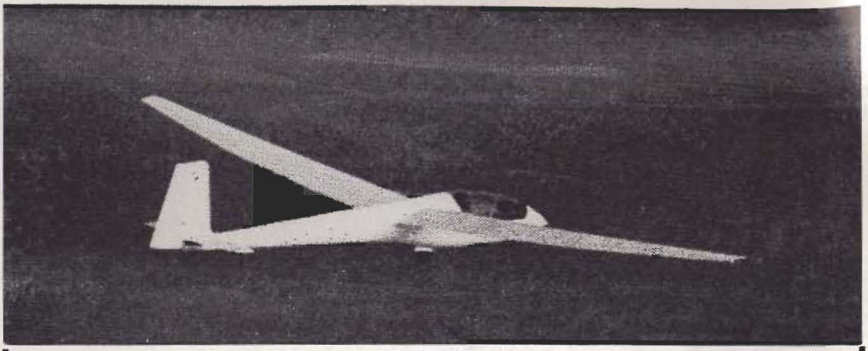
SAILPLANE & GLIDING

April — May 1973

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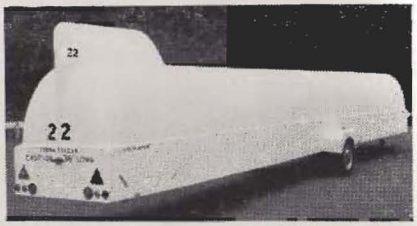




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OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION

Editor: Gillian Bryce-Smith

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Subscriptions: Frances Tanner

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Advertisement Manager: Peggy Mieville, Cheiron Press, 8/10 Parkway, London, NW1 7AD Tel. 01-267 1285

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Cover photograph: Diamond height clouds over Lasham. Photo: Hugh Hilditch

Published by the British Gliding Association, 75 Victoria Street, London. SW1H OJB **Tel. 01-799 7548/9**

Printed by Taylor & Francis (Printers) Ltd., Rankine Road, Basingstoke Hants



Our Chairman on a luxury trip to Paris. A weekend in France was the prize for winning a world wine auction competition

CHAIRMAN'S REPORT ON 1972

WE can look back on a year in which pilots seem to have consistently complained that the weather has been worse than any they have ever known. In spite of this, the record indicates that matters must have been nothing like so dismal, and the year surely shows steady progress on all fronts.

The first of the firsts was Mike Field's establishment of new United Kingdom and British National absolute altitude and gain of height records, whilst at the same time narrowly missing the world gain of height. His flight was quite outstanding by any standards and the records must remain unbeatable for many years to come.

Another first was the *Daily Telegraph* European Gliding Championships held at Dunstable in August. This was outstandingly successful not only from the number of contest days but also for the participation of European pilots. Support by the *Daily Telegraph* is extremely encouraging and gives us not only financial help but increased coverage both in the *Daily Telegraph* and other newspapers. In the coming year the competition is being held again, this time at Lasham on an enlarged scale. In addition, the *Daily Telegraph* is sponsoring a British attempt on the world Distance record.

Yet another first and possibly the most important has been the establishment of six new gliding clubs this year. The essential aim of the Association must be to promote the growth of clubs at all levels and the creation of these new clubs must be a source of satisfaction to us all.

I have said on many occasions that our two greatest and, perhaps, our only vital problems are sites and airspace. The establishment of new clubs and the improvement of facilities at existing clubs shows that progress with the former problem is being made. In this connection, the P. A. Wills Fund so generously established by our President some years ago, is having a most beneficial effect and the continued availability of grants from the Sports Council is likewise very helpful. John Ellis, Chairman of our Airspace Committee, has again done sterling work with the latter problem. We can now penetrate Lyneham in VMC and the new Brize Norton zone is of sensible size when compared with the monster originally proposed.

This year has seen the retirement of Frank Irving as Chairman of the Technical Committee after 20 years. We welcome, as a worthy successor to him, Roy Tetlow. Frank is, of course, now Vice-Chairman of the Association and I am happy to tell you that he has been awarded the Silver Medal of the United Service & Royal Aero Club for services to gliding.

Another change is on the Safety Committee where Ian Dandie has taken over the chair from George Turner, to whom our thanks are due. On the Magazine Committee we welcome Anthony Edwards as the new Chairman in place of Philip Wills, whom it is almost impossible to thank. He has done so much for gliding and continues to do so in his constantly untiring way. He has recently been elected Chairman of the Aviation Council of the United Services & Royal Aero Club. He

replaces in this post the late Prince William of Gloucester, whose untimely death we must all deeply regret. We lose, as do all other branches of sporting aviation, a staunch ally and good friend.

On the coaching side, the excellent work being done by Bill Scull continues and he has been joined in this by John Heath as an additional National Coach. This will result in a welcome extension of our coaching facilities.

It is not generally recognised, I think, just how much hard work and detailed preparation goes into the task of taking a team to a World Championship. It is not just a question of acquiring and fettling equipment, but also involves the arduous task of fund raising. Gerry Burgess devoted an immense amount of time and energy towards our participation at Vrsac where in the Open Class Nick Goodhart and George Burton were placed fourth and sixth respectively, while John Cardiff and Bernard Fitchett in the Standard Class were 25th and 32nd respectively. Quite properly, there are only individual prizes in World Championships, but collectively Nick and George put up a better showing in their Class than the two pilots of any other country. Let us not forget that British gliding in World Championships has a record since the Second World War of consistently better performance than Britain has achieved in any Olympic sport. Australia 1974 should be a superb opportunity for us to produce a World Champion. Burton, Delafield, Fitchett and Williamson under the leadership of Roger Barrett will require all the support we can give them.

On the aircraft development side we have seen the BG135 inspired by Pat Moore and built by Birmingham Guild and also Ken Holmes's KH1, thus proving that Vickers Shipbuilding do not have a monopoly of new gliders. It is, however, gratifying that the Kestrel 19 produced by them is, as I can testify from my own personal experience, an immensely outstanding and successful aircraft. Good luck to all those who have the courage and enthusiasm to design and build gliders.

In September 1972 the Southdown Gliding Club staged a highly successful week-end attended by many vintage gliders, to celebrate the 50th anniversary of the first ever gliding contest held at Itford. I suppose that now we have vintage glider meetings we can finally regard our sport as having come of age.

This year has seen the establishment of the Civil Aviation Authority as an independent body responsible for aviation. It has established a Private Aviation Committee on which the BGA and other private aviation bodies are represented. I think the opportunity of regular meetings of this Committee will be helpful to us.

The forthcoming introduction of Value Added Tax will, I fear, increase the cost of gliding for us all. Representations that sport should be exempt from this tax have not met, and seem most unlikely to meet, with any success. Apart from VAT, inflation is making itself felt in another direction. Whilst we have a temporary reprieve of uncertain duration, the proposed rent increases at Artillery Mansions and the level of office rents in London make the continued existence of our Head-quarters in Central London most unlikely. Your Treasurer, John Large, is investigating a number of possibilities, and we shall, I think, eventually come up with an acceptable alternative.

I cannot conclude this report without giving my very warmest thanks to those who serve on the Executive and other Committees and to all our permanent staff. It is impossible to mention everyone by name, but without their devoted help we could not exist, let alone progress. The BGA is fundamentally an organisation of clubs for clubs. Just as a club cannot flourish without the hardcore of committee effort, likewise the BGA. So, if you've time to spare, come and join us, not just at the Annual Ball, but in our essential but no less pleasurable activities.

C. R. Simpson, Chairman.

OVERSEAS NEWS



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

CAMERON REGAINS NZ TITLES

From R. MacINTYRE

A MIXTURE of weak and strong conditions, with high winds, cloud flying and marked inversions made up the weather pattern at the New Zealand championships and gave the 21 competitors in the combined Open and Standard Class plenty of headaches during the ten-day contest.

The contest was held at Matamata, a small town in the fertile Waikato basin of North Island, from January 21 to February 3, and the entry of World Standard Class Champion Jan Wroblewski of Poland, flying an ASW-15, created great interest.

The combined Open/Standard class flew the same tasks while the Sports class were given smaller routes. All classes were handicapped to NZGA rules.

Alan Cameron (Std Libelle) won with a clear lead in both classes, but most of the other five or six pilots hoping for a place in the NZ team had one or more bad days; this also applied to Jan Wroblewski, who found "our kilometers narrow and long".

The four leading pilots have been selected to go to Australia in 1974. Their scores were: 1 Alan Cameron, Std Libelle, 8,564 points; 2 Rory Gordon, Libelle 301, 8,376; 3 Tony Timmermans, Std Cirrus, 8,317; while 4, Peter Heginbotham, Nimbus 2, with 7,919 points, had a difficult job to overcome the 74% handicap applied to his machine. Wroblewski came tenth with 6,289 points.

The Sports class was won by defending team champions Ari van Dijk and Peter Holthause, who flew their K-6E for five days each.

The tasks for the Open/Standard class were: three triangles of 162, 167 and 168kms. Six triangles of 206, 234, 243, 245, 248 and 303kms; and one Cat's Cradle (longest distance 482km Open and 451km Standard class).



Alan Cameron

SOUTH AFRICA—A PILOT'S EYEVIEW

By JOHN DELAFIELD

British National records being claimed by John Delafield and Angela Smith were reported on in our last issue, p32. Andy Gough and Con Greaves are claiming the two-seater distance with a flight in SA of 504km in a Blanik on January 11. Moving over to Australia, John Williamson broke the single-seater goal-and-return on January 17 in his Std Libelle with 658km. A good start to the soaring season!

IF I am asked to sum up my impressions of this last South African gliding championships in a few words, I would say: "It was hot, dry, and dusty, the thermals were good although not outstanding, the beer flowed like water and the hospitality was out of this world."

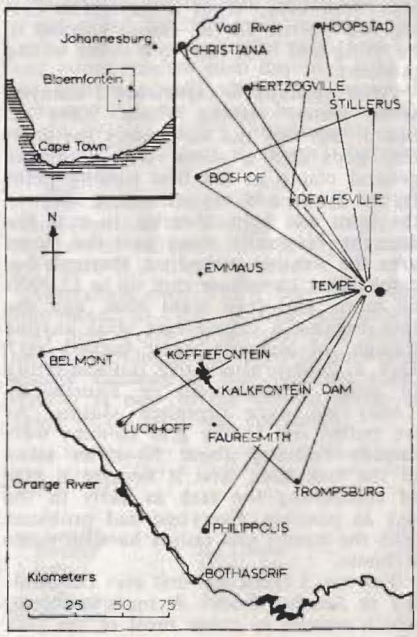
Last year the championships were almost rained off. This year's venue at Bloemfontein, 4,700ft asl, has had its worst drought for years. Fortunately for the gliding community the drought persisted for the contest period, the odd thunderstorm providing no general relief, and these 1972-73 championships lost only one day because of bad weather.

The visiting British contingent this year comprised Andy Gough and Con Greaves with a Std Cirrus and Dickie Feakes and myself with a Kestrel 19. Angela Smith can also claim to be a visitor, albeit a rather long term one: she flew Glen Freeman's Libelle 301. Other visiting pilots came from West Germany, Belgium, France and Rhodesia.

There were two separate contests this year, the Team Championship and the South African Championships. For the first event pilots were allowed to share machines, although few did so, whereas the second was, in effect, their nationals with only one pilot entered with each machine. It is difficult to pick up the highlights of both these events to truly reflect other people's experiences and I'll therefore describe the event from my own personal viewpoint.

We shared seven practice tasks between the four of us. Five were 500 km triangles and these achieved a Diamond goal and Diamond distance as well as a British 500km record twice over. With this good start Con and Dickie were given a good boost for the first contest and they finally achieved a credible fourth and seventh place respectively, and Angela came sixth. Now it was the turn of Andy and I to do battle . . .

DAY 1. 330km triangle, Trompsburg, Koffiefontein. The sky looked wave-like and indeed it was. Thermals were strongly influenced by this wave and strong lift was only to be found in the ascending area. If you were able to get high and if the wave was marked with cloud, all was well. If you hit a wave trough, unmarked by cloud, you had problems. I had problems. Perhaps pressing on regardless would have achieved success, but Mazalerat, the Frenchman,



got unstuck by doing that, so perhaps today's tactics were not too bad! Anyway, at least I didn't have to dump water until over the finish line.

DAY 2. 256km out-and-return to Hertzogville. Today we had blue thermals and dust devils all the way and it was largely a matter of pushing on down track until you hit something worthwhile. As Heini Heiriss said, "It's like walking in a forest with your eyes shut, you are bound to hit something sooner or later." As far as I was concerned, parts of today's forest were pretty thin. Anyway, I consoled myself with the thought that the Kestrel had too much water for today's conditions, which I think was correct, especially in the light of Frank Irving's recent article. Next time we get 6kt thermals I'll dump half my ballast.

QUITE A DAY

DAY 3. 305km triangle, Stillerus railway siding, Boshof. Today we had cumulus. The question was, would it turn into the classic fair weather type or would it become cu-nim? In the event it did both, depending upon where you were, and it also went blue. What a day! The first leg was horrid, all the clouds seemed to be dying and I hit each one at the wrong moment.

After yesterday's experience I dumped some water, leaving about 90lbs on board. But this did not pacify the thermal gods and a storm with rain and general clamp at the first turning point forced me to add my remaining 90lbs to the rain, and help, thereby, to ease the drought. Naturally, once past the storm area the weather picked up, thermals became 10kts, cloudbase shot up to 15,000ft or more, and then went blue, and the task became a classic race. Has anyone thought of airborne water tankers yet?

DAY 4. 240km alternative out-and-return to either Koffiefontein or Fauresmith. Today we were promised storms. As we pulled out to the grid cu-nims were already forming about 50 miles away in the task area, and it became a case of completing the task as early in the day as possible. Everyone had problems with the storms and only a handful made it home.

For me, I faced my first ever out-landing in South Africa! A massive storm, which seemed to cover most of the task area, precipitated the Kestrel and me into an apology for a field. At the time the storm had generated a surface wind of at least 40kts in the area, which was, to say the least, interesting.

At first, after landing, there was not a soul to be seen but then, first one, then two, then 20 or more little black African heads popped up from the surrounding countryside to gaze cautiously at the big white bird. We had no language in common. Solution—give them my glucose tablets and ask for "Boss". White man was produced and problem solved. Moral: Speak the local dialect or don't land out. Needless to say, my last 30 minutes of flight today were unballasted.

DAY 5. 180km alternative out-and-return, Emmaus or Kalkfontein Dam. From yesterday's ignominious out-landing to well over 900 points today made life bearable once again. The task was horrible. There was total cloud cover and thermals were initially more imaginary than real, causing much early dumping of water, and yet one of the turning points showed signs of cu-nim development. Once again it was mainly a problem of negotiating storms, and, for me, my luck was in.

DAY 6. 312km out-and-return, Phillipolis. We did not trust the weather. The last three days had produced storms and today could well do the same. But was it the same? Cumulus appeared by mid-morning and did not tower up to cu-nim proportions. Instead it stayed the classic shape and gave some exhilarating flying, with the leading speeds being nearly 140km/h. I did no more than 12 thermalling turns on the return leg, each cloud giving nearly 10kts lift and a cruising speed of 100-110kts IAS. Today one needed a double load of water.

DAY 7. 330km triangle, Koffiefontein—Trompsburg. The task was to have been a 506km triangle, Belmont, Bothas Drif, but storms appeared before take-off and so the 300 was set instead. As it turned out even this was rather too big for the conditions. For me, however, this was my lucky day. The task involved almost every possible weather condition, strong thermals to start with, a dust devil thermal, storms, then rain and some unbelievably weak stuff not worth the title of lift. Andy even hill soared. But somehow the Kestrel kept flying and I was

afforded that thrill of being the first and only one to make it home over the finish line. Needless to say, I had no water left to dump on the finish line observers.

We all found the contest to be the greatest of fun. Without doubt, we owe special thanks to all, and in particular we must single out Yvonne Leeman the director, and Gay Shields the competition secretary, for a special vote of thanks from us all.

Final Leading Results

Open Class		*pts*
1 Heiriss (SA)	ASW-17	6,248
2 Delafield (GB)	Kestrel 19	6,067
3 Schauble (Ger)	Std Cirrus	5,211
16 Gough (GB)	Std Cirrus	4,391
Standard Class		
1 Schauble (Ger)	Std Cirrus	6,372
2 Clifford (SA)	ASW-15	5,934
3 Gantenbrink (Ger)	Std Cirrus	5,703
6 Gough (GB)	Std Cirrus	5,212

THE AUSTRALIAN NATIONALS

JANUARY 4-11

First impressions came from JOHN WILLIAMSON, who flew a Std Libelle *hors concours* in the Standard class. Missing the first day he won day six to finish 12th overall. Applying an average score for day one he would have been placed sixth. In all, useful practice for next year's World Championships.

"FORTY-THREE contestants in Open and Standard classes were set six races and one Cat's Cradle. Although not strictly a dress rehearsal for next year's World Championships, nevertheless many of the officials for the latter event were clearly 'doing their thing' this time.

"Poor weather (by Aussie Standards) restricted the task lengths but on the seven days the Open class winner—Ingo Renner—averaged 336km per day and Maurice Bradney, now Standard class champion, only 17km less. Assuming similar weather in 1974—and it could easily be much better—the World Championships may well achieve the maximum ten days contest for the first time ever and the leaders may expect to have flown nearly 4,000km in the process.

"Coming from the northern winter, the most significant features of Waikerie will be the heat—up to 115°F in extremes, normally 95-100°F—and the sandy terrain, apparently almost devoid of communications and inhabitants. Radio efficiency will be of prime importance and a sensible survival kit essential, as will good tie-down gear. A 'willy-willy' can overturn a glider in somewhat less than a twinkling if carelessly left with only a parachute on the tip.

"But all in all the risk of landing out is not great. In 1973, not counting the Cat's Cradle day, normally only three or four pilots finished each day in a field—and that was well above the national average. Anyone can be 'dumped', caught by a fierce downdraught and forced to land, but it doesn't happen very often.

"The fastest times in weather which would be above average in England, were about 105km/h in the Open class and 95km/h in the Standard."

Australia's own Team for 1974 was announced at the closing ceremony. They are: Tony Tabart and Paul Mander in the Open, and Ingo Renner and Maurie Bradney in the Standard class. Mander is new to the contest scene—a racing driver who was converted!

TASKS BOTH CLASSES: Day 1, 202.6km triangle; Day 2, 319.3km triangle; Day 3, Cat's Cradle (longest distance—Open 677, Std 624km); Day 4, Optional speed triangle; Day 5, 308km dog-leg race; Day 6, 218.1km quadrilateral race; Day 7, 352.4km quadrilateral race.

FINAL LEADING RESULTS:

Open Class		*Pts*	*Standard Class*		*Pts*
1 Renner	Cirrus	580	1 Bradney	Std Libelle	386
2 Jones	Kestrel 17	522	2 Jinks	Libelle 301	379
3 Mander	Kestrel 19	497	3 Deane	Std Libelle	376
4 Tabart	Kestrel 17	482	12 Williamson	Std Libelle	*248
5 Blackwell	Libelle 301	460	*(missed Day 1)		

"GOAL-AND-RETURN TO WAIKERIE"

By JOHN WILLIAMSON

IT seemed an impossible target when first mooted, soon after the October '72 announcement of the British Team selection. The idea of being flown out from the UK, complete with Std Libelle —and back again!

"GOAL . . .

Arrangements had to be made very quickly. Fortunately (for me) the RAF is short of International class sportsmen at present, and was keen to help, prompted by the RAFGSA as required. The result was the promise of space in a Hercules leaving Lyneham on December 28, arriving Adelaide January 5. With luck, another Hercules would be calling at Adelaide on January 23, arriving Lyneham February 1. If that one failed I was to hitch-hike home and leave the Libelle for later collection.

The two Hercules were on world training flights, on the "westabout" route. Daily legs of 3,000 miles or so were flown in about 8hrs. Travelling via Canada (Goose Bay—minus 30°C!) and the US, the first day-stop was made in Honolulu. And so I spent New Year's day soaring gently above the hills of Oahu Island in a Schweizer 1-26 as guest of the Sky Surfing club. Their strip is at Dillingham, on the north shore of the island. The runway is only 50yds from the pounding surf and the whole scene was quite idyllic. The climax of the whole flight came whilst I was testing a theory that convection was taking place over the sea as well as the land. It was, and at 1,500ft, half a mile from shore, I was suddenly delighted to see a huge whale directly below, porpoising lazily to the surface and blowing-off now and then in a cloud of spray!

Two more days and I was in Adelaide, trailer decanted from Hercules within minutes, and wondering if my long-distance arrangements for car, crew and accommodation were going to work out. I soon found out. A brightly-painted Renault appeared, which had obviously been borrowed from a pop-group with a particularly psychedelic bent. Then I realised the pop group was to be me and the beaming driver, John Ennis! He had winkled the car out of Renault's Australian distributors in exchange for the publicity of supporting the only foreign team at the Aussie Nationals.

Those of you who have suffered the average English soaring week—rain and low cloud, with occasional good days to encourage you to try wasting next year's holiday the same way—had better skip the next bit. It could prove painful.

All through the Nationals, when there wasn't a cloud in the sky, they kept telling me how good it *could* be. The weather is basically anti-cyclonic and changes in the overall pattern are slow. The best situation is when a high has moved eastwards across the Bight, passing south of Waikerie. Winds start easterly, with convection up to about 5,000ft. Gradually the wind shifts to NE, North and finally NW. This takes about three days, and all the time temperatures are rising and the convection is deepening. Next, a cold front is needed to introduce a bit more moisture than the almost nightly sea breeze has been able to do. Then you get the "boomer". This sequence was starting as the pupils of the soaring course assembled on the Sunday evening.

John Ennis, who had crewed so splendidly for me all the previous week needed his 500km, so on January 17 we decided to go together for goal-and-return. He would turn at Euston, 250km out; and I would go on to Balranald, 330km away. Both goals were to the east. We launched at 1130hrs and made a slow start. It was nearly 1300hrs before I could reach even 3,000ft and John Ennis almost landed once. Then things quickly got better and by 1600hrs we were soaring to 8,000ft. I rounded Balranald at 1630hrs, my predetermined deadline and then faced the race home against time, 207 miles before the convection stopped. With a tail wind it went well and by 1900hrs I was at 7,500ft and 45 miles from home. I calculated I

had 300ft to spare, and anyway was sure there would be another thermal. Not a bit of it! Smooth as silk all the way down until I arrived over the airfield—at 300ft! John Ennis just got back too. Jubilation! (This flight will be a new British National record subject to homologation.)

Next day I was pretty tired, forecast winds were too strong to attempt a serious speed task so I decided to spend the day in the pool. That day one of the new solo pilots got his C after several attempts.

Friday's forecast was for good convection but with still stronger winds from the wrong direction, so I went into Adelaide—120 miles—where I had Team business to attend to. That's when I missed the best soaring of my visit. Wednesday's soloist flew to the next airfield for Silver distance, collecting Gold height on the way. Two American visitors, in the club Libelle and Kestrel, flew 300km and 500km goal-and-returns for their respective Diamonds.

Saturday—hotter still. Up to 40°C by mid-afternoon. Fully ballasted, I set off with Martin Simons (ex-Dunstable) to attempt the 300km triangle speed record. Top heights were around 10,000ft, with consistent 8kt lift, and occasional cores to 12kts. We made a good start, soon climbing up high enough to see both corners of the triangle while still over Waikerie! But high and wide thermals mean corresponding sink and I spent 20 minutes below 1,000ft at the first turn-point contemplating a couple of scruffy fields and getting hotter and hotter. Meanwhile, Martin kindly included me in his turn-point photo, taken from 7,000ft. I never caught him thereafter but even so completed the task in a little over three hours. Two more course members completed 300km goal-and-returns in Boomerangs, for Diamond goal.

