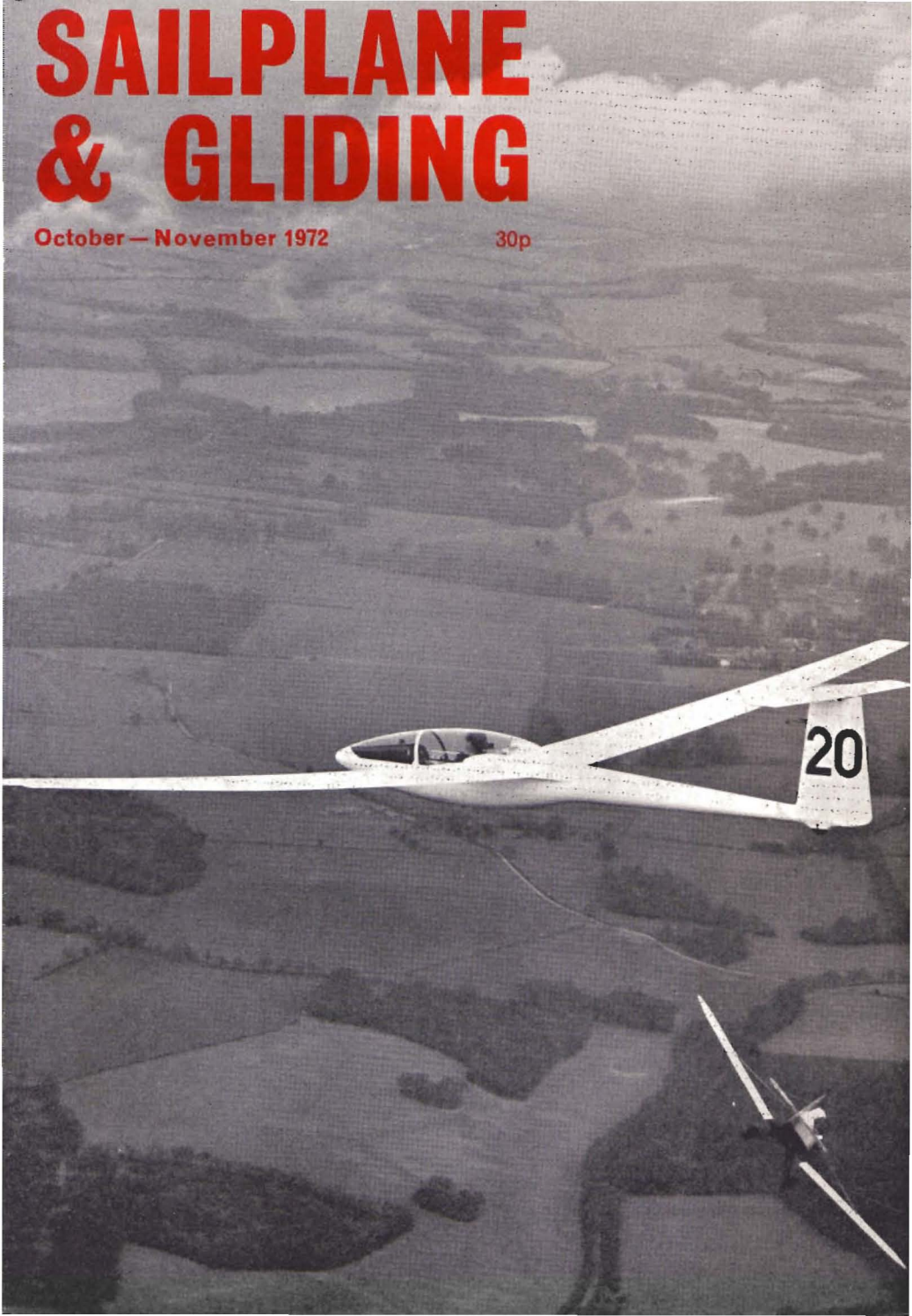
SAILPLANE & GLIDING

October—November 1972 30p



SPEEDWELL SAILPLANES

Office and Works:

SHEPLEY LANE, HAWK GREEN,
MARPLE, Cheshire, SK6 7JW

Telephone: 061-427 2488

C.A.A. - B.G.A. - P.F.A. Approved Staff
Light Aircraft & Glider Repairs



The latest all-metal trailer from Speedwell for Libelle and other light 15M Sailplanes.

"Near Zero" Maintenance. Best quality materials.
Weight with spare wheel and fittings only 600 lbs.
Continuously refined design over six years production and still the best trailer available anywhere.

LOW WEIGHT — GREAT STRENGTH — LOW MAINTENANCE
PERFECT TOWING

Don't just take our word, ask any one of our satisfied customers.

SAILPLANE & GLIDING

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION

Editor: George Locke

Consultant Editors: Alan Slater — Rika Harwood

Subscriptions: Frances Tanner

Committee: A. W. F. Edwards, Chairman — R. Q. Barrett — M. Bird G. Harwood — P. Wills

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

CONTENTS

World Championships Future		Ann Welch	362
Hallo Glass Broomstick		Rhoda Partridge	363
Stubble Fires Rescue Daily Telegraph Competition			365
Trimming for Take-off		R. Witter	370
Delivery Complete		Marion Toft	371
How The Young See Us			372
A Pilot's Guide to the Revolution		Ann Welch	373
Ostiv Congress 1972		A. E. Slater	375
Sailplane & Motor Glider News			378
The Motor Gliders at Burg Feuerstein		P. Ross	378
Sailplanes at the World Champs			381
Vrsac, 1972		**Rika Harwood**	**384**
Final Results			402
The World Championships Illustrated			404-409
Platypus Scribbles Again		Platypus	410
General & BGA News			412
Overseas News			416
Development of International Club Class Philosophy			416
US Nationals Results			419
Equipment News			422
Letters From Dunstable		R. Q. Barrett	424
Sport/Club Class Nationals Results			430
Lasham Regionals Results			431
Dorset Regionals Results			432
Obituaries: Wolf Mix; Jack Rushton			435
Book Reviews		A. E. Slater; R. C. Stafford Allen	436
Correspondence		R. Lunt; J. Davies; J. Sellars; O. Neumark; A. Deane-Drummond	437
Club News			442
Service News			453

Cover photograph: Tug breaking away after a Kestrel 17 releases *Photo by Lorna Minton*

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

Printed by Hampshire Printers Limited, Rankine Road, Basingstoke, Hants.

Vol. XXIII No. 5

WORLD CHAMPIONSHIPS FUTURE

By ANN WELCH

THERE are always questions in need of an answer after every World Championships, and 1972 was no exception. With increasing entry costs, organisation of an increasingly professional standard is expected, so how much freedom should organisers have in determining operational rules and procedures? The CIVV code covers the control framework of a championships, but each new organiser is allowed to select from alternative systems (launching, retrieving, turning point evidence systems, etc) those which it considers best for its local circumstances.

The question is a difficult one to answer because however detailed or precise the CIVV rules, the success of a championships is still dependent on such things as the quality of the task setting and the skill of the local meteorologists. Good task setting is a matter of understanding and experience and cannot be made so by rules. Nevertheless, there are some championships rules which in future will have to be fully considered, such as cloud flying, or which will have to be more closely tied down by CIVV, such as procedures for turning point evidence.

CLOUD FLYING

Of the questions that arose at Vrsac, perhaps the most important is whether cloud flying should, or should not, be permitted in world championships. There was a collision, it was in cloud and someone was hurt. But cloud flying is not a matter which can be decided upon in isolation. For example:

(a) If there had been no cloud flying at Vrsac, would there have been a Championships, in view of the weather?

(b) If the organisers had complied with the CIVV rule requiring that whenever possible the two classes be given different tasks, would the collision risk have been acceptable?

(c) If the organisers had retained the option to offer Prescribed Area Distance (Cat's Cradle) tasks, and used this task to give greater freedom to go around thunderstorms, would the collision risk have been less?

In Australia 1974 cloud flying may be useful on perhaps one day in 10, and then for perhaps only a few pilots. So should it be banned (assuming that the Australians can obtain permission anyway) or should it be permitted? Whatever happens, it is important to the future of championships that any decision taken is based on sound reasoning and not on emotions.

TURNING POINT EVIDENCE

Evidence of reaching the turning point using photography is simple and effective. However, it is essential to appreciate that the purpose of a championships is to find the best soaring pilot and not the best photographer. The rules and procedures must, therefore, be simple to operate by the pilot, and the organisers must be able to do the processing and analysis quickly and accurately. The only system that has so far fulfilled these requirements is the one used at Marfa 1970 and which is incorporated in the CIVV code.

Firstly, the use of a random chinagraph or grease pencil mark on the canopy opposite the camera lens avoids any need to seal the cameras or to have officials running round collecting them immediately on landing—both of which are time consuming.

Secondly, the point from which the photograph has to be taken is designated. This enables the organisers to choose clear and easily recognisable ground features which make it easy for the pilot to take his photographs from the right place. It also means that checking of photographs is simple and quick because the photo-interpreter is looking only for ones which are different—all those giving the same picture are obviously OK. Even photographs taken off the line between the designated photo position and the turning point object are likely to be closer to that line than to the edges of the 90° sector. This is important

because the big difficulty is in assessing precisely the point from which an air to ground photograph has been taken without specialised and sophisticated equipment.

In a gliding championships it should not be necessary to have to obtain such equipment, but unless the procedure used for obtaining the TP evidence effectively discourages pilots taking marginal photographs, it will have to be acquired. Otherwise incorrect assessment of some photographs will be inevitable.

These are some of the points that will need to be discussed by CIVV in November, because at this meeting the Rules and Scoring System for Australia 1974 will have to be finalised.

HALLO GLASS BROOMSTICK

By RHODA PARTRIDGE

YOU don't have to believe everything that men tell you. I paid my deposit for a Std Cirrus in April 1971, and they started to tell me all about it: "She ground loops dreadfully on take-off; impossible in a cross-wind. If you do manage to get her off the ground she's so twitchy that you'll get Rhoda induced oscillation on tow. She overtakes the tug too, she's so clean. When it comes to thermalling you'll find that she stalls in a turn at 45kts. You have to thermal her at 50 to 60kts and you'll fairly be pulling *g*. You know, of course, what happens if you get rain on the wings? She becomes unmanageable and flips over onto her back in a turn. And the landing. Ha Ha, the landing! Ineffective brakes and she floats until she hits the far hedge." That's what they told me.

Before I tell you what actually happened I'd better say a bit about my flying: More hours than sense. About 470 hours and some 750 launches. Very little cross-country. Some good heights in wave. Very little courage, very little ambition, just happen to love, love, love being up there. An addicted rabbit.

First flight, June 17. I'd taken her to Compton Abbas because I like the people there and because I wanted our relationship to start on aerotow. Fifteen knot cross-wind and I ground looped on take-off. So "they" were right.

Try again. Up this time and a very rough tow, full control movements and no RIO. Handles beautifully. Released in cloud at 1,200ft. A short, fraught flight, but long enough to know that this glider is a honey. The next day I got caught in a rainstorm and had to land with it still lashing down. Scared stiff when it first enveloped me—would she flip over onto her back like "they" said? Tremendous noise of heavy rain beating against her and then an almighty bang and a rushing sound. Panic! But it was only that the wheel had dropped down. She likes to go faster when wet (she has a very definite pre-stall buffet) and she comes down pretty swiftly, but she handles fine.

The landing did take a bit of sorting out. Flying from the Mynd I've got into the habit of doing short steep finals and get a kick out of that swooping-in feeling. Glass Broomstick likes to be flown on the approach slower than she is usually flying between thermals and she likes her speed carefully controlled. She picks up 10kts in a wink with very little change of attitude because she's so clean. She hates her tail skid to touch before her wheel and she likes to be kept straight with lots of rudder. If you get it right it's a most delightful landing. If you don't, you may end up facing the wrong way with your hair standing on end. I ground looped on three of the early landings and I'd never ground looped in my life before. Fortunately they build them remarkably strong.

The Compton Abbas mob had bullied me into entering their Dorset Regionals. Otto von Gwinner (a very clued-up competition pilot from Hamburg, flashing with Diamonds) came over to share the flying. He test flew to check the new PZL vario he'd put in (mine had been registering 6kts up regardless) and explained that my Althaus Venturi was faulty (I'd done about 10 hours in 12 flights by then, using my Crossfell vario uncompensated, and had thought my

poor thermalling was just lack of skill). He removed my panel and installed his own, the centre-piece of which was a peeping, moaning, clicking Swiss computer on which he flew most brilliantly the first three days to stand in the lead. I had a try on Day 2 but with no reliable vario to monitor the computer I'd nothing to give me information. Day 3, we got a total-energy diaphragm for the PZL vario and I had a couple of hours local soaring to find out what the computer was trying to tell me. Days 4, 5, 6 and 7 I flew.

At the end of the competitions people kept saying "Well, Rhoda, did you enjoy your first competitions?" Enjoy! They had to be joking. I've never been so scared in my life. Force 8 in a small sailing boat, 140ft down scuba-diving at night into a cave, childbirth, near misses on the road (there are some remarkably poor drivers about)—nothing has ever frightened me like competitions.

The horrors of the grid. After an hour or two brooding on the impossible task (usually changed at the last moment) "Zot" Zotov would be sent off to see if he could stay up. Now everyone knows that Zot will thermal happily if there's just one person on the ground smoking a cigarette. Doesn't mean I stay up. And talking of the ground, the farmers had got their colour-scheme wrong. The season had been so wet and cold that their spring sown corn was the same colour as their grass and their autumn wheat was the same colour as their mowed hayfields (few and far between and mostly littered with bales). They had also left cows and sheep all over the place, with the result that when I was up I was peering anxiously about wondering how on earth I'd get down again. Then the brutal take-off. Snatched off in formation, dumped in the DZ with all those milling gliders. Thermalling wincingly with crazy glass ships twirling round me, tails up and teeth bared.

Enjoy? Huh!

Day 4. Task Nympsfield, Newbury Race Course, home. I got as far as Hullavington and thoroughly enjoyed my first cross-country in my beautiful Glass Broomstick. Mistake: Left the thermal with other gliders in it to find a lovely fresh one just for me, lost height and was lured by the smooth green expanse of Hullavington with its beckoning windsock.

Day 5. Task Chilbolton, Aylesbury and Inkpen. Landed in a nice field just south of Wallingford. Mistake—got a bit lost and went too far west.

Day 6. Lasham, Bath Racecourse, home. In visibility dark as the pit and thick as treacle. Pilots who had flown in competitions for 20 years said they had never seen worse. After Chilbolton I had my hair parted by a Chipmunk at cloudbase and decided that the risk was not acceptable (my husband! My five children! My grandson!). Landed at Lasham which loomed up directly below me. Mistake: Chickened out.

Day 7. To North Hill in scratchy blue thermals. Landed in a hayfield near Honiton. Mistake (and this one makes me really cross because I had enough height to get in, if I'd only known where "in" was). Sneaked off down the valley to get a last thermal from the town so I could hunt for the site and the town hadn't got a thermal for me.

An overall mistake was only to use my radio when I wanted to transmit and to switch off as soon as I'd had a reply. I missed a lot of help and good advice (and some insults too!), but I found the chatter intrusive.

So, did I enjoy my first competitions? No. Like I said. But am I glad I entered? Oh yes, very. In eleven years I'd done five cross-countries—in four days I did four. I had wonderful help and kindness and good advice. I met people I really liked and shall meet again. I learnt a helluva lot. I enjoyed the party on Saturday night. Mike Tolman who had crewed for us with patience, efficiency and kindness, presented me with a miniature witches broom which now hangs from a beam in my pottery. A happy souvenir.

And what about Glass Broomstick? Dreamy. Beautiful as a piece of sculpture. Perfectly adapted to purpose. Blissfully comfortable. Fantastic high speed performance. Impeccable handling. (Crisp as frost and neat as a dancer), but steady and docile with it. Worth every one of the six thousand or so pieces of pottery I had to make and sell in order to earn her. She has promised that she will take up my education where my darling K-6E left off and will try to teach me to fly.

(L-R) Helmut Reichmann, BGA Chairman Chris Simpson and the late Prince William inspecting Reichmann's LS-1F (Photo courtesy Daily Telegraph



STUBBLE FIRES RESCUE DAILY TELEGRAPH COMPETITION

THE original idea of the contest which was to become The Daily Telegraph European Gliding Championships, (held at Dunstable from August 19 to 28), was that it would assist selection of the British team for the World Championships to be held in Australia in January, 1974.

It turned out to be an excellent contest. The weather smiled more often than it frowned. A number of distinguished pilots from the continent of Europe participated. The organisation was unobtrusively smooth and efficient. The atmosphere was pleasant.

The only trouble was—it far from assisted team selection. A group of eight or nine pilots emerged as very strong contenders for places but there was no group of four to stand significantly apart from them.

By the time this appears, the 20 British participants will have placed their votes for the selection of the pilots.

They will have been supplied with the complete results of the 1971 and 1972 British National championships and previous World Championships placings. Each will have thought deeply about the subject. Part of each pilot's answer will have been supplied by statistics of performance. Part — because pilots are human beings—will be supplied by other, less definable factors.

Whether the best team will be selected, it is impossible to say. What is certain is that a strong team will be picked—and one which is so close to being the best that quibbles will only be minor.

The competition, as far as the weather was concerned, fell into three parts. The first three days saw comfortably soarable and, on one day, near-classic conditions sufficient to cause some of the overseas visitors to express delight. They had not expected such good conditions in late August, especially in England. The middle four days had stabilising, hazy, near-blue anticyclonic conditions with inversions and late starts. One visitor said that the resulting smell of pollution made him feel sick. The final three were covered by a near-unbroken lid of stratocumulus cloud which made flying very scratchy and open to elements of luck. Throughout the contest, stubble fires were to be found, and these helped many competitors, often providing the

strongest thermals. But they were not always to be trusted. Although there was a natural tendency to expect a constant flow of lift from a fire, many competitors arrived at them to find no lift at all. After landing, they would be chagrined to see other gliders climbing away a few minutes later.

The final line-up on the opening day consisted of nine Open and 19 Standard Class gliders. There was only one overseas entry in the Open—the team entry of Henryk Vinther and Ejvind Nielsen (SHK) from Denmark. Hans-Werner Grosse had decided not to come as he objected to cloud-flying being permitted during the contest.

Former World Standard Class Champion Helmut Reichmann, who was to have flown alone, flew in partnership with Rainer Schneider in the LS-1F which he had flown at Vrsac. Another refugee from Yugoslavia was Poland's Franciszek Kepka, flying a Cobra 15, while other overseas pilots in the Standard Class were George Defosse (Belgium, Std. Libelle), Jacob de Meyere (Holland, K-6E), Peter Kaasjager (Holland, K-6CR), Rudie Stüssi (Switzerland, Std Cirrus) and Klaus Tesch (West Germany, LS-1).

UNSTABLE . . .

Saturday started inauspiciously, with low cloud cover over Dunstable which made it difficult for Prince William of Gloucester, due to open the contest at 10.00, to find the site. However, he saw a glider in a field through a hole in the cloud and correctly concluded that it must be Dunstable. (Prince William was unfortunately killed in a light aeroplane crash a week later.)

The weather improved, however, and both classes were given a 167km triangle via Chipping Norton and Olney. The wind was from the north-west, about 15kts, cloud cover was about 5/8 cu and strato-cumulus, and thermals mainly moderate, with a few generated and boosted by stubble-fires.

Most pilots completed the course; John Williamson, flying a Kestrel 19, arrived back before 15.00 to make the fastest time, 80.6km/h. The bulk of competitors arrived *en masse* shortly after 15.00, providing an unusually exciting finish for the spectators on Dunstable Downs. George Burton (Kestrel 19c) was at 79.8km/h only slightly slower than Williamson, while Con Greaves (Std Cirrus) and Bernard Fitchett (Std Cirrus) made the fastest Standard Class times (72.9 and 72.5km/h respectively). Kepka finished fourth in the Standard Class, and Reichmann's partner Schneider 10th. Tom Zealley had a late take-off as his brand-new Kestrel 19 was undergoing last-minute fettling, and he failed to complete the course, as did Kaasjager (K-6CR) and Tesch (LS-1). Kaasjager was also a late starter because of effecting repairs to his glider which suffered trailer damage.

Stubble fires made or broke a number of competitors on Sunday; several landed short of the goal after reaching fires which did not work. The wind was light and conditions were rather patchy for the dog-leg goal race to Lasham via either Oakley (104.5km) or Didcot (106km). The Standard Class had the pleasure of the first launches; local conditions were patchy with overdevelopment and large gaps to cross, but were better away from the Dunstable area. A good number of the pilots were hesitant about setting off, and crossed the start line two or three times before taking the plunge. Some did not leave until 14.00, and may well have left it too late. Two Open and nine Standard competitors failed to make it, including Goodhart (Std Libelle) and Kepka, who landed only a few kilometres short.

That many competitors had a struggle to get to Lasham at all is borne out by the spread of finishing speeds — from 73.2km/h by Delafield (Kestrel 19), 70.3km/h by Williamson, 68.4km/h by Reichmann, Standard winner and 67.8km/h by Fitchett through Warminger's 42.5km/h (the slowest Open) and 35.3km/h by Leigh Hood (K-6E), the slowest Standard Class finisher.

The three main British team contenders in the Open Class were now firmly in the lead, with Williamson setting the pace with 33 points, followed by Delafield (31) and Burton (27.5). In the Standard Class, Fitchett now led with 56 points, challenged by Greaves (47), White (46) and Cardiff (43).

A frontal system crossed the country on Sunday night, leaving a sparkling Monday which turned out even better than expected. Winds were forecast to reach 15kts at soaring heights, from a

northerly quarter. The few cumulus were expected to disperse by about 14.00, leaving the remainder of the day with blue thermal conditions. In the event, there was a little more cloud than expected. The Open Class was set a 257.2km triangle via Stradishall and Market Harborough (which complied with the 28% rule) and the Standard Class a 210km triangle via Duxford and Market Harborough which didn't.

The first leg was easy, with streeting all the way to the East Anglian turning points. The first part of the second leg was rather blue and required caution, but conditions improved as competitors approached Market Harborough, and were very good back in the Dunstable area, with cloudbase up to 5,000ft. All competitors completed the task save Defosse, who landed near Oundle, and some very fast times were put up. Four Open Class pilots beat the United Kingdom 200km record held by John Williamson: Delafield (79.7km/h), Burton (82.2km/h), Ralph Jones (Nimbus 2, 83.7km/h). But fastest of all was, appropriately, Williamson himself, setting a new speed of 85.5km/h to retain the record and win the day. The fastest Standard Class speed was put up by Goodhart (80.1km/h), with Greaves, Fitchett, Orme, White and Cardiff close behind.

STABLE . . .

After Monday, the air stabilised progressively, filled rapidly with homogeneously distributed noxious particles underneath the inversion and made visibility poor. It was so poor on the Tuesday, in fact, that although a task was set and conditions became soarable in the afternoon, it was cancelled when the snifter declared that there would be a collision risk if everybody was launched. One or two pilots who subsequently had "fun" flights confirmed the wisdom of the decision to scrub.

Visibility was poor locally on Wednesday as well, but conditions improved and became soarable after lunchtime, with some cu up to 4,000ft. Most competitors completed the task, a 204.5km triangle via Winchcombe and Silverstone.

An experiment was made by the organisers. It was to ban relights from outlandings for the first time in a British competition. This is the practice in a number of continental countries. Goodhart suffered badly as a result of this; he left too early and landed at Bicester. Although he would have been able to return to Dunstable by road in time for a second attempt at the task, the experiment prevented him from doing so and he lost a lot of ground as a result.

Ralph Jones, the one contestant who held on to his water ballast, won the Open Class at a speed of 69.3km/h, with Delafield, Burton, Williamson and Pozerskis close behind. Garrod, British National Standard Class Champion, won the Standard in his ASW-15 with a speed of 63.9km/h, with Reichmann, Fitchett, White, Greaves and Cardiff close behind.

