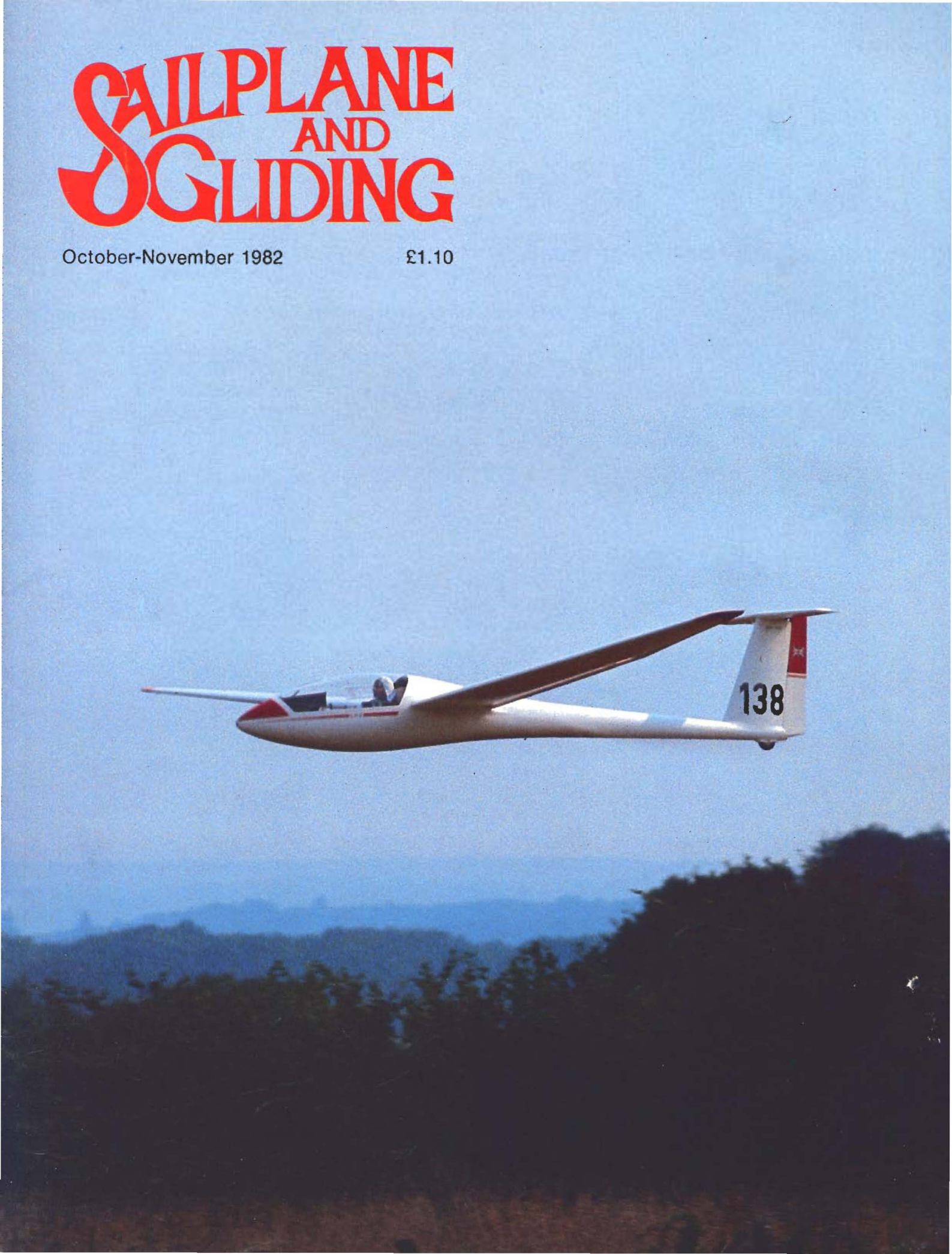
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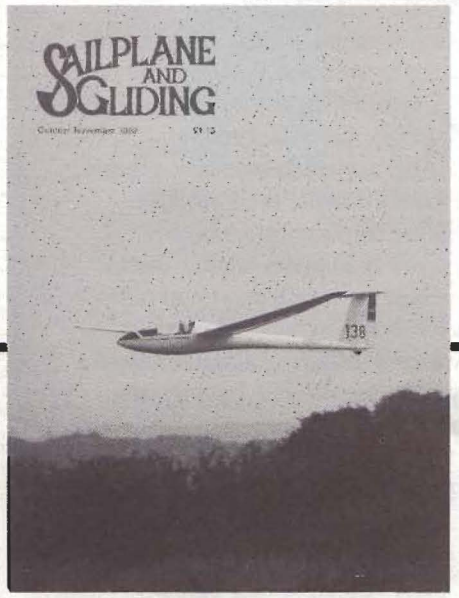
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Cover: Andy Davis, the new Standard Class Champion, was photographed by Michael Erdman on final glide in his LS-4 during the Nationals at Booker GC on the day when he was the only pilot to finish the task.



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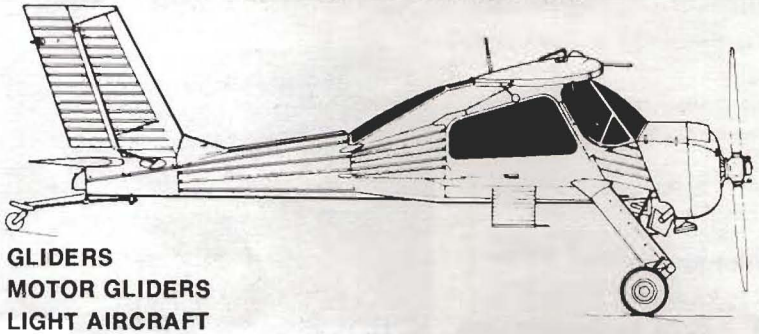
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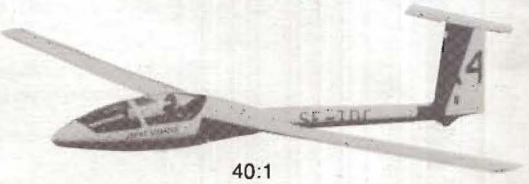
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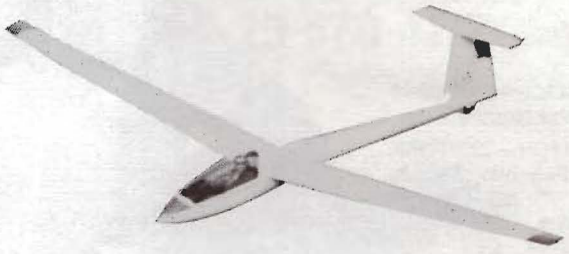
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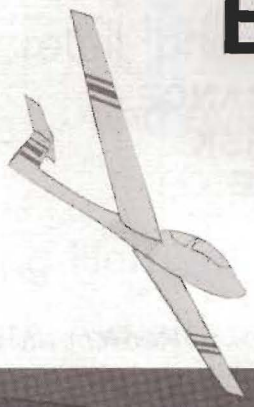
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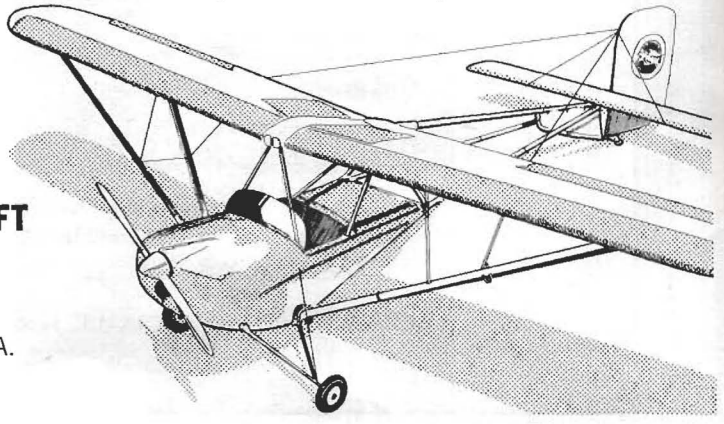
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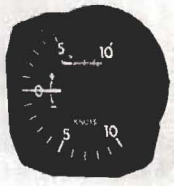
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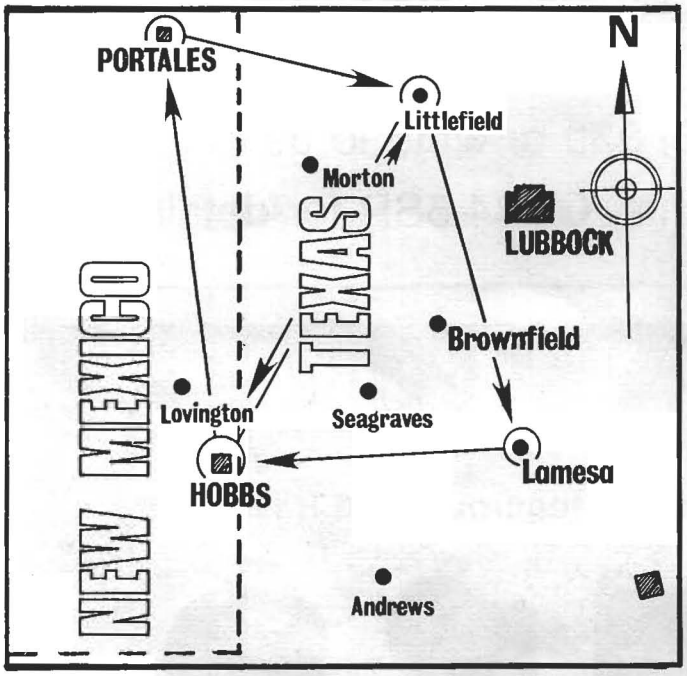
MIKE POPE (British team manager) gives details of the new venue for the 1983 World Championships and its potential, as well as his plans to swell the funds.

As a result of a slight difference of opinion over the Falklands, Argentina formally withdrew sponsorship of the World Gliding Championships scheduled for January 1983.

A Telex was sent to all CIVV Bureau Members to solicit alternative proposals and, as a result, bids were put forward for South Africa in February or Hobbs in June/July. A vote was taken and by unanimous decision it was decided that the 1983 Championships should be held at Hobbs.

The full terms of the American bid and the timing of the event will be announced at an extraordinary meeting of CIVV in Paris on September 10. A full report will be included in the next issue.

So where is Hobbs? It is in New Mexico about 45 miles south-west of Denver. The area within which tasks are generally set is illustrated on our map.



The soaring conditions in the area are generally superb with thermal strengths of about 10kt and cloudbase from 8000 to 14000ft. The 5th US Standard Class Championships were held at Hobbs from July 16 to 25, 1974 when nine tasks were set ranging from 393km to 552km. Eight tasks were completed with winning speeds from 107.9km/h to 147km/h. The 2nd US 15 Metre Championships were held at Hobbs from July 10 to 21, 1977 with nine tasks set averaging 371km and winning speeds averaging 117.9km/h. The competition was won by Karl Striedieck flying a truncated ASW-17!

Team selection is to be made during September and the result will be announced in the next issue.

Now that a venue is known I can and will prepare promotion material. T-shirts and car stickers will be available shortly through the BGA.

Kitty Competitions have been held this summer at Booker, Shobdon, Winthorpe and Enstone. Despite details of the initial venues being circulated to all clubs by the BGA the entry levels have been very low. The results of each competition will be in the December S&G. In 1983 five regional Kitty contests will be held during April/May. The winner of the 1982/3 contests will win a trip to the World Championships. Full details will be given in the New Year.

It is not anticipated that the American bid will include subsidised travel and the cost of the event will therefore be about £26 000.

My outline budget is currently as follows:

Air fares	£8000
Freight and insurance of four gliders	£6000
Five cars — hire	£1500
Team caravan hire	£800
Petrol and oil	£1000
Accommodation and subsistence	£5000
Entry fee	£500
Team uniforms	£1200
Reserve	£2000
	£26 000

We urgently need contributions to the World Championships fund. We can win again but your help is needed. Please open your wallet, select a note, a blue one would be great, a brown better, a purple superb, a green very acceptable and send it to me at 123 Woodsford Square, Addison Road, London W14. A list of contributions will be included in all future issues of S&G.

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THIS TIME LAST YEAR...

By MENTOR

"Wave was a rarity . . .!"

Tom's incident in the K-18 back in April (see April issue, p55) hadn't dampened his spirits for long. But he was now more cautious than ever and even more selective in his choice of flying weather. So he wasn't getting the broad spectrum of experience that he really needed.

Having started gliding in his middle fifties Tom was inevitably a bit slow to learn. He was keen, and read avidly all the proper gliding training books. Rather as an experienced cross-country pilot will assess each field he sees in terms of approach line and surface features, so Tom would imagine all sorts of situations arising in the circuit, and then imagine his way out of trouble again, using his store of book knowledge. This formed the basis for a sort of airmanship but what he really needed was flying, and more flying.

The recession didn't help, what with his own short-time working and his son out of a job and needing help with his mortgage. All in all Tom kept up his attendances at the club but he couldn't fly too often. So he was always seen around but his supervisors didn't realise he was flying less and less often. By the time the September winds began to blow Tom had flown only three circuits in as many months.

* * * *

This bright, blustery day there was talk of wave — a rarity at his site — and Tom wondered what it would be like. Silky smooth, swift, steady climbs above undulating cloud scenery. He had seen the pictures — S&G had had a super one recently — and had read the stories, and could imagine the deliciousness of the sensation awaiting him if he should be so lucky! Two pilots had already contacted, at around 3000ft just upwind of the site, and had reported one to two knots of lift. Tom tightened the harness of the K-8 and signalled up-slack.

The tow out was rougher than he liked, rather to his surprise, but he coped. At 3000ft he released and for the first time was able to take stock of what was going on. Either the books were wrong or the day had changed! It wasn't a bit smooth; there was no gently undulating cloud scene — just a troubled, nondescript greyness to the underside of the stratus sheet. There *was* a bit of blue sky just upwind of him and he turned to go for it, but the K-8 made little impression and even as he seemed to approach the blue another cloud formed and left it as far away as ever. He tried this way and that but didn't really have any idea of what was going on. Soon he was down to 2000ft and being tossed around in a most uncomfortable way. Then 1000ft and it was clear he would have to land. He turned his mind to the circuit before him.

* * * *

Not only was wave a rarity but the concept of the turbulence usually associated with it, often right down to the ground, was not stressed in the club's folk-lore. Tom was unfortunate in that he had no inkling of what could happen and on this day he simply went ahead and planned his usual circuit. High key point *there;* low key *there;* turn crosswind about *there!* It was standard enough — it was in the books and in the normal briefings. The only thing missing in his ideas was the possibility of turbulence! Tom was later to reflect on turbulence theory. The overlying mass of fast-moving, stable air reached down occasionally into the unstable mass below and caused a stir. Unstable air is unstable going down as well as up so, just occasionally, say one in ten, the stirs grew and swirled a bit more energetically, especially in the vertical sense. Most of these bigger swirls wore themselves out by mixing, passing their excess energy into the airmass around them, creating smaller and smaller swirls. But, just occasionally one, say one in a thousand, didn't. It grew! And reached lower still until one in, say, ten thousand of the swirls born in the boundary between stable and unstable air, where the wave itself was being created, reached the ground. And when it did it let everyone know about it! In such conditions are trailers and caravans blown over, T-21s tipped onto their backs or K-8s tossed like leaves on the autumn winds!

* * * *

Tom embarked on his downwind leg, dutifully leaving his high key point at 800ft. He did his checks, approached the low key point abeam the landing point. And there his one-in-ten thousand swirl was waiting for him. He flew into it from behind so that not only did he lose airspeed but he plummeted down a hundred feet in just a few seconds. He didn't know it but the wings actually stalled briefly despite a healthy looking attitude. Quite suddenly his normal circuit had become a potential emergency. He could still have saved the situation by turning in at once, regardless of base legs and other such niceties, but his training didn't allow him to abandon his pattern that easily.

He flew a few more seconds downwind, enduring the tossing, unaware of the drastic rate of descent, while those on the ground held their breath for him. It didn't help! When he did finally turn his private tormentor took one last swipe at poor Tom, tipping him to one side and stalling a wing into the bargain. The watchers saw him disappear behind a tree, apparently about to spin, and then cartwheel across the undershoot field. The K-8 sustained a broken wing and Tom a broken leg.

* * * *

At This Time Last Year . . . people were flying more, but still having out-of-practise accidents. There is plenty of evidence that recession means fewer circuits all round. Supervisors: *think* for those in your care. They rely on you!

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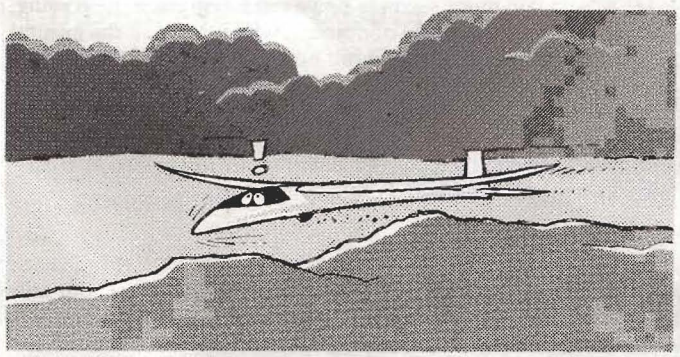
Some of my friends' grizzling about British weather is really quite unwarranted: I usually find, for example, that there are *two*



Unwarranted to grizzle about the weather.

good thermals on any soaring day. That's two more than you expected, I bet.

The first is the one you get shortly after being launched; this one whisks you up to 4000ft at 5kt. No time to waste! Encouraged mightily by this you set your MacCready Ring to 5kt (fool) and hurtle away into the middle distance, ignoring all the little 2 and 3kt thermals you pass through — until eventually you are down to 700ft, quivering with a mixture of rage and anxiety, trying to centre on a miserable ½kt. If you survive this the best you get for the rest of the day will be less than half the strength of that first thermal of the day, which I would call the "sucker thermal". By the way, cloudbase also comes down to 2500ft as you scratch and scrape down the track. For other people cloudbase always goes up as the day goes on; for me it just as often tries to rub my nose on the deck.



It's different for Platypus.

There is however, one more really good thermal during the day. If you succeed in struggling around your triangle until eventually you believe that you can just make it, and if you do manage to get a little 1kt thermal that grudgingly lifts you to the height where, praying to St. Willy, you believe you can crawl in at a sweaty 55kt with nothing to spare to cross the finishing line — you can *bet your boots* that when the finishing line is safely in sight a mile ahead and you know, with immense relief, that you will have a hundred extra feet to burn off as you finish, *that* is when you get the second great thermal of the day, an incorrigible five-knotter, quite useless at this point of the proceedings to man, beast or glider pilot. Of course, it's just occurred to me, the two may be one and the same thermal, stoked by imps, permanently bubbling away, fooling the starters and enraging the finishers from dawn till dusk . . .

Whatever happened to Charles?

I'm not one of those people who believe that coincidences are anything but coincidences: all the same, they are interesting



Not a believer

when they occur. A couple of weeks ago I was given a 1946 copy of the *Illustrated London News* which was then a very air-minded magazine. Well, it was (and is) a very patriotic magazine and since Britain was leading the world in the air at that time, everything from Geoffrey de Havilland's records — and sudden death that same year — to the quieter pursuits of gliding was faithfully covered.

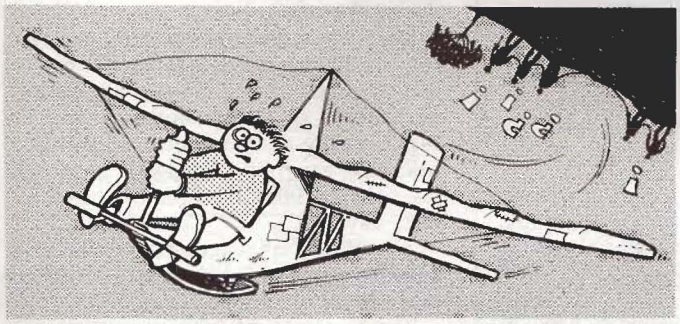
The issue in question was full of triumphs of the new jet age but the big spread was devoted to Charles Wingfield's superb flight in a Kite I from the Long Mynd to Surrey, "Whatever happened to Charles Wingfield?" I asked people. No one knew. Quite out of the blue, like his arrival at Ann Welch's* cottage, comes an article in the last issue of S&G, p159, to answer all my questions.

* Ann Douglas in 1946

To be robbed for 30 years of a sport one loves passionately by something as humdrum — and painful — as sinus is a calamity but Charles Wingfield appears stoical about the privation. He missed the World Championships in Switzerland in 1948; two British team members died within minutes of each other — no one knew till then quite how dangerous mountain soaring could be. Fate works in a strange way — except that I have just said that I don't believe in that sort of thing. Welcome back Charles. The July 27, 1946 issue of ILN is on its way to you as a memento.

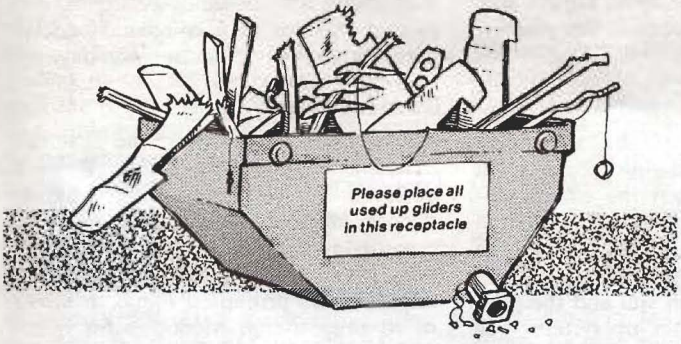
Twang . . . swish . . . crunch!

One small point which I (cheekily since I was all of one year old when he started) take issue with Charles Wingfield is when he says that solo training produced good pilots.



A matter of survival.

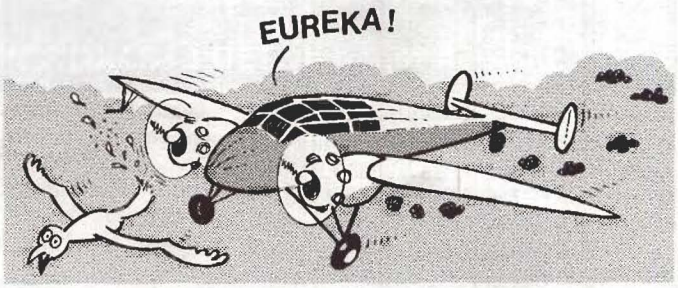
All the evidence suggests that *if* you had the makings of a brilliant natural pilot then you might just overcome the hideous inefficiency of that training method and having survived it, go on to great heights, great distances, etc, etc. I am sufficiently ancient to have got my A with solo training in the ATC in 1949; in one



The Cadet bin.

week we broke four Cadets (not *cadets;* small boys are more resilient than anything that Fred Slingsby's best craftsmen could put together) and the next year the authorities banned from gliding children of my age and weight (I sat on a sandbag which did double duty, simultaneously raising the cockpit load level with the minimum and raising my nose level with the cockpit combing).

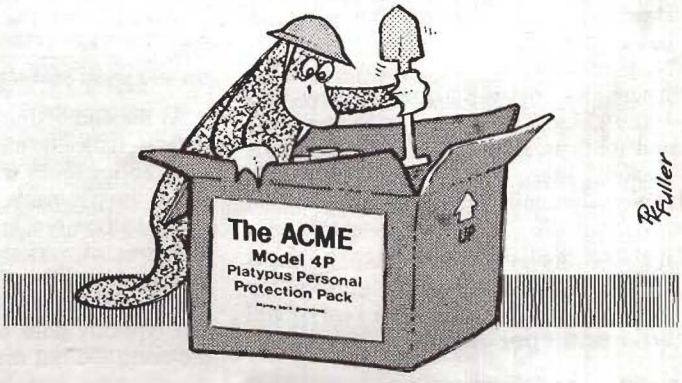
Of course you could say that was the poor old ATC, not a *bona fide* gliding club. But the London Gliding Club's or any other clubs reports in *Sailplane* of the 1930s and 1940s make dismal reading when the ratio of As, Bs and Cs to U/Ss is considered.



Powered aircraft first.

Philip Wills did not learn to glide by doing groundslides, but owned a Monospar twin and other powered aircraft before he saw the light.

The groundslide and bungy method had one enormous advantage in Germany of the 1930s. It kept thousands of unemployed youngsters off the streets and out in *der frische luft* learning *der flugdisciplin* and all the other things they were to put into practice so (very nearly) successfully a few years later. If Maggie Thatcher starts sending us free bungys you'd better get digging that bunker.



Irish Craftsmanship is alive and well and Living in Bedfordshire

The renovated LGC Ablutions are fairly splendid and a very good place to read (or even write) S&G articles — so long as one isn't disturbed by sufferers from The Dunstable Bug screaming to get in. I was shocked therefore to see that a graffiti artist had already started scribbling on the bottom inside edge of the new loo door. Craning forward to read the doubtless obscene message, I found it was upside down, and at some risk to my neck, finally discerned the instruction



The door works perfectly well since (by happy accident, no doubt) the handle is still on the opposite side to the hinges, and unlike its predecessor doesn't come off in your hand leaving you yelling to be let out while the sufferers are screaming to be let in . . .

FIRST EUROPEAN CHAMPIONSHIPS

Rieti 1982, July 30 – August 10

VENI, VIDI –! A report by TED LYSAKOWSKI, British team captain.

A British contingent of seven (not so) innocents, plus crews, travelled to Italy to take part in the *Primi Campionati Eurupei di Volo a Vela.* After eight contest days Leonardo Brigliadori (Italy), LS-4, Standard, Kees Musters (Netherlands), Ventus A, 15 Metre, and Klaus Holighaus (Germany), Nimbus 3, Open, because the first European Champions in their respective Classes.