Sunday. A real boomer at last, but not according to the forecaster. 7,000ft cloudbase, he said, and northerly winds. So I decided to tackle the hills today, with no specific task in mind other than to fly over as much as possible of the task area in preparation for next year. Soon after take-off it was obvious that this was to be something special. Urgent thermals whisked me up to 8,000ft and cloudbase was higher still. The 40 miles to the hills were soon covered, with willy-willys swirling up everywhere from the parched and dusty paddocks. At the hills I took a strong thermal to 12,000ft —still not at cloudbase—and set off to the north. After 50 miles of porpoising under the cumulus I was down to 9,000ft, so stopped to take a strong one, this time to cloudbase—14,000ft! On and on, without circling, until at last I turned back 120 miles and 1hr 15min from the start of that fantastic run. But whilst flying north I had watched a small dust storm starting on the plains near Waikerie, and by the time I got back it had developed into an impenetrable blanket of dust, 2,000ft thick and on an 80-mile broad front, with Waikerie somewhere in the middle. The northerly flow had been undercut by a south-westerly associated with a cold front, and in addition sea breezes were penetrating inland, stirring up the dust even more. They told me later that the storm lasted 4hrs at Waikerie. Visibility was down to 20yds at times, the bar lights had to be switched on, and a fine red haze of dust filled the air, even indoors. Fortunately, I was able to land close to the hills, where the thin grass was enough to hold the soil in place and suppress the dust.

. . . AND RETURN"

So ended nearly three weeks at Waikerie. I had flown 65hrs and 4,250km. The day I left it was hotter than ever—44°C —and the tyro of last week was already making up his map for a Gold attempt. I wouldn't be too surprised to hear he made it! The journey home included a three-day stop-over in Hong Kong. No gliders there and just as well. It's a bit crowded! Three more stages via the Maldive Islands, Arabian Peninsula and Cyprus, and finally our Hercules rolled on to the chocks at Lyneham exactly one minute ahead of schedule!

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WHO NEEDS A RETRIEVE CREW!



JOHN SANGSTER, CFI of the Lusaka gliding club for six years until recently returning from Zambia to the UK, had more help than he needed with his Dart 17 on this particular landing near a native village.

It is entirely due to John's effort and enthusiasm that Lusaka has a thriving gliding community. He started from scratch with his own glider and a small bunch of raw beginners who now form the nucleus of the Lusaka club.

The club's fleet has been expanded by the addition of a Bergfalke 2 from a South African club and the new CFI, Malcolm Green, is assisted by Svend Blascke.

Members have built a hangar, reconstructed the winch for use in the wet season and during the dry spell successfully auto-tow with a hearse. [Since going to Press we learn that gliding has been banned in Zambia—Ed]

MORE CONGRATULATIONS ! !

this time to John Delafield for setting up a new British 500 km triangle record of 121 km/hr*

and to A. Mazalerat for setting up a new French, 500 km triangle record of 124 km/hr* both flying the record breaking

KESTREL 19

Deliveries in April 1974

CONGRATULATIONS also to John Williamson who broke the British O&R record with a 658 km flight in the **LIBELLE,** which is continuing its contest winning performance — the first five places in the Australian 1973 Standard Class Competition were taken by this remarkable glider — deliveries available in December 1973.

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GROUNDED IN ASIA
The frustrations of a glider pilot

LYN BALLARD found the ultimate in thermals on this trip but hit the biggest snag of all.

IN England we have gliders and no thermals, in Malaysia they have no gliders, but wow, do they have some thermals.

Most mornings they are sprouting by 10am and by midday it's usually *booming*, and the fairly damp air means you can see the thermals building up before your eyes. Feeling rather crippled by a lack of wings, I made enquiries and found that there were gliders at Ipoh in the north of the country.

A couple of weeks later at a party the talk turned to flying, and I found myself talking to Paul Thorst, one-time CFI of the Ipoh gliding club. From him I learnt the sad facts. Indeed there were gliders at Ipoh, two Rohinis (Indian-built T-21's) and an Olympia 2, but they were non-airworthy and hadn't flown for two years.

For a while Paul had flown with the club using wire launches, which apparently were not much good on the Rohinis, and eventually a shortage of voluntary workers and some local troubles put paid to the club.

In the end I never got a chance to sample these super thermals. For anyone determined to glide in Malaysia, the best answer is probably a motor-glider operated from the Kuala Lumpur flying club.

Outlandings, by the way, are likely to be a case of survival rather than aircraft retrieval. A Falke would certainly be an original way of reaching the gorgeous and deserted beaches of the east coast and the emerald isles of the south China Sea.

Can one fit floats to a Falke, what about the drag? Well, Paul said a Cessna 150 with engine off can be thermalled at 1,000ft/min, so who cares about a bit of drag?

NEPAL

Yes, I've been there too. Not a smell of a glider in this mountain kingdom and only the faintest scent of the 20th century once one leaves the towns. I stayed a week in the old capital, Kathmandu, a small town on a plain ringed by mountains.

Every day thermal streams formed on the peaks in the light westerly wind. Cloud base was about 12,000ft asl, say 8,000ft above the plain.

Trekking north towards the main chain of the Himalayas one traverses a mountain country where the only wheel in use is the prayer wheel. Goods are moved entirely on men's backs, parties of small wiry men plodding patiently along day after day with loads of 60 pounds or more on their backs.

On most days strong valley winds develop with strengths of 15-20kts up the immense forested mountain sides. My hill soaring instincts began to stir and in no time I was visualising fleets of bamboo hang gliders sliding down to Kathmandu with cargoes of rice and yak's wool, and then climbing back to their mountain villages on the afternoon thermals.

Crazy? Maybe, but it would fit in with prayer flags fluttering on every hilltop.

WINTER BAROGRAPHS

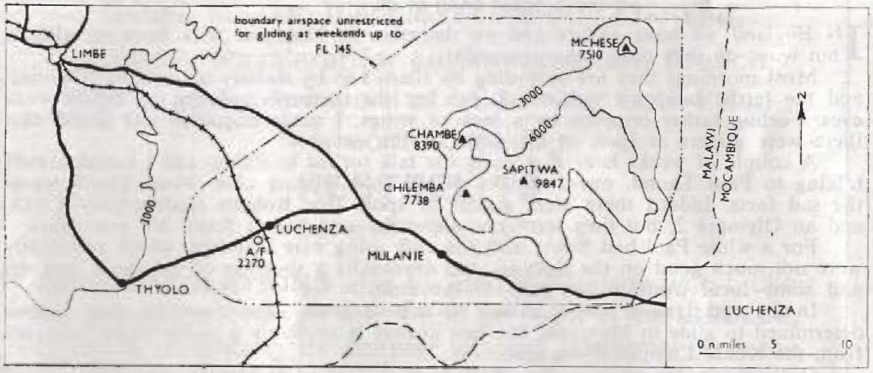
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WHERE THEY SOAR IN CONTROLLED AIRSPACE



IT sounds like a glider pilot's paradise —a country where the government has made a controlled airspace area free of restriction for specified periods to allow mountain soaring.

This, according to P. G. Hardie-Bick, has happened in Malawi.

He sent us this map which shows the de-restricted zone and explained that the introduction of gliding to the country depended very much on the assistance of the Luchenza Flying Club and Committee who went out of its way to find the best method of including the Falke SF-25A in their fleet. The Malawi Government also co-operated and sought to introduce a motor-glider in advance of even the UK legislation on the subject being completed.

It was in the spirit of this that the mountain soaring around Mulanje was freed of restrictions for limited periods up to a FL 145, even though coming within the Blantyre controlled airspace.

Mr Hardie-Bick, who explored the area shown in the map as well as other terrain, spent more than two years in Malawi. Writing of the Luchenza flying club, he said the Commodore, Basil Tennett, who is also the owner of the site, is very active as an instructor and it was mainly with his support that gliding came to Malawi in 1970.

"The thermal convection around the airfield is often good and on my first solo flight in the Falke, I was able to climb to almost 8,000ft after using the engine for take-off and climb to circuit height. The looming mass of Mulanje mountain is a constant reminder that mountains of such vast size, situated alone in a plain, manufacture their own weather system," he added.

A report of "Anabatic soaring in Malawi" was printed in S&G, April-May 1972, p138.

TWO-SEATER CONTEST

THE second *Coupe d'Europe des Planeurs Biplace*, the two-seater equivalent of the famous Angers contest, will be held from August 1 to 12 on the Briard aerodrome at Poitiers, preceded by a practice period from July 25 to 31. The organisers, the Aero Club of Poitou, announce that each team may have two to four pilots, of which pilot one must fly every time. Competitors may choose their launch time at the end of briefing, and their declared routes of not less than 30km. Radio and other aids are allowed. Entries up to June 30; entry fee 200f. Particulars from Dr André Voche, 5 Rue Saint-Gervais, Poitiers 86000, France. (*Aviasport.*)

ITALIAN CHAMPIONSHIPS

THE Open Class of the 1972 Italian Championships was won by W. Vergani, Nimbus 2, with 8,997 points. He came first in every task except the one won by R. Stuhr of Germany.

Perotti was the Standard Class winner with De Orleans beating him in the first task. Both pilots were flying ASW-15's. (*Volo a Vela.*)

SOARING PARADISE

TUNISIA is the ideal World Championship terrain, said a visitor from the German Aero Club, reported in *Der Adler.* The club is taking a two-drum winch to Djebel Ressas, 25km from Solymer Sport-Hotel, to be followed by a tug. A hangar capable of holding 15 sailplanes is on the site, and a further hangar will eventually be built beside the runway 550yds behind the hotel.

POOR WEATHER AT SAO PAULO

CLAUDIO Junqueira, flying an SB-5, won the Brazilian Nationals which were held from January 13-26 at São Paulo. Twenty-five sailplanes had been entered, among them a Kestrel, ASW-15, Urupema, SB-5 and K-6. Owing to poor weather conditions only five contest days resulted.

INTERFERENCE

IN Rhodesia, the pilot of a T-31B, approaching to land, decided to throw off height with an S-turn, so put the nose down and started a right turn. Then the stick was pulled hard back into his stomach by the pupil in the front seat, and the pilot could not get it forward again.

The machine stalled, put its right wing down, and went into a spiral dive into the ground. The pupil was killed.

Rhodesia's newly-published "Flight Safety Digest", reporting the incident, said: "If a passenger freezes on the controls or interferes with them, scream at him and hit him as hard as you can," but added that "in the T-31 physical assault was not possible because of the tandem seating and full harness worn by the occupants." (*Wings over Africa.*)

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THE TRENDS ARE HERE

By ANN WELCH

WHEN I started gliding, learning cost 3/- (15p) a day and a glider capable of soaring 100 miles across country just over £100; today, the "good cross-country aircraft" costs £2,500-plus. During this period the general cost of living has increased about seven times and the cost of a glider about 25 times. We can get more hours flying out of our more effective sailplanes, and so we should for the money. But there is a need to consider what is happening to gliding now that it has become an expensive sport.

In civilian clubs there are now 487 private gliders. This means that, including instruments, trailers and so forth, there is probably £1¼ million of private investment in our sport. Ten years ago the figure was only £175,000. The club investment in aircraft (not including winches, clubhouses, etc), was about £250,000 ten years ago, and is now somewhere around £415,000. The club "value" has increased some 65%, and the private owner "value" around 700%. Good, we say, a decent amount of money inside gliding at last. But inevitably, a financial swing of this order must lead to some change.

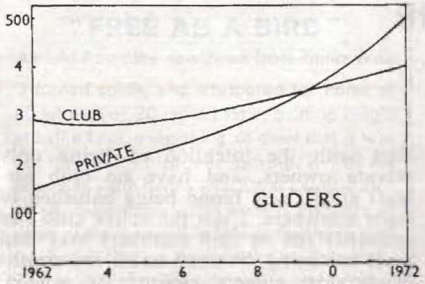
Private money is more flexible and certainly more mobile than money tied up in a members' club, and such a large investment is capable of swinging gliding around like the large tail of a happy dog. Our gliding has always been based on a solid foundation of clubs which care for operational standards, do the best for their members, and run the holiday courses and competitions which are part of the scene, but a great swaying mass of epoxy-coated money may alter fundamentally the club structure.

The changes which could take place—and in some cases are already with us—are that in some clubs there will be a gradual, perhaps even unnoticed, translation into a group of private owners; the club will find itself doing less and less training, especially in the winter. The holiday course season will be run professionally, and the club fleet dwindle to a minimum. Some new clubs may even start with the intention of being only private owners, and have no club aircraft at all; new blood being banished to learn elsewhere. Even the active club run primarily for its club members may find itself becoming drowned under the weight of private owners against its wishes. Motorways now make it quick and easy to travel with a trailer quite significant distances, so any previous tie to the nearest club is no longer important; and since private owners individually have a lot of money tied up in their equipment they naturally want to use it where, when, and how it suits them best.

There is no question that private ownership is essential to the development and indeed the economics of gliding. With the majority of aircraft in private hands, however, and tending to mobility, the clubs are likely to find they have an increasing problem in budgeting, or in offering to run events like championships if, for no apparent reason, these fail to attract enough customers to make the effort viable.

A further possibility with the widest possible implications is that communication between private owners and clubs and BGA could become inadequate. If this led to even an appreciable number of private owners becoming unaware of accepted standards of operation a situation of consequence to the whole of gliding would exist.

Answer? Well, it is always easier to pose a problem than to solve it, but the first essential is to accept that the trend towards more private owners will continue. Having accepted this fact a good hard look at the whole pattern of communication comes next. At present, even if the secretary sits on all the papers for weeks, important information, such as airspace changes or championships entry dates, soon grapevines around because people go to their club, but increasingly those private owners who do not turn up for months in winter will not get information that they should have. BGA Associate membership exists for this purpose, but it will need to be developed, and

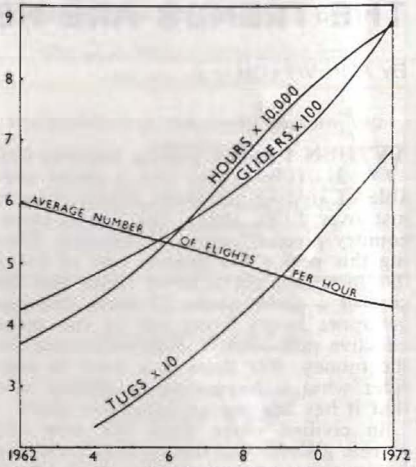


Total number of gliders including Service clubs

private owners will need to belong—and also tell BGA what they want to be told about.

It is, of course, essential that clubs cater for private owners, but also that private owners appreciate the need to support and remain integrated with their "home" club, and not just to use it as a launch shop. Flying sophisticated aircraft in crowded thermals demands high standards of standardised practices and techniques, so the sources from which new pilots spring have to be good.

The clubs, with their important job of



Total number of gliders and hours (including Service clubs and motor gliders)

training and providing a congenial base for communication and from which good flying is available, are the most important assets we have.

SCHEIBE TANDEM



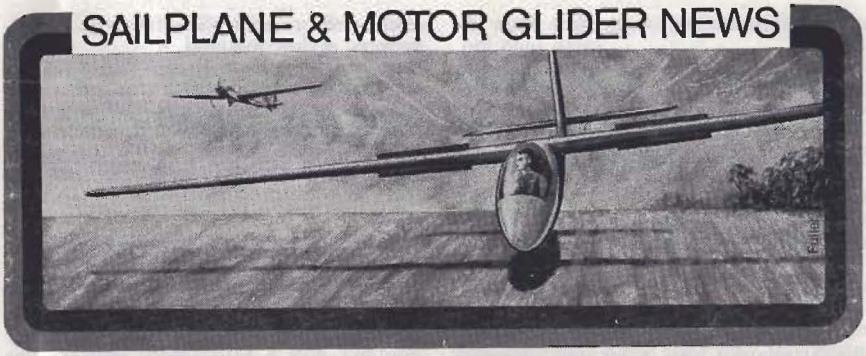
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SAILPLANE & MOTOR GLIDER NEWS



INCREASED PRODUCTION FOR PILATUS B-4

THE second series of 100 Pilatus B-4 all-metal gliders have started production, we understand, at the Pilatus Works in Stans, Switzerland.

The output of 75 gliders scheduled for 1973 will make it necessary to have an additional assembly-line for 1974 to speed up the production to meet the deadline for the first 200 sailplanes. The sales division has currently 180 firm orders on hand.

POLISH HIGH-PERFORMANCE TWO-SEATER

AFTER the debut at the 1972 world championships of the Polish Orion and Jantar, Zdzislaw Bylek of the Experimental Glider Institute at Bielsko-Biala carried out the maiden flight of another new sailplane, a high-performance two-seater SZD-40X Halney, on December 23 last, according to a report in *Skrzydlata Polska.*

LEMKE-SCHNEIDER LS-1 SERIES

WITH 150 LS-1s (series A to C) having been built, 15 of them in France, Walter Schneider, who needs to double the production output, is enlarging his workshop.

The new LS-1D version is also available to order and complies to the new Standard Class regulations. It can carry 60kg of water and hence its all-up-weight has been increased accordingly.

The LS-1c is still one of the most price-worthy glass-fibre sailplanes available and sells currently without instruments for DM25,200 including VAT. The LS-1D will cost an extra DM1,000.

LS-1F AND LS-2

The F is an experimental glider, from which the 2 will be developed. The fuselage of the LS-1F flew with LS-1c wings in the 1972 world championships. It is more than likely that the F will become the sophisticated LS-1 of the future. The LS-2, on the other hand, will be developed much further and have a new wing profile. It is intended primarily for the competition pilot.

Aerokurier

SCHLEICHER 'BRANCHES' OUT

THE Schleicher works situated at the foot of the Wasserkuppe turns out 20 machines per months of the following types (number built in brackets).

K-8 (900, excluding those built under licence or from kits); K-13 (430); ASW-15 (250); ASW-17 (12). The K-16 is now



also in production, at present four are flying.

The emphasis in the manufacturing, however, is on the ASW-15, followed in order by the K-13, K-8, ASW-17 and K-16. The delivery times quoted are becoming exceedingly long for all types. For this reason, Schleicher's have set up a branch to speed up production and increase maintenance and repair facilities. This branch uses its own capital and is founded on a sound financial basis.

ASW-15B

With the advent of water ballast for the Standard Class it became necessary to develop the ASW-15 further and from works number 15185 the ASW-15B has this provision. The new version also has a strengthened main spar, main bulkhead and undercarriage, the latter so that landings can be made with full tanks.

The all-up-weight has been increased from 318 to 408kg, which means a 90kg higher take-off weight. The ballast tanks hold 100 litres; they differ somewhat from those generally used and have the added advantage that they can be fitted or dismantled completely in about ten minutes, which in case of a repair or maintenance is a great help. The bags themselves are made from a PVC-covered nylon material.

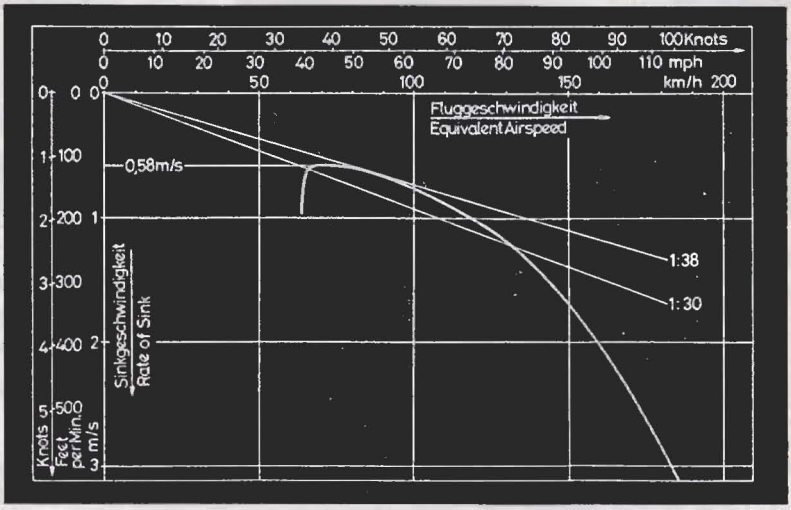
Especially pleasing for the designer, Gerhard Waibel, is the fact that the orders coming in are more or less equally divided between private owners and clubs which indicates that the concept of good flying characteristics and easy to fly glass-fibre construction has been achieved with the ASW-15s.

K-6 BACK IN PRODUCTION?

On the subject of club aircraft and the question of why the K-6E as such is no longer being bought, even Schleicher couldn't give a satisfactory answer. The many glass-fibre machines being bought are going mostly to private owners who in turn are selling their K-6s, which in turn are being bought up by the clubs in increasing numbers.

This robust glider is nearly indestructible and almost every K-6 which comes into the works for repair, however badly damaged, is rebuilt again, thus there is a large market in secondhand K-6s. If one takes the K-8 as well, then there are more than 1,000 aircraft changing hands. These are some of the reasons why the demand for new K-6s diminished.

Probably over the next two years a situation will have been reached that



Schleicher will again take up production of the K-6E if the demand is enough. The production of the K-8, after having been severely cut back over the past three years, is now again in full swing. According to Schleicher, this is because there is no comparable glider available anywhere in the world.

This could likewise happen to the K-6.

FALKE MOST POPULAR

SCHEIBE Segelflugzeugbau has no doubt the largest slice of the motor glider market. Up to the end of last year, 360 Falkes of the types A, B and C have been built at their works. Another 90 Bs and Cs have been produced under licence by Sportavia-Pützer and a further 30 by Slingsby Sailplanes, making a total of 480 Falkes in all, while orders are continuing to arrive.

The 1973 Falke SF-25c series uses the Sportavia Limbach 60hp SL 1700EA engine, which has a different carburetter from that on the Volkswagen engine, so that carburetter heating will be incorporated as standard. The Scheibe works have delivered 50 machines of this type so far and Sportavia-Pützer 20. A modification kit for carburetter heating can also be provided for the SF-25B.

TANDEM FALKE

The 1973 series is in production, eight have been sold and seven were under construction or nearly finished at the end of last year, making a total of 15 for 1972.

The fitting of a two-position Hoffmann propeller as well as carburetter heating is now standard. Cabin heating is an optional extra.

Scheibe's premises are undergoing a facelift and their main workshop has been enlarged to cover an area of 300m².

AKAFLIEG DARMSTADT D-38

THE latest in the Akaflieg Darmstadt well-known D series is the Standard Class D-38 which had its maiden flight on December 19 last.

Its performance has been calculated to have the edge on current Standard Class sailplanes and a great deal of thought and planning have gone into this design to achieve the same good flying characteristics as on the K-6 which is not always the case on the present production sailplanes available.

It has top surface Schempp-Hirth brakes, retractable undercarriage, T-tail and for competition purposes the wing loading can be increased with water ballast. The tanks, however, are rather smaller than on most sailplanes as performance calculations have shown that it is not always advantageous to increase the wing loading too much. The tanks on the D-38 hold 50 litres.

Technical data

Span (m)	15
Wing section	FX61-184, 60-126
Wing area (m²)	11
Wing loading (kg/m²)	33
Aspect ratio	20.50
Empty weight (kgs)	206
All up weight (kgs)	363
Glide ratio at 88km/h	38:1
Minimum sink at 70km/h (m/sec)	0.56
Maximum speed (km/h)	250



ARGENTINIAN LENTICULAR: Rogelio Berretta of Argentina sends us this picture of a new prototype designed by Teo Altinger of Argentina. Berretta flew this machine in the recent Championships and was placed 16th in a field of 52. The Lenticular has a claimed glide angle of 1:33 and is now in production. Fifteen have been ordered for the various soaring clubs in the country.

