another poor season, launches compared with 1986 increased by 4.6%, total hours by 1.8%, flying members by 2.8% and temporary members by 6.8%.

There were 150 accident/incident reports with 123 gliding accidents assessed for cause, excluding accidents to tugs (3), motor gliders (8), gliding incidents (9) and non flying accidents, *ie* without a pilot in the glider (6).

But on the black side nine pilots and crew were killed. Four gliding accidents involved five fatalities and a motor glider pilot was killed as well as three in two tugs but not while aerotowing.

There were only five serious injury accidents compared with 11 the year before and a ten year average of 6.4/year. And 13 pilots and crew in 12 accidents had minor injuries compared with the ten year average of 15.2/year.

Winch launching and autotowing continued to be a source of serious accidents. During 1987 one pilot was killed when his glider either rolled on the cable, or tip stalled and flicked into a spin from a low height. Although infrequent, there have been at least seven accidents of this type in recent years with serious damage to the glider and serious injuries in some cases.

There was serious damage to gliders in ten accidents (two involving minor injuries) with minor damage to a further 15. The only third party damage was when a broken cable drifted outside the airfield.

The accident rate for winch and autotow launches is one in 13500, a 60% increase over 1984 and 1985. The accident rate for aerotowing is one in 17000 launches making it a lower risk than wire launching.

Inadvertant stalling and spinning accidents resulted in one fatality, two pilots seriously injured, one with minor injuries and one without injury. There was substantial damage to the gliders.

In reviewing the year it was stressed that there should be regular stall reinforcement exercises so that all pilots recognise stall symptoms and avoid the root causes of poor co-ordination and flight at high angles of attack. It is only through improved *ab-initio* training, regular checks and refresher training that risks will be reduced.

Poor soaring airmanship featured in four serious accidents, one a double fatality in a hill soaring collision. Other serious accidents included a marginal final glide after failing to contact wave, radio distractions while hill scraping and a misjudged field landing in squall conditions. Nine accidents were assessed as being due to poor airmanship.

There were five serious damage accidents during field landings with only one serious injury. This flight was in a progressively increasing wind and the approach was complicated by power wires. The heavy landing caused spinal injuries. A further 19 accidents resulted in minor damage to the gliders. The pilots were mostly well experienced ranging from Silver badge to competition pilot. There were only three Bronze badge pilots and one on his first solo.

Eight accidents during the circuit and approach caused serious damage to the gliders and 16 resulted in minor damage. it is considered that recognition of the undershoot from the relative movement of a reference point up the canopy, still seems to be badly taught if the failure of the pilots to take corrective action is anything to go by.

There were five minor accidents due to collisions with stationary tractors, boundary fences, parked gliders or airfield crops.

Two substantial damage accidents with no injuries and three with minor damage with one minor injury were attributed to the instructor taking over too late. This is significantly less than in 1984, 1985 and 1986. In addition there were 13 dual flying accidents with substantial damage and 20 with minor damage, minor injuries occurring to four pilots and crew and one to the crew only. It is noticeable that accidents to two-seaters seldom produce serious injury.

One pilot was killed after the fin and rudder became detached on a winch launch and a Skylark 4 had an airbrake open on tow due to failing to make the connection. The pilot was released over the airfield but despite being aware of the problem undershot.

In three accidents pilots had crushed vertebra but high density foam seat cushions, which reduce the risk of spinal injury, are still not widely used.

BGA Guide to Tug Operating Procedures, £7.50, including p&p from the BGA.

The BGA has produced an excellent manual on tug operating procedures which is an essential basis for all clubs who use aerotow launching or who are considering it in the future.

It is based on David Oliver's notes for Lasham tug pilots, but all clubs can use them adapted as necessary to their own needs where conditions dictate special or other operating procedures. Readers will recall David's excellent article in the August 1988 issue of *S&G*, p170, on the choice of tugs and their operating costs, and Bill Scull has drawn on his prodigious depth of knowledge on the subject in putting together the fund of information in this manual. The combination of Bill and David has produced what must be the standard work on this topic for all time.

Section 1 on Pilots covers such diverse points as who should and may fly tugs, with reference to recency and total experience (- and new clubs should pay very special attention to this, as there is a tendency at first to accept pilots who have little or no gliding experience; it is much better to have a low time power pilot who is a gliding instructor than a 1000+hour pilot with no gliding background), field landings and who should be allowed to retrieve gliders, and flying passengers in tugs.

Section 2 on Technical Matters and **Section 3 on The Aerotow** are both essential reading for all tug pilots as the former will help to extend tug engine life by emphasising the correct handling techniques while the latter sets out the ideal circuit patterns and emergencies etc.

Section 4 on Training and Type Conversions is mainly for tugmasters, but has a very interesting section for tug pilots on the characteristics of different tug aircraft - Robin Regent DR400, Pawnee 235, Rallye 180T and Piper Super Cub 180 and 150 - together with all vital actions for each aircraft.

Section 5 is on Noise Abatement Procedures which is becoming more and more important these days - especially on new sites.

Section 6 is on Cross-Country and Field Retrieves.

Finally there are **appendices** on The Basic CPL (setting out the requirements for remunerated tug pilots), factors in tug upset accidents, dropping tow ropes, sources of tug pilots and key safety and training points.

Ideally all tug pilots should have a copy of the manual with his own club's amendments and additions to cover the local flying orders and special rules, but at least every club must have one available for all pilots to read.

B. H. BRYCE-SMITH

Please send all editorial copy to 281 Queen Edith's Way, Cambridge CB1 4NH, not the BGA office.

THE LONELINESS OF THE LONG DISTANCE FLYER

George Lee, three times World Open Class Champion, is claiming the World 1000km triangle record with a flight in an ASW-20B from Waikerie on January 25 at 112.15km/h

I have been fascinated by the challenge of long distance flying since setting a new UK O/R distance record of 520km in a Std Libelle in 1971, thereby achieving my Diamond distance. Not that I have flown that many long distance flights since; before this year the longest was the 839km triangle set for the Open Class during the 1987 World Championships at Benalla, Australia.

It was satisfying to complete that task but the lingering feeling was more one of relief in getting home than of achievement as the gaggle joined up just after the last TP and slowly made its way back in rapidly weakening conditions. Also before this year I had only made one 1000km attempt. That was during the practice period for the 1981 World Championships at Paderborn and I turned back just after the first TP when conditions slowed my progress to an unacceptable level.

I live in Hong Kong now and unfortunately can only fly regularly during holidays. An Australian friend, Ron Sanders, who is also an airline pilot, kindly offered to let me fly his ASW-20B (XF) at Waikerie after the Nationals in January and I arrived with four days left, so helped to crew for XF and enjoyed the *apres*-task social scene.

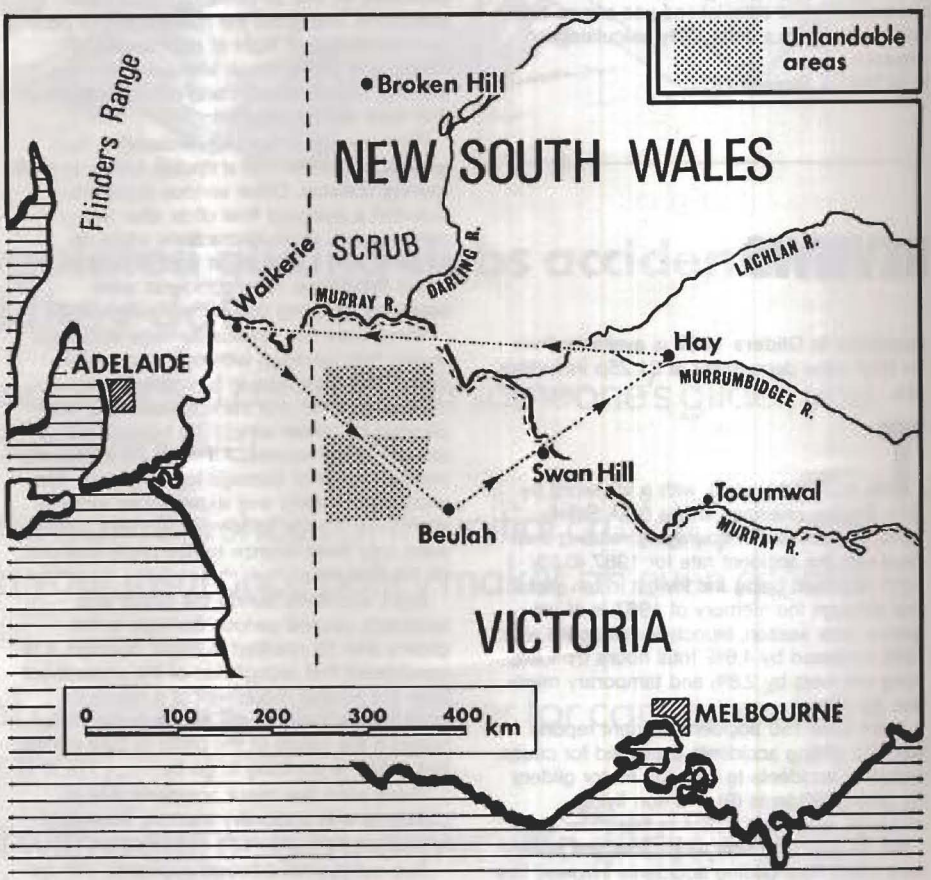
Waikerie is on the south bank of the Murray river some two hours' drive north-east from Adelaide. It enjoys an excellent reputation as a soaring centre thanks to the reliable conditions, the availability of well maintained high performance ships for hire and last, but not least, the conscientious and professional management of CFI Maurie Bradney.

Scrub is not overflown unless conditions are very good

A large area of scrub stretches to the north of Waikerie and is not overflown unless conditions are very good. There is, however, a plentiful supply of large fields (or paddocks) suitable for outlanding in the main task area extending south south-west from Waikerie through south to east. There are two other rectangular areas of unlandable terrain to the south-east but they are surrounded by good landing options separated by a strip of good paddocks.

As for the weather, a typical cycle lasts approximately a week. Anticyclones are normally centred off the south coast and affect southern Australia with flows starting from the south-west and back through to the north-west before a cold front brings a cool change. Needless to say the classic cycle rarely occurs when there is a competition and, although they had enjoyed good weather in the Championships, a predominantly southerly flow prevailed during the last four days.

Although cumulus can form at any stage during the cycle, the majority of days are blue during the main part of the soaring season. As the anticyclone moves to the east the anti-clockwise flow backs through east and the increased land track results in higher surface temperatures and an increase in the depth of convection. The very best days are usually just before the cold front when the flow is from the north-east to north-west quadrant and the hot air from the desert interior gives surface temperatures of 40°C plus.



During the course of a cycle, convection depth starts at around 4000ft and increases as the flow backs with cumulus bases reading 12 000ft plus on really good days. The weather prospects looked good as the Nationals drew to a close; the leading edge of a high pressure system had been exerting its influence for some time but was at last moving eastwards and the flow was starting to back away from the south.

I flew a 300km triangle on each of the first two days, the first in thermals of moderate strength to 5000ft. Conditions started much the same on the second day but then cumulus began forming half-way along the second leg marking moderate to strong thermals to an 8500ft cloudbase. As the afternoon progressed there was a good distribution of cumulus to the east and south-east of Waikerie.

At 7pm the clouds still looked good to the east and I discussed the prospects with John Holland who has flown many long flights from Waikerie. He thought there would be a good chance of flying 1000km during the next two or three days. As the flow was now from the east and working on the premise of nothing ventured nothing gained, I decided to prepare for a 1000km attempt the next day.

The temperature trace looked promising at the morning briefing so I declared an FAI triangle with the legs going south-east to the first TP of Beulah silos, the north-east to Hay airfield and finally a long westerly leg home. I took a launch just after trigger temperature had been reached at 1030hrs and commenced the glide out from the 1000m start.

Thermals, although plentiful, were weak and broken initially and progress was very slow. About half-way along the first leg cumulus began to form but unfortunately it was all behind me! I pushed on into the blue but although lift improved, progress was not rapid enough and I aborted the task just before the first TP to enjoy myself under the cumulus to the west.

At briefing the next morning the flow had backed to the north-east and, with another promising temperature trace on the board, I decided to attempt the same 1004km triangle. Launch time was similar at 1035 but the early lift felt better organised and was certainly easier to use. About one third of the way along the first leg small amounts of cumulus started to form and I experienced some good climbs to 7000ft.

". . . I seemed to make contact with a blue street and covered a lot of ground . . ."

The amount of cumulus remained small and became nil just before the first TP with the prospect of a lot of blue ahead. The next leg was almost directly into the north-east wind and conditions remained blue for the first half. However, the first part went very well and I seemed to make contact with a blue street and covered a lot of ground without having to stop very often.

Then the bottom fell out of my world and I fell into all kinds of bad air. The terrain looked a good thermal producer but all I could find was heavy sink and the occasional broken thermal which wouldn't develop.

Finally I was down to 1500ft near Swan Hill town and airfield and feeling distinctly underconfident about a successful escape. The air gave the feeling that there was a decent thermal in the area if I could only stumble into it.

Then I found broken 4kt lift which strengthened to an average of 6kt and I could breath again. Small amounts of cumulus were forming near to track beyond the town and I was very glad to see them as the terrain became less hospitable on the run in to the second TP. Rates of claim were reasonable under the cloud and I elected to stay high, operating in the 5000 to 8000ft height band.

Being conscious that the last leg was 442km I reasoned I would like to turn Hay by 1645 which would give me 4hrs to last light at Waikerie. As it happened I turned at 1610, not that I could relax too much as the cumulus were rapidly disappearing to become thicker areas in the inversion haze. Good landing options were still not plentiful so I elected to accept reduced rates of climb and stay high.

Shortly after I made contact with a couple of better blue thermals which boosted my progress and I established radio contact with two pilots flying a 1000km zigzag course from Waikerie. They reported good cumulus around the Waikerie area and said that I should contact them in another 200km or so.

Four or five reasonable climbs punctuated by long glides finally brought me within sight of cumulus. I then had the frustrating experience of watching the first few clouds disappear as I approached them. Tactically I wanted to stay high at this time of the day; instead I found myself approaching 3000ft as I darted between decaying clouds.

Finally I made contact with one that was building and I was able to relax at 6kt to 8000ft. It was nearly 1900hrs when I resumed wings level flight and the sky to the north-west over the scrub looked superb with evenly distributed cumulus that appeared to have a base of at least 10 000ft.

Unfortunately things were not so good where I was and I dumped all my water. I was not thinking about speed at this stage and I gratefully accepted 1½kt at 5000ft about 80km from home. As I climbed better looking cumulus formed behind me so I back-tracked a small way and centred on a 3kt thermal. I took it to 9000ft and enjoyed a lengthy final glide to finish at 1938 during the course of which I burned off the extra 2000ft I didn't need – well I didn't want to risk a land out! The post-flight beer was nearly as memorable as the flight.!

Post-flight analysis revealed that the 293km first leg, affected by the crosswind and having to use the first thermals of the day, was flown at an average speed of approximately 98km/h. The second, into wind leg of 269km was flown at an average speed of approximately 107km/h which proved that the excursion to low level hadn't been to expensive in terms of lost time.

The last 442km leg was flown at an average speed of approximately 127km/h, reflecting the contribution of a quartering tailwind and a 30min final glide. The overall working height was in the region of 5000ft to 7500ft with thermals during the main part of the day averaging 6 to 7kt. The forecast called for a wind at flying height from the north-east at 10 to15kt and that felt about right. Navigation was not a problem due to the presence of distinctive features *en route* and the usual excellent Australian visibility.

To say that I enjoyed the fight would be a gross understatement! Building excitement when I realised there was a good chance of completing the task gave way to elation as I centred in the final 3kt thermal and realised the final glide height was within reach. I learned quite a lot technically from battling with the early thermals at maximum weight – I think it was worth keeping all the water as the thermals improved quite quickly.

I learned a lot psychologically from being at 1500ft in the blue a long way from home and from having more than 440km to go at 1610! I was also reminded how solitary an occupation long distance non-competition flying is, but my Open Class background helped me to cope with that. Finally, although it was a good day it was not a great day by Australian standards and it opened my eyes as to what might be achieved on a really good day.

AUSTRALIA

The 1990 Australian Nationals, with three Classes, are at Benalla from January 6-20 and international visitors are welcome to enter. There will also be a team event with each country represented by three pilots.

For more details contact the Gliding Federation of Australia, Building 130, Wirraway Road, Essendon Airport, Victoria, Australia. Tel: 03 379 7411. Fax 03 379 5519.

ADVENTURE WITH A PIRAT

My apologies to those who have heard this story before but I hope someone may learn from it.

Some time ago when the Pirat was new to us and the club hot ship, I was flying it at 3000ft and thought I would try a spin to lose height. I turned to the right and banked, hauled off the speed and as it neared the stall I applied a boot full of in-turn rudder. I then tried picking the wing up with the ailerons and whiz, away it went half a rotation, then full opposite rudder and out it came.

That was fun and as I still had 2500ft left I tried a spin to the left. I used the same method of entry as before and whiz it went again. This time I left it for two turns, put on opposite rudder and the rotation stopped but the nose bunted down, apparently past the vertical. All of a sudden I stopped enjoying myself and felt scared, especially as this was one of those few occasions I wasn't wearing a 'chute.

I was diving at the ground and if I couldn't sort it out I was going to be dead very quickly.

White knuckles holding the pole fully back

What had I done wrong? I went through the recovery again. Full opposite rudder, yes I had done that. Centralise the ailerons, yes the stick was central. Ease stick forward until the spinning stops. I looked down to see white knuckles holding the pole fully back.

Hell, I'd got to try pushing the stick forward even though I seemed to be in a vertical dive. However, I would have tried anything to get out of that mess and forced myself to push the stick forward.

Almost instantly I felt the elevator biting the airflow. I started easing back on the pole again and the Pirat zoomed out of its dive. I wiped the sweat away from my brow and checked the altimeter – 1400ft, so taking into account the tremendous zoom up from the dive I must have bottomed out at around 1000ft.

In retrospect I was caught out by the nose down bunt when I stopped the spin rotation and so did not go through the full spin recovery action. I sometimes think back and wonder what the inquest would have made of it had I crashed on to the Southwood golf course. No doubt the verdict would have been pilot error and they would have been right.

WIND SHEAR, DOWNDRAFTS AND VORTICES

Part 1

Tom Bradbury continues his Met series with a two part article on the low level wind flow and its influence on landing

One cannot always be sure what the low level wind is like. This can make landing one of the hazardous periods of a flight. Gliders with their relatively slow approach speed are sensitive to sudden changes of wind. However, the problems are not confined to gliders. Large and heavy airliners have also experienced landing accidents due to sudden changes in the low level wind flow. This is a brief description of what may be encountered on the final approach.

Wind shear

Wind shear refers to the change of wind velocity over a specified distance. From the pilot's point of view the important feature is the vertical wind shear, the change of wind velocity as you alter height. This is often called the "wind gradient". (Do not confuse this with a similar sounding term "gradient wind" which is concerned with geostrophic winds which blow round curved isobars.)

The most familiar type of shear is that between the "geostrophic wind" and the surface wind. The geostrophic wind is measured from the direction and spacing of isobars on a weather map and is assumed to represent the wind at about 2000ft. The surface wind is almost always less than the 2000ft wind.

Affects low level turbulence

The relationship depends on the stability of the air and the roughness of the terrain. The roughness of the ground influences the surface drag. This reduces the wind speed near the ground and also affects low level turbulence. When it is unstable the up and down currents tend to stir up the air so that the wind aloft is not very different from the wind near the surface. However, as the air becomes more stable the flow aloft becomes decoupled from the flow near the ground. Then the lowest layers are no longer speeded up by eddies of fast moving air coming down from above and the surface wind falls very light.

Here is an example of the kind of change observed in different circumstances.

Wind at 2000ft	270°/25kt
Wind at 30ft:	
Over a smooth sea	260°/22kt
Over land on a sunny day	250°/15kt
Over land around sunset	240°/10kt
Over land on a clear night	230°/06kt

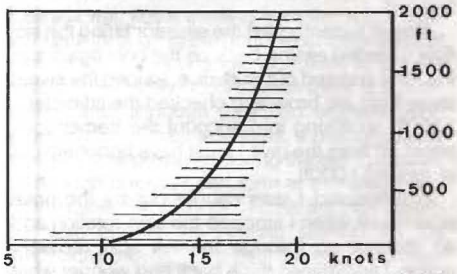


Fig 1. Vertical wind shear between 2000ft and the surface on a sunny day.

The wind shear is not constant from top to bottom of the layer; most of the shear occurs near the ground. Fig 1 shows the variation in wind speed between 2000ft and the surface during a sunny day. The solid line shows the mean wind speed, the shaded section either side shows how the actual speed might fluctuate due to gustiness. The gusts are most noticeable near the surface where turbulence is greatest.

How the shear changes between day and night

When the lowest levels of the air cool down during the evening a temperature inversion starts to form near the surface. This inversion stops the mixing of air between high and low levels and the surface wind then decreases. The wind shear becomes greater but the turbulence dies away because there is no longer a strong flow over surface obstacles.

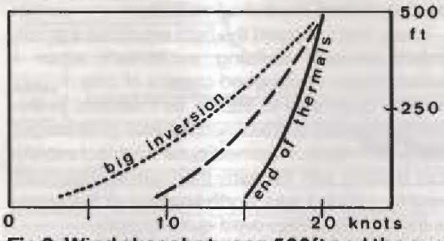


Fig 2. Wind shear between 500ft and the surface showing the change as a nocturnal inversion develops.

Fig. 2 shows the kind of change expected between 500ft and the surface. There are three curves. The right hand one represents conditions just after thermals cease. At this time the wind speed might only decrease from 20 to 15kt in the lowest 500ft. The left hand curve represents the effect of a big inversion when the wind speed becomes nearly calm at the surface. It must be pointed out that these are smoothed curves which are only theoretically representative of the way the wind speed alters as you descend to the surface. The actual variations on any one occasion can be significantly different.

Low level jets

Fig 3 shows two real wind profiles. The solid line was observed at midnight over fairly flat ground near Bedford. The pecked curve represents a wind shear which occurred near the Persian Gulf at Bahrain. In both cases there was a well developed temperature inversion with relatively cool air at the surface and warmer air aloft. The top of the inversion (where the air temperature was highest) was also the level where wind speed was strongest. In the English example the wind speed increased from about 4kt near the surface to 28kt at 1000ft. Above that the speed dropped off.

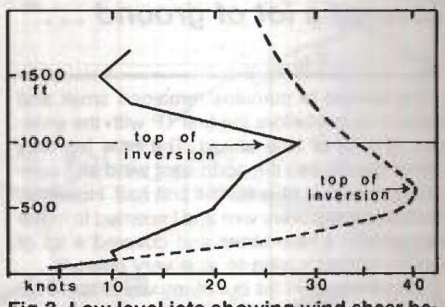


Fig 3. Low level jets showing wind shear between the inversion and the surface.

The Arabian observations showed a much greater shear. The speed went from about 4kt near the surface to just over 40kt at 500-600ft. Observations from a very tall TV mast in the USA showed that the nocturnal wind speed at about 1600ft could rise to about 70kt on occasions.

These three examples illustrate "nocturnal low level jets". Fortunately these remarkably strong winds near the top of the inversion are normally only found at night. They die out after sunrise so are not likely to trouble the average glider pilot but they can worry pilots of airliners. Other low level jets may occur just ahead of cold fronts by day or night but these do not usually produce such expectionally strong wind shears at very low level.

Vorticity

Vorticity can be loosely defined as the "spin" in the atmosphere (or in a fluid). If you visualise a sort of giant paddle wheel set up parallel to the airflow (see Fig 4) it would start to rotate in the direction shown by the wind shear. The rotation would be an indication of the vorticity of the air-

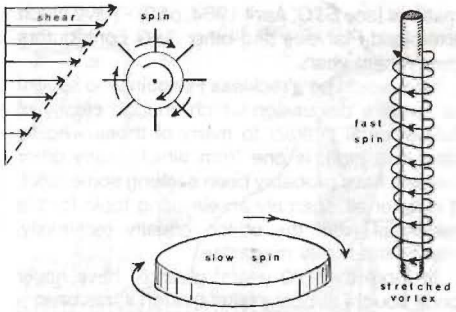


Fig 4. Vorticity (spin) produced by wind shear. How the spin is increased when the vortex is stretched.

flow. The axle round which the wheel rotated represents a "vortex line".

One of the important features about vorticity is that the spin will become faster if the fluid converges on a point. An everyday example is the vortex which develops as water drains out of a bath when the plug is pulled out. The almost undetectable spin distributed throughout the bath is concentrated where the water converges. The spin often becomes so rapid that centrifugal force produces a dip in the water, a dip which may extend right down the plug hole. If the water empties out on to a flat draining tray it diverges in all directions. As it diverges the spin slows down and very soon vanishes.

Looked at in another way one can say that if a large, flat, slowly rotating vortex is pulled into a long thin one it will spin very much faster. What happens in water also happens in the atmosphere. Here there are many scales of spin; they range from vast depressions with a diameter of hundreds of miles down to little dust devils a few feet across. Even smaller vortices develop at wingtips where long lasting vortex trails are left behind. These vortices only show up when the air is very moist; they can sometimes be seen not only trailing back from the wingtips but also coming off the tips of propeller blades and other sharp corners, such as the outer edges of lowered flaps. The old Vickers' Vanguard used to provide splendid examples of flap vortices which left short lived condensation trails behind during the landing approach. The trouble is that many atmospheric vortices are invisible unless the pressure drop within them is great enough to produce condensation.