Williamson retained the Open lead with 62 points, but Delafield and Burton had narrowed the gap and Ralph Jones, with 52, was keeping the leaders in sight.

The Standard Class situation remained



unchanged, with Fitchett on 114, 10 points ahead of Greaves, with White and Cardiff breathing down their necks. Reichmann/Schneider remained in 5th place, and Garrod moved up to sixth, but at 76 he was 22 points behind Cardiff and had a lot of ground to make up to stay in the running. Goodhart's unfortunate outlanding dropped him to 10th place overall, with 58 points.

Thursday featured a second experiment as well as hazy conditions which once again only became soarable in the afternoon. A 127.8km triangle for both classes was set via Didcot and Shepherds Furze, and conditions were very weak—basically blue and the cumuli which did exist did not always work. Only Burton, Jones and Zealley of the Open pilots made it back, and that by the skin of their teeth. Cardiff got a timely boost from a stubble fire which produced 10kts to make him the only Standard pilot to return home.

The experiment was to prevent the Standard Class, which was launched after the Open, from crossing the start line until 10 minutes after the last machine was released. This resulted in the formation of two or three large gaggles which looked very beautiful as they circled, silvery-white, in the hazy blue sky to wait for the gate to be opened.

Burton's speed of 49.8km/h took him to the top of the Open league with 70.5 points, half a point ahead of Williamson. Jones took over third place from Delafield; the next nearest competitor was 20 points behind. Cardiff's win in the Standard Class, at 39.1km/h, took him to second place overall, 10 points behind Fitchett, who retained the lead with 139. White remained in third place, but Greaves dropped to fourth, with 119 points. Schneider did enough to keep the German team in fifth place, but Garrod dropped back, letting Orme, who landed just short at Edlesborough, to take over sixth place with 98.

The Swiss Pilatus glider, in Britain on a demonstration tour, came to Dunstable and, it is believed by many, inadvertently rendered the start and finish line observers an inestimable service. In the morning, before contest launching, it gave a display of aerobatics. A combine harvester was working in Farmer Pratt's field, which lies between the airfield and the knob of Dunstable Downs' famous bowl. It is believed that the driver was a rapt spectator of the aerobatics. Just as the Pilatus finished its display with an inverted run along the hill towards the bowl, the harvester sought to emulate the glider and turned over, bursting into flames. Fortunately, the driver was thrown clear. From then on, the wrecked machine was used as one end of the start and finish lines.

Friday's task (a short triangle via the Watford Gap M1 service station and Olney) was cancelled because of poor visibility, but it was announced that pilots could fly if they wanted to and a prize would be given to the winner. Eleven tried, but most not very seriously, and only Jones completed it, taking nearly two hours. Rudie Stüssi undoubtedly wishes he hadn't tried—he broke the fuselage of his Std Cirrus on a field landing undershoot. Reichmann and Tesch rounded the second turning point before landing.

CLAMPED

On Saturday, much to the relief of any incipient sunburns, the weather changed. Not much, but the high moved a little north, allowing a continuous layer of strato-cu to cover the country. It looked quite unsoarable. However, there might be a few breaks in the cloud, and a wind of up to 15kts from the north-east dictated a task towards the west. It was set as a race to Cosford via Stratford upon Avon and Shobdon, a total of 228.9km. Looking at the weather, the natural reaction was ribald laughter. The minimum scoring distance was set at 60km instead of the usual 40 in view of the day's uncertainty. The Open Class went first and the Standard Class had their task reduced to a race to Cosford via Stratford only—152.3km.

Visibility was poor, thermals in the main weak, and many pilots were in a permanent state of "landing now". But stubble fires came to the rescue many a time and surprisingly good distances were achieved, although nobody completed the race. Burton won the Open Class with 197.4km, while Delafield, Williamson and Jones all exceeded 190. The Standard pilots, launched after the Open, had a much harder time of it, and nine pilots

failed to exceed the minimum scoring distance, including poor Stüssi, who was flying a borrowed K-8. Goodhart made the best distance, 146.3km, with Reichmann second, with 134.6km. Only Greaves of the Standard front runners was up with the leaders, and he squeezed into second place a point in front of Cardiff but still eight points behind Fitchett.

Sunday was pretty much the same, with the same overcast, a light north-easterly and even weaker conditions. The task was a short triangle via Watford Gap and Olney (129.6km), and the minimum scoring distances maintained at 60km. Only three Open and two Standard pilots exceeded it. Delafield made the best distance, 80km, and Williamson second, 77.4km. Williamson's five points put him into the lead over Burton, who failed to score.

Fitchett won the Standard Class with 71.3km, increasing his lead slightly, but the placings were unchanged.

A task was set on Monday, which had a similar look about it, but conditions did not prove soarable sufficiently early, so it was cancelled, leaving Mr H. M. Stephen, managing director of *The Daily* and *Sunday Telegraph*'s, to formally close the contest.

The first three in each class were awarded trophies donated by *The Daily Telegraph*. The winners received silver salvers; the runners-up in each class received cut glass decanters with a silver base; and pilots coming third "Churchill" silver plates.

In addition, the Winfield Challenge Trophy, awarded by F. W. Woolworth & Co Ltd to the competitor who made the fastest time during any of the competition tasks, was won by John Williamson (Kestrel 19) with his 85.5km/h 200km triangle record-breaking flight.

OPEN CLASS UNHANDICAPPED

	Pilot(s)	*Sailplane*	19.8 17	20.8 18	21.8 17	23.8 15	24.8 15	26.8 16	27.8 5	*Total points*
1	Williamson, J. S.	Kestrel 19	17	16	17	12	8	14	5	89
2	Burton, G. E.	Kestrel 19c	16.5	11	15	13	15	16	0	86.5
3	Delafield, J. D.	Kestrel 19	13	18	12	13	8	15	5	84
4	Jones, R.	Nimbus 2	13	8	16	15	14	13	0	80
5	Zealley, T. S.	Kestrel 19	2	14	8	8	12	2	2	48
6	Goldsborough, J. B.	Diamant 18	10	11	10	5	4	5	0	45
7	Warminger, A. H.	Kestrel 19	6	6	5	5	8	12	0	42
8	Pozerskis, P.	Cirrus	8	4	5	12	4	8	0	41
9	Vinther, H. H. (Denmark) Nielsen, E. E.	SHK	4 —	— 1	2 —	— 2	4 —	— 5	0 —	18

STANDARD CLASS UNHANDICAPPED

	Pilot(s)	*Sailplane*	19.8 29	20.8 27	21.8 33	23.8 33	24.8 31	26.8 19	27.8 4	*Total points*
1	Fitchett, B.	Std Cirrus	29	27	29	29	25	0	4	143
2	Greaves, C. M.	Std Cirrus	29	18	29	28	15	12	0	131
3	Cardiff, J. D.	Std Libelle	19	24	29	26	31	1	0	130
4	White, S. A.	Std Cirrus	25	21	29	28	23	0	1	127
5	Schneider, R. (W. Germ) Reichmann, H.	LS-1F	15 —	— 27	24 —	— 30	23 —	— 16	— 0	122
6	Orme, H.	Std Cirrus	19	0	29	21	29	16	0	114
7	Goodhart, H. C. N.	Std Libelle	19	6	33	0	25	19	0	102
8	Garrod, M. P.	ASW-15	15	14	14	33	10	0	0	86
9	Glossop, J. D. J.	ASW-15	11	13	19	13	10	12	0	78
10=	Sandford, R. A.	Std Cirrus	19	4	15	17	20	0	0	75
10=	Tesch, K. (W. Germ)	LS-1	2	21	15	21	12	4	0	75
12	Kepka, F. (Poland)	Cobra 15	24	8	21	6	9	6	0	74
13	Hood, L. S.	K-6E	11	10	10	19	11	12	0	73
14	Defosse, G. (Belgium)	Std Libelle	11	0	2	22	16	8	0	59
15	Dobson, B.	Std Libelle	23	0	22	3	12	0	0	55
16	Stüssi, R. (Switz)	Std Cirrus/K-8*	7	2	7	13	21	0*	0*	50
17	De Meyere, J. (Holl)	K-6E	7	15	5	9	8	0	0	44
18	Lee, G.	Cobra 15	15	0	21	3	4	0	0	43
19	Kaasjager, P. (Holl)	K-6CR	4	0	6	9	2	0	0	21

TRIMMING FOR TAKE-OFF

By RODNEY WITTER

EVER since my first lesson in a glider the principle of setting the elevator trimmer forward for take-off on a winch launch has been emphasised and until recently accepted by me. Careful thought about the question, however, brings one to the conclusion that this may not always be the best procedure with all types of trimmer.

The first design principle of any elevator trimmer is that it should adjust the amount of stick force required to hold the aircraft in any particular stable pitch attitude. This is achieved in a number of ways, such as the adjustable spring bias on the control column (K-6) or, more commonly, the trim tab of either normal (Olympia, Blanik, etc) or differential (K-7, K-8) design.

In the case of the movable tab type of trimmer there is an important secondary effect whereby the trimmer itself acts as a pitch control surface if the elevator is held steady. This is most noticeable in the K-8 where the trimmer will produce very substantial nose up or nose down pitch changes if operated while the elevator is held rock steady. The interesting point is, of course, that in this condition trimming fully forward will raise the nose while moving the trimmer fully aft lowers the nose, as reference to the figure will show. And this, after a roundabout lead in, is the starting point of my argument.

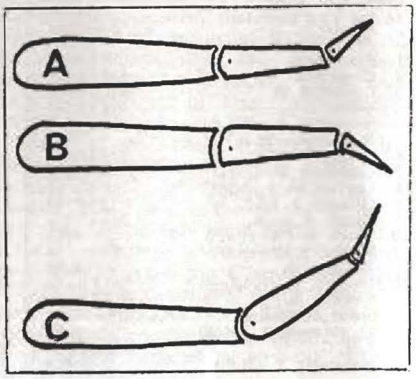
For the aerotow launch there is no problem in that a fairly neutral combination of elevator and trim is set for the climb out. For winch launching however, with the stick hard back and trimmer fully forward, the control surface combination is as shown in diagram C. If the cable should break in this situation a very strong nose up pitching moment will be applied to the aircraft (due to the combined control surface action of the elevator and the trimmer) in the interval before the stick is pushed forward for recovery action.

The usual reason quoted for trimming forward for take-off is to assist the elevator to go to the nose down position on a cable break. However, the force produced by the trimmer on the control column is very small compared with the firm positive action with which the pilot will push the stick forward to recover. Of more importance is the nose up pitching contribution of the trimmer *whilst* the stick is still held back before recovery action is taken. This extra nose up moment could make all the difference between stalling the aircraft and making a smooth recovery.

In conclusion, therefore, it could be argued that the optimum position for the trimmer on a winch launch is in a mid, neutral setting, neither assisting (or hindering) stick movement, or providing any secondary control surface effect which could aggravate the marginal conditions existing after a cable break.

As a corollary to all this, it is seen that limited pitch control of an aircraft may still be retained in the unfortunate event of the elevator control jamming. Indeed it might be that enough control remains to land the aircraft if the unnatural effect of trimming forward raising the nose and *vice versa* can be got used to.

A further point is that of entering a spin. Occasionally, on a reluctant aircraft, enough up elevator cannot be applied to help enter the spin. Applying forward trim may then just provide the extra loss of speed necessary to stall the inner wing when the yaw is applied.



DELIVERY COMPLETE

By MARION TOFT

> Mrs. M. Toft, of Burton and Derby Gliding Club, wishes to announce the safe arrival of the second leg of her Bronze C. Early difficulties almost led to an abortion, but with help from above the heights of ecstasy were reached and the delivery completed satisfactorily.

AFTER two months of being ignored by every thermal within a five mile radius of Church Broughton, I concluded that the June "happy event" (see S&G August, p299) was a mistake. That is, thermals had mistaken me and the K-13 for someone else. The mistake was not repeated.

One day in August Camp Week of our club, Golf Romeo, the tug, was roaring on the runway and it was my turn to fly. The barograph had just been removed from the K-13 so that the smoked foil could be replaced. Now I ask you, with my record of flying feats, would you have waited for the barograph to be replaced? Well, *I* didn't.

Now read on . . .

As usual, Tony the tug pilot promised to drop me in the biggest thermal he could find, but at 2,000ft when I pulled off the lift was inverted. In no time at all I was down to 1,500ft and wondering whether to head for a big cloud in the opposite direction to the airfield.

"It's bound to have a thermal," I thought.

"If it doesn't you can't make it back to the airfield," said my gremlin.

"Oh shut up," I said.

Height trickled away as the cloud came closer. The sink started. As the airfield receded in the distance, I lost my nerve, turned tail and ran for home. At 1,200ft I was looking for a suitable field, wondering what the CFI would say and how long I would be grounded for.

There was a violent kick from underneath and the vario screamed. I turned the K-13 on her wingtip and suddenly the altimeter began to wind up. In 10 minutes I was at 5,000ft, cloudbase, frozen, deafened by the vario and ecstatic.

With all that height to play with, flying was easy. I practised using instruments to fly in and out of cloud. Each time the K-13 fell out of the cloud, she just climbed back in using the thermal.

Tired of clouds, I trimmed the K-13 to 42kts, took hands and feet off the controls, and let her fly herself.

"Spin if you dare," I told her.

She flew straight and level for about 10 seconds, then turning gently, centred on the nearest thermal and started climbing. My gremlin said that the K-13 could fly better than me anyway.

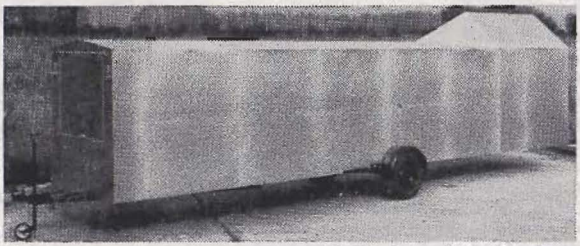
After an hour I was aerobatting off 4,000ft to get to the airfield ahead of an approaching rainstorm. I landed to a rattle of rain and a roar of thunder, with my Bronze C complete and a Silver height into the bargain.

That was when I remembered the barograph.

TRAILERS

8m. Shell £388

Fittings £70-£95



LANDSMAN'S (CO-OWNERSHIP) **LTD.**

Buckden, Huntingdon
Tel. Huntingdon 810287

HOW THE YOUNG SEE US

HOW do the young see glider pilots? Through rose-coloured Polaroids?

We reproduce below some extracts from *Gliding*, a school project book prepared by Charlotte Simpson, aged 12, daughter of Chris Simpson, the chairman of the BGA.

The book is a most comprehensive piece of work, profusely illustrated with drawings, photographs, press cuttings and excerpts from *S&G*, and is presented with such an instinctive appreciation of the principles of lay-out that we are tempted to offer Miss Simpson a job in *S&G*'s office.

Priorities "Anybody who owns a glider treats it like a real person. It comes first whatever happens!"

Radio "Every glider has a radio and the car that goes retrieving has one too. So that all the different cars and gliders don't get muddled up they have to have names. The glider and the car have a pair of names, eg Rhubarb and Custard.

"Everyone can hear everyone talking on their radios. Once there was a man who thought he was testing his radio by saying '1,2,3,4,5. 1,2,3,4,5. 1,2,3,4,5 . . .'. Another man heard him and got very bored, so he said 'Stop saying 1,2,3,4,5!' Then the first man said '6,7,8,9,10'. And then he shut up!"

Women's lib "Any glider can enter a competition. They have to have a crew of 2-4 men to do the retrieving. Usually a woman is brought to cook the breakfast and the supper!"

Competitions and the figure "An ice-cream man often comes and everybody puts on weight!"

World championships "The team consists of four pilots, their crews, some wives, the manager, the chairman of the BGA and the vice-chairman. They have a uniform (ordinary Marks & Spencers clothes). The year before last the team went to Texas.

"All the pilots had to carry drink because it was so hot . . . It was very, very hot in the cockpit and so the pilot had to be able to stand the heat very well.

"The food at Texas was so awful that everybody tipped it into the dustbins! A rich ranch owner asked the team over for a day. They had superb steak and went riding. We have a slide of my father standing by an oil well (as though it was his own) in a big hat. It is very funny!

"The beer was about 60p a pint and everything else was remarkably cheap."

Motor gliders "Many people wanted to put motors into gliders, so that they could skip the aero-tow queue."

Tail parachutes "Tail parachutes are used as a sort of brake. Pilots use them for landing. They are stored just underneath the tail. My father put out his tail parachute too early and he just went straight down and ruined the undercarriage! This cost him £200 repair."

Carnaby Street "It is usually cold and windy on an airfield, so it is best to wear trousers and a thick sweater and an anorak. Your shoes should be quite tough. The men quite often wear grey boiler suits which have huge pockets which are very useful for putting things in."

FLYING ON A BUDGET?

Our credit terms for insurance need cost you nothing

"Don't Delay — Ask Today"

Trafford Facilities Ltd.
Associated Insurance Brokers
(Dept SG)

151 HATFIELD ROAD, ST. ALBANS, HERTS.
Telephone Nos.: 54967 & 52396

A PILOT'S GUIDE TO THE REVOLUTION

By ANN WELCH



WHAT is an aeroplane, a glider, a parachute or a kite? Suddenly it is no longer clear. The streamlined single-minded, increasingly expensive, sport of gliding has produced offspring. Probably in time the offspring will develop a family likeness, but at the moment some may feel that there is little that is recognisable. Certainly, to the hot ship pilot reclining comfortably at 100kts 6,000ft up, the thought of running down a hill hanging on to some floppy device doesn't seem like the same thing at all.

Basically the revolution has, or is soon likely to, produce means of motorless flight in three categories—sailwings, rigid aerofoil gliders with the pilot taking off on his own two feet, and more conventional light wind soarers launched by hand, bungey or other sources of urge.

SAILWINGS

These are single surface wings which take their aerofoil shape only when airborne. The Rogallo is a typical and effective example. Using a paper-dart shape its construction is extremely simple.

This type is basically safe although the aerofoil can collapse if the angle of attack is reduced too far. Some pilots have bought the material to build a sailwing on a Saturday morning, got down to work, and jumped into the air on Sunday evening. The Rogallo is suited only to slow flight, and although it has been towed by speed boats and aeroplanes this requires great skill on the part of both pilot and driver. For ordinary fun flying use of such power for *any* phase of sailwing flight should be *excluded*. Sailwings have been soared but this is difficult to achieve for reasons of both controllability and performance.

The typical span is 14ft or 18ft; glide ratio 3:1 and speed 25mph. Materials used are bamboo or aluminium tubing with a covering of 1½ oz Dacron or 4 thou polythene.

ROGALLO TYPE SOARING HANG GLIDERS

Full details from:
McBROOM SAILWINGS LTD.
12 Manor Court Drive,
Horfield, Bristol 7

RIGID AEROFOIL AIRCRAFT WITH OWN FEET UNDERCARRIAGE

Quite a range of aircraft are encompassed under this heading. At one end there is the tailless swept biplane hang glider Icarus, controlled longitudinally by weight shifting of the pilot's body, and laterally by tip drag rudders.

Then there is the Volmer; still a hang glider but with conventional control surfaces and weighing 50lb.

Lastly come the next generation ultra-lights with a cockpit and conventional controls, but with the pilot taking off using his own legs for both power and undercarriage. After take-off the legs can be retracted and the landing made on skids. A wide variety of aircraft configurations and experimentation with new materials can be expected in this group.

The span of Icarus is 29ft, weight 55lb, wing loading 1.3lb per square ft with a 146lb pilot and speed 20mph. The materials are aluminium tubing, half-inch polystyrene ribs with ply cap strips, and covering 1½oz Dacron or 4 thou polythene.

LIGHT WIND SOARERS

These are aircraft that have always had a following, but whose development has been overtaken by the passion for speed. The Windspiel of 1932 was a conventional glider with a weight of only 121lb, and a wing loading of 2.4lb per square foot. It could effectively use both light slope breezes and small and weak thermals for soaring; its longest flight was 150 miles.

In 1935 Harold Penrose built the Pegasus. It weighed only 135lb, but at the expense of a small wing so the loading was higher, 3lb per sq ft. In the last issue of S&G, Pat Moore described how he had set out with the intention of building a light slow soaring aircraft, but had been diverted by the desire for speed.

With today's materials a light wind soarer could be built cheaply provided that the top end of the speed scale is substantially curtailed. We should not forget that VNE of the Kirby Kite was only 70mph, and it was capable of a 147 mile goal flight. However, it would not be unexpected to find that today's high speed soaring pilots, or the manufacturers of their craft, would say that this is not for them. But for the many who cannot afford high speed ships, and who are prepared to forgo the delights of racing around a 300km triangle, the cheap light wind soarer could be the answer.

Slope and local soaring in a glass exotic is not often much fun because the performance of the aircraft is out of scale with the terrain, but soaring in a light wind soarer along the Downs or the Chilterns can be much more of a real challenge because the aircraft is more "in scale" with the hill. The dinghy owner may prefer an ocean racer, but if he cannot afford it he has a lot of fun with his little boat on a lake. Of course the inability of the slow glider to fly effectively upwind is a disadvantage, but retrieves from gentle ambling cross-countries are not the end of the world.

So why do I call the hang glider and the prospect of the light wind soarer a revolution? Because revolutions take place when a sufficient body of people want something different from that which is on offer. But most revolutions in due course swing back to a greater or lesser extent to the mainstream direction. I think that this will probably happen with hang gliders too, but with a load of good fresh new ideas along the way.

However, unless established manufacturers concern themselves with the need to produce some much simpler and cheaper gliders, such aircraft will be built by newcomers. They are likely to be some of the people now experimenting with Rogallos, who have a growing knowledge of light materials and cheaper structures. New ideas are essential to any movement, but so is experience. Gliding will be best served if those with experience also appreciate that gliding does now need to cater for a much wider range of customers.



Geoff McBroom's Rogallo-type sailwing *(Photo: Ann Welch)*

OSTIV CONGRESS 1972

By A. E. SLATER

FIFTY-ONE papers and two symposia made up the Conference of the Organisation Scientifique et Téchnique Internationale du Vol à Voile—OSTIV for short—held at Vrsac during the World Championships. As their titles and authors alone would take up four pages of S&G, only a few can be described here, but you can read the full text of most of them in the OSTIV supplements to the Swiss Aero Revue during the next two years.

Dr George R. Whitfield of Reading University was presented at the opening ceremony with an OSTIV Diploma for his paper on "Automatic Recording and Analysis for Glider Performance Testing". Diplomas were also given to Paul F. Bikle of USA for a paper on "Sailplane Performance Measured in Flight" and to Dmitry A. Konovalov of Leningrad for a paper "On the Structure of Thermals". All these papers had been read at the previous Congress.

These presentations, together with the OSTIV Plaque for 1972 to Paul Bikle, were made by the President, L. A. de Lange, who in his opening speech pleaded for more co-operation between OSTIV and CIVV, the Gliding Commission of the Fédération Aéronautique Internationale. He ended with the words: "At long last we have touched down in the country from where your brilliant compatriot Boris Josip Cijan served the OSTIV with all his heart for so many years".

Cijan himself read a paper on a subject which brings history to mind: What is the optimum gap between the wings of a tandem monoplane? (This type of glider won the Itford contest in 1922, and J. J. Montgomery had one launched from a balloon in 1905, while S. P. Langley tried to launch a motorised version in 1903.)

A paper on "Dynamic Analysis of Dolphin-Style Cross-Country Flight", by Dr Jozef Gedeon of the Budapest Technical University, was the most original contribution in the opinion of Boris Cijan, who has kindly furnished the following summary of it:

"A dynamic computer study of sustained thermal cross-country flight using the so-called dolphin technique" (ie flying straight ahead, going slowly in lift and fast in sink) "has been started. The thermal model allowed for the sinking zone surrounding the core as well.