MOTOR GLIDER WITH A DIFFERENCE

By RAY STAFFORD ALLEN

SOME time ago I had the opportunity to fly a most unusual glider, a K-7 with two detachable two-stroke engines which are mounted on steel tubes and fitted on each side underneath the wings.

This is a true motor glider in the sense that it will not take-off under its own power (though I understand that it has in fact done so on one occasion), as the rate of climb is well below the safe limit. It has to be flown as a glider, but with the great difference that, with both motors running you can climb at about 0.5 m/s.

The immediate reaction of most folk is, "What is the use of the thing if it will not take-off?"

Having flown it one realises that it has great potential as a training glider, because it means that flights can be extended as long as required, whether or not there are thermals about, and also the machine can be flown cross-country to ridges, etc, which would otherwise be out of reach.

Flying it is great fun. After testing the engines on the ground, the glider is launched in the normal way by winch, car or aerotow. Once in free flight, all that is needed is to turn on the fuel to each engine, turn on the switches, and you are ready to start the engines.

This is done, one at a time, by closing the choke lever, and pulling the starting toggle, and, as soon as the engine fires, opening the choke lever. The engine at once speeds up to 6,000 rpm and you then get busy doing the same thing to the other engine.

You can fly on one engine if you like, in which case the glider descends at about 1:60. Flying on one engine is

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perfectly simple and there appears to be no yaw whatever from the asymmetric thrust. Apart from the noise, which is considerable, there is no difference at all in the behaviour of the glider engine on or off, and this is one of the great features of the machine.

ENGINES EASILY REMOVED

From the pupil training point of view, all his training takes place in the same machine. In fact his first solo can be done in the same machine, since the engines are quickly removable. All his launches will have been glider launches, so there is no conversion to a new type. When there are thermals around, the engines will of course be left off, and you then have a perfectly good K-7 for training.

The glider can also be flown cross-country from one aerodrome to another on the engines, though it is true that the speed is not all that high. It is, however, far and away the cheapest method of transporting the glider.

The only modifications on the glider consist of two sockets welded on the fuselage just behind the rear pilot, a fuel tank mounted in about the same place, two petrol pipes and cocks in reach of the front pilot, two switches for the ignition and two toggles on the floor of the front cockpit with pulleys to take the starter cables, which have to be led back to the recoil starters of the engines.

Each engine takes about ten minutes to fit. The engine mounting tube is slid into the socket and the locking bolts tightened, the ignition wire is plugged into the switch socket, the choke wire is coupled up and the fuel line is connected. The starter cable is then connected and the engine is ready for flight.

THERE ARE PROBLEMS

Of course the machine presents problems. It could not be flown by a chap with a PPL alone, though legally I suppose he would be entitled to do so. There are no throttles, so the machine cannot be landed with the motors running, they have to be switched off and the machine reverts to an ordinary glider and is landed with the use of the brakes in the usual way.

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You could put any competent glider pilot into it and he could fly it without trouble. Even if he could not start the engines this would not affect the issue since he would simply have to land again, and this is as simple as in any other glider.

In Germany this system of auxiliary engines is used to a fair extent. It is quite the cheapest and quickest way to retrieve a glider, and one of these engines can drive a K-6E or similar type of glider. Most two-seaters require two engines. The engines themselves are Stihl engines, and are the same as the power plants in the Stihl chain-saws.

As against the normal type of self-launching motor glider, you lose the ability to do repetitive circuits quickly and cheaply. You gain by the fact that there is no conversion; all the training is done in the same glider which can be used for soaring, competitions or what you will, simply by removing the engines.

I enjoyed my flight in this machine enormously, and I cannot help feeling that there is a very bright future for this type of motor glider.

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(Ralph Jones)

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BOUNDARY LAYERS

A NAIVE PROPOSAL FOR THE DYNAMIC CONTROL OF THE BOUNDARY LAYER ON SAILPLANE SURFACES

By JAMES GRAY

THE practical removal by suction of stagnant boundary layer air adjacent to the top surface of a sailplane wing for the purpose of boundary layer control has heretofore required the employment of vacuum pumps driven by electric motors or good old-fashioned, human muscle power. Aside from being heavy and/or physically exhausting, such devices are eschewed by the purists. Powered aircraft, of course, can obtain the needed suction power from engine-driven accessories while simultaneously avoiding the malice of the purists by remaining beneath contempt.

Boundary layer control permits the maintenance of laminar flow over a greater portion of a wing's surface than is ordinarily possible, while reducing drag for a given lift coefficient and by increasing the maximum lift coefficient for a given profile. Among others, J. J. Cornish has shown that the maximum achievable lift coefficient on a sailplane wing can be improved from a value of about 1.4 to a value of about 2.4 on a sailplane having the characteristics of a Schweizer TG-3. Such an increase in lift coefficient enables slow circling flight with a short turning radius, thereby taking advantage of small diameter thermals, or utilising the increased lift in the cores of larger thermals. At higher speeds the beneficial drag reduction for a given lift coefficient yields L/D ratios which are increased by 10 to 20% over those obtainable without boundary layer control.

An interesting question arises as to whether a sailplane employing boundary layer suction would be required by the purists to compete in the category of powered sailplanes and motor gliders. As a possible answer to this question, the present proposal is intended to suggest a means for achieving all the benefits of boundary layer control without incurring the enmity of the purists on the one hand, or having one's sailplane barred from an important contest (indeed, if not impounded) on the other.

It is proposed to place a large venturi tube at each wing tip of a typical sailplane and connect each venturi throat to the interior of its respective wing through a suitable tube. Slots or holes are provided through the upper wing surfaces and are ideally spaced in accordance with the chord-wise increase of adverse pressure gradient; being more closely spaced apart near the leading edge and more distantly spaced apart adjacent to the trailing edge of the wing.

Venturi action produces a negative pressure within the wing which draws in boundary layer air through the slots and holes in the upper wing surface. Air removed from the wing by the venturi is added to the free air stream flowing through the venturi, somewhat in the manner of an ejector exhaust system.

The exterior of each wing tip venturi could be formed in the shape of a body of revolution which supposedly improves the effective aspect ratio of the wing, as in the Blanik, for example. At least a tip body has not been shown to be harmful. In a practical system the added drag of operating venturi nozzles would have to be considered, and could possibly offset any gain in performance achieved by controlling the boundary layer.

It is interesting to note that the suction required to achieve the desired boundary layer control has been shown by Cornish to be directly proportional to flight velocity, a condition nicely met by the venturi which produces increased suction at higher speeds, and reduced suction at lower speeds. An adjustable diameter throat to provide variable flow could be provided in each venturi should it be found desirable or necessary.

If the venturi dimensions are selected to provide optimum suction at the best L/D speed of the sailplane, increased suction at higher speeds and reduced

suction at lower speeds would automatically satisfy the wings' laminar flow requirements throughout the usable range of lift coefficients.

ALTERNATIVES

Several refinements of the basic idea may be worth considering. For example, the venturi could be constructed to pivot freely at its point of attachment, so as to be always aligned with the airstream, and thereby reduce drag. The venturis could be differentially operated from the cockpit by means of a closing valve in the throat, and/or by means of a closing flap at the intake, of each venturi. With both venturi nozzles fully closed, the sailplane would operate as a conventional machine having wing tip bodies; and, with both venturis fully opened, the sailplane would operate in the boundary layer control mode. Differentially operated, the venturis would provide a banking effect by increasing lift and/or reducing drag of the wing on which the venturi is operative. Intermediate restrictions of one or both throat diameters may also be proved useful under certain conditions of flight.

ADVERSE YAW

It has not yet been determined whether the difference in drag between an inoperative venturi on one wing tip and an operative venturi on the other wing tip would create adverse yaw. If so, it is possible that adverse yaw could be avoided by uncovering the intake orifice of the inoperative venturi but closing off its throat (or its tubular inlet to the wings). In this manner, the operative venturi would create additional lift and reduced drag on its wing, while the inoperative venturi would create drag (but no lift) on its wing, thereby providing a yawing moment to urge the sailplane in the direction of the desired turn. It is conceivable that this technique, if refined, could eliminate the use of ailerons and rudders, at least at higher cruising speeds.

The volume of air flowing through the venturis in order to maintain the required "head" of negative pressure within the wing will depend upon such factors as the type of air foil used, the boundary layer thickness, the chord-wise stagnation point, the flight speed, the number of slots or holes in the wing, the parameters of the venturi itself and the quality of seal obtained at spoilers, aileron gaps, flap functions and so on. It is noted that all gaps and orifices through the wing surfaces, except those intentionally placed there for boundary layer control, must be completely sealed off.

Wing tip shapes, other than bodies of revolution, could enclose the venturi throat. For example, a modified Hoerner wing tip embodying a venturi nozzle could be used.

Under icing conditions, with high moisture content in the air and low temperatures, it probably would be desirable to employ a heated venturi throat; especially if one intended to rely upon differential operation between two wing tip venturis to provide the necessary control for banking and turning.

Brief experiments with a small, homemade venturi held in the airstream flowing past an automobile window at different speeds have indicated that considerable vacuum is easily obtainable; sufficient, for example, to inspirate within a very few minutes all of the water from a one-quart container connected to the venturi throat. With the venturi mounted on a scale model wing, there appeared to be some enhancement of lift, but crude instrumentation did not permit adequate evaluation of effectiveness.

In a practical system, the volume of air removed through the wing apertures by venturi action would have to be calculated, and the venturi throat would have to be dimensioned to accommodate this quantity of air while maintaining the necessary negative pressure "head" within the wing.

It is believed that this proposal could offer an inexpensive alternative to variable geometry as a means for decreasing the thermalling radius of a sailplane having a high wing loading. Potentially lower landing speeds through higher obtainable lift coefficient by boundary layer control according to this method should not be ignored.

While this proposal is merely qualitative and is not intended to be quantitative, it is put forth for the purpose of stimulating comment, discussion and thoughtful experiment.

* * *

FRANK IRVING COMMENTS: It is well-known that the profile drag of a wing can be reduced and the maximum lift coefficient can be increased by the appropriate application of suction. The boundary layer is sucked away through the wing surface, which may be porous or perforated with a series of suitably-spaced holes. Alternatively, a series of spanwise slots may be used.

Considering only porous suction for the moment, the requirements for improving the maximum lift coefficient, on the one hand, and delaying or suppressing transition on the other, are rather different. The former requires a relatively small porous region near the top-surface leading edge, the latter an extensive porous over as much as the rear 75% of the surface. The improvement in maximum lift coefficient can be considerable. Likewise, there can be an appreciable reduction in effective profile drag, even taking into account the power required for suction, using mechanical pumps. However, surface irregularities (eg due to squashed flies) and blockage of the surface pores have very adverse effects.

The idea of using a venturi to provide the suction must have occurred to most people familiar with the above principles. It is by no means clear that a venturi can be devised which will provide the required suction whilst passing the appropriate volume flow with an adequate pumping efficiency and without excessive external drag. My slight experience of such matters suggests that, whilst it is easy to provide plenty of pressure drop by means of a venturi when no significant flow of sucked air is required, the suction diminishes considerably when it is used to suck a continuous flow.

As Mr Martin's final sentence suggests, the first step is to carry out some careful calculations to estimate suction quantities and pressure drop required. It would then be necessary to find out whether a venturi could be provided to meet this demand and give an overall gain. In view of the past activities of Drs Raspet and Cornish, it is surprising that such a device, if feasible, has not already been flown. Perhaps somebody who, unlike myself, really knows about these matters can enlighten us further?



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GENERAL & BGA NEWS

SERVICES TO GLIDING

CONGRATULATIONS to the BGA Diploma recipients. Frank Ireland, Ray Stafford Allen and Derek Piggott.

Frank was awarded his diploma for long service to gliding in Scotland, his contribution to British gliding in general and for maintaining his technical standards.

He has been ground engineer at the Scottish Gliding Union since 1961, was granted inspection approval in 1965 and became a senior inspector in 1971. A careful and skilled craftsman and inspector, his services to gliding extend well beyond the Scottish Gliding Union. His opinion and advice assist the Technical Committee and visitors to Portmoak are often grateful for his kindly help.

Ray is honoured for his sustained contribution to British gliding in operating an airworthiness system which preserves a high standard of safety while fostering initiative and enjoyment of the sport.

He has been a well-known figure in British gliding for many years. He was approved as an inspector in 1954 and appointed Chief Technical Officer to the BGA in 1964. In the same year he was the first senior inspector to be approved.

Ray deals with airworthiness of a surprisingly high proportion of the aircraft flying in the UK and pursues the diverse aspects of the job with a degree of enthusiasm far beyond the normal call of duty.

The continued degree of independence and the high reputation we enjoy in controlling the airworthiness of gliders are sustained by his efforts. Owners, clubs, inspectors, manufacturers and importers have reason to be grateful for his help and advice, which combines profound knowledge with great good humour.

DOUBLE HONOURS FOR DEREK

The third diploma is for Derek's great contribution to the development of high standards of training.

CFI of Lasham for more than 15 years, he has exceeded 25 years as a gliding instructor. Apart from the pace and enthusiasm with which he always works, Derek has made a special contribution to the advancement of training for soaring and cross-country flying.

In recent years he has successfully integrated the motor glider into glider training, helping pilots to get through their training more quickly and thoroughly.

THE Air League has just announced that Derek Piggott is to receive the 1972 Scott-Farnie award for the most meritorious work in the field of air education.

The citation states: "Derek Piggott has made outstanding contributions to furthering air education through his enthusiastic and practical encouragement of a very large number of people to be be involved in various facets of aviation, in particular gliding, during the last two decades."

GEORGE LOCKE

AS announced in the last issue we have a new Editor of the magazine. George Locke has left the BGA after editing the magazine for two years, to concentrate on building up his book-selling business.

We are very grateful to George for his efforts in producing our magazine every two months and we wish him every success in his new venture. We hope that he will still be seen at Dunstable in the future with his SHK if book-selling allows it.

ANTHONY EDWARDS,
Chairman, Magazine Committee.

WHITBREAD BURSARIES

PILOTS are reminded that Whitbread Bursaries, to the value of £10, will be available in 1973 on application to pilots who complete their Bronze C before their 19th birthday. Air Training Corps pilots are not eligible.

STRUCTURE OF THE BGA

THE membership structure of the BGA is now made up of 70 full members and 103 associate members. The 70 full members include three members which have affiliated clubs as follows: Army Gliding Association, 2 clubs, RAF Gliding and Soaring Association, 13, and Royal Navy Gliding and Soaring Association, 4.

OPERATIONS

During the year ended September 30, 1972 (1971 figures in brackets), civilian clubs flew a total of 62,868 (62,007) hours from club sites from 268,170 (249,958) launches.

Club-owned gliders totalled 486 (371). The combined services flew 17,812 (19,271) hours from 86,181 (88,320) launches.

CERTIFICATES

Certificates were issued as follows: A and B endorsements 2,041 (2,193), C endorsements 247 (352), Bronze C endorsements 473 (478), Silver C endorsements 210 (223), Gold C endorsements 25 (36), Gold C distance 15 (26), Gold C height 42 (67), Diamond goal 18 (53), Diamond height 16 (11), and Diamond distance 3 (10).

The ATC issued 1,569 (1,915) proficiency certificates and 1,115 (1,201) holders of these applied for A and B certificates.

NATIONAL LADDER CHANGES

THERE are some major changes in the National Ladder rules for this year. Copies have been circulated to clubs by Michael Garrod, National Ladder Steward, but for the benefit of those who never look at notice boards, here is a brief summary:

No competition flights are to be included and distance points scoring has been simplified.

The result of the first change of rule will make for fairer competition conditions as a high proportion on the Ladder don't fly in Regionals or Nationals. And the second alteration will further reduce the large disparity of scores from top to bottom. For full details see your Ladder Steward.

GLIDING CERTIFICATES

DIAMOND DISTANCE

No	*Name*	*Club*	*1972*
1/45	J. H. Bryson	Ulster/Shorts	19.11
1/46	R. W. Harding	London	28.12
1/47	R. Feakes	Four Counties	19.12

DIAMOND GOAL

No	*Name*	*Club*	
2/434	R. Feakes	Four Counties	19.12

GOLD C HEIGHT

Name	*Club*	
J. G. Givens	Northumbria	14.12
A. V. Arnold	Clevelands	18.11
R. C. Wilson	Deeside	30.12
Brenda Horsfield	Surrey/Hants	20.10
B. Backhouse	Eagle	2.10

SILVER C

No	*Name*	*Club*	
3281	T. Segn	Ulster/Shorts	10.9
3282	R. C. Wilson	Deeside	8.10
3283	P. J. Howgego	Anglia	11.7
3284	A. R. Taylor	Cranwell	11.9
3285	G. C. Sorum	Cambridge Univ	14.10
3286	B. P. Wheeler	Surrey/Hants	11.9
3287	J. D. Knowles	London	10.9
3288	E. Corbett	Essex	10.9
3289	I. B. Reed	Culdrose	23.10
3290	C. Walker	Clevelands	9.9
3291	P. L. Holland	East Midlands	23.10
3292	C. George	Yorkshire	25.10
3293	M. S. Cross	Airways	11.8
3294	J. T. Morgan	Yorkshire	10.11
3295	R. F. Bunn	Wrekin	11.11
3296	M. J. Webb	Humber	22.10
3297	M. J. Quinn	Hambletons	12.10
3298	P. N. Harborne	East Midlands	8.11
3299	G. Raynor	Chilterns	1.11
3300	A. L. Wright	Fenlands	16.6
3301	I. D. MacFadyen	Cranwell	10.11
3302	R. A. Robertson	(in France)	18.8
3303	R. C. Morris	Anglia	11.7
3304	J. W. Hoskins	Mawgan Vale	3.12
3305	D. Reilly	Crusaders	13.7

THE PLANE SHOW 1973

FOLLOWING the success of their Boat Show, the *Daily Express* are organising a Plane Show on the South Bank of the Thames from May 18-28 1973. All forms of aviation will be on show to the public with large indoor and outdoor exhibitions.

The BGA will have an information stand inside the exhibition hall and clubs are being asked to volunteer to staff the stand for one day each. Anyone interested in helping should contact Barry Rolfe at the BGA office.

ANNUAL AWARDS—1972

THE BGA has announced the following awards for 1972:

Douglas trophy (to the club with three

flights by three different club members aggregating the largest cross-country distance): Surrey & Hants for flights by A. D. Piggott, 499km, Phoebus 17; A. D. Purnell, 306km, Nimbus 2; C. D. Lovell, 318km, Phoebus 17. Total distance 1,123km.

California in England trophy (longest flight by a woman): Jane Randle, Oxford club, for 285km triangle, Lincoln, Paulerspury, Weston-on-the-Green, August 19, Phoebus 17.

De Havilland cup (best gain of height): M. Field, Airways club, gain 12,700m, May 9, Skylark 4.

Frank Foster trophy (best speed 100km triangle): Barry Goldsbrough, Yorkshire club, Rufforth, Thornton le Dale, Sutton Bank, 73km/h, Kestrel 19.

Manio cup (best speed 300km triangle): C. D. Lovell, Bath, Stratford, Lasham, April 25, Phoebus 17.

Robert Perfect trophy (to the club with the most instructors per member): SW District gliding club, one per six.

Seager cup (best closed circuit in two-seater): Not claimed.

Volk cup (longest closed circuit flight), and

Wakefield cup (longest flight): A Vincent, 525km triangle, Norwich, Blithefield, North Wield, June 27, K-6E.

National Ladder trophies

Enigma cup (winner in any aircraft), M. P. Garrod, 3,287 points. ASW-15.

Le Garde du Peach trophy (winner in club aircraft), C. D. Lovell, Phoebus 17, 3,862 points.

OFFICIAL OBSERVERS

All Official Observers with the prefix '72 to their registration are reminded that their appointments lapsed on December 31, 1972.

Applications for renewal, certified by the Club Chairman and CFI, must be submitted on the appropriate application form which is on *pink* paper. The old white forms should be destroyed.

It should be noted that the applicant is required to certify that he possesses a personal copy of the current (1972) BGA Notes for Official Observers, and has easy access to other pamphlets.

Club Chairmen and CFIs are asked to refer, before they sign the forms, to the circular letter about Official Observers which was sent by the Chairman of the Flying Committee to all Club Chairmen, CFIs and to HQ Air Cadets in March, 1972.

YOUR MAGAZINE

I am beginning this job as Editor with a moan. You're just not writing to us. The magazine relies almost entirely on the work of a small, much appreciated group of enthusiasts.

Surely more of you have opinions, experiences and thoughts on gliding we could share?

Second grumble coming up. Now that everyone is so colour conscious, they snap away in colour and the flow of black and white photographs coming into the office has dwindled alarmingly.

It's more expensive for us to reproduce from colour and the definition frequently suffers.

So please, start writing and whenever possible back up articles with black and white prints. Graphs and drawings are also welcome.

As well as giving the latest news and developments, Sailplane & Gliding wants to reflect your feelings and impressions of the sport and we can't do that if we don't hear from you.

My colleague, Rika Harwood, would like to put in a reminder. If anyone thinks they have broken an existing record, would they let her know as quickly as possible.

She keeps a tight check on all records and during the soaring season would-be record-breakers are constantly telephoning for this information.

VINTAGE GLIDERS

From CHRISTOPHER WILLS

THE Avia 40p has just passed its 30 year C of A and is in fine condition. This machine is almost certainly the last surviving airworthy prewar French sailplane.

Work has started to restore the Rhönsperber at Tangmere. This is the last of the three high performance German sailplanes which dominated the British record scene during 1938/39.

It was at that time flown by Kit Nicholson, Jack Dewsbery and Fred Gardiner. But owing to damp getting into one wing while being stored in a trailer during the war, the machine has never flown again. The glider now needs a complete starboard wing, tailplane, rudder and more drawings.

The 1935 designed Rhönsperber is a famous aircraft, having jointly held the 1935 world distance record of over 300 miles and a world goal flight record of approximately 200 miles. The Rhönsperber is now very rare, for I believe there are only three others in France, Germany and Poland, which may or may not be airworthy.

The only German built Weihe in Britain is now almost ready to fly again thanks to the hard work of its two owners, and others, at Dunstable. The Weihe, which originally came from the Wasserkuppe in 1945, was once flown from Redhill to Brussels by Lorne Welch and to almost 30,000ft in a thunderstorm by John Williamson. The machine will be for sale after its rebuild.

VINTAGE MEETING

The Vintage Meeting, which is to be held at Husbands Bosworth from May 26, is causing considerable interest at home and abroad. Already four tentative entries have been received from Switzerland, as well as one each from France and Germany. It is hoped that among the entries from Switzerland, which includes Spalinger, Spyr and Moswey, will be the celebrated Swiss pilot Eugen Aeberli and his diminutive Hütter 28.

Another Minimoa has been found in Germany and restored. The Münster Akaflieg have said they hope to bring it to Husbands Bosworth. Could it be there will be three Minimoas at the Rally?

Now an appeal for funds—£600 is urgently needed to help in paying the travelling expenses of entries coming from abroad. Already one of the six foreign entrants has cancelled because of the Channel crossing costs (well over £100).

Please could any answers to the appeal be sent to me at Huntercombe End Farm, Nettlebed, Oxon.

INTEREST IN GERMANY

There is a movement in Germany to increase the size of the Wasserkuppe Museum to create a central place for people to study. During the winter months, the present small museum is used for storing aircraft.

It is hoped that in three years a hangar will be built for the display of old gliders. But at the moment it is not known where the finance for this project will come from. A Kranich 2 (ex-RAF Fassberg) has been obtained for the future museum and Lt Col Reimar Horten, Rtd, has kindly donated a post-war built Horten 33 tailless motor-glider plus the drawings of all his designs, including those of the jet fighter.

The Horten 33's wings are identical to those of the legendary Horten 3 flying wings of the 1938/39 Rhön contests.