Encountering wingtip vortices

In the happy days before Upper Heyford had its zone I once watched an F111 pass just above and a couple of miles in front of me on an almost cloudless sleepy summer afternoon. The F111 had almost vanished from sight when my Phoebus gave a jolt like riding down a three foot step on an unsprung bicycle. By the time I had got my feet back on the rudder pedals and found where the camera had bounced to the afternoon had ceased to feel sleepy.

Such encounters are sometimes disastrous. Some years ago a two-seater approaching to land at Lasham lost control as it flew through the vortex trailing behind a heavy jet which had just taken off. There was a good deal of damage because the two-seater then struck other gliders lined up for take off.

Separation of flow

Most pilots are familiar with the separation of flow over a stalled wing. Separation of flow can also occur when the wind blows across hill tops. Fig 5 shows a common example. Here the air flows up the side of a steep ridge but is unable to follow the sharp change at the top. The main flow separates from the ground leaving an eddy rotating beneath the surface of separation. This eddy is often the cause of the "clutching hand';' effect found at many hill top landing grounds.

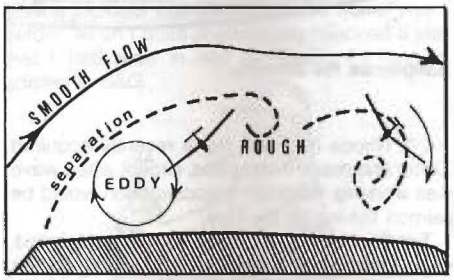


Fig 5. Separation of flow over a sharp edged ridge.

A practical example at Nympsfield

The eddy is particularly well marked at Nympsfield when a strong NW wind is blowing. It produces several types of landing hazard there.

The first effect is often experienced at about 200ft. As you descend through the surface of separation there is nearly always a very sudden drop in airspeed; a reduction by 20kt is not unknown. At other times the eddy puts the glider into a 45° bank (sometimes steeper) in spite of full opposite controls. Since these eddies never stay in the same place for long there is no certainty where one will meet this effect, or if it will exist at all at the crucial moment. One thing is certain; any pilot who makes the sort of approach suitable for a large flat airfield (15kt above the stall) is in some danger.

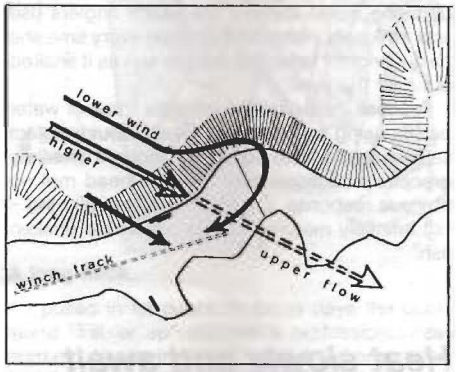


Fig 6. Wind flow in a north-westerly at Nympsfield. Shading represents the north facing slope.

The problem is made worse at Nympsfield by the effect on the surface wind. There is a spur jutting out from the nearby ridge. This seems to deflect the wind. Some of the airflow is diverted along the contours instead of over the top. The diverted flow then turns back towards the region of curl over. (See Fig 6) The result is to introduce a tail wind in the lowest 50ft. The flow may be NW

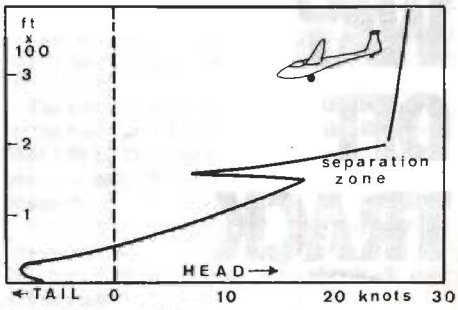


Fig 7. Change in head wind component during approach at Nympsfield in a north-westerly.

up aloft but the eddy can produce an ENE wind on the ground. This trap waits to catch out the unwary pilot who may have escaped the turbulence area at 200ft. In several cases pilots making a slow approach have been unable to round out at all. One visiting pilot stuck his Skylark 2 into a softer patch of ground like an arrow into a target. Others have ended upside down in a sadly bent glider. This effect has caught out experienced pilots in powered aircraft as well as newcomers in gliders. Fig 7 shows how the head wind component can change during the final approach to landing.

How convection can make matters worse

When a thermal leaves the ground there is a noticeable convergence of air towards the base of the thermal. Sometimes this is enough to start a little vortex. Any slight spin already existing over a distance of several hundred yards may be concentrated under a strong thermal until the ascending air starts to rotate so fast that it produces a dust devil.

At Nympsfield the initial spin may be produced where the opposing winds meet below the separation eddy. These little dust devils can sometimes be seen raising a commotion among the loose gravel on the winch track. After a wet spell there may be nothing to mark them. However, parked aircraft may be suddenly disturbed. This often only amounts to rudders being banged from side to side but it could provide that little extra surge which lifts a wing, tyres and all, and overturns the glider. ■

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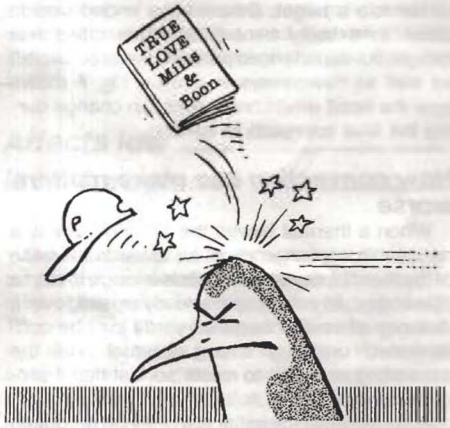
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At the risk of angering her indoors - not Her Indoors at No 10 but her indoors at No 28 to



Angering her indoors.

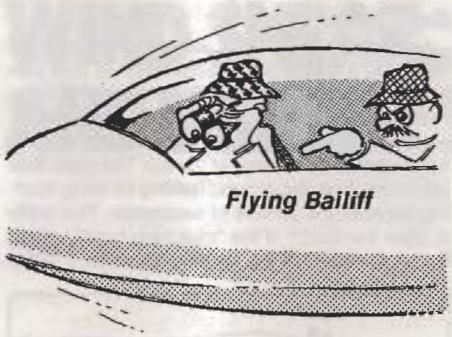
whose whims and foibles my self-preservation instinct makes me necessarily more responsive - I do not immediately associate the female sex with humour. Except, of course, as the unwilling Aunt Sallies for sallies of the crudely sexist mothers-in-law and her indoors variety.

So I'd be hard pushed to name five really funny women writers whereas the very witty male scriveners, both past and present, whose works I can recall are legion.

One woman who clearly falls into this category is Rhoda Partridge*. Her whimsical narratives used to grace the journal you are now perusing. I made a happy re-acquaintance with Rhoda's work recently when leafing through old *S&Gs*, consulting the small ads to work out the rough rate of inflation in the second-hand glider market over the past 15 years or so. But I abandoned that project when it threatened to bring on cardiac arrest.

Apart from a one-off return to print three years back with an anecdotal anthology - mainly of field landings and retrieves which went madly awry - Rhoda's pen, regrettably, does not seem to have been much used during this decade.

Despite our mutual fondness for the Mynd I have met the Presteigne Potter only once, when we were both visiting Aboyne in hope of wave in



Flying Bailiff

Sailplanes for stealth.

1975. Rhoda had with her a recently acquired Cirrus and made it clear that, except when wave was working, her main preoccupation would be salmon fishing on the Dee.

Two then-teenaged clubmates, greatly charmed, were happy to dance attendance and rig the Cirrus as required. But my age spared me the need for such adoring and respectful homage - Rhoda made clear her preference for *younger* men.

This was before the days of personal multi-channel VHF transceivers, so all three of us were instructed to alert her by a beat up over the relevant river reach once wave set up. The fact that we would have to sacrifice the lift to do so was smilingly dismissed.

One calm, sunny, evening after several non-flying days I was happily soaring in weak lift about 1200ft above the field. The Cirrus was duly rigged. No way was I going to pass up what little soaring we had so far had by burning off height for a beat up but I lazily circled repeatedly over Rhoda's head on the nearby Dee.

She was standing thigh-deep in the stream, happily ignoring such dicta as never mix electricity and water by wearing her battery-heated wave flying socks. I then made what I thought was an interesting discovery at the time. The ultra-fine mono-filament line which anglers use was strikingly visible from altitude every time she cast - brightly reflecting the low sun as it snaked out over the river.

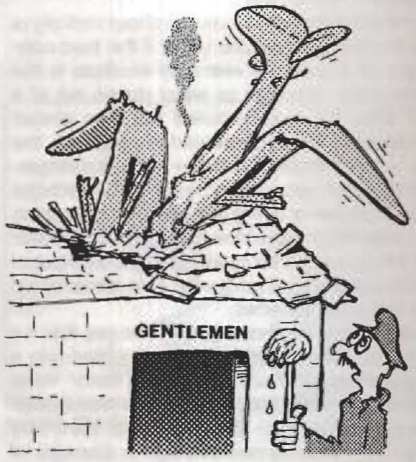
A sneaky airborne surveillance force of water bailiffs using sailplanes for stealth could protect salmon stocks from poachers, I thought when my graceful evolutions over Rhoda's head met no obvious response. Clearly, I was less alluring - but infinitely more catchable - than the unseen fish.

Heat slowly and await results

The crucial differences in the plumbing systems of what I once saw labelled on the loo doors of a south coast sailing club as Gulls and Buoys (geddit?) - or what Trish Watson euphemistically called our respective physiological conformations (see *S&G*, April 1984, p62) - have much exercised Platypus and other *S&G* contributors over recent years.

So it would be a reckless Penguin who sought to revive a discussion which, though clearly of fundamental interest to many of those who fly long and high, is one from which many other readers have probably been seeking some relief. It is, after all, scarcely an elevating topic for the pages of what the editor, equally recklessly, insists is a family magazine.

In more than 20 years' gliding I have never once sought airborne relief though it has been a close-run thing many times and one of my two accidents on file was wrecking an Olympia ages ago in a hurried and misjudged landing in urgent need of what, in my kindergarten days, we called Number Twos.



Misjudged landing.

In all the discussion of relevant technology - from plastic bags held out gingerly through CV panels to hot-water bottles and incontinence devices like Kanga with which Trish boldly wrote she was now equipped - I am surprised there has never once been mention of a device through which the need for relief can sometimes be comfortably deferred.

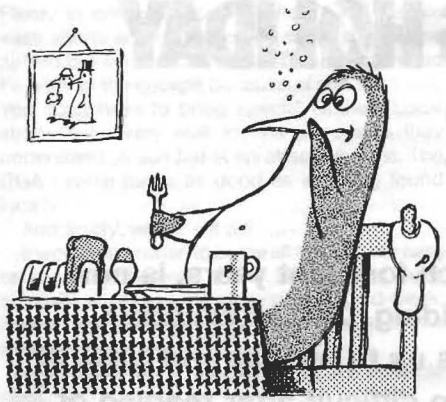
I discovered it through sharing a week, and a cottage, at Aboyne with what might be described as two gentlemen farmers - if that is not a ludicrous contradiction in terms. Both are big into the slaughter of our feathered friends and in the absence of much wave that week I lived vicariously through many shooting incidents of a type entirely different from those it has been, unhappily, my professional duty to report upon for the past 20 years.

It was through these discussions that I learned of a device much used by duckshooters and other fowl blasters to keep their trigger fingers operational - the solid fuel handwarmer.

Smaller than a fag packet, the re-usable metal casing contains slow-burning solid fuel rods which burn for about eight hours, amazingly, in the near-absence of oxygen and emit a steady controlled heat.

"What a great thing for wave flying" I thought, immediately buying one from Aboyne's local gunsmith. First time I used it I had it in the breast pocket of my overall beneath a padded jacket and forgot it was there until about two hours into

** By coincidence, an article by Rhoda has been chosen by the Arm-chair Pilot for this issue's S&G Classic.*



Full-blown breakfast.

the flight. Then I felt and was immediately alarmed by a hot sensation in my chest which clearly went beyond the gastric heartburn I sometimes suffer after a full-blown breakfast. "Is this a heart attack?" I asked myself with some foreboding, beginning a hurried descent when awareness dawned.

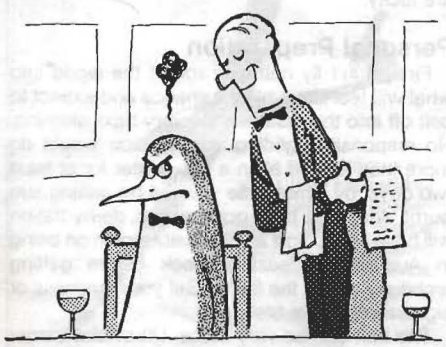
But I digress. What have these things to do with peeing or, more important, with not having immediately to pee? Just that tucked down beneath one's harness buckle, in the approximate region of the waterworks - at least, their approximate location in my physiological conformation, what about yours? - the effect of warmth on a chilled and shrunken bladder at altitude is quite wondrous relief.

You're good for at least another 2000-3000ft and perhaps another hour in flight and can make an unhurried descent to pee in comfort - and the John.

Whew! The tone of *S&G* is on the up and up. Please note I've got to the end of this discourse without once using the words "wet knickers."

"Waiter, there's a horse in my soup . . ."

Only twice in my life have I been seated at the top table anywhere. The first time was only good politics on the part of management. As the bride's father I was paying for the feast.



Paying for the feast.

The second time also had a catch. It was in Limerick, where about 150 of the region's great and good were hosting a party of journalists and broadcasting "celebrities" from the wild north.

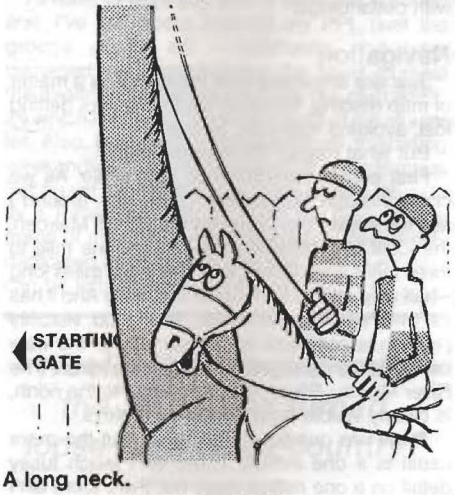
Only seconds before my dessert plate was about to offer nothing but its glaze, I learned the catch. "You're on in two minutes. You're to do the vote of thanks," whispered Herself, seated at my side.

By the grace of God, as I floundered lamely towards the end, to a sea of faces as unmoved as any sea of Irish faces ever can be, I recalled a gliding incident that had happened some years before, when I quite shamelessly hijacked a jest that I had read in one of Rhoda Partridge's articles in *S&G*.



Hijacked a jest.

I had had an immensely long and tiring journey, solo, towing a glider from Belfast through the Irish Midlands, where the roads have more twists and turns than a belly dancer's lower bowel. But I was happily nearing my destination - the Dublin/Ulster GCs' autumn safari to Co Kerry - then at Farranfore Airport but now flown from several beaches further west.



A long neck.

I pulled in for petrol. In those days the command "Fill 'er up" still met a professional response. "What's in there?" asked the proprietor, nodding towards the 30ft of trailer which blocked his other two pumps.

I knew that if I replied sailplane, aircraft or whatever, he'd want to see. Friendly inquirers had persuaded me to open up at three towns further back along the route. Tired, I wanted to stay put.

"It's a horse," I said in my best London tones, which are occasionally received with as much warmth as an eviction notice or parking ticket down there. "An elongated horse, specially bred in England to win races by a long neck.

"We're over here cleaning up at all the Irish meetings," I added in a quick-fire embellishment of my own.

Despite the fact that the tired jokes the English, in their arrogant dimness, tell about the Irish are first told by Dubliners about Kerrymen, he was smarter still. "Sorry I asked," he fired back instantly.

"Should've been obvious. The English have been sticking their bloody necks out in this country for 800 years, so why shouldn't their horses too?"

When they heard an Englishman recounting this, with a warning to his northern colleagues not to attempt to be a smart-arse down in the west of Ireland because the locals were likely to prove smarter than they, the faces of the assembled Limerick worthies became alive. Their guffaws raised the roof.

I sat down feeling ten feet tall, mentally thanking Rhoda, and was complimented warmly on the scintillating quality of my speech. Fortunately, for lack of any other invitation - and if I were asked to address a Limerick banquet now I would plead a prior commitment and decline - my reputation as



A prior commitment.

a brilliant after-dinner speaker survives in that city to this day.

Who's way off track?

I recently purchased Derek Piggott's new **Understanding Flying Weather** as a present for a foreign friend. Lucky it's not called *Understanding Navigation*.

For on a map ostensibly showing the reporting points used in Radio 4's inshore waters forecast - very useful if you fly near the coast and are a habitual nightbird, still conscious after midnight - six stations in Northern Ireland, the Isle of Man and the west of Scotland have been transposed to the Outer Hebrides, the Shetland Isles and the Scottish east coast.

When last heard from, the honest burghers of Ulster's busy ferry port of Larne were a bit miffed to find their town spirited to the Isle of Lewis, a long way north, by the power of Derek's cartographic pen.

The Manx airport of Ronaldsway was no doubt surprised to find it's been serving the Shetland Isles all this time. But modest, little known, Orlock Point in Co Down was thrilled speechless to be transmogrified into world-famous John o'Groats.

YOUR GLIDING HOLIDAY DOWN-UNDER

John Williamson, a national coach for eight years, is now manager of operations of the Gliding Club of Victoria, Benalla and in this article tempts us to holiday and glide in Australia, which might not be too difficult after reading of George's record flight on p170

Maybe a pipe-dream coming true? Maybe the opportunity of a business trip with time to spare? Maybe just plain indulgence! Whatever the reason, Australia is a great place to visit and a great place for glider pilots to ease their frustrations over yet another English summer.

The Weather

The Australian summer weather is hot! And reliable in that there are far more good soaring days than poor, even if many of them are cloudless. I used to be able to count on one hand the truly good days of an English summer! Ken Stewart and I had a stock of 15 standard lectures with which to augment our BGA soaring courses -and even then we sometimes ran out of ideas in that department.

Now one hand will tally the *poor* days of the Australian summer! And the lectures must be short and sweet because we will all be busy getting ready for flying. Having said that it is important to realise that everywhere can have off-periods - World Comps always brought out the worst in the local weather in my days in that scene!

A typical Benalla summer day starts cloudless and with a gentle cool (20°C) southerly breeze advecting from the mountains 20 miles to the south. By mid-morning the temperature is up to the high twenties.

Because of the generally high pressure and lack of the complications of maritime influences, forecasting the start of the day's convective activity is relatively simple, and by late morning the first long distance flights will be lining up for take-off as the ground temperature climbs predictably. The first small cumulus will have appeared over the mountain peaks away to the south and east, and over the hills near Benalla about an hour later, as the thermal "trigger" temperature is reached.

The first gliders are soon up and away, skirting the large local lake to reach the hills beyond for the first good lift. This is probably the most critical part of the whole flight. Failure to make contact now means a hasty dumping of ballast and an ignominious descent into a "paddock". (*All* fields are paddocks, even the ones with horses in them!) But the paddocks are large and most can be towed out of, once the rest of the gang have been launched on their way.

Gradually the temperature rises to a peak (34-38°C) at around five o'clock as the thermals reach their most powerful. The cumulus bases may have risen above the inversion - look, no cumulus! - at 8000 or 9000ft, or even higher on the very best days. True average rates of climb of 4 to 6kt are common. Eight to 10kt is granted to the skilful or more fortunate.

Climb rates peak at around five o'clock, and then slowly decline, although the convective depth remains. By eight o'clock, with an hour to go before sun-down, the last thermals have died. Occasionally the problem is getting down to a safe landing in the last of the short twilight. Final glides may have to be calculated for time as well as distance!

(**NB.** For those of you who have tried it, and don't recognise the above scenario, please be assured that the recent summer was acknowledged by the locals as one of the worst ever. And didn't we have fun!)

The Flying

At Benalla there is the choice of attending a course, with the close supervision and assistance that this implies, or being more freelance, albeit with suitable supervision. Most visiting pilots, especially the less experienced, would find a combination of the two to be best. Attendance on a formal course, with three pilots sharing two gliders for the first week, with the chance of two-seater time with a top soaring instructor; and the exclusive hire of a glider for a second week. In either case every visiting pilot is subjected to familiarisation flights, especially to look closely at some of the less obvious problems with outlandings.

Navigation

Just like anywhere else, navigation is a matter of map reading, following landmarks, not getting lost, avoiding restricted airspace.

But what maps? What landmarks?

First comes familiarisation with scale. As we climb through 6000ft on a quick look around I ask the latest Pom to assess the size of Makoan, the local lake. Answers range from one mile to three miles long. In fact, that lake is ten miles long - half way across from Dover to Calais! And it has its own sea breeze effect. The good visibility (100km is common) and sheer size of the view can take some adjustment of one's ideas. The River Murray, Silver badge distance to the north, is clearly visible from 6000ft most days.

There *are* quarter million maps but the more usual is a one million. There isn't much fussy detail on a one million map, but then, there isn't much down there to make a fuss of!

Once away from the small towns (Benalla rates as a city, at 9000 population) virtually every homestead is marked - on a map that would encompass the whole of southern England and still feel handy in the cockpit. Rivers (usually called creeks) are small blue lines, their presence in the countryside below given away by wiggly lines of gum trees. There's not much water to be seen. The long straight lines are the gum trees along the roads, arranged logically in a regular square pattern when the country was turned over to farming, barely a century ago.

Popular TPs are the numerous wheat silos, groups of concrete or shiny steel monsters every 15 miles or so, each placed on a railway system that is there for only that purpose. Follow the railway, you say. If you can see it, say I! Often it merges into the paddock pattern, especially at high summer when crops are gathered in and the countryside is universally brown under the hot sun.

And to compound the problem, although achieved cross-country speeds are probably much higher than one is used to back home, the distances outside are difficult to equate to on the map. One leg of a 300km triangle is about as long as your finger! So it does take a bit of getting used to, and a two-seater excursion on a soaring course is probably the best way to do that.

Outlanding

Outlandings are not a problem of finding somewhere to land. There *are* some special traps for the unwary, but most of the paddocks are at least 800 yards long. It is more a problem of finding someone to talk to when you *have* landed! For 40 miles around Benalla the farms are frequent and close together. One rarely would have to walk more than two or three miles to a house. But north of the Murray, into New South Wales, and soon the farms, or stations, can be dozens of miles apart, and many are uninhabited.

Most retrieves from less than 50 miles away are by aerotow, but the time to sun-down must be carefully watched! Otherwise it can be a long wait - in the home of a friendly "cocky" (farmer) if you are lucky.

Personal Preparation

First, don't fly half way round the world into what will feel like a blast furnance and expect to belt off into the distance the very next morning. No responsible gliding organisation would do more than let you sit in a two-seater for at least two days, by which time you will be getting sun burnt. When you have got over that, de-hydration will have set in. So if at all possible, plan on being in Australia at least a week before getting ambitious about the flying. Get your business or sightseeing done first.

The sun can be very fierce. Ultraviolet barrier creams are readily available and should be used.

Plenty to drink, and cool clothes. Most people wear shorts and short sleeved shirts around the airfield but light slacks and long sleeves should be worn in the cockpit because of sun burn risk. You don't have to bring special clothes. Local shops cater very well for the conditions they understand. A sun hat is an absolute must. The BGA beanie hat is as good as anything found locally.

And finally, where's it at?

It would be unwise to come all the way out here on spec. Do book well ahead. Most gliding clubs are quite small and not many operate mid-week. All that glorious soaring weather goes to waste Monday to Friday.

I feel qualified to mention only five possible sites.

My own club, the Gliding Club of Victoria, is at Benalla, in Victoria state, in the south-east corner of the continent and just north of the Great Dividing Range. It is the largest in Australia, at least in terms of launches. It is primarily a club, run for its own members, but welcoming guests from all over the world. There is a year-round training programme, including cross-country courses in the summer months.

Thirty miles closer to Melbourne is Euroa, a small club which arranges rental of privately owned sailplanes, mostly to visitors from Germany.

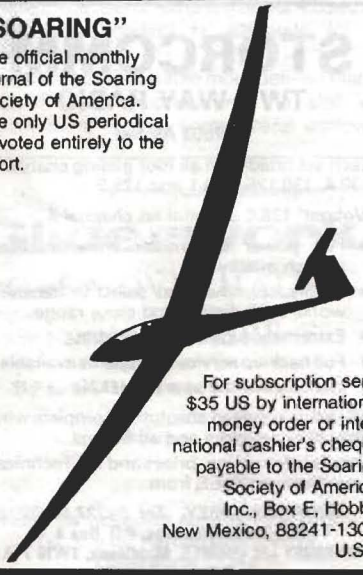
Waikerie, some hundreds of miles north-west of Benalla, in South Australia, is closer to the hot desert country, and also runs courses. Waikerie is run by Maurie Bradney, a long-term member of the Australian team.