"Preliminary results show the necessity of allowing for the different flight modes in the computer programme. The best point for beginning the pull-up was found to be at some distance before entering the thermal core.

"Optimising for the best normal load sequence in doing the pull-up and the push-down calls for more computer work. Relevant studies are going on and results will be compared with circling cross-country flight performance calculations."

Slides and a film of the Sigma were shown and explained by C. O. Vernon in place of Nicholas Goodhart, who was flying. He said the first rigging took 25 to 30 minutes. The cross-section of the fuselage was kept as small as possible to reduce the "wetted" surface; but one questioner expressed surprise at its great length. Another asked why the flap was used in only two positions—in and out; but Mr Vernon replied: "If we had wanted to use it in intermediate positions, we would have done something about the gap."

Dr George Whitfield read two papers, and I am indebted to him for the following summaries of them:

"Dr Whitfield described his measurements of the performance of the Falke motor glider, both with and without propeller. These showed best gliding angles of about 18:1 with the propeller stationary, and 20:1 without the propeller. In fact, in spite of its small size, the propeller contributes 20% of the C_{DO}, the drag coefficient at zero lift.

"He also described a hysteresis effect that appears in some of his glider performance tests. The rate of sink at one air speed depends on the direction from which this speed is approached. At high speeds, the performance is better if the speed is increased to the test speed, while at low speeds, below about 50kts, it is

better to slow down to the test speed. This effect was shown by the Skylark 4, Bocian and Falke; it was absent in the Dart, T-53B and BG-135 sailplanes. It is a small effect, typically 5% or 10% difference in rate of sink, which is little more than the experimental error; but it deserves further investigation."

The tendency to flutter in glass-fibre sailplanes is much reduced in the newer ones, said the author of one paper, but there is still a risk of this happening if there is much play in the various joints concerned in the action of the controls. This is due to the surfaces of contact being too small, so that they wear away too quickly and the control surfaces become loose.

One of the most interesting of the technical papers was "Thoughts on Sailplane Design from Nature", by Francisco L. Galvao of San José dos Campos, Brazil; but George Whitfield, who was fascinated by this paper, found the author's English with a Brazilian accent easier to follow than I did; once again I am indebted to him for the following summary:

"Francisco L. Galvao pointed out that progress in any field takes place in a series of steps. The initial rapid improvement due to a new idea or technique quickly slows down as the technique is pushed to its limit and becomes subject to the law of diminishing returns. The design of gliders is clearly approaching such a limit, and new ideas are needed. It is worth while looking at flying and swimming creatures for possible new ideas.

"The drag of gliders could be reduced if laminar flow could be maintained over a larger part of the surface. There is some evidence that dolphins' skin has the necessary resilience to damp oscillations in the boundary layer and delay transition, and it is possible that birds' feathers and fishes' scales function in a similar way. The problem is to provide acoustic damping over the range of frequencies at which the boundary layer is unstable, and it might be solved by a team of biological, acoustic, aerodynamic and plastics experts.

"Another possibility is the tailless sailplane, saving the weight and drag of rear fuselage and tail—few of the more efficient birds have large tails. Low aspect ratio sailplanes can be designed with excellent stability and control characteristics, using new wing sections with low positive or negative pitch moments. With high aspect ratios, pitch stability becomes critical, but can be obtained by using a very short tail. The resulting glider would retain the light weight, low cost and low drag of the flying wing, and with good pitch control and low moment of inertia might also be capable of dynamic soaring in bubbles, gusts and wind gradients."

The Meteorological sessions were mostly held in the late afternoon, when one had to be on the airfield collecting the news, and the OSTIV meeting was in the town three miles away. But few Met papers are in plain language these days, and most of them, especially about waves, consisted of mathematical equations on the blackboard resulting from computer analyses. Moving waves, as well as stationary ones, are being increasingly studied.

Our Tom Bradbury gave a progress report on the compilation of an "OSTIV Forecasting Manual", about which a Conference had been held at Zell am See last year; but it isn't ready yet. A report on Mike Field's flight to 42,500ft over England was included in the section "Thermal Wave Soaring". A section on "Atmospheric Research by Instrumented Gliders and Light Aircraft" included an American paper on "Sailplane Measurements of Atmospheric Electric Fields in Thermal Convection"; and Dr J. Milford of Reading University had one on "Some Thermal Sections shown by an Instrumented Glider".

The usual half-time excursion was, this year, a trip down the Danube to see Europe's biggest Dam, for which the delegates had to catch a bus at Vrsac at 4.30am.

At the winding-up Conference on July 21, publications came up for discussion. "The World's Sailplanes No 3" is expected in 1973; the Soaring Society of America intends to publish a journal "Technical Soaring" four times a year, and Jane's "All the Worlds' Aircraft" will be available to members at a 33% reduction in price. Hans Zacher raised the subject of including a 13-metre Class on the Australian model into World Championships, and estimated that it would take two or four years to establish.

SOARING IS FUN

For the **holiday of your life** combine the joys of a gliding course with beautiful scenery and interesting activities at the

SOUTHERN SOARING CENTRE

We CUT the frustration out of launching which means

MORE FLYING
MORE INSTRUCTION
MORE FUN

FOR YOU

This is achieved by an all aero-tow system and your instruction is handled by two resident fully rated B.G.A. instructors. Courses are restricted to five persons per 2 str. thereby ensuring maximum flying — **for you**

Between flights, you may care to relax and watch (or join in) the thrills of parachuting and pleasures of power flying. Our modern restaurant is open daily, and comfortable accommodation can be arranged nearby if desired

So for the **holiday of your life** why not drop us a line for further details at
THE SOUTHERN SOARING CENTRE (Dorset Flying Club)
COMPTON ABBAS AIRFIELD
SHAFTESBURY
DORSET

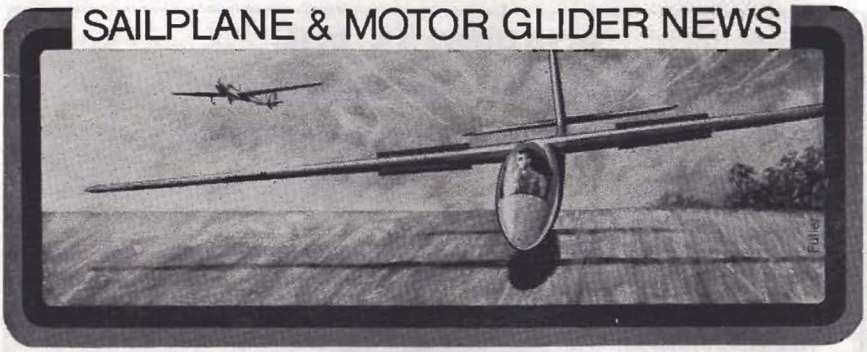
Tel: FONTMELL MAGNA 328

A DREAM COME TRUE
YOUR OWN CAPTIVE
THERMAL — A HOT AIR
BALLOON



If you enjoy gliding then you
would certainly enjoy ballooning —
Want to know more about this sport?
Write to the largest manufacturer in Europe

CAMERON BALLOONS LTD.
1 COTHAM PARK, BRISTOL BS6 6BZ
Telephone BRISTOL (0272) 41455



THE MOTOR GLIDERS AT BURG FEUERSTEIN

By PETER ROSS

AIRFRAMES

Schleicher The ASK-16 side by side two-seater with two main wheel retractable undercarriage and feathering propeller with fine and coarse pitch control was not entered in the contest, and did not arrive until the end of the week after I had left. The first production aircraft has now flown. With the low wing and retractable undercarriage it looked as if a wheels up landing could be expensive.

One ASK-14 was fitted with a Sachs Wankel engine.

Sportavia Fifteen of the new RF-5B Sperber have been built, and one was entered in the contest. Flown by Hugo Jännichen, it was remarkable how slowly and tightly he was turning. The performance with feathering propeller appeared equal to the SF-28.

One SFS-31 Milan was entered. This marriage of RF-4 fuselage and SF-27M wings flies well but lacks the performance of the lighter single-seaters.

Scheibe The Tandem is now in production, and three examples were flying. Major changes compared with the prototype which flew last year are the low position of the wing, which has made forward sweep unnecessary (and the rear seat much more comfortable!) and the adoption of the 60hp Limbach engine as standard. Rudder loads are reduced by an aerodynamic balance. Performance is now equal to some of the single-seat motor gliders.

The SF-27M single-seater with Cirrus wing has not entered production and experiments continue so as to find the ideal power plant. The prototype now has a two cylinder Hirth engine with cogged belt reduction and a propeller from an RF-5B. The thrust is equal to the Falke, and the engine must develop over 40hp. It had been fitted with nylon outrigger wheels at the semi span, and using the blast of its powerful engine, taxying was possible without a steerable tailwheel.

A standard SF-27M was flying with the same engine but with direct drive. This is somewhat lighter but not so effective. Both have electric starters which may also be fitted to the four-cylinder Hirth.



Prometheus *(Photos: P. Ross)*

Prometheus An 18m Diamant with a Microturbo Eclair jet engine took part in the competition. A joint company formed by the makers of the sailplane and of the engine intends to market a two-seater, and this motor glider has been built to obtain practical experience.

The best position for the engine is the main problem. On Prometheus the high tail is out of the jet blast, and the fin reaches an acceptable temperature, 70°C but makes the rudder rather sensitive power-on. Take-off is lengthy, but once clear of the ground the rate of climb is good, and top speed, (airframe limited) of 137mph on 80% of the 80kg thrust (at 47,500rpm) is spectacular, as is the fuel consumption of 80litres/hr. Fuel is carried in the main spar water ballast tanks, and enough is carried for 20 minutes. Gliding performance is good at low speeds, but the drag penalty increases considerably at speed.

The engine has given no trouble at all, but battery condition is critical for successful starting, and caused a landing at the second turning point on the first day.

Akaflieg München The 20m Mü-23 betrays the many years which have passed since the design was started, and the performance of this tandem two-seater with VW engine is similar to the Falke. The retractable undercarriage gives it a very strange appearance on the ground. It was nice to see that the Munich Technical College is still using glider design as part of the syllabus and it is to be hoped that the next design will not take so long to be turned into a flying machine.

Raab Krähe The prototype of an improved Krähe, plans of which were shown as long ago as the motor glider rally in 1965, was present and fitted with a two-cylinder Rotax engine. In view of the low performance compared with more recent designs, this is unlikely to be more than a design for home consumption only.

Sirius This was also a non-competitor, and arrived after I had left. Ann Welch reports that the high propeller efficiency of this twin Wankel engine ducted fan installation appears to be offset by the high fuselage drag. The high pitched noise was unsatisfactory.

This prototype has attracted a large government research grant, and this is the cause of some bad feeling amongst the other constructors who have developed more practical aircraft without subsidy.

K-8B Entered for the second year was the K-8 fitted with two Stihl chainsaw engines. Although unacceptably noisy, this represents a very cheap and reliable way of obtaining a single-seat motor glider with negligible performance penalty.

ENGINES

Microturbo Eclair The version fitted to Prometheus weighs 35kg and is a smaller version of the 100kg thrust model used in the Caproni two-seater. (See also under Prometheus above.)

Sachs Wankel Capacity is 508cc and output 28bhp. It sounds like a much more powerful four-stroke engine. Weight is more than the 26bhp Hirth four-cylinder it replaces in the ASK-14. The electric power needed for starting still appears to be the major problem.



SF-28



Raab Krähe

Limbach and *Stamo* These VW-based engines are still the main source of power for all but the lighter single-seaters. The Limbach in 60 and 68bhp versions has an electric starter, and the 45hp Stamo can be delivered with either hand or electric starting. Both have an alternator to charge the battery when fitted with electric starter.

Hirth The 26hp Hirth four-cylinder two-stroke remains the standard source of power for the lighter two-seaters, and may be converted to electric starting. Without an impulse magneto the need for an electric starter is probably greater than for the four-stroke engines. We may expect the 634cc model 171R engine to appear on a production motor glider before long.

Various In the static exhibition a VW engine was shown with a reduction gear, and several small two-stroke engines were shown by the ECE Company, one two-cylinder horizontally opposed engine gives 18hp at 6,000rpm for only 13.2kgs weight. Two of these were fitted to an ageing Specht two-seater which charged about the airfield on the ground making a fantastic din and demonstrating that motor gliding, as with most sports, has its lunatic fringe.

SUMMARY

Although not a year of startling technical innovation, the improved performance of the two-seaters showed the result of steady development. Not seen this year was the Schleicher K-13 two-seater fitted with retractable Hirth 171R engine which made its maiden flight at Feuerstein last year.

With the possibility of international competition for two-seater motor gliders, this development is likely to increase, and a retractable engined Scheibe Bergfalke IV with 1 in 34 glide angle is a mouth watering prospect.

GERMAN TEAM BUILDING SIGMA-TYPE SAILPLANE

A VARIABLE geometry glider with an estimated performance of over 50:1 at 90/100km/h is being developed in Germany and hopes to be flying next year. It is of all-metal construction, has a 22m two-piece wing and a T-tail which comprises an "all-flying" elevator and an "all-flying" rudder. It is estimated that the empty weight will be 350/400kg, and it is designed to take up to 40kg water ballast.

The wing sections used are Wortmann: the flaps-in aspect ratio is 40 and extruding the flaps increases the wing area by 30%.

It is being built in the basement of a plumber's workshop, and is financed solely by the three men who have been building it over the past four years: Designer Michael Meier, Herbert Loehner and Klaus Tesch. Tesch recently broke the world distance to a predeclared goal record in an LS-1, and participated in *The Daily Telegraph* competition held at Dunstable (see p365).

About £7,800 have been spent on the project so far.

SAILPLANES AT THE WORLD CHAMPS

SZD-37 JANTAR 19M

POLISH sailplanes and pilots hold an impressive record in world gliding, which was maintained at Vrsac.

In the majority of world championships since 1958 they have come equipped with new sailplanes or developments thereof and have been able to go home justly proud of the achievements both of their men and their machines.

Adam Kurbiel, the 36-year old designer of Jantar, started it in 1969 and it had its maiden flight on February 14, 1972. It is the first Polish excursion in glass-fibre and GRP. With the test-flying programme completed only just before leaving for Vrsac, the pilots flying it were only able to get a couple of days practice in it beforehand. The final result of 3rd and 8th places overall as well as winning the FAI 19M cup thus maintains the Polish success story.

The Jantar is not unlike the Cirrus or Kestrel in looks, and has a nice, uncluttered cockpit. Headrest, backrest and pedals are all adjustable in the air and all controls are push-rod operated.

The T-tail is fixed and has a spring trim lever on the side of the control column. Flaps and ailerons work in conjunction and water ballast tanks are fitted. So far just the two 19m machines have been built, plus two with a span of 17.5m; production plans are in their preliminary stages.

Technical data	*Jantar*
Span (m)	19
Wing section, FX K67-170/150	
Wing area (m^2)	13.38
Wing loading (incl ballast) (kg/m^2)	36
Aspect Ratio	27
Empty weight (kg)	275
All up weight (kg) (incl w/ballast)	490
Minimum sink at 75km/h (m/sec)	0.5
Stalling speed (km/h)	65
Maximum speed (km/h)	250
Glide ratio at 95 km/h (without w/ballast)	47:1

SZD-43 ORION

The 15m Standard Class Orion had its first flight in December, 1971. It is a mixture of wood, metal and GRP and, like its sister, only the two which flew at Vrsac have been made.

Again, like the Jantar, it gives the impression of elegant, coherent design, and Wroblewski and Kepka were very happy with its performance.



Orion cockpit

The fin on both Jantar and Orion is upright, unlike the swept-back form of the Zefir and Foka series, and they have thus lost what has become known as the "Polish look". No plans for production of the Orion have been announced.

Technical data	*Orion*
Span (m)	15
Wing section, FX61-168/FX60-1261	
Wing area (m^2)	11.6
Wing loading (incl w/ballast) (kg/m^2)	38
Aspect ratio	19.4
Empty weight (kg)	255
All up weight (incl w/ballast)	442
Minimum sink at 84 km/h (m/sec)	0.62
Stalling speed (km/h)	69
Maximum speed (km/h)	250
Glide ratio at 90 km/h	40:1

ASW-17

On the ASW-17, Frank Irving reports: "By a quirk of the launching order, we (Bravo Papa and crew) found ourselves close to Alpha Juliet (A. J. Smith's Nimbus) and Alpha Sierra (Dick Johnson's ASW-17). The latter had the great good fortune to have Gerhard Waibel as crew which was probably just as well, because the ASW-17 has a four-piece 20m wing with surprisingly small outer panels and correspondingly heavy wing roots. Waibel is happily endowed both with design expertise and great strength. His '17' conveys an instant impression of being a very clean, elegant and coherent design. Its air-brakes are a total reversal

of the ASW-12 philosophy: they are big conventional brakes and no tail parachute is provided. Like several of the latest generation of glass-fibre ships, its seating position is far from extreme and the cockpit is quite roomy. Indeed, designers in general are re-discovering the merits of uncramped cockpits, reasonable view and sensible brakes, in the interests of ameliorating the man-machine interface, if you see what I mean.

"Other distinctive features of the '17' are the very sharp nose, the slender rear fuselage and the vast vertical tail. A sharp nose can provide gentle pressure gradients to keep the boundary layer happy—provided it is pointing the way it is going. Herr Waibel says it does point the right way in pitch, thanks to the flaps, and no doubt the enormous fin helps to deal with the yaw situation. The slender rear fuselage is a good deal stiffer than it looks, having a sandwich construction, and the rudder mass balance helps to keep it flutter-free.

"On the way home, we paused at Poppenhausen to see ASW-15's and -17's being built. Very impressive, although one might suggest that the built-in double-skinning of the cockpit area (unlike the 'Kestrel', where most of the internal skinning unscrews) discourages subsequent inspection and maintenance of the machinery."

SSV-17 MOTOR GLIDER

The prototype of a new metal-spar, glass-fibre side-by-side two-seater was displayed at the Vrsac World Championships. Designed by G. Sostaric of Yugoslavia and A. Vogt of West Germany, it has been built at Vrsac's Aeronautical Technical Centre with the co-operation of Sigmund Flugwerke of Germany. It is expected to go into production after test-flying has been completed.

It is fitted with a 60hp, 3,200rpm Franklin engine with electric starter and alternator. The two-wheel undercarriage is retractable and it is claimed that it can be landed wheels up.

Details available so far: Span, 17m; wing area, 18.5m²; take-off weight 700kg; cruising speed, 150-160km/h; stalling speed 65km/h; fuel consumption, 15L/h. Glide ratio without engine, 29:1.

Further information from Vazduhoployno Tecuicki Centar, 26300 Vrsac, Yugoslavia or Sigmund Flugtechnik, 6950 Mosbach, West Germany.

CALIF A-15

A notable entry at Vrsac was the hitherto unannounced Caproni Calif A-15 high performance single-seater. Frank Irving comments:

"The only metal glider present was the 23m variant of the Caproni 'Calif', although nowhere did its finish betray the nature of the structure. The wing had a very long parallel centre-section with short tapered tips whose geometry looked somewhat improbable. The wing trailing edge was liberally endowed with control surfaces which (unlike Sigma, alas!) fitted superbly well. The ailerons looked to be of remarkably short span and it was reputed to consume undercarriages rather rapidly but, nevertheless, it worked. This leads one to the thought that, apart from the excess drag problem, it was just as well that we didn't take Sigma. To coin a phrase, the mind boggles at the problems of extracting Sigma from the Serbian and Macedonian mud, and of keeping it even faintly serviceable had it survived the first field."

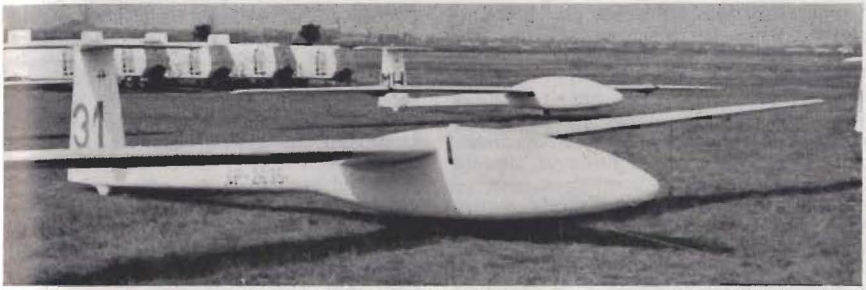
Technical data	*A-15*
Span (m)	23.1
Wing area (m²)	18.48
Wing loading (max) (kg/m²)	38.1
Aspect ratio	28.9
Empty weight (kg)	475
All up weight (kg)	702
Minimum sink at 75 km/h (m/sec)	0.45
Stalling speed (km/h)	64
Maximum speed (km/h)	252
Glide ratio, at 92 km/h	50:1



Calif A-15 empennage *(Photos: R. Harwood)*



Jantar



Orion



SSV-17



A-15

VRSAC, 1972

By RIKA HARWOOD

INTRODUCTION

THE August issue contained the bare bones of the news from Vrsac. This report will give a better idea of the trials and tribulations of the 1972 World Championships, and should be read in conjunction with the last issue.

The contest was noted for failed races, the majority of which became distance tasks, and there is no doubt that it provided the toughest and most demanding conditions with which pilots have ever had to cope.

There are thunderstorms *and* thunderstorms. Those experienced at Marfa in 1970 were rather different from the Yugoslavian variety. True, they affected the task setting in Texas, but at Vrsac it was clear that the tasks set had been planned in expectation of good weather; no changes were made, however, despite Met forecasts of cu-nims on course or cu-nims actually arriving much earlier than predicted. Moreover, these Yugoslav cu-nims were of a vicious type covering vast areas of sky.

Bearing these conditions in mind it must be said that the officials were much to blame for their failure to conform to the Code Sportif recommendation respecting collision risks for, despite a reminder, it was only on two days that the classes had different tasks. It is obvious that the organisers were not aware of the precautions needful to minimise the risks of competitive cloud flying. On the other hand, it is more than likely that had cloud-flying been banned then the world championships would have resulted in a "no contest"!

During the contest, including the practice week, a total of 172,651kms and 7,733 hours were flown. Many days were very chancy, but in spite of this both Göran Ax, (Nimbus 2) the 30-year old Swedish airline pilot, and Jan Wroblewski (32) of Poland (Orion) managed to be consistent enough to keep them at or near the top throughout the contest. Both pilots have been on the podium before: Wroblewski in 1965 when he became Open Class Champion at South Cerney, and Ax in 1968 when he was runner-up in the Open at Leszno.

Wroblewski has thus the distinction of being World Champion Standard Class and past World Champion Open Class. He is only the second pilot to have won a world title twice. Heinz Huth of Germany was the first, having won the Standard Class in 1960 and 1963. For the newcomers, however, it was probably the worst possible occasion to make their debut. It was therefore good to see a first-timer in the Open Class on the podium as well as four newcomers in the first 10 in the Standard Class.

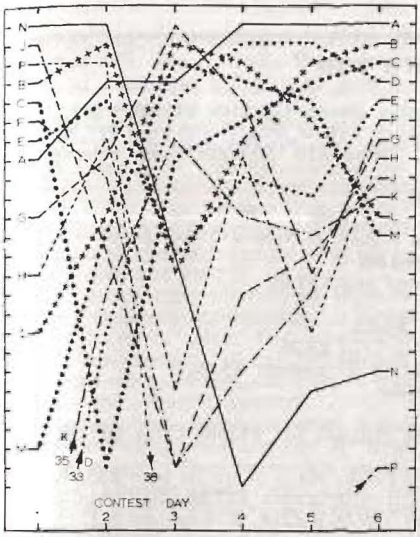
As for the sailplanes—because of the lack of speed days it is difficult to draw distinctions between the leading machines. The pilots were all delighted with their mounts but, owing to the weather, racing techniques could seldom be employed. In general the water ballast (a total of about 5 tons of it were launched each day) was often discharged on the first leg.