VAMPYR DESIGNER

PROF Georg Madelung, designer of the Vampyr sailplane in which world's duration records of one, two and three hours were put up in August 1922, over the Wasserkuppe in Germany, has died at the age of 83. (*Der Flieger.*)

LUTON—Obvious relief at Dunstable

THE Secretary of State has refused permission for extensive new terminal buildings and runway improvements at Luton airport. Evidence against the proposals had been given by the London gliding club with other groups covering a wide range of interests. The main objection was that airport extensions would most probably lead to the larger scale use of existing noisy jet aircraft which already caused serious disturbance over a large area.

REFLECTIONS ON 1972

The BGA annual general meeting at The Belfry, Wishaw, Warwickshire, on March 10 was followed by the dinner dance and presentation of trophies, this year organised by Marjorie Hobby on behalf of the British Gliding Team's Boomerang Fund. Surprise guest to sustain the Australia atmosphere of this successful evening was Tilly, a wallaby from Birmingham zoo.

GLIDING STEADILY ON THE INCREASE

DEVELOPMENT COMMITTEE REPORT

THE familiar outline of a sailplane on a page of graphs entitled "Trends in Selected Sports", shows a steeply-climbing line marking the increase of flying hours in the last ten years. This is from the booklet distributed nationwide by the Sports Council to open their recent "Sport For All" campaign and was commented on by Joan Cloke, Chairman of the Development Committee, in her report.

"Not all sports have been able to report continuous and steady development over the years and we have some satisfaction in noting that the current year's statistics confirm the trend of increasing membership and activity.

"In 1971/72," she added, "there was an increase of 13% both for membership of clubs and the number of launches. The fact that the gliding movement continues to grow despite the problems of shortage of sites and rising costs is proof of the pleasure which our sport gives to a large number of people."

Joan referred to the previous year's report when mention was made of the new arrangements by the Sports Council for grant aiding sports clubs.

"We said that it was likely that gliding clubs would be accepted as providing 'larger than local' facilities and so might not be dependent upon local authority grants. During the year it was confirmed that our case has been accepted and in the Sports Council Memorandum No 2 gliding was specifically mentioned as one of the sports 'providing for a single acitivity but serving a wide area'.

"As such, gliding clubs may apply for financial help to their Regional Sports Council as well as to the appropriate local authority."

The Development Committee has now issued a circular of guidance to gliding clubs on the procedure to be followed and it will still be necessary for clubs to make a case for the grants for which they apply.

Joan Cloke wrote that they strongly advise them to discuss their application with Naomi Christy, the BGA Development Officer, who has been visiting every Regional Sports Council to present the case for gliding in general and to discuss particular problems within the Region, and to establish a good working relationship between them and the BGA.

There is still much work to be done on the problem of security of tenure of club sites, especially those on Ministry of Defence airfields. The Development Officer has been negotiating this problem on behalf of a number of clubs.

During the year Naomi visited 18 clubs and four potential sites, dealing with 20 enquiries and requests for advice on the forming of a gliding club. Six newly-formed clubs have joined the BGA during the year, Joan added, and these are either operating from an existing site in conjunction with an existing club or on a new site.

INSTRUCTORS COMPLIMENTED

INSTRUCTORS' COMMITTEE REPORT

BGA Rated Instructors are among the best in the world—and all achieved with the minimum of bureaucracy and red tape. This was the opinion expressed in the report by Roger Neaves, Chairman of the Committee. He added that he came to the job at the beginning of a revised Instructor Rating Scheme prepared by Ann Welch and "if we continue to set our own standards and achieve them as we have in the past, there need be no fear of the dead hand of government control".

This has been the first full year of a two National Coach operation which has meant more instructors trained and, due to the increasing examining function of the coaches, closer contact being established with existing club instructors. The Movement is definitely becoming more aware of the coaching system.

The coaches, Bill Scull and John Heath, reported that more candidates are appearing for courses in the 60-100 hours PI bracket and consequently are better able to absorb the highly concentrated course material. This would appear to show that CFIs are able to be more selective about their candidates and that more solo flying is becoming available at club level.

On the debit side, Roger Neaves wrote that the legislation affecting motor gliders is now appearing. It is certainly possible to obtain an MGPPL and instructors' ratings are being issued on an exemption basis, but their numbers are limited. The legalities of the Air Navigation Act, Order and Regulation seems to be a problem here.

He mentioned the significant changes taking place with the advent of glass-fibre gliders. At the moment they are being flown by relatively experienced pilots but this will alter and create a new instructional requirement.

"Precision flying and judgement, especially in the approach control, must be improved if expensive field landing accidents are to be avoided," he stressed. "One problem is the lack of a suitable two-seater on which to demonstrate and practise accurate flying and modern glide angles.

"The difference between a K-13 and a Kestrel is about the same as between a T-21 and a Skylark. If a suitable two-seater appears it will undoubtedly be expensive, but I believe clubs have learned that the best two-seaters produce the best pilots and hence the lowest accident rates."

After four years, the Instructors' Committee are bringing out a new gliding instructors' handbook. It will be produced section by section and incorporate much of the techniques, in the air and on the ground, developed by the senior National Coach.

CONCERN OVER SAILPLANE REPAIRS

TECHNICAL COMMITTEE REPORT

Events of the year, including the accident to an ASW-15 in the USA, apparently due to structural failure, have increased the Technical Committee's concern over the inspection and repair of GRP sailplanes.

This Committee reported on the Inspectors' Conference at Husbands Bosworth in October and how this encouraged Ray Stafford Allen to arrange with Slingsby's for a weekend course on the repair of GRP structures. Some 15 inspectors attended and it is proposed to repeat the exercise in the near future.

"We cannot emphasise too often the care required with these structures in terms of 'good housekeeping' in the workshop and for very careful inspection," Roy Tetlow, the Chairman, added in his report.

Progress has been made with CAA on the granting to the BGA of Approved Design Organisation status with regard to Motor Gliders. New Cs of A have been issued for the Kestrel 17 and 19, Cobra 15 and BG-135. Permits to fly were issued for the Pilatus B-4, Torva (2nd prototype), Nimbus 2 and also for the home-built KH-1 and Manuel Hawk.

The Committee have fully discussed 'Hang Gliding' during the year and feel that they did not wish to become involved in what could result in uncontrolled expansion of this type of activity. This doesn't apply to models built to BCAR Section E. The matter was referred to the Executive with the suggestion that a separate group be formed outside the BGA organisation.

WOODEN GLIDERS NOT TO BE UNDER-RATED

FLYING COMMITTEE REPORT

The poor gliding weather is reflected in the dramatic fall of records homologated and Mike Field's notable climb over Oxfordshire on May 9 1972 accounted for four of those that were claimed.

The Flying Committee report lists the most outstanding badge flight of the year as probably the 500km triangle flown in this country by Alan Vincent in his K-6E. This and Mike Field's flight in a Skylark 4 show there is still plenty of scope for the wooden glider.

Tom Zealley, the Chairman, reported that the Nationals Structure for the year under review was debated frequently and at great length in the Committee. Pilots at the '72 Nationals were also consulted. Finally it was agreed to make very few changes.

MORE THAN 4,000 HOURS TRAINING

MOTOR GLIDER COMMITTEE REPORT

The Motor Glider Committee organised the Symposium at Lasham in September to enable motor glider operators to exchange experiences gained over the last two years.

Ann Welch, the Chairman, reported that it was evident from the discussions that motor gliding has made a great contribution to the effectiveness of glider pilot training. Also the Falke has proved itself as a safe and serviceable aircraft in club operations.

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NEW ENTRY RULES—

FOR COMPILING THE 1974 NATIONALS ENTRY LISTS

THE following rules are a revision of those used for the past three years (see S&G, August 1970, p317) and will be used to compile two lists which will govern entry to the 1974 Nationals.

1. Final interpretation of these rules will rest with the BGA Flying Committee who may exercise their discretion in deciding any anomaly, which is not resolved by the following rules.

2. Only the results of BGA recognised competitions (Nationals and Regionals) will be used in compiling the Entry List.

For the time being the German Hahnweide and the French d'Angers competitions will also be included and will be treated as 'Regionals'. A full results list for each such competition will be prepared using handicapped scores for every competitor in all competitions, except the Open/Standard Nationals and the Hahnweide and d'Angers competitions whose unhandicapped scores will be used. Foreign pilots' names will be initially retained in Regionals results. For team entries, the total team score and position is credited to the team pilot with the highest individual average daily score of the team and all other pilots in that team are disregarded. Ties within a competition are resolved by the higher average daily placing of the pilots concerned, with a team pilot carrying the combined average of his team. Any remaining ties will be resolved by lot.

3. To be a recognised Regional it is necessary for the competition to be accepted as such by the BGA Flying Committee. They will require to be satisfied that the competition is properly organised. It is also necessary, for recognition, for there to be at least ten bona fida competitors at the start of the contest, and at least three contest days.

4. The results of the four 1973 National classes (Open, Standard, Sport and Club) will be used to compile two combined class lists for the year—one for the Open/Standard and the other for the Sport/Club competitions. These combined class lists will be produced by arranging all pilots in the order of their placing score. A pilot's placing score is obtained by dividing his position number in his class (ie, 1, 2, 3 etc) into the total number of competitors that flew in that class. Where classes in a competition have the same number of competitors, or there are ties in pilot's placing scores, precedence will be given to the class achieving the higher number of contest days, or failing resolution by this means, by any other criterion at the discretion of the Flying Committee.

5. The two combined class lists will then be merged in the following way so as to make two "Nationals retention lists". The Open/Standard retention list will start with the top ten names from the Open/Standard combined class list and thereafter the names from the top of the Sport/Club combined class list will start to be merged in so that the names will alternate, ie, even places 12 onwards from the Open/Standard combined class list, and odd places 11 onwards from the Sport/Club combined class list. The Sport/Club retention list will be similarly compiled giving the top ten places to the Sport/Club combined class list.

6. The 1973 Nationals Entry List will then be merged into each of the above retention lists so that the first 20 places in each list are occupied by the first 20 names on the respective retention list and thereafter the names will alternate with those of the 1973 Entry List. Where a pilot's name appears more than once, then all but the highest reference will

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be deleted. The resulting two lists will then be referred to as the "consolidated nationals retention lists" for 1973.

7. A consolidated "Regionals promotion list" will be produced from the results of all Regional competitions in that year by arranging all Regionals competitors in the order of their placing score. Placing scores will be determined similarly to the description in Para 4 above by dividing a pilot's placing position number in a Regional (1, 2, 3, etc) into the total number of competitors who flew in that competition. The names of foreigners who flew in Regionals will initially be retained and counted in the results lists. The placing score of British pilots in the Hahnweide and d'Angers competitions will be similarly determined, and their names incorporated in the consolidated Regionals promotion list in accordance with that score.

After deleting all but the highest reference in the case of pilots whose names appear more than once, and also deleting all foreigners' names, the resulting list will be the consolidated Regionals promotion list.

8. The consolidated Regionals promotion list will then be merged with each of the two consolidated Nationals retention lists (Para 6) such that the first 20 places on each list are occupied by the first 20 names on the respective Nationals retention list, and thereafter the names alternate (ie, even places 22 onwards from the Nationals retention list, and odd places 21 onwards from the Regionals promotion list). Again, where a pilot's name appears more than once in each list, then all but the highest reference will be deleted. In this way two separate lists are prepared, one for entry to the 1974 Open/Standard Nationals and the other for the 1974 Sport/Club Nationals and pilot's names will appear on both lists (although not in the same position on each).

9. Regardless of the Nationals entry lists described above, places will be guaranteed in either Nationals Championships to the four British Team pilots selected to fly in the 1974 World Championships and to the pilots on the published list of reserves.

T. S. ZEALLEY,
Chairman, Flying Committee.

EUROGLIDE

ENTRIES for the Euroglide contest, which will be held in conjunction with our own Nationals, are now coming in. The closing date, however, is not until this issue has been published. The list will appear in our next issue.

ENTRIES OPEN/STANDARD CLASS NATIONALS

LASHAM AUGUST 18—SEPTEMBER 2

Pilot	*Open*	*Standard*
Hood, L. S.		Std Cirrus
Delafield, J.	Kestrel 19	
Lee, D. G.		Std Cirrus
Orme, H.	Kestrel 19	
Pozerskis, P.	Kestrel 19	
Brown, H. F.		Std Libelle
Fitchett, B.		Std Cirrus
Tanner, L. E. N.	Kestrel 19	
Cousins, R.	Kestrel 19	
Camp, G.		Std Libelle
White, S. A.	Kestrel 19	
Goldsbrough, J. B.	Kestrel 19	
Williamson, J. S.		Std Libelle
Day, C. G.	Kestrel 19	
Goodhart, H. C. N.	Kestrel 19	
Sandford, R. A.		Std Cirrus
Ince, D. H. G.	Kestrel 19	
Brownlow, B.		Cobra 15
Burton, G. E.	Kestrel 19	
Foot, R. A.	Nimbus 2	
Grenet, P.		Std Cirrus
Kronfeld, J. R. W.		Std Libelle
Lysakowski, E. R.	Kestrel 19	
Knipe, F. H.		Std Libelle
Wishart, R.	Kestrel 19	
Warminger, A. H.	Kestrel 19	
Gough, A. W.		Std Cirrus
Burton, A. J.		Std Libelle
Glossop, J. D. J.	Kestrel 19	
Jeffries, J. R.	?	?
James, D. B.	Diamant 18	
Jones, R.	Nimbus 2	
Watson, A. J.		Std Libelle
Gaunt, T.		Std Libelle
Austin, D. C.	Kestrel 19	
Piggott, A. D.	Kestrel 19	
Wood, R. A.	Cirrus	
Burns, Anne	Nimbus 2	
Tull, V. F. G.	Diamant 18	
Smith, G. E. M.		ASW-15

SPORT/CLUB CLASS

The closing date for this event, being held at Husbands Bosworth from May 26 to June 3, has been extended, the reason being that this class was undersubscribed. Pilots who are interested in competing in this competition should contact the BGA as soon as they can.

How to get "SAILPLANE & GLIDING"

"Sailplane & Gliding" can be obtained in the UK at all Gliding Clubs, or send £2.16 post free for an annual subscription to: British Gliding Association, 75 Victoria Street, London SW1H 0JB. Single copies, including post 36p. Enquiries regarding bulk orders of 12 copies or more, at wholesale prices, should be made to the British Gliding Association

OVERSEAS AGENTS

CANADA:	T. R. Beasley, Soaring Supplies, PO Box 621, St Laurent 379 (MTL) PQ. (Single copies US $1.00 or $6.00 annually.)
HOLLAND:	J.Th van Eck, Noordvliet 6, Maassluis.
SWEDEN:	Flyg Biblioteket, GPO Box 2, S-260 70 Ljungbyhed.
USA:	Please apply direct to British Gliding Association. Payable in either Sterling or Dollars (See Canada). International Money Orders preferred.
AUSTRALIA:	Peter Hanneman, Soaring Imports Pty Ltd, 11 Cranbrook Place, Illawong, NSW2232.

Red Leather Cloth Binder, taking 12 issues (two years): £1.00 plus 10p postage. Will also bind your BGA Personal Pilot Logbooks.



Before the appeal leaflet was even printed, donations had started arriving —our thanks to all those who got us off to such an encouraging start.

In this issue of S&G you should find a leaflet explaining how you can help Britain's team right now. We are very keen to get our pilots to Australia a few weeks before the World Championships start so that they can get acclimatised to the heat and find out what upside-down thermals are like. That's going to cost us more than our budget allows so we have to rely on the Boomerang Fund to give us this head start.

If you feel like helping the team please do send off your contribution *today*, and send your cheque made payable to "BGA Boomerang Fund" to the BGA, 75 Victoria Street, London SW1. Thanks.

WIN A BOOMERANG

We want the British team to have a bit of opposition this summer, so we are declaring 1973 to be "200km Year" for all cross-country pilots. The team will

be concentrating on completing a 200km triangle at more than 90km/h. Why not have a go yourself? To encourage you we are awarding Boomerang trophies—handsomely made of wood—to the five non-team pilots who complete the fastest 200km triangle before September 30, 1973: triangles must be "28% declared" and National Ladder rules, including handicapping, will apply. More small print rules from the Boomerang representative at your club or from Mike Garrod, 2 Burford Court, Rances Lane, Wokingham, Berks RG11 2LJ.

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OUR SPECIAL THANKS . . . TO:

Howard B. Baker of Balby, Doncaster for donating the five wooden Boomerang trophies; Harold Baker Ltd of High Wycombe, for giving us hundreds of plastic boomerangs to publicise the Fund; Anne Ince for her photographs of the British team pilots, and to Brennig James, uncrowned Boomerang King, for specialist advice!

BOOMERANG FUND REPRESENTATIVES

A few arms remain to be twisted but here is the current list of Boomerang Fund representatives (if your club is not listed and you would like to volunteer to help, drop a line to Rika Harwood, c/o BGA office).

Club	*Representative*
Airways	S. A. White
Albatross	F. C. Sloggett
Angus	L. S. Joiner
Avro	P. G. S. Jackson
Blackpool & Fylde	J. S. Aked
Buckminster	R. Allton
Burton & Derby	Marion Toft
Cambridge	P. A. King
Cornish	N. Ellis
Cotswold	D. P. Greenland
Coventry	S. Gilmore
Cranfield	H. C. Parker
Deeside	A. J. Middleton
Derby & Lancs	S. Armstrong
Doncaster & Dist	D. White
Dorset	A. D. Palmer
Dumfries & Dist	I. Slack
Essex	M. Throssell
Essex & Suffolk	E. Richards
Imperial College	N. D. Leak
Inkpen	Jane Jones
London	J. Bellew
Midland	K. Mansell
Norwich Soaring Grp	A. H. Warminger
Polish Air Force Ass	Krystyna Lysakowski
Southdown	D. Eastell
Staffordshire	Judy Graham
Surrey & Hants	F. Wright
Swindon	J. Trenchard
Thames Valley	(see Airways)
Trent Valley	Naomi Harrison
Ulster & Shorts	L. McKelvie
West Wales	T. G. Phillips
Worcestershire	J. Quinney
Yorkshire	F. H. Knipe

FORTHCOMING EVENTS

MAY 4-13: Junior Inter-Service competition, Spitalgale.
MAY 10-21: International contest, Dinslaken/Schwarze Heide, Germany.
MAY 19: Victor Boin Contest, Eindhoven, Holland.
MAY 26-JUNE 3: Sport/Club Nationals and Vintage Glider Rally, Coventry G Cl, Husbands Bosworth.
MAY 26-JUNE 3: FAI Motor Glider contest, Burg Feuerstein, Germany.
MAY 26-JUNE 2: Hahnweide International Contest, Germany.
JUNE 9-17: Dunstable Regionals, London G Cl.
JUNE 10-24: German Open/Standard Nationals, Hahnweide.
JUNE 19-28: USA Standard Class Nationals, Chester airport, Columbia.
JUNE 23-JULY 1: Booker Regionals, Wycombe Air Park.
JUNE 26-JULY 5: Canadian Nationals, Winnipeg, Manitoba.
JUNE 30-JULY 8: Belgian International contest, St Hubert.
JUNE 17-*July* 8: Women's World Championships, Leszno, Poland.
JULY 7-15: Dorset Regionals, Compton Abbas, Dorset Aviation Centre.
JULY 14-26: Coupe d'Europe, d'Angers, France.
JULY 21-29: Western Regionals, Nympsfield, Bristol G Cl.
JULY 24-AUG 2. USA National Championships, Liberal airport, Kansas.
AUG 4-12: Northern Regionals, Sutton Bank, Yorkshire G Cl.
AUG 18-SEPT 2: Euroglide, Open/Standard Nationals, Lasham G Society.

EARLY SOLO FLYING WARNING

SAFETY PANEL REPORT

There were 114 accidents during the year—53 substantial and 61 minor—involving BGA gliders and those operated by the Army and Navy clubs in the UK. The RAFGSA have their own reporting procedure and their accidents are not included.

The Safety Panel Report was presented by the Chairman, Ian Dandie. The bulge that formerly occurred at about 150 hours has disappeared. 50% of all accidents involved pilots with less than 100 hours, 20% of these being pilots with less than ten hours. It is clear that CFIs should pay more attention to their pilots in this experience bracket.

The Committee's breakdown of accidents in the under ten-hour group shows where attention should be concentrated

	Substantial	*Minor*
Failed launches	3	2
Approach control	3	2
Circuit planning	2	1
Landing	1	0
Spinning/stalling	1	1
Airbrakes open unnoticed	1	0
Others	0	4

The Chairman drew the conclusion that early solo flying is definitely not as safe as many assume and it is up to instructors to make sure supervision is adequate. Six accidents with substantial damage involved pilots with less than one hour's experience and there were two accidents on first solo flights.

He used part of his report to list some of the factors in accident trends.

The failed launch still gives a lot of trouble. "Blow overs" are back—five this year. It even happened twice to the same aircraft!

Commenting on the inexperienced solo pilot supervision, the Chairman made the point—"How good can you expect a low-hour pilot to be when perhaps he flies as little as ten hours a year?"

There have been 24 field selection/landing type accidents and competition pilots have lost their good record. "Does the answer here lie in only approving competitions at sites which are surrounded by good landing sites?"

Approach control was involved in 19 cases and caused him to make the following observations:

"A belief still exists that there is safety in excessive speed on the approach, and accidents have occurred due to difficulties in controlling the round out and hold off. More emphasis must be placed on accurate speed control throughout the approach rather than instructors being satisfied provided a minimum speed is exceeded. The increasing numbers of higher performance ships becoming generally available throughout the movement makes all this all the more important."

It was noted that 14 accidents involved circuit planning and concluded that the various positions of the downwind and base legs to suit different conditions is not perhaps fully appreciated.

There have been two cases where gliders have picked up a second cable with the tail skid.

The Safety Panel Report stressed: "Great care should be taken to ensure that a second cable is well clear to eliminate any possibility of it being picked up if a glider swings on the ground run. Clubs with multiple lines of launch are exhorted to examine tail skid assemblies regularly."

There is the impression pilots are losing their respect for cloud when ridge and wave soaring. The one fatality was the result of becoming enveloped by a lenticular and another pilot had a most fortunate escape when he entered orographic cloud when ridge soaring.

"People appear to be developing a tendency to make wave climbs on days when there is substantial low cloud cover with small clear gaps. This is potentially suicidal as they do not appear to give much thought as to how to return or navigate should the gap, as happens, close. CFIs of wave sites, please note."

One happy by-product of having a second National Coach has been the increased involvement of Bill Scull in the work of the Safety Panel.

"From this there should be a more rapid feed-back of accident information into instructor training. This is good. Accidents cannot really be dismissed as

'just one of those things that happen', nor can they normally be attributed to 'just a piece of bad luck'.

"The most effective way to reduce accidents," the Chairman stressed, "is to make each and every instructor realise that not only is a really satisfactory standard of training required but that supervision of club flying must be carried out at a more adequate level than has been the case from time to time."

TRIPLE TRAGEDY

THE year has started badly with two accidents causing three deaths. The first involved a Falke SF-25 flying from Wycombe Air Park on February 17 in which the pilot Tony Thurlow and his wife Karen were killed on impact.

On March 3 a Blanik from the Upward Bound Trust apparently spun in after a cable break at Haddenham. The instructor, Walton Ashworth, received minor injuries, but Josephine Holden, P2, died two days after the accident.

Both accidents are under investigation.

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THE HAT TRICK—or three times lucky

By R. P. SAUNDBY

In the last edition we had two accounts of the exceptional wave conditions experienced at Aboyne. With this version as further evidence, the Deeside gliding club have a good chance of being invaded by Diamond height seekers.

ONE of the attractions of gliding is that not only are there competitions where satisfaction can be obtained by outflying a rival, but also the badge system allows all the opportunity to climb a ladder together, endeavouring to outsmart the elements rather than one's friends. Monday, October 30, 1972, was one of these days, when at Aboyne three of us on an RAFGSA expedition each climbed a K-6E to Diamond height.