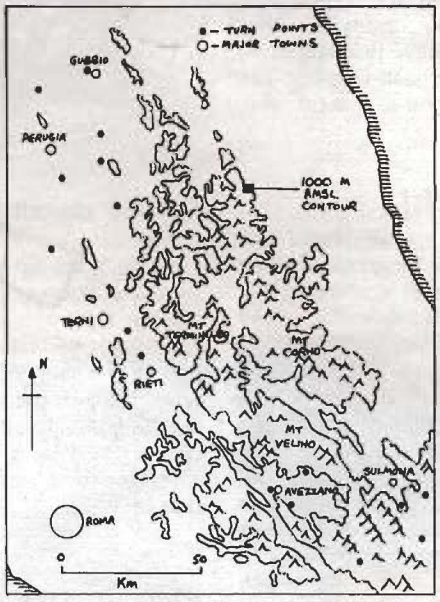
The Venue

It is a grass airfield in the valley of Rieti, home of the Italian National Gliding Centre where the Italian Nationals are held and the designated venue of the 1985 World Championships. It adjoins the ancient town of Rieti and the valley, elevation 1276ft, is about 12km wide and lies in the centre of Italy, about 80km NNE of Rome on the west edge of the Apennines. It is surrounded by the 4000ft Monti Sabini range to the west and south-west and by the 6000ft Monti Reatini range, peaking with the 7260ft Monte Terminillo to the NE and E. The NW and SE is relatively clear with plateaux and hills reaching to about 2600ft.

Wild and spectacular

Most of the task flying is over the Apennines in the region of Catena di Monte Velino (Monte Velino 8159ft), Gian Sasso D'Italia (Monte Corno 9560ft) and Monti Sibillini (Monte Vettore 8123ft). There are some flat areas and wide valleys such as Foligno, Tevere, Aterno and the Fueino basin, but without doubt it is predominantly mountain flying in wild and spectacular scenery. In the words of the Italian prospectus for the 1985 World Championships "past experience has shown that outlanding possibilities are largely acceptable". We can vouch for that: the organisers provided a very helpful map showing the "no go" areas in red and the "easy" areas in green, and it is well to heed their advice.

The Met conditions are complex with the lift generated by slope breezes (a mixture of thermal and slope lift), sea breeze fronts, convergence lines of the Tyrrhenian and Adriatic sea breezes, orographic cloud, ridge lift and wave, many of which occur concurrently.



The area where most of the tasks are flown.

At the end of July and in early August Italy is typically under the influence of slack anticyclones which move eastwards across the peninsula; ground temperature in the valleys reaches 35-38°C and combinations of various lift generate good soaring conditions with 8-10kt lift and cloudbases peaking at 10 000-12 000ft. But typically does not mean always and the norm did not materialise this year — see "Contest Flying".

Organisation

The Italian Aeroclub and the team led by Pierluigi Duranti had only about eight months to put together the Championship but succeeded remarkably well in providing an effective framework for the event. All the essential services (*eg* banking) were available on site and the general level of direct back-up systems was comparable with top-flight UK Nationals. In line with the original objectives for the Comp no attempt was made to reach the complexity (and cost) of World Comp systems.

The organisation was friendly and helpful on all general matters but strict in all aspects relating to flying operations, discipline and TP photo interpretation.

The location and layout of the airfield requires some unorthodox flying procedures but after early misunderstandings and mutual adjustments by the competitors and organisation alike, the entire system, including the TP and ground clock photography, worked very well. Penalties were "awarded" for various misdemeanours but the international jury headed by Britain's Ann Welch had only one formal protest to contend with (it was British, re the finish line closure and was voted down).

Plinio Rovesti provided comprehensive Met forecasts complete with elaborate charts and satellite photos but he freely admitted being at times beaten by the complex and unusual weather systems during the contest.

Launching, under the general supervision of Egidio Galli, was very efficient and at times slowed down only by the unreadiness of glider pilots. Around 12 tugs, mainly Remorqueurs plus some Stinsons, generally managed to launch the field to 700m in a little over an hour each day.

The official languages were Italian and English, Jo Gladwin acting as official interpreter.

The pomp and circumstance were internationally kept at low levels but it was apparent that the contest attracted much local interest and support from the authorities of Rieti Province and this was reflected in the opening and closing ceremonies. Furthermore we were given a formal welcome by the President of the Province, Prof Giovanni Antonini, and treated by him to a congenial cocktail party on the eve of the opening day.

Contest Flying

As we sat expectantly at the first day briefing Plinio (the Met) Rovesti declared that Rieti was covered by the deepest layer of low level inversion ever recorded in the last 25 years. This set the stage for a number of firsts which on subsequent days prompted Plinio to advise us to pray to the Madonna for better things.

Of the eleven potential days three were scrubbed by mid-afternoon, one was a distance day with no completions in any Class and one a virtual distance day with only one completion (Klaus Holighaus) in the Open.

The tasks, set by Sandro Serro, ranged from 208km to 427km and often seemed rather ambitious for the prevailing Met. In general 15 Metre and Open Classes flew identical or very similar tasks whilst the Standard Class were 10-15% shorter; there were, however, one or two exceptions to this pattern.

The time of the first launch ranged from 1230 to 1415 and on most days there was every incentive to get underway as soon as practicable. On most days it was not easy getting away from Rieti, there were good/very good conditions somewhere on track whilst in another part of the course there was some feature (sea air, rain, very low cloudbase, late hour etc) which made the going very difficult and generally resulted in completion rates of 60% in the 15 Metre and Open Classes and 80% in the Standard Class (excluding the distance days). Much of the flying was below the levels of the surrounding peaks and relatively close to the ground, although that in itself might be at 3500ft or so. The blue, low inversion days were disconcerting and here some local knowledge seemed a definite asset. Local did not necessarily mean Italian as many of the contestants have been regular visitors to Rieti for several years, but this knowledge seemed essential for top places.

To the north for problems

In general the legs to the SE were good and provided some of the most exhilerating flying while the legs to the N were full of problems. Some days stand out.

Day 2 (235.9km Standard; 241.2km 15 Metre and Open, to the SE) gave weak conditions around Rieti and initially on track, rapid improvement towards Mount Velino, high turbulence in the blue near the SE TPs and a stupendous run in the wave and ridge lift on the way back. Memorable sights: seeing a Nimbus 3 spilling over the peak of a 6000ft mountain in high turbulence; stony ground coming up very fast on several occasions with the proverbial nothing on the clock and only two wings and a prayer to hang on to; passing Monte Velino at 7000ft above 2/8 cu and going like the clappers for the Rieti valley knowing that there is plenty of lift of all kinds on the way.

Day 7 (a 253.9km △ to the SE and N). A weak start from Rieti, rapid improvement on track, high speed exhilerating run along the slopes of Catena de Monte Velino, 10kt plus climbs when needed, cruising speeds in the Ventus increasing from 85 to 110kt, some of the best stuff ever, all eventually marred by an impenetrable and growing line of thunderstorms to the N of Rieti and fizzling out into a random distance day and muddy fields.

The general standard of flying (although not of flying manners) was very high with numerous pilots doing consistently well in each Class. Team flying was very much in evidence; in some cases this extended to pair flying but in general was confined to radio exchanges of relevant info, perhaps best epitomised by the excellent and highly successful co-operation of the German team.

"What of the British contingent?" you may ask. It seems appropriate to draw a discreet veil over this episode and think of the future. Mike Carlton (ASW-22) achieved the best results by reaching third position on one day and ending up 8th (out of 16) overall in the Open Class. Others had to be content with more humble placings (see results).

Novelties

Ground Clock Starts. No startline, no height frame, no "gate" and "good starts". Pilots photograph a pattern of shapes changed at 15sec intervals, the photo to be taken from a prescribed direction and from a height not exceeding the limit set for the day. The limit was gradually increased from 1600m to 2000m in QFE and was invariably higher than the available ceiling.

Technically this works very well, but removes the ground crew/spectator interest and makes it difficult for pilots to read the tactics of their competitors.

TP Photos taken from a set direction, regardless of bi-sectors etc. The idea was to reproduce a photo given in the TP book. Also works very well but involves the organisers in extensive pre-work.

Finish Line Closure. Predominantly for safety reasons the finish line closed at a pre-determined time and late finishers got no speed points. This aroused some controversy as both Mike Carlton and Ralph Jones were caught out one day by three minutes over the designated 8pm closure. Subsequently the organisers standardised on 8.30pm.

Most days had some problems. Chris Garton (Ventus B) averaged 100km/h on Day 2, only to find to his dismay that Ernst G. Peter of Germany achieved an astonishing 129km/h in his modified ASW-20, beating even Klaus Holighaus (Nimbus 3) by over 7km/h. And who was to know (until it was too late) that with a south-westerly wind conditions always improve towards Monte Velino so that it is OK to go from 3000ft into the blue on track which is unlandable for the first 20nm; or that Sulmona valley fills with sea air by mid-afternoon on most days? A typical case of grinning through clenched teeth and bearing it.

European Championships-Concept

The thought was not new and over the years some Continental competitions unofficially claimed the mantle of European Championships. The apparent multitude of other, more parochial, European Championships, *ie* Club Class, Feminine, Motor Gliders diffused some of the early efforts. However the idea of a low cost, no frills, European Championships in the three main FAI Classes, run along the same principles as the World Championships, began to take shape in informal discussions during the 1980 pre-World Paderborn contest and was fully sanctioned by the FAI International Gliding Commission (CIVV) in 1981. Some initial work was done by the German (FR) Aeroclub but in late 1981 the Italian Aeroclub accepted the task of organising the 1st European Gliding Championships and from then on the preparations were masterminded by Pierluigi Duranti who ultimately directed the contest.

The international gliding community supported this development enthusiastically and so by July 25, 83 pilots representing 19 countries arrived at Rieti. The line up was awe-inspiring as most countries fielded their top national teams and the Italians were helpful and charming hosts. By any standards the Championships were launched successfully.

The excellent support is not perhaps surprising: the estimated numbers of 80 000 glider pilots and 15 000 gliders in Europe are higher than in the other four continents put together. Furthermore the European Championships are of particular interest to those countries who have recently been unable to compete in World Championships for reasons unrelated to gliding.

The intention is to alternate European Championships with World Championships and thus we look forward to another successful contest in 1984; no doubt there will be many aeroclubs willing to host it.

Leading results: Open Class — *1 K. Holighaus (Nimbus 3), Germany, 7204; 2 B. Gantenbrink (Nimbus 3), Germany, 6827; 3 S. Baumgartl (ASW-22), Germany, 6614; 4 W. Vergani (ASW-22), Italy, 6433; 5 F. Blatter (Nimbus 3), Switzerland, 5619 and 6 M. Brunecky (Nimbus 2B), Czechoslovakia, 5274pts. For Great Britain, M. R. Carlton (ASW-22) was 8th with 4644pts, R. Jones (Nimbus 3) 12th with 3902pts and J. G. J. Glossop (ASW-17) 13th with 3761pts.*

15 Metre Class — *1 K. Musters (Ventus A) Netherlands, 6079; 2 A. Schubert (Ventus B), Austria, 6041; 3 D. Paré (Ventus B), Netherlands, 5970; 4 A. J. de Orleans-Borbon (ASW-20), Spain, 5895; 5 M. Lamm (ASW-20), Switzerland, 5872 and 6 E. Gernot Peter (ASW-20), Germany, 5727. For Great Britain, E. R. Lysakowsi (Ventus B) was 28th with 3952pts; C. Garton (Ventus B) 29th with 3830pts and T. E. Macfadyen (ASW-20) 33rd with 2859pts.*

Standard Class — *1 L. Brigliadori (LS-4), Italy, 6574; 2 G. Navas (Pegasé 2), France, 6206; 3 H. Gloeckl (LS-4), Germany, 5992; 4 G. N. Staubach (LS-4), Germany, 5936; 5 S. E. Kristiansen (LS-4), Norway, 5780 and 6 J. W. Andersen (LS-4), Denmark, 5729pts. For Great Britain, J. D. Benolst (ASW-19B) came 32nd with 2339pts.*

COMPETITION ENTERPRISE

NICK JONES

North Hill, June 26-July 3

Competition Enterprise was back with Devon & Somerset GC at North Hill this year, and how good it was to see so many old and new faces again after an absence of two years.

First briefing of the Comp was on Saturday morning, when Richard Fortescue, competition director, introduced John Fielden, our task setter, and Mike Garrod, Met man and general accomplice with John.

Unfortunately neither of them were able to produce any suitable weather for a task so it was deemed a non-competition day, but at least it gave everyone a chance to settle in and for those new to North Hill to have check flights.

Sunday was a little better and at briefing we welcomed Edward Du Cann, MP, and his wife and family, who officially opened the Competition. Mike Garrod informed us that things should improve during the day but winds would stay quite strong from the west and showers could also be expected. The best conditions were likely to be further east so John's task was a "slow bicycle race to Lasham *via* Keevil or Membury services — prizes for the greatest distance and longest time in the air."

A lot needed relights, Simon Minson (Skylark 4) second for the day, getting away on his third. Tony Smallwood amazed us all by keeping the Gull up for 4hrs 31min and landing at Maiden Bradley, north of Salisbury, he won the day.

A strange language!

At the briefing on Monday Tony and Simon collected their daily prizes and others recounted their efforts. Tony Moulang and Phil Holliday landed the K-13 on Taunton polo ground just before the match. After moving the glider well out of sight, they watched the game and arrived back full of strawberries and cream and speaking a strange language of "chukkas" and "treading in".

The Met forecast was still strong west winds and showers and the task was a goal to Lasham with optional TPs. The further the TP from the straight line the higher the percentage with bonus TPs as follows: Axbridge Pond (25%), Rampant Monk (20%), Alton Barnes (10%), Uffington (25%) and Chilbolton (5%) with a bonus of 50pts for arrival at goal, scoring 1pt/km. After a wait of two hours with 25kt winds occasionally gusting to 30kt, the day was reluctantly abandoned.

There was a similar forecast on Tuesday but winds had moderated a little and the task was yesterday's with some hurried modifications when it was learnt that Prince Charles was flying almost straight down the line to Plymouth in a helicopter. The goal was shifted to Booker and all TPs south of the new line were deleted. Winners for the day were Tony Moulang and Phil Holliday in the K-13 and Chris Ellis (EoN 460) — both gliders got to Booker.



John Fielden presenting a map to Eric Shore, chairman of Devon & Somerset GC.

On Wednesday Mike Garrod said winds would still be westerly and conditions would be deteriorating from the west. Rain was due at North Hill at approx 1500hrs. The task was a pilot selected TP, 1pt/km flying east (downwind) and 5pts/km flying west (upwind). TPs were Booker, Lasham, Membury, Salisbury, Shaftesbury, Westbury and Newbury. Three upwind TPs were added — Winkleigh, Oakhampton and Davidstow.

The last three TPs were rather a red herring and a lot of people were caught out in the Oakhampton, Exeter area. On balance, those who flew quickly downwind getting well ahead of the front and then turned and got back as far as possible, did the best.

The winner for the day was Chris Simpson (ASW-20L) who turned at Lasham and got back to Sherbourne. Second was Paul Wheatcroft (K-8) who turned at Oakhampton and got back to Exeter.

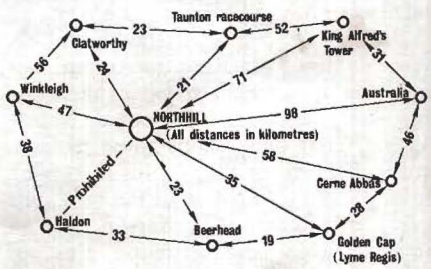
On Thursday, Mike informed us that a cold front was moving in from the west and stopping over the top of us. Air might be suitable for wave motion or cliff soaring on the south coast but conditions were unlikely to be good enough to set a task. Conditions were no better at 1400hrs so the day was abandoned. John Fielden put out a challenge that anyone who could show a climb of over 1000ft during the afternoon would get a free aerotow. The winch worked hard during the rest of the day with some very creditable flights.

At the briefing on Friday there was only one winner of an aerotow, Chris Ellis who also stayed up for over an hour. Ron Perry (Skylark 4) was awarded a daily prize for being second so consistently but not winning a day. Eric Shaw (Dart 15), president of the Devon & Somerset GC, was given a map to help him find his way past Smeatharpe after landing there for the third time during the week. On the last occasion when he returned yet again to the garage to phone back, he was greeted by the attendant saying "Are you the gentleman who always lands at Smeatharpe?"

As soaring weather didn't seem likely no task was set and most people visited places of interest.

At the Saturday briefing, the weather seemed much more promising with 15 to 20kt WNW winds, broken cumulus and unstable up to 10 000ft, 2 to 5kt thermals and possibly good sea breeze fronts.

John wanted to set a task that avoided long retrieves but gave Max flying time so he chose the "clock golf" illustrated below — 1pt/km flying on the spokes and 2pts/km flying on the periphery. Once on the periphery you could fly between points as often as you liked provided TP photographs were taken.



It proved to be a superbly conceived task that gave pilots some very exhilarating flying. A lot of reports came in of fantastic sea breeze flights between Beerhead and Golden Cap well out over the sea, and winner for the day was Lemmy Tanner (Vega) who covered a fantastic 405km. Ben Watson (Libelle)

was second and only a few kilometres behind with Chris Simpson third, having flown 380km.

Everyone, with the exception of Ben Watson who somehow kept flying until it was nearly dark, managed to get back for the prizegiving in the evening. Chris Simpson was the worthy winner of the plate and a pair of cut glass goblets with Lemmy Tanner second and Ron Perry (Skylark 4) third overall and top of the wooden ships.

Chris Simpson, chairman of Competition Enterprise, thanked everyone at North Hill for organising such a first class event and North Hill in turn hopes to have everyone back again in two years' time.

* * *

Leading results: *C. R. Simpson (ASW-20L) 1550pts; 2 L. E. N. Tanner (Vega) 1399pts; 3 R. Perry (Skylark 4) 1113pts.*

A certain also-ran in Competition Enterprise did not enjoy the unstinted confidence of his crew — and was made keenly aware of it. When this pilot was asked at the North Hill bar whether he'd ordered a pint, or only a half, his 14 year-old son piped up: "It's a pint. Dad never does anything by halves — except his O/Rs."

Ergonomics in the Glider Cockpit

HAROLD DALE, ***Ergonomics Research Group, Hull University***

Recently a novice glider pilot at Sutton Bank had a very "interesting" flight. It was his first solo in a Blanik. He was seen to approach the short run. As he did so, flap was applied in lieu of airbrakes. The Blanik floated the full length of the run and slipped over the edge in a stalled state. Flying speed was regained and the resourceful pilot then made a similar full-flap approach to one of farmer Brown's smaller fields. The field could not cope with a floating Blanik so the hedge was "hopped", and the next one, until glider and pilot ran out of steam. It was very fortunate that no damage was suffered by man or machine.

Familiar bar story

This near-accident reminded me of a similar experience I had a few years ago flying a K-4 at Sutton Bank. The story is well known in the bar. Conditions were good, with a moderate westerly blowing and lift all over the bowl. My passenger was enjoying his very first glider ride. I too approached on the short run, applied full spoiler (as I thought) and floated the length of the field. When it was obvious I was not going to stop I released the spoiler and slipped over the edge. Climbing quickly in the hill lift to circuit height I tried again to beat this phenomenal lift which covered the whole field and worked right from ground level.

It was apparent quite early on in the approach that I could never get down on the short run so I overshot, climbed again and switched to the long run. To make sure of getting in I aimed close to the threshold. It just worked. I floated the whole length of the run, past the clubhouse coming to rest down towards the White Horse. Chatting up my passenger I said something to the effect that he was extremely fortunate to have flown in such exceptional conditions (and have enjoyed three approaches and an extra long session for a pink ticket).

Henryk was deflationary. "Why didn't you use spoilers?" to paraphrase. At this point in time I was still convinced I had used full spoiler on every approach. Since others asked the same question I thought the situation decidedly odd. How could it be that I was convinced spoilers had been used when outside observers reported they had not? The mystery was resolved by taking a look around the cockpit of the K-4. An unusual feature of the backseat controls of this aeroplane is the cable release mechanism which is operated by a lever instead of the usual ball. I must have flown all three approaches using full cable release instead of spoilers.

To come back to the multiple full-flap landings of the Blanik, a look in the cockpit shows a similar opportunity for confusing controls. Flaps and airbrakes are operated by similar levers placed on the left in slots which are only a few centimetres apart. One feels much like the other, so to be sure which is being used a visual check is needed. On the approach, however, pilots need to keep their eyes outside the cockpit.

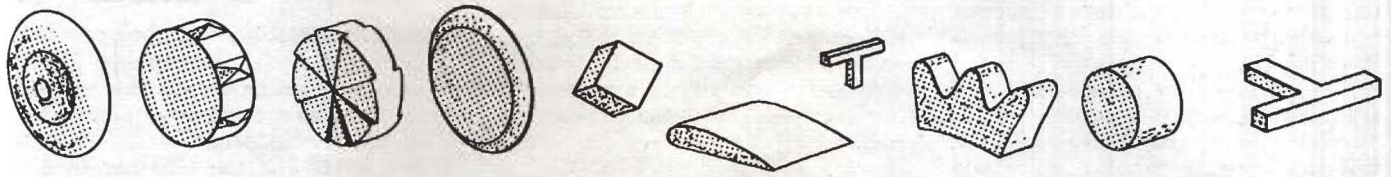
The standard reaction of the gliding fraternity to misuse of controls of the kind I have described is to blame the pilot for finger trouble, stupidity, or a failure to carry out downwind checks according to the copy book. UFSTALL includes A for airbrake. The standard instructional patter runs like this: "locate airbrake and place hand on it ready for use." But the handle selected could still be inappropriate unless time is taken for a really long look inside the cockpit. Nonetheless, many will regard pilots who can make such elementary mistakes as unfit for solo flying let alone passenger carrying.

A similar attitude prevailed during World War II when many relatively inexperienced men were at the controls of aeroplanes. Far more aircraft were lost by the Allies in accidents than were destroyed by enemy action and Pilot Error was the major category of blame. Exhortations to re-read pilots' notes or to improve attitudes towards safety had little effect.

Eventually, in desperation, the advice of psychologists was sought and small research oriented groups were established in all services operating under such pseudonyms as Personnel Research Groups or Human Factors Specialists. They took the attitude that since all men have limited skills and abilities, it is important to design machines and tasks so that the system as a whole, that is the man-machine system, will not fail. To resolve problems such as confusion between two controls, both components, *ie* both man and machine, need to be considered. The man needs to be taught procedures and provided with warnings to heighten his discrimination, while the design of the machine needs to be modified so that the discrimination is facilitated.

Problem was studied

Many expensive accidents to military aircraft have been attributed to confusion between control levers. A relatively common one involves retracting undercarriage when on the ground instead of retracting flap. This specific problem was consequently studied at some length by an American group in the Aviation Psychology Laboratory of Ohio State University in the late '40s. In one study they built a carousel on which could be mounted a range of levers, each with a differently shaped handle. The pilot being tested was first given a single lever to feel, then he had to pick out that lever from the set on the carousel blindfold. By testing a sample of men a confusion matrix was built up showing how fre-



Landing gear | **Mixture** | **Supercharger** | **Throttle** | **Carburetor heat** | **Flap** | **Landing light** | **Propeller** | **Lift to reverse throttle** | **Fire extinguisher**

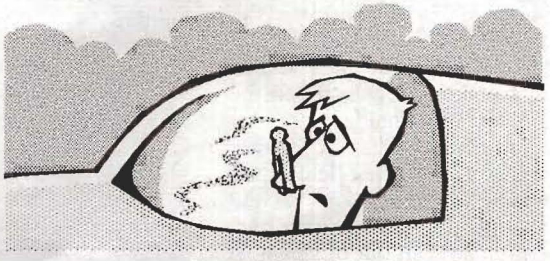
quently each handle was confused with each other handle. Then, by replacing those handles which were frequently confused with each other, a set of easily distinguished handles was evolved.

The procedure can be taken a stage further by attempting to relate shape to function so that not only will the shape of a flap lever be readily distinguished from other levers but also it will by its shape signify "flap". Such shape labelling should facilitate training. The set of levers in the drawing has been developed with this in mind, however that particular set would be rather impractical to manufacture and might well present maintenance problems since the handles would be susceptible to damage. Perhaps this points to the conclusion that design must always be a compromise. Good design meets a wide range of very different requirements simultaneously.

The problem of designing non-confusing levers is just one of many aspects of "ergonomics", as this sort of exercise is now called. Fitting the cockpit furnishings to persons who vary in size and muscle power is another for which techniques are well developed. Perhaps display design is a serious contender for attention, however. If you twist my arm I might confess to occasions when I have mistaken 60kt for 600ft and wondered why I had a zero rate of climb on tow; or made potentially more serious errors. Until I can persuade you that the machine is to blame rather than creeping brain rot, I will keep quiet for fear of grounding.

BGA MAIL ORDER

Granville Shapcote wanted to be a big star
but he could never seem to fly very far
till the CFI told him what everyone knows
you can't sniff thermals with a peg on your nose



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LEARN BY EXPERIENCE

PAUL MINTON

Having been instructing in gliders for over twenty-five years I have found it educational to take basic instruction in other sports. It is a good recreation to be a pupil for a change, have a rest from decision taking and learn something about other methods of teaching. This year with the pound high and the family mostly in their teens we decided to try skiing. My wife and I had skiied twice many years ago, so to avoid having to start at the beginning again we all took a dry skiing course locally. The instruction was excellent, we revised everything we had done before, our faults were corrected and even the children were told that they need not start in the lowest class on the snow.