Tocumwal, only 60 miles north of Benalla and over the Murray, much favoured by visitors from Germany, is a wholly commercial business. Ingo Renner spends the Australian summer here.

Narromine, some 200 miles north-west of Sydney, is Japanese owned, and run as a commercial venture, catering mainly for Japanese visitors. The CFI is John Rowe, also a former member of the Australian team. There are probably others that I don't know about.

That's it, mates! Hope to see ya later!

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MERRI'S PROGRESS

Learning Curve: Have Faith



This has been quite a May Bank Holiday weekend. I feel as though I've received a kick in the rear as far as learning to glide is concerned. You learn on every flight, but this weekend propelled me forward by several steps.

I'll have to bore you with a bit of background first: I've just about finished my PPL (just the ground exams left - hallelujah), and have managed to scrape together the hours to meet the minimum requirements to fly our club ASW-24 which had been dangling in front of me all winter. Also, I've spent a few extremely frustrating weekends waving my husband off in the Nimbus 3DT on yet another big task while I made ready to fly a Tomahawk prior to doing my GFT. So my frame of mind this weekend virtually completely dedicated to gliding for the first time in months can be left to your collective imaginations.

Would I be allowed to fly the 24 and be turned loose on a cross-country?

I was ready: I had been the first to get my field landing checks done, bought the up-to-date half mil map, done my spin checks. Would I be allowed to fly the 24, and would I be turned loose on a cross-country? The field landing checks this year were part of a nav-ex and as such, were a pretty good representation of what could happen if one fell out on a cross-country flight. They were designed to increase my mental channel capacity, and this really helped this weekend.

Saturday night, having had a few lagers, I decided to subtly approach our CFI regarding the subjects dearest to my heart. His response was to state flatly that no one with over 120hrs should not be a solo winch driver. My heart sank. The winch! It ate people, didn't it? The driver had the glider's life in his hands, didn't he? I took his point even though I felt that it needn't necessarily be a prerequisite to flying a 24. Sunday: down the winch - and the Tost winch at that! By the end of the hour, I didn't want to leave; it was a pleasure to drive and so I had to buy winch conversion beers that night. The CFI was right: glider pilots should not have an "I can't do that" mind-set. Being realistic has nothing to do with a negative, self-doubting attitude. Another corollary to this is that a multi-faceted club member is more of an asset to the club.

Monday, and I casually asked if the Astir had been allocated to any one. No, and I could claim it for the day. Tasks were being written up and photographs being taken all over the place and I was getting worried that I would have nothing to write about for this column. I guess that wound up would be more accurate: no 100km triangles on the board! I would be local soaring yet again! No bad thing, but . . . I couldn't bring myself to ask the crucial question of the CFI and I suppose the steam coming out of my ears was quite noticeable. Anyway, there appeared like magic the desired task, and I was informed that I had clearance. Out came the maps, and the smile, and I approached the CFI to thank him. He said: "I'm really very approachable". The funny thing is that he really is very approachable, and I knew that, but . . . have faith!

It was a magic flight: For the first leg the sky was popping, but I couldn't see where the lift was coming from and so spent more time than necessary feeling for it: streets that should have been working like proper streets simply weren't. I also spent 45-50min looking for my first TP which was out in a large patch of sogginess to the NW of Northampton, but to the east of the M1. The only thing working was the Watford Gap Services so I had to keep darting into no-man's land and back for a lift refill. Finally it came down to picking a field and landing. Thank heavens for the field landing checks; they provided an extra level of polishing and I'm convinced they made all the difference. It was uneventful and safe, and when it was over and I could breathe again, I was relieved that my first field selection and landing went so smoothly.

I didn't complete that task, but I learned a lot from it. I learned that it is not enough to fly where there is lift (although it helps), but one must fly at the correct speed: and reading about this just doesn't equate to learning through experience! Also if the TP is a railway bridge that isn't findable, then a canal bridge won't substitute. Most of all, the weekend taught me to have faith; I know that driving that winch has made me a better pilot (and God knows I need improving), and patience. I feel, in a way, as though worlds have opened up to me this weekend, what with the winch conversion and my first real task and outlanding. What a steep upturn to the old learning curve!

DUBLIN

Dublin GC welcome UK visitors with a special invitation to join them on their annual two-week wave safari to the Kerry beaches where they autotow and soar the cliffs on the Dingle peninsula. Tel 0001 983994 for details.

S & G CLASSIC

CHOSEN BY THE ARM-CHAIR PILOT

Some of the best gliding writing involves what happens on the ground, not in the air. For many years retrieves were an essential part of gliding, along with the smell of dope, trailers you could get into, TP observers, and other archaic features. They led to many good stories.

Here is a little classic from the June 1974 issue, p109, which allows us not only to stay on the ground, but to enjoy an example of Rhoda Partridge's writing, which has so often entertained the readers of *S&G*.

AN EXPENSIVE WEEKEND AT SHOBDON

I was out of practice in September and I knew that I would have to cope with rotor aerotows when I went to Aboyne in October so I decided to have a weekend at Shobdon to get back into training. I had to collect my trailer from Pontycymmer where Earl Duffin has his plastics factory. Earl is developing the perfect glass-fibre trailer and Glass Broomstick and I have been his guinea-pig. I can't remember what had been the matter that time, but Earl had been fixing it.

Do you know the Welsh Valleys? They run between the mountains and the coastal plain and they run narrow and twisty. We hooked my magnificent trailer on and I made off – within 15min I had the Welsh valley jammed solid from end to end. It was the unhappy juxta-position of a beautiful yellow JCB, two buses and me meeting on the double bend by the level crossing that did it. The local people loved it, they came out of their houses and shops and shouted encouragement. I had to unhitch and willing hands bore my magnificent trailer away and I wished I didn't drive barefoot, or that I'd remembered to put my shoes on before I sprang out. Just to make it all more fun a few drivers got really angry. It took ages to sort out and I drove on, red in the face and chuckling helplessly.

At Monmouth there's a T-junction after the bridge where you have to turn right. For the benefit of our foreign readers who, I know, have quaint customs, I should explain that in the UK we drive on the right side of the road, which is the left. At the T-junction there was a woman stationary in a powder blue Simca, waiting to turn left. As I turned right I hit her with my mudguard. Now Earl has built a lot of good ideas into my magnificent trailer and once upon a time he had his trailer wheel bent because it hit a post, so he has protected the wheels of my magnificent trailer by putting a savage piece of angle iron under the mudguard like an iron hand in a velvet glove. It was with this angle iron that I clouted the powder blue Simca.

Looking back I can see that I should then have put on my shoes, sprung out of my car, run across to the powder blue Simca and said to the lady "Madam, would you care to back?" But I didn't. I think it was because there was a lot of traffic about and I didn't fancy gumming up Monmouth the way I'd gummed up that Welsh valley. Instead I ground inexorably on with the angle iron gouging its way the entire length of the powder blue Simca. Then I brought the tail round and clouted it again. I parked, sprang out and ran across to the powder blue Simca (Oh hell, I've forgotten my shoes again.) The lady was very upset and was wringing her hands. "Only think," she said, "I've been driving 35 years and I've never had an accident!" "You haven't had one now," I said, "I've hit you." That comforted her and we exchanged addresses and I drove on rather thoughtfully.

I'm not strong enough to manage the wing root

Saturday was wet and sad but I did manage a two-seater site check and very much liked what I saw. Sunday was pretty hopeless too, but I decided to rig. Not so easy. Not a lot of people around because it wasn't much of a day. Finally I found two gentlemen, but they both had bad backs, which made it awkward because I'm not strong enough to manage the wing root (yes, I have tried and no I can't manage it. You don't want me to injure my back do you?)

Neither of them had seen a Std Cirrus rigged and we really did have a time. Sweat, tears and a good deal of blood because one of the gentlemen had the fleshy part of his hand just below the thumb between the wing root and the fuselage at the moment when I, at the tip, gave a determined push and the wing clicked in (the other wing clicked out, but that was no comfort to him). Fresh blood looks horrid on a Std Cirrus so I bandaged him up. Finally we got the bolt in and I connected the controls and went round to put on the tail. The tail lives in a most elegant saddle-thing that fits on to the fuselage and it wasn't there.

"Excuse me," I called to the two gentlemen who were walking briskly away, "have you seen my tail?" "No," they said, walking slowly back. "It was on the fuselage," I said. "I don't think it was there when you pulled the fuselage out," a gentleman said. I dashed wildly round my magnificent trailer, I peered into its empty interior. Someone must have stolen it. But that'd ridiculous, who'd want to pinch my tail? We de-rigged, it was raining by then. The gentlemen were quiet but kind. I drove sadly away (one could almost say "with my tail between my legs", but it would be much better if one didn't). I saw beautiful country on the way back to Cardigan. I saw a lot of it twice because I got lost. I decided that I knew what had happened to my tail.

Next morning a phone call to Earl. "Earl, I have a sad story to tell."

"Oh Lord," said Earl, "not again." (I think he thought I wanted him to do some more work on my magnificent trailer. He needn't have worried. My magnificent trailer is now perfect.) I told my sad story and he laughed a good deal too much. He phoned back in half an hour. Yes, his men had removed the saddle-thing and stood it out of the way and that's where it still was. I'd have to come and fetch it wouldn't I?

* * *

A few weeks later I did a rather depressing sum. repairing the powder blue Simca (I paid to save my no claim bonus) £23. Two nights bed and breakfast, temporary membership, 20mins Blanik from 2000 aerotow, petrol, about £8. One new trailer mudguard fitted and petrol to Pontycymmer to collect my tail £9. That Blanik flight cost me £2 a minute.

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THE GROB TWIN 3 ACRO



The Twin 3 is the latest development of the Grob 103 Acro. Full certification is expected any day now and a number of these aircraft are already finished and test flown ready to be dispatched to customers as soon as the paper work is completed. Production is now more than two aircraft each week.

Apart from minor details, the fuselage and tail are unaltered. The wing span has been increased from 17.5 to 18.5m and both the aerofoil and the plan form have been changed to incorporate recent developments.

The most obvious change is the use of a multi-sweep back on the leading edge of the wings, reminiscent of the Discus. It is claimed that this layout shows a slight advantage in reducing the induced drag and together with the sharply swept back wingtips is the latest fashion in glider design. The new aerofoil is less affected by rain drops and bugs on the leading edges so that the performance should not deteriorate so much towards the end of a day's training or if the wings are not clean.

"... this should make a significant improvement throughout the speed range"

The polar measured by comparison flights by the German Akaflieg tests shows the best gliding angle to be 38:1 compared with about 35:1 for the earlier model. With the decrease in stalling speed, this should make a significant improvement throughout the speed range.

The earlier model has an annoying buffet in flight caused by the airflow around the main wheel fairing and by a poorly sealed wing root on the early models. These problems have been eliminated in the Twin 3 which has a new design wheel fairing and improved sealing of the control rods in the wing root.

Flying the Twin 3, the general handling seems better than the earlier models inspite of the larger wing span. The rate of roll is still about 4.5sec and the directional control is adequate for the increased span.

I found the stall just a little more defined than on the G103 Acro. Approaching the stall very gradually there is now some lateral wallowing together with an obvious, distinctive buffet. Eventually this was followed by a very gradual, gentle nose drop.

Although this is a definite improvement on the earlier Acro, in my opinion it is still rather too docile for good basic training. With my weight in the front cockpit (190lb) when provoked with rudder it did drop the wing and make one turn of a spin before building up speed in a spiral. The previous design was almost unstallable at normal pilot weights and would only drop a wing and spin with full rudder applied, and then only with the C of G near the aft limit. The company test pilot assured me that with the C of G in the middle of the range it spins fully.

There are a number of improvements which make the new Twin much more attractive as a training machine.

The wing spar booms are now in carbon fibre for extra stiffness and lighter weight. The elevator and rudder surfaces are also in carbon to reduce the need for heavy mass balancing.

In place of the usual straps, the canopies are now fitted with individual gas struts to prevent them opening too far and to reduce the risk of damage with careless handling in a wind.

The system for adjusting the front cockpit rudder pedals is now by means of a small crank handle on the side of the instrument consul. This completely eliminates the dangerous possibility of the rudders slipping forward out of reach under pressure and makes it safe to readjust them for comfort in flight.

The airbrake and trim levers have been moved forward and redesigned. Most pilots found that in the early model they could not apply full airbrake which was required to use the wheel brake. Moving the levers forward and making them longer has made them much easier to operate over the full range.

Together with the greatly improved performance, these features have helped to make it a really attractive machine for both basic and more advanced training, and like its predecessor it is perfectly suited to first solos.

The cross-country performance is now as good or better than many 15m Standard Class machines and it must be an attractive proposition for any club or private owner wanting a two-seater which is fun and easy to fly.

The general design has been developed and well proven over the past few years and incorporates lessons learned from the hundreds of Grob Twins in use all over the world. Like the G103 Acro it is stressed to +6−3g making it extremely strong and fully aerobatic. It is certificated in Germany for rolling and inverted flying although these manoeuvres require special training and a high degree of skill to perform safely. Although I was not able to do much in the way of aerobatics, it was obvious that it has a much better inverted performance with the new wing.

All in all the new Twin 3 is a worthy successor to the earlier Acro.

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'GLIDEAMUS IGITUR...'

Steven Brown bemoans the problems facing students who want to fly and suggests overcoming them with a countrywide scheme

It strikes me that it's high time the College Gliding Fraternity was organised into a cohesive and united force. We all know the problems. Unless "pater" is a Rothschild we all feel the cost of this compulsive sport where it hurts us the most . . . in the grant cheque. Of course the Students' Unions are quite happy to fork out occasionally for capital equipment, but there still comes a time when an aerotow becomes the difference between a smiling bank manager and having to creep passed an unpaid landlady.

As students we face certain unique and distinct problems, quite apart from the financial fret. First, there's a three year turnover from fresher to graduate. Secondly, gliding clubs are invariably situated off the beaten track (and the rugby or soccer club seems to monopolise the Union minibus). Thirdly, when the soaring season finally gets under way, we are clobbered first with the spectre of exams and then with a scattering to the four corners of our "green and pleasant land" as the summer vacation finally frees us from noughts and crosses in the back row of the lecture theatre. However the worst problem by far is, I'm afraid, a universal complaint . . . apathy!

As with all college clubs, the leg work and running around is done by the minority of enthusiasts. How often have you heard the phrase, "I'd really like to, but . . ."? It's normally the one just before Mr A. Student, on his way out to yet another all night wing-ding, laments his essay deadline that passed a week ago. It's a sad fact of life and the enthusiasts have to reconcile themselves with the fact that, without their efforts, the Union would soon be casting around for a buyer for its K-7 or K-8.

". . . with gliding the onus is fairly and squarely on us."

Traditional sports don't have to fight so hard to justify themselves. Sink or win (I nearly said swim), the boating club will still be able to beg for a new £11 000 boat complete with £200 blades, simply because there's an established hierarchical interest. However, with gliding, albeit a contender for Olympic recognition, the onus is fairly and squarely on us.

To be fair the environment is now changing. At Booker, where the University College London Club operates, Mike Cuming, the manager and a member of the BGA Executive, is taking a particular interest in encouraging young blood and "Tall Chris" Rollings has been both sterling and long suffering with his invaluable assistance. However, we face all the same difficulties I have outlined. As far as the first problem is concerned, we at UCL have now started to recruit among our alumni. We hope this will foster a more permanent core to the membership and that past members will retain their links with us when they finally have the money to pay for their habit. (We have one instructor member already, but we want more.)

Transportation – and I don't mean to Botany Bay – is something of a chestnut. We circulate a list of members' telephone numbers and indicate car ownership or access. We also have a regular rendezvous Thursday evenings where members can arrange the following weekend's travel. Unfortunately, the nature of college life in the capital does cause us some problems in this respect, but we're working on it.



Steve, a mature student at University College London studying Italian, is captain of his college gliding club. He started gliding last February and has a Silver badge. His club has 36 members and owns a K-13 which they fly at Booker.

I should like to propose an idea for discussion. To wit; a countrywide system of reciprocation under an umbrella body of university and college gliding clubs. Of course, certain well funded and established university clubs will be raising their eyebrows at this point and see it as a clandestine ploy to use their gliders, but it seems to me that many college unions already have some sort of reciprocal arrangement for sharing sports and social facilities. It needn't be that interlopers from other colleges should fly as cheaply as home members (heaven forbid), but a glider can be much better utilised earning money for its club than being locked away in a hangar for the sole use of the lucky student who happens to live around the corner.

Countrywide co-operation would also open the way for more exciting things; trips abroad to fly in the Alps, which would be unthinkable for a small student group on a limited budget, would suddenly become feasible simply because of a larger number of potential participants; a national student squad; expeditions to other unfamiliar sites with the guarantee of local student help; increased purchasing power (our chancellors would approve of that wholeheartedly); but, most importantly, we could create a pressure group that would have real power and potential to put across *our* point of view. In real terms we are the gliding pundits of tomorrow. With a British Students' Gliding Association everybody would come to realise it.

MAIDEN FLIGHT OF DG-500 ELAN TRAINER



The DG-500 trainer had its maiden flight at the end of April. It has a 18m wing span and is said to be very manoeuvrable and good for serious cross-country flying as well as training. The large two-piece canopy is excellent for inflight visibility.

ANN WELCH

WORLD GLIDING CHAMPIONSHIPS

Austria, May 13-28

Wiener Neustadt was one of the closest Worlds ever, with only 35pts separating the new Standard Class Champion, Jacques Aboulin, France (Discus), from Andy Davis (Discus), who had been in the lead too often for Aboulin's comfort. In the 15 Metre Class Bruno Gantenbrink, W Germany (Ventus C), won with a lead of 280pts in a total of 9081; Justin Wills (LS-6) being 2nd with 8761pts and ahead of Chris Garton (LS-6) by 191pts. The British team gained no Open Class medals but the results here were even closer, with Jean-Claud Lopitaux, France (ASW-22B), just 25pts ahead of defending Champion Ingo Renner, Australia (Nimbus 3). Third was the first of the two-seaters, a Nimbus 3D flown by Reinhard Schramme with Klaus Holighaus, W Germany, in the back seat.

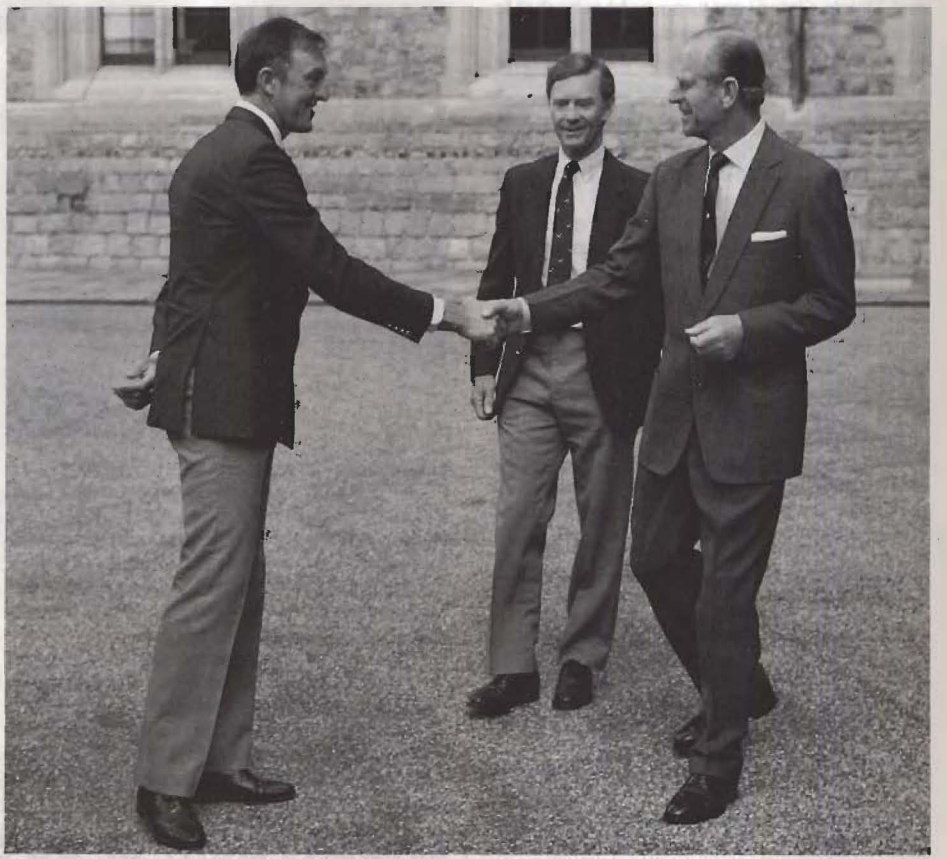
Early in the competition it was said that it was Schramme who had landed out but next day it was Holighaus who had got home! Fourth in this Class was Gerard Llerm, France, who throughout had flown with Lopitaux as a team with such effect that they became known as the twins. On May 21, after a monumental thunderstorm in the night, Lopitaux discovered after take-off that his instruments were waterlogged and useless, so instead of landing back he flew in close formation with Llerm effectively using his instruments. The two of them won the day with 1000pts for Lopitaux and 999 for Llerm; only 0.8km/h difference in speed. These two flew the only ASW-22Bs in the contest. Although the British team did not win at WN, two Silvers and a Bronze out of 108 competitors was more than creditable.

The Championships layout was good with facilities close together

Wiener Neustadt was a well organised and friendly Championships. The large grass airfield was Austria's first, where Etrich flew his Taube in 1909. There are now no less than 25 gliding, flying and parachuting clubs on the airfield, the bigger ones having their own hangars stuffed full of gliders, motor gliders and aeroplanes, and with their own clubhouses and restaurants. Inspite of all this the Championships layout was good, with briefing hangar, caravans and trailer parks close together.

One of the exciting happenings in these Championships was the opening of the Austrian Hungarian frontier for task flying. There was great organisational co-operation between the two countries, and the efficient tug team contained aircraft from both, as well as from Czechoslovakia. Altogether 27 countries entered, although the two Chinese pilots withdrew before the start. One felt that he did not have enough experience to fly among big mountains, and the other decided not to continue after he had had a minor wing scrape with Martyn Wells on a training day.

The weather during the practice period began reasonably enough, but slowly deteriorated until the opening ceremony when it rained on the speeches and folk dances. From then on - it seemed forever but was only five days - it was cold, wet and windy. Everywhere else in Europe the weather warmed up, but WN remained under a slowly revolving depression beautifully illustrated on the colour satellite monitor. This picture lowered spirits, which sank still lower when it was learnt that pilots at Paderborn, home of the 1981 WGC were happily doing 750km triangles. At last, on May 16, Met man Hermann Trimmel warned of the approach of drier air from the NE. He was right and competition flying began next day.



Brian Spreckley, the defending 15 Metre Class World Champion, is introduced to HRH The Duke of Edinburgh, BGA patron, by Ben Watson, British team manager and BGA chairman, when the Duke met members of the team at Windsor before they left for Austria. Photo: GEC Avionics.

The next day, although the weather relented it did so with some reluctance, leaving only a narrow NE-SW slot in which Hermann reckoned it was possible to squeeze some flat triangles into Hungary. Here it should be said that most triangles at WN were in fact quadrilaterials, with a very short final leg to bring finishers in on the same final glide. The tasks set were not large, ranging from 204.6km for the Standard Class to 276.1km for the Open, but they resulted in no less than 94 outlandings, mostly in Hungary. As had happened in Benalla two years ago the task setters had become a little carried away by the superb array of beautiful gliders waiting in sunshine and set big tasks. At Benalla on the first day there were more than 100 outlandings so WN did not manage to beat this record. But both occasions overwhelmed outlanding offices not yet in practice, even more at WN since most outlandings were in Hungary.

The language problem did not help but the permitted aerotow retrieves from across the border did; except for a few pilots who requested a tow from miniscule paddocks surrounded by trees and the two who got lost after releasing. One ended up back in Hungary and had to be ret-

rieved again early the next morning. There was plenty of help for pilots there. One was brought an omelette and another was given a lift to the telephone; when he indicated to the driver that he was going too fast the driver pulled out his licence and with a smile showed that he was a policeman.

Over the whole period there were 249 outlandings; 102 or 24% of them in the Standard Class, 102; 26% in the 15 Metre, and 45; 18% in the Open.

It was on this first day that Bruno Gantenbrink set the pace, winning the 15 Metres Class. Australians Mike Giles (Nimbus 3) and Ingo Renner were the only two Open Class finishers. In the Standard Class Baer Selen, Netherlands, who at Chateauroux became the youngest World Champion at 23, brought his DG-300 into 1st place. The only two British pilots to make it home were Justin Wills and Chris Garton.

There was only one other small problem on this first day when one of the Zlin tug engines failed, but high enough for the glider to soar. The tug pilot landed without damage in a nearby field. There were 20 tugs at WN. Eight Zlin 142s from Hungary, six Zlin ex-aerobatic tail draggers from Czechoslovakia and six various Austrian. They regularly got the 108 gliders airborne in 54min.