The expedition was made up from the Fenland and Anglia clubs together with the RAFGSA Centre. Until the day of Diamonds the expedition had been pretty successful, most who wanted their Gold heights had gained them and the others had flown over 15,000, but high cloud, weakening waves or lack of oxygen had prevented any Diamonds. Climbs had all been within 15 miles of Aboyne because the best aircraft on the expedition, the K-6E, proved not to have the high speed performance necessary to penetrate upwind in the time that oxygen endurance and low temperatures allowed.

On October 30 a "low" was centred midway between Scotland and Iceland, a cold front had gone through the day before and a "high" was building over the Azores. The gradient wind was southwest at 35kts but the conditions were

almost calm in the valley.

There was no trace of cloud that could indicate wave but Bill Dickson was launched at 11.15hrs. By noon he called that he was over the Dinnet Lochs at 11,000ft, climbing at 6kts, remaining in the same wave the rate of climb slowed at 19,000ft and at 20,000ft he started a descent, landing at 13.07.

After replenishing the oxygen system I was airborne at 13.30, contacted the wave and after some initial mixed thermal and wave became established in a steady smooth climb. There was really nothing to do except admire the view as the altimeter wound upwards, an occasional small adjustment to heading or airspeed maintained the ground position and above 10,000ft the oxygen system assured physiological normality.

Nearing 20,000ft I realised that a third climb could be achieved in the daylight remaining and called Aboyne suggesting a rapid turn-round and fresh pilot. As soon as the altimeter touched the magic figure of 20 I dived for the ground, pausing only for a few moments below the freezing level to let the canopy clear. Landing at 15.05, I uncurled my frozen limbs while barograph and oxygen were changed.

With Andy Miller in the cockpit it was launched at 15.23 with just over an hour to go till sunset. The wave had improved and he was immediately established in smooth lift but it was a race against darkness. Sunset was at 16.35 and with little cloud a landing would be safe until 16.50. As a precaution, some cars with lights on were positioned down the runway, but at 16.39, one minute before a mandatory recall, Andy called that he had reached 20,000ft and was descending. Using full ventilation on descent to avoid canopy icing, he landed at 16.48 with white frost-bitten cheeks.

As night fell, a classical wave cloud formed, the first visual indication of that great wave which had lasted all day and given us a hat trick. Sadly, the next day I had to return south but tempted by wave up to 10,000ft decided to fly part of the way. It was a struggle to Portmoak but spurred by the opportunity for some rather indecent boasting, I landed there as the sun set and the bar opened.



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(or "The Old Grey Mare—She Ain't What She Used to Be")



Mother-in-Law in T-21
Doing a solo—just for fun,
Cable breaks half way up wire
Mother-in-Law in trouble dire.

Daddy-in-Law back on grass shouts
"Spoilers out you silly . . . . . "
Mother-in-Law, in her old grey steed,
Just dives to earth with bags of speed.

So she pushed the nose down on the ground,
But all at once, with a leap and a bound,
The old grey mare, and pilot and all,
Shot into the air in one hell of a stall.

We all stood around with knocking knees,
As the aircraft hung above the trees,
But now there comes another factor—
Underneath it was the tractor!



The tractor driver, as best he is able
Must first of all find broken cable,
He saw, during launch, that cable had parted,
So jumped on the tractor to get it started.

Tractor driver was unaware
Of Mother-in-Law above in the air,
Stalled twenty feet just over the trees
Like a ruddy great sword of Damocles!

With the '21 over him like an awning,
The winch driver shouted a timely warning.
Tractor man looked and saw summat frightening—
Jumped off the tractor like a streak of lightning.



By Son-in-Law

(Would you believe?)

By this time our vertical heroine
Had just begun an incipient spin.
With smooth, slow grace and consummate ease,
The tail slid back to the height of the trees.

Then with movement to credit a ballet de dance,
The '21 started an aerial prance,
Dropped her right wing like a plywood chopper,
Poor Mother-in-Law came a terrible cropper.

Little bits, big bits, splinters and tin
The '21's been really done in.
"But what of the pilot?" we all of us shouted,
"Mother-in-Law must have surely been clouted?"

The ambulance came, the Law came too,
The Law wasn't sure of what to do.
We all stood around like gormless fools,
Then somebody said "Get Laws and Rules".

When X-ray showed she'd broken no bone
Mother-in-Law was allowed to go home,
With nothing worse than cuts and bruises,
Duly announced in the Evening Newses.

That night in the bar at the back of the pub
Sat half of the South Wales Gliding Club,
Discussing with beer, barley wine and cider,
The mode of demise of their two-seater glider.

Next time you are wont from a cable to dangle,
Think of this philosophical angle;
Of how the whole sorry tale began . . .
And of Mother-in-Law's spectacular prang.

AIRSPACE COMMITTEE REPORT

THERE have been several changes during the year. On balance, they have not restricted our activities to any great extent.

1. The North boundary of the Scottish TMA has been moved slightly to the South. This has improved the situation for gliders flying in the "Dollar" wave area.
2. Edinburgh Control Zone has become a Special Rules Zone. Gliders may fly through the Zone by arrangement with Turnhouse Airfield using 130.4 MHz.
3. Leeds/Bradford Special Rules Zone is now Rule 22 for power aircraft but gliders may continue to cross in VMC.
4. The controversial Lyneham/Brize Norton areas have been resolved, two separate areas having been established. Brize Norton is now banned to gliders but we may transit Lyneham in VMC, without radio.
5. Bournemouth Control Zone has been reduced in size by about 30% and has become Rule 22 to power aircraft. Gliders are again exempt from the provisions of Rule 22 providing that they remain VMC.
6. There has been a Westerly extension of Amber One, minimum base FL 125.
7. A small portion of Green One Airway has been raised to FL 55, improving the situation in Kent a little.

Future proposals are, of course, rumoured. The most pressing is that for revisions to the London TMA. In its original form this had very detrimental effects on several major Clubs and negotiations have been proceeding throughout the year. It is not possible at the time of writing to forecast the end result.

In the very long term, Clubs within about 50 miles of the projected Maplin Airport may expect direct problems whilst, of course, Clubs outside that area may have added cross-country difficulties.

During the year there have also been International developments. In the long run it is possible that the only solution to the problem of living with a rapidly expanding commercial aviation world, may be joint International representations. There have been several meetings and now the FAI is in the process of setting up an Airspace Committee, in which all non-commercial interests are to take part. It is hoped that the BGA will take an active part in this new organisation.

John Ellis.

CIVV MEETING

72 GLIDERS are entered for Australia by 28 countries—29 Open and 43 Standard. Because of the emptiness of some of the terrain quadrilateral speed tasks may be used. Aerotow retrieves will be allowed within 15km of Waikerie, to reduce problems crews may have locating gliders which have landed short, particularly late in the day. Tows will be available to all pilots without charge but if used no further contest launch will be permitted on the day. A start line will not be used for Distance tasks but the Organisers may instead use the prevailing overall results list inverted as the starting order. Scoring will be by the 1000 points system modified after Vrsac. This is now in the Code although temporarily without a Day factor.

A proposal was made to CIVV that the Standard Class rules should be reviewed. The situation is unsatisfactory partly as the result of an expanding sport being compressed into too small a class structure. Thought might be given to having 3 Classes—Open, 15m unrestricted, and Standard Class with no flaps.

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INTERNATIONAL GLIDING RECORDS (correct as at 14.3.1973)

Single-Seaters

Distance	H. W. Grosse (W. Germany), 25.4.72, ASW-12	1,460.8km
Height Gain	P. F. Bikle (USA) 25.2.61, SGS 1-23E	12,894m
Absolute Height	P. F. Bikle (USA) 25.2.61, SGS 1-23E	14,102m
Goal Flight	K. Tesch (W. Germany), 25.4.72, LS-1C	1,051.2km
Goal & Return*	K. H. Striedieck (USA), 15.10.72, ASW-15	1,093km
100km Triangle	W. Neubert (W. Germany) (in USA), 5.7.70, Kestrel 604	155.06km/h
300km Triangle	W. Neubert (W. Germany) (in Kenya), 3.3.72, Kestrel 604	153.43km/h
500km Triangle	M. Jackson (S. Africa), 28.12.67, BJ-3	135.32km/h

Multi-Seaters

Distance	J. Kouznetsov & J. Barkhamov (USSR), 3.6.67, Blanik	921.95km
Height Gain	S. Josefczak & J. Tarczon (Poland), 5.11.66, Bocian	11,680m
Absolute Height	L. Edgar & H. Klieforth (USA), 19.3.52, Pratt-Read G1	13,489m
Goal Flight	S. Baumgartl & W. Schewe (W.Germany), 25.4.72, ASK-13	714km
Goal & Return	E. Makula (Poland) & J. Serafin (in USA), 8.8.72, Calif A-21	718.2km
100km Triangle	E. Makula (Poland) & H. Taskovich (in USA), 6.8.72, Calif A21	130.73km/h
300km Triangle	E. Makula (Poland) & J. Serafin (in USA), 4.8.72, Calif A-21	113.72km/h
500km Triangle	E. Makula (Poland) & J. Serafin (in USA), 4.8.72, Calif A21	101.18km/h

Single-Seaters (Women)

Distance	Olga Klepikova (USSR), 6.7.39, Rot Front 7	749.20km
Height Gain	Anne Burns (GB) (in S. Africa), 13.1.61, Skylark 3B	9,119m
Absolute Height	Betsy Woodward (USA), 14.4.55, Pratt-Read-195	12,190.2m
Goal Flight	Tamara Zaiganova (USSR), 29.7.66, A-15	731.60km
Goal & Return	Susan Martin (Australia), 6.2.70, Libelle 301	656.04km
100km Triangle	Susan Martin (Australia), 29.2.72, Kestrel 17	113.24km/h
300km Triangle	Susan Martin (Australia), 11.2.72, Kestrel 17	114.45km/h
500km Triangle*	Angela Smith (GB) (in S. Africa), 28.12.72, Libelle 301	108.9km/h

Multi-Seaters (Women)

Distance	T. Pavlova & L. Filomechkina (USSR), 3.6.67, Blanik	864.86km
Height Gain	A. Dankowska & M. Mateliska (Poland), 17.10.67, Bocian	8,430m
Absolute Height	A. Burns (GB) & J. Oesch (in USA), 5.1.67, SGS 2-32	9,519m
Goal Flight	I. Gorokhova & Z. Koslova (USSR), 3.6.67, Blanik	864.86km
Goal & Return	P. Majewska & R. Sokolowska (Poland), 14.7.68, Bocian	467.2km
100km Triangle	Y. Leeman & M. Human (S. Africa), 27.12.67, Kranich 3	90.95km/h
300km Triangle	O. Manofova & V. Lamova (USSR), 12.6.64, KAI-19	74.31km/h
500km Triangle	T. Zaiganova & V. Lobanova (USSR), 29.5.68, Blanik	69.6km/h

BRITISH NATIONAL RECORDS (correct as at 14.3.1973)

Single-Seaters

Distance	P. D. Lane (in Germany), 1.6.62, Skylark 3F	741km
Height Gain	M. J. Field, 9.5.72, Skylark 4	12,700m
Absolute Height	M. J. Field, 9.5.72, Skylark 4	13,050m
Goal Flight	H. C. N. Goodhart, 10.5.59, Skylark 3	579km
Goal & Return*	J. S. Williamson (in Australia), 20.1.73, Std Libelle	658km
100km Triangle	E. P. Hodge (in Rhodesia), 1.11.70, Diamant 16.5	126.4km/h
300km Triangle	E. Pearson (in S. Africa), 1.1.72, Std Cirrus	130.9km/h
500km Triangle*	J. Delafield (in S. Africa), 21.12.72, Kestrel 19	121km/h

Multi-Seaters

Distance*	A. W. Gough & C. M. Greaves (in S. Africa), 11.1.73, Blanik	504km
Height Gain	L. S. Hood & M. V. Slater (in France), 3.2.70, K-7	6,300m
Absolute Height	Anne Burns & Janie Oesch (in USA), 5.1.67, SGS 2-32	9,519m
Goal Flight	J. S. Fielden & Vera Fielden, 14.8.70, Bergfalke 3	421.5km
Goal & Return	A. H. Warminger & R. Tucker (in S. Africa), 4.1.69, SGS 2-32	362km
100km Triangle	E. Pearson & A. Martin (in S. Africa), 7.1.68, Kranich 3	83.52km/h
300km Triangle	A. H. Warminger & R. Tucker (in S.A.), 29.12.68, SGS 2-32	72.3km/h

Single-Seaters (Women)

Distance	Anne Burns (in S. Africa), 31.1.61, Skylark 3B	524km
Height Gain	Anne Burns (in S. Africa), 13.1.61, Skylark 3B	9,120m
Absolute Height	Anne Burns (in S. Africa), 13.1.61, Skylark 3B	10,550m
Goal Flight	Ann Welch (in Poland), 20.6.61, Jaskolka	528km
Goal & Return	Anne Burns (in S. Africa), 6.1.66, Std Austria	545km
100km Triangle	Anne Burns (in S. Africa), 12.1.63, Skylark 3B	84km/h
300km Triangle*	Angela Smith (in S. Africa), 21.12.72, Libelle 301	102.16km/h
500km Triangle*	Angela Smith (in S. Africa), 28.12.72, Libelle 301	108.9km/h

Multi-Seaters (Women)

Absolute Height	Anne Burns & Janie Oesch (in USA), 5.1.67, SGS 2-32	9,519m

* Subject to homologation

UNITED KINGDOM RECORDS (correct as at 14.3.1973)

Single-Seaters

Distance	H. C. N. Goodhart, 10.5.59, Skylark 3	579km
Height Gain	M. J. Field, 9.5.72, Skylark 4	12,700m
Absolute Height	M. J. Field, 9.5.72, Skylark 4	13,050m
Goal Flight	H. C. N. Goodhart, 10.5.59, Skylark 3	579km
Goal & Return	D. Lee, 18.7.71, Std Libelle	520.5km
100km Triangle	G. E. Burton, 14.6.69, SHK	95.4km/h
200km Triangle	J. S. Williamson, 7.6.69, Dart 17R	74.7km/h
300km Triangle	R. Jones, 17.7.71, Std Cirrus	81.9kmh
400km Triangle	A. D. Purnell, 19.4.69, Cirrus	66.36km/h
500km Triangle	S. A. White, 28.4.71, Std Cirrus	77.4km/h
100km Gl Speed	K. A. Harrison, 13.4.69, SHK	128.4km/h
200km Gl Speed	I. W. Strachan, 2.6.63, Skylark 4	114.3km/h
300km Gl Speed	E. A. Moore, 27.5.57, Skylark 2	92.1km/h
500km Gl Speed	H. C. N. Goodhart, 10.5.59, Skylark 3	90.7km/h

Multi-Seaters

Distance	J. S. Fielden & Vera Fielden, 14.8.70, Bergfalke 3	421.5km
Height Gain	J. R. Monteith (USA) & M. C. Mahon, 2.11.72, Capstan	6,705m
Absolute Height	J. R. Monteith (USA) & M. C. Mahon, 2.11.72, Capstan	7,620m
Goal Flight	J. S. Fielden & Vera Fielden, 14.8.70, Bergfalke 3	421.5km
Goal & Return	B. J. Willson & H. Daniels, 27.7.69, Blanik	324km
100km Triangle	B. J. Willson & H. Daniels, 19.4.69, Blanik	77.57km/h
200km Triangle	B. J. Willson & H. Daniels, 20.4.69, Blanik	64.63km/h
300km Triangle	B. J. Willson & H. Daniels, 15.5.66, Blanik	55.8km/h
100km Gl Speed	D. B. James & K. O'Riley, 27.5.57, Gull 2	96.5km/h
200km Gl Speed	B. J. Willson & H. Daniels, 11.7.70, Blanik	77.8km/h
300km Gl Speed	W. A. H. Kahn & J. S. Williamson, 14.4.58, Eagle	69.2km/h

Single-Seaters (Women)

Distance	Anne Burns, 10.5.59, Skylark 3B	454km
Height Gain	Anne Burns, 10.5.59, Skylark 3B	5,100m
Absolute Height	Anne Burns, 10.5.59, Skylark 3B	5,600m
Goal Flight	Anne Burns, 12.4.58, Skylark 3B	309km
Goal & Return	Angela Smith, 14.8.70, K-6E	303km
100km Triangle	Anne Burns, 14.6.69, Cirrus	80km/h
200km Triangle	Anne Burns, 22.8.64, Std Austria	69.3km/h
300km Triangle	Anne Burns, 28.6.66, SHK	60.2km/h
400km Triangle	Anne Burns, 5.8.67, SHK	60.6km/h
500km Triangle	Anne Burns, 28.4.71, Cirrus	67.9km/h
100km Gl Speed	Rika Harwood, 27.5.57, Olympia 2B	83km/h
200km Gl Speed	Anne Burns, 2.6.63, Olympia 419	85.5km/h
300km Gl Speed	Anne Burns, 12.4.58, Skylark 3B	63.9km/h

Motor Gliders

100km Triangle	I. W. Strachan, 13.6.71, SF-27M	57.3km/h
100km Gl Speed	I. W. Strachan, 16.7.71, SF-27M	85.7km/h

International Motor Glider Records

Distance	W. Collee (Germany), 28.7.68, SF-27M	536.95km
Goal Flight	E. Klüh (Germany), 3.6.70, ASK-14	528.8km

(MG) Subject to homologation

Height Gain	D. Mayr (Germany), 19.11.71, SF-25B	approx 6,220m
Absolute Height	D. Mayr (Germany) 19.11.71, SF-25B	,, 7,536m
Distance	O. E. Venator (Germany), 4.6.71, SF-27M	,, 608km

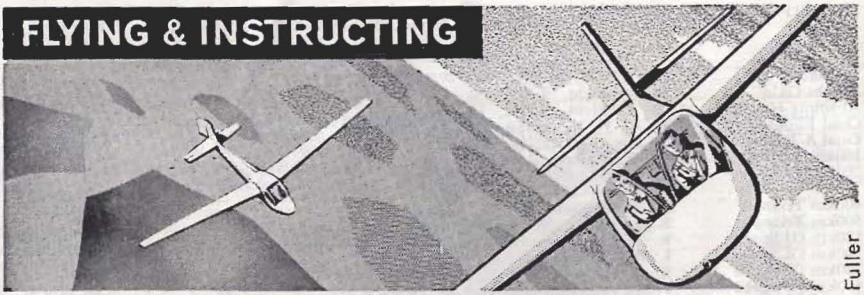
New records have to exceed the old ones by:

Distances	10km
Heights	3%
Triangles	2km/h
Straight Goals	5km/h

Conversion factors:

Multiply km by 0.621 to get statute miles
Multiply km by 0.54 to get nautical miles
Multiply km by 0.54 to get knots
Multply km/h by 0.621 to get mph
Multiply metres by 3.28 to get feet

No side of a triangle may have a length of less than 28% of the total distance of the course when the flight is made to obtain a record. (FAI Sporting Code, 1.1.1971, paragraph 2.1.5 (d).)



Fuller

PILOT'S NOTES FOR THE KESTREL 19

By A. D. PIGGOTT

There are seventeen Kestrel 19s in this year's Open Class and a number of other private owners are also 'changing up' to 19 metres from Standard Class machines. There is no lack of advice in club bars about how to fly with flaps but from what we hear much of it is contradictory. Derek Piggott test flew the Kestrel and competed at Shobdon in one last year. His notes may well save new owners from some big repair bills.

THE Kestrel 19 is a very straightforward and docile machine to fly in spite of the initial impression of the complicated cockpit. This consists of a mass of knobs and fittings, and the most likely cause of trouble in flight is operating the wrong one.

When you have sat in the machine a few times, try blindfolding yourself and then identifying all the controls by feel. This may prevent you pulling the rudder adjustment by mistake for the tail parachute.

FLAPS

The flap operating lever allows the flaps to be raised and lowered for cruising flight. At the same time this repositions the ailerons to keep them in line with the flap. However, when the flaps are lowered the consequent drooping of the ailerons restricts the range of aileron movement, thus slightly reducing their effectiveness and increasing aileron drag. This does not happen when they are raised.

In light winds, all the available control may be needed during take-off and landing, and this means that the cruising flap lever should be in the *neutral* (0°) position.

LANDING FLAPS

Pulling the landing flap toggle, which is a separate control, lowers the flap 30° or so without moving the ailerons. This results in a further increase in lift and a marked increase in drag so that the attitude must be changed considerably to maintain the same airspeed. The approach attitude is, therefore, much more nose-down than normal flight, even without using any airbrake. The Kestrel will not bounce after landing if it is fully held off so that it touches down wheel and tail together, alternatively, the glider must be landed tail high until it loses speed.

WATER BALLAST

Make sure the two plastic nuts are dead tight at the wing roots or you will fill the cockpit and wing root with water. Keep the wings level when filling and try to avoid parking the glider wing down before take-off or you will get one wing very heavy.

Water ballast makes very little difference to the handling but requires approximately 3-4kts extra speed for thermalling. The water must be jettisoned



Type 780 Parachute Assembly. This assembly is SLIM. By using our new low bulk, low porosity 17' (5.2 m) para-conic canopy in this assembly we have available a parachute pack measuring only 19" high (482 mm), 12" wide at top (304 mm), 15½" wide at base (381 mm), 1½" deep at top (38 mm), 3¼" deep at base (82 mm), weight 17½ lbs (8 kgs)





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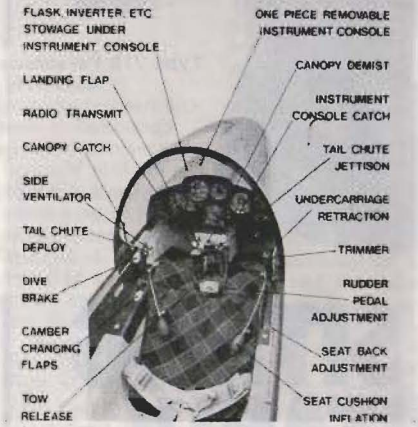
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before landing and takes some time to drain. Turn the tap on at 500-600ft on final glide. Before take-off be sure that the tap can be reached when you are strapped in. A loop of string etc may be necessary.

TAKE-OFF: AEROTOW

Because of the concealed position of the release toggle it is vital to start the take-off with the left hand on the release. Otherwise, if a wing drops, you will not be able to release in time.

The cruising flap lever should be in the 0° position, *not* the +1 or +2



which would reduce the aileron effectiveness at low speeds. The tail should be raised to prevent the glider bouncing during take-off. The cruising flaps should the lowered +1 or +2 during the take-off after adequate control has been gained and this helps the sailplane off the ground.

Unless flap is lowered, the forward view is poor because of the nose-high attitude. The unstick speed is also very high and it is difficult to stay out of the slipstream. Always ask for extra speed compared with a training glider, 60kts is ideal.

WIRE LAUNCHING

The Kestrel may be launched in several configurations. The flaps can be set to +1 or +2 so that they do not have to be re-adjusted unless the wind is very light.

Normally start the take-off with the flaps at 0° and with the left hand on the release toggle. Lift the tail and get the glider running on the main wheel, by which time there will be good aileron control. Lowering the flaps to +2 will then assist the take-off and give higher lift for the climb.

In practice, lowering the cruise flap during take-off presents no real problem as it can be done leisurely at any stage in the take-off once the glider is stabilised. Similar to aerotowing, always raise the tail on take-off to prevent bouncing and leaving the ground prematurely at low speed.

CRUISING

According to the manufacturers the optimum flap settings are: 50-55kts 0° flap, below 50kts +1, +2, this means that the flaps should be raised progressively to increase the speed above about 55kts.