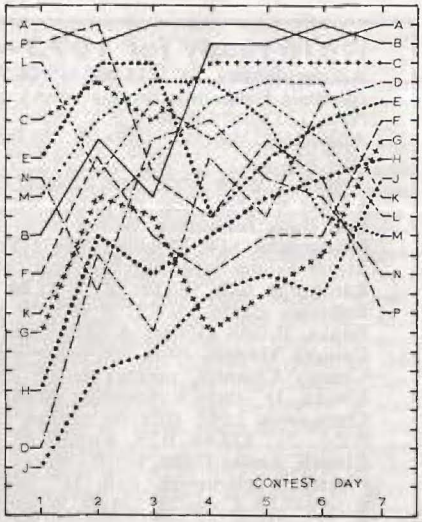
The Poles can be especially proud of their men and machines; not only did they win the Standard Class and 19 metre Cup, but also Kluk and Kepka came third in their respective Classes with the Jantar and Orion gliders, both of which had been finished only just before the contest started.

Russia deserves special mention. Rudensky with the ASW-15 achieved second place in the Standard Class, the highest position this country has ever reached. Kuznetsov, also with an ASW-15, finished in 8th place. Two months previously he had been in great danger when, carried up unexpectedly (shirtless and without oxygen) in an ASW-15 to a height of more than 22,000ft, and with heavy icing he lost control and the brakes sprang open ripping away the under-surface of the wing. Fortunately the spar held firm and he landed safely.

It is unfortunate that there were so many faults in the bedrock of the organisation. This was perhaps not surprising as no member of the organising committee had been at a recent world championships to take note of the requirements for running such an event.

Briefings were on the whole very dis-





Leading pilots day to day progress chart.

Standard Class Key:		*Points*
A	Wroblewski (Poland) Orion	5529
B	Rudensky (USSR) ASW-15	5219
C	Kepka (Poland) Orion	5107
D	Teuling (Holland) LS-1	5094
E	Cartry (France) Std Libelle	4959
F	Renner (Australia) Std Cirrus	4787
G	Ragot (France) LS-1	4734
H	Kuznetsov (USSR) ASW-15	4687
J	Greene (USA) Std Cirrus	4590
K	Webb (Canada) Std Cirrus	4478
L	Nolte (East Germany) Cobra 15	4476
M	Innes (Guernsey) LS-1	4475
N	Moffat (USA) Std Cirrus (19)	4229
P	Reichmann (West Germany) LS-1 (24)	3912

Open Class Key:		*Points*
A	Ax (Sweden) Nimbus 2	5816
B	Wiitanen (Finland) ASW-17	5779
C	Kluk (Poland) Jantar	5760
D	Goodhart (GB) Kestrel 19	5609
E	Johnson (USA) ASW-17	5451
F	Burton (GB) Kestrel 19	5284
G	Holighaus (West Germany) Nimbus 2	5219
H	Musczcynski (Poland) Jantar	5153
J	Schubert (Austria) Kestrel 604	5130
K	Neubert (West Germany) Kestrel 604	5077
L	Mercier (France) Nimbus 2	5046
M	Satny (Czechosl) Kestrel 19	4944
N	Jinks (Australia) Kestrel 19	4846
P	Smith (USA) Nimbus 2	4829

organised. None of the interpreters had, for instance, any knowledge of gliding or its terminology. The Met interpretation was almost unintelligible, especially as the acoustics in the briefing hangar were bad. In the circumstances the principal girl interpreter, Vera, coped very well. (One of my notes reads: "If English is an 'official' language does CIVV check that organisers can translate into English? If not, they should in future".)

It was also necessary for several team managers to get together to produce a list of important points to which the organisers were asked to give immediate attention. Most of them were accepted and brought in after the third contest day. They included having start and finish times on display; turning point photos available for inspection, more retrieve telephones and interpreters, landing reports to be made out and put on display, etc. It was also a serious omission that provisional results were not promptly issued; the bulletins published were the only way of discovering the cumulative scores, and these were always several days behind. The scoring itself left much to be desired. Had it not been for some team managers and Press people getting together to work out the provisional scores I doubt if we would have had any idea of what was happening day by day.

A matter for which the organisers cannot be blamed but was nevertheless most upsetting to the people involved was that at least three pilots had their cameras stolen when they left their gliders to telephone, and with no photos of the turning points they could not be given a score!

We're ready for 1973 — are you?

Accelerometers, 2¼" **£15.00.** 3½" **£6.75.**
Airspeed Indicators, Smiths 138AS, surplus, tested, 140 knot **£12.50.** P.Z.L., New, 220 knot **£18.50.** P.Z.L., New, 140 knot, **£18.50.** Winter 160 knot **£17.40.**
Altimeters, sensitive, surplus, 50,000ft, tested **£20.** 50,000ft, with release note **£30.**
Aerials, ¼ wave whip, new, aircraft **£2.65.**
¼ wave magnetic, car mounting with co-ax **£10.00.**
Ball Bank Indicators, Winter, new, 5cm × 5cm or 5cm × 2.5cm **£5.50.**
Barographs, new, Winter 10km, 12km **£64.00.**
Motor Glider type with solenoid operated pen **£67.80.**
Barograph foils, packet of 50 **£1.00.**
Batteries, Exide 3.EV.11 6 volt, 12 a.h. **£4.83.**
Books, British Gliders & Sailplanes, 1922-1970 **£3.25.**
Camera Mounts, twin, for Instamatic 25 or 33 camera **£3.00.**
Canopy Cleaners, perspex polish **20p tube.**
Clocks, 2¼" surface mounting **£6.00.**
Compasses, Lufft, stick on canopy **£5.00.** Airpath 2¼" **£12.00.** Cook **£17.30.** P.Z.L. 2¼" **£21.60.** E2A, surplus **£6.30.**
Electric Audio Units, PIEP—works with P.Z.L. vario or on its own **£35.00.**
Electric Variometers, Ball, 3½", with T.E. diaphragm **£87.00.** Ball Audio Unit **£27.00.** Crossfell **£30.00.** Westerboer VW5KB **£216.** R. Chesters A.D.C. Price on application.
Flight Computors, Glasflugel for 19M. Kestrel **£17.68.**
Gyro Instruments, Ferranti Mk5 or Mk6 Artificial Horizon, ex Bucanneer, **£85.** 12 volt inverters for same **£25.** Turn and Slips, P.Z.L. 4.5 volt 2¼" new **£65.20.** Gauting 12 volt 2¼" new **£83.51.** Ex-R.A.F. 3½" 24 volt but work on 12 volt **£16.50.**
Oxygen, 530 litre Oxygen Bottles, Walter Kidde, Lightweight **£37.12.** Regulator Heads, Kidde, complete with pressure gauge **£34.40.**
Parachutes, Security, ultra thin and comfortable, new **£212.** McElfish, reassembled U.S. surplus, repacked, **£70.**
Radio, GENAVE Alpha 100/360 360 channel air set, 12 volt **£280.** GENAVE Alpha 10, fitted 129.9 and 130.4, 12 volt **£157.00.** Dittel, FSG15, 12 volt, 2 watt, 12 channel, fitted 129.9, 130.4, 130.25 **£289.00.** FSG16, ditto, 5 watt, **£333.90.** Becker, 7 channel fitted 129.9, 130.4, **£319.00.**
Sailplanes, Kestrel 19, August '73 delivery; Falke Motor Glider, immediate delivery. Libelle, one available in March 1973, as at press date.
Tape, white vinyl for sealing 1½" **91p** per roll. 2" **£1.15** per roll. P.T.F.E. Coated especially for sealing ailerons and flaps **60p** per metre.
Tie Pins, Libelle **£2.50. Ties,** various Gliding **£1.20.**
Total Energy Units, Burton, up to 100 knot **£5.00.** P.Z.L. up to 140 knots **£8.75.** Total Energy Venturis, Althaus **£6.00.** Brunswick Tube, anodised, non yaw sensitive fin mount **£4.00.**
Trailers, Speedwell, all metal for Kestrel, less fittings **£585.00.**
Glassfibre, low profile, for Kestrel, fully fitted **£750.00.**
Tubing, P.V.C., Rubber, T Pieces, connectors etc.
Variometers, P.Z.L. ± 10 knot **£34.50.** Winter ± 10 knot **£31.18** complete with flask. Fibreglass variometer bottles 450mls **£3.18.** Solfahrtgeber combined ASI and Variometer for 40:1 to 43:1 glide ratio **£74.50.**
Wheels, Tost 6" **£37.00** to **£55.00.** 5" **£45.00** to **£50.00.** Tyres various sizes. Solid nylon for trollevs 5" **£1.30.** 8" **£2.30.**

Many other materials in a multitude of sizes are in stock—
write for our catalogue 40p refundable with orders

SLINGSBY SAILPLANES · **KIRKBYMOORSIDE**
Telephone 31751 **Telex 57911**

The tugging, with Citabria Champions and Utva 66's, was first class, and observation at start and finish lines superb. There was excellent accommodation for the pilots in the airport hôtel, and for the crews in the local schools. The food provided was good, although perhaps not to everyone's taste, and some said that the packed lunches became monotonous after a time. And it required some skill for a pilot to open a tin of sardines while crossing the start line!

There were plenty of open air terraces affording excellent opportunities for meeting people or to relax. The music and singing was enjoyed by many—although there were some complaints that it was too near the sleeping quarters.

Everyone of the organisers, officials and helpers at Vrsac was anxious to help and to please. They were the nicest bunch of people one could hope to meet and their hospitality will ever be remembered.

PRELIMINARY

The organisers were put on a spot on Wednesday, June 28, when the main part of the British team arrived totally unannounced three days before they were due. (Nick Goodhart and his crew came out separately several days later.)

It had been our intention to get some extra practice in at a site nearby, and we were led to believe that Pancevo was the place to go to. Letters to that effect had been sent ages before we left and although no answer had been received we assumed that it would be all right when we turned up.

Little did we know that the site in question was military. This was made abundantly clear when, by mistake, our three trailers drove onto the airfield through a back entrance leaving Gerry Burgess and me to find the main gate to report our arrival.

Soldiers barred the way and made us realise we were most unwelcome and that having got in we were certainly not to be allowed out. After some considerable time the CO arrived and he made it very clear that we should get the hell out of it, and so we found ourselves somewhat shaken and back on the road.

What to do now? The thing was to go on to Vrsac with many apologies for our untimely arrival. The Director was most helpful and within minutes two very competent people from the Inex Tourist Bureau turned up and booked us into the Hotel Serbia at Vrsac which was undergoing extensive refurbishing, the place being full of scaffolding. Steve and Vukki, the two helpers, had been delighted to solve their very first problem. Although the rooms were primitive everyone was happy to be able to have a wash and clean up.

Meanwhile, our fully laden Range Rovers and trailers were outside and suffered the attentions of local souvenir hunters who had already stripped all the Union Jacks off cars and trailers. This was not too bad, but obviously it was not safe to leave them unattended, so we drove back to the airfield where they were put under armed guard for the night, and we took a couple of taxis back to the hotel where we had dinner in the garden room before retiring to bed.

This morning, Thursday, we are back on the airfield, waiting patiently for a gliding official to come. He tells us that we can't fly. The pilots are disappointed as it is a nice day and the Yugoslav team are practising. They have already amassed about 120 hours each and 6,000 cross-country kilometres over the last two months. Nobody was allowed to fly until the official practice week, during which the Yugoslavs did not fly.

We have another problem—what to do with all our spares, etc. Arrangements at the airfield are not complete—but with the help of the Yugoslav team manager a lockable room is put at our disposal.

Friday, June 30. We are allowed to move to the airfield hotel—brand new, well-furnished, showers, loo, the lot. The water has been turned on, as George and Kathie Burton find. They are being literally flooded out of their room after all their luggage had been moved in.

Several other teams roll in on Saturday, and the organisers, though nowhere near ready, are coping very well in the circumstances. We British are beginning to feel it a blessing in disguise to have had the two extra days to sort ourselves out. There is still much to be done and patience is an obvious virtue.

Sunday, July 2. Today is the start of the official practice week. There is a

briefing at 10am and, for those who want to fly, a 100km triangle is set. Teams are rolling in fast. The narrow road is full of trailers with traffic jams everywhere.

We hear that Zoli's trailer with the Calif A-15 overturned on the way here and had to be taken back to Italy. It has taken 20 people 36 hours' hard work to repair both glider and trailer. Zoli is flying in from Milan and will be here tomorrow, and the trailer the day after.

Our three pilots all flew the task and are happy to be airborne. The rest of our team have arrived at Belgrade airport and are coming by bus to Vrsac—we are busy sorting out their sleeping quarters in a local school.

Early on Monday morning Chris Simpson brings news that two of our Range Rovers have been broken into during the night. Quarter lights broken, cameras, binoculars, light meters, etc, have all disappeared; something will have to be done about security. The Austrians also have had their car broken into. Luckily on the same day the culprits were found and everything has been returned.

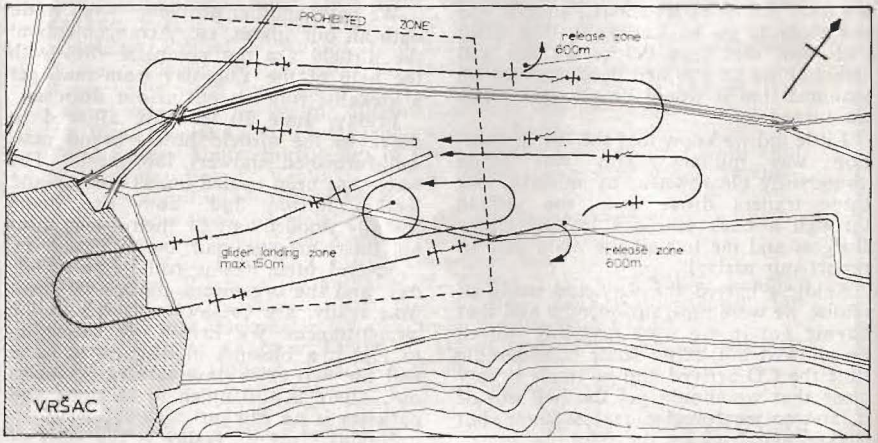
The Poles have also arrived and their team manager is happy to have the Jantars on time. They are only just finished and the pilots are anxious to get some practice in.

At today's briefing the same task as yesterday is given and launches are available from 11.30. There are only two launch directions and yesterday's had a strong crosswind component. A question regarding this was answered with: "If you don't like crosswinds you do not have to fly!" There is high cover at 13,000ft and low pressure to the west. Isolated thunderstorms are expected after 1600hrs. No startline will be operated until the 5th.

Tuesday, July 4. A short out-and return for today. Our pilots all complete in good times, many go round twice or practice cloud-flying. I still can't find out anything about Press facilities and the "ziggurat" styled control tower is still a shell. There will be a team managers' meeting at 1900hrs.

The fish restaurant near the pilots' hotel, and referred to as the "pivo" bar, is the international meeting place. There is music, dancing and singing and a happy atmosphere until late at night. No doubt team managers will object to the lateness of it all; the pilots sleep only a stone's throw away and will want to go to bed early once the competition has started. For the present they all seem to enjoy it and everyone is relaxed.

At the team managers' meeting it is announced that the music will stop at 11pm as from tomorrow, the first official practice task day. All briefings during the contest will be at 8am with breakfast from 5.30-7.30am. There will be divergent



Launching patterns, etc, at Vrsac

take-off lanes, one for the Open and one for the Standard and they will be launched simultaneously. As there have been complaints about slow aerotows the tug pilots will fly faster.

The maps issued, of 1958 vintage, cannot be replaced! This is rather serious as many reservoirs, canals and roads are not shown. Frantic calls to various embassies, etc, go out to try and obtain more up-to-date maps. (We British have brought our own, thank goodness.)

Very sad news reached us that during the afternoon the four-year old daughter of Fritz Seyffert, the Dutch team manager, was drowned in a swimming pool accident. Our sympathy goes to Fritz, his wife Minke, and all the members of the Dutch team.

Wednesday, July 5. Plenio Rovesti, the well-known Italian meteorologist, is ill with pneumonia but slowly improving. David Innes had gone deaf from high altitude flying. He has had his ear syringed and now tells everyone to stop shouting at him! Unfortunately he has driven over his canopy and it is beyond repair. (He flew to Darmstadt [Germany] in his Cessna and two days later turned up with a new canopy, hoping that his luck had changed and his problems were over!)

A 308km triangle with startline procedure was the official task for today. Most of the pilots took part, but launching was still on a first come, first served basis. My own time has been spent trying to organise a Press conference to get some answers to the many queries piling up. I was at the Press luncheon given by the Mayor of Vrsac, at which I was told that the costs of the championships so far are in the region of 4,000,000 Dinar, equivalent to approximately £100,000. There is no Government subsidy as such but a large credit is at the disposal of the organisers. Also eight local firms donated large sums of money and there is every indication that they can keep within their budget.

The Inex Tourist Board employs 20,000 people plus another 2,000 abroad. They are in full charge of all tourism and are state-owned. They did a tremendously efficient job throughout the period and were one of the most competent bodies we came across.

Thursday, July 6. Although briefing was scheduled for 8am it finally began at about 8.45. We later learned that the Director had been taken ill with heart trouble during the night. If only they had told us he was taken ill everyone would have understood; instead, chaos resulted.

Today's task was a 414km triangle. The Danes elected on the forecast to try instead for 500km national records but although they completed their tasks no records were broken. Dick Johnson (USA) crossed the finish line in grand style after 3hrs 56min making everyone rather worried about such speed. However, Dick owned up quickly that he had flown a shortened course!

The music and late night parties in the pivo bar are still going on well after 11pm. A team manager who shall be nameless has just said, "If only we had left the pilots at home, we could have a jolly good time."

Friday, July 7. Local isolated thunderstorms are expected today after 1600hrs. But the sky this morning does not look at all promising and in fact storms are brewing over the site as early as 14.45. Many pilots practise cloud-flying, Helmut Reichmann reaching 18,700ft in a cu-nim to gain his Diamond height.

Today is a national holiday in this area and communications are more difficult than ever. The storms cause many pilots to land out and retrieves are hard work to say the least.

Wetli (Switzerland) landed 120km from base but it took the retrieve car 404km to get to his landing place across the Danube. John Firth (Canada) landed across the border in Rumania and had a most unusual time, finishing up with a procession of about 50 "militia" to carry his dismantled glider to the frontier about 3km away.

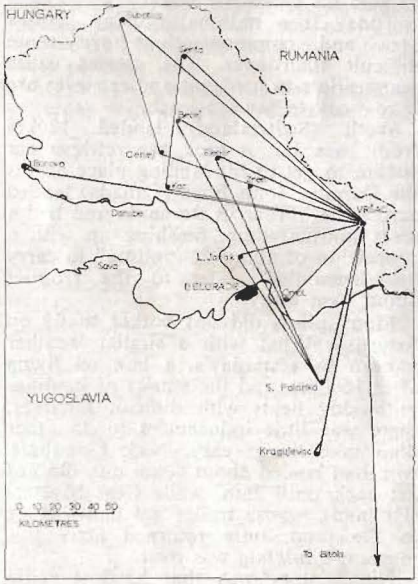
Many pilots did not bother to fly on Saturday. What with a similar weather pattern to yesterday's, a ban on flying after 1600hrs, and the stories of landings in muddy fields with difficult retrieves, there was little inducement to do other than take things easy. Nick Goodhart, who had landed about 40km out, did not get back until 2am, while Cees Musters (Holland), whose trailer got badly stuck in the mud, only returned after this morning's briefing was over.

Nick's story was that he lost radio contact with his crew, the name of the

village near his landing field was not on the map and the field was unsuitable for an aerotow retrieve. After telephoning in he found on his return that the canopy cover had been removed, the cockpit rummaged through and both cameras used, but, luckily, nothing taken.

At last this evening we had the Press conference. My list of questions was as long as my arm, and I got some sort of answer to many; but the trouble was that the interpreter had no gliding knowledge and so could not understand or convey the meaning of the questions. The officials were all most anxious to help and to please, but had no experience of dealing with foreign Press representatives needing accurate and prompt information in order to meet deadlines.

Sunday, July 9. The opening day went by quietly with everyone attending to last minute chores. A very good air display was given after the official opening. Personally I did not like the demonstration of genuine target bombing at the end. Apart from being dangerous to the bystanders it was noisy and too realistic. No doubt it was good propaganda for the locals, however.



(Maps and diagrams by John Glossop)



Participating ex-world champions (R-L):
Persson, Sweden, 1948
Goodhart, GB, 1956
Hossinger, Argentina, 1960
Wroblewski, Poland, 1965
Wödl, Austria, 1968
Smith, USA, 1968
Moffat, USA, 1970
Reichmann, W. Germany, 1970

I took the opportunity to get what I thought would be exclusive photos of the eight ex-World Champions entered for the contest. This took several hours to organise, to get them together in the same place at the same time. What happened then is quite another story!

FIRST CONTEST DAY

Monday, July 10. Task both classes: 358.2km triangle.

The first take-off at 10.00 was by Dick Réparon (Holland) in the Standard Class. On the whole pilots found the conditions pretty well as forecast with the inversion level at over 7,000ft.

Those who went north round Belgrade did slightly better than those who rounded the city to the south, and an unexpected bonus for many were the stubble fires which produced strong thermals.

Crews had retired to the local hill, about 2,000ft high, and so were able to keep in radio contact throughout the flight. A handful of pilots were back before 1600hrs, including George Moffat (USA), the Standard Class winner.

In the Standard only ex-world champion Wödl (Austria) and Perotti (Italy)

landed out while in the Open Class all got home.

As there were no official start or finish times available many of us were furiously working out who had done what and who were the leaders. Luckily we had done our sums right and we knew the first three in each Class.

In general the favourites were all pretty close together and the difference in points would not be all that great. However, when by next morning the provisional scores were put up many pilots and their team managers had a very nasty shock. No fewer than 11 pilots in the Open and 10 in the Standard had their scores reduced to zero because of faulty TP photographs. For such a large number to fail was unheard of, especially in world championships. A pilot like Neubert (Germany) who had never yet had a TP photo queried to lose his score? It could not be true! Complaints made at once by the team managers kept the scores provisional so that the matter could be sorted out. By the time the official results were published several days later the penalties had been reduced to three instead of the original 21. What food for thought!

Best speeds Open Class and point range

			km/h	*&*	*km/h*	*Points*
7	pilots	between	98.94		90.06	1000-868
10	,,	,,	89.95		85.81	867-806
11	,,	,,	83.66		80.13	774-722
9	,,	,,	79.75		72.59	716-610

Best speeds Standard Class and point range

			km/h	*&*	*km/h*	*Points*
14	pilots	between	87.79		80.05	1000-878
17	,,	,,	78.95		75.63	860-808
12	,,	,,	74.60		70.00	792-719
4	,,	,,	69.70		60.22	715-565

SECOND CONTEST DAY

Tuesday, July 11. Task both Classes: Goal race to Bitola, 450km.

With a forecast of weak to moderate lift and cu-nim development later in the day in the mountainous region to the south the setting of this task so early in the contest, arduous enough for the pilots but especially so for the crews, was received by some with displeasure at the briefing. But they laughed and clapped when Vera, the interpreter, mistakenly called it an out-and-return race!

First take-off was at 10.30 and few pilots wasted time to get going after the startline was opened as conditions over site did not look too promising. In many cases they set off well below maximum starting height. With crews leaving even before their pilots the base became almost deserted and only team managers were to be seen, trying to solve the problems of yesterday's results.

Dick Johnson after being given a negative start found that his radio was not working properly and could not hear confirmation of a good start. He used his three permitted starts to make absolutely sure, and because of this was one of the last to leave the site at 11.46.

Little did we know at that time that there was no proper system for landing reports to be logged or passed on. It was not until much later, when a few team managers had taken their receivers up the local hill to listen out, that it was realised that some pilots had already landed. They could only hope that the crews had maintained radio contact.