May 18, Day 2, looked a better day. The air was hazy with 10km vis, but thermals were stronger and better organised. The dying depression was still around though now a little further south so, with hope, bigger tasks were set; 342.4km for the Open, 325.3 for the 15 Metre and 278.2 for the Standard. This time the direction was to the NW over broken, hilly country in between the real mountains to the W and the flat Hungarian plain to the E. On the almost common first leg there was overcrowding as all 108 gliders hurried on their way, not helped by a max height of only 6000ft and best climb rates of 6kt. It could have been these somewhat English conditions that gave Andy Davis his first win although it was close; the top seven pilots were within 2.5km/h of each other. In the 15 Metre neither Bruno, nor Justin or Chris made top places, but this was not worrying as only one of those heading the list, Stefano Ghiorzo, Italy (LS-6), had done well on Day 1.

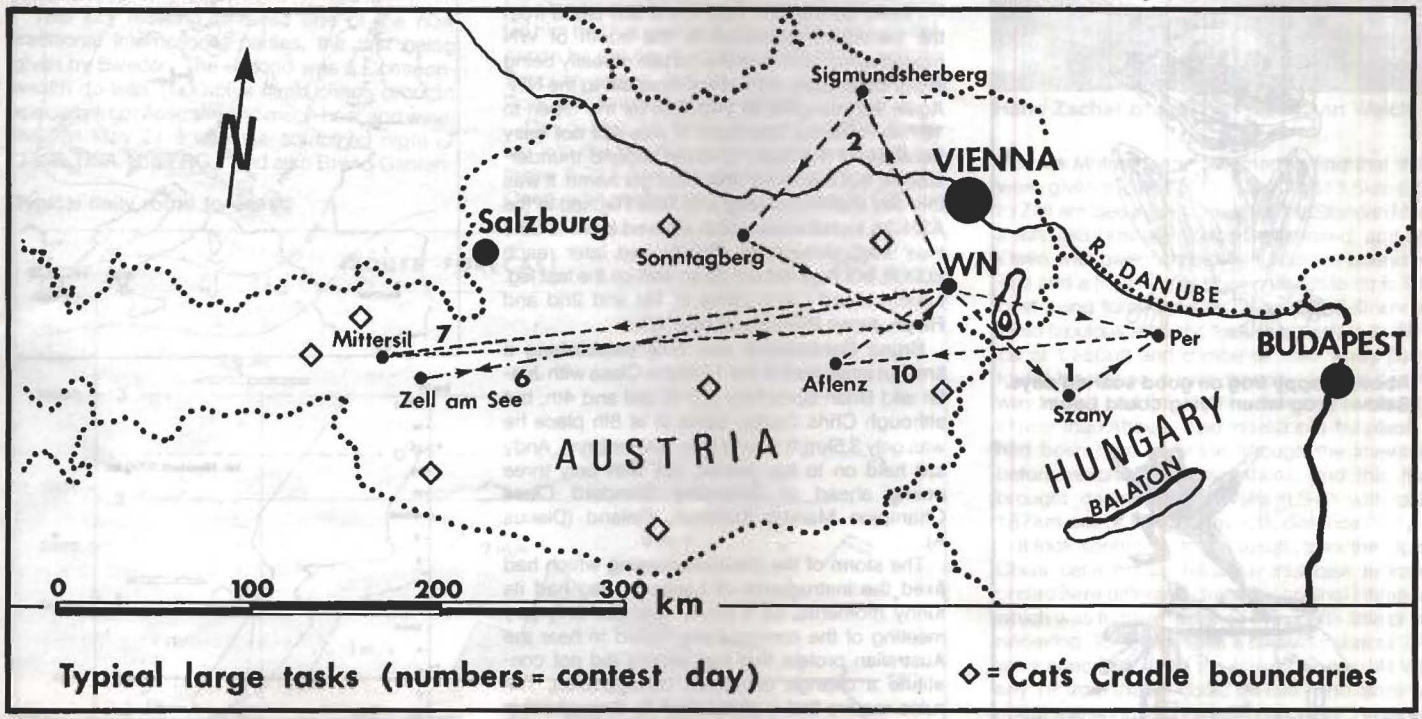
On May 19 Hermann was not too optimistic, and neither was anyone else under a grey sky spitting a little thundery rain. At noon flying was cancelled. Least pleased was Belgian Jose Jaime (Discus B) who had scored almost nothing on the first day because his cameras were stolen. They were immediately replaced with new Konicas which he carefully installed – and forgot to remove the lens caps. This time absolute zero and a need to fly soon to try to collect some points.

TASKS FLOWN

Day	May	Standard	15m	Open
1	17	204.6 km ⇄	205.9km △	276.1km△
2	18	278.2km△	325.3km△	342.4km△
3	20	187.1km ⇄	196.9km ⇄	208km△
4	21	187.4km ⇄	233km ⇄	242.3kn ⇄
5	22	246.5km△	305.5km△	327.3km△
6	23	393.1km△	515.5km ⇄	Cat's cradle (Best 688.4km)
7	24	508.5km△	Cat's cradle (Best 688.4km)	565.7km ⇄
8	25	Cat's cradle (Best 652.3km)	464.6km△	497km△
9	26	322.5km△	563.1km△	344.5km ⇄
10	27	308km△	323.3km△	394.7km△

Tasks were encouraging for pilots beginning to feel that outlandings were the norm

Fortunately May 20, Day 3, produced a better weather pattern, though still with some threat of thunderstorms. This time the Open Class was given a 208km flat quadrilateral to the N, while the 15 Metre and Standard had flat triangles into Hungary, both less than 200km. Although small the tasks were encouraging for pilots beginning to feel that outlandings were the norm. This time there were only eight out of 108 starts, and this time the office was overwhelmed by pilots queueing to hand in their documents. Best finishers included Andy Davis, Bruno Gantenbrink, the two French 15 Metre, Gilbert Gerbaud and Gilles Navas (both LS-6s), and Justin Wills; in the Open Ray Lynskey flying with Ian Finlayson was best in the New Zealand ASH-25. Into Hungary cloud base had steadily lowered to 3000ft with weak ➡



WIENER NEUSTADT 1989

CHAMPIONSHIPS TASK AREA

Open — — — — 15metre - - - - -



Met man Hermann Trimmel had a frog as his "logo" which he put up on the screen at briefing and caused much enjoyment.



Practice Period. Unhappy frog waiting for better weather.



Above: Happy frog on good soaring days. Below: Frog when flying could begin.





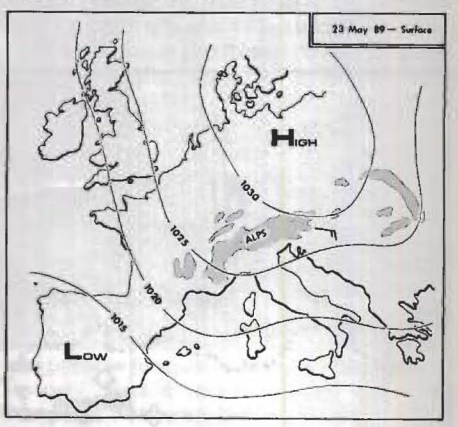
Justin Wills shows the Duke a map of the area with the Hungarian border open for the first time for gliding championships. Photo: GEC Avionics.

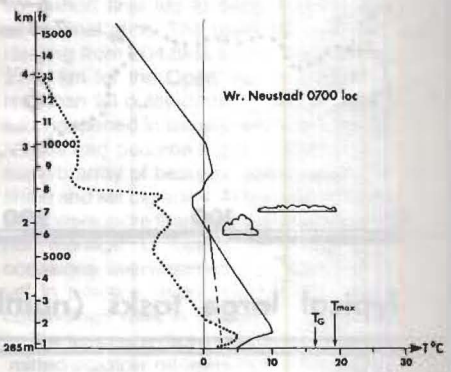
thermals so care was needed near the TP, but the better weather was still in Austria for their return. After this task Andy Davis was top overall in the Standard Class with a 36pt lead.

Finally on May 21, Day 4, the last cloud from the persistent occlusion to the south of WN moved away, and to make certain of really being in the clear tasks were once more set to the NW. Again flat triangles, of 242.3km for the Open to 187.4km for the Standard. It was still not easy because of the need to divert around thunderstorms, but it worked, and most got home. It was this day that Robin May and Nick Hackett in the ASH-25 found wave which allowed them to take their start pictures at 6500ft, and later reach 8000ft, but they did not do so well on the last leg. Lopitaux and Llerm came in 1st and 2nd and Ralph Jones (Nimbus 3) was 4th.

Bruno Gantenbrink was now establishing a firm but small lead in the 15 Metre Class with Justin and Brian Spreckley (LS-6) 3rd and 4th, but although Chris Garton came in at 8th place he was only 3.5km/h slower than Gantenbrink. Andy still held on to top overall, but with only three points ahead of defending Standard Class Champion Markku Kuittinen, Finland (Discus A).

The storm of the previous evening which had fixed the instruments of Lopitaux also had its funny moments, as it broke over the only jury meeting of the competitions, called to hear the Australian protest that bug wipers did not constitute a change of aircraft configuration. The rules require that a glider shall fly throughout in the same configuration as on the first day, but bug wipers are fitted on some days, and in any case can fall off. The organisers to take the first decision, said that bug wipers if used on the first day must stay put, and the jury meeting was called to give a clear decision. Although the discussion was brought to a complete stop by noisy thunder, noisier hail on the tin roof and five power cuts the jury found by 24 votes to two that bug wipers were not part of the configuration, which for this purpose was considered to be the





The information shown at briefing. Day 6, May 23 was perhaps the best and most beautiful of the Championships when the max distance flown was 713.8km.



Robin May, photographed in Ralph Jones's Nimbus 3, with Nick Hackett who flew with him in the ASH-25 at WN. Photo: GEC Avionics.

primary structure, its moveable controlling surfaces and landing gear.

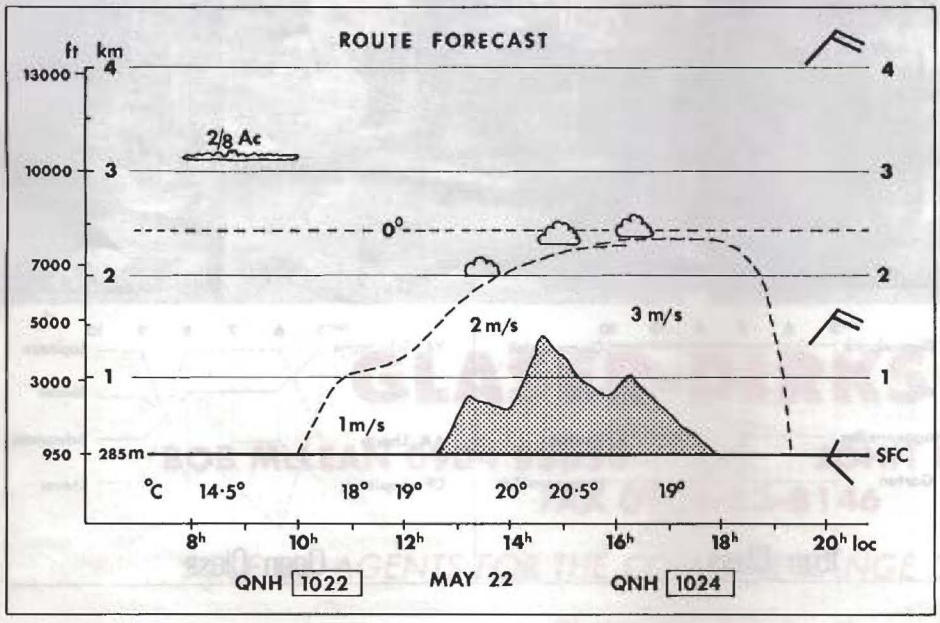
This jury meeting followed one of the now traditional international parties, the first being given by Sweden. The second was a Commonwealth do with 1000 plus lamb chops brought specially from Australia and much beer and wine, then on May 21 it was the combined night of USSR, USA, and FRG - and also Bruno Gantenbrink's birthday. There were thirty litres of Russian vodka, piles of food and more beer and wine for the 500 plus people.

Only one pilot did not enjoy the party, Rodolfo Penteado, the only Brazilian, who thought his ASW-20 was flying like a brick. He was looking for a landing when Bruce Brockhoff called him to tell him that his gear was down. Not getting a response he got his Australian crew to contact the Brazilian crew; but in vain. Before landing Rodolfo neatly raised his wheel.

Day 5, May 22, finally brought weather for flying into the big mountains to the west with big tasks. A 327.3km triangle to Klaus Phryn for the Open, who started second; 305.5km to Garsten b. Steyr for the 15 Metre and 246.5km to Sonntagberg for the Standard. Inevitably Lopitaux and Llerm did well again, but this time Swiss Hans Binder (Nimbus 3T) and Ingo came between them. Overall, Schramme and Holighaus were still top, with Australians Mike Giles and Ingo 2nd and 3rd, Llerm 4th and Lopitaux 5th - but with only 175pts between all of them. The 15 Metre leader was still, as expected, Gantenbrink, 163pts ahead of Justin and Andy Davis still stayed put at the top of the Standard. It had not been the easiest day for flying, particularly on the outward leg through the mountains, as lift was patchy and gaggles developed. Baer Selen was down to 300m above the ground near Semmering, and climbed away at only 0.2m/s with plenty of time to study the almost unlandable country below.

May 23, Day 6, and it was into the mountains again, but this time with mostly blue thermals.

Typical daily route forecast.





Hans Zacher of OSTIV. Photo: Ann Welch.

The 15 Metres were delighted to find that they were given the first 500km task; a 515.5km O/R to Zell am See in west Austria. The Standard had a flat 393.1km triangle to Schladming, and the Open was given cat's cradle with ten boundary TPs and a time limit of 6hrs in which to do it. The best flying turned out to be around Zell where, amid fabulous scenery, there was perfect vis ⅜-⅜ cu at 11500ft and climbs of 10kt. Andy Davis found his speed slower than he wanted on the way to Zell, and finished the task almost 10km/h slower than Aboulin who moved into 1st place. It had been hard to break through the inversion before reaching the mountains, and this had brought down Martyn Wells (LS-7) with only 187km out of the 393km task distance.

It took some time to get results from the Open Class cat's cradle because this task is interpreted here differently from the original intention, which was to have distance flying with little or no retrieving. To achieve this a small number of TPs were specified within the task boundary. At WN any TP from the list could be used and landings made following a photographed point, provided that the 6hrs was not exceeded (controlled by time cameras). This allowed pilots to head off for a distant point and fly ever decreasing triangles in good places as conditions weakened and then land out. Interpreted in this way cat's cradle can ➡

probably give greater distances, but at the price of long retrieves which were never the intention. When, quite late, pilots called in it was Lopitaux and Llerm who had once again beaten the field, with 711.5km and 701.8km respectively; followed by Schramme at 685 and Lynskey at 678.3km. It was Ingo's bad day. He made only 16th place and 564.5km.

The first penalty points were given on this day; a few for photo problems, but Ronald Tabery, USA (Nimbus 3), was docked 1/3 of his score for failing to call in after outlanding, so that worried organisers contacted the rescue services.

Andy was again top in the Standard Class and Justin won the 15 Metre.

Now the small cumulus and big tasks were making a good team. On May 24, Day 7, the 15 Metre Class had a cat's cradle while the other two flew triangles. Cloudbase rose to 10000ft thermals were up to 9kt and Ray Gimmey, USA (Nimbus 3) who came last on May 22 came 1st in the Open Class with a speed of 129.8km/h. Ingo Renner bounced back to beat Lopitaux and Llerm, and Andy Davis again came top in the Standard Class. Justin won the 15 Metre with 688.4km. The two Czech pilots, Stepanek and Cerny (Ventus Bs), flying the cat's cradle reckoned that conditions could be good for an evening katabatic flow along the middle of the valley. They found it 40km out at 1600ft and used it to return to WN, having taken their end-of-task photo at Kapfenburg. They landed at 2035.

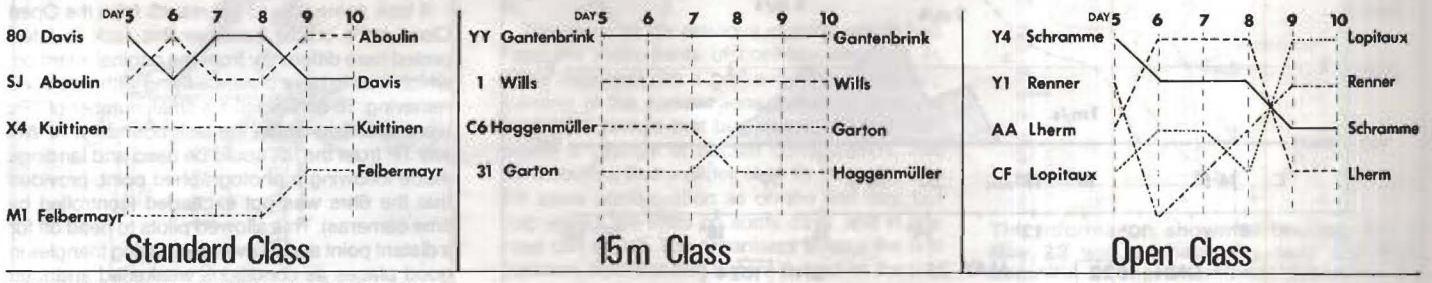
May 25, Day 8, and the first signs of weakening of the high pressure. Hermann warned of thunderstorms, but in the far west of Austria. With the Standard Class taking its turn for cat's cradle, the others had big triangles. Winds were again light SE. Chris Garton flew the fastest 15 Metre speed using cloud streets at 120.3km/h, and the computer scorers who bet on these things were less than one minute wrong in his time. Justin was also fast at 115.3km/h, putting him only 28pts behind Bruno, but the Open winner for the day was clearly Ingo at 127.9km/h, beating Llerm's 123.5. Again it was a wait for cat's cradle reports, but it was Andy again, top with 652.3km. Aboulin flew only 542.3km.

And so to the penultimate task in gently declining weather. The Open was going to fly into





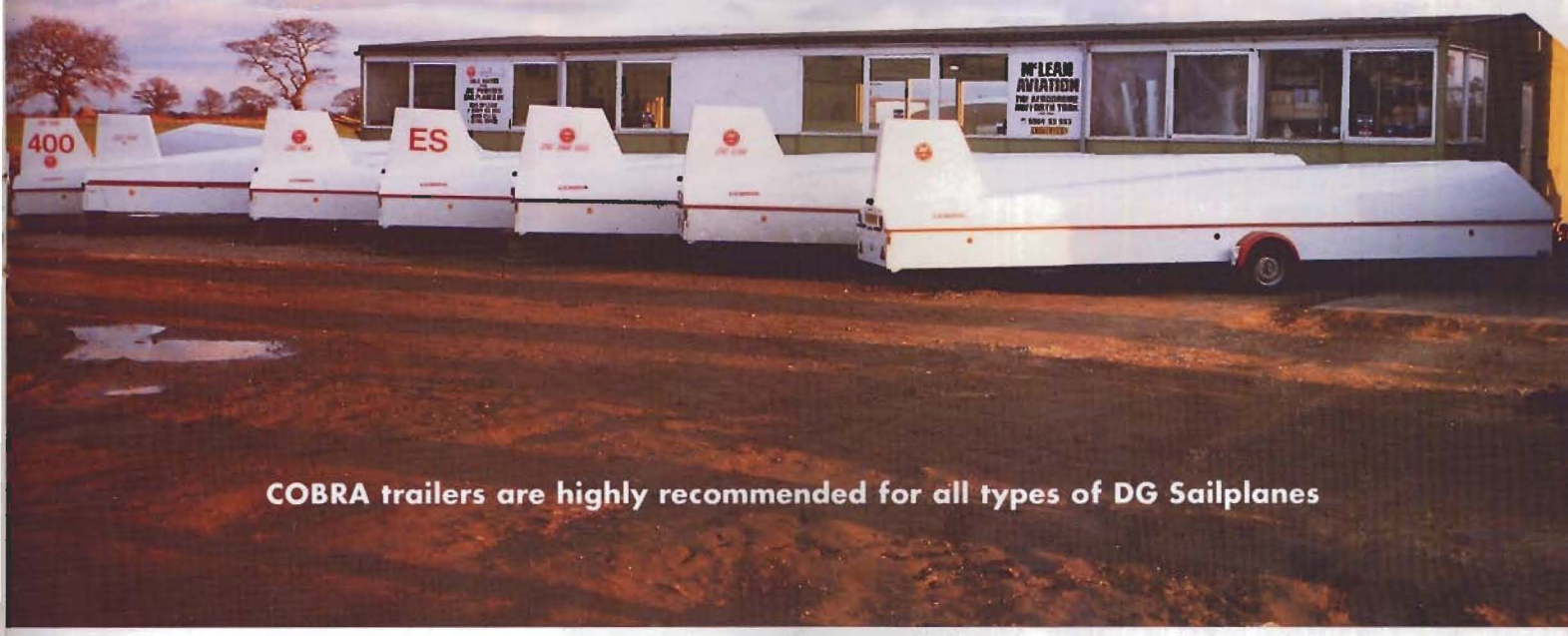
Above: One of the three parachutists landing between the Open Class winners and the audience. They each landed precisely and presented a cup. Below: Justin and Chris on the podium with Bruno Gantenbrink, the 15 Metre Champion. Photos: Ann Welch.



The last six days of a very close contest.

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Above: Andy Davis with his crew member, Rob Knight. Photo: Liz Wells. Below: Chris Garton photographed by Ann Welch.



Below: part of the colourful opening ceremony. Photo: Ann Welch.

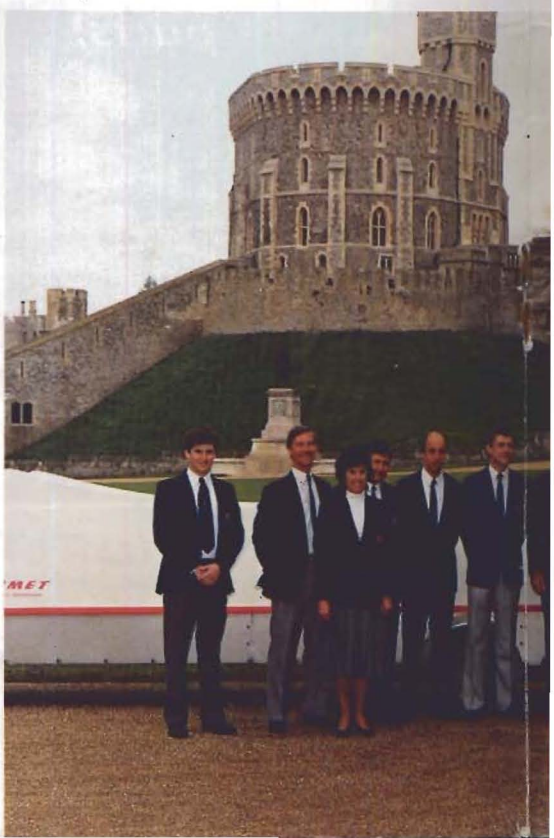




The triumphant Brits – l to r, Andy Davis, Justin Wills an

COLOU ROUN

Below: HRH The Duke of Edinburgh with some of th Avionics.

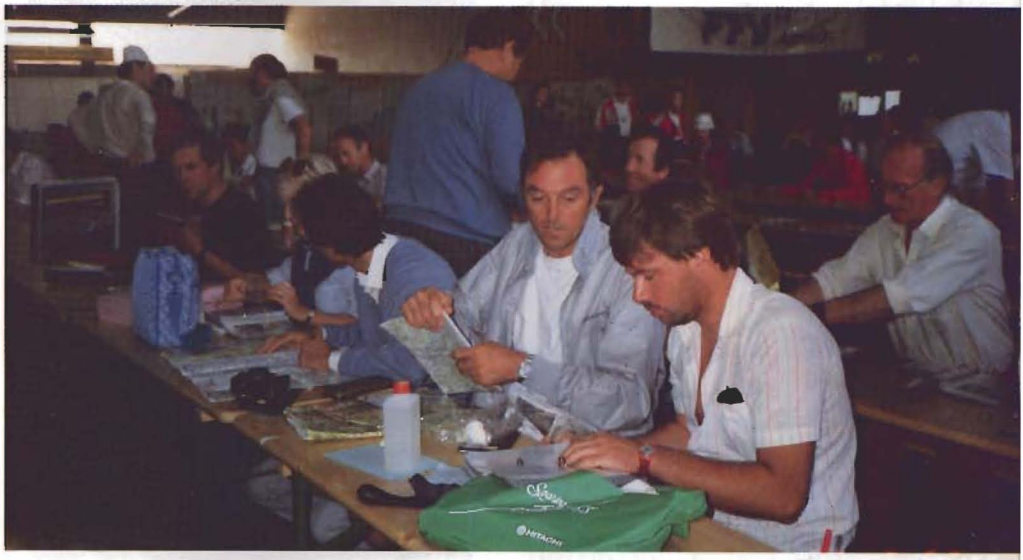




Tills and Chris Garton. Photo: Ben Watson.



Above: Martyn Wells photographed by his daughter Liz. Below: The briefing with Brian second from right. Photo: Liz Wells.



Below: Justin Wills. Photo: GEC Avionics.

OUR
ND-UP

of the British team at Windsor. Photo: GEC





Australian Gliding Championships January 1990

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Ralph Jones, who flew his Nimbus 3 in the Open Class. Photo: GEC Avionics.

Hungary but the weather went flat and they were given a new triangle westwards. The Standard was then given its B task of 322.5km and only the 15 Metres stayed with their original 563.1km. Markku Kuittinen was unlucky when he had a weak tug and bounced over rough ground before taking off, enough to put his head through the canopy. He released, his crew did a high speed patch repair, and he still managed to come 2nd, only 0.8km/h slower than Aboulin. Andy brought his Discus into 3rd place 0.6km/h slower than Markku.