The necessary change of attitude is almost automatic if the flaps are raised slowly. When slowing down, the flaps should be lowered back to the zero position as the speed is reduced to about 55kts, and kept in that position until the initial centring moves have been made. In rough air this enables the glider to be flown more accurately because of the better aileron control. The flaps can then be lowered to +1 or +2 as desired to allow a tighter turn to be maintained for the climb. In very turbulent conditions it may be easier to use zero flap and take advantage of the better handling.

In normal flight the left hand should be on the flap lever most of the time and changes of speed are initiated by moving the flaps. This avoids the possibility of overspeeding with the flaps down. (See footnote.)

Flaps 0°, −1, −2, Vne 135kts
+1 the maximum speed is 108kts
+2 the maximum speed is 80kts
With *landing* flap down the *maximum* speed is *65kts*

and this is very easy to exceed and will result in serious *structural damage*. (One case in this country in 1972.)

STALLING AND SPINNING

The stall is docile in all configurations and the glider will only spin fully with "in-spin" aileron (spinning to the left with the stick to the left). Otherwise it develops into a spiral after about one turn. Being very clean, the speed increases rapidly in a dive and recovery must be made promptly. Do not attempt spinning unless the flaps are in the 0° or up positions as the maximum speeds may be exceeded during recovery. The stalling speed with landing flap but no airbrake is approximately 35kts.

SIDESLIPPING

The Kestrel can be sideslipped very effectively for a steep approach. However, it is suggested that every pilot should explore the sideslipping at height before using slipping on an approach. The angle of yaw with full rudder is surprisingly large, and the ASI becomes totally unusable during the slip. With large amounts of rudder, the rudder loads reverse, so that a definite force is needed to re-centralise it.

Try at least one sideslip using *full* rudder to see exactly what it is like. Even with full rudder, the angle of bank is small and the sideslip is very flat.

AIRBRAKES

Because of the spring-loaded airbrake caps, the forces required to lock and unlock the brakes are high. They cannot be closed or locked above about 80kts because of the high "suck-out" force.

TAIL PARACHUTE

Tail parachutes are only reliable if they are repacked each day before flying. They fail if they are packed badly or if the fairing jams. On pulling the deployment toggle it is best to joggle the rudder to ensure that the fairing does not jam. At the end of each day's flying, the tail 'chute should be taken out so that it has to be repacked on the next DI.

When the 'chute is deployed there is no appreciable effect for a few seconds; then a deceptively gentle deceleration can be felt. The drag of the 'chute is *much* greater than with any airbrakes, it can therefore only be used when there is *already excess speed* or when there is time and height to lower the nose enough to maintain the approach speed. If it is deployed at a normal approach during the final stages of the approach, you will end up too slow and will make a very heavy landing and may well break the glider. (Two cases in 1972.) It will probably require 60kts or so if the chute is deployed at about 50ft since during the time that elapses before the round out a significant amount of speed can be lost. Lower down, less speed will be acceptable and if the 'chute is deployed during the float, no extra speed is needed.

The tail parachute, unlike airbrakes, does not affect the stalling speed of the sailplane, but just increases the drag.

Extreme caution is needed to make sure that the speed is maintained after the 'chute has been deployed. This can only be done by pointing the nose well down. If at any time the speed is falling to 50kts and there is no chance of lowering the nose enough to keep above this speed, the chute must be jettisoned and the airbrakes used normally for the landing.

Fundamentally there is no reason not to use the airbrakes and the tail 'chute together, but in practice the 'chute is so effective that there is seldom need to do so, and it will increase the chance of ending up too slow for a normal round out.

For normal flying, there is no reason to use the tail 'chute as the combination of landing flap and airbrakes is very effective. If it is intended to use the tail 'chute deliberately, the best system is to open the 'chute at about 400-500ft going downwind rather close to the field. The approach can then be made in a steep descending turn maintaining at least 55kts. Excess height can be dived off as the drag of the 'chute increases rapidly with speed.

If the 'chute fails to open, the downwind leg can then be extended for a normal longer approach and landing. In this case the 'chute should be jettisoned so that it cannot become deployed at a later moment and cause an undershoot. This way of using the tail parachute requires constant practice. In a crosswind landing the parachute should be jettisoned after touchdown to prevent a bad swing.

WARNING.—Always repack the tail 'chute before the day's flying. If the deployment toggle has been pulled since

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the last flight and the fairing is not properly locked, the 'chute may come out during take-off. There is no way of detecting this fault from the cockpit and on aerotow the combination will almost certainly end up in the woods. (One case in an SHK in 1972.)

Between flights, it is a wise precaution to check that the fairing is securely locked by taking hold of the fairing and pulling it downwards firmly.

If *at any time* you suspect a serious increase in drag, pull the parachute *jettison* toggle. If the chute is deployed, it will save the glider, and if this is not the trouble, it will only mean re-attaching the chute inside the fairing after the flight.

RAIN AND ICE

The Kestrel, like many other modern gliders, is seriously affected by even light rain or icing. A distinct continuous vibration will be felt at all speeds in rain and the performance drops to about that of a K-8.

AEROBATICS

The Kestrel is not recommended for aerobatics as it is very easy to exceed the Vne because of the clean design and rather limited elevator range.

LANDING

First, lower the main wheel—this spoils the performance considerably. Adjust the flap to zero position (for best aileron control) and slow down to 50-55kts before lowering the landing flap.

After the initial slight gain of height, the nose must be lowered to maintain 50-55kts. If you find it difficult to lower the landing flap you are flying *too* fast! The actual glide path is not so steep as it appears, since with the landing flap down the flying attitude is very nose-down. The airbrakes can then be used normally keeping 50kts or a little more in rough conditions.

Even in no wind the ailerons are adequate to prevent a wingtip touching during the landing run, provided that the pilot is alert and the *cruising flap is at 0°*.

Because of the forward position of the main wheel a drift landing or any swing will tend to result in a violent ground loop.

In very light winds you are advised to give yourself extra room whenever possible. It is unwise to try to be clever and to steer the glider anywhere near to any obstructions after landing.

As a type the Kestrel is simple to fly but you need to know the various approach configurations before taking it across country.

NOTE: Since the above notes were written the CAA and BGA Technical Committee have approved the following modifications:

1. The landing weight of *all* Kestrel 19s has been increased from 960lbs to 990lbs.
2. Applicable only to Kestrel 19s fitted with elevator anti-balance tab (mod 9). This modification extends the aft CG limit to 15.83in aft of datum subject to the following changes in Vne:
   Flap setting 0° and +1 reduced from 108 knots to 100 knots. Flap setting +2 reduced from 81 knots to 70 knots.

All Kestrel 19s without mod 9 retain the original CG limits and speeds.

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3,000 HOURS ON THE WING

By KEITH ALDRIDGE

A generous confession by a pundit of "a bit of old history". He hopes with the start of the new season it may help to keep the prang rate down on cross-country flights.

AND every flight teaches me more, and I still make damn fool errors, and it is abundantly clear that I shall never know it all. Alright, so I am the wrong side of 50, but I have come to the conclusion that one must be slightly past adolescence before you can admit your errors, and to gratefully accept criticism that is offered by fledglings who have only recently left their nest: each one has his own contribution to make.

W. G. Scull writes in S&G, February, 1972, p32, on self-analysis of accidents and I must use him as my father confessor, or do I mean son?, and if confession is good for the soul then perhaps the sins of the father will not be visited on his sons, etc.

Let me preface my saga by stating that I would rather be accused of wife-beating than of battering and grounding the device which takes me into the element where there is no forgiving and where perfection is always the unattainable. The playground without which no one could possibly stand living with me anyway.

The date circa 1960, a vintage National from Lasham League 2 and it's the last day for a sortie into the west.

The aircraft, an Olympia of Soaring Holidays, beautifully turned out and instrumented.

Place of arrival (let me not say landing), the playing fields, Shebbear College, to the north of Holsworthy and not far from Black Torrington, an ill-omened name for a village.

CRICKET MATCH HAZARD

There came the moment when a landing had to be considered imminent and the cricket pitch of said college seemed the logical place, but for the fact that a cricket match was in progress and the out-fielders, whose attention was already attracted skywards, were an unacceptable hazard.

There was an alternative in the form of an adjoining rugger pitch with the goal posts still erected, although the approach was bad, with high trees. Having height enough to explore a short mile, I turned away but the prospect was bleak and the hills of North Devon produced only sloping small rough fields. The only possible chance was only just in gliding distance, with no obvious alternative if the field was dud on closer inspection.

What made up my mind was the sight of the cricket team leaving the field for tea. I still had height to get to the cricket field and do a full circuit with an unhurried approach. And the thought of scrounging tea and plenty of keen hands to help me derig was an added attraction to my choice.

During the circuit I ascertained that the best approach was to one side of the rugger posts. These would pass close to my starboard with the tall trees well clear to port, giving the longest run of the cricket square (stumps not drawn) towards tall trees at the far end, and no noticeable wind to complicate the issue except that it was obviously going to be a tight fit, even for an Olympia. I must plan my approach very accurately to clear that fortress of a stone wall that divided rugger field from cricket pitch at minimum height and only a knot or two in hand.

Satisfied that I had made the correct assessment of the situation, I get to the correct position downwind (except that there was no wind) with the landing area seeming to get increasingly small, if you see what I mean.

RUGGER POST OBSTACLE

As I approached, the rugger posts attracted a lot of my attention as my flight path had to take me within a few feet of them and with no more than ¼ brake to adjust my height to bring me

over that stone wall, leaving full brake to knock off the final eight feet when I got to it.

The zero wind makes my approach seem very rapid and the field to get shorter and shorter.

One eye on the rugger posts, one eye on tree to port, one eye on wall ahead (you get the third eye when your first two get crossed) and maybe just a fleeting glance at the ASI.

Rugger posts seem very close and flash by, and the wall now racing up and looking very solid with scrub bushes on its crown to camouflage the fortress beneath. Concentrating now on a landing spot 20 yards into field and snatch full brake to flop in, run 150 yards and still 75 yards to spare, and then to tell tales of the air to enthralled boys. But!!

I had overlooked a bush somewhat taller than the scrub on top of the wall with its trunk no more than one inch diameter hardened by a hundred Devon winters of frost and moor-swept wind to a consistency of tempered steel. This slammed the port wing, opening it up to the main spar and swinging me through 20° on to the cricket nets, which had never appeared on my list of hazards. These demolished the trailing edge over half its area and left me with my nose hanging over the long jump pit, again not on my list of hazards, about 50 yards further on.

What had I done wrong?

1. Recognised the major hazards of rugger posts, tall trees and scrub-topped wall but failed to see small bush which was higher than the rest of the scrub, to say nothing of cricket nets.
2. Forgot the cardinal rule that it is safer to run the risk of going slowly into hazards at the end of a landing run than to hit an object at landing speed.
3. Leave final full air brake opening until past all hazards when making an approach at minimum speed.

Perhaps my reader(s) will tell me of other things I should have done, other than to give up flying.

BIFOCAL POLAROID SUNGLASSES

AN INGENIOUS IDEA BY BRENNIG JAMES

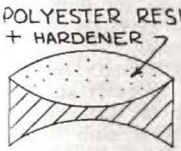


Fig 1

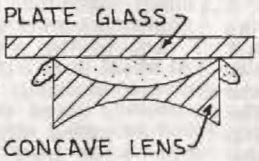


Fig 2

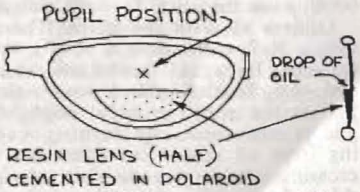


Fig 3 *Fig 4*

THOSE of us who are so old and decrepit that we need glasses for reading the small print for maps and also polaroids for seeing hazy thermals, have a problem (See also S&G, June and Oct. pp 245, 438.)

The solution is home-made bifocals.

The method is to cast a thin lens of the required power in polyester resin. This is then cut up with scissors and cemented to the rear of the polaroid lens (Fig 3).

The lens is cast in the following way. Supposing you need +1 dioptre lens, get a −2 dioptre concavo concave lens and a piece of plate glass. Pour a dollop of polyester resin on the lens (Fig 1) and lower the sheet of glass on to it (Fig 2), taking care not to include any bubbles. When the resin has set, the lenses can be peeled out of the moulds.

A drop of oil is inserted between the polyester lens and the polaroid to prevent reflection at the surface (Fig 4).

CLIFF HANGER

By DICK DIXON

Impressions of a five-hour attempt at Sutton Bank on February 7

"COME on! You should be ready. Hurry up."

"Where are my sandwiches?"

"That parachute's ready for re-packing. You've got the webbing twisted."

"Is the barograph switched on?"

"Come on! Come on!"

"When does it get dark? Is anyone going to tell me what speed to fly this at?"

"Ease up a bit—if you sit on that cushion your head will hit the canopy. Is that better?"

"Damn—I'm sitting on my sandwiches."

"Hang on—is that better? They're on the rudder cable. 40kts—a bit more till you're used to it. Keep an eye on the windsock. Don't be afraid to do a high circuit, it's got very powerful brakes. You'll find it climbs very steeply."

Waggle, waggle, wiggle, tap, shove, click, push, pull, lock, all clear, up slack, all out, roll, lift-off, wow! He was right, we must be nearly vertical. Where's the ASI—100kts. Oh Lord! Ah, no, that's 10 up. Ah, there's the edge of the ridge. 600ft, ease the stick forward, release.

Gliders all over the place. There's an Oly, a K-7, a Swallow, a K-4, a K-13, a Grunau Baby, a don't-know-what-it-is, and me. That's eight. I turn right and join in the silent, graceful dogfight. The gliders are constantly turning, converging from all angles and directions, criss-crossing at various heights along the ridge. As a visitor from the plains I find all this vastly entertaining. I find myself following the K-7 and it becomes my turbulence meter. I watch for his ailerons to start working and know that I am about to hit rough air. He goes up, then I go up. Down he goes, down go I. Whoops! Not too close. I break off to turn in an early February thermal and snake out from the ridge. At 1,600ft I can see the Pennines standing dark against the western sky some 25 to 30 miles across the Vale of York.

Away from the swarm I look at my watch. One hour gone. Lunch time. I pull my paper bag of sandwiches from the rudder cable and rummage out a miscellaneous mixture of ham, lettuce, bread and biscuit. A slippery, butter-coated apple is soon reduced to a core and I am tempted to open the clear vision panel and throw it out. Then a line from "Laws and Rules" springs to mind. "Nothing shall be dropped from a glider other than persons by parachute in an emergency, articles for the purpose of saving life, etc, etc." No mention of apple cores. I feel giddy for a moment as I inspect the jagged, boulder-strewn cliffs below and quickly stuff the apple core into my top pocket.

With lunch over and 3½ hours to go, I settle more comfortably on the hard, wood seat and think wistfully of the cushion so thoughtfully removed before I left the ground.

I have been noticing an Oly which is consistently about 200ft or more above me and I now resolve to try to join him. However, try as I might, I cannot reach him. I am flying fairly accurately—perhaps it's something to do with his different aerofoil. He is certainly flying noticeably slower than me.

And so the sunny afternoon passes. At about three o'clock the early starters dive triumphantly back to terra firma, circuiting round the round club house and becoming still, white, glider shapes against the green grass of the airfield. The air is no longer crowded which

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makes life easier, but it is still turbulent in the strong wind and there is no chance to relax.

I check the windsock and am pleased to see that it is still horizontal, then turn out towards the west. Hello! Something wrong out there. Where the Pennines were there is now only a dark blue haze. I don't like the look of that at all. One beat later I turn again and—Oh no! It looks horribly like a rainstorm approaching fast across the Vale of York. A dark curtain hangs down joining the clouds to the ground. What's the time? Four o'clock—35 minutes to go. Surely, after all this time, the weather couldn't be so rotten as to spoil things. One more beat and as I turn this time my worst fears are confirmed as, with sinking heart, I notice the first drops of rain appear on the canopy and another glider goes down to land.

All is not lost though. The centre of the rain seems to be passing to the south and although the rain now slaps steadily on the canopy and my forward vision is restricted, the sides of the canopy do not seem to be affected and I can see out sideways. A glider suddenly climbs steeply upwards on the cable and this cheers me up. I think it's going to be all right as the evening sun throws its slanting, searchlight rays behind the last of the rain.

I look at my watch and relax. It's 4.15pm. Only 20 minutes to go. I've made it. Just a few more passes along the ridge and my "duration" is in the bag. Thank goodness it's not so turbulent now the rain has passed. Now that's strange, I usually gain a couple of hundred feet here but this time there's nothing. Ah well, 700ft is enough, and it's certainly less turbulent—600ft. That's as low as I've been. I wonder if the wind—oh help! Look at the windsock—no more than 45° and the smoke from that fire is no longer trailing horizontally away but curling upwards. What's the time? 4.25pm. Ten minutes to go and two gliders suddenly leave the ridge and land in quick succession. What was it Mike said—leave the ridge with a minimum of 500ft. Tap, tap—500ft. Still enough. I can't lose now, surely! There are now only two of us on the ridge and I suddenly feel lonely and a little tired. I concentrate everything on flying really accurately. My speed must not vary even by one knot. Five minutes to go. Tap, tap—400ft. Now what? I'm too low to land back. Careful in this turn. Something John Heath said in a lecture to our club members flashes through my mind. He described how easily a spin can occur as a tired pilot flies more and more slowly as the wind drops towards the end of a five hour attempt. I become fully alert. That's not going to happen to me. I know which field to land in at the bottom—hasn't it been staring me in the face for—how long? Five hours. *Five hours!* I've done it! and just at this moment as I head towards the airfield, back comes an ever-so-gentle surge of lift and buoys the K-6 upward once more. 450ft. I take a hard look at the landing area—the pressure could well have changed appreciably during five hours. I have enough height—just. All clear. I turn through 180°, belt downwind, turn another 180° on to finals, open full brake and land. And stop, noises off. The log keeper trots up. "Well done," he says. "I make that five hours and two minutes."

OBITUARY

F. ENTWISTLE

FRANK ENTWISTLE edited our precursor, *The Sailplane and Glider*, throughout 1932, taking over from its founder and first editor, Thurstan James. But his association with British gliding goes back further. A professional meteorologist, he was in charge of meteorology at the Itford contest of 1922.

With Entwistle's advent, readers expected to see a lot about meteorology in the magazine, but were somewhat disappointed. Gliding meteorology in those days consisted mainly of suppositions and hypotheses, and he evidently felt he could not go beyond the standard textbooks of the day, which contained nothing about thermals, nothing about the life-history of cumulus clouds, nothing about lee waves, and little about cold fronts beyond the fact that they existed and moved.

In November, 1932, the Fairey Long-range Monoplane, looking rather like a huge sailplane except for its fixed under-

PHILIP WILLS'

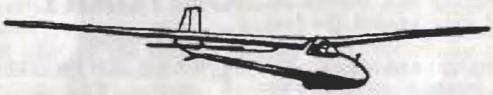
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Published April 2nd. JOHN MURRAY



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carriage, was being prepared for an attempt on the World's Aeroplane Distance Record, and Entwistle was detailed to live on an East Anglian airfield so as to decide when the weather was suitable for the attempt. The weather took so long to become suitable in his careful judgement that he found it almost impossible to carry on his work on *The Sailplane and Glider*. As I had already sent him many contributions to help him to fill the paper, he asked me to take on the editorship as from February, 1933.

Frank Entwistle subsequently spent ten years in the International Civil Aviation Organisation (ICAO), retiring from the post of Chief of the Flight Branch in 1956. He then took up a post with Cossor (Canada) Ltd, at Halifax, Nova Scotia. When I contacted him in 1962 for the Itford reunion, he had left Cossor's and became Director of Civil Defence at Yarmouth, Nova Scotia. In his reply he described how he and Alec Grey (pilot of the "Brokker" which soared for an hour in 1922) organised a gliding unit in the RAF in 1923. Unfortunately it was soon disbanded owing, I believe, to a fatal accident at Pewsey Down when a pilot landed upside down, undid his belt, fell on his head and broke his neck. However, Entwistle has his place in soaring history for the first and probably the only attempt to form a predecessor to the present flourishing RAFGSA.

A. E. SLATER

BOOK REVIEWS

Stick and Rudder—An Explanation of the Art of Flying. By WOLFGANG LANGEWIESCHE. Published by McGraw-Hill Book Company (UK) Limited, Maidenhead, Berkshire. Price £4.30. Obtainable from BGA.

READERS may wonder why I am reviewing a book first published in 1944. I make no apologies. This is one of the greatest books on the art of flying that I have ever read and I feel it almost an honour to bring it to your attention.

The author sets out to give pilots and would-be pilots a simple explanation of how and why an aeroplane flies. However, he approaches it in a very original manner with many beautifully simple explanations which will be a great help to both beginners and instructors, whether they are learning to fly gliders, motor gliders, or normal light aircraft.

On the second page he dismisses Bernouili's Theorem in a few sentences, substituting in its place a much simpler explanation of how a wing makes lift. All the wing does, he points out, is to force the air downwards (hence the name air-plane) and the reaction is the force we know as lift.

You can scarcely read a page without finding some aspect of flying explained in a fresh, and unusually simple way, even though you may find some of the terminology a trifle strange. The elevators he prefers to call the flippers, since as he points out, they do not elevate. In fact, as we all know, any attempt to elevate or climb a glider by pulling back on the stick only results in an eventual stall and inevitably spin.

Some of the most interesting and useful ideas are those dealing with the approach and landing. Most instructors leave it to the student to teach himself judgement, saying that it all comes with experience. Wolfgang Langewiesche believes it should all be taught and gives us some concrete ideas on how to do so.

I first read this book about ten or fifteen years ago and lent my copy, never to be seen again! On re-reading it, I find that I have adopted many of the ideas for my own instructing and also incorporated them in my latest book, due out at the end of this year.

Stick and Rudder is interesting reading for every pilot. It should be compulsory reading for all instructors whether they fly gliders or just aeroplanes.

Lasham, Hants. DEREK PIGGOTT

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Segeln über den Alpen. By JOCHEN VON KALKREUTH. Published by Verlag Alfred Bucheli, CH 6301 Zug/Glashof, Postfach 281. Price 28 Swiss francs. (German publishers: Motorbuch, Stuttgart.)

THIS is a magnificent book of 173 pages plus 40 full-page photographs (11×9in) of Alpine scenery taken by the author, mostly with part of a sailplane in the picture. The first half starts with a history of Alpine soaring, beginning with Groenhoff's launches from the Jungfraujoch in 1931 (see S&G). The first competition was in 1935, and in 1937 30 pilots from six nations competed at Salzburg. This historical section reprints several descriptions of notable flights written by the pilots, including Hanna Reitsch's Alpine crossing of 1937 and Persson's flight which helped to make him World Champion in 1948. A German expedition under Professor Georgii ignored the war in its keenness to get on with wave research, for we are told (p25) that: "After numerous measurements and high tows of sailplanes with scientific apparatus, pressure cabins and oxygen over the Tyrolese and Salzburg Alps, Erich Klöckner succeeded on October 11 1941 in climbing in a Foehn wave above the Hohe Tauern to 11,400m" (37,600ft). Von Kalkreuth then goes on to describe in detail many of his own Alpine flights, facing each page with a photograph of the scene described; these include a German national out-and-return record of 780.4km on July 10, 1971, starting at Aigen at 8.44 am and averaging 98.6km/h.

The second half of the book is all about the technique of Alpine soaring, with many diagrams which can be largely understood without knowing the language. Among the subjects discussed are: how fronts behave when held up by mountains, why the best months are April to July, how close the thermal lift is to a sun-heated rock wall if its shape is irregular, lee waves and rotors and the best routes to choose. A cautionary diagram shows how a clueless tug pilot flies close to a mountainside, forgetting that the glider has a greater span and therefore has to pull the tug's tail further out, with the result that the tug flies into the mountain!