One of the early landings was by Stig Oye of Denmark about 30km away. He telephoned in and then sat back to wait for his crew, meanwhile being entertained by the local burgomaster. They should not be long, or so he thought. The crew, having lost radio contact, phoned back at regular intervals but each time were told—"no news". It was not until 8pm when they had reached the Skopje area that they got the landing report, so they drove 900km for a retrieve of 30km!

During the afternoon some landing pins started to appear on the map, one of them being Ben Greene's (USA). He had obviously managed to get through quickly, and we learned that his Std Cirrus had been damaged and needed urgent repair.

Skopje, about 100km short of the goal, became the haven for at least 28 pilots. Thunderstorms, low cloud over the mountains, the dearth of suitable landing fields, etc, had forced pilots who had already overflown Skopje to return there to make a safe landing. George Burton was one of these. He had 7,500ft over Skopje and flew on along a narrow valley for about 40km, but there was still an 8,000ft peak to be crossed. On failing to find a landing field he reluctantly had to turn back.

Moffat (USA) landed in the Skopje area but in such powdery ground that the whole glider was completely covered and stopped in two lengths. He was convinced he was upside down! Renner (Australia), on realising he was off course (nr Albania), crossed an 8,000ft mountain with only 600ft to spare. This enabled him to get back on course. The crew had a stroke of luck after having been out of contact all night. A local told them next morning that there were two gliders in a field nearby—one of them proved to be their pilot.

By 23.00hrs there were still 25 pilots unaccounted for. We knew that all the British pilots were down and that Nick had landed with the leaders of the day.

In fact his tiny 140 yard field, with power wires and trees on the approach, was shared by Kluk and Musczczynski (Poland) and Link (USSR). The latter damaged his undercarriage, while Musczczynski after a dreadful ground-loop was lucky not to have sustained any damage.

Dick Johnson (USA), the winner of the day, nearly made the goal but not knowing what lay behind the last range of mountains which he still had to cross, and in view of the deteriorating conditions he decided to call it a day. A. J. Smith (USA) finished up in an extremely narrow valley, in the only landable field. He only found out after his return that his fuselage had buckled.

Hauenstein (Switzerland) probably flew the longest distance of the day but landed about 100km east of the goal in Bulgaria. He was later scored to the border. The two Russians shared a win in the Standard Class with Wödl (Austria) third. Wödl who had landed at 18.00hrs, telephoned four times, but his crew did not get his landing report until 4.30am next morning. He had to remain with his glider for 18 hours! Children, and later cattle, prevented any rest. He returned to Vrsac on the morning of the 14th. No doubt it recalled to his mind his Marfa experience of being un-retrieved for more than a day.

The Swiss, experienced mountain flyers as they are, became exceedingly anxious when caught up in the storms and low cloud in the mountains. I was told that at one stage they had considered jumping out if lift was not found soon.

John Large, crewing for John Cardiff, left base well before his pilot and managed to keep up with him for about 300km. He stopped for a time on high ground and relayed messages for all the British team. Hearing nothing more he assumed John had landed as pre-arranged on the other side of the valley, which involved crossing a fast-flowing stream about 60ft wide.

A recce with the Range Rover without trailer proved the crossing possible so he went back for the trailer, crossed the stream and finally got trailer, glider and all back without mishap. John Firth (Canada) who had landed in the same field was then given similar treatment. No other retrieving vehicle in this contest could have performed such a feat and it was probably one of the best unrehearsed publicity stunts ever achieved. Not surprisingly the Range Rover was on everyone's lips and very much admired.

Not everyone was so lucky with their transport. Stouffs (Belgium) had a wheel bearing seize up and in the end had to have another car, while David Innes (Guernsey) had axle trouble and had to spend much time and money to sort this out. Kathie Burton and Bill Swift had their ingenuity tested when after the trailer had jack-knifed urgent repairs had to be carried out. Despite language difficulties, etc, they were back on the road within a couple of hours — a tremendous effort.

Perhaps the unluckiest crew was Urbancic's. Both Argentinian pilots, Hossinger and Urbancic, had landed at Skopje but Hossinger's car, which had broken down, was miles away and so Urbancic's crew made the trip to Skopje twice, thus covering well over 2,000km. Hossinger was a late reserve entrant, Araoz having withdrawn, and had had to find and hire a Cirrus and car which took him most of the practice week.

As for the pilots, the unluckiest was perhaps Timmermans (NZ). A trailer tyre was damaged by hitting a kerb while driving during the night and caught fire soon afterwards. In trying to put it out Timmermans burned all his finger tips, and they were covered by blisters on his return!

The stories about this day's retrieves are unending and will not be forgotten

by those who partook in them—let me finish them on a happier note:

Perotti (Italy) returned to his glider just in time to stop some youths from walking away with his tail parachute, radio, cameras, maps, etc!

The problem for pilots and crews had been many and it was just as well that the weather prevented flying on the 13th. It gave everyone time to sort themselves out, get repairs done and have some rest.

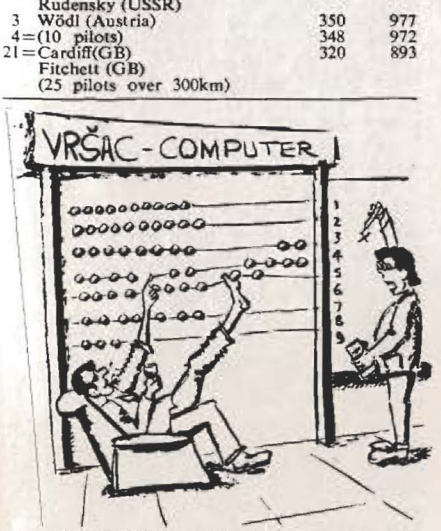
As for the scoring and the results, Paul Bikle, the American team manager, found that Dick Johnson, the winner, had been credited with the wrong distance—418 instead of 396km. Thus the results were again held up for correction. It took four days to get the official results for the first two days.

Best distances Open Class

		km	*Pts*
1	Johnson (USA)	396	1000
2	Smith (USA)	376	949
3=	Goodhart (GB)	360	909
	Link (USSR)		
	Kluk (Poland)		
	Muszczynski (Poland)		
7	Holighaus (Germany)	352	888
8=	Matausek (Czech)	349	881
	Satny (Czech)		
10=	Burton (GB)	348	878
	(14 pilots were 10=)		
	(29 pilots flew over 300km)		

Best distances Standard Class

		km	*Pts*
1=	Kuznetzov (USSR)	358	1000
	Rudensky (USSR)		
3	Wödl (Austria)	350	977
4=	(10 pilots)	348	972
21=	Cardiff(GB)	320	893
	Fitchett (GB)		
	(25 pilots over 300km)		



(Cartoon by Erich Wiedner, Austria)

SATURDAY, JULY 15

Because of rainstorms and flooding there had been no flying on Thursday and Friday; Wednesday had been a rest day.

A blue sky with isolated cirrus cover starts the day, soon to be followed by large cu-nim development in the distance. It is very humid and rather unpleasant to have a turkish bath out in the open. Landing in the fields between the Danube and Tisa is catastrophic because of the excessive rain over the last few days.

Tractors, horses and especially the Range Rovers are out on a gigantic rescue operation and help, apart from our own pilots, crews and pilots of many nations.

THIRD CONTEST DAY

Sunday, July 16. Task both classes: 250km triangle.

Briefing was particularly trying, with the microphones booming horribly and the Met unintelligible. Renner (Australia) expressed it in quite another way and feels that they are lucky to have their own Met man. Much of the briefing was incomprehensible. For instance, apparantly out of the blue, the "old hands" were asked to stick to the rules and regulations and to be an example to the newer pilots. To what they were referring I never found out.

Petterson (Sweden) pointed out that there was a difference of location by 7km of one of the TPs between the recently issued 300,000 and the 500,000 maps. Which was right? The 300,000.

Many pilots came back over base to obtain their best height after crossing the start line. With 5kt thermals they climbed quickly to around 8,500ft. On course and with a good tail wind they covered the ground rapidly. But not a single thermal was encountered on the way and they came to a grinding halt before the first turning point. What a disaster! And nothing can be done about it. There are Moffat, Reichmann, Greene, Rudensky, Kuznetsov, Renner all leaders —all on the ground. This will cost them many points! It is not until half an hour later that the next lot can find some very weak lift in that area.

We hear that Neubert (Germany) and Tabart (Australia) started from 8,000 and

7,000ft and were down to 1,500ft before they found any lift. Many others have a very sticky time. On the whole the Open ships did better, although most had been down to landing height at some stage before finding sufficient lift to keep them going. A. J. Smith (USA) was probably hardest hit by landing early and dropped to 9th overall.

There were no landings between the first and second turning point but after that it became increasingly difficult again. Tabart (Australia) diverted east to get a cloud climb before the TP2 and then used the same cloud after turning. This gave him 12,000ft, enough to get home at 63.50km/h. His team mate Jinks was with him and they had been pair flying successfully, but on leaving the last cloud Jinks became disorientated and lost about 1,500ft before he could set course again. He landed about 20km short of the finish line.

Both Burton and Goodhart landed soon after the second turning point (269 and 253km) for 17th and 20th places of the day. Fitchett and Cardiff had both landed near the first turning point with the favourites.

Musczczynski (Poland) landed in such an inaccessable place that his team manager requested an aerotow retrieve, but this had to be refused under the rules. They did not get back until 10.30am next morning, and I am told they had to carry their 660lbs Jantar for many kilometres.

The chancy weather had taken its toll and there was a great reshuffle especially in the Standard Class.

Best distances Open and point range

10	pilots	over	300km	1000-851
10	,,	,,	250	815-708
6	,,	,,	200	694-593

Best distances Standard and point range

3	pilots	over	300km	1000-971
13	,,	,,	250	910-796
7	,,	,,	200	767-732

FOURTH CONTEST DAY

Monday, July 17. Task Open Class: 309km triangle; Standard Class: 214km triangle.

Forecast was 2/8 to 5/8 cumulus with isolated cu-nims in the afternoon. The day started fine with temperatures rising quickly. East of Vrsac cumulus developed rapidly—too rapidly! By noon over-development near base made pilots hurry to get away. Soon we heard their plaintive radio reports—thunder, rain, cirrus cover—and then the first landing reports; just a few. Also many re-lights were needed.

Reichmann (Germany) after his first crossing came back to try for a better climb, but unfortunately arrived in the middle of a near cloudburst and hurriedly set course in the pelting rain. After 30km he was on the ground. Superhuman effort from his crew brought him back just as the first pilots back were crossing the finish line. He tried again, but again he failed to contact and an extended glide was all he could manage.

Dick Teuling, the quiet Dutchman, had crossed the start line about 20 minutes before anyone else and was able to get his climbs before the cumulus clouds became cu-nims. This paid off handsomely and he was first back. Swiss veteran Nietlispach, who up to now had not shown his usual flair, made the best speed for the day.

But enormous storms are at breaking point; 12–15 Standard pilots are back but the rest probably won't make it. The storm bursts. It is raining heavily. A few more pilots just sneak across the finish. Two, Frenc (Yugoslavia) and Asikainen (Finland) stop before the line. We hear anxious voices on the radio—they speak of extreme turbulence, enormous rates of climb—and sink rates of great magnitude. Some of the Standard Class pilots who have landed just short come in looking pale and drawn. Never in their lives have they flown in such conditions. They have been scared and feel, just now, that they would rather give up gliding than have to do it again.

It was obviously no ordinary storm which could cause such reactions. Ben Greene (USA) relates how he had seen a large flat circular smoke ring like a compressed dust devil before he went up in his cloud in the Pancevo area. Trying to get out at 9,500ft he finally succeeded with his brakes open at 12,500ft; it was the nearest thing he had seen to a tornado.

The storm now ebbs, the sky looks dead, but we hear on the radio that some of the Open Class are still airborne—including Nick. Then Dick Johnson's voice: "No lift for last 10 minutes, 1,200ft, probably landing." So it goes on,

and one by one they sink exhausted into the mire.

Suddenly great commotion and everyone rushes outside. An Open Class glider has arrived. Impossible! But who is it? Glider "BP"—Nick Goodhart. BP for Best Pilot according to a Swede. When he comes in to report his landing we are told that he had a climb of 29,000ft before the second TP, more than enough to get him home. The flight has been exhilarating, he says, but now he looks weary. Extreme concentration, dead-reckoning flying, turning point photos from great heights all take their toll. His climb to 29,000ft was easy. In smooth air and rising at 2,000ft/min, he could fly hands-off to don his oxygen mask. But there was much electricity about. He got some severe shocks and the stray voltages induced in the glider blew the circuits of his electric variometer. No-one else makes it back. Nick's speed was 64.55km/h.

Among the crowd near the map with its pins rumours start—they become stronger—but are they fact? A "Mayday" call has been heard. John Firth thinks he heard it too, but no-one is absolutely certain. There are still many pilots unaccounted for and it causes great concern. At 9pm I go back to the "ziggurat" and sadly learn the truth from the Hungarian team; they have just been told that Lajos Varkozi is dead—his Cobra was found in the Pancevo area with the pilot, his parachute unused. Gloom prevails and many retire early, very thoughtful.

We hear some more of the many frightening experiences. Met man Hans-Werner Voss (East Germany) has a badly damaged Cobra. Large hail stones and pieces of ice have riddled the fuselage, leading edge and elevator. Luckily his canopy is only slightly damaged and he remained protected.

Ragot (France) hurtled down from a great height at 8m/sec and at 600ft was still not clear of cloud when suddenly, in extreme turbulence, he was tossed up again and got a glimpse of the ground so close below. He landed almost completely unnerved.

Henry Stouffs and Wroblewski had been flying with Varkozi shortly before the tragedy. Wroblewski having enough height then set off for his final glide. The lift was 10m/sec and there was lightning from both sides of the cloud and Henry too started his final glide but had to land one kilometre short of the finish line. He thought it quite possible that Varkozi was sucked in. We shall never know. John Cardiff summed up the conditions saying he had never flown in "air so tormented".

Best distances Open and Point range

	km & *km*	*points*
15 pilots between	309 254	1000-805
18 ,, ,,	245 213	777-675
1 Goodhart	64.55km/h	1000
22 Burton	237	751

Best Speeds Standard

	km/h & *km/h*	*points*
4 pilots between	67.17 60.83	1000-947
5 ,, ,,	59.77 55.96	938-906
10 ,, ,,	54.95 52.74	898-879
33 Cardiff	178km	599
46 Fitchett	79km	266

Tuesday, July 18. Task both Classes: 158km out-and-return.

After a short statement on yesterday's fatality and a one-minute silence briefing was resumed. A fund for Varkozi's widow has been started.

Thunderstorms all through the night left a good deal of medium and high level cover. The forecast was that the weather conditions should be better to the west of Vrsac. Again cu-nims after 16.00 but probably earlier at base.

The East Germans were given permission to use their spare Cobra. This led to an official protest by the British which was upheld with a 17-7 vote at an International Jury meeting the following day. This was a no-contest day.

Wednesday, July 19. After three briefings no task was set, but by 14.00hrs there was some cumulus development but as the day had already been cancelled no advantage could be taken of this.

FIFTH CONTEST DAY

Thursday, July 20. Open Class: 309km triangle; Standard: 198km triangle.

There had been heavy thunderstorms during the night but the early morning was fine. The forecast was for 5/8 to 7/8 cloud with cu-nims after 16.00 with isolated ones after 13.00hrs. Cloud base 2,500 to 3,000ft rising to 4,000-6,000ft. Surface wind light southerly. Poor visibility.

Actually overdevelopment had started

by noon and enormous clouds could be seen on the horizon.

On the whole, pilots started much earlier than hitherto as they mistrusted the forecast. Soon Standard Class pilots were heard around the first turning point where it was raining heavily. Those who dared to turn fell to the ground but others who stood off fared equally badly as the turning point area became completely clamped. In fact more than half the field landed there. Reports from the Open Class were more optimistic. They were having better conditions and hence fewer landings.

During the afternoon a short shower covered base and towards the east a large storm was brewing up. Suddenly Reichmann asks for the surface wind at base. He is at 4,500ft flying blind, trying to get a glimpse of the ground. Then he sees the reservoir just outside Vrsac and is home. With loud applause he crosses the finish line. He only took 3hrs 5min. Also Ben Greene makes it home in 3hrs 20min but that is the end of it as another heavy storm makes everyone run for shelter. A reporter asking Reichmann to what he attributed his success is told "Today I have been lucky. Others were lucky earlier."

An early surprise landing in the Open Class is Tony Tabart; he thus drops his hard-earned 9th place to 19th in one fell swoop. But this of course has happened to many and has nothing to do with form, merely showing up the chancy conditions.

The rain has stopped and the sky looks washed out when suddenly an Open Class glider appears. There is a jubilant cry from the Germans: It is Neubert, and everyone is happy for him. He tells of flying between 2,000-2,500ft and then having two good climbs to 13,000ft. From the last he started his final glide flying blind for most of the way. When he broke cloud there was Vrsac right in front of him!

More excitement as Kluk (Poland) comes in with the Jantar. Next, Wiitanen (Finland) who had started very late and managed three climbs to 13,000ft and pips Neubert's time by 6min. Finally, but much slower, Mercier (France). So the tally is four Open and two Standard. We can now hear the Open Class radio again, George Burton does not think he



can make it; he is flying in rain like several others who had plenty of height in hand—or so they thought. They are still about 10km or so short when they are forced to land in a swamp.

Looking at the map there are still not enough pins past the 100km mark to give a contest in the Standard Class—it is late at night and the 10th pin is still missing. Dirty, dishevelled and exhausted pilots and crews keep arriving later and later. The fields, they say, are like mud pies. Eventually George Burton and crew arrive but without glider. The trailer is stuck in the mud. The team manager decides to get it out early in the morning in daylight—so three Range Rovers with ropes and most of the British team went out at 6am on yet another mission—this time our own.



Top: Jantar cockpit
Bottom: Jantar tail

Sheila Innes also had an epic retrieve. Although not more than a stone's throw from David there was no way to reach him and they had to drive many kilometres round before they got to him. On the way back near Pancevo they were hit by a cloudburst and a large wall of water almost swept them off the road which became blocked for four hours. For the second time Cees Musters (Holland) was out all night but arrived back in time for the task. The Kestrel 17 of his team mate Daan Paré caused much interest as the whole leading edge was pitted by hail damage and looked like the surface of a treacle tart.

SIXTH CONTEST DAY

Friday, July 21. Task Open Class: 372km out-and-return; Standard Class: 252km out-and-return.

At the 8am briefing it could not be stated whether the Standard Class had had a contest day yesterday. There was only a small attendance as so many were still on the road. The forecast is similar with low cloudbase, poor visibility and the usual cu-nims.

On the grid the Standard Class pilots are told that yesterday was a no-contest day so the gliders have to be re-arranged for take-off order as yesterday. Unbelievable chaos ensues as they try to sort themselves out. But with the low cloudbase and poor conditions many pilots pull back out of line and so the muddle remains.

Although the start line was declared open 15 minutes after the last designated launch half the pilots were then still on the ground, so in actuality it has become pilot-selected take-off time.

By noon cloudbase has risen to 2,500ft and everyone jumps into action and launching gains momentum again. Conditions, however, are still difficult and large gaggles form over the site. When all have at last gone Wiitanen (Finland) pulls his glider to the launch line and takes off.

The early plaintive radio reports become slightly more optimistic in the case of the Standard Class pilots after they had crossed the Danube about 70km away. But the Open Class is already hampered by large cu-nims, rain, etc, on their route.

Shortly before 16.00 we hear Reichmann and Glöckl (Germany) fighting their way back across the Danube—but almost at the same time there are cries from the finish line—Rudensky (USSR) is back. Quick sums show a time of only 3.33. Moffat (USA) is back with 3.53. Next Wroblewski in the Orion. He only took 3.31. All very good times —under four hours. But the rest are much slower and sums show that the majority have taken between 4.5 and 5.5 hours. In all 28 pilots complete the course but the sky does not hold out much hope for any others. Wroblewski tells me this is the first flight of the contest during which he has had no problems.

The majority of the Open Class have landed, mainly around the turning point. Those still flying have little chance of getting back as by now it is almost 6.30pm. We know that George Burton is down after the turning point and that Nick is still airborne with three or four others.

Then, just as we are deciding that no-one could possibly get back now, Wiitanen flashes by! He had managed a final climb to 12,000ft 100km out. By the time he was 30km out he still had 7,000ft and as the headwind was rather less than forecast he had enough to come straight in. It was the turn of the Finns to be jubilant as no doubt this would give him enough points to take over the lead from Ax (Sweden). But the daily factor comes into play in the scoring and the day is devalued. However, it does put Wiitanen in the lead by 243 points and Nick, who was second for the day with 293km, jumps from 11th to 5th place trailing 522 points behind the leader.

In the evening while this is going on a small British team party is in progress, the purpose being to present to Wally Wallington his BGA Diploma awarded to him at our Annual General Meeting for services to British gliding.

During the night retrieving still went on. Nick Goodhart came in having left his trailer in the mud, and another multiple Range Rover retrieve had to be organised. Kluk (Poland) was another who did not get back until the early hours of the morning.

Crews are really getting to the end of their tether and the pilots feel exhausted. Pettersson (Sweden) had to be collected



▲ *David Inne's LS-1*

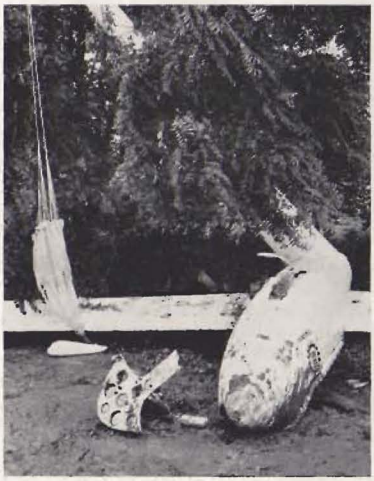
(photos: Gunnar Lundström)

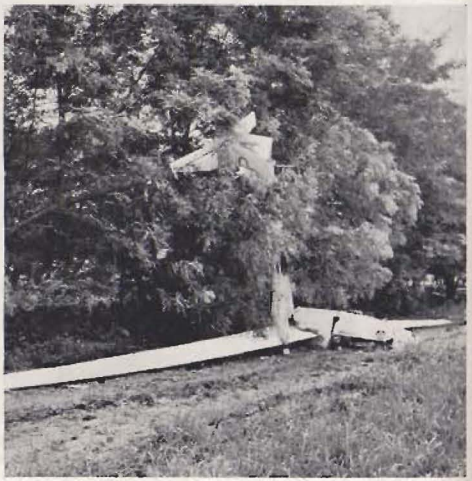
▼ *Ake Pettersson's Nimbus 2*



▲ *Hailstone damage to Voss's Cobra 15* ▼







with two Standard Class trailers to contain his Nimbus as his own trailer was not roadworthy. He arrived back at 7am. Alvaro d'Orleans (Spain), aged 25, who started gliding in Italy only 18 months ago finds it all exceedingly interesting and is learning fast—this is only his second competition.

As already mentioned in the August issue, it was on this day that Wolfram Mix of Canada sustained the serious injuries from which he subsequently died.

His radio call of intention to land had been heard on the local hill by Charles Yeates, his crew chief, but then there was a complete silence. Charles instinctively realised the truth, and speeding to the airfield reported his fears to the organisers. They, on their part, were as prompt in getting things moving. Within minutes a helicopter with a doctor and Charles on board was on its way to the last reported landing area, and then on to the hospital at Kragujevac to which Wolfram had already been taken; for as it happened an ambulance had been quite near the place of the accident.

Rapid diagnosis indicated immediate and expert brain surgery in Belgrade, so the helicopter, this time with two doctors administering oxygen, flew to the leading neuro clinic where the top brain specialist was already waiting to operate.

Blood of a special group was also needed, and the Kragujevac hospital had already put out a call on Radio Belgrade for donors. Sixteen people volunteered; four of them from among the world champs entourage were flown by helicopter to Belgrade. From accident to operating table no more than 2½ hours had elapsed; an example of what could be done in an emergency despite the normally poor communications.