In the 15 Metre Class Justin and Chris were quite a bit slower this time than the two French, Gerbaud and Navas, but it still posed no medals risk. The drama of this day was the slow return of Llerm. After Day 8 he had been in the lead overall with Lopitaux 4th, but during this task both found conditions very weak, with Llerm badly placed. He told Lopitaux to go on as he did not want to slow him down and eventually made it back to WN 1½hrs after him.

The final task of the Championships, on May 27, Day 10, were intentionally short; nevertheless the weather still made it possible for the Open to have a big 394.7km. The wind continued from the SE with visibility returning to its earlier haziness, through which a few towering cumulus could be seen. There were some 10kt thermals, the occasional light shower on track, a thunderstorm in a pass, and only three outlandings. One of these was the Hungarian Gabor Halasi (DG-300) who, when circling close to a mountain near Veitschalpe with his friend Bela Kassai, hit the rock with a wingtip and crash landed on a small space below. He broke his breastbone and compressed a vertibrae, and was quickly taken to hospital by helicopter after French pilot Didier Hauss relayed an emergency message. This was the only accident in this safe competition. And so it ended as it had begun, an enjoyable, friendly and well organised Championships with plenty of good flying. A total of 350 130km was flown with an average of 60hrs/pilot, and the British pilots did really well – congratulations especially to Andy, Justin and Chris.

FINAL RESULTS

OPEN CLASS

Pos		Pilot	Country	Glider	Day 1.17.5 276.1km▲	Day 2.18.5 342.4km▲	Day 3.20.5 208km▲	Day 4.21.5 242.3km O/R	Day 5.22.5 327.3km▲	Day 6.23.5 Cat's Cradle (Best 713.8km)	Day 7.24.5 565.7km▲	Day 8.25.5 497km▲	Day 9.26.5 344.5km O/R	Day 10.27.5 394.7km▲	Total Points
1	CF	Lopitaux, J.	F	ASW-22B	686	797	829	1000	1000	1000	957	888	1000	991	9148
2	YI	Renner, I.	AUS	Nimbus 3	992	874	771	811	939	791	999	1000	946	1000	9123
3	Y4	Schramme, R.	D	Nimbus 3D	855	1000	862	770	912	959	951	901	796	790	8795
4	AA	Lherm, G.	F	ASW-22B	706	860	824	999	974	1000	957	930	547	917	8719
5	AX	Lynskey, R.	NZ	ASH-25	625	842	978	796	823	952	887	884	828	883	8499
6	KM	Eisele, W.	D	ASH-25	715	850	734	903	833	910	858	842	851	928	8423
7	HO	Giles, M.	AUS	Nimbus 3	1000	826	854	778	867	875	695	837	788	803	8323
8	XL	Laur, E.	D	Nimbus 3T	285	988	839	802	955	874	888	824	863	910	8229
9	7V	Gimmey, R.	USA	Nimbus 3	711	965	614	866	319	874	1000	574	915	987	7825
10	25	Goudriaan, L.	tE	ASH-25E	730	483	872	836	687	761	845	836	792	931	7773
11	TT	Masak, P.	CDN	Nimbus 3	730	863	820	739	899	889	966	824	265	761	7756
12	VW	Kurstjens, G.	NL	Nimbus 3	652	875	864	654	964	935	822	786	569	615	7737
13	X3	Monti, R.	I	ASH-25	711	889	747	183	921	869	790	845	793	913	7660
14	KS	Tabery, R.	USA	Nimbus 3	614	818	870	737	824	698	885	898	267	919	7528
15	73	Binder, H.	CH	Nimbus 3	709	465	654	611	988	799	886	816	868	722	7517
16	7	Buchanan, J.	AUS	ASH-25E	574	431	663	857	991	685	774	721	792	872	7360
17	LH	Lackner, H.	A	Nimbus 3	678	381	797	812	748	940	848	743	759	596	7303
18	82	Jones, R.	GB	Nimbus 3	736	562	665	925	743	644	836	838	294	747	6990
19	13	May, R.	GB	ASH-25	754	463	718	688	754	671	813	876	294	872	6902
20	3B	Gavazzi, M.	I	ASH-25	654	902	827	711	364	745	763	729	277	709	6681
21	GB	Bourgard, P.	B	Nimbus 3	590	483	784	710	581	861	807	412	630	812	6670
22	JP	Forssten, J.	FIN	Nimbus 3	244	500	708	717	566	696	717	764	794	632	6337
23	KB	Bräuer, K.	A	Nimbus 3	715	753	786	444	556	904	856	756	267	235	6272
24	176	Innes, D.	G	Nimbus 3	641	462	747	512	557	741	842	563	676	504	6244
25	IK	Blätter, F.	CH	ASH-25	329	129	296	606	735	729	853	720	275	612	5283

15 METRE CLASS

Pos		Pilot	Country	Glider	Day 1.17.5 205.9km▲	Day 2.18.5 325.3km▲	Day 3.20.5 196.9km O/R	Day 4.21.5 233km O/R	Day 5.22.5 305.5km▲	Day 6.23.5 515.5km O/R	Day 7.24.5 Cat's Cradle (Best 688.4km)	Day 8.25.5 464.6km▲	Day 9.26.5 563.1km▲	Day 10.27.5 323.3km▲	Total Points
1	YY	Gantenbrink, B.	D	Ventus C	816	947	939	1000	824	878	940	865	898	933	9041
2	1	Wills, J.	GB	LS-6	800	904	842	993	786	892	1000	918	867	759	8761
3	31	Garton, C.	GB	LS-6	796	940	737	947	726	861	947	1000	843	772	8570
4	C6	Haggenmüller, R.	A	LS-6	749	896	836	784	849	943	948	913	851	764	8533
5	IYY	Hajek, H.	D	ASW-20c	518	893	767	995	823	917	869	846	869	859	8357
6	72	Gerbaud, G.	F	LS-6	496	551	868	590	897	1000	979	968	1000	1000	8349
7	PD	Kuusisto, S.	FIN	Ventus C	566	833	817	954	816	832	856	850	860	774	8158
8	BY	Baumann, W.	CH	LS-6	805	539	755	797	885	914	903	849	803	832	8082
9	ZV	Cerny, P.	CZ	Ventus B	452	967	753	901	824	778	890	805	829	751	7949
10	VS	Ghiorzo, S.	I	LS-6	792	972	796	870	296	872	921	796	872	727	7915
11	DO	Jacobs, D.	USA	LS-6	658	1000	375	810	1000	889	951	776	887	473	7819
12	II	Centka, J.	P	DG-600	452	862	643	899	850	78	865	652	871	914	7789
13	Y	Galetto, G.	I	LS-6	782	956	839	554	296	881	947	861	870	722	7708
14	BB	Bulukin, W. B.	NOR	LS-6	528	962	760	419	890	872	951	866	749	655	7659
15	M3	Just, H.	A	ASW-20	469	520	841	953	836	866	863	766	849	650	7612
16	CA	Navas, G.	F	LS-6	494	550	858	358	894	975	779	880	946	840	7574
17	V	Striedieck, K.	USA	ASW-20	535	496	846	124	968	914	970	992	792	780	7416
18	MY	Guraly, S.	HUN	LS-6	396	599	779	910	369	737	864	693	806	873	7027
19	71	Reynoso, M.	ARG	LS-6	484	547	762	852	671	745	931	764	419	791	6966
20	7F	Stepanek, J.	CZ	Ventus B	496	471	743	962	297	714	893	855	828	689	6948
21	V8	Anderson, G.	IE	Ventus	529	839	512	878	338	773	923	636	687	800	6916
22	D	Spreckley, B.	GB	LS-6	551	498	567	972	413	704	812	809	707	701	6734
23	KC	Pölzl, H.	CDN	LS-6	324	922	652	789	279	465	841	816	680	739	6506
24	1E	Zientek, St.	P	DG-600	490	524	639	339	851	832	953	594	369	911	6502
25	6	Driessen, P.	NZ	ASW-20	238	929	739	288	701	812	831	670	419	660	6286
26	YA	Hägnander, T.	S	LS-6	566	478	596	822	296	595	876	713	741	593	6276
27	76	Bluekens, M.	B	ASW-20	494	916	563	267	678	764	722	857	487	524	6265
28	MS	Brockhoff, B.	AUS	LS-6	336	501	675	288	843	827	771	861	371	735	6207
29	XS	Spychiger, W.	CH	DG-600	376	856	391	303	881	711	903	729	374	513	6037
30	SP	Rukas, A.	RUS	LS-6	496	839	699	902	309	766	587	679	192	458	5928
31	PU	Dossing, E.	DK	LS-6	431	945	632	773	607	409	483	792	146	509	5727
32	TI	Papp, S.	H	DG-600	374	433	586	288	263	742	592	718	739	784	5519
33	BH	Solbakken, A.	NOR	LS-6	308	410	575	880	607	429	773	748	269	350	5349
34	55	Hansen, K.	DK	Ventus C	453	555	505	751	366	426	831	610	146	591	5236
35	6F	Silvanovich, A.	RUS	LS-6	471	840	303	921	282	134	775	739	219	469	5155
36	CP	Medic, M.	YUG	DG-600	341	550	526	48	683	608	728	689	182	598	4953
37	MA	Asikainen, M.	FIN	ASW-20	792	547	602	63	279	504	749	261	487	608	4893
38	38	Hossinger, R.	ARG	Ventus	308	499	391	0	673	515	823	745	243	651	4849
39	UM	Penteado, R.	BRA	ASW-20c	0	507	391	52	574	122	680	692	412	526	3955
40	GG	Lainio, R.	S	DG-600	287	410	535	DNF	DNF	90	0	544	222	621	2709

STANDARD CLASS

Pos		Pilot	Country	Glider	Day 1.17.5 204.8km O/R	Day 2.18.5 278.2km▲	Day 3.20.5 187.1km O/R	Day 4.21.5 187.4km O/R	Day 5.22.5 246.5km▲	Day 6.23.5 393.1km▲	Day 7.24.5 508.5km▲	Day 8.25.5 Cat's Cradle (Best 652.2km)	Day 9.26.5 322.5km▲	Day 10.27.5 308km▲	Total Points
1	SJ	Aboulin, J.	F	Discus	577	872	868	818	1000	980	936	985	1000	817	8854
2	80	Davis, A.	GB	Discus	846	1000	908	817	633	850	1000	1000	976	789	8819
3	X4	Kuittinen, M.	FIN	Discus A	869	874	886	741	677	936	915	911	988	874	8671
4	M1	Felbermayr, L.	A	LS-7	875	957	888	494	667	848	948	906	830	778	8190
5	ZL	Hämmerle, H.	A	LS-7	453	970	694	915	670	779	863	903	841	1000	8089
6	33	Ottoson, C.	S	LS-7	517	978	834	522	876	850	957	848	819	825	8026
7	RB	Brigliadori, L.	I	Discus A	495	787	841	897	681	935	896	882	734	778	7926
8	SB	Selen, B.	NL	DG-300	902	570	791	978	616	909	905	798	620	825	7911
9	BE	Obrist, B.	CH	DG-300	865	902	887	624	674	773	966	895	248	856	7691
10	PPC	Trzeciak, J.	P	ASW-24	691	944	746	585	625	769	892	900	875	656	7683
11	DT	Teuling, D.	NL	Discus	640	466	786	742	943	844	903	705	783	821	7632
12	24	Kepka, F.	P	ASW-24	787	983	777	632	605	771	879	816	426	714	7389
13	L7	Dedera, M.	CZ	Discus B	473	937	646	722	559	828	807	840	706	757	7375
14	A1	Kubovcik, V.	CZ	ASW-19B	517	836	762	802	519	682	865	818	704	821	7326
15	DO	Hauss, D.	F	Discus	488	799	850	0	995	1000	894	893	888	493	7300
16	K	Byrd, J.	USA	Discus B	478	977	852	462	672	949	921	829	509	574	7223
17	LS	Van Dyk, A.	NZ	LS7	473	467	640	492	958	915	917	871	785	679	7196
18	RO	Opitz, M.	USA	ASW-24	523	569	839	812	666	840	796	920	699	496	7160
19	EP	Schröder, R.	D	Discus	517	573	276	897	704	862	937	994	530	815	7104
20	A9	Simenc, I.	YUG	DG-300	498	383	818	768	577	749	800	895	732	752	6972
21	NS	Halasi, G.	HUN	DG-300	562	845	817	381	813	899	872	766	836	65	6857
22	AM	Kassai, B.	HUN	DG-300	538	518	816	381	806	900	885	771	960	65	6639
23	P1	Taimioja, A.	FIN	Discus	538	461	562	823	769	314	830	833	670	829	6630
24	A2	Pankka, A.	FIN	Discus	431	865	770	489	768	833	746	856	248	589	6597
25	XD	Doebeli, F.	CH	Discus A	726	999	466	0	484	912	841	869	387	704	6388
26	321	Wells, M.	GB	LS-7	611	495	671	676	267	233	925	936	506	958	6278
27	IR	Reimers, J.	NOR	LS-7	523	383	380	750	805	710	693	748	810	467	6268
28	V16	Davison, C.	MON	LS-4	787	350	491	564	380	828	722	807	619	703	6252
29	NE	Thomsen, E.	DK	LS-4	540	216	953	532	633	716	662	823	504	643	6221
30	53	Percival, S.	AUS	LS-4	476	835	495	458	676	352	920	813	761	380	6165
31	LB	Brigliadori, R.	I	Discus	495	168	775	744	417	220	956	859	624	827	6087
32	L	Gueorguiev, S.	BUL	SZD-55	471	802	495	803	550	713	873	246	615	502	6068
33	G2	Webb, D.	CDN	DG-300	638	370	579	695	655	248	633	785	624	656	5983
34	E3	Pristavec, B.	YUG	DG-300E	437	858	663	228	485	760	119	895	539	829	5812
35	IM	Ingebretsen, V.	NOR	LS-7	476	383	638	482	519	233	861	838	689	693	5812
36	OB	Jaime, J.	B	Discus B	291	0	355	518	768	756	856	699	725	734	5703
37	BF	Morozov, A.	RUS	Discus	535	838	436	614	225	736	339	770	594	528	5635
38	HL	Machulis, V.	RUS	LS-7	535	838	232	611	582	435	736	770	256	505	5501
39	27	Andersen, K.	DK	Discus	291	832	579	598	218	675	720	726	256	452	5346
40	V1	Bradley, D.	IE	Discus B	498	564	564	534	282	199	773	619	627	663	5324
41	IB	Krastev, P.	BUL	SZD-55	437	805	359	458	626	488	782	246	517	581	5300
42	JT	Stieber, J.	CDN	LS-4	33	106	495	561	519	360	637	844	632	730	4916
43	HA	Helmersson, A.	S	ASW-24	562	834	0	46	230	853	165	791	542	419	4441

These are provisional results.

If you are looking for a present for a glider pilot or just want to treat yourself, the BGA sales department have quite a collection of goodies from leisure shirts, hats and umbrellas to books.

FRANK IRVING

SAILPLANE DEVELOPMENT

The OSTIV Panel cogitates on such diversities as a speaking variometer, forward towing hooks, fatigue of sailplane structures, improvements on gel coats, a retractable aerotow rope and very much more.

The OSTIV Sailplane Development Panel (SDP) was in former times mainly concerned with Airworthiness Requirements (now OSTIV Airworthiness Standards, OSTIVAS). At Wiener Neustadt, where we convened in the Sportschule Lindabrunn for three days before the OSTIV Congress, it became clear that its interests were much broader, as the gentle reader will discern. The aforesaid reader is, of course, already aware that OSTIV is the intellectual branch of soaring.

OSTIVAS are still used for certification purposes in a few countries who knoweth not Joint Airworthiness Requirements (JAR 22, Sailplanes and Motor Sailplanes). But the main value of the SDP's discussions is that they act as an unofficial forum for JAR. Some members of the SDP are directly concerned with JAR, others indirectly. In any case, what the SDP thinks today, JAR is likely to think somewhat later, and vice versa. So, whilst the huddled masses on the airfield sought shelter from the elements, the centrally heated SDP cogitated at Lindabrunn. The account which follows is necessarily abbreviated, but is intended to convey the gist of the discussions. In particular I have omitted the dull bits about amendments being agreed subject to minor alterations.

This produced a considerable discussion, heavily laden with euphemisms

After a bit of the latter by Cedric Vernon (UK) and Jan-Eric Ollson (Sweden), Tony Segal made a presentation of his full-scale crash test, as reported in the May issue of *S&G*, p130. This produced a considerable discussion, heavily laden with euphemisms, on the relative merits of 5- and 6-point harnesses: it was agreed that one or the other was essential to prevent "submarining", but no firm preference emerged.

After a statement from Manfred Reinhardt (OSTIV president, Germany) on horizontal gusts, to the effect that they were rather awkward, we went on to consider crash loads. Alan Patching (Australia) had produced some recommendations on the inertia load which the stowage of "loose items" should withstand. The main message is that the forward load should correspond to 20g, so that batteries and barographs cannot come adrift with lethal results. These were accepted after the inevitable minor changes, and the same fate befell my own recommendations on internal pressures in fuel tanks. Alan Patching then moved on to crash loads on engine mounts and fuel tanks and was rewarded with the chairmanship of a group to contemplate crashworthiness in general, to report to the next meeting. Inputs would doubtless be welcome.

Inevitably, the provision of forward towing hooks had another airing. They are now compulsory for new sailplanes in Austria, Australia and Switzerland, and generally recommended as retrofits. Despite some confusing statistics, the general impression was that forward hooks make for safer aerotows. Heiko Friess of LBA (the German Airworthiness Authority) displayed a JAR 22 proposal for the definition of a "forward hook" and some relevant amendments to OSTIVAS were agreed.

Professor Renner of Aachen University has been gathering data on canopy jettisoning and baling-out, with some input from the BGA. The SDP agreed to await his Congress paper.

The writing of Standards relating to the fatigue of sailplane structures has been an on-going topic at SDP meetings. In fact, it has been going on, mainly under the auspices of Alan Patching and Cedric Vernon, for about 11 years. So, it was with a great sigh of relief that they found their paper finally accepted - with minor amendments.

Compact instrument panels developed for hang gliders were demonstrated by representatives of two German and one Swiss manufacturer. Apart from electronic barographs, also manufactured in the UK, more comprehensive instrumentation is now offered, with the possibility of recording all flight data. Airspeed still presents some problems: the present hang glider installation uses a little rotor working an indicator *via* magnetic impulses, thus displaying something like true airspeed. The development of a "genuine" ASI is in hand. Presumably, the problem is to find a suitable transducer, a problem now solved for atmospheric pressure. One barograph was hurled to the floor to demonstrate its toughness, a virtue much in demand for hang gliding. There are still some problems associated with transducer drift and temperature compensation, together with the formalities of making printouts acceptable to national aero clubs and the FAI. Andreas Deutsch (Switzerland) circulated his ideas on specifications for both mechanical and electronic barographs.

At Benalla, the Board of OSTIV announced a design competition for a stall-warning device, with prizes provided by the Swiss Federal Aviation Office. The device was required to give a reasonable warning margin regardless of flap setting, airbrake extension, bugs and rain. Five of the devices had been fitted to a Janus, D-2480, belonging to the German aerospace research organisation DLR (formerly DFVLR). It is a remarkable indication of the status of the German gliding industry that the government research organisation should operate its own Janus, appropriately named "Hans Zacher", supported by a "Robin" towplane fitted with a Porsche engine and a towrope winch - and even more remarkable that they should be flown down from Braunschweig for the benefit of the SDP.

The systems had been evaluated by Mr Stich of DLR, who demonstrated them to the members of the SDP. Two of them observed something like angle of attack whilst the others observed "bad airflow" towards the rear part of the upper surface of the wing near the root. Dick Johnson's device consisted of a small vane which normally trailed along the local flow and "flicked" when subjected to reverse flow. Two of these, of different sizes, were fitted at about 70% chord on each wing. Other devices consisted of surface microphones detecting a certain frequency in the turbulence of the separated flow.

The angle of attack devices were those of Lamers/Roman, which observed the pressure difference between the nose pitot and a tapping under the front fuselage, and of Wilson, which consisted of a small vane projecting from the canopy window.

Stopped squealing at a rather higher speed than it started

By the time I had a ride in the back seat, surrounded by assorted squeaking electronic boxes, only three of them remained serviceable: the Lamers/Roman and both of Dick Johnson's. They all worked satisfactorily, in the sense that they produced warnings at a few km/h above the stall in both straight and turning flight with the flaps and airbrakes in sundry positions. The margins were adjustable, so there is not much point in quoting individual figures, but 5-7km/h seemed typical. One of Dick Johnson's seemed to be shaded by the fuselage at quite modest inadvertent sideslip angles and suffered from some hysteresis: it stopped squealing at a rather higher speed than it started.

Half-a-dozen turns in a mediocre thermal with the aforesaid Johnson device switched on soon convinced me that I didn't like it. Due partly to the hysteresis, it was squealing for more than half the time and would have been distinctly trying after a while. However, this was not the application originally envisaged: the competition was a result of the German accident investigators pointing out

that the stall warning of many a modern sailplane, particularly with flaps down, was rather feeble and that this was reflected in their landing phase accident statistics. If its real application is the avoidance of stalling during the circuit and approach, presumably it has to be switched on automatically when the wheel is lowered. There seem to be some opportunities for confusion here, if a gear-up warning buzzer is also fitted. Perhaps it would be simpler to concentrate on the instructional aspects of the matter.

Of the devices fitted to D-2480, the Lamers/Roman type seemed to be the most practicable: it was all contained within the fuselage and there were no external excrescences. Dick Johnson's and Wilson's devices looked very vulnerable.

Whilst on the topic of noises in the cockpit, another sanity-threatening device was demonstrated to the Congress: a speaking variometer (Variotalk). A synthesised voice announced the climb rate - mercifully, not the sink rate - saying "one-three" (meaning 1.3m/s), or whatever, at regular intervals. It sounded rather as if a Dalek had got into the cockpit.

Back at Lindabrunn, Andreas Deutsch gave a presentation on "Flight Verification Systems" in which he proposed a logical array of recording devices with their sophistication increasing with the performance level of the flight being observed, from the humbler badges to World records. He also proposed a system of approval by IGC.

Christoph Kensche of DLR anticipated his Congress paper on gel coat problems and displayed specimens which had been subjected to accelerated ill-treatment. The German gel coat manufacturers are taking these problems seriously and are researching improvements. So far, the record of Schwabellack seems rather better than that of Vorgelat. Gerhard Waibel (the "W" of "ASW-") recommended polyeurethane, with the correct undercoat, for re-finishing old gliders. As seen on the ASW-19B being flown by V. Kubovcik of Czechoslovakia, probably the last -19 in a World Champs, it looked very good indeed. However, it is said to be difficult to rub-down or repair.

Oran Nicks (USA) said that there was some debate in the USA as to whether safety in Championships would be improved by limiting wing loadings to 9lb/sq ft. This figure was to be adopted for the next WGC at Minden, Nevada, mainly to ensure adequate take-off performance.

Alan Patching reported that the fatigue test on a Janus wing at Melbourne had now achieved a simulated 13000hrs. So far, all damage was easily detectable and extended slowly.

Parts of a Swiss retractable aerotow rope system were displayed. An electric winch is fitted in the aeroplane, weighing 15kg including 50m of rope. It was fitted with a cable cutter and was claimed to be safer than trying to operate the conventional release in stressful circumstances. It was approved in Switzerland for fitting to Robin tugs and anybody with 6500 Swiss francs can have one.

As we concluded our deliberations on May 17, the improved weather permitted the contest flying to start and our central heating to be turned off. The following day would see the start of the XXI OSTIV Congress, with the usual speeches, awarding of prizes and splendid hospitality.

EARLY BIRD GETS HIS TURN

Lasham make use of the start of the day for concentrated training



At the crack of dawn. Photo: Bill Barwell.

How many would-be glider pilots have fallen at the first hurdle of getting down to regular training? For anyone who can glide out of bed in time to reach Lasham by 7am that problem is over. On Thursdays and Fridays we have early morning courses. Bad weather just changes them from flying to essential theory seminars, so often overlooked by casual students.

These courses are now a year old and a proven success. Unlike evening courses, there's no deadline of darkness ahead and the chore of putting the gliders away. There's no day's work behind one either - you may not be quite wide awake but you're not tired and are making use of time that might otherwise be wasted in bed.

Those lucky enough to get time off work can stretch it out all day and the more advanced can take advantage of thermals as they are ahead of later arrivals on the flying list. But all levels are represented with the regular instructors knowing what that is and the very friendly groups work with the efficiency of self-motivation.

For me the key feature is the discipline and commitment of having to get up so early. I had been gliding on a casual basis last summer but hadn't kept up the effort. Yet keeping going by showing up come rain or shine is about the only rule on these courses. This maintains progress and automatically provides time for essential theory when the weather is bad. On Thursdays, when I go, the group have eight or nine regular students, all friendly and committed. It's run by Clive Thomas, Harry Guyton and Bob Vaughan, giving their time for free, and thanks to them we have kept going through the winter.