We had a free day at the ski resort before classes started and found that we could put all we had been taught into practice, and our confidence rose. The ski school brochure was very explicit. The lowest class would teach running and stopping, which we could do easily, and the next class up (6) would teach the use of drag lifts and parallel turns on slopes classed as very easy (green). Then perhaps the next week we could graduate to class 5 which would go on to easy (blue) slopes of which there were many miles. This seemed just what we parents wanted even if it might be a bit restricting for the children. With a week and a sensible syllabus we thought we should be able to learn to do the job properly.

Among the rabbits

We arrived on Monday morning with high hopes. There were 20 of us waiting for class 6 and two instructors, rather more than the six pupils per instructor the brochure had promised, but we had yet to be sorted out. Off we went. "Skiis parallel when you turn" was the first instruction. Strange, we thought that was what we had come to learn about. The morning was spent on the green slopes dividing us into two groups; we five were among the rabbits which was good news as we would obviously be given a more gentle introduction.

Eleven of us appeared for the afternoon and we started with two runs down the (green) slopes; unfortunately the instructor seemed not to notice anyone except the first two pupils so we at the tail felt a distinct lack of feedback. Next on to another drag lift, which happened to be the longest on the resort (I thought we were to be taught the use of these) to the top of a blue run, (funny, that was down for class 5). The descent was not particularly pleasant, mainly a scramble to try and keep in sight of the instructor; no hope of hearing what he was saying or having any feedback. Tuesday was similar or worse and the class was down to eight.

By Wednesday lunch time when we were taken to a medium (red) slope (appropriate for class 4 and above) my wife and I had had our confidence so completely destroyed that we gave up. The class was down to six as the brochure had promised. Luckily our children survived and by the end of one week were on difficult runs and off piste skiing (class 1 by the brochure), but one wonders now if they will ever learn any technique?

Starting thinking about gliding clubs

I retired from the slope for good and fell a-thinking, and the moment of truth came. Could it be that there are gliding clubs which have excellently arranged training syllabii which are totally ignored by the instructors? Are there gliding instructors who on running a week's course . . .

1. Do not bother to find out their pupil's names or give their own?
2. Do not find out what each pupil is capable of doing?
3. Do not explain what each pupil is expected to do next?
4. Do not make sure each pupil has understood what he or she has to do?
5. Do not watch each pupil carefully to see how he or she gets on?
6. Do not feed back helpful comments to improve the chances of the pupil completing the task successfully?
7. Do not make sure the pupil can perform the present tasks adequately before moving on to the next, either by repetition or by giving different tasks?
8. Do not order the learning process in a logical manner so that the pupil progresses from the simple tasks to the more difficult?
9. Expect a pupil to perform tasks beyond his or her capability as indicated by actual performance or training record?
10. Cannot recognise when a pupil's confidence has been undermined?
11. Do not realise that restoring a pupil's confidence, once destroyed, is a long, uphill struggle with no guarantee of success?
12. Do not realise that the measure of their skill is how they can train those who find it difficult to learn?
13. Would merely shrug their shoulders if by the middle of the week found that half their pupils did not want to fly?

The freedom of the air

The questions are purely rhetorical, but think of their implications. The ski instructor has the defence that pupils can go away and teach themselves (if they have any confidence or interest left). Even if they give up completely they are not denied the beauties of the scenery as many lifts will take them down as well as up. In fact the failed pupil will see far more than the skier whose reflex has been conditioned to rush down the piste and like Pavlov's dogs, receive the reward of a higher place in the queue to go up again and rush down still faster. However the gliding instructor, who has caused a pupil to give up has denied them the freedom of the air completely (unless they can afford power flying); and which of us would like that on our consciences?

However, to my original point. There is a lot for an instructor to learn as a pupil. I can, from my own experience, heartily recommend parachuting, power flying, yachting, dingy sailing, badminton, French, computer programming and dry skiing. Perhaps the ultimate in instructing is vividly described in Brian Lecomber's novel **Talkdown** (Coronet Books 1979) which is a must for every flying instructor. The converse is that, due to bad instructing, I would not go skiing again if you paid me, and there could be ex-gliding pupils who feel the same way about flying. Perhaps the correspondence pages might be opened to those who do. I do not think I have the reputation of being an insensitive instructor, but certainly in future I am going to be much more careful to see that no pupils I fly with have their confidence diminished by the process.

We learn by our experiences.

MOTOR GLIDER CONTROL COLUMN FROZE

J. GRAHAM SMITH, CFI of the Scottish Gliding Union, describes a potentially lethal incident which happened recently at Portmoak in a Motor Falke

"Having completed a power climb and glide descent I asked the P2 to carry out an air restart with the purpose of carrying out a touch and go, engine on. He made a shallow dive to approximately 90kt and recovered, the engine having failed to start. I then took control and at approximately 1300ft decided to make a further attempt to restart the engine. I dived the aircraft steeply (slight negative g was experienced in the push over) and the engine turned over once at about 90kt. I then made a pull out at approximately 95kt at what I considered to be about 2.5-3g with the intention of handing the aircraft back to the P2 to do a glide landing. As the aircraft regained height, I made an attempt to level off but found that I could not move the control column forwards. As the aircraft was rapidly assuming an over vertical attitude I pulled back hard on the column and the aircraft completed a looping manoeuvre. On attempting to again recover a normal attitude it proved impossible to move the stick forward. The P2 put both hands behind the column and together we managed to move the elevator to a near neutral position and recover a normal attitude by which time we were about 300ft above the loch. I then took sole control and turned towards a field for an immediate downwind landing. On deploying the spoilers I found I could not operate the elevator effectively and so asked the P2 to operate the spoilers while I used both hands on the control column. The P2 and I examined the tail as we thought this was where the trouble had occurred. It was only after finding no obvious cause in this area that the damage to the wing fittings was discovered."

The above is the P1's statement of an incident during a flight in a Motor Falke. The damage to the wing fittings was a weld failure to the starboard bottom assembly and a marked fold or buckle in the starboard upper fitting between the main pin and spar end. The combined damage to both top fittings meant cutting the port upper fitting to remove the main pin which also showed slight deformation. The resulting deformation and increase in dihedral of the wing forced the main rigging pin into contact with the elevator push rod, crushing it and also jamming its movement.

The pilot reports having sensed what he considered to be not more than 3*g* — no accelerometer was fitted — yet to cause this damage it would have needed a load in excess of the design safe load. (A load calculated to have been momentarily greater than 6*g* in the subsequent examination of the fittings.)

"A lucky escape!" you might say, but what can we learn from the pilot's statement and the damage to the aircraft.

First let's look at the manoeuvring envelope for any glider, Fig 1, and consider what the curve from load factor 0 to point A represents.

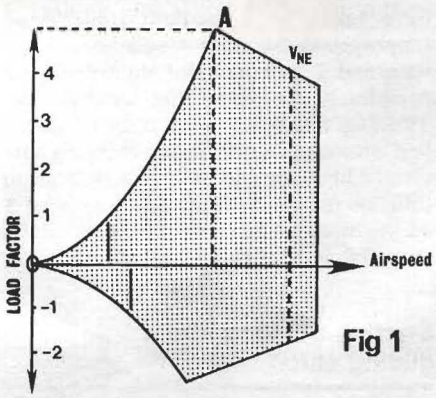


Fig 1

This is the stall line which represents the lowest speed at which the glider can fly for any given load factor. Conversely, it represents the Max load factor or *g* which can be applied before the glider stalls at any given speed. As the Max design load factor of a glider built to OSTIV requirements is 5.3 (BCAR requirements 5.0) then point A represents the Max speed at which **full control deflection** will stall the glider without exceeding the design safe load factor. Note however that the Max permitted load (3.5*g* in British limitations) will be exceeded.

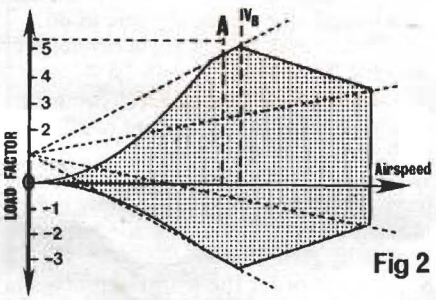


Fig 2

If we then superimpose the OSTIV gust load factors on Fig 1 we get Fig 2, the OSTIV gust envelope, from which we obtain point Vb which represents the Max rough air speed. Hence it may be seen that in some cases the Max rough air speed may slightly exceed the design manoeuvring speed but for the purpose of this article we will consider it the same.

Let us now consider the relevant limits for the Motor Falke:

Max Rough Air Speed — 81kt
VNE — 102kt

If the recovery from the attempted engine restart had been made at or below 81kt it is unlikely that any damage would have occurred as the aircraft would have stalled before the design load factor was exceeded. The fact that there was a load in excess of 3.5*g* would have still meant a thorough inspection of the aircraft before further flying. At the stated speed of 90 to 95kt, however, it would have been possible to easily exceed this load factor and reach the estimated figure of at least 6*g*.

"Why didn't the pilot experience a feeling of high *g* forces?" At the quoted speeds it would have been possible to momentarily reach the quoted loading by a sharp deflection of the controls. This need only have been reached for a few seconds for the damage to have occurred and would not have been apparent to the pilots. Also the subsequent collapse of the wing fittings would have partially relieved the load on the pilots. The stick loadings in a glider per *g* are relatively low and at the ease with which high load factors can be achieved, particularly during aerobatics, has given rise to the requirement for an accelerometer to be fitted to gliders used for this type of training.

Reflecting on the incident, it is possible to draw conclusions which should help prevent future occurrences of this kind.

Having failed to start the engine once, it was a rash decision to make a further attempt, particularly at 1300ft and as the aircraft was within easy reach of the airfield and it would have been possible to carry out a normal glider circuit and approach and restart the engine on the ground.

The engine had only recently been rebuilt and was relatively tight, also a three bladed propeller was fitted, so a higher airspeed was needed to achieve rotation of the propeller than would have been necessary had a two blade prop been fitted or the engine well run in. These factors should have been considered before attempting the second

restart, particularly in light of the first failure.

The low height at which the second attempt was made would have meant that at the bottom of the dive the aircraft was relatively close to the ground, hence tempting the pilot to pull out more sharply than he might otherwise have done. A minimum height should be set below which no further attempts at restarting will be made, and this should be adhered to religiously. I think an absolute minimum of 1000ft above ground at the bottom of the restart dive would be warranted with a minimum starting height in excess of 1500ft.

Further, if speed in excess of the Max rough air speed is required, then the recovery from the dive should be made as gentle as possible bearing in mind that if the decision to pull out is made at a particular speed, then it is likely that some 5 to 10kt in excess of that may be achieved while carrying out the manoeuvre. Better, if the engine cannot be restarted without exceeding the Max rough air speed, then it might be worth considering accepting a field landing even if it means a by-road retrieve.

To sum up, no matter what the circumstances, if flying at speed in excess of rough air speed, be extremely cautious in applying control deflections and even at speeds below this consider the consequences of applying large control movements, particularly in rough conditions. ■

Upward Bound Comes of Age

PETER CHAMBERLAIN, Hon Secretary

In 1961 a rather unusual charity was formed by ex-wartime glider pilots. Today, 21 years later, it's still in existence and still going strong. It's a charity very few members of the British gliding fraternity have heard of — the Upward Bound Trust.

The Glider Pilot Regiment served with distinction throughout Europe, North Africa and the Far East but ceased to exist after 1957 when it was amalgamated with the Air Observation Post squadrons to form the Army Air Corps. Naturally some of the ex-Regiment pilots wanted to fly gliders again so they jumped at the chance of helping youngsters learn to glide when the idea was proposed by Brigadier George Chatterton, OBE DSO (Retd), the original leader of the Glider Pilot Regiment.

The idea was to form a charity aimed at teaching 16-21 year-olds to learn to glide up to, and including, the BGA's A and B badge. The Upward Bound Trust was started at Edgehill then moved appropriately to Haddenham (Aylesbury/Thame) Airfield where Army gliding first started in 1941.

To begin with its only aircraft were two Slingsby T-31s, but with help from several individuals and organisations the Trust began to grow. Today the Upward Bound has two Slingsby T-21s, a Bergfalke 2 and a happy and dedicated band of instructors and staff. The Trust has nine instructors (four of the longer serving instructors are ex-Glider Pilot Regiment, the rest were taught by the UBT) who at the moment are teaching seven

Weekends only

pupils. From the start the Trust has operated only at weekends: on Saturdays we run a course for groups of individuals of any age which gives each person three winch launches for £6. This Saturday course helps subsidise the solo course which is run on Sundays.

Because most people under 21 today are not at work yet, the fee for the solo course is kept to a minimum — at present £40. This fee provides for 43 launches, by which time the pupil has usually gone solo, if he (or she) hasn't, then they continue at the instructor's discretion being charged normal staff rates.

Obviously due to these low costs there is a long waiting list — at present 18 months to two years is usual.

The work of the instructors and staff is entirely voluntary, many having to travel long distances on a Saturday or Sunday morning in order to keep the Trust going. The staff consists of ex-pupils who have been allowed to stay on at Haddenham as long as they help the Trust by driving our two drum winch or the cable retrieve tractor.

As can be seen the Upward Bound Trust is a unique organisation (possibly throughout the world) but it would not have continued without the help of many individuals and organisations. Let's just hope we can continue for another 21 years. ■

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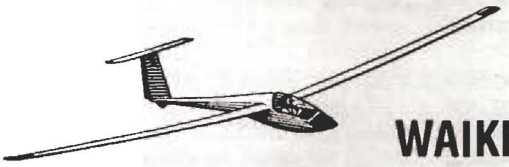
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Two articles resulting from Silver C attempts this summer

A Brush with the Law

FRED BISHOP landed a K-6 in a field eight miles from his club, East Sussex, on a Silver distance attempt and sent us this account of a conversation he had with two policemen. He was across the field on his way to the farmer when the policemen arrived, so returned to the glider. No 1 Policeman starts the questioning.

Policeman: "Are you the pilot of this aircraft?"
Me: "Yes, that's right."
Policeman: "Where were you going?"
Me: "To the farm to apologise to the farmer for landing in his field and to make a 'phone call."
Policeman: "Who were you going to 'phone?"
Me: "My club for a retrieve crew."
Policeman: "You are not going anywhere at the moment. If you do we will have to arrest you. We have reason to believe that you are smuggling drugs in from the Continent."
The field being only four miles from the coast probably gave him that idea.
Me: Laughter.
Policeman: "What's so funny?" (getting annoyed).
Me: "You're joking of course."
Policeman: "We don't joke sir about serious crime. Have you got any identity on you?"
Me: "Yes, in the aircraft. Do you want to see it?"

I opened the canopy and took out my cushion with "Fred Bishop" on it in big black letters. He looked at it for a moment.

Policeman: "Are you trying to be funny?"
Me: "No."
Policeman: "This is a cushion."
Me: "Yes, that's right", and, pointing to my name, "that's me."
Policeman: (Now getting very annoyed.) "This isn't a satisfactory means of identification."
Me: "You really are joking aren't you? Do you honestly think I've flown this across the Channel? Do you know how far that is? And in case you haven't noticed, it hasn't got an engine. It's a glider.

At this point the second policeman, who had been silent up to now, said quietly to his colleague, "He's right John, look no propeller or engine," to which John replied, "Perhaps it's a jet", at which stage my laughter again upset them and the truth finally dawned that it was a glider.

(NB. Fred gained his Silver C a month later, ED.)

Diary of a Silver Failure

JOHN A. LEONARD **of Stratford on Avon, GC**

July 17, 13.38: Launch in club K-8 for first cross-country attempt — 50km downwind Hus Bos. Rather have had Pirat, however pleased CFI ok'd. 1400 off wire. Turn upwind. Lots of sink. Village not working. Down to 800ft — ah!
13.45: Tickle, scrape. Tuck in wing. Creeping up, drifting. 1400 drifting. 1600 drifting. Field looking small. 1800 drifting. Field too far. Concentrate. Don't lose it. Steady turn. 2000ft south of Stratford. Wellesbourne airfield in downwind range. Thank God.
14.15: 2400ft drifting. Wellesbourne creeping up. Just outside traffic zone. Some nice dark stuff. Whump. 4 up. Steady turn. Speed a mess. Altimeter winding up despite ragged flying. Less drift. Wellesbourne shrinking — altimeter on 4000ft. Lift deteriorating. Glass ship above gone.
14.30: Draycote visible across big blue hole. Retrieve inevitable, might as well push on. Little bumps, nose up. 4 down. Faster, faster. Try a little patch 30° left. Not bad, 1 up. Climb 300ft before losing it. Push on.
14.50: Draycote. Yachts. On track. Steer well south? 2500ft. No glide calculator. Doubtful. Bump — 2 up. Circle carefully, where is it? Seemed strongest upwind. Not there. 2100ft. Get away from the water.
15.10: 1900ft. Suburbs of Rugby. 400ft "in hand". Masts looking enormous. Bump. Turn right — no, left, can't afford 4 down here. 2-3 up. Climbing — phew. Turn ragged, getting tired. Drifting towards masts. Skylark other side of masts circling. No radio. Too busy to watch him.
15.20: Losing it, bad flying. Drifting closer to masts. 1800ft. Lost the centre. 1600ft, still can't find it. Masts uncomfortably close — abort. Fly downwind. "CFI" in back seat.
15.25: 1300ft. Large square field ahead. Sandy/light green. Tyre marks. Flat. Short grass. Low hedges. One tree. Houses on approach. Looks ideal. Go round again. Still seems ideal. Go round again. What have I missed? 700ft. Position. Landing checks. Turn over houses. Too much brake, ease off. Flare, bump. Short grass flashing past, phew. First field landing, nothing broken. Half the field left. No comeback from "CFI".
15.30: Anxious farmer in Land Rover. Reassure. Apologise. Check access for trailer and nearest phone.
17.30: Fed up hanging about in transport cafe. Not enough money with me to eat.
18.15: Crew turn up, wife driving. Had to borrow tools, organise club trailer, make number plates after phone call. Two others made Hus Bos, I'm 48km along track. No landing certificate anyway.
21.00: Reach pub. Ticked off liberally by Skylark pilot in "4 up" CFI mollified by own 300km good field. Start reviewing mistakes. Next time!

Sailplane & Gliding

The magazine can be obtained from most Gliding Clubs in Gt. Britain, alternatively send £8.15 postage included for an annual subscription to the British Gliding Association, Kimberley House, Vaughan Way, Leicester.

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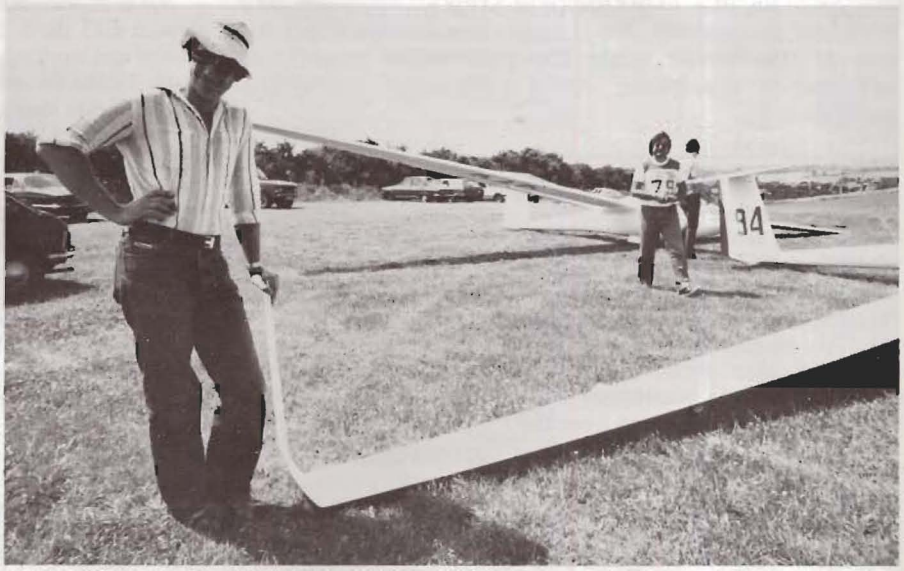
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1982 15 METRE CLASS NATIONALS
Dunstable – July 10-18

Report and photographs by MIKE BIRD, the task setter

My one regret is that only five contest days were obtained including one which nobody finished. Let's just blame the weather, shall we? For most of the week an active low hung around Iceland, swinging fronts around it anti-clockwise like the arms of a spiral nebula, so that from the west it blew warm and cold in pretty quick succession, bringing, rather typically of July, some very good and some very bad weather. Mercifully the standard of piloting is so high that, whatever the task setter does, someone usually gets home to save his.face. Thank you, men of the Racing Class.



Winglets may not win Comps yet they sure come in handy to lean on . . . Steve White, who came ninth, rests on his French ASW-20.

Day 1, Saturday, July 10
Task: 297.4km △, Devizes, Stratford upon Avon.

The forecast was for a day of 5/8 cumulus with 4kt climbs in the best part of the afternoon; 2000ft wind SW 10kt. In the event cloud cover over to the west was frequently much greater with a consequent drop in thermal strengths. Visibility was excellent. The field of 50 gliders was slow to get away in spite of good looking cumulus, and a sprinkling of relights made the organisers begin to worry about the feasibility of their ambitious near-300km task.

Not a repeat for Bernie

Pilots soon began to cheer up, however, and all made good progress down to Didcot. Whereupon a sky of nearly 8/8 took its toll. Bernie Fitchett ran into the ground only 77km down track, to earn an ignominious 46th place for the day. Bernie clearly was not going to repeat his Open Class triumph when he came second in a little 20m ASW-17 in a field dominated by the new generation of 24½m monsters.

Looking at the outlanding pins, however, the task setter consoled himself that there was no one horrible barrier bringing pilots down in a great heap — it was more or less uniformly horrible all the way round, as the distribution of pins on the board showed and as the comments of the survivors confirmed. Chris Rollings, third for the day, cheerfully spoke of getting away from less than 400ft above the ground as cloud after cloud appeared to offer promise, only to produce nothing. There is no doubt that a southerly drift in the airstream is bad news.

There was remarkably little variance in the speeds of the finishers, the fastest, John Delafield, only going 4km/h faster than the median, Chris Garton. (The Median is the statistician's jargon for the chap halfway down the list of finishers; it's easier than calculating an average.) The low median speed of 59km/h meant 5hrs of struggle for the finishers, but Denis Campbell's 47km/h, taking nearly 6½hrs, was a bit like the feat of riding a bicycle as slowly as possible without actually falling off. Any slower and he would have run out of day entirely.

Leading pos:		Km/h	Pts
1	*Delafield*	*62.87*	*1000*
2	*Wells*	*62.42*	*994*
3	*Rollings*	*62.20*	*991*
4	*Stone*	*61.43*	*981*
5	*Watt*	*61.00*	*975*
6	*Curtis*	*60.93*	*974*

Day 2, Sunday, July 11
Task: 298km double △, Chipping Norton, Silverstone.

Double triangles have not been set at Dunstable before, and luckily this one turned out to be popular with pilots and crews. The latter liked being able to see their pilots dash round the third TP — the London GC building — while those few who had retrieves to do (only seven of them) had not far to drive.

Poor visibility

Longest retrieve was John Glossop who was at the bottom of a gaggle that, in the now poor visibility, dashed over-enthusiastically into a hole at the first TP. Chris Garton fought his way up from 500ft at Chipping Norton as John flopped into a newly cut field.

Shortest retrieve was for Ron Cousins who ran into the notorious catabatic easterly wind that accelerates down the Dunstable ridge and throws not only a stiff headwind but sink at the oncoming finishers. It was a good case for listening in to Volmet (128.60) which told of a 13kt easterly at Luton Airport — say 20kt to be on the safe side. Take a look at your John Willy calculator to see what that does to your penetration: it knocks 40% off your Max glide — and that's *without* the sink.

Eighty-six per cent finishing with a top speed of 89km/h made it a happy day.

The spread of speeds was greater on this pure speed-flying day, with John Delafield 13km/h faster than the median, Brian Spreckley, and 31km/h faster than the slowest finisher, John Glossop. Justin Wills in his LS-4 would, if the contest had been run on a handicap basis, have been challenging Delafield. There is no doubt that the LS-4 has injected new life into the Standard Class and shows what a simple unflapped glider can do.

After the most interesting take-off I have seen for a while, fully-ballasted straight towards the power-wire slope, Mike Carlton, flying for fun in the 24m ASW-22 drifted round the course at 101km/h. Ah well, **TINSFOS***, as I always say.

Leading pos:		Km/h	Pts	Ov'll pts	Ov'll pos
1	*Delafield*	*88.59*	*1000*	*2000*	*1*
2	*Kay*	*87.99*	*988*	*1929*	*4*
3	*Wells*	*87.53*	*979*	*1973*	*2*
4	*Watt*	*86.83*	*966*	*1941*	*3*
5	*Garton*	*85.40*	*939*	*1888*	*6*
6	*White*	*84.96*	*931*	*1351*	*26*

After granting us two 1000pt days the British weather gave an exhausted belch and turned its face to the wall. Monday was a scrub with pilots derigging in anticipation of thunderstorms and high winds. The task setter bought

* *There is no substitute for span.*

a copy of Delafield's book signed by the author who was looking amazingly modest after having pocketed all 2000pts for himself. John's first big win in small gliders was in 1963 when the new-fangled Standard Class prize was introduced into the Nationals, so he is on the way to being a veteran these days.

Day 3, Tuesday, July 13
Task: 256.8km double △, Caxton Gibbet, Duxford.

This task was not an attempt to repeat Sunday's triumph, but was the result of constraints: dead air to the west, sea air to the east, Luton Airport's zone to the south and Thurleigh (Mach-9 fighter trials) and Cardington (barrage balloons) to the north. If the temperature reached 24° then the stable air would yield weak to moderate thermals. It did, but not for long enough, and the east wind was relentless.