FINAL CONTEST DAY

Saturday, July 22. Task both Classes: 238km triangle.

Not much change in the forecast, low cloud base, more cu-nims, rain, etc. The task, a 238km triangle for both classes was received dumbly and with tired eyebrows raised. For 87 gliders to be cloud-flying on a relatively short course was clearly fraught with danger—but no-one complained officially. A note on the screen told pilots "Fly high and quick, land at Vrsac airfield so that we will obtain results and scores".

Launching started on time as usual and crews have already left or are about to do so. The radios vanish with the crews and we are left behind wondering what is going on. Only Wiitanen, who has gone to lunch, and Goodhart, whose trailer has just arrived, are still on site. We hope their start is not too late.

Everyone fidgets around the map and pins. Cu-nims galore in our area, and rain. By midday we hear thunder all around us and now we see decaying cloud—surely no-one can fly in this! Now another rumour springs up from nowhere. A collision! Who? What? Where? Some officials say it is true. Apparently Wroblewski has radioed his team manager that near Belgrade he has seen two gliders falling out of cloud. No more details, and everyone waits impatiently.

Landing reports are coming in and are received with exclamations of joy—"Thank Goodness!"—from relatives and friends.

More news comes in. It was David Innes (Guernsey) and Pettersson (Sweden) who collided—an Open and a Standard Class pilot. This could not have happened had the two Classes been assigned different tasks.

We are relieved when Sheila Innes phones and gives us details. David's ankle is broken, and he is to be operated on at 8pm. He is being well looked after in a hospital in Belgrade. Pettersson has come back to the site and has suffered a sprained ankle. He and David both feel strongly that a third glider was involved in the collision but this cannot at present be verified. (Later the pins show that numerous pilots landed in the accident area.)

Several pilots gave up the task on this day; they had had enough. Conditions were so dicey that for once they were glad to be on the ground in one piece. However, the best distance of the day was made by Cartry (France) in the Standard Class—187km. It was also the best day for the British team as a whole with first and second places in the Open for Nick and George and fourth and 11th for Bernard and John in the Standard.

A. J. Smith (USA) damaged his fuselage badly on landing but only suffered minor cuts on his knees from the edge

of the instrument panel. To add insult to injury, his TP cameras were stolen after landing, resulting in a zero score, and so he dropped from 6th to 16th. Wiitanen was caught out by a storm and landed 50km behind Göran Ax (Sweden). Later that evening we worked it out that Göran had thus regained the lead and become World Champion. In the Standard Class however it was quite clear that Wroblewski was the undisputed Champion and this for the second time.

In the late evening the Germans gave the best bottle party of the whole contest and many nations came along. The setting, in what they called the "market place" in the "camping", was ideal for this international get-to-gether. When Ake Pettersson arrived he was greeted with the spontaneous singing of "Happy birthday to you". Everyone was letting their hair down after all the tension of the last fortnight.

SUNDAY, JULY 23

By request the closing ceremony has been brought forward to 10.30am, so there is a mad, mad rush on the part of those trying to get packed up to leave immediately after. I am busy trying to get the final results—still not ready.

The ceremony is over. The two Champions and four runners up have been mounted on their podia and cheered and given their trophies. At the outset we stood for a one-minute silence in mourning for Wolfram Mix of Canada who died at 6am this morning as the result of the accident on the 17th. Both Canadian and Hungarian flags are at half-mast, the poles carrying each a small posy of flowers.

There has been a gap until 13.00hrs. the time for the Gala Luncheon in the fish restaurant and the giving of prizes to the daily winners, the winner of the 19m cup and the first ten in each Class. Half the tables have had to be laid in the open air and now they suffer the attention of a deluge. There is a shambles as those under cover close up to make room for the rest. The terrace is one big pool of water.

Suddenly the microphones cut in—"Daily Prize—No 4 in the Open Class—Teuling"! A mistake in translation, we think; but no, for "No 5, Open Class—Cartry" makes us realise that the FAI Diplomas have been made out wrongly—Standard for Open and *vice versa*. But this can be put right later. I have finished lunch, said good-byes, and am off to start my own packing.



Standard Class: (L-R) Rudensky, USSR; 2nd; World Champion Wroblewski, Poland; Kepka, Poland, 3rd



Open Class winners: (L-R) Wiitanen, Finland, 2nd; World Champion Ax, Sweden; Kluk, Poland, 3rd and winner of 19m Cup

SOUTHERN SAILPLANES

Schempp-Hirth OPEN CIRRUS

Orders taken now will be delivered before V.A.T.
High Performance. Unbeatable value at only
£3,400 ex-works. Price includes water
ballast tanks and tail parachute.
Phone NOW for details.

For the third time in succession a Schempp-Hirth sailplane wins the World Open Class Championships.

The NIMBUS 2 once again proves itself to be the top performance production sailplane.

The Standard Cirrus continues its run of success by taking First Place in the "Daily Telegraph" competition.

Our workshops are able to take a limited number of
C's of A this winter. Please book early.

SOUTHERN SAILPLANES

Membury Airfield, Lambourn, Berks.

Tel: Lambourn 774 & 399 **evenings: Hungerford 2058**

WORLD CHAMPIONSHIPS, VRSAC, JULY 9 TO 23

Final Results
Open Class

No.	Pilot	Country	Sailplane	Day 1—1000 10.7 359km Triangle	km/h	Day 2—1000 11.7 450km Goal R.	kms	Day 3—1000 16.7 350km Triangle	km/h kms	Day 4—1000 17.7 309km Triangle	km/h kms	Day 5—1000 20.7 309km Triangle	km/h kms	Day 6—640 21.7 372km O & R	km/h kms	Day 7—1000 22.7 238km Triangle	kms	Total points
1	Ax	Sweden	Nimbus 2	1000(1)	98.94	878(10=)	348	893(4)	319	859(5=)	271	837(10)	293	385(6)	228	928(4)	169	5816
2	Wiitanen	Finland	ASW-17	804(12)	88.16	878(10=)	348	815(11=)	291	958(2)	302	1000(1)	*80.69*	640(1)	*65.10*	648(13)	118	5779
3	Kluk	Poland	Jantar	869(6)	90.11	909(3=)	360	809(13=)	289	888(4)	280	982(3)	*71.84*	391(4)	232	912(6)	166	5760
4	Goodhart	GB	Kestrel 19	756(23)	82.44	909(3=)	360	708(20)	253	1000(1)	*64.55*	742(22)	249	494(2)	293	1000(1)	182	5609
5	Johnson	USA	ASW-17	867(8)	89.95	1000(1)	396	759(16)	271	694(27=)	219	858(14)	288	427(3)	253	846(9)	154	5451
6	Burton	GB	Kestrel 19	839(14)	88.10	878(10=)	348	753(17)	269	751(21=)	237	882(8)	296	231(20)	137	950(2)	173	5284
7	Holighaus	W.Ger	Nimbus 2	806(17)	85.81	888(7)	352	803(15)	287	526(34)	166	867(13)	291	390(5)	231	939(3)	171	5219
8	Muszczynski	Poland	Jantar	761(20)	82.77	909(3=)	360	747(18)	267	872(10)	261	900(6)	302	339(9)	201	670(11)	122	5153
9	Schubert	Austria	Kestrel 604	754(24)	82.30	878(10=)	348	725(19)	259	774(18=)	244	876(9)	294	250(16)	148	873(8)	159	5130
10	Neubert	W.Ger	Kestrel 604	809(16)	86.06	878(10=)	348	890(5=)	318	815(13)	257	996(2)	*79.07*	239(17)	142	450(21=)	82	5077
11	Mercier	France	Nimbus 2	928(3)	94.11	787(26=)	312	890(5=)	318	777(16=)	245	956(4)	*58.28*	263(13)	156	445(23)	81	5046
12	Satny	Czecho	Kestrel 19	860(10)	89.52	881(8=)	349	865(7=)	309	821(11)	259	825(16)	277	110(27)	65	582(15)	106	4944
13	Matausek	Czecho	Kestrel 19	716(29)	79.75	881(8=)	349	857(9)	306	774(18=)	244	804(17)	270	282(12)	167	532(18)	97	4846
14	Jinks	Aus'lia	Kestrel 19	866(9)	89.91	787(26=)	312	927(2)	331	805(14=)	254	789(20)	265	238(18)	141	417(25)	76	4829
15	Link	USSR	Phoebus 17	731(27)	80.76	909(3=)	360	386(28=)	138	755(20)	238	795(18)	267	251(15)	149	917(5)	167	4744
16	Smith A J	USA	Nimbus 2	974(2)	97.22	949(2)	376	646(24=)	231	751(21=)	237	870(11=)	292	337(10)	200	0*		4527
17	Musters	Hol	Cirrus 18	688(33)	77.87	878(10=)	348	815(11=)	291	450(36)	142	786(21)	264	224(21)	133	642(14)	117	4483
18	Zegels	Bel	Kestrel 17	870(5)	90.16	878(10=)	348	341(33)	122	859(5=)	271	792(19)	266	212(23)	126	450(21=)	82	4402
19	Hauenstein	Switzld	Nimbus 2	610(37)	72.59	411(36)	163	851(10)	304	932(3)	291	640(26)	215	260(14)	154	648(12)	118	4343
20	Paré	Hol	Kestrel 17	757(22)	82.52	878(10=)	348	257(37)	92	840(9)	265	840(15)	282	368(7)	218	290(29=)	71	4330
21	Urbancic	Argen	Cirrus 17	736(26)	81.09	878(10=)	348	646(24=)	231	694(27=)	219	891(7)	299	81(35)	48	401(26)	73	4327
22	Tabart	Aus'lia	Kestrel 17	868(7)	90.06	787(26=)	312	1000(1)	*63.50*	694(27=)	219	292(38)	98	111(26)	66	565(16=)	103	4317
23	Geskis	France	ASW-17	888(4)	91.39	520(32)	206	649(23)	232	739(25)	233	870(11=)	292	84(34)	50	555(16=)	103	4315
24	Wetli	Switzld	ASW-12	839(15=)	88.09	431(35)	171	347(32)	124	847(8)	267	718(24)	241	150(24)	89	879(7)	160	4211
25	Firth	Can	Kestrel 19	663(35)	76.16	808(25)	320	921(3)	329	31(37)	10	918(5)	308	363(8)	215	390(27=)	71	4094
26	Mamini	Can	ASW 12	688(34)	77.85	878(10=)	348	688(22)	246	818(12)	258	372(34)	125	105(30)	62	428(24)	78	3977
27	Stepanovic	Yugo	Cirrus 17	840(13)	88.13	558(31)	221	694(21)	248	735(26)	232	515(32)	173	233(19)	138	390(27=)	71	3965
28	de Dorlodot	Bel	ASW-12	761(19)	82.81	787(26=)	312	448(27)	160	805(14=)	254	605(27)	203	101(31=)	60	390(27=)	71	3897
29	Pettersson	Sweden	Nimbus 2	84(38)	112km	878(10=)	348	865(7=)	309	751(21=)	237	599(28)	201	322(11)	191	390(27=)	71	3889
30	Serra	Italy	Nimbus 2	774(18)	83.66	484(33)	192	809(13=)	289	694(27=)	219	360(35)	121	101(31=)	60	390(27=)	71	3612
31	Pryde	NZ	Kestrel 19	702(30)	78.78	858(24)	340	386(28=)	138	675(33)	213	724(23)	243	76(36)	45	120(34)	22	3541
32	Peperko	Yugo	Cirrus 17	848(11)	88.68	689(30)	273	593(26)	212	694(27=)	219	593(29)	199	120(25)	71	0		3537
33	Hossinger	Argen	Cirrus 17	740(25)	81.37	878(10=)	348	378(30)	135	745(24)	235	542(31)	182	101(31=)	60	115(35)	21	3499
34	Heginbotham	NZ	Nimbus 2	722(28)	80.13	393(37)	156	327(36)	117	859(5=)	271	676(25)	227	108(28)	64	192(33)	35	3277
35	Taarnoj	Den	SHK-1	691(32)	78.03	878(10=)	348	330(35)	118	0*		560(30)	188	216(22)	128	521(19=)	95	3196
36	Zoli	Italy	Calif A-15	759(21)	82.65	878(10=)	348	388(34)	121	777(16=)	245	342(36)	115	40(38)	24	0*		3134
37	Fujikira	Japan	Kestrel 19	627(36)	73.69	474(34)	188	254(38)	91	485(35)	153	330(37)	111	71(37)	42	813(10)	148	3054
38	Rizzi	Austria	Diamant 18	694(31)	78.28	128(38)	51	355(31)	127	694(27=)	219	506(33)	170	106(29)	63	521(19=)	95	3004

*Camera stolen

Final Results—VRSAC 1972
***Standard* Class**

No.	Pilot	Country	Sailplane	Day 1—1000 10.7 359km Triangle km/h	Day 2—1000 11.7 450km Goal R kms	Day 3—1000 16.7 350km Triangle kms	Day 4—1000 17.7 214km Triangle km/h	Day 5—1000 21.7 252km O & R km/h	Day 6—1000 22.7 238km Triangle kms	Total points
1	Wroblewski	Poland	Orion	910(8) 82.14	972(4=) 348	738(18=) 232	936(6) 59.56	1000(1) 71.60	973(2) 182	5529
2	Rudensky	USSR	ASW-15	922(4) 82.87	1000(1=) 358	423(34=) 133	970(3) 63.57	990(2) 70.82	914(4=) 171	5219
3	Kepka	Poland	Orion	921(5) 82.79	703(28) 252	808(13=) 254	913(8) 56.80	821(7) 56.09	941(3) 176	5107
4	Teuling	Holland	LS-1	749(38) 71.90	972(4=) 348	891(6) 280	882(18) 53.01	863(4) 59.72	737(11) 138	5094
5	Cartry	France	Std Libelle	915(7) 82.45	966(14=) 346	471(30) 148	883(17) 53.11	724(25) 47.62	1000(1) 187	4959
6	Renner	Australia	Std Cirrus	918(6) 82.63	955(19) 342	312(43) 98	897(12) 54.81	818(8) 55.79	887(8) 166	4787
7	Ragot	France	LS-1	905(11) 81.77	972(4=) 348	971(3) 305	538(35) 160km	536(31) 230km	812(9) 152	4734
8	Kuznetzov	USSR	ASW-15	878(14) 80.05	1000(1=) 358	423(34=) 133	976(2) 64.29	501(33=) 215km	909(6) 170	4687
9	Greene	USA	Std Cirrus	974(2) 86.17	770(26) 276	423(34=) 133	938(5) 59.77	817(9) 55.76	668(15) 125	4590
10	Webb	Canada	Std Cirrus	771(35) 73.20	966(14=) 346	767(17) 241	713(23) 212km	711(26) 46.50	550(18=) 103	4478
11	Nolte	E. Germany	Cobra 15	855(17) 78.62	966(14=) 346	974(2) 306	697(25) 207km	583(29=) 250km	401(38=) 75	4476
12	Innes	Guernsey	LS-1	843(23) 77.87	972(4=) 348	875(8) 275	703(24) 209km	703(27) 45.84	379(40=) 71	4475
13	Karlsson	Sweden	Std Cirrus	838(24) 77.55	687(29) 246	808(13=) 254	891(16) 54.14	816(10) 55.67	417(30=) 78	4457
14	Asikainen	Finland	ASW-15	786(34) 74.21	675(30=) 242	910(4) 286	720(20) 214km	459(38) 197km	893(7)* 167	4443
15	Timmermans	N. Zealand	Std Cirrus	892(12) 80.99	519(44) 186	859(9) 270	906(9) 55.96	812(13) 55.33	406(36=) 76	4394
16	Reparon	Holland	ASW-15	844(21) 77.94	664(32) 238	796(15=) 250	898(10) 54.95	808(15) 54.93	379(40=) 71	4389
17	Yarral	N. Zealand	Std Cirrus	849(20) 78.20	541(39=) 194	850(10=) 267	897(11) 54.86	808(14) 54.95	406(36=) 76	4351
18	Persson	Sweden	Std Cirrus	761(36) 72.62	893(21=) 320	885(7) 278	521(36=) 155km	813(12) 55.39	411(35) 77	4284
19	Moffat	USA	Std Cirrus	1000(1) 87.79	949(20) 340	436(32=) 137	420(41) 125km	911(3) 63.90	513(21) 96	4229
20	Horma	Finland	ASW-15	737(42) 71.10	675(30=) 242	894(5) 281	683(28) 203km	744(20) 49.40	433(27=) 81	4166
21	Glöckl	W. Germany	LS-1	860(15) 78.95	650(33) 233	796(15=) 250	697(26) 207km	742(21) 49.21	379(40=) 71	4124
22	Petroczy	Hungary	Cobra 15	96(51) 112km	871(24) 312	850(10=) 267	891(15) 54.15	700(28) 45.56	695(13) 130	4103
23	Wala	Czechsl.	Cobra 15	852(19) 78.43	536(41) 192	732(23) 230	649(32) 193km	436(40) 187km	716(12) 134	3921
24	Reichmann	W. Germany	LS-1 (mod)	923(3) 82.96	972(4=) 348	436(32=) 137	111(50) 33km	823(6) 56.29	647(16) 121	3912
25	Cardiff	Gt. Britain	Std Libelle	788(33) 74.37	893(21=) 320	372(42) 117	599(33) 178km	504(32) 216km	700(13) 131	3856
26	Orleans de Bourbon	Spain	ASW-15	834(26) 77.28	449(47) 161	292(44=) 92	676(29) 201km	813(11) 55.42	791(10) 148	3855
27	Rizzi	Argentina	Std Libelle	817(28) 76.18	645(34) 231	289(47) 91	879(19) 52.74	780(17) 52.49	417(30=) 78	3827
28	Pissoort	Belgium	Libelle 201	738(40) 71.16	972(4=) 348	509(26=) 160	245(47) 73km	770(18) 51.67	556(17) 104	3790
29	Ruch	Switzerland	Std Cirrus	908(9) 82.00	513(45) 184	1000(1) 314	521(36=) 155km	294(44=) 126km	481(24) 90	3717
30	Seistrup	Denmark	Std Libelle	808(31) 75.63	589(35) 211	550(25) 173	933(7) 59.20	399(42) 171km	433(27=) 81	3712
31	Frenc	Yugoslavia	Std Cirrus	884(13) 80.43	522(43) 187	385(40=) 121	720(20=) 214km	747(19) 49.65	438(26) 82	3696
32	Fitchett	Gt. Britain	Std Cirrus	792(31) 74.60	893(21=) 320	292(44=) 92	266(45=) 79km	501(33=) 215km	914(4=) 171	3658
33	Bulukin	Norway	Std Libelle	749(39) 71.87	972(4=) 348	385(40=) 121	266(45=) 79km	735(24) 48.59	550(18=) 103	3657
34	Pronzati	Italy	Std Libelle	814(29) 75.98	972(4=) 348	292(44=) 92	666(31) 198km	499(36=) 214km	379(40=) 71	3622
35	Bradney	Australia	Std Libelle	907(10) 81.92	972(4=) 348	261(50) 82	947(4) 60.83	457(39) 196km	43(48)* 8	3587
36	Wödl	Austria	ASW-15	273(48) 318km	977(3) 350	509(26=) 160	575(34) 171km	780(16) 52.53	443(25) 83	3557
37	Mattano	Argentina	Std Cirrus	809(30) 75.69	441(48) 158	458(31) 144	895(13) 54.61	410(41) 176km	529(20) 99	3542
38	Stouffs	Belgium	LS-1c	737(41) 71.14	966(14=) 346	197(51) 62	717(22) 213km	499(36=) 214km	379(40=) 71	3495
39	Mix	Canada	Std Cirrus	719(43) 70.00	966(14=) 346	738(18=) 232	670(30) 199km	294(44=) 126km	— —	3387
40	Nietlispach	Switzerland	Std Libelle	715(44) 69.70	575(36) 206	410(39) 129	1000(1) 67.17	294(44=) 126km	379(40=) 71	3373
41	Voss	E. Germany	Cobra 15	856(16) 78.66	452(46) 162	738(18=) 232	319(44) 95km	583(29=) 250km	401(38=) 75	3349
42	Perotti	Italy	ASW-15B	231(49) 268km	837(25) 300	738(18=) 232	340(42=) 101km	740(22) 49.07	379(40=) 71	3264
43	Oye	Denmark	Std Cirrus	835(25) 77.36	67(50) 24	843(12) 265	138(49) 41km	855(5) 59.00	502(22) 94	3240
44	Gatolin	Yugoslavia	Std Cirrus	832(27) 77.14	58(51) 21	420(37) 132	893(14) 54.36	501(33=) 215km	417(30=) 78	3121
45	Vavra	Czechosl.	Cobra 15	689(45) 68.06	740(27) 265	554(24) 174	521(36=) 155km	151(50) 65km	433(27=) 81	3088
46	Juniqueira, C.	Brazil	Urepema	854(18) 78.53	972(4=) 348	283(48) 89	693(27) 206km	210(47=) 90km	DNF	3012
47	Rusev	Bulgaria	Cobra 15	565(47) 60.22	547(38) 196	738(18=) 232	451(40) 134km	196(49) 84km	417(30=) 78	2914
48	Ronnestad	Norway	Phoebus 15	96(50) 112km	553(37) 198	477(29) 150	521(36=) 155km	738(23) 48.87	486(23) 91	2871
49	Juniqueira, P.	Brazil	Urepema	587(46) 61.59	541(39=) 194	280(49) 88	340(42=) 101km	371(43) 159km	379(40=) 71	2498
50	Walsberger	Austria	ASW-15B	754(37) 72.18	139(49) 50	414(38) 130	225(48) 67km	210(47=) 90km	417(30=) 78	2159
51	Varkozi	Hungary	Cobra 15	844(22) 77.89	527(42) 189	509(26=) 160	— —	— —	— —	1880



Dick Johnson (USA) ▲

Hans Gräwe (left) Editor, "Luftsport", and Fred Weinholtz, Chairman, German Gliding Commission ▼





▲ Not a prototype Range Rover but a home-made still

▼ Ben Greene and AJ getting advice on Bitola



▼ John Cardiff cleaning his trailer







▲ *L to R: David Findon, John Cardiff, Bernard Fitchett and John Large contemplating Bitola*

◀ *Chris Simpson, deputy British Team manager, at work*

▼ *Dick Teuling*



▼ *Bert Zegels (left) and Henri Stouffs of Belgium preparing their maps*



▼ *General view from the Ziggurat*





Charles Ridley (left) (Australia) talking to Paul Bikle (USA) ▲



▲ L to R: Manfred Reinhardt (W Germany), Doc Slater, Glenna Dickson and Seff Kunz (W Germany)

David and Sheila Innes (Guernsey) ▶



Relaxing in the pivo bar ▼



Hannes Linke (USA), AJ's crew ▼





▲ *Vera the interpreter*



▲ *AJ Smith (USA) always fettling*

▼ *British Team members at work*



▲ *L to R: Rudensky and Kuznetsov (USSR)*

▼ *Gerd von dem Hagen and Fred Weinholtz using the camp showers*



▼ *(Left) Tom Dragovic, one of the officials*











VRSAC 1972

"The area is
largely dry and dusty"

(*Bulletin* 03, Vrsac)

Photos in this report by: John Cardiff, Rika Harwood, Anne Ince, A. E. Slater, Ann Welch















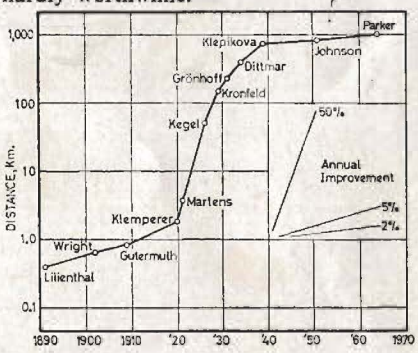
PLATYPUS SCRIBBLES AGAIN



HELLO, PROGRESS — AND GOODBYE

THIS is going to be an intellectual discussion so please put your icebags on your head and concentrate. First of all get out your copy of *The New Soaring Pilot*. I assume you have one, otherwise shame on you; you probably didn't even pay for this copy of S&G. If you're that sort of person, go and steal the NSP too.