We would get the gliders out when it was dark and frosty and winch or autotow launch into the still cold air. It was great being airborne then. The countryside, still misty and lit by a pale winter sun, looked magnificent. On non-flying days we would hear some aspect of aerodynamics or technique explained, sometime watch Lasham's videotaped lectures and even planned cross-countries and held oral examinations. Now that summer is here, it's mainly flying.

Thanks to this course I and several others have got past solo and are beginning to soar. Gliding is such a pure and demanding form of flying, we are going to need a lot more time yet but for beginners these courses can't be bettered. Even if we fly on half the days we turn up, that is 26 flying days a year. At about three flights a day that's enough to get someone from scratch to solo.

For Lasham the scheme has advantages too. Now that it is light early, the gliders are got out from 6.30am with flying starting around 7.30, which is before the professional staff arrive. That's too early for thermalling but is fine for the circuits and bumps the novices need. Before 10am flights are at the early morning rates - £2.20 per launch. There is no charge for time aloft before then either; so the commitment is just one of time rather than money - and that small adjustment to the alarm clock!

DEREK PIGGOTT RETIRES



Derek speaking at his farewell party.

Derek Piggott, master aviator, master instructor, for years synonymous with Lasham, has retired, again, but perhaps this time even he will recognise that Lasham and the whole gliding movement has acknowledged that he has finally stood down from full time gliding instruction.

The gliding movement bid him farewell in style at an aviation social event of the decade held in a banquetting marquee at Lasham on April 15, surroundings that bore no resemblance to memories of dripping marquees, muddy underfoot, at previous gliding events often nicknamed "Splasham".

With over 500 applicants for the 300 seats Derek was left in no doubt as to how great was the appreciation of his contribution to gliding. Anyone with over 275 aircraft and glider types in their logbooks, 14 flying films to their credit (from pilot to advisor) and six major awards culminating in Member of the British Empire (MBE) in 1987 is surely extraordinary, as is someone who flies to well over 20000ft in a thunderstorm and is struck repeatedly by lightning yet survives, albeit in a badly damaged glider, and who flies under bridges with inches (yes "inches" because he is of the earlier non-metric generation) to spare just to keep the film producer happy is unique. But that is Derek.

Irrepressible, a dynamo, fearless, running everywhere, never walking, forever wearing out his shoes, again this is Derek. He may no longer be CFI at Lasham but he will not stop flying - he would not know how to. He probably will not stop writing either; with seven titles to his credit including **Beginning Gliding, Gliding** and **Understanding Gliding** - surely his next work will have to be **Stopping Gliding**?

From the gliding movement at large, Derek, a sincere and grateful "thank you" for your extraordinary contribution to aviation.

John Delafield

NATIONAL LADDER

The scores for June are very promising with lots of entries and good scores at the top. Warren Kay heads the Open Ladder with a 304km at 93km/h in his ASW-24. Edward Downham was a thermal short of completing 622km in his Libelle on May 10.

Ed Johnston, *National Ladder Steward*

Open Ladder

Leading Pilot	*Club*	*Flts*	*Pts*
1. W. Kay	London	4	6089
2. E. Johnston	Cotswold	4	5672
3. T. Macfadyen	Cotswold	4	5655
4. E. Downham	London	4	5451
5. T. Stuart	London	3	5337
6. M. Garrod	London	3	4967

Club Ladder

Leading Pilot	*Club*	*Flts*	*Pts*
1. D. Booth	Coventry	2	2170
2. A. Smart	Kestrel	1	1950
3. P. Crabb	Coventry	1	1630
4. S. Crabb	Coventry	2	1358
5. D. Taylor	Yorkshire	3	1344
6. G. Thomas	Coventry	3	1330

KENT FATALITY

There was a fatality at Kent GC on Friday, June 2, when George Soper, aged 52, was flying a Skylark 3.

He had flown a fairly normal circuit with the approach over the ridge. Conditions were light wind and little or no turbulence. The glider's descent steepened during the approach and it crashed into the ridge. There was no medical factor and no known explanation.

Bill Scull, *BGA director of operations*

OBITUARY

Sir Leonard Redshaw



Len with his grandson, Andrew.

Sir Leonard, or Len as he was known amongst the gliding fraternity, died suddenly at his home on April 29. Gliding, his family and work had been his lifetime pleasure and fulfilment in a most enjoyable 78 years.

Len started gliding in 1927, following his father who was a founder trustee of the original Furness Gliding Proprietary Ltd, better known as the Lakes Gliding Club. His brother, son, daughter and son-in-law all became keen gliding enthusiasts and now (still a bit of coaxing required) his three grandsons look as though they also will pursue the sport. His family probably have one of the longest family relationships with gliding in the UK.

An extract from a letter Len wrote to one of his early gliding colleagues illustrates most clearly his approach to life and his sport.

"I started at Vickers in 1927, with a scholarship taking me to Liverpool University for three years, followed by two years on a post graduate scholarship. During the holiday I operated with the local gliding club and obtained my A certificate based on the standard ten second blackout method of training. I attended the 1932 National competition at our site at Kirby Moors and followed Mungo Buxton on his record breaking cross-country flight of some 14 miles in my father's car.

"War was near, members were disappearing, I became secretary and finally in sole charge of the club. The machines were eventually commandeered by the RAF. I was a junior manager of Vickers, which became a very full time job. Nevertheless, I found time on Sundays to act as CO of 188 Gliding School, teaching pre-entry RAF cadets.

"Whilst I was researching welding on a course in London, I spent most Sundays gliding at Dunstable. One day I visited my great aunt in Tolworth, Surrey. This was about 1933 and I met a brunette who lived next door. She seemed to be suitable material for a wife. Unfortunately I only had two weeks to convince her that we should develop a long term friendship. We married in 1939 and, when I thought we were winning the war, we had a daughter in 1942 and a son in 1944. They turned out to be a first class crew for gliding competitions. Post-war every summer holiday for many years was spent entering Nationals and Regionals."

Len stayed with gliding after the closure of ATC 188 Gliding School and in 1954 some enthusiasts sought his help to start another club on Tebay fells. It moved to Walney as the Lakes GC in 1962. He gained a local reputation as the only man in Cumbria to have a glider and to be able to catapult off the local fells with his family's assistance. He remained active in gliding up to 1982 and was chairman of the Lakes GC for many years.

Most of Len's gliding colleagues have retired from the sport or passed on to other thermals. Probably he would best be remembered in the movement for rescuing Slingsby's when he was chairman of Vickers Shipbuilding in 1968 and bringing the manufacture of glass-fibre gliders to the UK with initially the Kestrel series and later the Vega. Len pioneered the world's first GRP glider with a carbon fibre mainspar which incidentally he then test flew for about six months at the age of 62.

As an industrialist his achievements were numerous and his recognition became international, being knighted in 1972. As a sportsman he enjoyed rugby, tennis, cricket,

fishing, swimming, boating and occasionally golf, playing for his school, university and company with great enthusiasm.

However, his number one sporting love remained gliding with over 3000hrs flown in, amongst others, his own aircraft which have included an Olympia 2B, Skylark 3, Dart 17, Club Libelle, Kestrel 19, Motor Falke, Auster and Super Cub.

Peter Redshaw

GLIDING CERTIFICATES

ALL THREE DIAMONDS

No.	Name	Club	1989
259	Clarke, A. J.	Fulmar	15.4
260	Nash, Jane	Kestrel	15.4
261	Bicknell, S. C.	Bristol & Glos	28.12.88
262	Sesemann, M. J.	Kent	11.2
263	Stromberg, I. M.	Yorkshire	10.5
264	Hunter, J. T. A.	Wolds	10.5
265	Terry, C. J.	Humber	10.5
266	Hatton, A. P.	Yorkshire	10.5

DIAMOND DISTANCE

No.	Name	Club	1989
1/377	Clarke, A. J.	Fulmar	15.4
1/378	Nash, Jane	Kestrel	15.4
1/379	Furley, R. G.	Cotswold (in Australia)	14.12.88
1/380	Bicknell, S. C.	Bristol & Glos (in Australia)	28.12.88
1/381	Hutchings, A. R.	London (in Australia)	15.1.89
1/382	Sesemann, M. J.	Kent (in Australia)	11.2
1/383	Stromberg, I. M.	Yorkshire	10.5
1/384	Hunter, J. T. A.	Wolds	10.5
1/385	Terry, C. J.	Humber	10.5
1/386	Hatton, A. P.	Yorkshire	10.5

DIAMOND GOAL

No.	Name	Club	1989
2/1610	Florence, P.	Bristol & Glos	8.4
2/1611	Maynard, V. H.	London	8.4
2/1612	Strathern, M.	Bristol & Glos	15.4
2/1613	Beardsley, G. C.	London	15.4
2/1614	Aitken, P. M.	Kent	28.4
2/1615	Broom, C. E.	South Wales	8.4
2/1616	Kelly, J. N.	East Sussex	28.4
2/1617	Egan, H. T.	Deeside (in Australia)	28.12.88
2/1618	Matthews, L. R.	East Sussex (in Australia)	17.2
2/1619	Hutchings, A. R.	London (in Australia)	13.1
2/1620	Earnden, K. C.	Chilterns (in Australia)	16.12.88
2/1621	Hodgson, Karina	Booker (in Australia)	23.12.88
2/1622	Turner, P. M.	Midland	10.5
2/1623	Clements, N.	Midland	10.5
2/1624	Niman, J. F.	Avro	10.5
2/1625	Lynch-Jennings, N.	Avro	10.5
2/1626	Evans, A. D.	Booker	10.5
2/1627	Brook, D.	London	7.5
2/1628	Ryland, P.	Norfolk	10.5
2/1629	Fuller, A. B.	Rattlesden (in Australia)	13.1
2/1630	Milton, C.	Four Counties	6.5
2/1631	Teagle, C.	Yorkshire	10.5
2/1632	Desmond, M. C.	Pegasus (in Germany)	15.5

DIAMOND HEIGHT

No.	Name	Club	1989
3/877	Hunter, J. T. A.	Wolds	27.3
3/878	Brown, R.	Cotswold	29.3
3/879	Starer, D.	London	15.3
3/880	Rawlings, B.	Pegasus (in France)	21.3
3/881	Garland, N. J.	Pegasus (in France)	23.3
3/882	Housden, Ruth	Cotswold	27.3
3/883	Robson, T. J.	Derby & Lancs	27.3
3/884	Gibson, W. R.	Phoenix (in France)	23.3
3/885	McLean, P.	Pegasus (in France)	23.3
3/886	Pitchfork, G. R.	Clevelands	1.5
3/887	Morris, C.	Stratford-on-Avon (in France)	1.5
3/888	Desmond, M. C.	Pegasus (in France)	21.3

(Five heights were flown from Aboyne, one from Dishforth and one from Sutton Bank.)

GOLD BADGE

No.	Name	Club	1989
1293	Cheetham, R. A.	Buckminster	4.9.88
1294	Willes, P. T.	Marchington	25.3
1295	Starer, D.	London	15.3
1296	Florence, P.	Bristol & Glos	8.4
1297	Garland, N. J.	Pegasus	23.3
1298	Maynard, V. H.	London	8.4
1299	Strathern, M.	Bristol & Glos	15.4
1300	Williamson, C. G.	Derby & Lancs	25.3
1301	Beardsley, G. C.	London	15.4
1302	Aitken, P. M.	Kent	28.4
1303	Broom, C. E.	South Wales	8.4
1304	Kelly, J. N.	East Sussex	28.4
1305	Egan, H. T.	South Wales	28.12.88
1306	Earnden, K. C.	Chilterns	16.12.88
1307	Hodgson, Karina	Booker	7.4
1308	Turner, P. M.	Midland	10.5
1309	Niman, J. F.	Avro	10.5
1310	Evans, A. D.	Booker	10.5
1311	Burry, Jill	Heron	15.1
1312	Desmond, M. C.	Pegasus	15.5

GOLD DISTANCE

Name	Club	1989
Maynard, V. H.	London	8.4
Strathern, M.	Bristol & Glos	15.4
Beardsley, G. C.	London	15.4
Aitken, P. M.	Kent	28.4
Broom, C. E.	South Wales	8.4
Kelly, J. N.	East Sussex	28.4
Egan, H. T.	South Wales (in Australia)	28.12.88
Matthews, L. R.	East Sussex (in Australia)	17.2
Earnden, K. C.	Chilterns (in Australia)	16.12.88
Hodgson, Karina	Booker (in Australia)	23.12.88
Turner, P. M.	Midland	10.5
Clements, N.	Midland	10.5
Niman, J. F.	Avro	10.5
Lynch-Jennings, N.	Avro	10.5
Evans, A. D.	Booker	10.5
Brook, D.	London	7.5
Ryland, P.	Norfolk	10.5
Fuller, A. B.	Rattlesden (in Australia)	13.1
Milton, C.	Four Counties (in France)	6.5
Teagle, C.	Yorkshire	10.5
Desmond, M. C.	Pegasus (in Germany)	15.5

GOLD HEIGHT

Name	Club	1989
Brown, R.	Cotswold	29.3
Gilbert, C. N. R.	Humber	29.12.88
Dickson, M. W.	Phoenix (in France)	22.3
Birch, J. F.	Yorkshire	7.3
Cheetham, R. A.	Buckminster	4.9.88
McLean, J.	Clevelands	11.3
Goulding, N. B.	Clevelands	11.3
Carlisle, R.	Derby & Lancs	20.3
Kitchen, J.	Strubby	30.3
Willes, P. T.	Marchington	25.3
Malcolm, Catherine	Wolds	29.3
Chant, M.	Devon & Somerset	26.3
Penrose, P.	Highland	26.3
Starer, D.	London	15.3
Florence, P.	Bristol & Glos	8.4
Rawlings, B.	Pegasus (in France)	21.3
Garland, N. J.	Pegasus (in France)	23.3
Trevethick, P.	Strubby	27.3
Antcliffe, N. R.	Wolds	30.3
Shuttleworth, P.	Midland	26.3
Carver, Elaine, A.	Derby & Lancs	20.3
Pascoe, S. M.	Fulmar	27.3
Robson, T. J.	Derby & Lancs	27.3
Williamson, C. G.	Derby & Lancs	25.3
Gibson, W. R.	Phoenix (in France)	22.3
McLean, P.	Pegasus (in France)	23.3
Burkert, H. G.	Lasham (in Italy)	25.3
Hodgson, Karina	Booker (in France)	7.4
Desmond, M. C.	Pegasus (in France)	21.3
Burry, Jill	Heron (in Australia)	15.1

SILVER BADGE

No.	Name	Club	1989
7831	Jones, R. A.	Wrekin	25.3
7832	Adams, D.	Shalbourne	28.3
7833	Chant, M.	Devon & Somerset	26.3
7834	Brady, J. P.	SGU	15.3
7835	Wright, J. S.	Booker	8.4
7836	Francey, J.	Wrekin	8.4
7837	Gelder, D.	Wrekin	8.4
7838	Rawlings, B.	Pegasus	14.3
7839	Trevethick, P. J.	Strubby	29.3
7840	Beatty, R. A.	London	17.3
7841	Harris, R. E. G.	Thruxton	29.3
7842	Pursey, J. M.	Devon & Somerset	2.4
7843	Brummit, D. C.	Devon & Somerset	2.4
7844	Maison Pierre, R. J. L.	Anglia	7.4
7845	Evans, M.	Bicester	15.4
7846	Lipscombe, T. M.	Lasham	14.4
7847	Fisher, R. B.	RAE	8.4
7848	Lincoln, B. N.	Portsmouth Naval	14.4
7849	Patterson, D.	Borders	13.4
7850	Emerson, N. H.	RAE	8.4
7851	Saunders, M.	Surrey & Hants	30.9.88
7852	Lealand, M.	Booker	14.4
7853	Cannon, P. C.	Surrey & Hants	15.4
7854	Cunningham, A. J.	Bristol & Glos	27.6.87
7855	Hanna, R. H.	Ulster	23.4
7856	Fellis, M. A.	Northumbria	16.4
7857	Ashburn, C. J.	Bristol & Glos	8.4
7858	Gibbs, P. J.	Altair	15.4
7859	Allison, V. W. A.	Surrey Hills	21.4
7860	Watt, J. D.	Wrekin	26.4
7861	Gatfield, J.	London	15.4
7862	Balshaw	North Wales	25.4
7863	Kerr, G. J.	Midlands	15.4
7864	Salisbury, P. W.	Booker	20.4
7865	Dyer, R. D.	London	15.4
7866	Owen, B. L.	Norfolk	15.4
7867	Mansfield, P.	Swindon	8.4
7868	Pearson, D.	RAE	15.4
7869	Heard, J. G.	Marchington	15.4
7870	Mahde, H. M.	Lasham	28.4
7871	Prime, A. E.	Norfolk	26.4
7872	Zymecka, J. A.	Yorkshire	28.4
7873	Brett, R. C.	Wyvern	2.5
7874	Neave, K.	Bristol & Glos	25.4
7875	Maudlin, S.	Lasham	28.4
7876	Pride, D. C.	RAE	28.4
7877	Gilbert, C. N. R.	Two Rivers	30.4
7878	Boswell, G. I.	London	28.4
7879	Underwood, B. G.	Welland	6.5
7880	Clayton, P.	Burn	15.4
7881	Williams, J. D. H.	Bristol & Glos	25.4
7882	Lewis, S. I.	London	6.5
7883	Basak, R. M.	Bicester	7.5
7884	Meyerhoff, P. D.	Wolds	6.5
7885	Pearce-Boby, R. J.	Enstone	6.5
7886	Carruthers, M. J.	SGU	7.5
7887	Brake, R. J.	Fenland	15.4
7888	Roberts, M.	Southdown	8.4
7889	Musson, C. P.	Pegasus	28.4
7890	Ferguson, M.	Four Counties	6.5
7891	Georgi, Zoe	Lasham	7.5
7892	Kynsey, P.	Lasham	28.4
7893	Waterfall, S. J.	Phoenix	6.5
7894	Goodenough, G.	Burn	14.5
7895	Hayward, W. F.	York	13.5
7896	Baker, A. A.	Surrey & Hants	28.4
7897	Cornish, C. J.	Avon	6.5
7898	Fleming, J. A N.	Borders	4.3
7899	Sutcliffe, R. C.	Blackpool	14.5
7900	MacArthur, I.	Connel	14.5
7901	Brown, S.	Booker	14.4
7902	Hopkins, B.	Altair	13.5

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7903	Dutton, S. J.	Surrey & Hants	28.4
7904	Williamson, M. B.	Booker	6.5
7905	Smith, A. D.	Booker	15.5
7906	Evans, R. J. D.	Newcastle & Teesside	13.5
7907	Skelding, T.	Midland	10.5
7908	Abbott, C. J.	Midland	16.5
7909	Sanderson, W. A. M.	Cambridge Univ	15.5
7910	Morris, J.	Humber	17.5
7911	Challans, M. A.	Lasham	6.5
7912	King, G. A.	Cranfield	6.5
7913	Lefever, G. J.	Norfolk	12.5
7914	Baxter, K.	Two Rivers	7.5
7915	Carter, P.	Borders	21.5
7916	Street, A. W.	Kent	24.5
7917	Bissett, J. W.	Cambridge Univ	28.4
7918	Glennie, P.	SGU	26.5
7919	Kitchen, J.	Strubby	27.5
7920	Paskins, R. K.	East Sussex	26.5
7921	Middleton, M.	Fenland	28.5
7922	Toon, M. J.	Fenland	27.5
7923	Mennell, B. R.	Clevelands	28.5
7924	Gwynne, M.	Lasham	10.5
7925	Dykes, K.	Newark & Notts	29.5
7926	Bolt, J. W.	Devon & Somerset	29.5
7927	Thorpe, D.	Staffordshire	11.5

UK CROSS-COUNTRY DIPLOMA

Complete

Name	*Club*	*1989*
Welsh, S. J.	Wyvern	8.4
Moules, K. A.	Wyvern	8.4
Dickson, M. W.	Phoenix	7.5
Blows, L. G.	Southdown	26.4

Part 1

Name	*Club*	*1989*
Blake, M. P.	Midland	15.4
Boalter, G. L.	Bristol & Glos	8.4
Dickingson, A. B.	Derby & Lancs	15.4
Kingston, M. E.	Cranfield	15.4
Barrie-Smith, J.	Lasham	10.5

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Lydd, Kent TN29 9QL
Tel: 0679 21236

BGA ACCIDENT SUMMARY –

Edited by JOHN SHIPLEY,
Chairman, BGA Safety Panel
Compiled by David Wright

Ref No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Pilot/Crew Injury	Pilot/Crew Pl/Hrs	Summary
20	JP-15-3AR	2593	S	29.1.89 1515	Dishforth	35	N	292	The visiting pilot joined the circuit at over 1500ft but flew a wide circuit to land behind another glider. Concentrating on the glider ahead the pilot failed to monitor height and undershot into a marker board. Circuit conditions had already caught out four other pilots and the CFI had broadcast warnings on 130.1
21	Janus C	3333	M	19.1.89 1510	Duxford P2	50 55	N N	2216 32	After initial canopy misting problems had cleared the BGA Janus was flown normally. On finals P1 decided that the wind had dropped, placing the glider too high. He took control and sideslipped to lose height. As he did so the condensation and sun reduced visibility. Looking through the DV window he saw the ground too late to prevent a hard landing.
22	Pirat		N	3.10.88 1200	Parham	34	N	97	After rigging and a positive control check the glider was flown. Afterwards the pilot reported a click when the stick was moved from side to side. Without connecting the ailerons in the centre section, the locating peg was long enough to just engage and drive the aileron push rod.
23	Olympia 401	2372	S	11.1.89 1245	Parham	46	N	22	During the take-off run the glider started to swing to the left and then pitched up and down. As the pilot could not bring the glider under control he released but bounced several times before finally impacting nose first. The visiting pilot had been briefed and had flown without incident several times from this site.
24	K-18		S	22.2.89 1715	Talgarth	32	N	200	After moving along the ridge to avoid a snow shower the pilot tried to return but found the ridge obscured by cloud. He inadvertently flew over the ridge and then flew downwind across good fields before landing in a reservoir at the bottom of the valley.
25	K-8	2747	W/O	8.2.89 1500	Challock	62	M	60	After an apparently normal circuit the pilot opened the airbrakes then became preoccupied with a congested landing area. Landing short on an uphill part of the airfield he allowed the glider to slow until it entered a spin. The glider crashed into trees and broke power lines.
26	K-13	2554	S	26.2.89 1205	Nympsfield	38	N	465	With a squall approaching, the K-13 was the last of seven gliders being moved to the hangar when the gust struck. The people by the nose, wing and tail were unable to stop the glider rearing up. It pulled the towing dumper truck back until the rope back released and the glider turned over. Someone in the glider might have stopped this, or been hurt!
27	PIK 20	M/G G-BMMJ	M	12.2.89 1245	Sandhill Farm	40	N	1405+ 460pw	After a normal take-off the motor gliders engine failed at about 150ft. It stopped completely, rather than windmill, and the pilot had to make a hurried landing into a field to his right. During the ground run the right wing struck a foot high stone which caused a groundloop. A possible fuel restriction is being investigated.
28	K-13	3254	M	5.3.89 1645	Lee on Solent	33	N	49min	The early solo pilot had been checked out earlier in the day and had had a good solo flight. Later in the day with falling wind and failing light a further flight was made without reporting to the duty instructor. After being too high on finals the speed increased and the glider landed heavily then bounced.
29	K-13	2845	M	21.3.89	Portmoak P2	52 52	N N	1482 90	While demonstrating a chandelle P1 allowed the glider to stall and roll almost inverted. The glider then hammer stalled out of the second half of a loop and before P1 could extend the brakes to reduce speed they deployed themselves with a bang at about 120kt. Maintaining constant brake the glider was landed safely in spite of torn wing fabric.
30	K-7	936	S	1.4.89 1217	Woodford P2	36 50	M M	460 ?	After a slow launch P1 took control and released at about 500ft. P2 was given control but was slow in responding to speed prompts from P1 during the short circuit. On the approach P1 took control as the speed dropped to 40kt but P2 half extended the brakes and the glider stalled into the ground. Both pilots injured their backs.
31	Skylark 2	747	S	26.3.89 1440	Strubby	39	N	15	As the glider lifted off the winch cable was seen to go slack and the pilot pulled off. From a maximum of about 40kt the speed fell and he was unable to prevent the glider stalling in from a height of about 5ft. The left wing dropped and the glider groundlooped into the crop alongside the runway.

S=Serious; W/O=Write Off; M=Minor; N=Nil.

CLUB NEWS

Copy and photographs for the October-November, 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 August 8 and for the December-January issue to arrive not later than October 10.

GILLIAN BRYCE-SMITH
June 7

AQUILA (Hinton in the Hedges Airfield)
Congratulations to David Price on going solo. The open day on Bank Holiday Monday was a great success with many introduced to gliding. Our thanks to those who made the day run so smoothly. It was also great to see the venerable Auster brought out of semi-retirement to operate alongside the Pawnee.

We need more use of the Astir if we are to justify its retention.
J.R.

AVON (Bidford-on-Avon)
We are enjoying a full flying season with unlimited airspace and have welcomed visiting clubs including Usk, Vale of Neath and the Air Scouts from Farnborough.

The Inter-Club League team started well at Sleap and did well (off the winch) at Snitterfield with Roger Huttlesdon completing a 126km triangle.