It is a pity there is no English edition; but would the publishers consider it worth while getting 90,000 words translated?

The Young Specialist looks at Weather. By SIEGFRIED SCHOPFER: translated by G. C. Bowden. Published by Burke, London. Price £1.10.

THE author has an unusual idea of what a book on weather for young people should be like: nearly all of over 70 photographs are in sequences of two or four showing the changes that individual clouds undergo within minutes, and half of these are of cumulus. The seven colour photographs all show blue sky and white clouds, to the exclusion of sunset colours. Gliders are mentioned twice, but the author is evidently not a glider pilot, or he would have mentioned cloud streets, and said more about thermals beyond the fact that they go up for the same reason that a hydrogen balloon goes up (why not say hot-air balloon?). The author explains the warmth of a Foehn wind but does not go on from this to say why a well-stirred atmosphere is necessarily colder at the top and warmer at the bottom; so, in accounting for falling ice particles turning into rain, he has to postulate a wedge of warm air prising up cold; but this is the only diagram open to criticism.

The book covers elementary meteorology, including fronts, optical phenomena, weather lore, recording instruments, and a lot else, in a way to interest the intelligent beginner. The translation is good except for the one classic boob which has been repeated by translators ever since soaring began in England: on p66, caption to diagram, *Aufwind* has been translated "up-wind" instead of "upcurrent". In meteorological English, air moving vertically is a current; only air moving horizontally is a wind, and "up-wind" means to windward.

This is the meteorological textbook of choice for those just taking up gliding, for it starts by encouraging them to watch individual cumulus clouds.

A. E. SLATER

CORRESPONDENCE

EDITORIAL GENDER!

Dear Madam,

Would you kindly inform your readers how you would like to be addressed in this magazine?

Cambridge. ANTHONY EDWARDS

[Not being "women's lib" orientated, I find this a tricky one! As long as you all keep writing, I don't mind in the least how the letters begin. Perhaps "Dear Editor" would be a compromise. ED.]

GLIDER BUMPING RACES FOR THE COARSE PILOT

Dear Editor,

I am delighted to see a well-known BGA personality advocating an event of immediate appeal to the CGP (Coarse Glider Pilot).

It has long seemed to me that the BGA concentrate overmuch on fringe interests. At one end we have an elaborate and on the whole admirable instructional set-up which wastes the bulk of its time training transient dabblers who never had any serious intention of taking up the sport. At the other end the top 100 or so competition pilots are (although they will never admit it) well catered for. These are at least legitimate fringes, we also cater for the lunatic fringe. For example, exotics of the Sigma type which, while of academic interest, are no more use to the CGP than Concorde would be, or again look at the amount of space your magazine devotes to the new generation of clean, high aspect ratio, ultra-light aeroplanes. This is just pandering to heresy and perversion in the ranks. What one might term a beyond the fringe interest.

You will understand that, holding such views, I welcome any move to provide some organised cross-country flying for the man in the middle. So far the BGA

has not supplied any outlet for our efforts other than the Regionals. Consequently we CGPs clutter up the bottom half of the field in every competition and introduce an unseemly air of levity into what should be a grim and joyless struggle for position on the rating list.

The Bumping Race should prove very popular. Plenty of good flying for the pilots and one long Club Crawl for the crews. The scoring is not really difficult—it is absolutely impossible. In general one would be competing with pilots flying a different task against different opposition. No conceivable scoring system could make sense of that situation. Conventional scoring would produce a daily winner for each "leg" or "heat". His prize could well be the privilege of buying the first round that evening. No attempt should be made to determine an overall winner. The CGP is happy as long as he beats *somebody*. (If he can do so by a smoothly executed piece of sharp practice he is ecstatically happy.) After nine days of Bumping absolutely everybody would have beaten somebody at some stage of the proceedings so they should all go home contented. I agree entirely with Ray Stafford Allen—damn the scoring, let's just play the game. In fact with a minor reservation about the advisability of inviting the Press and trying to make a public relations exercise out of it, I agree wholeheartedly with every word of Ray's article.

Sir, I wish to take part in a "Glider Bumping Race". How do we get this splendid idea off the paper and into the air?

Shropshire Aero Club. NEIL MACKAY

Dear Editor,

I was most interested to read the article by Ray Stafford-Allen, S&G, February issue, p30. The need for the type of competition described is, I think, of paramount importance because of this "rat-race" attitude adopted in Nationals and Regionals.

I am sure if Ray is bullied into organising something along these lines I can arrange for the Swindon gliding club to incorporate one of their flying weeks to fit such a competition. Furthermore, I am sure our own club members would provide some interesting entries. I for one am getting a little sick and tired of the exhorbitant entry fees requested by clubs operating Regionals as basically the main service they are giving is aerotowing combined with ten days' temporary membership.

Stanton Fitzwarren, Wilts. DAVID SCHOFIELD

PARACHUTING COURSES FOR GLIDER PILOTS

Dear Editor,

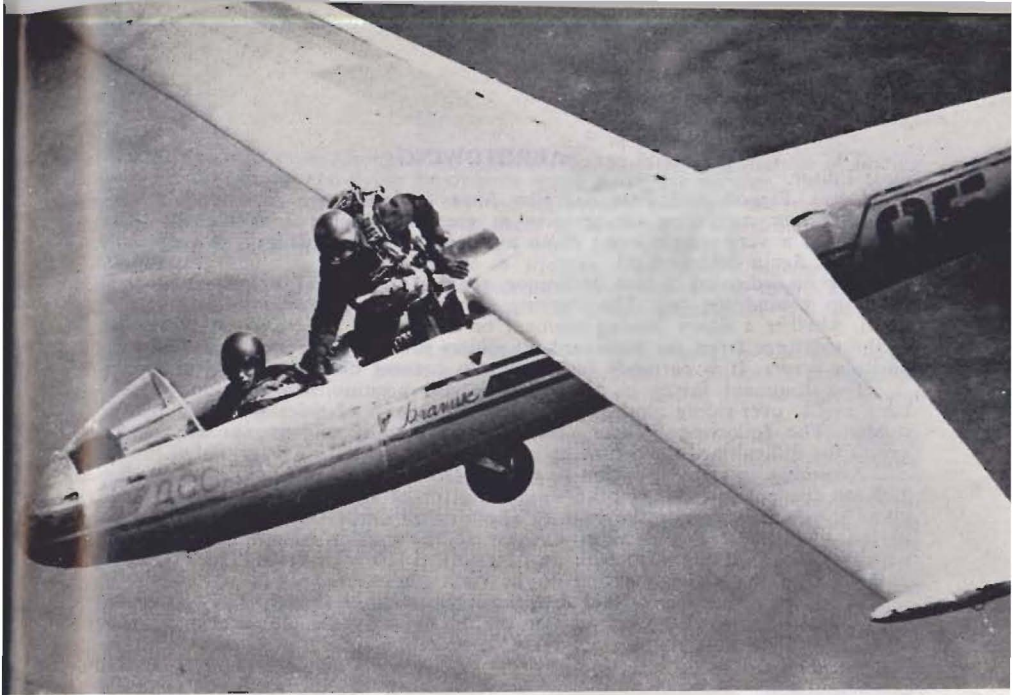
For some time now we have noticed among our gliding colleagues—unlike pilots of powered aircraft who view the whole affair with utmost suspicion—somewhat natural interest in the parachute equipment they wear, and amongst many of them a desire to experience first-hand a parachute jump.

The Warwickshire and Aviation Sport Parachute School, which conducts regular training courses for beginners, is anxious to arrange a weekend course specifically for glider pilots leading up to the first jump which, provided of course the student has reached the appropriate standard and the weather is suitable, will be carried out the same weekend. The advantage of the course would, as we see it, be that glider pilots would gain confidence in their equipment and confidence in their approach to emergency rendering a bale-out necessary. It would also help to bridge the unfortunate gap in outlook which sometimes exists between our section of the community and yours (especially on crowded airfields!) and would further understanding and co-operation.

No date has yet been fixed as the School wishes to gauge the interest of the gliding fraternity. It is anticipated that the cost of the course will be in the region of £15, and that training would commence on the Saturday morning at 9am at a convenient venue in the Midlands.

Would anyone who is interested please contact me at 17, Westhill Close, Olton, Solihull (Tel. 021 706 9869), as soon as possible.

P. A. HOWELL, *Hon. Sec.*



Leaping from a glider is all part of the Soviet's glider pilot's standard training. Our photograph of an intrepid parachute jump from a Blanik was taken at the Tselinograd Flying Sports club

LETTERS ON OUR TAILS

Dear Editor,

How soon will it be before we may have our initials on the tails of our gliders instead of numbers, or a combination of letters and numbers. Since "I" and "O" are common, we have a total of 34 symbols available to us, making recognition so much easier than three numbers.

This appears to be the practice in America and on the Continent, and it is of great benefit in competitions, as I have found out personally by having HD on my tail.

Already we have set a precedent where letters were permitted because the Continentals had them in *The Daily Telegraph* contest at Dunstable in 1972.

It is many years ago since I wrote to the BGA making this suggestion, which at that time was turned down somewhat cursorily. Now at this time if sufficient pilots agree with my suggestion verbally, and in writing too, democracy should prevail and the system should be altered. It would be nice to see NG, DD, PW, GB, JW, DP, WK and many others in the sky. Where more than one person has the same initials, one initial and a number could be used—W1, W2, etc. Where Services are concerned, A1, A2, etc, for the Army, N1, N2 for the Royal Navy, and R1, R2, etc, should be appropriate for the Royal Air Force.

Rally round all ye competition pilots, and make your voices heard.

Alverstoke, Hants. HUMPHRY DIMOCK

[We hate to think who is going to arbitrate on who is to have initials and who is to have one initial and letter in case of the same initials. We shall never know whether A1, N1, R1 is a Service machine or an initial with a number, and can you see WK agreeing to have JT on his tail? And what about the poor syndicate owners? It all seems too confusing. But we do like to see HD floating in the sky. ED.]

AEROTOWING

Dear Editor,

Derek Piggott and Pete Saundby have explored two techniques for lateral position error correction on aerotow in great detail, but I wonder if they have overlooked a very simple one? If an accidental sideways drift is so easy, why not drift back again deliberately?

The co-ordinated S-turn technique requires considerable judgement to finish lined up behind the tug. The steering moment from a tow-rope is surely rather small, whether a direct yawing moment or an indirect directional stability response to the sideforce from the rope (not all gliders tow on a nosehook), except for large position errors. It is certainly insufficient to prevent drifting out in the first place.

The dominant factor in controlling lateral position is without any doubt the bank angle, over-riding almost completely the effects of sideslip caused by rope or rudder. The following recovery technique is equally effective at any offset and avoids the difficulty of the S-turn judgement.

Assuming an initial position to the right of the tug: 1. Apply a little left bank; 2. Keep the nose pointing ahead or a little to the right with right rudder—do not allow it to turn towards the tug; 3. These actions will set up a steady drift back to the middle. Level the wings and centre the rudder when behind the tug (or wherever the local tug pilot with an overworked left leg insists). The drift will stop at once with the glider pointing in the right direction.

In my case this was neither taught nor consciously thought out—it just seemed the natural thing to do. After reading the discussion, letter and article in the recent S&G, it still does. Is it the right thing to teach pupils?

Preston, Lancs. J. C. GIBSON

THEY ARE AFTER YOU—RHODA!

Dear Editor,

As an American-based English gliding (soaring) bird I am afraid I have to respond "No, no, no" to Rhoda Partridge, in "On Gliding For The Birds" (S&G, December, p494).

Women are no more inadequate with nuts and bolts than a man who has never even been taught how to replace a light bulb. With a little watching, listening and experimentation with tools which reduce strength requirements we can be just as self-sufficient as the average glider pilot who is probably not a trained aircraft mechanic either.

I would be surprised and shocked to learn that any pilot, male or female, ever goes solo in the UK without at least one instructor being quite convinced that he or she is more than capable of making the required flight decisions. From that point on surely the cultural conditioning is behind us and the decisions required in more advanced flying are simply a matter of personal development.

Dear Rhoda, how could you be so unkind as to resurrect the spectre of "premenstrual tension"? Each time one of your sisters appears a little nervous, tired, shy, cold or whatever—from now on her instructor will have a flash of inspiration: "Premenstrual tension. Can't possibly send the poor girl solo."

In order to balance the picture I just have to suggest the extreme feminist viewpoint. Premenstrual tension is something *Male* psychologists tell us we suffer from. If you don't believe them you don't get it!

The commonly held belief that all women wish only to become wives and mothers and will forego all other interests until they have been "fulfilled" in that role is totally invalid. A single girl in a professional occupation has just as much time and money to devote to gliding, partnerships in gliders and even competition as her male counterpart. It is not the fault of our sport that few women today are in that situation. Hopefully their numbers will increase as society changes.

It is also important to recognise that gliding is an expensive minority hobby and that there are a great many *Men* who are limited financially, and in their free time, by family commitments, and therefore cannot participate.

Anyone who becomes "hooked" by gliding restricts their own chances of finding a mate. I have found non-flying boyfriends quite unwilling to spend long boring summer weekends on an airfield. They see as equally pointless the desire to fly 300 miles "without an engine" and expect them to drive to some undeclared meeting point as "crew". They don't understand why I won't take up golf!

Gliding is addictive. The challenge is lifelong. The thrills, scares, joys and beauties cannot be shared by those who have not been exposed to them. The mate must be hooked as well or a huge part of the pilot's personality will never be understood.

The chivalry issue is rather dangerous ground, but I think I would even argue with that. Is it not fact that pilots are kind and helpful to all other enthusiastic pilots? Rigging is a question of knowing your ship and doing the job quickly and efficiently. You help a pilot, he helps you.

I think a Roger Neaves comment of a few years ago is relevant here: "In gliding we are all independent in the air and inter-dependent on the ground." Does chivalry really enter into the interdependence that is an integral part of this sport?

Women are in a unique position in gliding. There are no inequalities. Once in the cockpit the potential is the same given talent, practice and experience. I am not the pilot that Nick Goodhart is, but then neither are most of the men reading this.

I would, for example, be quite in favour of replacing the existing Feminine World Record class with one for Standard Class gliders.

The issues of "Women's Lib" are legal and social. They affect the number of women able to participate and the attitudes which cause most women to avoid participation in any male-dominated sport, but they have no place within the gliding movement itself.

We do not even have the sexist language problems that are disturbing many feminists. Rhoda, we are ALL PILOTS! (Note.—I am supporting the current effort to send an SSA sponsored United States team to the forthcoming Women's International Gliding Competition in Poland because the contest has been designated an "International" by CIVV. It is politic that the USA should be fully and officially represented. I do not, however, support the concept of women's contests.)

Columbus, Ohio. ERICA SCURR

GLIDING FOR THE BIRDS

Dear Editor,

Your latest issue has confirmed a suspicion that I have had; that is—*There is no such female as Rhoda Partridge.* Therefore all the guff that has been put out under this pseudonym has been culled from gliding howidunits, holiday brochures, and ladies' magazines confidential enquiry sections.

Ask any old sweat in the Midland gliding club if there are any females in the club and they will say not on your life and give statistics to prove it—yours.

Market Drayton, Shropshire. JOHN JEFFERSON

FOOD FOR THOUGHT

Dear Editor,

After spending many hours on gliding sites and seeing the scruffy types about (myself included), dressed in old clobber to save spoiling their suits and others in ex RAF flying suits, I have often wondered why we in our sport do not wear a particular type uniform as do most other sports.

Could we therefore run a competition to design a sensible type flying suit with perhaps not so many pockets, zips, etc, but on the same lines as the RAF suit? This I am sure could be produced at a reasonable cost (for gliding members only) and would be made to look smart bearing in mind type of cloth, and in various colours to add a bit of colour to the scene. At the same time protecting our suits (not forgetting the ladies). Ready for this summer if tackled now.

Norwich, Norfolk. E. E. GRAY

WORLD RECORDS FOR STANDARD CLASS

Dear Editor,

It will be appreciated if you would kindly record our support of the recent proposal from the Soaring Society of America for the introduction of Standard Class world records for single-seaters.

The proposal is a logical one as in all similar sports, including power aviation, adequate classes exist *eg* in engine horsepower, size of yachts etc to allow a fair comparison of the individual's performance with standardised equipment as opposed to the Open Class.

A Standard Class record would be much more meritorious than the Open Class which is becoming increasingly dependent upon the financial resources of a relatively small number of pilots. It would open the field of record attempts to the majority of sailplane pilots, stimulate a tremendous amount of enthusiasm in performance gliding generally and be a natural extension of the FAI's introduction of Standard and Open Class Champions in world championships. Very few pilots can aspire to the world championships but everyone could try for a world record if it was within the scope of a Standard Class sailplane.

The SSA proposal deserves the strongest support and we look forward to the earliest possible introduction of Standard Class world records.

Central African Soaring Association,
Salisbury, Rhodesia.

C. LOADES,
Honorary Secretary.

[The Soaring Society of America put forward a proposal to CIVV for recognition of world records for the Standard Class in November 1972. CIVV, however, want a specific proposal on what record classes might be discontinued in favour of ones for the Standard Class. Since 1971 provision already exists in the USA for state records in this class and as from January 1, 1973 the SSA will recognise and homologate USA national records for the Standard Class provided they are at least 70% of the Open national records —ED]

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CLUB NEWS



THREE visitors who stopped the night at Disforth on their way to Portmoak took advantage of a superb wave on March 3 when one Diamond, seven Gold and six Silver heights were flown as well as eight Bronze C legs—a new club record for Clevelands and Hambletons who fly from Disforth.

CONTRIBUTORS PLEASE NOTE

Copy and photographs for the June/July issue should reach the Editor, S&G, 281 Queen Edith's Way, Cambridge, telephone Cambridge 47725, not later than April 16.

Copy and photographs for the August/September issue should be sent to the Editor not later than June 14.

February 17, 1973

BLACKPOOL & FYLDE—frustration and mud

THE enlargement and consolidation of our grass airfield proceeds slowly. Light winds have curtailed the use of our temporarily short winch runs, and mud under foot and wheel, instead of the hoped-for frozen top soil, did not improve matters. However, we are stopping run-off water from draining on to our land, clearing hedges to give longer runs and have got a retrieve winch operating to avoid the need to drive across the bare soil left by our calf dozer. We were too late by about a fortnight to seed it in the autumn.

Unfortunately this has meant little flying, so that our pupils are getting rusty and restless, and we were able to make very few flights while the Birmingham Guild Gipsy was on our site. Our treasurer is slightly embarrassed by a lack of flowing cash, while we have so many good ideas for spending it, though he is still perfectly happy about the long-term prospects. He should just escape the need to keep VAT records this year, but we don't intend to let him avoid it next year.

Full Ratings have been gained by Derek Howard and Keith Emslie, who wish to thank Eric Boyle for his benevolence, and the Doncaster club for the loan of their Falke. This gives us four Full Ratings, which covers the stipulation that came with our grant, which is very near to being fully spent.

K.E.

BRISTOL & GLOUCESTERSHIRE—severe turbulence

WE have seen the arrival of two new "glass" ships over the winter; Derek Vennard's Kestrel and the Std Libelle owned by Tim and Tom Bradbury. The club has been operating a third two-seater, on loan from the Halifax club, and the Skylark 4 first flew, at the hands of Peter Philpot, on February 11.

Gordon Doward brought back a Gold height from Deeside in October and Barbara Hardie went solo in November. Rob Robertson returned from a French club operating an LS-1, and immediately bought a share in the Tutor.

January 27 produced a good turnout of members and machines on the North ridge. A fortnight later was another day of strong north-westerlies, but with these came the most severe turbulence on the approach for many years. In such conditions, gliders can lose 25kts and/or 150ft very rapidly, and one aircraft was grounded for inspection after recording +5 and −2*g* in consecutive gusts.

Mains water has been connected and there are plans for a toilet block for the caravan park and showers for the clubhouse. Fleet changes are planned and possible hangar extensions.

M.J.C.

COTSWOLD GLIDING CLUB—thoughts of early Spring

THE winter is drawing to a close and thoughts are hopefully turning to early spring soaring.

After a large crop of first solo flights in the autumn the *ab-initio* list has again been filled and despite the winter, the flying lists are still long. Fortunately, the mild winter has enabled us to keep the launch rate at a reasonable level.

December 31 saw our positively last, first solo of 1972 when Jonathan Holland went solo as soon as practicably possible after his 16th birthday. He has been taking his gliding seriously since the age of 12, so it was not before time.

We have repeated a successful lecture series through the winter evenings and we were particularly pleased with John Heath's interesting illustrated lecture.

Unfortunately we lost our attempt to begin gliding seriously on Cleeve Hill, Cheltenham. However we are considering whether to appeal against refusal of planning permission.

We are planning a joint task week with our neighbours at Nympsfield during the spring Bank holiday week. This will be our first joint venture and we are expecting a most enjoyable week with a big attempt to get as many Bronze pilots into the Silver and Silver pilots into the Gold, as possible.

J.D.H.

COVENTRY—a balloon syndicate?

MASS reorganisation of the club fleet has meant selling the two Skylark 4's, buying another Bocian and a Pirat and ordering a tandem Falke. The number of syndicates is on the increase with the possibility of a balloon syndicate.

The construction and basic architecture of the bunkhouse has been confirmed by the committee and building should be finished by 1974.

Eric Lambert's search for wave at Portmoak led him to gaining his Gold height.

V.M.G.

DERBYSHIRE & LANCASHIRE—perhaps nine cables

THE winch boffins are modifying another two-drum winch so that winches may have major overhauls without interrupting the flying. If we ever have them all serviceable and operating together, this will mean nine cables.

The BG-135 Gypsy spent a few weeks with us and was flown by most of the instructors and other interested pilots, mainly to evaluate possibilities as a club machine. Our "Wills" Swallow has gone to the Angus club and there are hopes of having another K-8 as a replacement.

Our dinner-dance was well attended by cheerful members who braved the cold weather.

P.H.

DEVON & SOMERSET—Industrious winter

THE New Year saw the return of the club's Beagle Husky after a long illness. Problems over spares for the undercarriage have kept it away for nearly four months.

We have had plenty of snow, sleet, rain and low cloud but members have still managed to continue work on the construction of the hangar workshop and a second winch. Labours on the refurbishing of the mobile control have been held up by problems of fixing the helicopter dome satisfactorily to the base but we keep on trying.

Brief periods of kinder weather have allowed a reasonable rate of launches to be maintained and there has been plenty of opportunity for limited ridge soaring and the occasional extended thermal flight.

S.M.C.S.

DORSET—a third two-seater

THE club has a third two-seater, the Eagle, which will give more scope for dual training and ease the pressure on the K-13 and T-21.

A good time was had by the 170 members and friends who attended the Christmas buffet dance.

Brian Wardell is the latest recruit to add "assistant instructor" to his many titles after completing a course at Tarrant under our CFI, Allen Palmer. Brian has also taken on editorship of the club magazine "20 Green" assisted by the writer of these notes.

M.L.B.

ESSEX—chairman now president

AT our AGM our outgoing chairman, John Fricker, has accepted the office of club president.

John has been very hard-working during his term of office and all his efforts have been of immense value to our club. The new chairman is Ken Durno (a long-standing club member and instructor).

January allowed us a limited amount of flying but the highlight was undoubtedly our annual dinner-dance with Mike Harper of Nympsfield as our guest.

The chairman's trophy was presented yet again to Tony Vincent for his epic K-6E 500km flight. We all wonder what he will do when his new Std Cirrus arrives!

P.F.McE.

ESSEX & SUFFOLK—decision to stay at Whatfield

AT a recent EGM to discuss the future of the club it was voted by a majority to stay at our present site at Whatfield, although the limit of regularly operated gliders has now been reached with the arrival of a K-6E, a BG-135 and another syndicate being formed. It is not intended for the time being to create any limit on membership and visitors are still very welcome.