Anyway, I refer you to the graph on p9 which appears to show the miserably diminishing returns to which glider performance seems to be doomed. All the progress is made before 1940, after which point further advance seems sluggish and hardly worthwhile.



The graph on p9

Why does the graph look so tired? Well, largely because it is a logarithmic graph. Sorry, for the uneducated we mean an exponential growth graph. Eh? Well, er, it is a graph that shows proportionate rates of change. So, for the graph to show a straight line, each year ought to show the same percentage improvement over the previous one. Stay with it!

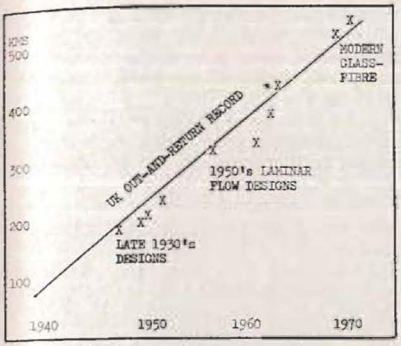
Now, I think it is very debatable whether a logarithmic representation of the world distance record is a realistic way of looking at sailplane progress. If the record increased by a steady 50km each year, the ordinary person would not consider that a case of diminishing returns. To use the jargon, commonsense accepts linear models. Exponential growth is a characteristic of some organisms such as cells and, in the absence of any limiting factors, human or animal populations. Gliders do not belong to these categories; the limiting factors are that the power supply, namely the air, has remained constant over the years and so has the number of hours of daylight. (Let's leave night-soaring out of this brawl.)

Before I bring a host of academics, their hairy arms rippling with muscles developed from constant rigging and derigging of Sigma, down upon my greying head, let me say that my real gripe about this intriguing graph is that the downwind component in most pure distance records is about 50km/h (or 27kts). With soaring durations of a bladder-punishing 10 hours or more, there is Diamond distance built in already, which super-ballooning has to be subtracted in order to estimate the still-air performance, and that is what we are really looking for.

The best measure is the closed-circuit, expressed either in terms of speed or, best of all, the out-and-return, which has a special fascination for me. (I sit through much of the winter with maps and graphs strewn over the grand-piano, reinforced with whisky mac and the renewed conviction that "next year we will really get organised" and seize that most testing of all records . . .) For instance, look at the graph of UK out-and-return records.

No question of diminishing returns here.

From 1939 to the present it shows a steady and healthy linear increase of about 12km a year, so at that rate the record should be about 650km in 1982, though personally I think we will see that figure achieved quite a bit earlier. Since it is just as legitimate to extrapolate graphs backwards as forwards (that is to say, it is not legitimate at all



UK out-and-return records

in either case) we get a UK out-and-return record of zero kilometres in 1931, which figures.

What I like about this graph is the way the records are clustered together, with fallow periods in which nothing seems to happen. What is happening in those quiet periods is the development and widening availability of the next generation of gliders, so each cluster is a distinct group of similar types and wing sections.

As to the next generations after this, Sigma and Son of Sigma, all I can say is, don't stand around looking idle when derigging time comes. The greatest spur to completing that 650km out-and-return will be the prospect of a retrieve in the dark and the rain somewhere in a boggy meadow at the end of a long winding rutted track where the bits, individually weighing up to 350lbs, have to be carried by hand. Boy oh boy, I must get back or nobody will come for me again, ever.

I have seen the future and it gives you a hernia.

STANDARD GLASSWARE LANDING

Talking about progress, which always seems to give with one hand while craftily picking your pocket with the other, I am grateful indeed that I don't have to sweat and swear for seven hours or more in rough thermals in a Skylark 3. These modern Standard Class gliders are a delight to handle in the air. But I will hand one thing to the old ships. They came off the ground easily and you could put them down anywhere.

Today, however, the CFI might almost say, like a head waiter, "will you have a groundloop with your take-off, sir, or would you rather have it when you land?"

And some of them need an aerodrome to land in, even with decent pilots, let alone us peasants. Forgetting the insurance rates for the moment, I feel that the pleasure of a good old scrape, and after all who doesn't just love one of those hour-long struggles under 600ft, is rather tarnished by the fact that as far as the eye can see there are only fields fit for Skylarks to get sunk in.

LEDERHOSEN UND GAMESMANSHIP

The hills are alive to the sound of horseflies and splintering plywood . . .

This summer, mit Lederhosen und eine sensible Segelflugzeug mit decent Airbrakes, we carved a swathe through Tyrolean thermals, carved a swathe through Rotwein and Bier, carved a swathe through a meadow that looked like part of a set from "The Sound of Music" and nearly carved a swathe through a skein of mountaineers who leaned out too far from the North Wall of the Inn valley.

Which is by way of saying we joined the growing band of layabouts who spread the fame of British soaring by more or less taking over an Austrian soaring site each year. About the flying —maybe next time. But I must tell you now about the gamesmanship at the launch point, which was unbelievable. It is all to do with the facts that

a) If the day is to be very, very good, then you must be launched very, very early; ie, before 10am.

b) Tows from an airfield height of 3,000ft to 7,000ft, which are essential, are long and time-consuming, so it is no joke being at the back.

c) No one is supposed to form a start-line grid until *they* give the word, though it is not at all obvious who is *they* at the crucial moment, nor where *they* is, nor indeed what the word is or whereabouts it is supposed to be given.

Sometimes a privately-started grid gathers momentum and becomes accepted as the *de facto* rule, at other times the private initiative is too blatant, like that of the lone British pilot who started the grid at 6am; his grid was not recognised

and for all the good it did him he could have stayed in bed. Serves him right for being hearty as well as unsubtle. Finesse coupled with brass cheek was more the thing. It worked like this:

One moment all the gliders would be patiently sitting behind the peri-track looking as though they weren't going anywhere special; then you would turn your back or blow your nose and when you looked again the whole lot had miraculously formed up into a competition-style grid—except that your glider would be the last of about 30.

If you got wise to this you might improve your position in the next day's line-up by casually strolling off, studying the sky intently or looking for somewhere to relieve yourself—then, as the opposition relax and put their heads inside their cockpits and make fettling sounds, you pounce, seize the K-6E by the snout and whisk it as fast as it is possible to whisk a glider through ankle-deep mud to a spot which by this very act of defiant skullduggery is now consecrated as the number one position for the starting grid that day. Phew!

At least, that's what you think. It's now 10.30; you have been rigged four hours and you are about to go. You know it's going to be an enjoyable day because the horseflies are ploughing into the hairs in your legs like K-6's into fir trees, gouging great bleeding lumps out of the perspiring flesh. Under the canopy you gently baste at Regulo 6.

Never mind, you will be up and away into the high cool mountain peaks in a minute.

Heh! Heh! Evil laughter. Some pundit in umpteen metres of glass has got sunk. Serves him right; shouldn't have barged in at the front an hour ago.

Ye Gods! He is taking your tow, cool as a cucumber. You wave frantically, wondering which of many tongues he will contrive not to understand you in. Cheerily, he holds up five fingers, indicating that he is entitled to a second launch before your first because he is attempting 500 kilometres.

You indicate your opinion on the matter.

He smiles, delighted to know that you only plan to do 200 kilometres . . .

GENERAL & BGA NEWS

ITFORD LIVES AGAIN

HANG-GLIDERS and the renowned pre-war sailplane the Minimoa were features of an airshow held at the Southdown Gliding Club site at Firle Beacon on September 3 to commemorate the 50th anniversary of Britains first gliding meet, at nearby Itford in 1922.

Although the day threatened rain in the morning, it cleared up in the afternoon and the show was well attended. A brisk north-east wind meant that the ridge was soarable, and a number of gliders, bot hvintage and modern, soared it.

But it was back to the 19th century for part of the show, as two sailwings made by Geoff McBroom of the Bristol club launched themselves from a point partway down the slope of the ridge. McBroom, who has soared his sailwing at Nympsfield, was caught by the strong (at least 25kt) updraught and rapidly rose above the crest of the ridge. He managed to complete two or three short beats before being drifted back over the hill and forced to land by the curl-over.

We hope to publish a full report of the meeting in our next issue.

FORMER DUNSTABLE PILOT ACHIEVES FIRST 1000km O/R

DICK GEORGESON, who flew with the London Gliding Club in the early 'fifties before emigrating to New Zealand, achieved the first 1,000km closed circuit flight on September 7.

Flying a Slingsby Kestrel 19, he flew a total of 1,003km from Hanmer Springs to Mossburn, Otago, and return, taking 11 hours 55 minutes. Hanmer Springs is

at the north of the South Island, and he had to combat a 50kt headwind on the outward journey south to Mossburn. The flight was carried out in wave, in excess of 20,000ft for most of the time. The record, subject to homologation, beats Karl Striedeck's flight of 916.3km in an ASW-15 made on November 7, 1971, by a handsome margin.

FIRST INTER-UNIVERSITIES CONTEST

DAVID McQUE (K-6E) won the first Inter-University Gliding Competition, held at RAF Gaydon from July 17 to 21 and organised by the gliding clubs of the universities of Aston and Birmingham. There was only one contest day. McQue won the Open Class trophy and the cup for the highest placed member of University staff, while Mike Robinson (Leeds) was awarded the Student trophy.

There were 15 entries, ranging from Phoebus and Std Libelle to six Olympia 2's.

A TWO-WEEK NATIONALS NEXT YEAR

THE present structure of the British Nationals is to be retained for the 1973 season, the BGA Executive Committee decided at its meeting on September 6, although a slight modification of the Sport/Club Class was agreed.

The Open/Standard Nationals is, however, to be a two-week event, to be held at Lasham from August 18 to September 2, and the 1973 *Daily Telegraph* European Gliding Competition will be merged with it. Ten to 15 foreign pilots would be invited to participate.

The Sport/Club Class Nationals will be held at Husbands Bosworth from May 26 to June 3. Intervening dates are available for Regionals.

The present system for compiling the rating list will be retained for 1973.

The Sport/Club competition for 1973 will be an unhandicapped contest open to all gliders, whatever their performance. The two classes will be divided in the light of entries received so that there will be about the same number of machines competing in each. Gliders with a handicap of more than 100, such as the K-8, will be handicapped at 100 for this competition. Entries in this, as in the Open/Standard Class, will be limited to 40.

HANG GLIDERS—BGA TO ASSESS NECESSITY FOR CONTROL

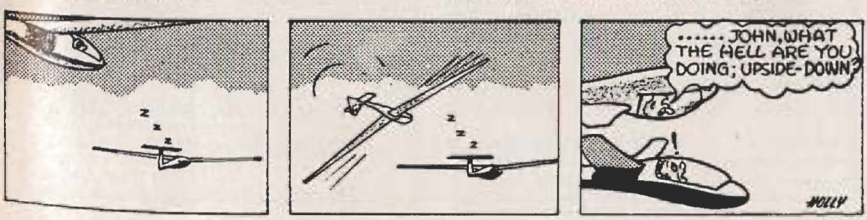
THE BGA Executive Committee has set up a sub-committee to investigate developments in the hang glider movement in this country and to assess the necessity for control. The Committee agreed that these craft, including sailwings such as the Rogallo and machines with rigid aerofoils, such as the Icarus, were legally and technically gliders, and the sub-committee report back to the Executive with a recommendation as to whether or not the BGA should assume responsibility for this type of activity.

Mrs Ann Welch volunteered to chair the sub-committee and Joan Cloke, Frank Irving and Tom Zealley were co-opted.

Clubs, the Executive Committee states, are reminded that only aircraft with certificates of airworthiness may be operated from BGA member sites.

400km UK GOAL SPEED RECORD SET UP

JUSTIN WILLS, youngest son of Philip Wills, set up a new United Kingdom record by becoming the first pilot to fly to 400km goal—on September 2. Starting from Swanton Morley at about 11.00, he landed at his goal, Winkleigh airfield



(north of Okehampton, Devon) shortly after 17.00, averaging about 67.5km/h (subject to homologation).

The wind was moderate, NNE, and the day was mainly blue with 2-3kt thermals, but Wills was helped in the early part of the flight by strong lift from stubble fires.

After landing he was charged by a sheep which endeavoured to kick a hole in the fuselage.

NEW BGA POSTCARDS

A SET of six black and white postcards featuring the Dart 17R, Bocian, Falke, BG-135, Skylark 4 and Kestrel is available from the BGA, price 24p plus 4p postage. The photographs are by Lorna Minton, and one is a reproduction of this month's cover.

LOVELL LADDER FRONT-RUNNER

CHRIS LOVELL, of the Surrey & Hants club, and a consistent front-runner in the National Ladder over the years, has taken over the lead from Mike Garrod. He has scored 3,862 points from four flights (in club gliders), while Garrod (London) lies second with 3,287. Alan Vincent's remarkable 500km triangle in a K-6 takes him and the Essex club into third place, with 2,985 points from three flights, and Mike Field (Airways) with 2,768 points from his single high climb, now lies fourth.

The 1971-72 Ladder ends with flights made on September 30. Entries for the year's final list should be sent to Mike Garrod, 71 Corwell Lane, Hillingdon, Middlesex, to reach him by Saturday, October 28.

CHILTERN SAILPLANES LTD.

For C's of A, wood, glassfibre, steeltube repairs

Instrumenting, resprays, trailers, etc.

Dave Paton
300 Luton Road
Dunstable LU5 4LF

Senior Inspection Approval
Tel: Dunstable 64472
(0582-64472)



Cable-break training thoughts

Flights from October 1 onwards will be included in next year's list; if sufficient entries are received by October 28, a first list for 1972-73 will be issued with the final 1971-72 list.

GLIDING CERTIFICATES

DIAMOND DISTANCE

No.	*Name*	*Club*	*1972*
1/43	G. Garlick	In Australia	8.2

DIAMOND HEIGHT

3/145	L. S. Joiner	Angus	25.6
3/146	L. Barnes	Crusaders	19.8

DIAMOND GOAL

2/422	G. Garlick	In Australia	11.1.71
2/423	S. G. Davies	Airways	11.8
2/424	Erica Scurr	In USA	25.7
2/425	M. C. Costin	Coventry	11.8
2/426	R. A. Cole	Anglia	13.7
2/427	P. S. Collins	Cranfield	30.6
2/428	P. D. Curtis	Oxford	11.8
2/429	A. E. Burgess	Bicester	13.7

GOLD C DISTANCE

G. M. Morris	Dorset	13.6
T. E. MacFadyen	Coventry	30.6
G. Garlick	In Australia	11.1.71
Erica Scurr	In USA	25.7
R. A. Cole	Anglia	13.7
P. S. Collins	Cranfield	30.6
P. D. Curtis	Oxford	11.8

GOLD C HEIGHT

Name	*Club*	*1972*
T. C. Harrington	Bicester	23.7
B. F. Nowell	Clevelands	3.6
L. S. Joiner	Angus	25.6
A. W. Sykes	Midland	2.2
C. J. Nicholas	Essex	24.8
F. W. Sage	Essex	21.8
P. Brooks	Oxford	23.6

GOLD C COMPLETE

No	Name	Club	1972
326	G. M. Morris	Dorset	13.6
327	T. C. Harrington	Bicester	23.7
328	Erica Scurr	In USA	25.7
329	R. A. Cole	Anglia	13.7

SILVER C

3185	T. G. Thomas	Four Counties	3.6
3186	G. T. Francis	RAE	6.7
3187	P. Goddard	Humber	16.6
3188	P. E. Miller	Humber	30.6
3189	L. K. Forsey	Midland	11.7
3190	C. J. Nicholas	Essex	9.7
3191	G. C. Leech	Thames Valley	13.7
3192	I. W. Creighton	Lasham	11.7
3193	B. E. Evans	In USA	4.7
3194	G. H. Bailey	London	13.7
3195	J. G. Andrews	Yorkshire	11.7
3196	M. D. Taylor	Anglia	16.7
3197	V. Bradbrooke	Crusaders	12.7
3198	M. Day	Surrey/Hants	14.7
3199	H. A. W. Massman	Yorkshire	11.7
3200	F. P. Griffiths	Crusaders	18.7
3201	L. J. Rice	Dorset	28.7
3202	A. Kay	Thames Valley	29.7
3203	J. P. Boneham	Derby/Lancs	3.8
3204	D. S. Towson	Burton/Derby	3.8
3205	R. D. Hunt	Kent	24.7
3206	D. J. Pearce	Surrey/Hants	10.8
3207	L. J. Rivers	Norfolk	12.7
3208	J. J. Sharp	London	30.6
3209	P. W. Endean	Burton/Derby	10.8
3210	Karin Buckton	SGU	11.8
3211	P. M. Richer	London	11.8
3212	P. J. Henderson	Cranfield	12.8
3213	D. Wood	Two Rivers	12.7
3214	R. Bousfield	Essex/Suffolk	11.8
3215	G. P. Duff	Phoenix	6.8
3216	J. D. Wood	London	17.8
3217	R. de B. Walkerley	Four Counties	9.8
3218	F. Packard	Essex	19.8
3219	D. Sparks	613 GS	11.8
3220	R. D. Brister	Lincolnshire	19.8
3221	K. Simpson	Surrey/Hants	10.8
3222	R. Tetlow	Cranfield	11.8
3223	A. I. Mawer	Lincolnshire	19.8
3224	P. G. Ketteridge	Cambridge	11.8
3225	J. M. Purves	Ouse	12.8
3226	A. C. Stone	Chilterns	15.7
3227	C. A. D. Patterson	RAE	29.7
3228	D. J. Bates	Essex	19.8
3229	H. F. Richardson	Thames Valley	18.8
3230	B. A. Murphy	Essex	19.8
3231	A. Robinson	Mendips	24.8
3232	D. R. Chatterton	Bristol	19.8
3233	M. N. Sutherland	Yorkshire	19.8
3234	J. F. Bacon	Cranfield	19.8
3235	C. J. Backwell	Southdown	10.8
3236	M. N. Erlund	Cotswold	19.8
3237	J. Harrison	Thames Valley	19.8
3238	P. G. Ring	Portsmouth	19.8
3239	R. B. Witter	Humber	22.8
3240	H. M. Rothwell	Heron	19.8
3241	K. P. Allen	Crusaders	24.8
3242	D. A. Kilcoyne	Cranfield	29.7
3243	J. W. Sprules	Southern Comm	24.8
3244	Mary Short	Imp College	31.8
3245	R. R. Lewis	Chilterns	2.9
3246	J. N. Ellis	Doncaster	30.8
3247	D. I. C. Money	Cambridge	12.8
3248	D. B. Sparrow	London	31.8
3249	G. Bagley	RAE	31.8
3250	S. J. C. Parker	Bath/Wilts	10.9
3251	D. W. Kent	Imp College	19.8

GIPSY 135

HAS FULL PROGRAMME BUT IS AVAILABLE FOR DEMONSTRATION FLYING

DETAILS OF AVAILABILITY FROM:

THE BIRMINGHAM GUILD LTD.

GROSVENOR ST., WEST, BIRMINGHAM, B16 8HL

Telephone 021-643 6175

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.

DEVELOPMENT OF INTERNATIONAL CLUB CLASS PHILOSOPHY

A REPORT on the results of the first International Club Class Competition (see p419) is being sent to the CIVV, all competitors and all National Aero Clubs. It will stress that the Club Class must be developed and promoted so as to permit clubs to share in the progress of modern gliders, and to have a broad selection of gliders suitable also for entry in modern competitions and available at a reasonable price.

The report incorporates minutes of a discussion held at the contest among pilots, crews, and contest organisers, plus Per Oberg of Sweden. Oberg, Sweden's representative to CIVV, tabled a proposal by the Swedish Aero Club to the CIVV concerned with the setting up of an international Club Class.

The minutes, of a lively debate, recorded that

1) Steps must be taken to prevent the Club Class from going the way of the Standard Class and becoming a "Formula 3" racing class and from having its development stifled through opposition and so becoming inactive.

2) Club Class requisities: Gliders must suit the financial capacity of the average club, be easy to fly and land, vice-less and easy to ground-handle, so that they can fit the widest spectrum of club use. Performance must be high enough to permit them to take part in competitions of present-day standard.

3) A proposal to limit the Club Class to a uniform model of "Restricted Sports Glider" would seem to be contrary to the interests of development. Further, such a plan would not at present be practicable, for aircraft development is a matter in the first place for manufacturers and designers.

4) There should be a proposal to create a formula by which Club Class gliders would be graded and selected. (This proposal did not receive majority approval from the discussion group.)

The minutes continued that at this moment in time the following plan should be adopted:

1) The Industry should be stimulated to concern itself intensively with the development and production of Club Class gliders.

2) Restrictions on flight characteristics and performance should not be imposed, but be left to be decided by market conditions.

3) The price limitations, and also the decision on what gliders belong to the Club Class shall be decided at the level

SAILPLANE AND ENGINEERING SERVICES LIMITED

Holmfield Road, Buxton
Derbyshire
Adjoining A53

Ring Buxton 4365 NOW

C's of A REPAIRS
REFINISHING

LIBELLE TRAILERS, FUSELAGE TROLLEYS, RUDDER LOCKS, WING COVERS

ALUMINIUM STEEL TUBE TRAILERS FOR ALL TYPES

FIRST CLASS WORK AT THE RIGHT PRICE

KEEP DOWN THE COST OF FLYING

Insure with
Mowbray Vale Insurance Brokers

•

Ring Carol Taylor at
Thirsk 23018

or write to
48a Market Place
Thirsk, Yorkshire

•

All classes of Insurance transacted



ASW-15-B

From initial training to world class competition flying there is a Schleicher glider for every facet of your sport.

K-8B Follow-on training single seater with crisp handling and excellent soaring capability.

ASK-13 Well tried, robust and docile performance two-seater.

ASW-15-B 'Glass' standard class competitive single-seater of proven top performance.

ASK-16 The new side-by-side performance motorized two-seater for training or cross-country flying.

ASW-17 20 metre 'glass' super high performance competition glider for those who only want to win.

Hire purchase and personal loan schemes may be arranged. Or why not let us quote a very attractive leasing system for your Schleicher glider or fleet, enabling you to keep right up to date.

Write for further details without obligation to:

LONDON SAILPLANES LIMITED
c/o J. Jeffries, Dunstable Downs, Bedfordshire

Sole agents for:

ALEXANDER SCHLEICHER
SEGELFLUGZEUGBAU
D-6416 Poppenhausen an der Wasserkuppe, West Germany

Thinking of getting a PPL?

PRIVATE PILOT STUDIES

by S. E. T. Taylor & H. A. Parmar

All in one volume, the complete Ground Studies syllabus for the written and oral examination of the PPL, with over 100 diagrams and specimen PPL questions.

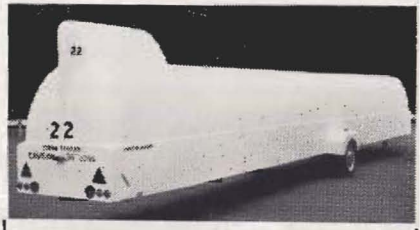
With

Contents: 1 Maps and charts; 2 Direction and speed; 3 The navigation computer; 4 A spot of navigation; 5 Magnetism and compasses; 6 Meteorology; 7 Aerad charts; 8 Aviation law; 9 Principles of flight; 10 The power plant; 11 Aircraft Loading/Fire hazard; 12 Playing it safe; 13 Getting the PPL from scratch.

Clothbound, 192 pages
£3.00 net plus 12p postage

From booksellers or the publishers

T. & A. D. POYSER LTD
281 High St, Berkhamsted, Herts.



TORVA SAILPLANES LTD.