There have been many good flights, and apologies for leaving anyone out - Barbara Reed (246km in the K-8), Albert Etchells (100km triangle), Anne Hopkins (5hrs and 50km), Steve (50km and 5hrs with a slight detour) and Chris Cornish (Silver badge completed and the UK Cross-Country Diploma).

A Twin Astir has joined the club two-seater fleet and thanks to the hard work of a few, we have a new bar. Our thanks to Roger, Bob and Lawson.
D.T.W.

BICESTER (RAFGSA Centre)
An eager crop of pilots have gone solo and got Bronze and Silver legs. "Spud" Hallam achieved both Bronze legs and his 5hrs; Andy Hillary Silver distance; Derren Francis, Rad Babic and Bob Brathewaite their durations and Chris Owen and Bob Northover Silver heights, Bob also getting his 5hrs.

Ron Pepper and Richie Basak have completed their Silver badges and Jonathan May and Mah Kirshner their 300kms.

We are awaiting ratification of Ken Hartley's two-seater 300km triangle record, at 94km/h in our Nimbus 3DT in which Ian MacFadyen flew 500km. John Wright holds the club T-31 soaring record of 32min. Well done to everyone.
M.H.

BLACK MOUNTAINS (Talgarth)
The first six months of full time flying has produced more hours than the whole of the previous 12 months, and this is going through the winter.



Chris Cornish with his M-100 at Shropshire Soaring Group, after flying Silver distance from Avon GC, claiming the height leg on the way. Chris set off for Cosford but was doing so well he flew to Sleap where his friends were winning the Inter-Club League round on April 14. Photo: Peter Foster.

Our mountain and flying courses are well booked and membership is increasing steadily.

After losing the K-8, our 15M Junior is very popular and a delight to fly. We have a tug on loan while ours is having a major refurbishment. We now have electricity on the site.

Congratulations to Trevor Thomas on going solo and a warm welcome to Ulster GC. We had numerous wave and thermal days during April and May.
T.J.W.

BLACKPOOL & FYLDE (Chipping)
Congratulations to Alan Roberts on going solo; to Dave Birtwhistle on re-soloing and to Ron Sutcliffe, John Woods and John Goodall on completing their Silver badges, each with a different leg.

Sadly we have lost two much respected members recently. Stefan Komosa, whose 50 years of flying we celebrated last summer, died in March. He was a brave and gentle man who survived many horrors in the Polish, French and Royal Airforces. It was true to his style that he spoke little of the illness which caused his death. We extend our sympathy and condolences to Margaret and his family.

Tom Lawrenson died in January. His interest in flying started with the RAF during the war and more recently centred round the vintage gliding movement. He was a willing and cheerful man and both he and Stefan will be greatly missed.
V.H.

BORDERS (Galewood)
Enthusiasm has revived in recent months and good weather helped to bring a rash of badge claims - on several days we have utilised hill, thermal and wave lift in one flight. Congratulations to John Romanes (Bronze leg); Ashley Fleming and Dennis Patterson (Silver distances); George Brown (height), Peter Carter (5hrs) and Colin Sim (distance) on completing their Silver badges and to Ken Fairness and Andy Bardgett (100km triangles). Club ladder positions have been changing nearly every flying day.

We hosted our first instructors' course and congratulate Bob Cassidy, Bill Fleming, Ian Sim and Dennis Westgarth (as well as visitors from Northumbria and Rattlesden GCs) on their ratings.
A.B.



Andy Bardgett of Borders GC after his 100km triangle.

BRISTOL & GLOUCESTERSHIRE (Nympsfield)
Our team captain is taking the Inter-Club League more seriously with training weekends for the squad. The season started in March with a commendable failed 300km by Paul Little in his new DG and we had flown 9000km by the end of May.

Tony Morgan, Phil Andrews and Mike Wollard have retired from office and we thank them for their good works over the years.

We lost one of our club K-13s in a tethered but pilotless loop.
S.R.

BUCKMINSTER (Saltby Airfield)
Congratulations to John Harwood on both Bronze legs; Dave Epton on his duration when he "out scratched" everyone and Kate Hutchinson on her Silver distance to Bidford (100km plus). Russell Cheetham, Phil Walsh and Jeff Roberts

have flown the milk run 100km and, with times coming down, it should be a good competition.

We were creditably placed in the first two rounds of the Inter-Club League. The courses are well booked and Garry Polkinghorne (instructor) and Pete Joslin (tug pilot) are a very successful and amiable combination. Most go solo by the end of their course.

The weather gave us a very active May with the two-seaters so busy we are trying to find a Blanik. The T-21 is more popular than ever.
A.B.

CAMBRIDGE UNIVERSITY (Duxford)



Nick Weston who went solo on his 16th birthday.

Congratulations to Andy Barron, Andy Thorburn, Paul Stoker and Nick Weston on going solo, Nick on his 16th birthday. Nick gained a Bronze leg six days later. Brian Davies and Nick Robinson have completed their Bronze badges.

The splendid May weather produced a number of 500kms, Silver distances from, among others, Andy Greenhalgh, Brian Hooson, David Moore and Andy Sanderson, and Diamond goals for David Oswald, Chris Sullivan and Iain Baker.

We now have two-seater cross-country training and are grateful to the instructors for making such an experience possible.

Local and visiting pilots are reminded there is a flying display at Duxford every Sunday between 1500 and 1515hrs when they should keep well clear of the airfield.
J.B.

CAIRNGORM (Feshiebridge)
All aircraft and equipment are serviceable due to the hard work of John Young and Alan Carnegie, club inspectors. Andy Carter is now an assistant instructor.

We are selling our motor glider to buy a tug and have applied for a grant to build a hangar and fuel installation. The Falke will not be used for trial instructor lessons this summer but we are running club courses in August.
S.M.

CLEVELANDS (RAF Dishforth)
We hosted the season's first local Inter-Club League meeting and came 2nd to Rufforth. Two of our entrants won their tasks on the first day and followed this with further achievements: congratulations to Brian Mennel on flying 50km to complete his Silver badge and to Neil Goulding on gaining his instructor rating. Also to Robin Sinton on his Bronze badge.
J.P.

COTSWOLD (Aston Down)
Harry Willis and Steve Manktelow flew to the seaside to complete their Silver badges. Congratulations also to Bruce Hamilton-Webb, Nigel Pickering and John Cole on going solo and to Dave Williams, Jonathan Beard and Frazer Wilson on becoming AEIs.

This year is our 25th anniversary and the main celebrations will be between July 30-August 5 to coincide with our mini Comp. Old members/ friends are invited to join us for the festivities. Details from the secretary.
G.M.

COVENTRY (Husbands Bosworth)
The club motor glider is very successful and being used for cross-country field selection training.

Our open weekend in April was highly successful and well co-ordinated.

The task week at the end of May was probably our best ever with nine out of nine competition days. This created a highly competitive spirit with Dave Booth (Carman) winning Class A; Keith Scott and Barry Chadwick (Dart 17), our visitors from Welland GC, Class B; Tony Scragg and team (Bocian), the Two-seater Class and the Blunt Nails (vintage) by Norman James in the Tutor, who flew over 500km during the week including goal flights to Dunstable, Nympsfield and Lasham. During the week Jeanette Burgoyne completed her Silver badge and Martin Chamberlain flew Silver distance to Dunstable.

We continue to excel in providing mid-week launching and it is certainly an ideal venue for anyone considering flying here.
D.L.S



Rosemary Dornan of Cranwell GC being congratulated by Mick Lee, CFI, after going solo on her 16th birthday in the K-7. Photo: J. A. Shearwood.

CRANWELL (RAFGSA)
The last few months have been busy. We have had several solos - congratulations to Connie Conrad from the German Airforce who soloed after 12 flights, Jack Hagan and the two youngest, Tara Brown and Rosemary Dornan, Rosemary on her 16th birthday.

We ran a fun Comp on the Spring Bank Holiday weekend when over 1300km were flown over three days and the CFI took to the air in his refurbished K-2 and has been super soaring ever since.

Well done Aggie Lawson for flying for 1.08hrs in the K-7 for the first Bronze leg. Welcome to Graham Stubbs from Hullavington and congratulations on Silver height.
B.S.

DARTMOOR (Brentor)
The great news is that in our sixth year after protracted neogtiations our long lease has been signed and we can now take-off. David Gooby, Tom Richards and Jill Jenkins have done a really professional job on our site.

We will continue experimenting with a retrieve winch; the club gliders are airworthy thanks mainly to Colin Sanders; the winches in good order thanks to hard working members and we have two courses in July and August.

Our hangar can at last be erected and our CFI Peter Williams has recovered from a motor accident.

One of the nicer things about a small club is the camaraderie. Brian Cordier, a founder member, broke a hospital visitors' record after serious surgery by having 12 round his bed. He is now back thermalling and is one of our best winch drivers.
F.G.M.

DEESIDE (Aboyne Airfield)
Of the many cross-countries in the last few months, the most notably was Jack Stephens' 500km in wave, making him the first to achieve Silver and Gold badges and all three Diamonds at Aboyne.

We have bought another Pawnee to give us three tugs.

Alan Middleton has retired as CFI after four ➡

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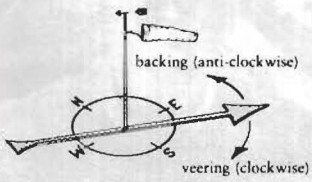
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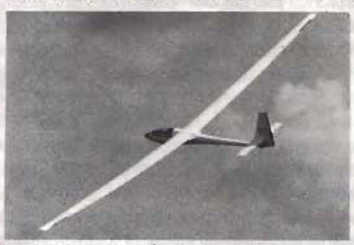
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hard years with Graeme Holloway taking his place. Carol Bisset and Jan Stemerdink have become instructors.

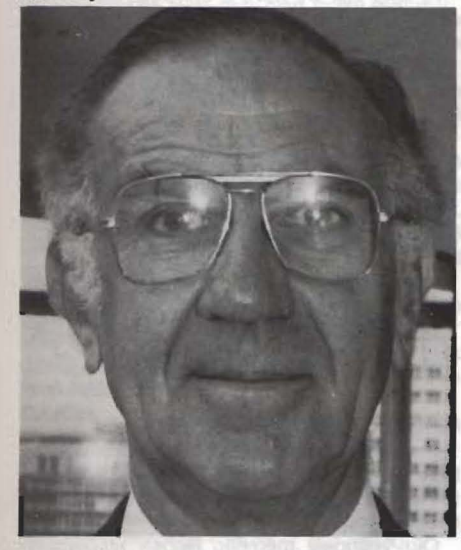
A Sport Vega trainer is being built to replace the one which collapsed on a retrieve. The other Vega trailer is roadworthy again but one of the Vegas was damaged in a field landing accident and won't be flying for several months.

Our telephone numbers have been changed. The clubhouse is now 03398 85339 and the workshop 03398 85236.
D.S.

DERBYSHIRE & LANCASHIRE (Camphill)
Tim Robson completed a magnificent 300km Diamond goal on April 15. Of the many flights since two are well worthy of congratulation - Mike Armstrong nearly achieved 500km (490km in 10hrs) and Daryl Athey completed his Silver badge with a flight to Kirton in Lindsey.

Our Spring Bank Holiday open weekend was most successful with over 170 trial instructor lessons. Our thanks to everyone who helped, particularly to Graham Franklin who made it happen.
E.C.

Obituary - Don Hatch



It is with great sadness we report the death of Don Hatch on May 24, Don was the victim of a violent storm which swept his car into a swollen river near his home. The multitude of friends both inside and outside the chapel spoke volumes about Don and his many interests.

He was a member at Camphill for almost thirty years, having been an instructor in the Air Cadets, initially in the early 1950s at Woodford and later at Meir. He had that rare distinction of joining Camphill with over 3000 flights already in his logbook.

Don and Ruth were deeply involved in the social organisation and activities of the club as well as the flying. Don was a well loved member of many syndicates including the Dart 17R, Std Jantar, ASW-20 and finally the Open Jantar. His dedication to mid-week instruction will be missed.

We remember Don with great affection and extend our condolences to Ruth, Heidi, Kathy and Christopher.
Malcolm Blackburn



At Dukeries GC's AGM Keith Hebdon (right) was presented with the Achievement cup and CFI, John Swannack (left) became the first holder of the Chairman's cup. Tim Bowles, the chairman, is in the centre. Photo: Barrie Codling.

DEVON & SOMERSET (North Hill)
Holiday courses are having good flying conditions and the BGA soaring course was well attended. Work continues on the Super Falke hangar.

Good conditions have produced an O/R to Okehampton for Ron Johns; Silver distance and duration for Chris Heide and Silver distances for Dave Brummit, John Pursey, Malcolm Chant and Peter Craggs.

Dave Reilly wasn't satisfied with his 100km triangle in 1hr 24min so went round again in 1hr 15min.

Membership is well up with a full list awaiting training.
E.C.N.

Obituary - Kenneth J. S. Andrews
It is with great sadness I report the death of Ken Andrews on April 16.

Ken's introduction to gliding was unusual. Commissioned in the Army, he learned to fly on Tiger Moths, Magisters and Stearman PTs. He then moved to the Glider Regiment flying Horsas, Hotspurs and Hadrians. He landed safely at Arnhem with a small platoon which included Lt Gen "Boy" Browning and such was the calibre of Ken's leadership that his group was one of the few who escaped from what he modestly described as a "rather silly caper". Retiring after the war as a Lt Col and awarded the MBE, he moved to Devon and joined the club in 1975.

Ken was one of that rare breed of men - quiet, unassuming, unflappable, yet with an infectious personality, a wonderful sense of humour and, above all, a remarkable ability to endear himself to all. Many visitors will remember him as the calm, efficient director of Competition Enterprise.

He will be sadly missed by the club, particularly his syndicate members. It was a privilege to have known him and we extend our condolences to his wife, Valerie, and his family.
Edward C. Willcox

DORSET (Old Sarum)
The excellent weather has seen lots of activity with everything flyable airborne on most days.

Vanessa Smith has gone to Zimbabwe as a course instructor. Presumably she intends to return as she left her Libelle and Basil behind.

The club fleet is emerging with fresh paint, thanks to Barry Thomas.



Richard Barry of Dorset GC after his solo.

Congratulations to Richard Barry and Adrian Goodwin on going solo.
D.N.

DUKERIES (Gamston Airfield)
At the AGM Bassetlaw GC changed its name to Dukeries and become a limited company.

A highlight in January was when Brian Fowkes took the club T-21 into wave from an 800ft launch. Intense cold (no canopy) brought him and his pupil down form 2500ft after 30min.

Chris Aston, Alf Dackombe, Graham Goucher and Keith Gregory have gone solo and Dave and Glenn Barratt and Peter Turner have AEI ratings. Keith Hebdon has gained a Bronze badge and 5hrs in a K-6CR which is a handsome addition to ➡

the site and shared by Keith, Alan and Eric Marshall and Mick de Torre.

We had a most successful open day on May Day. We used both two-seaters and over 40 enjoyed trial instruction lessons, including two visitors from California.
T.H.B.B.

EAST SUSSEX (Ringmer)
The annual spring expedition to Talgarth yielded much talking, eating and drinking but no badges this time.

Back home, congratulations to Jack Grayer and Steve Smithers (solo); Alan Francis (Bronze badge) and Bob Paskins and Cliff Kindell (Silver badges). Neil Kelly and Larry Matthews have flown Diamond goals from Lasham and Benalla respectively.
L.M.

ENSTONE EAGLES (Enstone Airfield)
We now have a long term licence for the exclusive use of the grass strip parallel to the main runway. The runway will continue to be used for the autotow vehicles but with most glider launching being off the grass the launch rate will improve *vis-a-vis* power flying.

Our heartiest congratulations to our chairman Ken Sparkes on being awarded the John Hands trophy for services to competition gliding with special reflection on his directorship of our Regionals for so many years. The Regionals' bookings are better than expected but there is room for a few more.

Tom Miller is now DCFI and Robert Bottomley has his AEI rating. Simon Hodder has gone solo; Greg Burton gained his duration with over 6hrs; Jim Marburger has both Bronze legs and 5hrs; Tony Cox (DG-100) was just short of 500km; Robin Pearce-Boby completed his Silver badge with a flight to Aston Down and Peter Bailey finished his with a 5hrs.

Our April open weekend was a great success due in part of a live spot on Radio Oxford. The mid-week courses are proving satisfactory with trial instruction evenings well attended and enjoyed.

With a dramatic but welcome increase in membership to the highest level for a decade, we are now putting our financial and flying records on computer to allow control, forecasting, billing, budgeting and statistics to be properly organised for such numbers.
R.J.P-B.

HUMBER (RAF Scampton)
In May we exceeded 600 launches, albeit with the help of Trent Valley GC who normally reside at Kirton in Lindsey, and our achievements are also well up.

We have had three 100km triangles from Dave Ruttle, Sue Armstrong and Richard Browne; Steve Skidmore and Joe Hutton have their Bronze badges; Al Rumming and Eric Isherwood have Bronze legs; John Morris his Silver badge with a 5hr 40min flight at Bicester; Dave Jones also has 5hrs and Chris Terry his third Diamond with a 500km triangle.

Dave Maggs and Keith Whittaker have re-soloed, Keith with only three weekends' flying after a two to three year lay-off.

We had an accident with our K-13 but are pleased to report that Steven Ashton, the pupil, is making a good recovery and flew last week. Unfortunately the K-13 is much slower in mending!
K.M.G.

KENT (Challock)
At our AGM in April Tim Gardiner was elected chairman with Andy Street as treasurer. Richard Verity joined the committee.

The six members on our *ab-initio* Saturday course went solo before the 8th consecutive Saturday. Congratulations to them and also to Mike Sesemann on his third Diamond in Australia, Paul Aitken on Diamond goal from Challock and Robert Burden and Jerry Bass on Silver distances, all in May.

We now have planning permission to operate two tugs, thus improving our launch rate, especially at weekends.
A.R.V.

KESTREL (RAF Odiham)
With exceptionally good weather we have had many achievements. Congratulations to Tim Hale, Iain Legge, James Hiscocks and Tim Gray (going solo); Tom Russell, Fred Field, Paul Carter, Tim Hale, Andy Tween and Iain Legge (Bronze legs); Paul Sloan, Simon Fielding, Paul Ellis and Alison Parkinson (Bronze badges) and Paul Sloan, Alison Parkinson and Stuart Perkins (Silver heights).

An excellent flight of 528km by Jane Nash on April 15 gained her Diamond distance and so all three Diamonds.

Several members went to the Long Mynd in May and had a week of ridge and thermal flying.

The Mini Nimbus has newly profiled wings solving the crazed gel coat problem.
J.N.

LAKES (Walney Airfield, Barrow-in-Furness)
Sir Leonard Redshaw's death on April 29 has overshadowed other activities. We send our condolences to Lady Joan Redshaw and her family and give thanks for the life of an absolutely exceptional man - and a man amongst men. (See the BGA and General News.)

Ian Richards and Gordon Jenkinson have gone solo, Gordon resoloing having been out of the sport for over 30 years.

For yet another year our summer courses are fully booked.
M.S.

LASHAM GLIDING SOCIETY (Lasham Airfield)
The unusually good weather has resulted in many notable cross-countries. Courses of all types have been highly active including an aerobatic course run for the second year by Josef Solski, visiting us from Poland.

Derek Piggott's leaving dinner-dance in April was the most impressive social function ever held at Lasham, a token of the enormous respect in which he is held. We wish Derek good luck in the future. (See also BGA and General News.)

Our second winch has arrived and, with our co-located launch points, investment in technology and new operating procedures, will give a substantial increase in launching capacity.

Congratulations to general manager Phil Phillips and our new CFI Terry Joint who have been prime movers in the changes.
M.T.C.

MARCHINGTON (Marchington Airfield)
Jeff Heard acquired two Silver legs whilst on business in Australia and completed with a 50km to Sleap. Then his syndicate partner Henryk Hayes flew the K-6CR on an O/R for Silver distance. Well done both.

Dave Barke has made us envious with his newly acquired DG-400. Our first course enjoyed excellent weather with Bernard Blake going solo.
P.A.W.

MIDLAND (Long Mynd)
We have seen some good soaring this year, especially on the mid-week soaring courses.

Dave Sprake flew Silver distance to the North Wales GC and during an instructors' soaring course at Booker Peter Turner and Neil Clements gained Gold distance with Diamond goal. Our thanks to Chris Rollings, Bernie Morris and all those Booker pundits for a valuable week's training.

At long last we have a concrete floor in our winch workshop and the start of some much needed airfield drainage.

Linda Taylor, until recently our long suffering newsletter editor, has had her first power solo.
R.D.

NENE VALLEY (RAF Upwood)
Congratulations to Roger Emms on his 5hrs; to John Taylor and Dan Honerbrink on their second Bronze legs and to Alan Wisneiwski, Eric Yeardley and Alan Wiltshire on going solo.

Our thanks to the Long Mynd for their hospitality in April. Our assistant instructor John Young (L-Spatz) had the longest flight with a buzzard for company on his birthday.
A.H.

NEWARK & NOTTS (Winthorpe)
The club has acquired a Skylark 2 as a bridge between the K-8 and the SF-27 and the syndicate Oly is flying again - its wings are a work of art and it looks great.

Our youngest member, Robert Moorhouse, completed his Bronze badge in a spectacular

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manner and Keith Dykes completed his Silver badge with a 5½hr flight. John Maddison won the club's Horticultural trophy for the study of baby beetroot in their natural habitat.

Visitors are always given a warm welcome.
M.A.

NORFOLK (Tibenham Airfield)
There has been a lot of activity with members endeavouring to finish the clubhouse alterations and prepare the new bedrooms and briefing room for the Vintage Glider Club's first visit during the May Day Bank Holiday. The weekend was a great success with ten vintage gliders, crews and friends enjoying two good flying days.

The new grass - waterlogged the week before - had the first cut of the season making a much softer landing for vintage machines. Ken Wallis gave an enjoyable lecture on the Saturday evening on his flying experiences with the autogiro and on Sunday evening Gill and Charles Owles prepared a steak barbecue for 80.

The season has started well with several Silver legs and first solos.
G.E.

NORTH WALES (Bryn-Gwyn-Bach, Nr St Asaph)
We have had an incredible start to the year with March, April and May providing excellent thermal and wave flying. For the first time from the site, both two-seaters reached 10000ft and experienced excellent wave flying.

Congratulations to Geoff Balshaw, Mark Roberts and Geoff Glazebrook on Silver distances; Trevor Mann and Dave Horgan on going solo and to John McCormick, Keith Lewis and Geoff Balshaw on their AEI ratings. We also welcome Bill Grey and Brian Lomas who have become regular instructors.

Our annual expedition to Cotswold GC was a great success. Our thanks to Ruth Housden, CFI, Mike Gribble and club members for their hospitality, and to Swindon GC for all their help and for providing aerotows.
C.A.H.

NORTHUMBRIA (Currock Hill)
Alan Scott is now a full Cat - a well deserved promotion. We have another GRP glider, a DG-300 acquired by Norman Crawford, our treasurer.

Martin Fellis comleted his Silver badge with distance and duration legs in one flight. The spring has given many excellent wave flights from the site, mainly the result of taking higher aerotows than usual.

Jack Little is back from Kenya but still affected by wanderlust - he is instructing at Connel.
R.D.

OXFORD (Weston on the Green)
The season started well with 16 year-old Kate Machin going solo and Peter Buchan, Neil Swinton, Andy Butterfield and Maggie Roberts gaining Bronze legs, Maggie both.

Nick Barrett, Gordon Robinson and John Shirvall have Silver heights; Nick Barrett, Norman Machin and Gordon Robinson 5hrs; John Howard flew a K-8 to Husbands Bosworth for Silver distance and Graham Barrett, Glenn Bailes, John Giddins and Richard Hall have achieved 300kms. Many shorter distances have been flown, making the most of better spring weather than for several years.
F.B.

PEGASUS (RAF Gütersloh)
We have again been to Sisteron with Diamond heights for Robin Wills-Flemming, Brian Rawlings, Mark Desmond, Paul McLean and Nick Garland and durations for Matt Golling, Anne McLean and Brain Rawlings.

The new Discus has rarely been seen on the ground during the excellent weather. Simon Duerdon brought a K-6CR from Brüggen and been on an instructors' course at Bicester.

Nine have gone solo since August including Norman Stewart who visited us from Bicester. Alan Duerdon and Pete Campbell have completed their Bronze badges and Charlie Musson his Silver badge.

Brian Rawlings gained his SLMGPPL at Tibenham. At the GGA AGM Mark Desmond was presented with the Sue Cavener trophy for his contribution to flight safety and completed his Gold C last May with a 300km.

Mark Critchlow has gone to Bicester leaving "Pooh Bear" as CFI; Dave Holt to Achmer and Roger Davies and Al Cleaver to Bannerdown. Pip Barley has arrived from Wrekin, Richie Arnall from Fulmar and Ken Reeves from Fenland.
S.S.

PETERBOROUGH & SPALDING (Crowland Airfield)
The year has been very kind to us and we have achieved unprecedented levels of activity. Malcolm Brown and Graham Kench bought a Sky which Malcolm used to complete his Bronze badge. John Crosse flew Silver distance to Swanton Morley and Steve Turner spent an entertaining afternoon in RAF Wittering's guard room, after landing on the perimeter track. Mark Jarrett is finally flying his syndicate PIK 20E after completing his SLMGPPL.