Bit of special pleading

In retrospect *once* round the 128.4km triangle would have been an enjoyable race with 30 finishers; however the smallest task that the competition handbook recommends is 175km for the 15 Metre Class and only one pilot exceeded that distance. (If the task setter is going to be pressed into service as the Nationals commentator as well, the least he can be granted is a bit of special pleading. He is known to be a special pleader.)

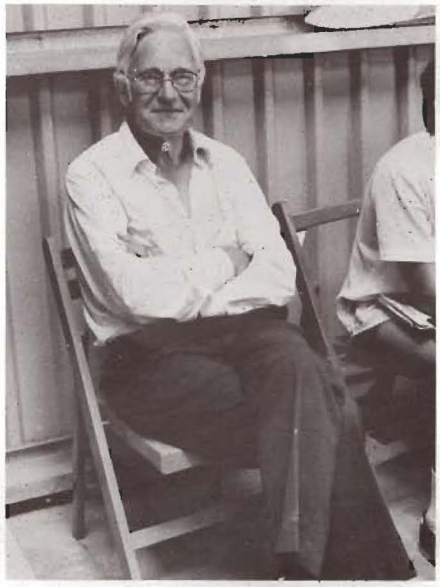
It shows that one should not be afraid of ignoring the handbook when strong winds combine with weak thermals to produce very low speeds over the ground. If the weather improves unexpectedly and the task is completed in under 2.5 hours by any significant number of pilots then the day is automatically devalued, so the element of unfairness and luck that one fears so much is automatically diminished; to some extent therefore the problem should take care of itself. To be borne in mind in future.

John Glossop cheerfully trails the field after landing aux vaches three days in a row.



John Glossop landed at Houghton Regis on the way out, so close that it is sometimes used as a dropping zone in contests. He says the depressing thing about twice-round tasks is that you don't have the misery of seeing the whole field go overhead *once*, you have to endure it *twice* in the same afternoon. Peter Stafford-Allen pressed on, not satisfied with simply making it back to his home site, and landed in the Whitbread Brewery sports field in the middle of Dunstable; that daring earned him 22 more points than the not-so-magnificent seven led by Lemmy Tanner who flopped down at the Club and made for the bar where the task setter was buying drinks to placate mutinous pilots.

Simon Redman was wandering about having great difficulty in getting anyone to sign his landing certificate; he had landed in one of the LGC's many dips and hollows and no one had seen him arrive. A bit mean of us really; how often do the people who sign your landing certificates ever see you actually touch down?



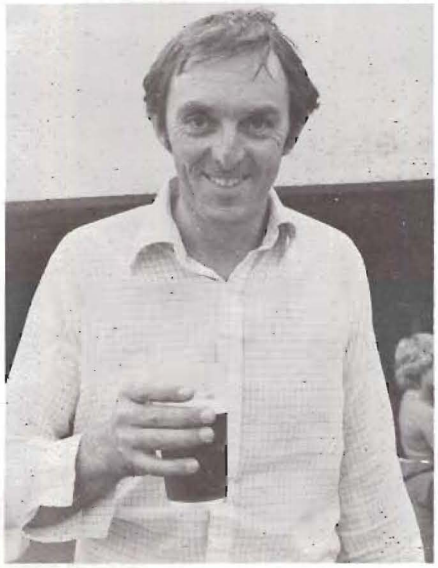
Alan Yates, photographic assessor.

Leading pos:		Km	Pts	Ov'll pts	Ov'll pos
1	Campbell	182.50	731	2412	9
2	May	174.90	697	2524	5
3	White	173.90	692	2043	18
4=	Elliott	173.40	690	2007	21
4=	Delafield	173.40	690	2690	1
4=	Cruse	173.40	690	2110	15
4=	Stone	173.40	690	2525	4

Darkness at noon

At the 12 o'clock briefing on Wednesday the noise of hail on the roof of the hangar drowned the proceedings and made it unnecessary to explain why no task was on the board. In the West Country floods had overturned cars and burst river banks; thunderstorms now dominated the whole of Southern England as a slow-moving low moved northwards across the country.

On the basis of flying in over 20 comps and task setting one Regional and two Nationals, I would say July is the most difficult month, while late August is a more reliable period: the late August thermals are not so strong as the best July thermals, nor does the soaring day last so long, but the weather generally seems



We're only here for the beer . . . on the one day when all contestants came home Brian Spreckley was among those who made for the bar.

to get less excited. Cut fields and stubble fires are a great help too at the season's end. It will be interesting to see how the competition being held at Booker in *September* will fare.

Day 4, Friday, July 16
Task: 388.7km double △, Pewsey, Evesham, Thame, Silverstone.

Day 4 looked like a 400km day but with restrictions on the weather which prompted us to go for a big 287km triangle followed by a little 101km triangle. Psychologically this proved to be not a particularly good idea; twice round the *same* triangle is not too bad, but when pilots fly themselves round nearly 300km and see the home club the instinct is to swoop in and land,not to set out on another task late in the day.

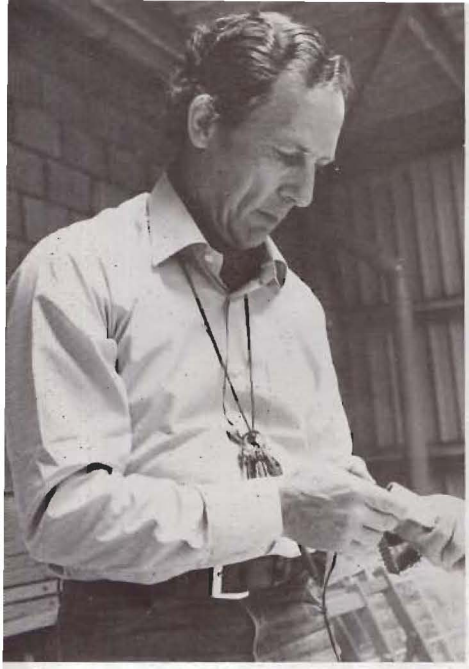
No problems for Rocky

Rocky Stone, typical of all contest-day winners, had had no problems. It was simply a matter of "staying high, not holding and flying slowly". He had never used ballast during the contest so far. However, he must have been exceptionally in tune with the rhythm of the weather, which swung between brilliant soaring and 8/8 strato-cu, causing less fortunate pilots to hold for up to an hour — Bernie Fitchett was one of these — while others, in an excess of press on spirit, ran into the ground.

Leading pos:		Km/h	Pts	Ov'll pts	Ov'll pos
1	Stone	73.11	1000	3525	3
2	Kay	70.78	981	3500	4
3	Redman	68.50	963	2559	24
4=	Campbell	65.48	941	3353	5
4=	Murphy	65.41	941	2199	34
6	White	65.25	940	2983	11

Day 5, Saturday, July 17
Task: 343.8 □, Bury St Edmunds, Pitsford, Didcot.

A classic racing day with 100% finishers — for several pilots the only day they did finish. Contrary to some opinions an "easy" task, *ie* one with very high probability of 100%



John Jefferies, contest director.
Former World team pilot David Ince (crewing for Ted Shephard) and Tom Zeally, BGA Chairman.



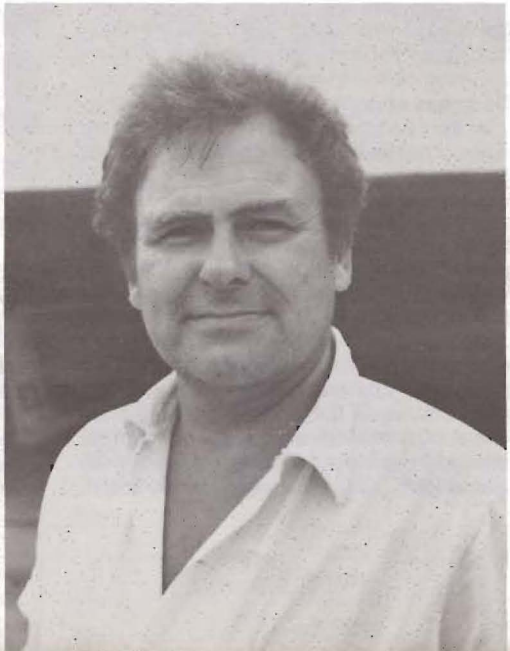
↑ Chris Garton (5th) in pensive mood.



Robin May (7th).

The PAs so loud and clear I don't know why they bother with radio . . . Tim Newport-Peace, master of the luatspreckets etc. ↓





Best task setting decision of the week

It was such a splendid day that the task setter decided to take a Distinguished Member of the Team of Officals, who it has been sworn shall be unnamed, on a 300km flight in the Caproni. For convenience (the Caproni is no fun to derig and retrieve) the 300km was made up of two closed-circuits of 150km each. That turned out to be a fortunate decision, since the Distinguished Official had a sharp attack of Dunstable Tummy half way round the first circuit which was accordingly finished in unusually fast time by a desperate P1 urged on and navigated by an even more desperate P2. The unfortunate official was discharged (sorry, I mean disembarked) to rush headlong into the smart new loos, there to spend the next half hour. Another, healthier-looking, passenger was seized from a group of bystanders and the task was resumed successfully. The stern verdict of the Flying Committee was that the feat can neither *be counted as two declared 150km close-circuits,* nor *as a declared 300km for the LGC ladder. Lord Denning, where are you? Can't I plead* force majeure *or diminished responsibility or something?*

finishers, *does* produce a very adequate spread of points to sort out the hares from the tortoises, because of square-of-speeds formula. Thus the slowest (well, it wasn't John Glossop's Comp this year) got 517pts and at the top end a difference of 1km/h (or 1% of speed) made 20pts difference to the score. This was the sort of day when the hard men hung around timing their starts with exactitude, while more cautious souls crossed early.

Timing was vital

Eight crossed before noon, led by Mike Pope, but none of them did fast times. It was still brewing up. Another 25 crossed between 1200 and 1230, but of these only Andy Davis who crossed at 1226 got within 100pts of the winner. John Delafield crossed at 1228 and this may have cost him the Championship: a respectable 89.14km/h gave him only 820pts.

Steve White (2nd), Alistair Kay (5th), Bernie Fitchett (6th), Martyn Wells (7th) and Dave Watt (8th) all crossed at 1240. These were the men to stay with and Chris Garton crossed at 1242. He did not manage to stay with the *peloton* (a Tour de France gaggle) around the course, but as so often happens, with the best pilots anyway, this may have actually benefited him in the end. Twenty gliders crossed the finish line in 15min between 1615 and 1630, the fast men catching up the early starters (a bit like the old King's Cup air races) quite unlike the usual pattern where the field starts together and finishes spread out.

Denis Campbell was back shamefully early at 1543 (shameful to the task setter, that is, showing how many more kilometres were left in the day) and proved that with his 93km/h and 10th place that he is not a slowcoach after all.

Flying in his first contest, last-minute reserve Andrew Mather had a fumble on the

ground before the launch and crossed in complete solitude at 1345, finishing in even greater solitude at 1858, or two minutes to seven to make it sound really late.

Nevertheless, a splendid day with regular, well behaved cumulus that were not tremendously strong but which went on for nine hours. It could have been 500km to give some pilots their longed for Diamonds and might have had about 50% or more finishers, but the poorer weather to the north would have compelled us to make a very flattened triangle with turning points worryingly far to the east or west. Warren Kay, who had withdrawn from the list of contestants just before the Championships because of work pressures, took off early in his Libelle and whiffled it round a 500km elongated triangle just to embarrass the organisation.

Leading pos:		Km/h	Pts	Ov'll pts	Ov'll pos
1	Garton	98.76	1000	4280	5
2	White	97.40	972	3955	10
3	Davis	95.55	936	3679	16
4	Lysakowski	94.59	918	3709	14
5	Kay	94.43	915	4415	3
6	Fitchett	94.19	911	3262	25

Sunday, July 18

The day that promised the final decisive battle—would Delafield wrest the lead back again? — never materialised. Twice round a small (144km) triangle to the north-east (Royston-Wotton) looked like a pleasant way to complete the contest, but stratus quickly spread from the north and only a few bold men made a sincere attempt at the task. The result was an anti-climax, the prizegiving ceremony being chiefly notable for the non-appearance of the winner, Martyn Wells, who appropriately had got sunk further away than anyone else.

Martyn attributes his success to getting the right balance between caution and determination to win. He never went all out to win any day. Indeed his day positions were 2, 3, 8, 7, 7. Compare John Delafield's 1, 1, =4, 10, =13 and Alister Kay's 13, 2, =17, 2, 5. Martyn's placings never got into double figures, and he would also have won handsomely on a Wallington (place-scoring) system.

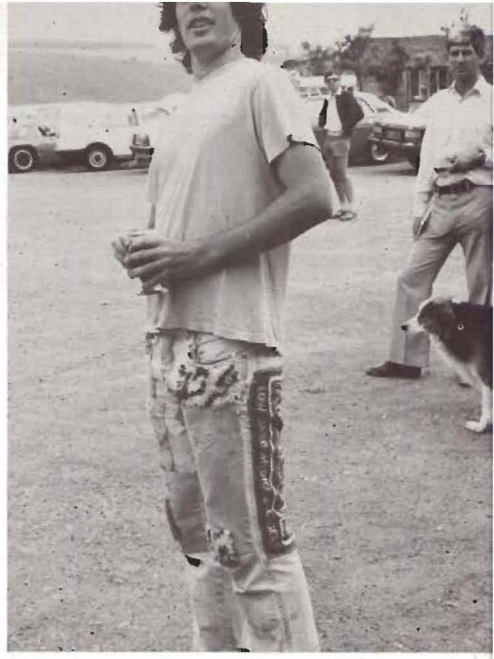
Big gliders and little gliders

If you imagine a mini-rating list consisting solely of those pilots who flew in both Nationals, what emerges? John Delafield looks like the overall winner, but at Lasham Martyn was flying a mere Mosquito against a Nimbus 3, so it is probably a stand-off.

The most inconsistent results were those of Bernie Fitchett, Ralph Jones and John Glossop, who plunged from brilliant or good Open results to disastrous 15 Metre results. Well, that's gliding.

Positions in the:	Open	15m
Martyn Wells	8	1
John Delafield	3	2
Chris Garton	10	5
Ted Lysakowski	13	13
Bernard Fitchett	2	24
Chris Batty	25	31
Richard Aldous	14	33
Ralph Jones	4	39
Mike Thick	39	48
John Glossop	12	50
No. of contestants	**40**	**50**





↑ *High fashion and low fashion . . . Christina Lysakowski shows how gliding people should dress while David Hands shows how some of them do.*

Thoughts of Author Delafield . . . John D (2nd) in his Chairman Mao jacket. ↓

↓ *David Brown, scorer.*





↓ *Let's tell the world about gliding . . . Jane Randle,* Times *gliding correspondent, and Mike Pope (40th) British team manager.*



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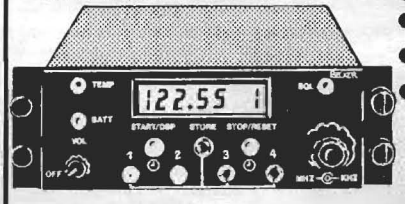
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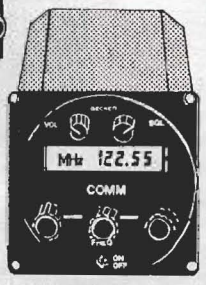
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FINAL RESULTS

(Scorer: Dave Brown)

15 Metre Class

Fin. Pos.	Pilot	Comp. No.	Glider	DAY 1 10.7 297.4km ▲ Devizes, Stratford upon Avon			DAY 2 11.7 298.2km ▲▲ Chipping Norton, Silverstone			DAY 3 13.7 256.8km ▲▲ Caxton, Gibbet, Duxford			DAY 4 16.7 388.7km ▲▲ Pewsey, Evesham, Thame, Silverstone			DAY 5 17.7 343.8km ■ Bury St Edmunds, Pitsford, Didcot			Tot. Pts.
				Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	Distance	Pos.	Pts.	Distance (Speed)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	
1	Wells, M. D.	321	Mosquito	62.42	2	994	87.53	3	979	170.65	8	678	(64.61)	7	935	93.87	7	905	4491
2	Delafield, J.	477	ASW-20	62.87	1	1000	88.59	1	1000	173.40	=4	690	(62.95)	10	925	89.14	=13	820	4435
3	Kay, A. E.	949	ASW-20F	58.20	13	941	87.99	2	988	151.15	=17	590	(70.78)	2	981	94.43	5	915	4415
4	Stone, A. J.	714	Ventus	61.43	4	981	80.49	=11	854	173.40	=4	690	(73.11)	1	1000	88.93	15	817	4342
5	Garton, C.	31	Ventus B	58.91	11	949	85.40	5	939	166.65	10	660	350.20	=21	732	98.76	1	1000	4280
6	Campbell, D. R.	170	ASW-20	46.77	21	830	80.31	13	851	182.50	1	731	(65.48)	=4	941	93.00	10	889	4242
7	May, R. C.	470	ASW-20	60.47	9	968	80.79	10	859	174.90	2	697	301.10	31	623	92.56	11	881	4028
8	Wills, T. J.	1	LS-4	55.75	17	913	84.48	7	923	143.90	20	557	380.45	16	799	87.91	17	800	3992
9	White, S. A.	94	ASW-20F	(175.65)	34	420	84.96	6	931	173.90	3	692	(65.25)	6	940	97.40	2	972	3955
10	Cruse, C.	709	ASW-20	(279.90)	23	701	71.32	31	719	173.40	=4	690	(59.47)	12	903	83.40	=28	729	3742
11	Elliott, B.	69	ASW-20	(278.90)	24	698	62.64	38	619	173.40	=4	690	(64.46)	8	934	87.82	18	798	3739
12	Zealley, T. S.	22	ASW-20	56.59	15	923	62.80	37	620	128.40	=25	488	(64.22)	9	933	85.69	=22	764	3728
13	Lysakowski, E. R.	303	Ventus B	58.30	12	942	83.22	8	901	58.10	36	171	370.45	18	777	94.59	4	918	3709
14	Curtis, C. J.	931	ASW-20F	60.93	6	974	80.50	=11	854	165.15	11	653	197.15	=37	393	89.12	=13	820	3694
15	Davis, A. J.	80	Ventus	(164.15)	37	389	77.66	17	809	160.65	13	633	(60.85)	11	912	95.55	3	936	3679
16	Spreckley, B. T.	34	ASW-20	57.05	14	928	76.02	21	784	125.40	32	474	350.20	=21	732	84.38	26	744	3662
17	Watt, D. S.	76	ASW-20F	61.00	5	975	86.83	4	966	50.00	43	*135	323.45	25	672	93.23	8	893	3641
18	Farmer, A. T.	227	Mini Nimbus	55.63	18	912	71.93	29	727	138.90	23	535	287.40	=32	593	85.68	=22	764	3531
19	Sheard, P. G.	310	Ventus A	60.53	=7	969	76.95	20	798	140.90	=21	544	213.65	35	429	87.27	21	789	3529
20	Hood, L. S.	152	LS-4	(248.65)	=27	617	72.20	28	730	128.40	=25	488	(52.30)	15	867	87.42	19	792	3494
21	Hunt, S. G.	268	LS-4	(138.90)	39	317	75.20	23	772	151.15	=17	590	(59.29)	13	902	85.24	25	757	3338
22	Shephard, E. G.	52	Mini Nimbus	(280.65)	22	703	77.45	18	806	128.40	=25	488	302.35	=27	626	80.37	34	685	3308
23	Redman, S. J.	56	LS-3	(276.40)	25	691	(259.60)	=45	417	128.40	=25	488	(68.50)	3	963	83.30	30	727	3286
24	Fitchett, B.	G1	DG-202	(75.65)	46	150	77.29	19	803	160.15	14	630	366.70	20	768	94.19	6	911	3262
25	Rollings, C. C.	197	ASW-20F	62.20	3	991	83.83	50	*0	151.90	16	593	369.95	19	775	93.06	9	890	3249
26	Watson, A. J.	704	Mosquito	(246.90)	30	616	74.76	24	766	128.40	=25	488	317.10	26	658	82.12	31	710	3238
27	Stafford-Allen, P. R.	333	PIK 20b	51.32	20	869	67.83	34	675	133.40	24	510	243.40	34	495	78.96	37	666	3215
28	Hackett, N. G.	887	LS-3	(256.65)	26	638	79.17	15	833	54.10	=37	153	350.20	=21	732	89.80	12	832	3188
29	Taylor, J. J.	107	ASW-20F	(248.65)	=27	617	62.94	=35	622	164.65	12	651	302.35	=27	626	77.75	38	649	3165
30	Woodford, J. M.	481	ASW-20	54.73	19	902	75.69	22	779	54.10	=37	153	287.40	=32	593	83.44	=28	729	3156
31	Batty, C. J.	696	ASW-20	60.54	=7	969	78.49	16	822	140.90	=21	544	27.95	49	18	87.38	20	791	3144
32	Fletcher, R.	707	Std Libelle	(87.65)	44	182	69.34	33	693	169.15	9	671	(54.47)	14	877	77.14	40	642	3065
33	Aldous, R. F.	181	ASW-20	59.83	10	961	81.97	9	879	37.25	47	78	197.40	=37	393	83.94	27	737	3048
34	Murphy, T. J.	728	PIK 20b	(101.15)	=41	219	63.00	=35	622	112.65	33	417	(65.41)	=4	941	80.92	33	693	2892
35	Hynes, K.	588	ASW-20F	(236.25)	31	583	72.75	27	738	128.40	=25	488	110.10	45	200	79.04	36	667	2676
36	Gorringe, J. P.	246	Std Cirrus	(248.65)	=27	617	57.20	42	570	54.10	=37	153	302.35	=27	626	71.55	43	575	2541
37	Tanner, L. E. N.	990	Vega	(187.15)	32	451	57.84	41	575	128.40	=25	488	114.85	43	210	85.30	24	758	2482
38	Jefferyes, M. B.	656	DG-200	(83.15)	45	170	79.86	14	844	53.10	42	149	302.35	=27	626	79.36	35	671	2460
39	Jones, R.	186	Ventus B	(153.15)	38	359	(259.60)	=45	417	40.75	46	93	350.20	=21	732	81.13	32	696	2297
40	Pope, M. H. P.	46	Vega	(96.40)	43	206	70.76	32	711	105.40	34	384	157.10	40	304	76.09	42	628	2233
41	Cunningham, G. W.	87	ASW-20	(101.40)	=41	219	71.64	30	723	59.10	35	176	142.60	41	272	88.45	16	809	2199
42	Aspland, W.	559	PIK 20b	(69.15)	=48	133	(276.95)	44	447	54.10	=37	153	371.45	17	779	76.67	41	636	2148
43	Mather, A.	323	ASW-20F	(109.65)	40	245	(241.35)	47	365	144.15	19	558	207.65	36	416	65.97	46	519	2103
44	Smith, G. N.	732	Std Jantar	(174.90)	=35	418	61.77	39	610	22.75	48	12	121.60	42	225	77.62	39	648	1913
45	Hogg, A. J.	27	ASW-20	(66.40)	50	125	73.72	26	751	18.00	=49	0	183.85	39	363	68.71	45	545	1784
46	Corbett, G. S.	844	Mini Nimbus	(74.40)	47	147	(221.85)	48	351	156.90	15	616	54.70	46	77	71.43	44	574	1765
47	Morris, G.	172	ASW-20	56.37	16	920	59.63	40	590	54.10	=37	153	42.20	47	49	DNF	=48	0	1712
48	Thick, M.	171	ASW-20	(176.65)	33	422	74.36	25	760	45.50	45	115	DNF	50	0	DNF	=48	0	1297
49	Cousins, R.	102	ASW-20	(174.90)	=35	418	(296.45)	43	481	46.50	44	119	31.20	48	25	DNF	=48	0	1043
50	Glossop, J. D. J.	606	DG-200	(69.15)	=48	133	(71.00)	49	89	5.00	=49	0	114.10	44	209	65.68	47	517	948

* = photographic penalty: DNF = did not fly

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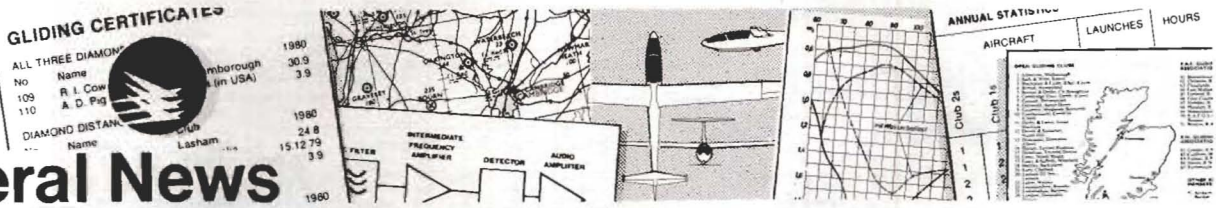
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BGA and General News



STANDARD CLASS NATIONALS

Andy Davis is the new Standard Class Champion, only 52pts ahead of Justin Wills in the Nationals which finished at Booker GC on August 15 after six contest days.

Chris Rollings was third with 3806pts, Andy gaining 4228 and Justin 4176pts, all flying LS-4s.

There will be a report in the next issue.

ROYAL AERO CLUB AWARDS FOR 1981

Gliding features high in the Royal Aero Club awards for last year with the Britannia trophy, their major award, going to George Lee for the greatest achievement in sporting aviation during 1981 being his third-time win in the World Champs. The Prince of Wales cup goes to the 1981 British Gliding Team for the most meritorious team performance during the year under review.