To relieve the strain on our existing tug and cope with the anticipated increase in launches, the decision was made to buy a second Auster.

We can now boast a clubhouse in the shape of a large caravan. This has

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already done Trojan work during the winter months supplying pilots with hot refreshment.

In retrospect, 1972 was a successful year once we had got past the appalling weather of the early summer. Membership is higher than ever before and the number of new solo pilots is most encouraging, particularly to our stalwart small band of hard working instructors now led by CFI, Elvin Hibbard.

M.L.

IMPERIAL COLLEGE—enthusiastic new members

AT present we are enjoying a boom in enthusiasm due to last October's intake of new students proving to be the keenest for years. We had two first solos by new members in record time and many others are progressing extremely well.

Five Silver C's and several Silver C legs have recently been gained by more established members. We are in the process of doing C's of A on three single-seater aircraft and are indebted to a nucleus of ex-student members as well as our equipment officer and sundry other volunteers. Congratulations to Ian Parker and Dave West on becoming BGA approved inspectors.

Our club history is now beginning to take shape and our two historians recently had a fascinating discussion with Dr R. C. Rainey, who joined the club in 1931 and was captain in 1936. An example of the facts revealed was the club's duration record, which in 1935 stood at 14½ minutes and by 1937 had been raised to 5½ hours.

N.D.L./J.K.

INKPEN—goes full time

IT is anticipated that by the time this goes to press our club will be operating an all-aerotow system on a full time basis. Peter Cottrell is to take the helm of this new project as the new CFI and our thanks go to Peter Purdie for all the work he has done as CFI during the club's first year.

Flying has continued throughout the winter and our only regret has been the lack of northerly winds. This has meant little ridge flying with the exception of one weekend in January when three gliders were towed to Huish for a pleasant afternoon on this south facing ridge.

Ralph Jones has now completed repairing his Nimbus 2 after its mid-air collision in the World Championships, and he obtained a climb of 6,000ft, on February 10 in a very cold wet looking cloud, landing a few miles down wind at Thruxton.

The latest additions to the private owners fleet is a Std Cirrus owned by John Young, Tony Hanfrey and Peter Gant, a Skylark 3F by Margaret Young, Brian Haslam and Barrie Dixon, and an Olympia 2B owned by John Cummings and Bruce Reay.

The club's first dinner-dance was on February 16 and was well attended.

I.R.C.

KENT—buy a new glider

AT the dinner-dance the chairman, Ron Cousins, told us there was enough in the kitty to add a sixth aircraft to the fleet and we have decided on a Blanik. This will be used with the Capstan for advanced training including instrument flying and cross-country work.

We are starting our courses at the end of March and the first is for early cross-country pilots and those about to reach this grade.

Another new aircraft due to arrive at the site soon is Ray Hunt's Pilatus.

R.J.H.

LAKES—two good flights

TWO Silver height claims resulted from flights over Black-Coombe on February 11 on the first good flying day for more than a month.

Socially the period included our annual dinner when the trophies were presented. Ray Stafford Allen was guest of honour and we appreciated the amount of technical information imparted in the days following.

A new Cup was donated this year for effort on behalf of the club in any sphere. This went to a comparatively new member who has made a prodigious effort on the maintenance of machinery.

R.R.H.

LONDON—well done Angela

FLYING news is usually very sparse in the winter months, but the performance of Angela Smith in the South African Nationals deserves special mention. She is the first member of the club to complete a 500km triangle, and only the third pilot to do the distance. Needless to say we are very proud of her efforts, both from the club and national point of view.

1972 was not our best year for flying, and there is little to report for the beginning of the year. Indeed, many pilots have not flown for a month or so at the time of writing.

The first of the really hot ships for the coming season has arrived, an ASW-17, owned by Peter King. This machine has already proved itself capable of hill soaring twice as high as anything else, and once the thermals begin we won't see Peter in the vicinity of the club for more than a few minutes! The count of glass-fibre ships has now reached 16, and with weekend competitions on the cards again this summer there should be some fast performances.

There are hopes that a second Commodore will be flying at Dunstable by the beginning of the soaring season, but money for same is a slight headache, to say the least. However, the bank manager has been fairly friendly in the past, and a grant may also be available to defray costs.

M.P.G.

LINCOLNSHIRE—air display planned

PLANS are well under way for the summer, the most ambitious by far being an air display at Bardney on Sunday, June 24, including RAF Static and Trade stands, which we feel will help promote gliding in our county and beyond.

Following negotiations with the Yorkshire and Humberside Sports Council, we have been given a grant for a new Bocian 1E which we expect in April, giving greater scope for instruction of pupils.

Intensive instructor training is under way. We are hopeful that the end result will lighten the workload on our present force.

Alistair Nicoll recently became our youngest solo pilot, going solo the weekend after his 16th birthday.

J.R.S.

NEWCASTLE & TEESSIDE—collecting tug pilots

AT first only our CFI Norman Revell had a PPL with tug experience, so it was largely due to him that aerotowing was possible. But now several members have taken up power flying and become proficient tug pilots.

Last year gradually improved and our launch figures pulled up to a reasonable level. To maintain our launch rate, utilise the tug and train tug pilots we decided to move temporarily to Usworth aerodrome for the winter.

We are now intending to return to Carlton where John Stouts' modification to the generator is working well.

The annual dinner-dance was a great success due to the organisation by the Richardson family.

N.M.J.

NORFOLK—the corn is green

IT was on January 30 that our farmer-landlord realised the corn beside our runway was at least four inches high—



a result of the unusually mild weather. The immediate effect was a ban on cable launching until harvest, although we were able to continue operating the

Falke, pending the arrival of a Condor tug.

By way of experiment we tried the MBB Monsun for towing. It proved to be rather too fast for normal training purposes, particularly during take-off.

Last year produced many problems and setbacks, but there now seems to be an overall feeling of optimism with plans for courses and expeditions much in evidence.

C.E.H.

NORTHUMBRIA—new syndicates

COMMITTEE changes have included the retirement of chairman, Jack Little, whose valuable work has been appreciated.

A new syndicate has formed owning a Skylark 2, John Greenwell, John Williamson and Andy Coulson are teaming up to buy a Kestrel 19 after disposing of their Dart/K-6E. David Lilburn in his Libelle recently broke the club height record, 21,500ft and still climbing in four knots lift had to break off because of failing light.

The second year of a full time instructor is about to begin and it is hoped that even more success is achieved to assist our continued growth. The tug is undergoing a major C of A and engine overhaul at Carlisle and should be back in early March to help us contact the wave systems which have been much in evidence during the winter. Further site levelling operations will give more room when flying in east wind conditions.

G.D.R.

PETERBOROUGH & SPALDING—inflation hits plans

A Sports Council grant for a new high performance two-seater had to be reconsidered since the application. The fact that delivery wasn't possible before the introduction of VAT, which would add a further ten per cent, it was agreed we could not afford a new aircraft. The second-hand market was therefore investigated and from the few available, we chose a Capstan and put our case reassessment to the Sports Council. As this now involves a smaller grant, we are quite hopeful.

A new syndicate has been formed with a K-6E and the present owners of the Italian M-100s are hoping to buy a similar aircraft, another group taking over the latter machine to keep it on our site. Aircraft flying under the club banner this year should be two two-seater training machines and eight high performance gliders, excluding the tugs.

Our next social function will be a buffet-dance on April 27 to which you will be welcome.

J.V.L.

SCOTTISH GLIDING UNION—soaring to 12,000ft

AFTER almost three months of mucky weather, the Portmoak skies opened up again at the end of January. The result was one Silver C height claim and several most enjoyable flights for others.

February is already showing a marked improvement with good soaring to 12,000ft. We hope that this sort of weather will continue for the spring visitor season. Our clubhouse is due to be full to capacity again for most of March and well into April.

Summer courses are due to start in mid-April. This year we are hoping to be able to provide aerotow launching facilities, completely independent of the course launches for mid-week visitors.

If you have never visited Scotland, then it is high time that you took a look at this part of the British Isles. After all you may want to do a Gold C distance in this direction.

K.E.B.

SHROPSHIRE—enjoying waves and finding a hazard

IT was obvious that some of the wave days would eventually coincide with a weekend and several times since early December conditions have been good with soaring flights of up to 8,000ft.

A new hazard appeared in January when snow covered the ground. It was found that the modern all-white gliders are quite invisible from above, whether in the air or on the ground. It was necessary for pilots on circuit to give very precise height and position information in order to maintain a safe separation.

I.P.

Gliding provides so many fine picture taking opportunities. But there's rarely time to fiddle with camera settings and film loading. Even more so in competition gliding when photographic evidence may be required. That's when a Kodak 'Instamatic' camera comes into its own. With drop-in film cartridge loading, minimal adjustment, big clear viewfinder and compact shape it's made for shooting fast and sure.

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SOUTHERN SOARING—a move to Inkpen

SOUTHERN Soaring, the seven-days-a-week gliding organisation which for the past two years has operated at Compton Abbas airfield, Dorset, moved during March to Inkpen airfield, Shalbourne, Wilts, a few miles south of Hungerford.

It took its fleet of aircraft—two all-metal Blaniks, a Falke, the new all-metal 15 metre Pilatus B-4 and a vintage glider, the 1933 Kite I. Southern Soaring has recently been appointed as a UK agent for Pilatus Sailplanes of Switzerland.

The move will bring all-week, year-round flying to an already flourishing gliding club which has among its 50 or so members a number of private owners, flying high performance sailplanes such as the glass-fibre Nimbus 2, Std Cirrus and Std Libelle. The club also has two classic wooden aircraft, a T-21 trainer and an Olympia 2B.

Peter Cottrell, founder of Southern Soaring, has taken over as CFI with Robert Cunningham as his partner and assistant.

One of the major advantages of a professional organisation like ours is that we can cut out much of the waiting and consequent frustration from learning to glide. For example, during the week we are running a booking system that allows students to fly by appointment in the motor Falke.

Our move has been welcomed by the members of the Inkpen club and we are looking forward to a successful first season. To introduce the new operation the club is organising an open day at Inkpen during the Easter holiday.

R.C.

SWINDON—a brief resume of activities

AFTER many months absence from these columns, here is a short account of our activities. Launch is by specialist built diesel tow cars cared for by two willing members, David Huband and Alec Thompson, who act as launch contractors to the club. This system works well and relieves members of tow car maintenance.

Aero-tows are however coming into their own. We have a visiting Auster and a club based tug owned by David Schofield which offers aero-towing on a full time basis. The club fleet consists of a Capstan, a K-13, a Swallow and a Skylark 4 with private owners much in evidence.

At our dinner-dance cups were awarded by our new chairman, Fred Butcher (the Flying Farmer) as follows: the Whitbread trophy for the flight of the year—Eric Winning for a gain of height of 13,000ft; the Return trophy for a 170km out-and-return—David Schofield and the Dayson trophy went to Christine Day for her seven-hour epic flight around the Cotswolds. The Cadet cup for best progress was awarded earlier to Gay Gilchrist who was visiting from the States.

This year we have at last realised the potential of local wave in the lee of the Cotswolds and to prove a point the club fleet headed by Alan Chester sat for most of one afternoon at 7,000ft.

John Trenchard continues as CFI and Ray Nicholas as his deputy. The week-end catering staff headed by Jean and John Wright are providing consistently hot food most of the time. Len Morris keeps the fleet airworthy.

D.E.S.

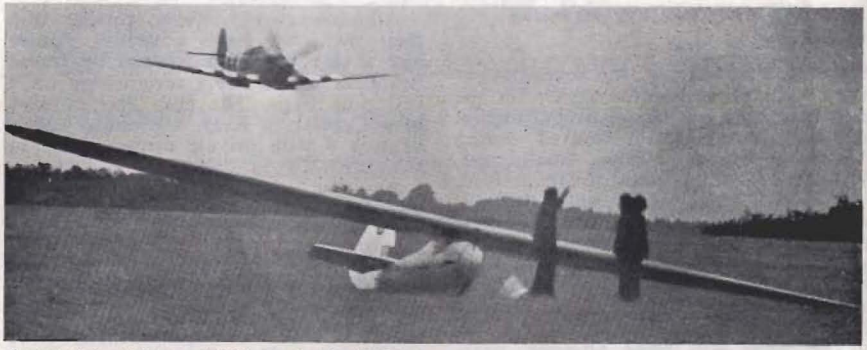
SOUTH WALES—three Gold C heights

LAST year was brought to a climax with three Gold C heights registered. Steve Thomas and Earl Duffin contacted the north-west wave from the ridge via strong wave-induced 8kt thermals in late October. Steve climbed to 10,800ft in the K-6 while Earl topped 13,300 in his Cirrus.

The third Gold height was by visitor Bob Cunningham from Dorset with the highest flight of the year—14,300ft—during our wave week in November. This particular flight breaks the visitors record previously held by Chris Lovell.

Potential visitors from southern England will be glad to hear that we now have motorway all the way to the site with the opening of the M4-M50 link up the Usk valley.

S.P.P.T.



A nostalgic sight—a Spitfire and Rhönbussard photographed by Michael Erdman at the Veteran and Vintage Rally at Wycombe Air Park

WOLDS—launch their magazine

THE Sky has been wintering at Dishforth where it is flown by our Bronze C pilots hoping for Silver heights in the Pennine Wave but so far the wave has been elusive. However, in December, John Durman achieved 8,000ft (without a barograph) and Mick Moore obtained his Silver height.

Congratulations to Tony Acey who soloed on Guy Fawkes Day, and to our latest solo pilot, Bob Kirbitson, who acted as guinea pig, being first to get his A and B on our Skylark 2.

We were very pleased to welcome Naomi Christie from the BGA and in November John Heath visited Pocklington. Flying was minimal but we did appreciate this attention from a National Coach.

Our annual dinner-dance at Stamford Bridge was a great success and we have at last launched our new club magazine, "Air Break". It has been well received and promises to be most useful as a means of communication between the Committee, the CFI and the members.

R.H.D.

WYCOMBE AIR PARK—

OUR site has always sported a really interesting and diverse range of aircraft, both ancient and modern, but the recent influx of exotic glass ships and pundit-owners has been quite staggering.

Pundits and would-be pundits please note—Booker Regionals to take place June 23-July 1. Full details available from the club.

J.M.C.W.

YORKSHIRE—nothing left on the ground

SPIRITS were high in the bar on the night of February 11 after a day in which everything with wings, including the Tutor, had been soaring in the fresh NW wind and most of us had contacted wave over the site.

That intrepid wave-seeker, Mike Carter, worked upwind to Ripon where he climbed to 8,500ft with a rate of climb at one stage of 8kts. Malcolm Sutherland took the club K-6 to 5,000ft and Terry Wright did his five hours in the Kite 2.

We have had a number of "June-in-winter" days, the most memorable being February 6 when the thermals were the sort you dream about—six knots, smooth as silk all the way to cloud-base.

Thirteen members of the Fenland

At the request of the parties involved we have been asked to publish the following statement:

"Certain differences have arisen between Mrs V. Wates and Mr J. A. Atkinson and British Airways Associated Companies Ltd as a result of which litigation ensued. The matter has now been settled and each party unreservedly withdraw any allegations made against the other."

gliding club brought five aircraft up for a week and five achieved their duration and there was a climb to 9,000ft by Paddy Hogg.

We expect a new Blanik by early spring and in the meantime the club has bought a K-4, which is a useful trainer. At last the petrol pump is installed to speed up re-fuelling the tugs and the extra showers and loos are almost complete.

Public courses start in April and the Northern Regionals are to be held here again, this time in August.

S.V.G.

SERVICE NEWS

ANZUK (Singapore RN)—monsoons ending

FORMERLY the Straits gliding club (RN) we are now known as the ANZUK gliding club, with members from the Australian, New Zealand and UK Forces, also some civilians. At present our membership stands at 45, however slightly fewer appear at the field each weekend, due to duties and postings.

John Griffin is CFI and B. P. Singh and Willy Jones also instruct. We have a T-21, T-31 and a Swallow, launches are mainly by winch and we also auto tow in the dry season.

We only have the use of the airfield on occasional public holidays, at weekends from 2pm-6pm and the majority of thermals are in the morning. We have a height restriction, and a 2,000yd boundary, due to the amount of commercial air traffic in the area.

In spite of the problems Bob Atkin of Australia has his Bronze C, and eight members have gone solo since John took over as CFI in October 1971, when all but two members were *ab-initios*.

The monsoons are drawing to an end (it always rains as we launch the first glider) and we hope to get on with our soaring, and increase our membership soon.

We welcome visitors from overseas. Come to Kangaw Barracks at Sembawang and ask for us.

J.W.

CHILTERNS (RAF Abingdon)—fees increased

1972 must have been one of the worst years on record but we did end well with two Gold heights and three Silver durations at Sutton Bank. Golds went to CFI Jock Manson to complete his badge and one for Brian Cogger. "Yorky" Raynor is to be congratulated on gaining his full Silver within 30 hours.

The Cobra 15 syndicate received some bad news. Their aircraft which was in the despatch shop in Poland caught fire and was completely destroyed. It seems that fires happen all too often, for it was in November 1970 that Chilterns' whole fleet was destroyed at Benson.

The club has agreed to buy another K-4 from its own funds and has ordered a Kestrel 19.

AGM was well attended. The committee reported that with increased operating costs, the club fees would have to be increased—the first time for about ten years. The meeting voted the committee in for another term, the only change being Ralph Knowles who takes over as secretary from Dee Reeves.

The CFI reported that despite poor weather, hours had increased about 30 per cent and launches doubled. Achievements up to Silver C level had tripled but there were no Gold or Diamond legs. However, we started the 1973 season with three Silver legs and two Golds.

The member of the year trophy was presented to Malcolm Norris for his sterling work as MT member and a new trophy for the most notable flight was presented to the CFI—not only for his triangle in the K-4 but for his Gold height and continued tremendous work for the club.

The committee also congratulated

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"Yorky" Raynor, Bob Sheffield—full Silver in one flight—and also Bob Sharman and Geoff Millward for their performance in the Junior Inter Services competition.

G.M.

CRANWELL—first annual general meeting

WE held our first AGM and the election of committee members signified the final phase of the transition into democracy started two years ago. Three prizes, each of one year's subscription to S&G, were presented by our chairman, Wing Commander Hughes.

The *ab-initio* prize for most progress went to John Macaulay who achieved a Bronze C, Silver C height and about 70 hours flying since starting gliding 12 months ago. He has now been selected for instructor training.

The prize for the most outstanding flight by a pilot without a Gold C went to Ian Macfadyen who reached 12.000ft in the Aboyne wave, narrowly missing his Gold height. Norman Irvine was awarded the prize for the member contributing most in appreciation of his work on the conversion of the launch point caravan.

The "goon" trophy (a wooden spoon) went to Adrian Rutter for a Silver C cross-country flight when he landed some hours later 5km in the wrong direction.

Noticeably absent this year was the Cranwell wave, but the expedition led by Gordon Camp to explore the Deeside wave at Aboyne had almost a full week of wave conditions with most pilots gaining more than 8,000ft.

Finally, we have to say goodbye to two of our keenest instructors, Ian Macfadyen and Gordon Camp.

A.C.P.

FOUR COUNTIES—Junior Inter Services Competition

THE club is now laying the foundations for what it is hoped will be a record year. The first event in our calendar will be a wave flying project organised by Bob Lyndon. This will involve four aircraft visiting Aboyne for the last two weeks of March.

The major event will be the Junior Inter Services gliding competitions to be held for the first time at Spitalgate from May 4-13. Several club pilots are competing and many more members have volunteered to help organise and assist.

The benefits of having Harry Orme and Terry Thomas working at the club full time are becoming apparent. The club can boast possession of the best equipped bus in the GSA and our winches are being extensively modified. One winch has already been fitted with Tost paying on gear and the other should be similarly altered soon. The new look of this equipment inspires confidence and it should serve us well for many seasons to come.

The Spitalgate old Skylark syndicate has gone "plastic" and is now busy putting the finishing touches to their bank manager's new Std Libelle! Another syndicate has also been formed with Skylark 3 no 73.

Finally we have an *ab-initio* course in progress at the time of writing and six new members were sent solo in the last week.

R.T.D.

KESTREL (RAF Odiham)—five first solo flights

THIS year started well for by the end of the first month we had five first solo flights. Also during January, Howard Jarvis gained his full cat instructors' rating when Ken O'Riley appeared at Odiham to check him out.

Our MT and aircraft members, Dave Dripps and Rodi Morgan, are getting the club ready for the soaring season. Almost all the Cs of A have been completed and the third winch is due to appear around Easter. We should also have a new control caravan by the courtesy of the Arrow Group who fly with the club.

If passing, call us on 130.4 and you will always be welcome if you drop in.

H.R.J.

SOUTH WEST DISTRICT—ridge soaring

HUISH ridge has been useful to Mike Law who gained his duration, though unfortunately Jeff Vincent missed his opportunity by 30 minutes.

The programme for full category ratings is progressing well with two more instructors getting their rating, Lt Col John Welch, REME, who has been posted to Leicester and will be greatly missed, and G. Brindal, Royal Signals.

A grant has been confirmed for us to buy three oxygen kits, so let's hope it's a good summer.

J.D.

WREKIN (RAF Cosford)—television appearance

A DEPARTURE from normal was a venture by Gerry Hassett who decided to enter a BBC Midland TV programme, "The Pebble Mill Dash". The programme wanted to feature the most unusual arrival at their studios in Birmingham as part of the BBC birthday celebrations.

RAF Cosford agreed on a team effort, taking a plaque underwater, over rooftops by mountaineers, to the airfield by runners and then by K-8 on aerotow over to Birmingham for release, landing on a British Rail cricket pitch with live TV coverage. Our prize? Expenses paid.

Our winter MT overhaul is fully underway with even our canteen bus being refitted. We wish well to Ron Curtiss, our stats member, Alf Fox, our secretary, and our K-6E hogger, Wally Bunn, as they depart for pastures new, but welcome back a founder member, Jake Jacobs. He can be seen trying to beat the CFI and his deputy to our Auster.

Chris Roberts sampled our first wave of the year with a climb to 9,000ft over the Wrekin and gained a deserved Silver height.

K.M.R.

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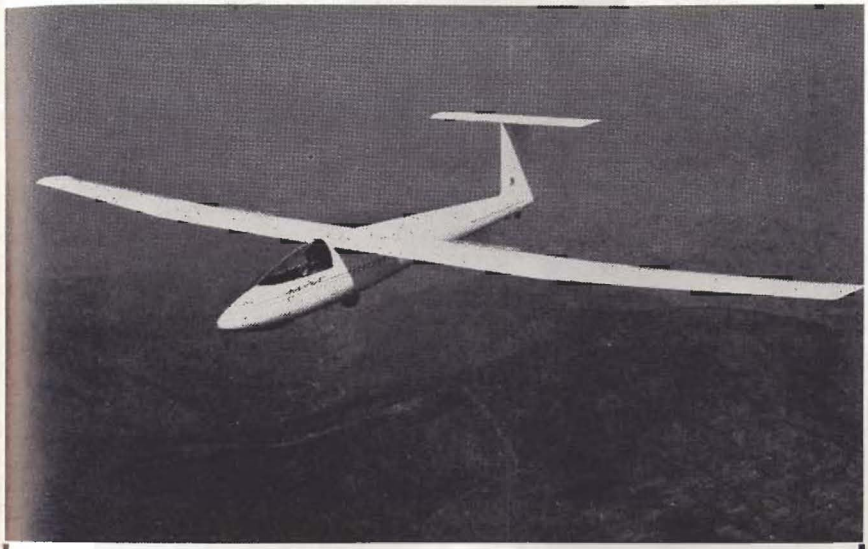
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