The BGA directive concerning non Silver badge instructors has seriously affected us as our instructor numbers were virtually halved overnight. It should be remembered that not all clubs have dozen of spare instructors and what seems like a good idea at the larger clubs will cause the largest single obstruction to operations in the smaller clubs. Anyone fancy some instructing?
M.J.

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PORTSMOUTH NAVAL (Lee-on-Solent)
A sad farewell was said to the Auster tug, G-AGYT, Yankee Tango. She was our first tug and has given many thousands of tows over the last twenty years.

We have a rebuilt K-13, which will be a valuable addition, and two new syndicates with a Swallow and a BG-135.

May brought some soaring instead of our usual sea breeze. Congratulations particularly to Alan Clark on a very hard won duration. We have had our first AEI course.

Sadly Ken Stevenson is leaving to join HMS Ark Royal. We wish him well in his new job and hope "Nobby" Clarke finds some Diamonds during his holiday in Minden.
H.C.

RAE (Farnborough)
We appear to have gone cross-country mad this spring, flying more than 1500km between April 2 and May 15. As a result Dave Pearson, Raphael Fisher, Duncan Pride and Neil Emerson have completed their Silver badges. Paul Stephens and Graham Dakkers have gone solo.

Many thanks to former CFI John Stone (now sadly medically retired) for being our guest of honour at the dinner-dance. Some of the top awards went to Inter-Services champ Nick Sanders and club stalwart Jon Knowles.
M.T.D.

RATTLESDEN (Rattlesden Airfield)
Our clubhouse carpet is down, the water is on the verge of being connected and all we need now is the furniture.

Our second K-7 has had a major and is now resplendent in its orange and white livery - a glowing compliment to the hours put in by Dave King, Humfrey Chamberlain and Steve Wright.

We had an amazing day on April 28 with nothing left on the ground. Several hundred kilometres were flown and we congratulate Steve Wright (K-6), Keith Lee (K-8), Keith George (K-6CR) and Mark Wright (Skylark 3) for their Silver heights and durations on the same day, Commiserations though to Mark Wright who having flown 210 of a planned 300km landed within 50km of the club and couldn't claim Silver distance.

Congratulations also to John Lee (our recent 16th birthday soloist) for completing both Bronze legs and to Vince White and Brian Lomax on going solo.

We are leading in our area's Inter-Club League. Steve Wright (K-6) won both days in the Novice Class at Cambridge and Roger Davis (LS-4) and Mark Taylor (Astir) won the first day in the Pundit and Intermediate Class in the second round at Tibenham. Well done lads.

We welcome Dave Dowling to the instructor force after gaining his assistant rating.
R.W.

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Peter Hurst (Nimbus) who was 3rd in the Inter-Club League at Southdown on May 28. Photo: Mike Erdman.

SACKVILLE (North of RAE Bedford)
We had a successful start to the season and have bought a K-2, to give us two club two-seaters. Membership is increasing with instruction on Friday evenings as well as the weekends.

We had a successful visit to Talgarth with a lot of flying at the end of April. We are holding barbecues the last Saturday in each month.
T.J.W.

SCOTTISH GLIDING UNION (Portmoak)
At our AGM in May, Stan Milne, completing his three years as chairman, reported an improved financial position, more members and more activity. His tireless work is much appreciated. Roy Howse also retired from the board and we thank him for his services. Mike Richardson has taken over as chairman and new members of the board are Colin MacAlpine (secretary), Stan Perry and Paul Copland.

Congratulations to Anne Grant and Susan Masterton (solo); Kevin Dillon, Dick Middleton and Hugh Williams (Bronze); Peter Glannie and Mike Carruthers (Silver) and to Fiona Scougall on her assistant instructor's rating.
M.J.R.

Obituary - Peter Copland
It is with great sadness that we report the untimely death of Peter Copland after a short illness. Peter served the SGU in the most outstanding manner, primarily as a director and treasurer for the past 12 years, and as a keen instructor and PR man, always having the interest of the club in the forefront of his activities.

Having retired a little early, he had looked forward to being more involved at Portmoak. He will be sorely missed. Our condolences and best wishes for their future go to his children and grandchildren. Luckily we have Paul, his son (a 16th birthday solo) in the club to carry on the name of Copland; his father liked that.
Jim Wales

SHALBOURNE (Rivar Hill)
The exceptional May gave us some good flying and much needed income to offset our high expenditure on the K-7s. We were pleased to welcome Odiham, Keevil and Hullavington for the Inter-Club League with fine sunny weather, although it wasn't much use for going anywhere.

Recent additions to the private fleet are a Skylark 4, L-Spatz and Zugvogel. Dave Maleham set the standard in the Skylark 4 with an epic 8½hr flight.

We have a bumper batch of "well dones" - Isobel Whittingham (Gold height); Paul Nickson, Richard Dann, Val Pike and Stephen Ottner (Silver height); Stephen Ottner (5hrs); Gillian Brind and Richard Dann (Bronze badge); Malcolm Black and Steve Glassett (Bronze legs) and Neil Lloyd, Malcolm Howard, John Hewett and Ted Shann (going solo). Commiserations to John Parsons and Richard Dann for returning just short of 5hrs.
S.C.O.

SHROPSHIRE SOARING (Sleap)
Such a superb year so far, not just the weather but the enthusiasm of members with an average flight time of just under 2hrs, an average of 60hrs per glider up to the end of May and a total approaching 10000km.

We have had several flights of over 20000ft. The ASH-25 went over the Irish Sea, Kestrels over Angelsey, the Twin Astir over Snowdon, David Carrow (ASW-20) over Swallow Falls, Rick Prestwich (Mosquito) over Bethesda and Barry Dixon Bate (Nimbus) over Llandudno and the Great Orme.
V.C.C.

SOUTH WALES (Usk)
Greg Scott has his assistant rating and Nigel Spencer Jones is an AEI. CFI Colin Broom completed his Gold badge with a 300km; Maureen Weaver has Silver distance; Ken Cotterell and Nick Parker have their Bronze badges; Jane Paul has gone solo and numerous pilots have gained Bronze legs in the recent good weather. Congratulations to them all and commiserations to Dave Almey on missing his Diamond distance by 11km.

Our course season is underway.
N.J.P.

STRATFORD-ON-AVON (Snitterfield Airfield)
The highlight of the May expedition to Sutton Bank was Chris Morris's Diamond height of 16500ft from a 300ft winch launch. Several experienced wave for the first time with the K-6E achieving over 7500ft. Our thanks to Sutton Bank for their excellent hospitality making a return visit assured.

Our badge claims show our structured training system is working well. Congratulations to Sharon Edlin, Chris Knight and Tony Palfreyman (5hrs); Chris Knight (Silver distance); Martin Greenwood (Bronze badge); Jonty Boddington, Caroline Coates, Bernard Heath, Bob Horsnell and Steve Oerton (Bronze legs) and Karin Hulsemann and Chris Smith on going solo, Chris following closely on his father Robin. Jeff Gale (Skylark 4) flew to Nymspfield to find his barograph not fully wound - a lesson to us all!

Trial instruction evenings and course bookings are looking healthy and the Inter-Club League interim results put us ahead with one more contest to fly.
H.G.W.

SURREY UNIVERSITY (Lasham Airfield)
The club was started 15 years ago by Dr T. Gee. We have 30 members and own a ¾ share in a K-21, flown regularly at weekends and on Wednesday afternoons.

Terry Joint, CFI of Lasham Gliding Society, was the guest speaker at our annual dinner in May.

This year Martin Torbit, Paul Kirkham and Hamid Mahde went solo, Hamid also gaining a Silver badge.
H.M.M.

SWINDON (Sandhill Farm, Shrivenham)
Our first open day of the year in April raised £350 for the Helen Davis Appeal. Helen, a local girl, suffers from cerebral palsy. Our thanks to members who helped and to Chris Rollings who lent us a Puchacz.

The good early spring has resulted in Silver badges for Paul Mansfield and Stuart Thackery and Silver distance for Graham Huggins. Roger Tyack gained a Bronze leg on his first solo.

Silver heights abounded on June 4 with cloudbase at 6000ft.
J.A.

THRUXTON (Thruxton Airfield)
Congratulations to Amy Walker on going solo and Andy Mercy on Silver distance.

Some members recently had exhilarating flights in a visiting Caproni Calif.

Launches are up and we are enlarging our two-seater fleet with a second Blanik.
J.B.L.

TWO RIVERS (RAF Laarbruch)
A good start to the year has produced a bumper crop of badge claims. Congratulations to Dave Brewster, Mike Smith and "Gaz" Gasiorowski on going solo, Mike has a Bronze and "Gaz", with "Speedy" Leaman, have both Bronze legs and Silver height; to Dave Mayfield (Bronze legs); Mike Sabine (Silver height); Chris Gilbert, Kev Baxter, Gert Moors and Nige Hobbs (completing Silver badges with distance flights, Nige also getting his 5hrs); Tim Doyle (UK Cross-country Diploma, part 1); Colin James (completed Diploma) and Colin James, John Sullivan, CFI, and Keith Curtis (Gold distances and Diamond goals).

Our annual mini Comp was a huge success with 13, including four German entries, flying nearly 6000km in three days. We fared well with Phil Jones and John Sullivan 1st and 2nd respec- ➡



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tively in the Open Class and Colin James 3rd in the Club Class. Gary Livings deserves a mention for some outstanding flying in the K-8.

We welcome a full Cat from the UK, John Norman, and say goodbye to Ian Pettman. Thanks for your efforts Ian.
P.J. & C.J.

ULSTER (Bellarena)
Cross-country/Bronze badge classes, run one evening each month by our new CFI, James Weston, aided by deputy Mervyn Farrell, have already encouraged several cross-countries.

Congratulations to Harry Hanna on gaining his Bronze and Silver on consecutive weekends. Our thanks to Alan Ingram for arranging monthly video/seminars.

We now have a Dart 17 syndicate formed by Hugh Gowdy, Alan Ingram and Brian Tannahill.
A.W.

WELLAND (Middleton)
Our thanks to Coventry GC for their hospitality during their task week when Barry Chadwick and Keith Scott won their Class with their Dart 17R. (See also Coventry's report.)

Norman Martin had an eventful week - to Evesham, barograph failure in mid-flight, to Nympsfield, no barograph, finally to Hertford with everything OK. All three flights were good for all three Silver legs. Andy Parrish won his Silver with three flights, Peter Strong with two and Bernard Underwood completed his with a 5hrs. Dave Strachan managed distance and height.

Alex Strachan has both Bronze legs, Jim Skorupa and Jamie Scott one each while Paul Warburton has completed his Bronze badge. Chris Charlesly, Gary Clipston and Ken Payne have gone solo and Gerard O'Callaghan has an AEI rating. Congratulations all round.
R.H.S.

WREKIN (RAF Cosford)
We recently had a 50km frenzy with Jim Francey, Joe Watt, Dave Gelder and Rick Jones landing at Burnaston and completing their Silver badges. Graham Bell flew to Sealand for his Silver distance, achieving his height on the way.

Dale Henderson, John Cook and Ken Greenwood have gone solo and Kevin Goodey, Bob Henderson, Norman Potts and Jim Ellis have a few Bronze legs between them. Griff shot round a 100km triangle at 100km/h while Mick Davis went round his one evening. After 20 years in the game, Keith Harsant has finally managed to somehow get round a 300km triangle. Well done!

The Chipmunk has had its C of A and our thanks to all who helped. Rob Roscoe is now a full Cat.
R.J.

WYVERN (RAF Upavon)
Bob Brett has gained his Silver distance and duration, Andy Mills his duration and Justin Lavender his Silver badge. Ken Moules claimed Diamond distance in Australia and Tim Clark has gone solo.

Adrian Matyear is now a full Cat and Pat Farrelly and Dawn Bradley have become assistant Cats. Congratulations to them all.
D.B.

YORK GLIDING CENTRE (Rufforth Airfield)
We have extended our ownership of the airfield by buying 30 acres west of the runway to give greater flexibility, particularly when winching. We are grateful to members who have donated expertise and money to make this possible.

Almost all our courses are full and we have had trial instruction lesson booked on every midweek evening since the middle of May.

Membership continues to grow and we are pleased to see the junior contingent increasing.
C.R.

YORKSHIRE (Sutton Bank)
The wonderful weather brought wave up to 16000ft in May and good thermals. May 10 was good with Ian Stromberg and Adrian Halton gaining Diamond distances and Chris Teagle a Gold distance and Diamond goal. Congratulations also to Chris Clark and Steve Hughes on their Silver distances.

The wave has brought height claims for Stewart Heaton (Diamond), John Birch (Gold) and Steve Hill (Silver).

Congratulations particularly to Mike Brook (SHK) who clawed his way around 430km on a difficult day. Thanks to Mike also for organising the May task week when he had one flight of 480km and one of over 500km on June 4 to North Hill.

John Hart attempted Lasham O/R on June 4 and although he didn't complete the task he flew 572km, landing near Chesterfield in the same field as Phil Lazenby who had flown 380km in his Oly 463.
C.L.

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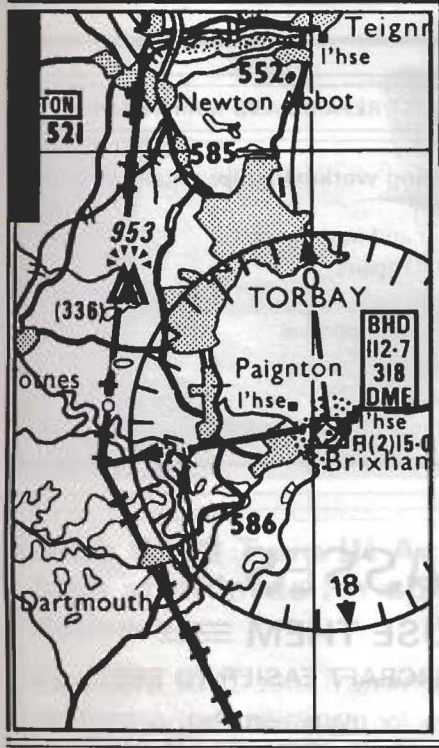


CHART UPDATE

The following revised charts have been published by the Civil Aviation Authority:-

1:500,000 - NORTHERN ENGLAND & NORTHERN IRELAND -2171 AB - EDITION 12

1:250,000 - SOUTH EAST ENGLAND - SHEET 17 - EDITION 14

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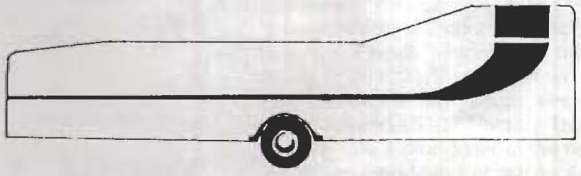
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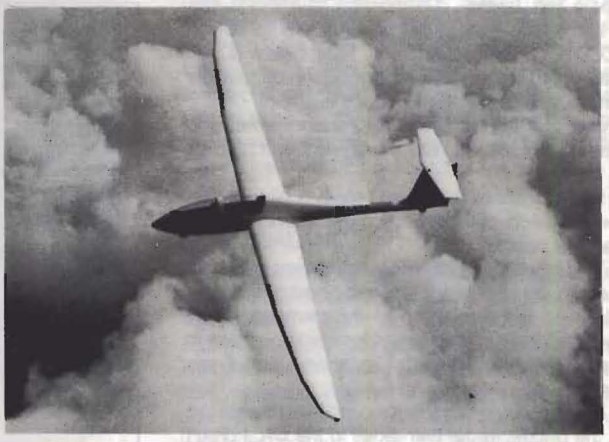
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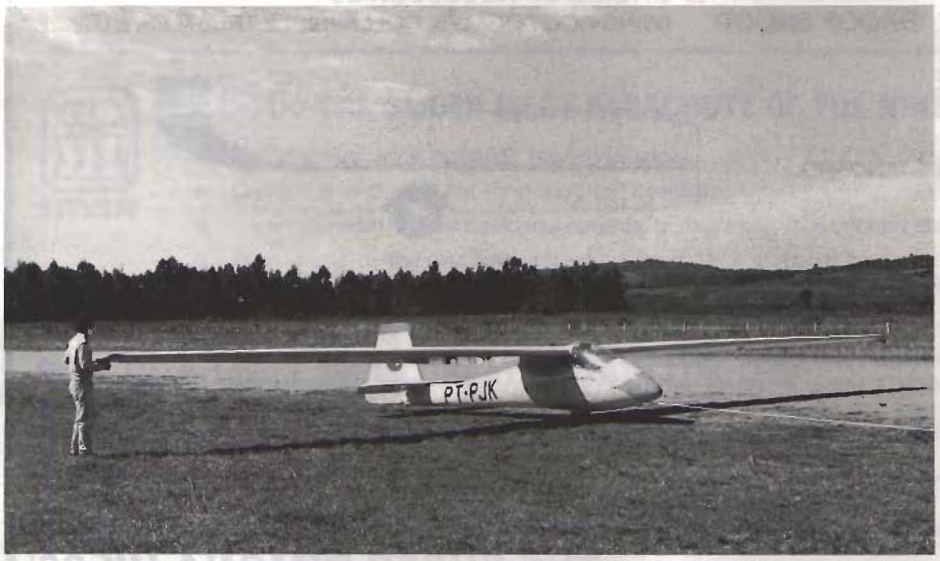


TERRY HURLEY

BRAZIL

AIR LINES

David Levien went to Porto Allegre at the southern tip of Brazil about 60 miles inland from the Atlantic on business and was introduced to the Aeroclub do Rio Grande do Sol



One of the locally designed gliders photographed by David.

I was expecting the airfield to be a dry dusty patch with perhaps a shed or two as hangars and perhaps one or two battered K-13s. Imagine my surprise to find two huge modern hangars, really in the middle of nowhere, and a large selection of single engine planes and several gliders.

Most of the instructors were wearing blue drill trousers and ties - very smart but I won't suggest they should do the same back home. They had three Grob 103s ready to go and five locally designed early solo gliders, their wooden frames clad in glass-fibre. They had a distinctive short, steep nose which gave excellent visibility - I didn't fly one but I would expect it to have a better performance than a K-8. Their top of the range was a Std Jantar.

Launching was by aerotow, usually to 700 or 1000m with radio signalling. They give a 30sec warning to the tug pilot before pulling off to allow him to throttle back and cool the engine gently. That's fine if you know beforehand when you want to release but I can't imagine it catching on in the UK.

I soon realised this wasn't really a gliding site; the powered planes were most important and had top priority.

That day the conditions weren't very good but the air was superbly clear and I had a fine view inland to the beginning of the pampas. Quite likely extensive cross-countries could be flown in that direction but it might be a long wait if you landed out.

It was a very enjoyable day and I was surprised at the prices; about half those in the UK. I didn't ask too many questions but came away with the impression that they train some of the budding Brazilian Air Force pilots in return for favours like a new runway.

They specialise in PPL courses (including multi-engine) and have excellent accommodation plus superb facilities including lecture rooms, one-to-one de-briefing booths, videos, the lot. They crave for hard currency like so many similar countries and would be very pleased to train British pilots. It would be an unusual and stimulating place to do it and if anyone is interested I can supply more details. Tel: 0223 836116.

The three of us lay sprawled beneath the wing of the Auster. The slow afternoon was blue and hot. Only the shadows moved.

"On a day just like this I once landed out by a strange little lake," he said. He stopped and looked sideways at me to see if I had taken the bait.

"No," I said warningly.

"Ignore him," said my wife. "Tell me about it. I want to hear the story."

"For you, then," he said to her. He knew I was listening anyway.

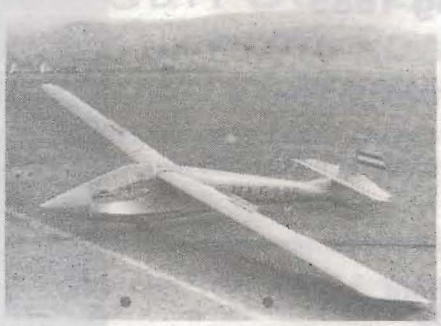
"Around this pool high bushes grew, making it a secret, secluded place. After picketing the glider I went and sat on the bank to relax, lying half-asleep in the rich summer smells of drying mud, water and weeds, listening to the hum of insects.

"Suddenly a flight of three ducks appeared. They circled the pool twice before one - I recognised this as the drake - broke off and came in to land.

"There wasn't a ripple on the pool. The air was as stagnant as the water. The drake came planing over the tops of the tall bushes almost on the point of the stall. His tail was curved down, scarlet feet outstretched as airbrakes, long neck bent forward to balance himself, and wings scooping air like paddles, the tip feathers spread wide. As his feet touched the surface of the pool, for a moment he was no longer a bird but a skier. Then he sank and was instantly transformed into a small ship with a vividly patterned figurehead. He dipped his bill into the water as if tasting it and shook his head throwing drops that sparkled in the sunlight. I suppose all water has its own characteristic bouquet - rather like the wines of different regions."

He stopped to check quickly around the sky with that reflex action that the best instructors

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develop. I said nothing, lying lizard-like, eyes almost closed.

He went on, "it was a neat piece of flying, getting into such a cramped area. Then the drake set up an enormous racket, quacking and splashing. I reckon he was advising the two ducks how to make their approaches.

"They circled around once more and then came in flying line astern. The first made it down - just. But the second duck was too high. It looked as though it was going to thump down in the reeds at the edge of the pool while still several feet above the water, but it fanned its wings furiously, lifting its weight slowly above the reeds and over the bushes, working the neat triangular wings until it was back again in level flight, flying with that quick-flickering action that identifies duck even at a distance."

I rolled over on my stomach and looked at him hard, but his face was innocent. My wife put her hand over my mouth. "Go on," she said to him.

"Twice more," he said, "the second duck tried to land on the pool, and twice more it had to pull up to go round again.

"Then the drake took off. He went straight up into the sky and formated on the duck. They circled once and then disappeared, dropping out of my sight beyond the bushes, leaving the pool to me, the solitary duck and the silent afternoon."

He paused, not for dramatic effect, but to compose his face. He liked to deliver his punch-lines with gravity rather than laughter.

"Some moments later on the far side of the pool I saw the undergrowth shaking where something pushed its way through. It was the drake, waddling slow and flat-footed, but confident in his dignity as he led the second duck on foot to the water."

In one word I expressed my pent-up scepticism concerning all dark mysterious pools and incompetent ducks. He raised his eyebrows, but really he had been expecting nothing else.

"Listen to him!" said my wife. "And he used to speak so nicely. I can't imagine where he picked up that sort of language.

"Just look at him now, loafing there pretending he didn't like the story, but do you know what he'll do? In a little while he'll start telling it to people as if it's his own story. That's what he does. He won't give you the credit, you know. He'll pretended it was his own, never admitting the truth - that the story was told to him by Ron." ■

OVERSEAS NEWS

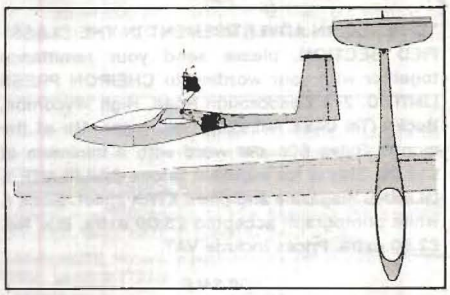
Please send news and exchange copies of journals to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, England

HEINZ HUTH

The 1960 and 1963 World Champion recently celebrated his 80th birthday and can still be seen at the Hamburg-Boberg gliding site.



NEW FINNISH MOTOR GLIDER



Eino Riihelä, the man behind the PIK 20 until the rights were sold to France, has announced plans for a new Finnish motor glider, the X-3, which should fly in 1991. The aircraft will be made by Volar Plastic, a firm which already has ten employees and a 610m² factory. The X-3 is being billed as "the motor glider of the next decade". Five million Finn-Marks of risk capital have been invested in the project. The production capacity will be 30-40 per year. The power unit will be a Rotax 505 with a self-starter. There is talk of a 1:50 glide angle and a span of about 18m.

STEALTHY?

The Swedish gliding magazine *Segelflygsport* wonders if anyone has noticed the similarity between the US B2 stealth bomber and the Akaflieg Braunschweig SB-13. The price of one B2 (half a billion dollars) would buy 12 000 Discuses!

TUNISIA

Fifteen miles from the tourist resorts on the Gulf of Tunis lies Djebel Ressa, site of the Tunisian Aero Club's gliding centre. The centre is equipped with a Twin, a Bergfalke and an Astir and offers an opportunity to fly in ridge and thermal lift on the edge of the Sahara.

GLIDING IN ICELAND

At the Nordic Gliding Convention, held recently at Elverum, news was given of the explosive growth of gliding in Iceland. There are now two clubs, more than 20 gliders and some 60 gliding certificate holders in the country. Seven have Gold badges and 14 Diamond legs of one sort or another have been achieved. In recent years, Iceland's enormous potential for high-level cross-country flying (presumably in wave) has begun to be exploited. The country hopes to be represented at the forthcoming Junior Nordic Championships.

NEW ZEALAND

Notwithstanding a recent new world record, excellent weather conditions and a bid to hold the 1995 World Championships, gliding in New Zealand is apparently going through hard times. The print run of *Gliding Kiwi* has had to be drastically reduced. Why not take out a sub to help our southern hemisphere friends? (See details in the Classified Section under Publications.)

CLASSIFIED SECTION

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