Dick Stratton, BGA chief technical officer, has been honoured with a Silver Medal of the Club in respect of his long standing services to sporting aviation, including his latest triumph in getting widespread acceptance of the use of "Mogas" in light aircraft as a result of his research and campaigning.

All these and other awards will be presented by the current President of the Club HRH The Prince Andrew at a party to be held in November or December of this year and we hope that plenty of gliding supporters will be in attendance.

Barry Rolfe, *BGA administrator*

NATIONAL LADDER

Open Ladder

Leading pilot	*Club*	*Pts*	*Flts*
1. N. G. Hackett	Coventry	8664	4
2. R. Pentecost	Surrey & Hants	7434	4
3. G. Metcalfe	Surrey & Hants	6643	4
4. P. Pozerskis	Coventry	6579	4
5. R. Wright	Coventry	6109	3
6. C. Lovell	Surrey & Hants	5594	3

Club Ladder

Leading pilot	*Club*	*Pts*	*Flts*
1. C. G. Starkey	Surrey & Hants	3962	2
2. C. Coles	Surrey & Hants	3026	2
3. B. L. Cooper	Deeside	2649	2
4. R. Cowderoy	RAE Farnborough	2426	3
5. C. Fox	RAE Farnborough	2406	2
6. R. Partridge	Surrey & Hants	1577	2

COULDN'T REACH RELEASE KNOB

An Olympia 2B pilot on aerotow found violent lift at 1700ft, pulled the release knob twice (his standard practice) and as the Citabria tug wasn't visible, assumed he was free and tried a climbing turn to the left. "I thought I was in a very violent thermal as I had difficulty in controlling the glider," he recalled. "I then realised I was in a steep dive with the tug below me."

This time the release knob functioned immediately but he was at 800ft before flying straight and level. When he flew the Olympia later that day he felt it was possible that he didn't have sufficient elevator control in thermals.

The tug pilot said the Citabria was pitched into a vertical dive and he was "elevated to a high position in the seat" and couldn't release because he could only reach the cable release with his fingertips.

The glider was later found to be 23mm short on down elevator travel due to incorrect stop fitting. The same day an IS-28 had a problem in releasing, so the Ottfur-type rings were withdrawn from service.

Dick Stratton, BGA chief technical officer, comments: "I am appalled that the Citabria still has a floor-mounted release which the pilot admits he couldn't reach. Tost rings should be used in preference and as for the range of controls, these should be checked at every C of A renewal."

BGA ANNUAL CONFERENCE

Make a note in your diary that the BGA Annual Conference is on March 26-27 at the Royal Agricultural College, Cirencester. The organiser, Marjorie Hobbie, is booking top speakers to cover a full range of gliding topics. Full details in the near future.

NEW NATIONAL COACH

Ken Stewart is the new national coach, replacing Brian Spreckley who left to become the manager of Booker GC. Ken, who was deputy CFI of Lasham Gliding Society, is a 28 year-old Glaswegian.

MID-AIR FATALITIES

Two K-8 pilots, Raymond Hutchings and Andrew Rowles, were killed in a mid-air collision on August 21 at the start of the Inter-Services Regionals at Colerne, near Bath.

1481 BRITISH GLIDERS NOW HAVE C's OF A

The following are the number of gliders with current British C's of A on June 28, 1982.

ASW-15	7	Calif A-21	1
ASW-17	5	Capstan	18
ASW-19	15	Carman JP 15-36	2
ASW-20	13	Cirrus	14
ASW-20L	18	Std Cirrus	34
ASW-20F	5	Cobra	13
ASW-20FL	6	Condor Manual	1
Astir CS	49	DG-100	12
Speed Astir	3	DG-200	9
Twin Astir	9	Dart 15	15
Bocian ID	9	Dart 17R	32
Bocian IE	17	Delphin	1
SD3-15	2	Diamant 18M	4
BG-135	2	Eagle 3 & 4	6
YS-55 Consort	5	EoN Baby	2
Blanik L-13	33	Falcon (Wright)	1
Bergfalke	10	Fauvette	7
Foka 3	1	Mü-13D3	2
Foka 4	3	Minimoa	1
Foka 5	1	Meise	2
Glasflügel 304	2	Moswey 4A	2
Glasflügel 604	1	Mosquito	22
Goevier	1	Nimbus 2 & C	26
Grunau Baby 2B & C	13	Mini Nimbus	13
Grunau Baby 3	3	Olympia 1	10
Gull 1	1	Olympia 2	46
Gull 4	1	Olympia 419	4
Hütter 17	1	Olympia 465	1
Hornet	2	Olympia 401	1
Iris D-77	2	Olympia 460 & 463	38
IS-29D	6	Prefect	10
IS-28B2	7	Pirat	47
Jaskolka	2	Phoebus C	6
Super Javelot	2	Pilatus	24
Jantar	5	PIK 20B	8
Std Jantar & 2	6	PIK 20D	15
Jantar 2	1	Rhönbussard	1
Janus	3	Rheinland	1
K-2	9	SB-5 B & E	2
K-3	1	SF-26 & 27	4
K-4	7	Sie 3	3
K-6	1	Silene	2
K-6CR	70	Sky	5
K-6E	61	Skylark 1	1
K-7	40	Skylark 2	25
K-8B	53	Skylark 3	36
K-13	51	Skylark 4	36
K-18	9	Swallow	35
K-21	8	SHK 1	14
Kite 2	1	Specht	1
Kranich	2	Std Austria	3
Kestrel	1	T-21B	34
KH-1	1	T-53	2
Kestrel 17	4	T-31	3
Kestrel 19	50	Torva Sprite	1
Kestrel 22	2	Tutor	10
LO-100	1	Vasama	1
LS-1	1	Vega T-65A	30
LS-3	11	Vega T-65C	15
LS-4	11	Vega T-65D	7
L-Spatz	9	Ventus	6
Club Libelle	6	Bijave	1
Std Libelle	56	Weihe	4
Manuel Hawk	1	YS-53	4
M-100	4	Zugvogel	2

GLIDING CERTIFICATES

ALL THREE DIAMONDS

No.	Name	Club	1982
135	G. McLean	Hambletons	9.5
136	R. P. Saundby	Bicester	17.7
137	K. A. Harrison	Herefordshire	20.6

DIAMOND DISTANCE

No.	Name	Club	1982
1/197	G. McLean	Hambletons	9.5
1/198	B. Brownlow	Bicester	29.5
1/199	C. J. Batty	Cotswold	8.5
1/200	P. D. Bell	Booker	20.6
1/201	R. J. Brownlow	Bicester	17.7
1/202	W. M. Kay	London	17.7
1/203	C. F. Coles	Surrey & Hants	17.7

1/204	R. P. Saundby	Bicester	17.7
1/205	K. A. Harrison	Herefordshire	20.6

DIAMOND GOAL

No.	Name	Club	1982
2/1112	R. Dall	Two Rivers	14.4
2/1113	Ruth Housden	Cotswold	29.5
2/1114	M. Bond	Clevelands	8.5
2/1115	J. J. Earnshaw	Clevelands	9.5
2/1116	M. N. Davies	Stratford on Avon	29.5
2/1117	V. F. Fielding	Doncaster	8.5
2/1118	P. D. Light	Avon Soaring	29.5
2/1119	R. Stevens	Coventry	8.5
2/1120	W. Aspland	Booker	9.5
2/1121	A. Cliffe	Staffordshire	9.5
2/1122	P. W. Armstrong	Bannerdown	29.5
2/1123	S. R. Nash	Shalbourne	20.6
2/1124	J. L. A. Ward	Southdown	29.5
2/1125	S. R. Lynn	London	20.6
2/1126	R. W. Partridge	Surrey & Hants	20.6
2/1127	S. Hutchinson	Two Rivers	29.5
2/1128	G. G. P. Coppen	Surrey & Hants	9.5
2/1129	M. R. Dawson	Bannerdown	20.6
2/1130	J. L. Brimfield	London	20.6
2/1131	P. R. Barley	Four Counties	9.5
2/1132	S. M. Turner	Southdown	29.5
2/1133	S. H. North	Bath & Wilts	29.5
2/1134	N. Revell	in USA	21.5
2/1135	A. J. Queen	Bicester	10.7
2/1136	R. M. Darby	East Sussex	17.7
2/1137	G. I. Bailes	Oxford	17.7
2/1138	P. C. Gill	Essex	17.7
2/1139	G. M. Cumner	Cotswold	17.7
2/1140	D. Starer	London	17.7
2/1141	J. Wesley	Coventry	9.5
2/1142	J. S. Wand	Essex	17.7
2/1143	M. Clarke	Peterboro' & Spalding	17.7

DIAMOND HEIGHT

No.	Name	Club	1982
3/532	G. G. P. Coppen	Surrey & Hants	14.6
3/533	N. Revell	in USA	17.5

GOLD C COMPLETE

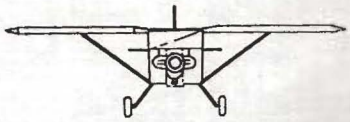
No.	Name	Club	1982
876	M. Bond	Clevelands	8.5
877	J. J. Earnshaw	Clevelands	9.5
878	P. D. Light	Avon Soaring	29.5
879	W. Aspland	Booker	9.5
880	G. McA. Bacon	Bicester	5.6
881	A. Cliffe	Staffordshire	9.5
882	P. W. Armstrong	Bannerdown	29.5
883	K. H. Lloyd	Cotswold	4.6
884	S. R. Nash	Shalbourne	20.6
885	R. W. Partridge	Surrey & Hants	20.6
886	G. G. P. Coppen	Surrey & Hants	9.5
887	J. L. Brimfield	London	20.6
888	P. R. Barley	Four Counties	9.5
889	N. Revell	in USA	21.5
890	G. I. Bailes	Oxford	17.7
891	J. S. Wand	Essex	17.7

GOLD C DISTANCE

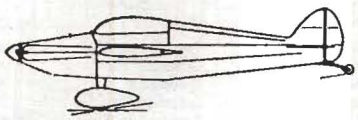
Name	Club	1982
R. Dall	Two Rivers	14.4
Ruth Housden	Cotswold	29.5
M. Bond	Clevelands	8.5
J. J. Earnshaw	Clevelands	9.5
M. N. Davies	Stratford on Avon	29.5
V. F. Fielding	Doncaster	8.5
P. D. Light	Avon Soaring	29.5
R. Stevens	Coventry	8.5
W. Aspland	Booker	9.5
A. Cliffe	Staffordshire	9.5
P. W. Armstrong	Bannerdown	29.5
S. R. Nash	Shalbourne	20.6
J. L. A. Ward	Southdown	29.5
S. R. Lynn	London	20.6
C. R. Ellis	Booker	9.6
R. W. Partridge	Surrey & Hants	20.6
S. Hutchinson	Two Rivers	29.5
G. G. P. Coppen	Surrey & Hants	9.5
J. L. Brimfield	London	20.6
P. R. Barley	Four Counties	9.5
S. M. Turner	Southdown	29.5
S. North	Bath & Wilts	29.5
N. Revell	in USA	21.5
M. A. Johnson	Kent	17.7
A. J. Queen	Bicester	10.7
R. M. Darby	East Sussex	17.7
G. I. Bailes	Oxford	17.7
G. M. Cumner	Cotswold	17.7
D. Starer	London	17.7
J. Wesley	Coventry	9.5
J. S. Wand	Essex	17.7
M. Clarke	Peterboro' & Spalding	17.7

BGA ACCIDENT SUMMARY — Compiled by ARTHUR DOUGHTY, Chairman, BGA Safety Panel

Ref. No.	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew			SUMMARY
						Age	Injury	P/Hrs	
42	Skylark 2	766	M	24.04.82 16.40	Currock Hill	28	N	138	During the ground run after a normal landing on the centre line of strip with about 5kt crosswind in light, variable wind, the glider ran off the downwind side of the strip down a slope and across a ditch. Rudder was used to control direction and on debrief it appears pilot was more concerned with weathercocking into wind and running over a steeper slope.
43	Blanik	?	M	10.04.82 15.15	Long Marston	?	N	54	Cable break on autotow at 200-300ft. Pilot decided to land ahead on grass at side of runway with 400-500yds to boundary fence. Selected flap in error for airbrake. Descent rate not as expected so lowered nose building up excess speed. Finally realised error, raised flaps and opened airbrakes. Induced ground loop to avoid collision with fence.
					P2	?	N	? Air exp	
44	K-8B	2434	S	25.04.82 19.08	Winthorpe	31	N	21	Approaching in calm conditions pilot aimed to touch down about 15ft into grass landing strip but undershot, touching down before commencement of strip. Ran over a 4in rut at boundary between strip and field.
45	K-6E	1524	M	27.03.82 17.30	Long Mynd	43	N	43	Pilot was attempting to land short on prepared strip but undershot, touching down on rougher ground about 15ft short of threshold markers.
46	Astir		M	25.04.82 15.45	Booker	34	M	45	On final approach pilot decided he was too high so opened airbrakes intending to land to north side of launch point as south side was obstructed. Undershoot situation developed and changed plan to land on south side. Pilot claims he closed airbrakes but landed on boundary hedge with airbrakes open.
47	K-2	2587	M	03.04.82 ?	Ringmer	28	N	150	While diving the glider at about 80kt a piece of perspex about 12in x 6in broke away from the top of the rear canopy along the line of a previous repair and struck the leading edge of the tailplane. Upward hinging rear section of canopy described as being a tight fit between wing roots.
					P2	9	N	—	
48	Open Cirrus	1473	M	08.05.82 17.15	Lower Bentley Nr Bromsgrove	43	N	676	Approach made into 300yds long field but due to high ground speed decided to clear low hedge into next field 150yds long. Approaching distant boundary induced ground loop and rolled backwards into hedge. Landing direction based on pre-flight knowledge of wind which shifted through 180° due to shower activity giving 5-8kt tail component for landing.
49	Bocian 1E	1843	M	24.04.82 19.00	Aboyne	23	N	350	P2 doing take-off for aerotow and after about 200yds ground run P1 aborted launch as cows were seen to start crossing runway from right to left. P1 veered right to avoid tug which stopped but failed to see forward signaller against low sun. Signaller apparently turned to watch cows was struck on back of head, knocked to the ground dislodging 7 teeth.
					P2	25	N	?	
					Pedestrian	?	M	—	
50	Olympia 1	218	M	12.04.82 13.30	Husbands Bosworth	48	N	160	Approach with crosswind and failed to correct drift prior to touchdown. Mainskid broken.
51	PIK 20E	G-	M	26.03.82 14.00	Husbands Bosworth	57	N	220	Pilot was practising circuits with power on landings using the perimeter track. Towards end of landing run on rough surface the wheel struck a large stone causing motor glider to deviate from track. Pilot was unable to correct and port wing hit top of fence post and iron gate post when travelling at 5mph.
52	DG-101G	2749	W/O	16.05.82 13.45	Shobdon	38	N	71	Pilot states he commenced finals from 400ft and was observed at 200ft about 200-300yds behind boundary with half airbrake. Strong sink was experienced, the nose lowered to increase speed and witness saw airbrake had been reduced to quarter open. Pilot pulled up to clear boundary fence and rear fuselage struck fence pitching glider nose down onto ground.
53	K-2B	2439	M	28.02.82 14.02	Saltby	34	N	430	On previous flight P2 made a fair landing in strong gusty wind. On subject flight a gust lifted the glider when at about 3ft for roundout. P2 reacted by moving control column forward rapidly causing glider to strike ground with front skid. Glider bounced and P1 took over for landing.
					P2	?	N	?	
54	T-21B	RAFGSA 212	M	17.04.82 14.30	Syerston	?	N	1st solo	Pilot extended downwind leg too far and then undershot on the approach, striking a sharply rising bank topped by a fence and hedge.
55	Cirrus	1864		28.04.82 13.45	North Stoke Sussex	44	N	425	Footpath across field was noted but not considered to be a hazard. On touchdown 15yds from path a 3in ridge with 45° slope was noticed. Closed airbrakes and lifted nose and mainwheel over ridge. Tail struck ridge removing tailwheel from fairing.
56	K-7	1664	M	01.05.82 13.00	Farnborough	44	N	120	At about 100ft on autotow launch the parachute on the cable deployed. P2 increased tension by pulling back on control column but as speed increased he eased forward to avoid overstressing and parachute again deployed passing over nose and canopy. The towcar driver released cable apparently under some tension which wrapped round airframe.
					P2	19	N	¾ P1	
57	Dart 17R	1356	M	16.05.82 13.50	Strubby	38	N	40	Soaring conditions deteriorated and Dart was No 2 to a T-21 which had landed and was still rolling on runway which was further obstructed by winch and another glider with towcar at intersection of runway and taxiway. There was space for Dart to land on runway but pilot undershot striking and collapsing U/C on edge of runway. Soft areas under crop.



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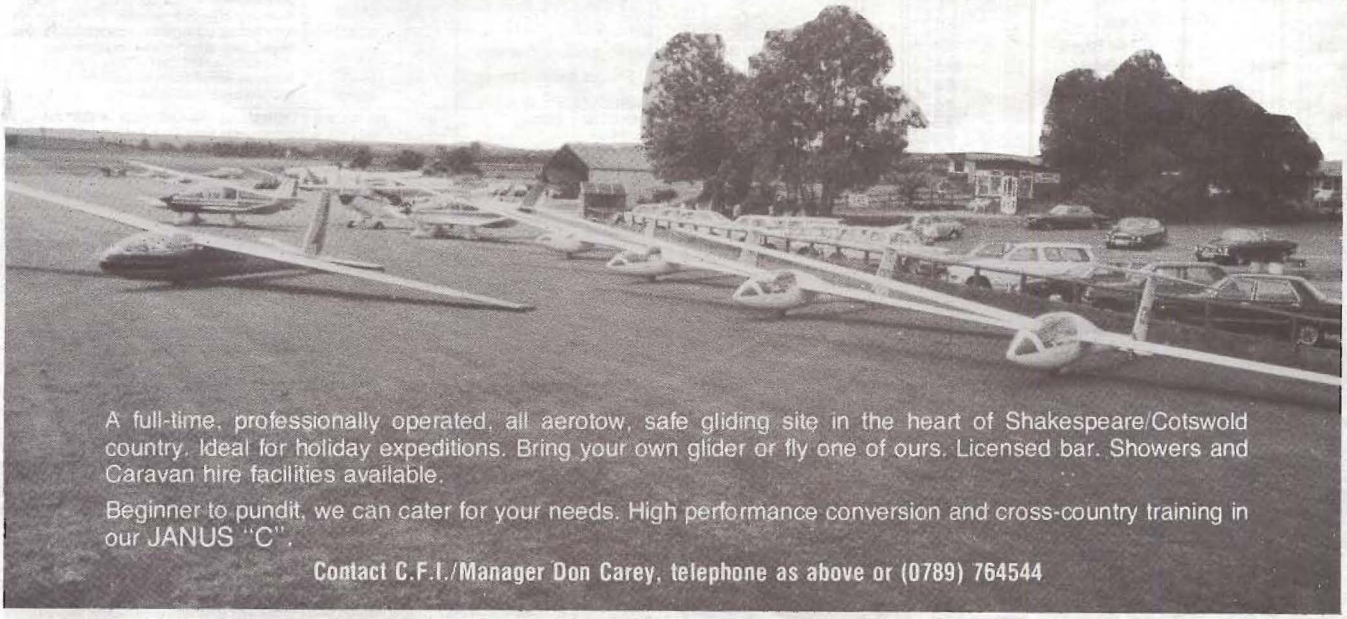
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GOLD C HEIGHT

Name	Club	1982
S. J. Wilson	Kestrel	8.4
R. A. Langford	Essex & Suffolk	11.4
G. I. Bailes	Oxford	28.5
C. J. Lines	Trent Valley	5.6
G. McA. Bacon	Bicester	5.6
K. H. Lloyd	Cotswold	4.6
G. Power	Essex	1.7
J. Barrett	London	27.6
K. A. Lillywhite	London	27.6

SILVER C

No.	Name	Club	1982
6146	C. V. Hill	Ulster	18.4
6147	R. N. Terry	Booker	12.4
6148	C. L. Groves	Coventry	6.5
6149	G. A. Maltby	Trent Valley	8.5
6150	J. R. Gilbert	Essex & Suffolk	9.5
6151	C. A. Greatrex	Herefordshire	8.5
6152	A. M. Day	RAE	8.5
6153	P. Potter	Stratford	9.5
6154	S. N. Gregory	SGU	7.5
6155	Patricia Blackburn	Enstone	9.5
6156	J. Taberham	Bristol & Glos	7.5
6157	R. A. Dawe	Fulmar	11.4
6158	P. O. Mann	Yorkshire	8.5
6159	S. I. Brear	London	8.5
6160	K. J. Fuller	Four Counties	9.5
6161	R. M. Rayner	Midland	9.5
6162	J. R. Beard	Cotswold	9.5
6163	R. Allan	Deeside	8.5
6164	D. C. Findlay	Bannerdown	7.5
6165	K. Sparkes	Enstone	10.5
6166	Alison Campbell	Cambridge Univ	9.5
6167	K. A. G. Buchan	SGU	28.4
6168	R. G. Ball	North Wales	5.5
6169	J. Davidson	Southdown	28.4
6170	N. B. Holmes	Trent Valley	12 5
6171	R. T. Kenney	Cranwell	9.5
6172	R. H. Combe	Norfolk	9.5
6173	J. Lewis	Shropshire	9.5
6174	A. K. Rowles	RAE	8.5
6175	Elizabeth Hartnett	RAE	10.5
6176	A. W. Cox	Enstone	9.5
6177	C. Dobbs	Devon & Somerset	25.4
6178	M. K. Rogerson	SGU	16.5
6179	D. Robson	Borders	25.4
6180	R. Gillespie	Fenland	30.3
6181	P. J. Towell	South Wales	23.4
6182	C. J. Poolton	Enstone	10.5
6183	P. J. M. Priestley	Yorkshire	9.5
6184	G. D. Palmer	East Sussex	8.5
6185	P. McLean	Pegasus	9.5
6186	G. I. Bailes	Oxford	8.5
6187	A. G. Fowles	Shropshire	8.5
6188	X. P. Symeonides	South Wales	9.5
6189	S. J. Proud	West Wales	18.5
6190	K. J. Sleigh	Chilterns	23.5
6191	B. C. Greenway	Shalbourne	1.5
6192	D. G. Stephenson	London	29.5
6193	R. F. Fairweather	Wyvern	29.5
6194	P. M. Petty	Kent	12.4
6195	R. Dixon	Lasham	9.5
6196	J. P. Ashcroft	Wyvern	29.5
6197	J. R. Endall	Coventry	28.5
6198	A. P. Milton	Cranfield	29.5
6199	D. Crowhurst	Peterboro' & Spalding	8.5
6200	D. R. Mintey	Two Rivers	31.5
6201	A. G. Hill	Fenland	28.5
6202	C. J. H. Richardson	East Sussex	21.4
6203	D. B. Mellin	Vale of Neath	29.5
6204	Helen Luck	Booker	29.5
6205	C. Rodwell	Coventry	29.5
6206	K. J. Chichester	Aquila	9.5
6207	M. S. Rees	Booker	1.6
6208	R. S. Vincent	Chilterns	29.5
6209	A. F. Robinson	Wrekin	16.5
6210	A. J. Marshall	Wrekin	11.5
6211	E. C. Willcox	Devon & Somerset	3.6
6212	M. B. R. Marriott	Humber	2.6
6213	F. M. Adams	Shalbourne	29.5
6214	W. Waite	Kent	9.5
6215	R. H. Collins	Dorset	6.6
6216	C. F. Stapleton	Buckminster	2.6
6217	D. W. Ballard	Surrey & Hants	6.6
6218	J. I. R. Owen	RAE Farnborough	29.5
6219	H. A. Etherington	Ouse	8.6
6220	C. M. Ruff	Newark & Notts	5.6
6221	B. T. Payne	Swindon	29.5
6222	R. J. Lines	Trent Valley	9.5
6223	A. M. W. Platt	Lasham	30.4
6224	A. I. Garrod	Kestrel	11.4
6225	J. Mackenzie	Doncaster	4.6
6226	C. D. Inglebrecht	RAE Farnborough	9.5
6227	J. P. Beardmore	Coventry	11.6
6228	P. W. Day	Pegasus	9.5

58	Bocian 1E	1605	M	23.05.82 10.09	Strubby	54	M	140	Previous launch resulted in cable break and cable was wound in and broken section was believed to have been pulled clear. Subject launch was allowed to proceed. The broken section was not clear and was picked up by the launch cable, rode up breaking the rear canopy and causing minor facial injuries to P1.
					P2	19	N	Air exp	
59	DG-100	2081	S	12.04.82 15.00	Standon Nr Bishops Stortford	25	N	78	Selected village playing field for landing but failed to observe stakes and rope round cricket square until rounding out for landing. Lifted wing over one post but struck another with port wingtip inducing ground loop.
60	K-13	2234	M	29.04.82 09.00	North Weald	—	—	—	After difficult start-up of pulley vehicle the driver was concerned about the build-up of air pressure to release brakes. After pressure built up he moved off and drove over the wingtip of the glider which he thought had already been moved.
61	Open Cirrus	2033	M	01.05.82 16.55	Long Mynd	28	N	424	Pilot entered cloud at 5500ft and approx 5min later at 9500ft while setting up Cook compass to leave cloud on heading speed began to increase. Pilot aggravated situation by wrong control inputs by wrong interpretation of A/H. Eventually opened airbrakes and deployed tailchute to control speed. On landing cracks found in lower surface of wings around airbrake boxes. First attempt at cloud flying with A/H. Previous with T&S.
62	Jantar Std	2745	S	08.05.82 15.30	Leintwardine Shropshire	55	N	960	Pilot observed one set of low wires on approach to field but failed to see a line of three green plastic coated wires at 30° to the other wires crossing the boundary. Pilot lost directional control while avoiding the latter set of wires and collided with a low wire and paling fence. Glider rotated and went sideways through the fence.
63	K-13	1481	S	13.05.82 18.22	North Hill	47	N	216	Pupil being talked down approach for landing in gusty conditions did not react to instruction to round out. Instructor took over and applied excessive control movement causing tail to strike ground and bend fuselage.
64	Pirat	1733	M	08.05.82 15.15	Chase Farm Airstrip Dunton Essex	26	N	91	Pilot selected farm strip for landing as shower approached and the circuit and approach were made in heavy rain which degraded forward visibility. Touched down well into strip and at end of ground ran across tractor wheel tracks at end of strip damaging lower fuselage skin.
65	SHK	2157	M	16.05.82 15.45	North Weald	54	N	247	At start of autotow launch the cable snatched and glider over-ran sheathed shock rope which became jammed between wheel and U/C legs. A second jerk collapsed U/C by bending an actuating arm.
66	Sport Vega	2714	M	18.05.82 17.05	2 miles SW of Membury A/F	36	N	43	Selected field of young crop for landing at 1500ft. After roundout it was noticed there were large flints and the port wing dropped during the ground run and struck one. Alleged that following extensive repairs to port wing it "is always prone to dip during ground run."
67	PIK 20E	G-BHFP	W/O	09.05.82 11.55	Lasham	35	F	98 Pwr	Motor glider was seen to level off at about 300ft apparently as a result of engine malfunction. A turn to the left was initiated during which the nose dropped and the aircraft spun until striking the ground with the port wing.
68	Super Falke	G-BHSD	M	14.05.82 20.00	Lasham	32	N	865 Gldrs 800 Pwr ?	P1 was taxying into sun and sitting low in seat and was aiming to pass between two rows of tyres at the runway edge. As he was passing between the tyres the mainwheel dropped into a hollow causing the tail to rise and the propeller to strike the runway.
					P2	42	N		
69	Vega	2457	M	23.05.82 15.30	Winforton Hereford	47	N	1267	After being reduced to hill soaring pilot selected grass field at 900ft. During roundout stbd wingtip caught 18in high grass inducing a ground loop resulting in extensive minor damage.
70	ASW-20L	2677	M	30.05.82 16.45	Nympsfield	34	N	141	Short circuit after cable break on winch launch at about 400ft. Excess speed on approach and touch down causing glider to bounce. Second touchdown was heavy and glider ballooned to about 6ft in stalled condition. Final touchdown in nose down attitude.
71	Pirat	1735	M	02.06.82 19.00	Ringmer	41	N	175	While taxying at end of landing run towards hangar with a slight tailwind component on a down gradient and a wheel brake reported as "ineffective" the glider struck a parked trailer with a wingtip.
72	Sie 3	2730	M	30.05.82 15.50	Moreton-in-the-Marsh A/F	30	N	523	Pilot decided to land in grass at side of runway. Just after touchdown glider groundlooped rapidly right through 90° followed by slide sideways. Grass stains on stbd tip suggest ground loop was induced by allowing wingtip to drop into grass 10-12in high.
73	K-8B	2214	M	23.05.82 19.30	Farnborough A/F	25	N	22	Hangar flight. Touched down on runway and then taxied across grass in a more direct line towards hangar. Wooden post struck by wingtip.
74	Std Libelle	1519	S	06.05.82 14.00	Cadmore End Bucks 3 miles NW of Booker	41	N	550	An uphill approach to a field on a plateau and the clearance of two fences about 40yds apart on the approach was necessary. First fence cleared at minimum height to land as short as possible in field. Transition from approach to roundout uphill made pilot doubt clearance of second fence. Put glider down early and penetrated second fence.

75	Sport Vega	2716	S	29.05.82 18.34	Farnborough A/F	30	M	50	Autotow launch failed when glider was at a height reported as between 15 and 30ft when the drogue chute deployed. Pilot states she released, witness says cable back released but general agreement there was little change of attitude to recover airspeed before glider struck the runway.
76	Skylark 4	?	M	03.06.82	1 mile west of Bodmin A/F	59	N	82	After a satisfactory landing in a fenced and empty field, pilot picketed glider and went to A/F. On return ½hr later cattle had been allowed into the field and had trampled on stbd wingtip/ aileron.
77	L Spatz 55	2278	M	02.06.82 16.20	West Buckland Nr Wellington Somerset	49	S	404	Pilot selected mown grass field and after circuit commenced approach into wind. After crossing hedge "lowered nose to maintain airspeed, rounded out late and touched down hard on skid." Impact load transmitted through seat pan to cause compression fracture of spinal vertebrae.
78	K-13	2392	S	05.06.82 15.30	Dunstable	—	—	—	Glider parked at launch point due to approaching thunderstorm with more than usual number of tyres for picketing. Storm broke, wind increased to storm force and veered through 360° in 1½min. Glider carried by wind for approx 300yds. See also 79, 80, 81 and 85.
79	K-18	2252	S	05.06.82 15.30	Dunstable	—	—	—	Glider was parked at launch point weighted down with tyres when the storm broke. It was blown over and struck another parked glider. (Kranich 3 Acc Ref 81/82).
80	Prefect	1152	W/O	05.06.82 15.30	Dunstable	—	—	—	Glider parked at launch point weighted down with tyres and picketed with pickets and rope across wingtip. Owners sitting in car parked 4ft away to act as windbreak. Blown over when storm broke.
81	Kranich 3	2814	S	05.06.82 15.30	Dunstable	—	—	—	Glider was parked at launch point and because of approaching storm the last pilot stood under the raised downwind wing pushing up, thereby forcing lower into wind wing down. Nevertheless the wind lifted the wing and the glider subject of Acc Ref 79/82 was blown over onto the Kranich.
82	Astir CS77 K-2	2345 ?	M M	16.05.82 ?	Long Marston	54	N	25	Pilot turned finals at 400ft and as wind gradient was encountered an undershoot developed. After low clearance of boundary fence the wing clipped the parked glider before landing heavily. No evidence of airbrakes being used therefore assessed as circuit fault rather than approach control.
83	Blanik	2008	M	30.05.82 ?	Nympsfield P2	30 ?	N N	291 Air Exp	Pilot intended to land short on cut grass landing area but touched down 20ft short where the rutted surface was obscured by long grass. Damage to U/C and lower fuselage skin.
84	Std Libelle	1874	S	04.06.82 16.40	Nympsfield	42	N	580	Returned to site as thunderstorm approached and elected to make circuit on downwind (valley) side of ridge. Increased speed to 90kt on downwind leg to compensate for wet wings and sink expecting to trade height for speed but arrived semi-stalled in spinney at quarry at face of ridge.
85	K-6E	1468	S	05.06.82 15.30	Dunstable	—	—	—	Glider parked at launch point and weighted down as storm approached. Glider was lifted into the air and blown 50m downwind.
86	K-18	2150	M	08.06.82 20.30	North Newington Nr Banbury	35	N	?	Glider was being de-rigged after a field landing. The fuselage, with the port wing only attached and the wingtip supported on a trestle, fell over onto its port side with subsequent damage to wing/fuselage joint and surrounding areas.
87	PIK 20D	2303	S	27.05.82 14.15	1 mile NE of Dungiven Co Londonderry	32	N	550	Glider was one of four hill soaring and after passage of squall hill lift ceased. Approach was made into a field previously used for field landings by other pilots. Circuit based on wind direction prior to squall. Touch down was further into field than expected and deceleration poor. Collided with building at end of field. Nil wind or local reversal.
88	ASW-20FL	Irish EI 126	S	27.05.82 14.20	1 mile NE of Dungiven Co Londonderry	52	N	275	Glider was one of four hill soaring and after passage of squall hill lift ceased. Approaching selected field realised that ground speed was too high in the calm conditions to land so elected to overshoot to next field. Port wingtip hit tree in hedge causing glider to pivot through 270° before striking ground.
89	Vega	?	M	15.05.82 11.00	Aboyne	34	N	850	After aerotow to local hill five miles away which was not working left at 1100ft to return to base picking fields *en route*. Omitted landing checks making straight in approach to field adjoining the site. Landed wheels up and struck stone during ground slide.
90	K-13	1608	M	27.05.82 19.30	North Weald P2	38 12	N N	140 Air Exp	During landing run on the grass the glider ran over a 4ft length of metal tube which was thrown up and struck the stbd wing. Tube was a "lost" handle from refuelling tank and had been missing for some time.
91	K-13	1608	M	23.05.82 12.00	North Weald P2	41 31	N N	563 4 P1	Incorrect assembly of launch cable to tow car allowed cable to become detached from car when glider was at height of about 30ft. Cable back released from glider, passed over stbd wing and struck fuselage and stbd tailplane.

M = minor; N = nil; S = serious; F = total and W/O = write off.

6229	E. A. Sempers	Buckminster	4.6
6230	J. E. Turner	Eagle	29.5
6231	R. W. Neill	Midland	6.6
6232	D. J. Rowlands	South Wales	20.6
6233	D. H. Walters	Bath & Wilts	20.6
6234	I. P. Hazel	Bicester	20.6
6235	J. S. Millard	Cotswold	29.5
6236	A. S. Hiscock	Wyvern	6.6
6237	H. C. Skinner	Enstone	20.6
6238	A. J. Thompson	Cranfield	20.6
6239	J. P. Dutson	Essex	29.5
6240	I. R. Tench	Chilterns	20.6
6241	G. P. S. McVey	Eagle	30.5
6242	K. McBride	Doncaster	2.6
6243	F. Murray	Yorkshire	8.5
6244	G. J. Lyons	Booker	20.6
6245	Valerie Ramsay	Cranwell	30.5
6246	K. R. Atkinson	Bicester	30.6
6247	Kate Hargreaves	Bath & Wilts	29.5
6248	D. J. Gordon	Four Counties	10.7
6249	R. G. Jones	Wrekin	20.6
6250	R. Taggart	Newark & Notts	17.7
6251	R. Higgs	Surrey & Hants	9.5
6252	Katrina Jennings	Humber	18.7
6253	W. H. Dainty	Cambridge Univ	11.7
6254	J. Trubridge	Fenlands	10.7
6255	P. O. Marlow	Buckminster	17.7
6256	R. E. Webb	Kent	17.7
6257	N. M. Bleach	Essex & Suffolk	17.7
6258	R. S. Hatwell	Essex & Suffolk	17.7
6259	G. R. Hill	Midland	9.5
6260	C. I. Sullivan	Cambridge Univ.	30.6
6261	J. A. Reeves	Kent	18.7
6262	P. Laycock	Essex & Suffolk	25.7
6263	D. J. Knowles	Bicester	17.7
6264	J. Kaval	Stratford on Avon	25.7
6265	R. E. Wooller	Blackpool & Fylde	29.7
6266	W. M. Mallender	Northumbria	28.7
6267	P. Etheridge	Norfolk	17.7
6268	S. White	Buckminster	28.7

BOOK REVIEW

Make Better Landings by Alan Bramson, published by Martin Dunitz Ltd at £9.95.

Alan Bramson is a well-known author of helpful text books for power pilots. I always look forward to his articles in *Pilot* and find his books easy to read and assimilate.

His latest offering is no exception and while one may ask if there is enough material on the subject for a book of 252 pages, it is evident having read it that he has had no difficulty in finding enough meat.

Chapters to interest the gliding fraternity include those on tailwheel techniques (for tug pilots converting from tricycle u/c types), crosswind landings and section on wake turbulence.

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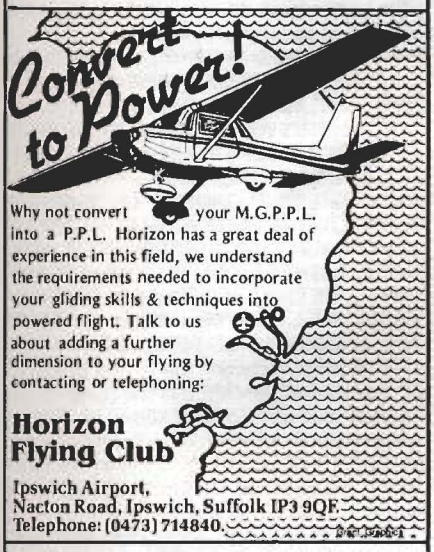
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50 YEARS AGO – Unlucky Rhön

A. E. SLATER

The 1932 annual rally on the Wasserkuppe was the 13th of the series, and that maintained its international reputation for ill luck. Early in the meeting a pilot was diving at high speed to avoid being drawn into a cumulus when his wings broke, and he had no parachute. Then Robert Kronfeld went into a cloud in his new Austria which consisted of a single wing of 30 metres span with a pod hanging below for the pilot and the tail at the end of a tube: he tried to circle, the machine broke up and Kronfeld came down safely by parachute.

Too low to parachute

Then there was Günter Groenhoff, the world's third Silver C, a brilliant young aeroplane test pilot who came into German gliding in 1929 and began setting up records, his most notable being from Munich into Czechoslovakia on (and inside) a thunderstorm front. When he was being launched from the Wasserkuppe, the tail of his Fafnir caught a large stone and was damaged in such a way that the Fafnir went into a gradually steepening dive. This was over the shallow south slope, not the steep west slope, and Groenhoff jumped out far too low for his parachute to open. The Fafnir continued into a wood but the cockpit came to rest between two trees and was almost undamaged. Once before, when Groenhoff was being launched in the Fafnir from the Jungfraujoch, half its tail was knocked off by contact with a piece of rock, but he maintained control by gliding at high speed and landed safely.

In the second week luck changed and a great amount of flying was done and I have had to give up an attempt to condense it: the account was spread over three fortnighly issues of S&G, and by four different contributors, two of them technical experts. Few pilots yet circled: I timed some circles, which apparently nobody thought of doing before, and my figures went into Hirth's textbook the following year; so did my repeated photos of a cumulus under which he was going away.

One novelty must be mentioned — the first regular gliding mail. It was aerotowed in a Falke, which then cast loose and landed near Gersfeld, where the mail was collected by the Post Office and put on a train.

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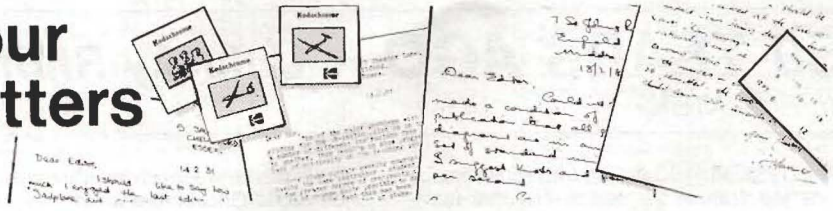
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Your Letters



THE PASSING OF THE UK BUILT GLIDER

Dear Editor,

I would like to add some further background to the article by Mr J. C. Riddell in the April issue, p78, "The Passing of the UK Built Glider."

He maintains that I was behind the Vickers Ltd purchase. It started at Lasham. Sir Peter Scott was flying there and mentioned Slingsby's financial predicament. Fred (Slingsby) turned up there a few days later and also spoke on the subject and volunteered to send me the last five years' accounts. It seemed a forlorn hope but I accepted. On looking through these I found one interesting letter from Glasflügel offering Slingsby's the right to make a limited number of Kestrels in Britain at a certain cost. Slingsby's could not take advantage of the offer for obvious reasons but I felt that my company would if it still stood.

One of my major interests was building submarines of all sizes and a GRP hull seemed the answer because of its light weight and strength. The British Ministry of Defence said it was not possible; the Americans said likewise and, in fact, had tried very thick aluminium to try to achieve equivalent results. I also remembered that some five or six years ago Britain had tried to build experimental GRP aircraft wings and failed. A GRP factory, a subsidiary of the aircraft industry, had also been inspected, being then offered for sale. This company built GRP oxygen bottles but maintained that penetration other than at the dome ends were not possible.

I flew to Germany on the lone hope that between Glasfügel and the German University research teams they had developed a method of dealing with stress concentrations in GRP bodies. Mr Hänle, an ex-German fighter pilot, and his wife were prepared to renew the GRP Kestrel offer and train some of the Slingsby men for a price but with a twist. The general manager had to be a World Class glider pilot. The fact that I was chairman of the Vickers Shipbuilding Group and had won a Regional competition did not meet this requirement. Knowing the backwardness of the GRP industry in Britain, thanks partly to unions aversion to change and my target for submarines, I then returned and sought a man to the specification required.

George Burton rose to the occasion and took the job. We flew to Germany immediately and a deal was signed. Over the next year Slingsby was converted to GRP and whilst sailplanes were constructed other complicated stress parts in GRP were successfully acquired and the factory's future was assured. One thing I learnt in Germany was that a large proportion of those employed on GRP sailplanes were part-time hands working in the factory and also on their own small farms and many of the smaller parts were made at home. To compete with them in a British setting with British union mentality would be difficult. Hence I decided to make sailplanes a part-time activity at Slingsby's, at least for the immediate future. We put in hand model experiments for submarine hulls and thanks to the managements enthusiasm succeeded finally in building two-man submarines for operating in deep water. MoD and the Americans acknowledged our success.

We also experimented with carbon fibre for highly stressed parts which seemed to have a future. We put in hand a Kestrel (carbon fibre main spar) set of wings. These were tested in fatigue and UTS and a flying pair were made which at one time I owned and flew. These I believe were the first major carbon fibre structural aircraft parts made in the world.

Vega was an attempt to still retain Slingsby's link with the sailplane market but high development costs, delays in making the target marketing date plus the efficient German market proved fatal. Nevertheless Slingsby's was saved and expanded and is now I believe a good factory still building GRP submarines and other structures.

Since I retired Vickers have sold the works to another company in a package deal, but it still retains much of the management of my time and is still active in the light aircraft market. I have happy memories of working with Jim Tucker who currently leads it and George Burton who changed horses midstream to help me move Slingsby's into the GRP era. My thanks to Chris Riddell who wrote the article to which I am adding. We met on Walney Airfield many years ago and discussed Vickers potential moves as outlined and he withdrew his possible interest.

SIR LEONARD REDSHAW, **Askam-in-Furness, Cumbria.**

"HOW GLIDER PILOTS GET THERE FASTER"

Dear Editor,

I very much enjoyed the article "How Glider Pilots Get There Faster" by Frank Irving in the June issue, p120, and I would really like to compliment the author for his excellent survey. Yet, I should like to add a little comment on the rules for the "Litt and Sander optimal flight strategy" as given in Table 2. In fact, I should like to propose to replace the rules 1 to 6 by the following two equivalent rules.

A. IN ANY THERMAL CLIMB ONLY HIGH ENOUGH TO REACH A STRONGER THERMAL AT MINIMUM ALTITUDE BY FLYING WITH A MacCREADY RING SETTING EQUAL TO THE PRESENT CLIMB RATE.

B. IF THERE IS NO STRONGER THERMAL THAT CAN BE REACHED FOLLOWING RULE A, CLIMB TO MAXIMUM ALTITUDE AND PROCEED WITH THE HIGHEST FEASIBLE MacCREADY RING SETTING WITH WHICH AT OR ABOVE THE MINIMUM ALTITUDE A THERMAL CAN BE REACHED WITH A CLIMB RATE EQUAL TO OR LARGER THAN THAT MacCREADY RING SETTING.

These two rules are very similar to the rules for the final glide which should read:

A' IN THE LAST THERMAL CLIMB ONLY HIGH ENOUGH TO REACH THE FINISH AT THE MINIMUM SAFETY ALTITUDE BY FLYING WITH A MacCREADY RING SETTING EQUAL TO THE CLIMB RATE IN THE LAST THERMAL.

B' IF THE FINISH CANNOT BE REACHED FOLLOWING RULE A', CLIMB TO MAXIMUM ALTITUDE AND PROCEED WITH THE HIGHEST FEASIBLE MacCREADY RING SETTING WITH WHICH THE FINISH AT THE MINIMUM SAFETY ALTITUDE CAN BE REACHED.

The similarity between the A. and B. and A' and B' is not accidental: It is the result of the important but often overlooked point, that in case of altitude constraints the final glide problem model is more appropriate than the MacCready problem model for a cross-country flight.

Of course, the rules formulated here give the same optimum flight strategy as the rules in Table 2. The reason for reformulating them here is only the hope that in the form presented here the rules may be more easily remembered.

JAN L. de JONG, **Eindhoven, Holland.**

Frank Irving replies: Dr de Jong's rules are more succinct and elegant than the six they replace: an improvement always to be sought in mathematical matters. I am most indebted to him for bringing them to our attention.

OPTIMAL FLIGHT STRATEGY

Dear Editor,

In Frank Irving's review of MacCready theory developments he summarised an attempt by Litt and Sander to incorporate realistic limits on Max and Min available altitude, and variable strength and spacing of thermals. The "powers of prophecy" make this analysis quite unhelpful.

The correct strategy for MacCready flying is succinctly stated on the proceeding page (119) by Bernard Fitchett: "I set the 'speed-to-fly' computer to the average rate of climb I can reasonably expect if there is an obvious source of lift within reach at this speed, otherwise the setting will depend on one's height. Starting from a great height, you have more chance of finding a strong thermal, Consequently I reduce the setting as I lose height or foresee difficult circumstances." Also in June issue (p111) Platypus was using much the same idea in a computer simulation.

The framework for an explicit model based on this strategy exists in two articles written by Anthony Edwards almost twenty years ago and not yet followed up.

The first point from The Arm-Chair Pilot (S&G, October 1964, p364) is that the MacCready ring should be set on the "critical rate of climb". This is neither the *average* rate of climb used for flight planning, nor the initial rate of climb in the *next* thermal; it is the Min rate of climb that one intends to *accept* for

thermalling. If the next thermal is weaker than the critical value one dolphins through it: if stronger, one circles in it. The inter-thermal glide speed is determined by this choice of a critical rate of climb, but it will be somewhat slower than the optimum speed that one would fly if one could prophesy the exact strength of the next *acceptable* thermal. However, the main point of this kind of MacCready setting is to guide decisions on which thermals to accept and which to reject.

Bernard Fitchett clearly implies that the critical rate of climb varies with height and with circumstances, including changes in the weather. The way it should vary can in principle be calculated using the concept of probability. This was well presented by Anthony Edwards in his article, "A Stochastic Cross-Country, or *Festina Lente*", S&G February 1963, p12. Although, as has been repeated *ad nauseam*, variations from the optimal inter-thermal glide speed have little effect on the average cross-country speed, provided the thermals are closely spaced and of equal strength, in real life the probability of completing the course, or even making it to the next thermal, falls dramatically as the speed is increased.

High speeds follow from high MacCready ring settings, and the probability of coming unstuck due to the steep glide angle is then enhanced by the way one discards weak or moderate thermals that may be the only ones left within range.

A strategy to keep the average cross-country speed up while limiting the likelihood either of a premature landing or of time-wasting scratching at low altitude is a matter of letting the balance of probabilities govern the critical rate of climb. It requires estimates of the frequency distributions of both thermal strengths and inter-thermal distances, and a model of the variation of thermal strength with altitude. Information on these must by now have accumulated on thousands of barograph traces.

From some very sketchy calculations I have made a set of cards to mount on the instrument panel showing the variation of crucial rate of climb *versus* altitude under various circumstances. I believe the use of the cards, by reducing inadvertent risk-taking, is responsible for my very consistent scores in recent competition flights.

GARRY SPEIGHT, **O'Connor, Australia.**

Frank Irving replies: I would not disagree with Garry Speight's remarks, as applied to real soaring circumstances, but I think he is doing less than justice to Messrs Litt and Sander (and hence, by implication, to Helmut Reichmann) by saying that their analysis is quite unhelpful.

I thought I had made it clear in my article that, in practice, the results of such analyses cannot be applied exactly, because they all require powers of prophecy. You have to make do with what you can observe at any instant, but a certain amount of intelligent observation and anticipation is equivalent to a limited amount of prophecy. Such analyses then provide some useful guidance.

It is a good thing that various minds should investigate optimum trajectories, no matter how idealised. They improve our understanding of soaring, they help in the formulation of "near-ideal" practical strategies and they may well help in the design of better instrumentation. Who knows, Platyprog may indeed hold the key to "near-ideal" behaviour?



Francis Russell tells us the photograph is of four persons impersonating Trevor Austin (with axe), Francis (with the life-support system), Louise Coates (with not very much at all) and David Richardson (with very short legs) — see "The Sartorial Answer" below.

COCKPIT LIGHT TO SOLVE PROBLEM

Dear Editor,

In answer to the letter by Brennig James in the June issue, p144, "A case for fitting springs", it should be possible to fit a light in the cockpit which flashes when the airbrakes are opened and only stops when they are closed.

BRUCE DUNCAN, **Burrelton, Perthshire.**

RADAR DETECTION OF THERMALS

Dear Editor,

Since I last treated the subject of distance detection of thermals (see "Prospects of Distant Thermal Detection", S&G June 1960, p155) British, American and I dare say Russian boffins have been hard at work trying to fulfil my predictions. During the war the standard radar target was a metallised ping pong ball at a range of 50 miles. Currently radar can detect inhomegeneities 1cm across and differing in temperature by one thousandth of a degree, the sort of thermal in fact that a bed bug wouldn't bother to circle in.

Twiddling the bands of a good military radar for half an hour one could learn more about where to look for thermals than in a decade of soaring, and I wonder whether you know who has been doing this when he should have been intercepting bisons and beavers. Gusts can be plotted with Doppler radars which can defect reflectivities of —10db at about 60km gust lines can easily be seen. I am glad to hear that the maximum vertical velocity measured in a cu-nim is 40m/sec because the best lift I ever got in one was 38m/dec.

I think the use of the leading edge D of a glass-fibre glider as a radar aerial of the phased array variety plus the best of modern electronics and colour CRT displays could supply the future glider pilot with more information about where the updraughts are than he could possibly make use of.

You no longer need magnetrons as solid state devices are good enough. When some of the money currently being spent on air power is spent on instrumentation the pilot will be preoccupied not with the next thermal but the fifth one after that. I don't see a great deal of future in that because gliding will resemble trout fishing with a bomb.

Satellite shots already show that most cumulus clouds lie in streets although that is not clearly apparent from the ground. The decisive skill in gliding is to know where to look for the next thermal, particularly when there are no clouds about. Getting access to the display of a good radar or its recordings on a selection of soaring days can mean a quantum jump in the level of this skill in those who have acquired this information. For further information on this and related topics readers are recommended to read Rust and Doviak in *Nature* 10.11.82 pp461-468.

BRENNIG JAMES, **Marlow, Bucks.**

THE SARTORIAL ANSWER

Dear Editor,

Does "Always Immaculate", June issue, p144, really want us to don uniform? Or is he merely trying to identify the dilettantes and posers in our midst?

Certainly no practical glider pilot would readily wear a flying suit devoid of all those "unnecessary" pockets that are just about the only useful feature of these ostentatious garments.

We are of the opinion that, for real soaring pilots, there is no substitute for a generously proportioned sweater. This should be large enough to conceal any of those embarrassing sartorial shortcomings such as unserviceable trousers (which may be discarded in hot weather) and may be worn in conjunction with any other item of clothing that may be necessary for flying — parachute straps are no problem, they merely tend to make useful ventilation holes. A proper gliding sweater will in fact provide either insulation or ventilation according to either the weather or its state of repair and will even accommodate two people in an emergency.

Uniforms? No thanks.

FRANCIS RUSSELL, TREVOR AUSTIN AND CO, **London GC.**

GROVEL TO THE CFI

Dear Editor,

"Always immaculate" has an intriguing suggestion. May I suggest it be carried further by instituting badges of rank for instructors etc and a system of recognition of rank *eg*, touching the forelock to instructors; a smart salute for the deputy CFI and grovel, grovel to the CFI.

JOHN KIRSCH, **St Albans.**



Dave Hodsman of the Bristol & Gloucestershire GC is congratulated on winning the Western Regionals by Dave Wales, contest director, and Owen Harris, club chairman.

CLUB NEWS

Copy and photographs for the December-January 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 October 5 and for the February-March issue to arrive not later than November 30.
August 11, 1982 GILLIAN BRYCE-SMITH

AVON SOARING CENTRE (Bideford Airfield)
Tim Harrison has his Silver height and Stuart Skipp Silver distance, while our tug pilot, Richard Mitchell, soloed in the Blanik.

We hosted the Inter-Club League in July and Avon won the weekend, thanks mainly to Ron Wright (Mini Nimbus) in the Pundit Class. Overall, Stratford are in the lead. Our thanks to Peter Light for task setting.

We again welcomed Frank Townsend's party from Derby & Lancs. They brought four aircraft and had some good flying. Congratulations to Chris Williamson on Silver distance in his Javelot on a difficult day. Other visitors included Barry Meeks and Gary Hall from the Vale of Neath with their Std Jantar.

Kealy Hackett has sampled a couple of O/Rs in the Janus while waiting patiently for her 16th birthday.

D.J.C.

BLACKPOOL & FYLDE (Chipping)
Congratulations to Frank Chadwick, John Richardson and Bill Baldwin on achieving their five hours and to Reg Wooler, Mike Reeves and Mike Larvin on gaining Silver heights.

Terry Koghen has returned to instructing after his illness with a new glider, an IS-29B, and Graham Passmore has joined from West Wales with his M-100s.

The highlight of our first club flying week was a cabaret — the weather was terrible.

J.T.

BORDERS (Milfield)
We have had a lot of changes this year. The site has become progressively smaller due to gravel excavation which makes winching much more difficult, even with the arrival of a new winch. Because of this a Super Cub tug syndicate has been formed. This has been a quite fruitful year for badge flights and the tug should give additional opportunity.

There has also been a change round of officers. Alan Urwin is now CFI with James Hogarth as chairman.

F.W.

BRISTOL & GLOUCESTERSHIRE (Nympsfield Airfield)
The Western Regionals in June were beset by the most appalling weather with only three contest days out of a possible nine. Met man Peter Bayliss had to shout his grim forecasts to make himself heard above the pounding of the rain on the briefing tent. Ralph Jones (Nimbus 3) despite being the only finisher on Day 3, was pipped into second place in the final result by local boy Dave Hodsman (Kestrel).

We are hoping shortly to replace our Blanik, damaged in a landing accident, with another K-13. This should bring our own two-seater fleet back up to full strength; we have been filling in with a K-7 borrowed from the Oxford University Club.

It was so quiet in late July it seemed that half the club had joined the expedition to Gap, in southern France, to sample mountain soaring.

Tim Ballinger and Paul Little have successfully completed instructors' courses.

J.R.B.

BUCKMINSTER (Saltby Airfield)
The weather struck a blow at our advanced soaring course in July — only two flying days.

Steve White and Paul Marlow achieved durations to complete their Silver Cs. Paul (Skylark 3) also flew our first 100km of the year. Piers Carter had his Bronze C and Simon Harrison has soloed and converted to the K-8.

Pete Goodwin is working his way to a BGA inspector's ticket and a flyable Pirat which he bought as a write-off.

T.C.M.

COTSWOLD (Aston Down)
The first of our three course weeks was a great success with four of the eight members, P. Marsh, P. Hall, I. Evans and N. Tranter going solo. Congratulations also on going solo to P. Montague, L. Parnell, J. Brace and, after a break of many years, Eric Ilett who resoloed.

The Rockpolishers weekend at Aston Down gave good competition on the Saturday with Cotswold performing well but high winds spoilt it for all but the Pundit Class on the Sunday.

Ruth Housden (SHK) enters the record book with her O/R of 330km; Chris Batty achieved his 500km using remote start and Geof Cumner his second 300km of the season, this time with the barograph switched on. Ken Lloyd gained his Gold height with good cu-nim climbs.

Long Marston was invaded by Johnathan Beard, Margaret Kevern and Simon Evans on the same day for Silver distance, Johnathan completing his Silver C and Simon returning by air. Geralyn Macfadyen has also completed her Silver C and John Howard, Nick Jones and Phil Chambers flew Silver distances to Enstone, though Phil's barograph wasn't recording.

P.K.

COVENTRY (Husbands Bosworth)
The open weekend was a great success with over 200 air experience flights resulting in about 20 new members. We entertained Essex, Buckminster and London GCs at the Inter-Club League. The BGA's advanced soaring course produced some interesting and enjoyable gliding.

Congratulations to Pete Beardmore, Charles Bandy and Mike Smith on their Silver Cs; to Rosemary Broughton on becoming a tug pilot and to Ken Davies on his full Cat.

The task week was very successful with guests from the Midland, Lakes, Swindon and Vintage GCs bringing a total of 16 gliders. It ended with a magnificent barbecue and our thanks to Ray Stevens, the organiser, and Claude Woodhouse, the task setter. The only solemn note was the extensive damage to Oly 1 (Jacob's Ladder) by cows which strayed into the field after the pilot left to phone.

We hosted the Kent and Lakes GCs for their task weeks and if other clubs would like to take advantage of our facilities, please contact us.

Two micro-lights are flying from the club on an experimental basis. The committee have agreed to buy a club single-seater.

M.B.

CRANFIELD (Cranfield Airfield)
The major construction work on the hangar is now complete. Our CFI, Roger Coote, left the area and Derek Wilcox has taken over with David Luddington as tugmaster.

Steve Cowley and Len Cornish have gone solo, Ken Catlin and Tony Weatherhead have Silver distance and height and David Smith, Alan Thompson and Andy Milton have their Silver Cs.

The Silene trophy was won by Harry Purser in his Oly 419.

D.P.S.

DERBY & LANCS (Camphill)
Congratulations to Peter Robate, John Clarke, Tom Walton and Nigel Howes on going solo.

We have had a number of successful expeditions to places such as Shobdon, Bideford, Nympsfield and Lasham — return visits are most welcome.

We have also had the pleasure of a John Willy week — the first he has attempted from a winch only site. The fears that it might prove difficult to link up aircraft were groundless and we had a good week with a number of cross-countries in indifferent weather and some excellent lectures.

We are figuring well in the Inter-Club League.

A.M.

DEVON & SOMERSET (North Hill)

Eric Shore and Richard Fortescue made their annual visit to Zell-am-See in May where Eric achieved 412 of his declared 500km. Congratulations to Denise Robins on going solo; to Chris Calvert and John Parker on their Bronze Cs (Chris flew Silver distance in the club K-6 three weeks later) and to Les Hill on completing his Silver C with a height leg at Portmoak, narrowly missing Gold height.

Gordon Peters and Duncan Babbington (Club Astir), Chris Dobbs and Simon Minson (Skylark 4), Dave Reilly (Std Libelle) and Terry Jenvey (Dart 15) competed in Enterprise at North Hill, a competition which seems to foster much goodwill in the movement.

Mendip GC held a club task week here during July and visitors from Mendip, Coventry and Dorset GCs are expected for our second task week.

I.D.K.

DONCASTER (Doncaster Airfield)

At our AGM in July W. Thorpe, M. Morris and K. Brown were elected onto the committee with J. Sharples and E. Hamil standing down. Our thanks to them for their work. This was followed by an extraordinary meeting to discuss our impending move of site as the airfield is shortly to be developed into a sports park complex. The meeting voted overwhelmingly to move to Burn airfield, near Selby, for which we have negotiated terms for a 21yr lease of the three runways plus 1½ acres of land for a clubhouse, hangars etc. It is anticipated it will take a year to become operational at Burn so we will continue here for a while.

Congratulations to Roy Hufton on completing his Gold C; to C. Lees, J. McKenzie and H. Searson on their Silver Cs and to C. Poppleton, J. Rooney, A. Wilton and J. Woods on going solo.

V.F.F.

DORSET (Old Sarum)

We have been flying here for a year under MoD licence and are now negotiating with the Edgeley Aircraft Co who are taking over the airfield and buildings to manufacture their revolutionary OPTICA aircraft. We are hoping for a secure future having experienced our share of problems since forced to leave Tarrant Rushton, our base for 16yrs.

Membership is healthy with 130 full members and we have a K-13, T-21, K-8, Swallow and Skylark 4 as well as a number of syndicate gliders. We have had some good soaring this year and the site is full of potential. We have only been able to winch launch but hope soon to resume light aerotowing. We have bought a single drum winch to back up our twin drum winch and hope to have three drums operational soon.

Club News Contributors
Please note the deadline date for the December-January issue is October 5 and regretfully we can't print any reports arriving after that date. We would also appreciate it if those sending handwritten copy would print all names.

Congratulations to Bob Collins on his Silver C; Colin Weyman on Silver height and distance; Fred Samways and Peter Allingham on Silver heights, Peter also completing his Bronze C, and to Ron Hardy, Jim Linnegar, George Barnes, Gerard Dale, Joan Dyson, Bob Harvey, Doug Bampton, Nick Wall and Colin Grant on going solo.

Again our static display at the Hurn air show was well attended and our thanks to all who helped.

C.A.W.

EAST SUSSEX (Ringmer)

We would like to congratulate Mark Darby on his Diamond goal O/R to Newmarket; Fred Bishop on Gold height, Grahame Treharne and Guy Palmer on completing their Silver Cs, Dave and Maggie Clews on gaining Bronze Cs and Larry Matthews, Alan Hall, Brian Sprigg and Les Randall on going solo.

Neil Kelly flew 298km in the club K-6 during the Inter-Club League competition with Southdown and Kent, which was further than many of the glass ships.

Our thanks to TVS television for their excellent film previewing our open day which unfortunately suffered due to bad weather.

It's good to see friendly rivalry between us and Lasham in the "booze" competition. The proud possessor of the bottle of Glenfiddich on September 19 gets to keep and drink it.

D.C.

ESSEX & SUFFOLK (Hadleigh)

David Odhams, Chris Haynes and Gordon Chalmers have gone solo; Noreen Friend, Chris Pollard, Martin Field and Phillip Laycock have Bronze Cs, Phillip completing his Silver C two weeks later; Neville Bleach, Robbie Hatwell and father and son Brian and Simon Commercial, who flew distances on the same day, have Silver Cs with Gold Cs for Alan Hall (ASW-19) and John Thurlow (Libelle) after their O/R flights to Danbury for Diamond goal/Gold distance. Our chief tug pilot, Richard Harris, has successfully completed an instructors' course.

The hot and sticky flying week was uninspiring gliding weather although spirits were kept high by the numerous barbecues organised by Sylvia Wilby and Noreen Friend.

We are pleased to announce we have reciprocal membership with Rattlesden GC.

A word of warning to visiting gliders and aircraft: the rows of 7ft concrete posts at the south end of our short runway still haven't been moved by the neighbouring farmer.

S.C.

HAMBLETONS (RAF Dishforth)

We have had a number of good thermal days and a little wave, though our active membership has been suffering something of a decline. One day gave a K-6 conversion and two Bronze legs to Mandy Edis, two Bronze legs to Les Brown and an Oly conversion and one Bronze leg to Clive Armstrong.

Congratulations to Sue Walmsley on successfully completing her instructors' course.

Our K-6(DNY) has been to the Northerns again, this time with Keith Taylor who came second.

J.P.

HEREFORDSHIRE (Shobdon Airfield)

Graham Mason came 9th in Competition Enterprise (his first comp) and Simon Duxbury 11th. Phil King and Di took the Mini Nimbus to the IBM comp at Vinon. Phil came 5th and Di 15th. She also got her Gold height with 16 500ft and "best lady" prize.

Tony Maitland competed in a Spanish comp near Madrid but the weather was unspeakable. He only got four practice days and a couple of marginal scrapes at French sites on the way home.

On June 20 Jack Harrison (Std Cirrus) did a 500km triangle, turning Middle Wallop and St Ives, Cambs. Rhoda became hopelessly "unsure of her position" on her Dunstable O/R to average a sorrowful 35km/h!

Congratulations to Wilf Carter — he completed his Silver C in Florida — and to Robin James on his Bronze C.

R.P.

OBITUARY

Dave Carson

He died on July 20 after a short illness. He was still running the courses for us in April. He was 48. At Shobdon we miss him dreadfully.

Dave had been gliding for about 20yrs. He was a member at the Mynd for 14 yrs from 1962. In 1976 he gave up his job at Liverpool University (he described it as "constructing extraordinary apparatus for amazing boffins") and came to us full-time as our professional.

He ran our courses, looked after the aircraft, flew the tug. He was a steady, reassuring instructor, a brilliant tug pilot (with an uncanny nose for wave) and an impeccable craftsman. He was also an acute (but kindly) student of human nature and an hilarious recounter of weird happenings. (Ever heard him tell of how he brought the work of a busy quarry to a gradual halt as the 463 sank lower? Or the field landing that was attended by fire engines and squad cars?) No wonder we miss him.

Just before Christmas he married a beautiful, merry girl and in the twenty or so years I'd known him I never saw him so happy. It was a joy to see him with Heulwen. We send her our sympathy and affection. We wish they'd had longer.

Rhoda Partridge

INKPEN (Thruxton Airfield)

Members are making good use of our facilities. Charlie Davies, Harry and Brian Macbride and John Menetrier have gone solo, and John now has a Silver height. Robert Edgson and Wendy Harper have Bronze legs; Jim Nipe and Brian Jeans Bronze Cs, Brian following this up with a Silver height and duration; Peter Edgson has Silver distance and Brian Emms flew 376km.

We held a very successful barbecue, organised for about 100 by Joan Evans and Sarah O'Keeffe, preceded by a spectacular aero-

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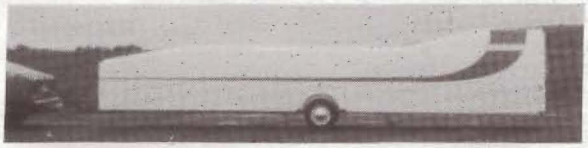
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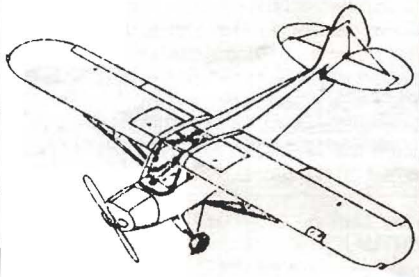
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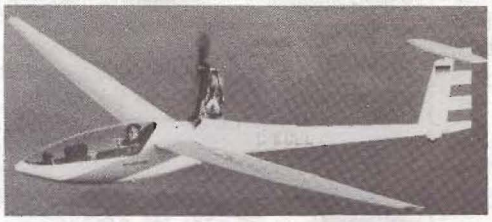
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batic display by Derek Piggott who kindly brought a K-21 which was flown by several members.

P.P.

KENT (Challock)
We held our task week in June at the Coventry GC with some 30 members and gliders. It was most enjoyable and our thanks to Coventry. The K-13 team won League One and Bob Webb League Two.

Among those to go solo recently were David Goldin, Roland Bailey, Peter Jenness, Gareth Draper, Andy Hutchings and Sam Salmon. Congratulations also to David Moorman, Chris O'Hanlon and Alan Booty on their Bronze Cs; John Bailey, John Reeves and Bob Webb on their Silver Cs and to Mike Johnson on Gold distance in the club Skylark 4.

Our T-21 has been pensioned off and replaced with a second K-13 which enables us to regularly organise two-seater cross-countries.

Our cheese and wine party and the barbecue were again a great success.

J.H.

LAKES (Walney Airfield)
Yes we still exist, although we've been absent from these columns for some time. Our eight summer courses were again a sell-out — many thanks to Roy and Heather Partington, the course secretaries, and the Coventry GC for the hire of a tug while ours was out of action.

Andy Blair gained a Bronze leg ridge soaring on the slagbank, a task being made harder still by contractors removing sections of the slagbank for hardcore.

One Saturday in late July brought east winds and unexpected wave with Keith Butterfield (Astir) scratching at 7000ft and the club Pilatus B-4 top of the shop at 8200ft.

E.K.

LONDON (Dunstable)
Congratulations to David Byass and John Hyde on going solo, John on his 16th birthday.

Cross-country flying continues enthusiastically with more than 28 000km flown by the end of July. Notable flights have included Warren Kay's 510km triangle on July 17. On the same day Martin Harris flew his vintage Rhönbussard round the local 100km milk run at cruising speeds which were often, as he put it, "in excess of 40kt".

The recent 0.2km pilotless cross-country and unscheduled inverted outlanding by one of our K-13s during a line squall has hastened our changeover to an all-glass club fleet: it is to be replaced by a K-21.

Pat Young has wrought miracles with our ancient plumbing: the gents in particular has been transformed into a palace, to the relief of Nationals and club pilots alike.

D.S.

MIDLAND (Long Mynd)
Please note — our temporary membership is still only £3 a day. Our solo fleet flying rates have been substantially reduced to improve fleet utilisation.

Congratulations to Dave Cole and Ian Sherratt on going solo. After a good start to the season, the weather has been relatively duff for two months.



Rattlesden GC's refurbished K-8. Photo: D. Histed.

Our Rockpolisher teams are battling on and we're one point behind Shobdon.

M.D.A.

NORFOLK (Tibenham)
Eric Titman, our tugmaster since we started aerotowing in 1972, has retired owing to family illness. It is entirely due to his hard and devoted work that our two elderly tugs run so well and so cheaply. Nigel Riley is taking over.

The new IS-30 has arrived and Ernie Cunningham has been demonstrating its (and his) considerable aerobatic performance here and at fetes. The Walshes now have an RF-4.

July 17 was one of those rare days producing Diamond distance for Nigel Stringer (Dart 17R), Charles Owles (Dart 17), Dave Page (Libelle) and Roy Woodhouse (Astir). Chairman, John Tarrant, took the club Swallow round a 100km triangle and Reg Chiddock did five hours.

Mrs Evans (Shirley's mum) is doing the course catering and you can get an excellent meal very cheaply with a few hours' notice.

Unfortunately our airfield is being dug up for hardcore and visitors please note there are heaps of broken concrete on the south end of runway 03/21, on the west end of 08/26 and on the south-east end of 33/15. On week days watch out for contractors' vehicles because they won't be watching for you.

Nigel Stringer has taken over from Mike Bean as social secretary and from Mike Butcher as press officer.

M.J.R.L.

NORTHUMBRIA (Currock Hill)
Congratulations to David Moss, Steve Mann and John Pegman on going solo, David on his 16th birthday. Harry Mallender completed his Silver C with a flight from Husbands Bosworth to Oxford. Our thanks to the Coventry GC for their hospitality during our mini expedition.

Brian Holburn has been checked out to fly the Chipmunk, giving us another much needed tug pilot. On August 8 Craig Lowry and John Westwood went to 5000ft in wave before their climbs were curtailed by bad weather.

The local TA engineers are extending the width of our tug strip which will speed up our turnround immensely.

Our best wishes to Andy Townsend, Elaine and family on their move to London. Andy organised much of the clubhouse building and has been very active in committee.

The courses have gone reasonably well but like our flying have been spoiled by poor weather.

J.W.

OUSE (Rufforth Airfield)
The hangar is progressing well with the brick work almost complete and the roof on.

There have been few cross-country opportunities recently but wave did visit us one July weekend with John Taylor (Skylark 4) getting the best climb to 12 700ft over Leeds.

We have an expedition to Portmoak in September.

S.R.L.

OXFORD (RAF Weston-on-the-Green)
Our annual three flying weeks was quite successful, although the turnout of members was not as good as expected. The middle week had the best weather when Jane Randle (Kestrel) and John Giddins (Cirrus) both attempted 500km. On most midweek days flying was restricted to the afternoon, either due to military activity or to a shortage of people. Our thanks to Mike and Jane Randle and Richard Hall for the organisation and instructing. Support for the Inter-Club League was also limited but those who did compete did well.

Glenn Bailes (Cirrus) completed his Gold C by flying the Northampton-Salisbury task, and Steve Druce (K-8) has his Silver distance. Recent first solos include Phil Barlow, Bill Davis, Simon Dorling, Malcolm Herring and Paula Woodgate.

Launch fumbles have been noticeably fewer recently since the introduction of CB radio between the launch point and the winch ("Flasher" and "Winder"). This was thought to be cheaper than using 129.9MHz, but you do have to put up with the background chatter from housewives and children. An interesting outlet for publicity, perhaps?

P.H.

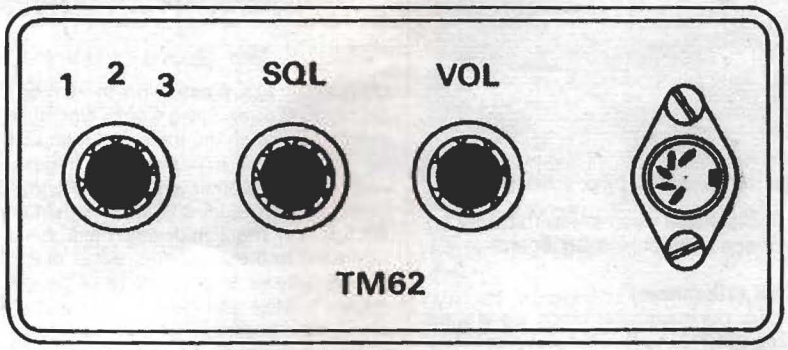
RATTLESDEN (Rattlesden Airfield)
The K-8 has been beautifully refurbished by Bob White and Mike Moyes (our thanks to them) and has been used for a spate of Bronze legs by Murray Hurlock, Jack Pratt, Janet Smith, Les Hickson, Ron Westrup, Ruth Chamberlain, Andrew Arnold and Neville Theobald. Dave King has his duration, Rob Smith a Bronze C and Silver distance and Pete Clitheroe went solo.

We winched the IS-30 on its maiden flight in this country.

D.H.



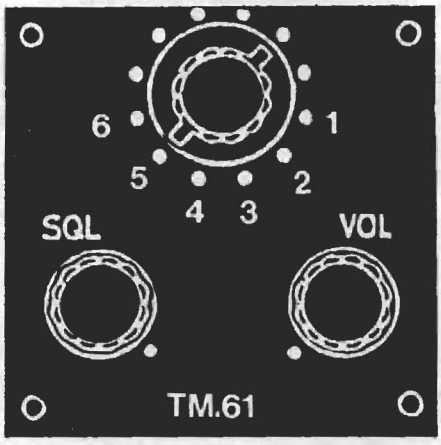
Colin and Aileen Appleyard, who flew at Portmoak before going to the USA, were photographed at Reno, Nevada with their LS-3 by Ann Shaw, Scottish Gliding Union's publicity officer, during her recent holiday in the States. Colin flew 300km later that day.



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SHALBOURNE SOARING GROUP (Nr Hungerford)

The new twin drum winch has arrived to replace the single drum and speed up our launch rate and the Oly 2B has been replaced by a K-8. Well done Steve Nash for completing the club's first Diamond goal. Phil Jannis flew Silver distance and John Garret has his Bronze C.

Commiserations to Dave Gidney who missed his duration first by 20min and then by 5min. Getting closer!

We had the BGA Falke for a busy day of familiarisation, navigational and field landing checks, all of which proved to be a great success.

B.C.M.

SOUTHDOWN (Parham Airfield)

Congratulations to Jane Turner on becoming our first female instructor, now making a husband and wife instructor team with Steve.

Talgarth was recently chosen for a gliding honeymoon by Brian and Heather Bateson with best man, John King, and other members in attendance.

The temporary bar arrangements in the clubhouse have been a great social and financial success and look like being made a permanent feature.

We had some good publicity recently with guess the height competitions at local fetes as well as two special air experience days to help stimulate membership recruitment. A recent arrival is a beautiful LS-4.

Roger Coote landed the Skylark 3 in a nice stubble field on top of the Downs and found that he had set the straw alight as the steel-faced skid hit the many flints. As he got out of the cockpit he saw flames around the tailplane but some quick footwork saved any damage.

R.W.

SOUTH WALES (Usk)

We've had plenty of activity with solos for Eddie King, Louis Chicot (after seven weeks), Vic Card (a Bronze leg on his second solo) and Phil Williams. Will Sage, Corinne Westacott and Jonathan Towill have two Bronze legs, the latter on the same day, and Henry Egan and Syd Walters have their five hours, Syd also achieving Silver height. Dave Rowlands and Bob Voyce flew to Long Marston, Dave completing his Silver C.

A week of air experience flights, run by Norman Evans and John Barry, was well supported and produced some new members and

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a BBC Wales TV film. Steve Reed recorded a BBC radio interview as well.

During July we had a competition week, open day, a course and a Rockpolishers competition and have two more well supported courses this month. Finally, we welcome a Jantar, a Vega and a Blanik to the club.

E.M.P.

STAFFORDSHIRE (Morridge)

For the first time since we moved to Morridge we have something worth reporting — one Diamond goal/Gold distance completed and one attempted, four Silver legs and two Bronze Cs. Alan Cliffe (Hornet) flew a 300km triangle from Sleap and CFI, Charles Webb, achieved 100km in our new K-18. Alan Jones (K-18), Ken Fern (Olympia 2B) and Gordon Brocklehurst (Hornet) have gained Silver distances and Mike Golder (K-8) a Silver height. Albert Dukelow has his second Bronze leg.

This progress is due to our improved fleet, our latest batch of home grown pilots and to the help and encouragement from local clubs, especially the Shropshire Soaring Group and their Soaring Safari at Chetwynd.

We have a wave camp at Portmoak in October.

P.F.

STRATFORD ON AVON (Long Marston Airfield)

We have had some creditable results during this very satisfactory soaring season. Gerald Kelly (Libelle) gained a Diamond goal/Gold distance; Bill Bugh, Trevor Tibbetts and John Leonard have Silver distance; Bill Ingles, Tony Palfreyman, Harry Price, Eric Buchanan, Frank Jeynes, Bob Hurrion, Jon Pearson and Maureen and Stan MacDonald went solo and Brian Howett, Maureen Leonard and Stan MacDonald have Bronze legs.

The clubhouse has had a facelift and Les Brant has done a superb job on the new towcar which is a valuable asset, particularly on nil wind days with launches frequently exceeding 1400ft. The K-4 and Bergefalke syndicates have completed their lowline hangar and the Capstan has been recovered and refurbished.

Our holiday courses are very successful and our air experience evenings are fully booked, thanks to the efforts of Bill and Linda Annan.

H.G.W.

SURREY & HANTS (Lasham Airfield)

A run of good weekend days has boosted cross-country kilometres through June and July. Our chairman, Ray Partridge, fell 30km short of a 300km in May but completed the 300km milk run on June 20. July 17 proved to be the best day of the period with Chris Coles (Kestrel 19) gaining his second Diamond of the season — a 500km triangle round Sherborne and Ely. On the same day Chris Lovell (Mosquito) completed the longest declared flight of the season to Salisbury and Lincoln (540km) in 7hrs 42min.

Within two seasons the number of competent cross-country pilots flying club gliders has increased markedly — around 20 have Gold Cs and several All Three Diamonds. There has been much discussion on how to increase the availability of high performance machines to complement the Mosquito and Kestrel and we have ordered a Ventus with optional wingtips.

R.P.

TRENT VALLEY (Kirton Lindsay)

He's done it again! Mick Ward has won the Northern Regionals' Sport Class for the second year running. He flew his Pirat brilliantly to vanquish some very tough opposition. Congratulations also to John Swannack, John Rice, Neil Rogers and Brian Griffin who all flew well.

While most clubs are converting to glass we seem to be moving the other way. John Cook has recently started flying his rebuilt Grunau, the T-21 syndicate keeps disappearing on cross-countries and Roger Smalley recently took his Swallow to 9300ft.

R.H.

ULSTER (Bellarena)

Dreary weather clobbered the year's second joint Ulster/Dublin task week in early August at the DGC's Gowran Grange site and only on the closing Saturday was a task declared. UGC pilots Bob Rodwell and Jim Weston finished second and third respectively to Dublin CFI Dan Begley, while Jerome Connolly put the day to good use by completing his Silver C with a 75km flight to Kilkenny.

Earlier, on cross-channel expeditions, Jim had gained his full instructor's rating at Portmoak while Bob took part in Competition Enterprise and, with Dan Begley, had gone on to another weather-clobbered task week at Usk. We are all delighted with the Competition Enterprise committee's provisional selection of Bellarena as the venue for 1985.

Back on site, the tempo slowed somewhat during mid-summer with the five-week absence of the Twin Astir, after a confrontation with a sheep, but Gordon Mackie's winch filled in well during a short tug unserviceability. Hugh Gowdy and Trevor Sleath are our newest soloists.

R.R.R.

WELLAND (Middleton)

We have recently re-introduced flying evenings and they are very popular. John Wÿtch and Stan Baggarley are now flying their Swallow and Jim Gardner has joined the EoN Baby syndicate. We welcome several new members; work is proceeding on our new twin drum winch; there have been several good local soaring flights and we look forward to the first cross-country from our new site.

Congratulations to Alan Bushnell on his Bronze C and to Martin McEvaddy, John Crosse, Trevor Dunscombe and Charles and Jill Groutage on going solo. Jill, our chairman's daughter, is our first female member to go solo for a number of years.



Jill being presented with her wings by CFI, Horace Bryant. Photo: W. R. Clarke.

Our refurbished field telephone proved its worth during the visit of the Motor Falke. We are indebted to Ray Smith and David Norrish for flying over with Big 'Z' which enabled several members to have some navigational training.

R.H.S.

WOLDS (Pocklington)

The first task week in May was only good for sunbathing. The flying week held by Bernie Svenson for a group from Settle School was again a success.

Congratulations to Tony Acey on his 300km and our best wishes to Grant Johnson who has just left for Australia.

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Gliderwork

C of A OVERHAULS
and REPAIRS

By L. GLOVER senior inspector

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Five members flew in the Northern Regionals and had an enjoyable week.

We are still negotiating to buy our site and hope to have a home of our own within a year.

H.N.

YORKSHIRE (Sutton Bank)

The Northern Regionals were very successful with four good competition days for the 50 pilots — including the British Training Squad being shepherded round by Leigh Hood.

Dave Chaplin, whose hard work and enthusiasm keeps the domestic scene running efficiently, is collecting our new K-21 from Germany and we will build its trailer in the autumn.

Peter Whitehead has joined us with his IS-28 and Julian Rees now has a Libelle. We have had a good season for courses and expect lots of winter visitors in search of wave.

H.H.

SERVICE NEWS

BANNERDOWN (RAF Hullavington)

We have had two additions to the club fleet — a brand new K-21 and our first motor glider, a two-seater Slingsby Falke.

May has been our best soaring month so far this year with 5500km flown. Derek Findlay completed his Silver C with a distance flight; Keith Fuller, John Joiner and Lloyd Duhaney achieved five hours, Keith to complete his Silver C; Tom Eagles and Paul Armstrong gained Diamond goals in the Astir and Mel Dawson flew Gold distance in the K-6. Then in June Mel also gained a Diamond goal in the K-6.

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Pete Waldon-Hughes, Mark Desmond and John Rumble have recently soloed and Pete now has both Bronze legs. Mick Webb and Tony Clarke flew in the Western Regionals with Mick winning the first day. We have six members flying in the Inter-Services Regionals.

We say good luck to Dave Pickles who has left for Bicester. He was our MT member and put in many hours work for the club. Paul Armstrong takes over, John Brunton is our new secretary and Alan Quarterly is now an assistant Cat.

V.R.D.

BICESTER (RAFGSA Centre)

The midsummer months were excellent for cross-countries with just under 20 000km flown by Centre members. On the best day, Bob Brownlow gained his 500km, Gary Buckner and Steve Brownlow their 300km and Al Knowles and Whitsun Bush Jnr their 50km to complete their Silver Cs. On other days, Mike Sandy and Andy Queen claimed their 300km and Dick Gordon his Silver C. There were numerous Bronze and Silver legs, plus eight first solos. Following an exciting climb to over 10 000ft near Little Rissington our chairman, Max Bacon, can now claim Gold C after some time as a Silver C pilot (albeit with two Diamonds!).

The new Nimbus 3 and the LS-4 continue to be popular and the making of an RAF gliding publicity film has kept the Centre staff very busy at the same time as the usual adventurous training and instructor courses. The soaring weeks didn't always coincide with the best weather, but for one of them John Williamson's coaching was much appreciated.

The loss of Andy Gough has been deeply felt by all his friends at Bicester.

C.L.B.

CRANWELL (RAFGSA)

Ray Hutchings completed a 300km in the Dart 15 and several "juniors" have their Bronze Cs. John Rogers, Kevin Atkinson and Doug Ramsay have completed their instructors' course and Chris Jones has gone solo.

Several members are back from detachment and winter holidays. We welcome Jayne and Michael Lee from Germany.

We are waiting delivery of the LS-4 and our tug from its C of A.

G.A.B.

FENLAND (RAF Marham)

The battle to fly continues with both air traffic control and the weather conspiring to keep us on the ground. Lately we have had a mini detachment at Coltishall where we hope to get new members. It has already realised a Silver distance and a possible 300km, plus some newcomers.

J.A.

KESTREL (RAF Odiham)

We recently had a party to wish Pam Davis a happy retirement (from gliding) and to congratulate "Bill" Barnard on completing his first 50yrs of flight.

Pam started flying at (I hope she will forgive the description) a fairly mature stage of her life. But during the last 12yrs or so she has tried gliding, powered flying and, not very successfully, parachuting. Gliding won and she became a full Cat instructor, a private owner and accumulated about 1000hrs. She completed her Silver C by landing in a prison and developed a fixation about Bruntingthorpe airfield, where long suffering husband Derek used to retrieve her from 300km O/R attempts. Later she became our first female member to complete a Gold C.

She was also very active in club management as secretary and committee member, with her own unique filing system. We shall miss Pam and Derek, not forgetting the menagerie which usually filled their car, and wish them a long and happy retirement in North Wales.

Bill Barnard gained his wings in the RAF in 1932. From then until his retirement from the Service as a Wing Commander in the mid-fifties he flew a wide variety of aircraft. He has been with us for about 16yrs and for most of that time has been treasurer. His expertise with our finances enabled us to maintain a good fleet whilst keeping our fees low.

Bill no longer flies power but has an affinity for the club Mini Nimbus. Our best wishes Bill as you commence your second half century of flight.

Congratulations to Bob Bickers and Bev Cook on Diamond goal/Gold distance, Bev completing her Gold C. Dave Bowsher has taken over from Pam as secretary.

P.W.A.

PHOENIX (RAF Brüggen)

The good soaring conditions have given many members Bronze legs and the achievement statistics are nearly triple compared with the same time last year.

John Norman has his full Cat rating.

A.F.M.D.

TWO RIVERS (RAF Laarbruch)

Our long awaited brand new twin drum Tost winch arrived in July. We entered three gliders in the British Forces Germany Comps at Detmold and Simon Hutchinson (Astir) came second and Al Thomson (Cirrus) third.

Rose Thomson is now running our catering bus and the soaring season continues to go well. Congratulations to Billy Fisher on going solo and to Mike Cooper on his five hours.

We recently welcomed a trio from Dishforth.

D.R.M.

WYVERN (RAF Upavon)

The approach of the Inter-Services Regionals has prompted much fettling of gliders and trailers and a scramble for maps and radios.

A long list of achievements includes Peter Howarth's Silver distance, Bronze C checks for Edwina Bonser and Mike Carroll and first solos for Robin Keller, Joe Anlow and George Menzies. Terry Millson resoloed after a long absence. Tony Down and Ken Moules have converted to the K6-CR and K-8 respectively.

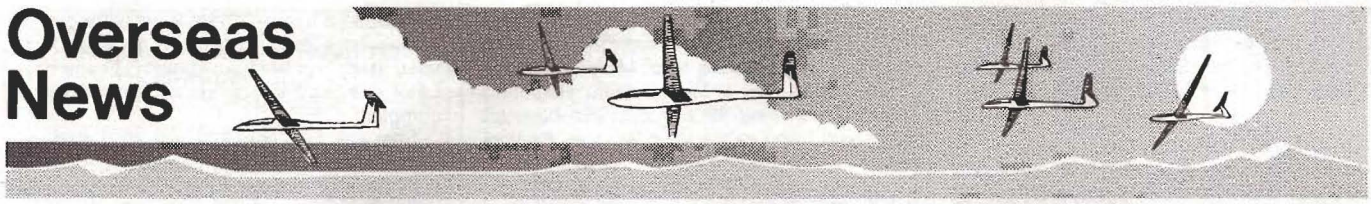
In anticipation of the acquisition of an LS-4 we have put the K-7 and K-6CR up for sale to the delight of the CR pilots who will be converted to the Astir.

Claire Sturgess, daughter of our technical officer has started flying and is progressing well. Howard Jarvis and Graham Sharpe gave a series of aerobatic displays during the week of Army Air 82 at Middle Wallop.

We were delighted to have visits by the RN club from Lee-on-Solent when their own airfield was being used by petrol-guzzling monstrosities.

J.R.H.

Overseas News



Barron Hilton Cup. The 1981 Barron Hilton Cup, organised by Helmut Reichmann on behalf of the president of the famous hotel group, gave rise to a series of remarkable flights. The contest, organised in five Classes (Open, 15 Metre Standard, Club and Two-Seater) offered the winners an opportunity to spend a week flying at Hilton's ranch in Nevada. Winning distances were: Open Class, Klaus Holighaus (Nimbus 3) — 914km; 15 Metre Class, Ingo Andresen (DG-203A) — 877km; Standard Class, Erwin Sommer (LS-4) — 784km; Club Class, Hans Fähnlein (Salto) — 712km and Two-Seater Class, Kankel/Dittmar (SB-10 — 660km. Perhaps an even more remarkable achievement was Karl-Gunter Maletschek's 537km pre-declared goal in a K-8.

The 1982 Barron Hilton Cup is now under way. (See June issue, p126).

The 2nd European Club Class Championships at Hammelburg, W. Germany from June 5-20 resulted in an overwhelming victory for the German team. The winner, Müller, was followed by five of his companions. Highest placed non German was Dedera (Czechoslovakia) flying a VSO-10 in 7th place. Tasks averaged 200km and winning speeds were around 80km/h. The most frequently flown gliders were the DG-100 and the Mistral.

Holighaus the Gentleman. The German Olympic Committee's "Fair Play Plaque" has been awarded to Klaus Holighaus for making a Nimbus 3 available to George Lee at the 1981 World Championships at Paderborn when his ASW-22 failed to be ready on time. George beat Klaus into second place.

Aerotow Fee Calculator. A device that automatically computes the fee payable for an aerotow has been designed at Gelnhausen in Germany. Further details from W. Reh, Weinbergstrasse 22, 6466 Grundau, W. Germany.

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

The Austrian Nationals at Mariazell from May 15 to 29 had nine competition days with dramatic changes of position, distances up to nearly 700km and speeds of 102km/h. Winners were: Standard Class, Eimar-Ludwig Kapher (LS-4); 15 Metre Class, Andreas Haemmerle (Ventus A) and Open Class, Herbert Lachner (Nimbus 2). — *Flugsportzeitung.*



Mike Garrod says his syndicate often tells inquisitive onlookers their trailer has a giraffe in it but on holiday he found an owner at Omarama, New Zealand, had gone to extremes to prove his point!

Swedish Championships. A 761km triangle was set for the 15 Metre Class at the Swedish Nationals, held from June 12 to 19. Ake Petterson and Goran Ax completed the task at speeds of 110 and 107km/h respectively. There were seven contest days and 46 pilots flew a total of 109 531km (340 per pilot per day).

Cheap alternative to time-recording camera? A German engineer, Bernd Guttier, has developed an alternative system to the time-recording camera which is very much less expensive — if also somewhat less accurate. Basically it consists of adding two extra tracing arms to a standard Winter barograph. They record traces near the upper edge of the barograph foil. The barograph is connected and sealed to the flash attachment of any standard mass-produced camera and the time-recording arm of the barograph is activated electro-magnetically when the camera shutter is released. The second arm is activated by a button which the pilot presses to record significant points in the flight (other than start and TPs). He then has a record of height and time to enable him subsequently to evaluate the flight.

Even when set to the 20hr scale, start and finish times can be worked out (using the calibration chart) to within about 30 seconds. Whilst obviously unsuitable for record attempts, the system might be usable in competitions. Further details can be obtained from Bernd Guttier, Türnicher Strasse 20, 5000 Köln 51, Germany.

Mistral C. The Mistral C production line has reopened. Production had been suspended whilst Valentin were concentrating on the launch of their Taifun motor glider. *Aerokurier* gives the Minstral a glowing report, comparing its handling qualities with those of the K-6. Robustness, elegance and vice-free low speed handling are among the features praised. The Mistral's best glide angle at 89km/h is 35.5, and min sink fully laden at 70km/h is 0.66m/s.

Pegasus. Some 40 orders have been placed in the USA for Centrair's Pegasus, Marc Ranjon's answer to the LS-4. Hopes were high that certification would be completed in time for the aircraft to compete in the French and American Standard Class Nationals.

Independent trials have shown that the glide angle is broadly comparable with the LS-4s between 100 and 150km/h. At higher speeds the LS-4 gains a slight advantage, but the Pegasus has a lower stalling speed, which should allow it to exploit narrow thermals more effectively.

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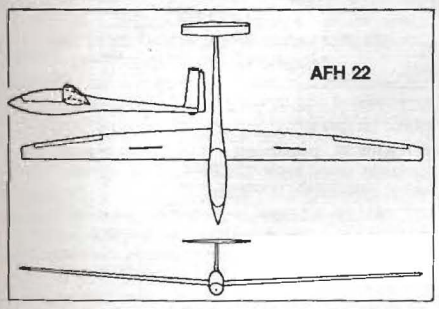
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It is available with winglets similar to those Centrair developed for the ASW-20F. A fixed undercarriage version, known as the Centrair 101 is also available for club use.

New Two-Seater from Akaflieg Hanover. Akaflieg Hanover's first new glider design since the 1950s was presented to the public at the Hanover Air Show — the AFH 22, glass-fibre two-seater using Twin Astir wings. The fuselage has been optimised for aerodynamic performance, low weight and good pilot comfort.



The cockpit has many advanced ergonomic features including inertia reel belts. The undercarriage, which incorporates a very small main wheel, is operated by a hydraulic hand pump.

Harro Wödl Memorial. An annual prize for the best technical description of a distance flight has been instituted by the "Harro Wödl Memorial Society" in memory of Austria's first winner of a World Championship (Poland 1968) and repeated winner of Nationals. — *Flugsportzeitung.*

Pic St Loup. Those looking for a gliding site in southern France slightly off the tourist track could try Pic St Loup near St Martin de Londres in the Herault region. A 650km in wave has been flown using a TP near there and slope soaring and thermal prospects are good. Visitors — with or without gliders — are welcome. The club has four two-seaters and six single-seaters including an Astir, a JP 15-36 and a LS-1. Contact Bernard Balay, Aero Club de l'Herault, Aerodrome, 34380, St Martin de Londres, France.

La Roche-sur-Yon. If, however, you are planning a holiday on the French Atlantic coast (Sables d'Olonne etc) a surreptitious visit to La-Roche-sur-Yon might prove rewarding. There's a windsurfing lake near the airfield and ample camping and accommodation available. Contact Vol à Voile Yonnais, Aerodrome des Ajoncs, 85000 La Roche-sur-Yon.

Aerofoil Performance Comparisons. In-flight comparisons of aerofoil performance are notoriously difficult to set up, but comparisons can also be made in wind tunnels. If, however, more than one wind tunnel is used, inaccuracies can arise because of difficulty measuring procedures and varying degrees of airflow turbulence. The most reliable comparisons are thus those carried out in one and the same wind tunnel.

The laminar wind tunnel of the University of Stuttgart's Institute of Aerodynamics is available for such comparisons. This is the tunnel used for evaluating the famous FX sections.

Medical Congress. The 12th International Soaring Medicine Congress was held this year at Fayence, France, and was attended by some 20 — predominantly German — gliding doctors. The topic for discussion was the physical effects of high altitude flights in gliders.

Minister for Leisure Intervenes. Alain Marchaud's stunt last October (he flew a Morane under the Arc de Triomphe in Paris with a 7ft clearance at each wingtip) may have awakened the French government to the growing plight of light aviation in France. The Ministers of Transport and Leisure have appointed Senator Parmantier to investigate the problems. During a visit to Fayence he flew in a glider and held discussions with club officials and local dignitaries.

classified section

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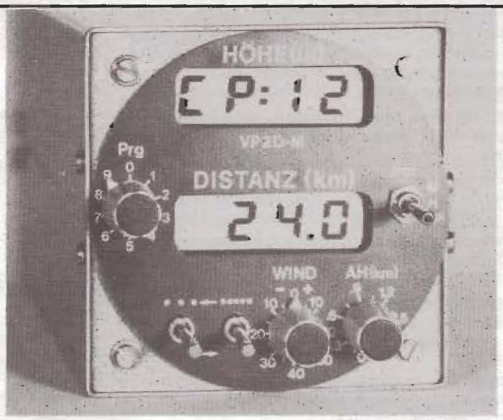
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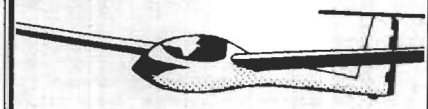
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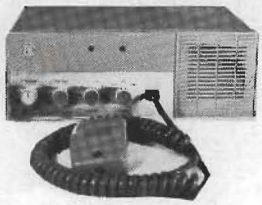
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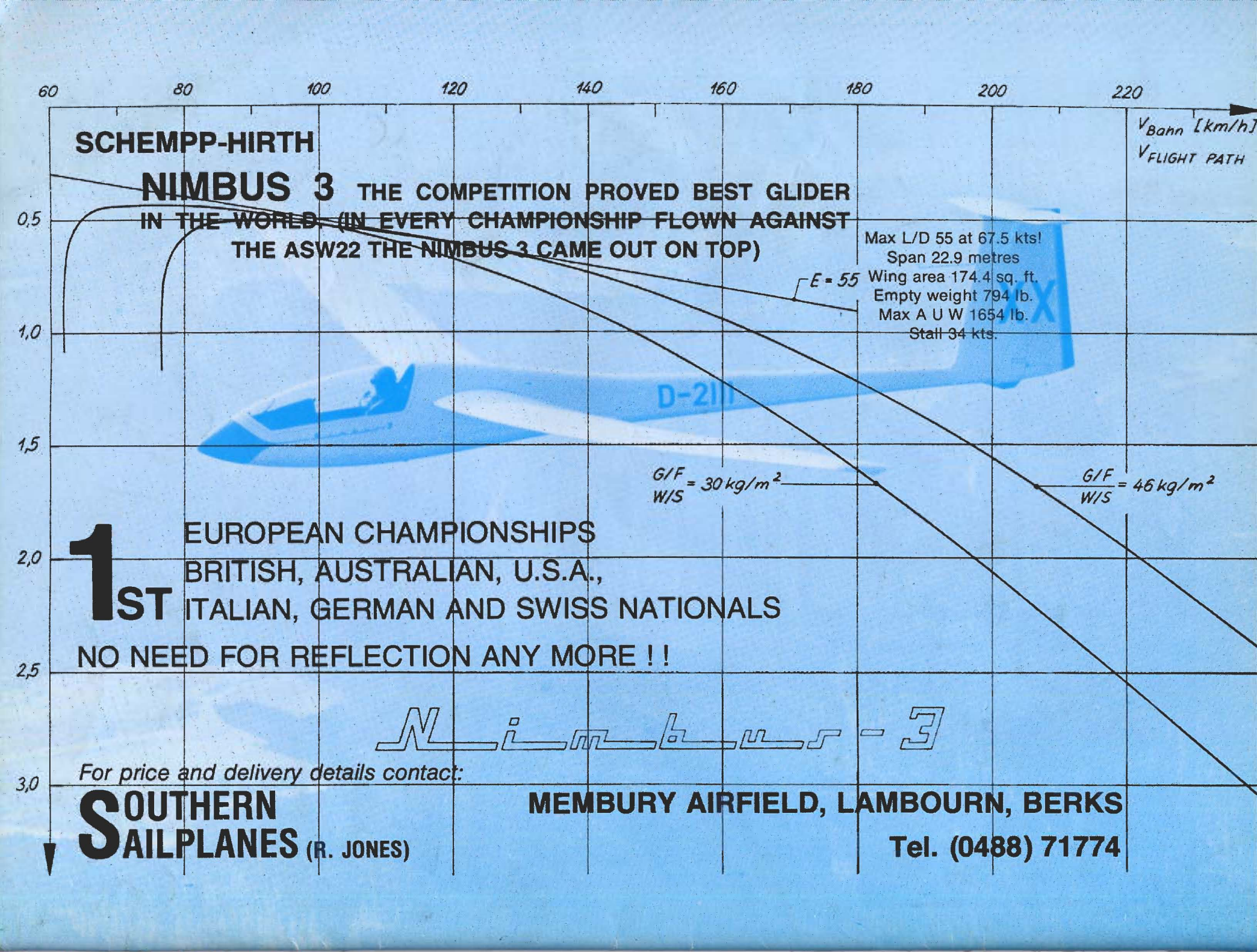
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