NEW:

Styled glass fibre trailer for 19 metre sailplane

CAMSHELL DOOR

FORWARD ACCESS DOOR

INDEPENDENT SUSPENSION

THIRD JOCKEY WHEEL FOR GROUND HANDLING

FULL AUTOMATION DEVICES AVAILABLE

Also available in sizes to suit 15 metre sailplanes

TORVA:

SPRITE. 15m G.R.P. Sailplanes
SPRINT. 15m

INSTRUMENTS AND OXYGEN EQUIPMENT INCLUDING THE LIGHTWEIGHT A8A Economiser for panel mounting in limited space, with height indicator for flow control. Bottles available too!

TORVA SAILPLANES LTD.

Works:
Outgang Lane, Pickering,
Yorkshire. Tel. 3491

Sales Enquiries:
Westland Road,
Park Farm Industrial Estate.
Leeds LS11. Tel. 709111

of National Aero Clubs. It is hoped that there would be close co-operation by National Aero Clubs on this.

4) Before finalising arrangements for an International Club Class competition, the participating Aero Clubs must agree on the gliders permitted to enter. The decision must be published 12 months before the contest.

The report concluded that after a given time and in the light of further experience, an acceptable international definition of the Club Class would be settled.

US NATIONALS RESULTS

THOMAS BELTZ, flying a Std Cirrus, won the third US National Standard Class Championships, held at Marfa, Texas, from June 27 to July 6. He scored a total of 7,481 points. Wallace A. Scott II, son of the famous pilot who until recently was co-holder of the world distance record, was second, flying a Std Cirrus (7,046). Rudy Allemann, last year's Standard Class champion, was third in his Libelle H-301, and Ray Gimmey (Std Libelle) fourth.

There were eight contest days, including several long triangles, two Cat's Cradles and a Free Distance task, in which Gimmey flew 701km.

Marfa obviously provided excellent practice for Gimmey and Allemann, for they came first and second respectively (flying their Libelles) in the Open Class championships, held at Minden, Nevada, from July 18 to 27. Gimmey scored 8,000 points and Allemann 7,891 in a contest dominated by Glasflügel machines. The highest placed of the new generation Open Class gliders was Harry Wuenstal in a Kestrel, who was 6th. Richard Schreder came 9th in an ASW-17 and Robert Chase 10th in a Nimbus 2.

There were nine contest days, consisting entirely of triangles between 305km and 541km. A Concept 70, America's first venture into glass-fibre production sailplanes, flown by Jim Indebro, broke up during a highspeed pass through the start gate on the third day. The pilot baled out without injury. The cause of the break-up is not as yet known.

The 1973 Standard Class nationals will be held at Chester, South Carolina, in June, and will be used in conjunction with the 1972 contest in selecting America's two Standard Class pilots for the Australian World Championships.

The 1973 Open championships will probably be held at Liberal, Kansas, during late July, and will be used in conjunction with the 1972 competition in selecting America's Open Class team for Australia.

WEAK CONDITIONS AT INTERNATIONAL CLUB CLASS COMPS

THE first International Club Class Contest was held at Dinslaken-Schwarze Heide, Germany, from June 19 to 26. Because of the short notice of six months, several countries and foreign visitors were unable to attend and the countries represented were thus few in number. Eleven foreign pilots, however, from Argentina, Denmark, Holland and Sweden were among the 29 entries, flying 14 K-6E's, eight K-6CR's, two Vasamas and one each of SF-27, Salto, Pirat and K-8B.

Tasks were flown on six contest days in rather weak and difficult conditions and only on two of them could speed points be awarded.

The friendly atmosphere and rivalry surrounding this contest was one of its major attractions and, according to *Luftsport*, pilots, crews and organisers thoroughly enjoyed the opportunity to participate in this new venture and felt that the International Club Class was on the right road to further success.

Kiffmayer of Germany (K-6E) won with 5,519.2 points, and Nagel (Germany, K-6E) was second (5,303). Denmark's Lindhardt was third, Sweden's Anderson fourth, Germany's Schmidt fifth and Sweden's Ottossan sixth, all with K-6E's.

FOUR E-MAKULA-TE WORLD RECORDS

MULTI-SEATER closed-circuit world records have tumbled during the months of July and August following a number of flights in Nevada by the former world gliding champion, Edward Makula of Poland.

The first to fall, however, was the goal-

and-return record on July 15, in which Edward Minghelli and Robert Gravance achieved a flight of 676km from Pearblossom, California, to Chalfont and return. The flight was made in a Prue 2A.

Makula's first record was the 300km triangle, flown at 113km/h from Minden, Nevada, with a passenger in the Calif A-21. He followed this with a 500km triangle from Minden in company with John Serafin of the USA on August 4 in the Calif A-21; his speed was 87km/h. Two days later, on August 6, he roared round a 100km triangle from Minden (with H. Taskovich as passenger in the A-21) at 126km/h.

For a finale, on August 8, he and passenger Serafin beat Minghelli's new record for the out-and-return with a flight of 710km from Minden to Darwin (California) and back in the A-21. All records subject to homologation.

FRENCH ALPINE CENTRE REVITALISED

CHALLES-LES-EAUX, near Chambéry, which parties from the Surrey Gliding Club used to visit in the late 1940's, is again to become an active gliding centre under the combined direction of the Centre Savoyard de Vol à Voile Alpin, the gliding section of the Aero Club de Savoie, and the Club de Vol à Voile Alpin of Annecy. They have a combined fleet of 22 sailplanes.

During April and May they held a contest totalling nine days, made up of three week-end periods of three days each. Among the rules were that the finishing line must be crossed at not less than 250m (820ft) for safety's sake, and that a single pilot completing the course would make it a contest day. Place scoring was used.

Nearly all the flights were to NE and SW, including the triangles which were consequently very flat. On one day several pilots were forced to earth by a persistent 10m/sec downcurrent.

Winner was Gautier, aged under 25, who completed all tasks except the day he flew a two-seater; he was placed 1st on two days and 2nd on two days. Second was Garch, president of the Savoyard Centre. Third was a lady, Josiane Coulet (*Aviasport*).

SOUTH AFRICAN NATIONALS

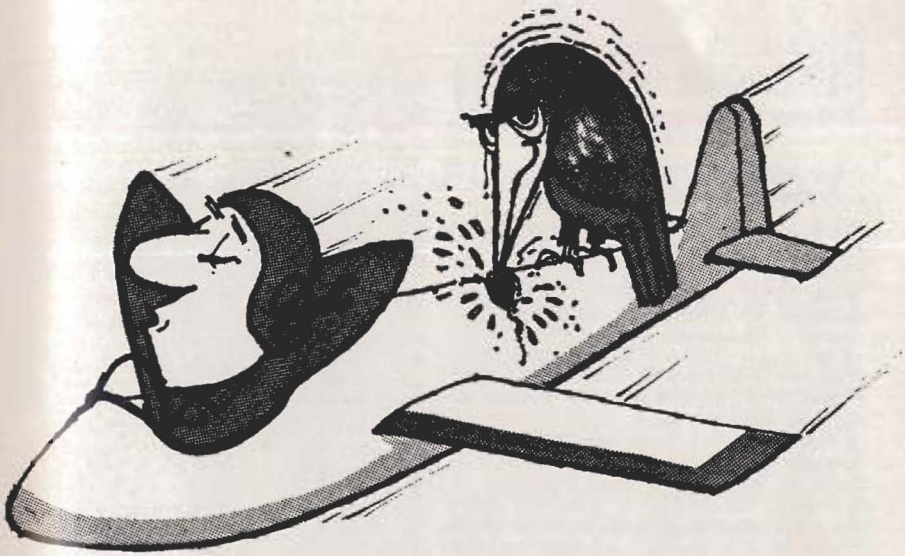
THE South African National Gliding Championships will be held from December 17, 1972, to January 5, 1973 at Tempe airfield, Bloemfontein, in three parts: Informal practice flying, December 17 to 20; team championships (run on the same lines as the German Hahnweide competition) December 21 to 28; Open and Standard Class Championships, December 29 to January 5. Pilots interested in participating should write to the Organising Secretary, Aero Club of South Africa, PO Box 2312, Johannesburg. The hire of gliders is not possible, although exceptionally an overseas pilot "with good recommendations" may be able to share one with a generous owner.

HOME PILOTS WIN COUPE D'EUROPE

JACQUES VANEECKE (ASW-17) and Jacques Rantet (Libelle) of France won the Open and Standard classes respectively of the Coupe d'Europe, held at Angers, France, from July 28 to August 7, 1972. There were six Open and five Standard Class contest days, and the weather was not up to the standard of previous contests. Bert Zegels (Belgium, Kestrel 604) was second in the Open and Robert Geskis (France, ASW-17) third, while Standard runners up were Belgium's Henri Stouffs (LS-1, second) and France's Camille Labar (Libelle, third).

British participants fared as follows: David Carrow, Open, Kestrel 17, 8th; Anne Burns, Open, Nimbus 2, 27th; Simon Redman, Standard, Std Cirrus, 20th; Ralph Jones, Standard, Std Cirrus, 25th; Bill Malpas, Standard, Std Cirrus, 38th. There were 28 Open and 55 Standard Class entries.

C of A's · Repairs · Barograph calibration
Automatic loading lightweight trailers
15 metre E358, 18 metre E408 COMPLETE
WESLEY SAILPLANES
Try our wave site this Winter—our 30 mile ridge includes CROSSFELL at 2,930 ft. A.S.L.
Only 8 miles off the M6 Motorway
Contact:
Jack Ramsden
Telephone 069 76 381 (Works)
Whinny Fell Brampton Cumberland
Telephone 069 76 326 (Airfield)



I've never needed a parachute yet ... but if I did, Sport Para Services could supply it, & offer complete repair & repacking facilities.

We stock a complete selection of glider parachutes, including the GQ719 & 758

SPORT PARA SERVICES

25 Crookham Road · Fleet · Hants · Fleet 3793

EQUIPMENT NEWS

NEW RADIO REPAIR AND OVERHAUL FIRM AT ELSTREE

MCR AVIONICS is a new firm operating at Elstree Aerodrome in overhaul and repair of avionics equipment and has taken over the premises previously occupied by Elstree Avionics. The new company is headed by Terry McMullin as managing director. David Rimmer of Rimmer Aviation Ltd and The London School of Flying Ltd is also a director of the new business.

The firm will have close ties with Rimmer Aviation Maintenance, the aim being to improve the total capability of the group to provide a complete Sales and Engineering service. Arrangements are in hand to secure CAA approval for the new firm as an overhaul organisation, and it is planned to extend this in the future to design approval.

Terry McMullin has had a long association with airborne radio, radar and autopilot systems. For the past four years he was Chief Auto Controls Engineer at Hawker Siddeley Aviation, Hatfield.

In addition to this work, he also designed and is currently producing the TM360 multichannel VHF transmitter-receivers for light and ultra-light aircraft, equipment representing a venture into an area currently dominated by the US manufacturers. It offers an exceptionally good performance with the virtues of low weight, low consumption and low cost, Mr McMullin states, and sets are currently available on rental terms which include free maintenance, thereby offering a complete package service and demonstrating faith in the product.

BRIAN WEARE

Clapper Lane, Honiton
Devon EX14 8QQ

Phone: Honiton 2940

Glider · Motor Glider · C of A's and repairs

TRAILERS

SEEN AT VRSAC

PEEPING into cockpits at Vrsac, Frank Irving spotted an intriguing compass:

"Holighaus' Nimbus was fitted with a very elegant compass, said to be of Swiss origin. The object was to eliminate turning errors, and, moreover, to avoid the errors to which the 'Cook' is prone if the axis of rotation is not truly vertical. The basis is a magnet, pivoted exactly at its centre of gravity and free both in pitch and yaw. It therefore aligns itself with the earth's magnetic field and assumes the local angle of dip. At the north-seeking end of the needle, a fine fibre supports a red bead just below a transparent cover. The latter is spherical, with its centre also at the CG of the needle. When the glider is circling, the red bead describes a circle below the cover, which is engraved with radial bearing lines and circles centred on the 'vertical' axis of the instrument. The attitude of the whole instrument can be adjusted in the roll sense, like a 'Cook', and its axis is truly vertical when the circle described by the bead is concentric with the circles engraved on the cover. The principle is clearly excellent, but obviously depends on achieving a high degree of manufacturing precision. It is not particularly small and the cost is said to be in the region of £50."



Trailer in glass-fibre for the Kestrel, manufactured by Torva Sailplanes Ltd, Westland Road, Park Farm Industrial Estate. Leeds LS11



IRVIN TYPE EB.69 LIGHTWEIGHT PARACHUTE ASSEMBLY

A compact parachute designed for low-profile gliders fitted with moulded reclining seats.

The EB.69 is suitable for Libelle, AS-W.15, Phoebus, Standard Cirrus, Kestrel and Nimbus sailplanes, and certain light aircraft.

For full details write to SERVICE MANAGER:

IRVIN Great Britain Limited
Letchworth
Herts.
Tel. 6262
Telex 82198

IRVIN

THREE COUNTIES AERO CLUB LIMITED

Blackbushe Airport, Camberley, Surrey
(ON A30 TRUNK ROAD — 45 MINS. FROM LONDON)

Special Courses for Glider Pilots to obtain Private Pilot's Licence
Silver C conversion from £62
Normal Courses for Private Pilot's Licence
Night Flying — Instrument Flying — R/T
Frasca Flight Simulator
Board of Trade Approved Courses 35 hours
Residential Courses available
Licensed Bar. Diners Club Credit Cards accepted
Barclaycards accepted

C.F.I. Derek Johnson
YATELEY 3747 (Management) 2152 (Operations)

LETTERS FROM DUNSTABLE

By ROGER BARRETT

By means of which the Championships Director of the Dunstable Nationals tells the Editor what he missed by not being at the London Gliding Club from August 5 to 13 to see the Sport and Club Class pilots battle it out in weather conditions that ranged from the miserable, through the mediocre, to the magnificent.

The LGC Bar, Dunstable
Sunday, August 13, after prize-giving

PS George: Suggest you print this PS first so those who are bored by competitions can skim through it and glance at the results tables at the end before they move hastily on to your Small Ads page.

Well, who would have thought it? Seven days flying out of a possible nine—in August too and in a year that I guess will be labelled in those vintage charts as Disaster. Harry Orme, an RAF Sgt and CFI from Spitalgate, walked away with the Sport Class (gliders handicapped 88-90%) like Jackie Stewart used to win motor races. But the Club Class (handicaps 94-102%) was something different: Capt Leigh Hood and Flt Lt George Lee had both been trying very hard to win all the way through and there was just a little needle in the situation because all the Army and RAF crews were naturally supporting their own man.

This morning Lee, competing in only his second gliding contest ever, was seven points ahead of Hood. Back came a report from the turning point of today's out-and-return race that Hood had rounded 16 minutes ahead of his rival. Just after 5pm Hood was back at Dunstable with no sight or sound of Lee. People who said they had to leave early to take caravans away changed their minds and hung around the finish line radio.

Then at 5.30 Lee called up: "What's the surface wind at Dunstable?". The RAF man sounded close but was giving instructions to his crew that made us think he might not make the finish. It started to rain and the Army contingent were smiling into their binoculars. Lee called up again: "Final gliding". He crossed the line with no trouble at 300ft but Hood's time was good enough to win him the day—and the Championship.

You should have been there, George, instead of going on that boring non-gliding holiday. Then you could have written up the 1972 Dunstable Nationals yourself and I needn't have written you all these letters.

Operations Control
Saturday evening, August 5

Dear George: There are 7 out of 11 Sport Class pins and 14 out of 25 Club Class ones stuck in the "Finished at Swanton Morley" notice on the map so John Delafield, who set the task, is happy: 60% of the field there is fine. Before I go and buy him a beer here's what happened on our first day.

We were opened this morning under grey clouds by a local man who has been on our side in the London club's fight against being closed down by neighbouring Luton Airport: Lord Hill of Luton, now Chairman of the BBC—but I couldn't help remembering him as the war-time Radio Doctor (my God, that dates me).

We hoped to get a task in the small gap Peter Wickham was forecasting between the tailend of one front and the rain advancing across Ireland heralding another. Mindful of landing problems in East Anglian standing corn, John Delafield decided against including a TP in the Club Class task: race to Swanton Morley, 142 roughly downwind kilometres away in Norfolk. The last thing we wanted, on the first day anyhow, was the prospect of poor conditions forcing pilots to land just round the TP because they could not make progress across wind.

The Sport Class was set a cross-wind out-and-return into Leicestershire but

with a fallback task of a race to Swanton Morley via Stradishall (153km). With a latish start and the weather not looking as good as we had hoped we duly fell back, so both classes were pointed in the direction of afternoon tea in Norfolk. And that, thanks to Alf Warminger at Swanton, is what most of 'em got.

Conditions *en route* were not easy because wave had broken up the thermals so they weren't textbook in shape ("Dumb-bell", said David Ince) nor in position under the clouds. Jack Harrison was one of the few to recognise that lee waves were causing the problem, but a lot of good it did him: "I got an eight-knotter, jacked the speed up—and dived straight into the ground!" Doug Bridson, who won the day in the Sport Class, was not getting any lift much better than 3kts and was horrified at the lack of landing fields: "So I pressed on doing a series of final glides from airfield to airfield." Richard Aldous got sunk with only corn beneath him and desperately hung on to some zero sink at 1,000ft waiting for a combine harvester beneath him to cut a strip wide enough to take his 15m Std Cirrus span.

The Caravan
6pm Sunday, August 6

George: The rain's making so much noise on the tin roof I can't hear myself write so you'll have to make do with a postcard today. We set another downwind race to Swanton, this time via alternative TP's, but it was not to be. The sky opened at lunchtime and it's not stopped yet. I told you I reckon August is a crazy month to hold comps and the forecast isn't good for the next few days either. I think we shall be lucky to get five days; John Delafield is saying six. We'll see.

The Scorer's Office
Late Monday night, August 7

Dear George: Forecast wind: SW, 30kts at flying heights with a cloud base of not more than 3,000ft asl.

The tasks were cross-wind races but after John Delafield had snifted in his Kestrel and failed to find anything better than 1 or 2kts he landed. At 1.15pm we re-briefed everyone at the launchpoint in a slight drizzle: race to Ipswich Airport via either Duxford, Royston or Stradishall (about 125km). At 1.45 the first Sport man was off the ground and by 3pm the sky at Dunstable began to look like one of those I always see out of my office window and never through my canopy: 3/8ths of nice, puffy cu.

But on track things weren't quite so easy: "Thermals were difficult to work, very broken and not many of them in some places"—Tom Zealley. Some, like Jack Harrison and Gordon Camp, got north of track and found themselves final-gliding over Ipswich into a sea breeze.

A number of pilots eye-witnessed a jet from Wattisham crash-landing into a fireball. ATC Wattisham warned gliders on 130.4 to keep clear of the area as emergency procedures were being taken. This is giving us a bit of a problem as Bob Smith, who was right in the way and sensibly enough retreated pronto, ended up 20 miles back down track; he chose to land at an airfield rather than risk inhospitable corn. I don't think he should be penalised for this so we are scoring him to a theoretical landing point near Wattisham where he was observed by another competitor.

Only half the Sport Class and a third of the Club pilots made the goal so it goes to show that not all those classic gliding skies share their favours with mere mortals.

The Marquee
Tuesday afternoon, August 8

George: Bit difficult to write this postcard as I'm trying to stop the briefing tent taking off. We've got 60kts at flying



What the Editor missed: George Lee (Club Class 2nd) and Mara Lee

heights and the kids (including John Hands, the Chief Marshal, and I) have been tobogganning across the airfield behind someone's old parachute—great sport. That's all the action to report as we haven't set any tasks today. Delafield's still talking about us getting six contest days; Peter Wickham and I are thinking gloomier thoughts.

The Caravan
Wednesday night, August 9

Dear George: I'm hiding from Robin Harper the Scorer and Frances Furlong the Photochecker 'cos we ended up with an 11-turning point cat's cradle task that means they are going to be working away till the small hours.

We woke to a clear blue sky and a sensible 10kt wind; anticipation filled the air. At briefing a 182km triangle was set for the Club Class and a 253km out-and-return for the Sport pilots.

But it was not to be. By 12.30 top cover was reducing thermal strength to such an extent that we changed the tasks for both Classes to cat's cradle (which John Delafield insists on dignifying with the name "Prescribed Area Distance"). The perimeter of the prescribed area more or less covered the northern-most two-thirds of East Anglia, ie, downwind of Dunstable. The 11 TP's gave the pilots a choice of routes with Swanton Morley as the furthest TP downwind.

The majority of the field zig-zagged their way to Swanton from point to point along the southern edge of the polygon. "The lift was good but the wind strength was up to 30kts so progress upwind was virtually impossible and even cross-wind was difficult"—Tom Zealley, who won the Club Class in his K-6E with a distance of 231km. Jock Wishart managed 203km to win the Sport Class.

Charles Ellis was one of the minority who tried the northern route, via Spalding, to Swanton. He, too, had problems with the wind and at one stage found himself blown out over The Wash. Eventually he landed at Shipdham Airfield, just south of Swanton, giving him third place in the Club Class.

The Met Caravan
8am Thursday, August 10

Dear George: For the first time in this comps, we are pretty certain we can set



Sport Class winner Harry Orme

a closed circuit task with a good chance of getting most of them back at Dunstable for supper. The two meteorological Peters (Wickham and Baylis) are distinctly bright-eyed and bushy tailed this morning. An anticyclone is moving in from the west and, apart from some doubts about the Midlands north of our route, they are confident we shall have good thermals with small cu. So—300+km it is: a 321km triangle up into Leicestershire and down to near Cheltenham for the Club Class and 343km for the Sport boys who will be following the same route but going further north to Bourne for their first TP. That will give East Anglia a rest so Britain's defences can take to the air again without having to search the skies for gliders. Now I'm off to eat my boiled egg before briefing —I'll finish this later.

The Finish Line, 1pm

Wow—summer has come at last! I'm listening out on 130.4 at the finish line and the first leg is obviously a humdinger. David Ince is talking about 8-10kts lift and Doug Bridson has got to Bourne, 103km away, in an hour. We needed a decent race after all the downwind tasks we've been having and it looks as though we're home and dry.

The Finish Line, 5pm

Blast! Strato-cu has spread in from the west and cut off the sun down the second leg. They are landing thick and fast near Stratford-on-Avon. Apparently there are lots of dead areas but occasionally they are finding the odd four-knotter under the clag. I can't see there's a chance of anyone getting back. I'm fed up with gliding, so I'm going off ballooning; operating that burner may get rid of some of my frustration.

The Bar, 11pm

Wrong again—two of them, incredibly, *did* get back. George Lee and Leigh Hood won the Club Class by making Dunstable. They used stubble fires and must have been very patient. I'm cheering up despite discovering that the Sport Class all landed out (Jack Harrison made best distance, 248km). A nice story going round the bar: Roy Gaunt, Richard Aldous and Don Hanson all landed in the same tiny grass field in the Cotswolds. They were muttering together about Met men and tasksetters when their deadly rival, Chris Day, appeared overhead struggling at 1,000ft. Psychological warfare was obviously called for: while the other two dragged the gliders to a corner of the field to make enough landing room, Aldous tempts Day down with plenty of chat about how he's plainly not going up despite the circles he's throwing, and how terrible the fields are further on. Day wins out, though, as the clag parts and he goes on—to finish third.

The Met Caravan
8am Friday, August 11

Dear George: After four days the Club Class is getting quite interesting with Hood ahead of Lee by just four points and Hamish Brown not far behind. Harry Orme is five points ahead of Doug Bridson in the Sport.

John Delafield and I are determined that we shall learn from yesterday's mistake. The forecast is almost the same again with the possibility of some cu spreading out cutting off convection—so we're playing it safe (I hope!). For the first time ever in British comps (and perhaps anywhere) we are setting a triangle and giving the pilots a choice of an alternative TP after they've rounded the first. The idea is that by then the cu may have spread out over one point but not the other so we'll still get them back to Dunstable. John's making it about 190km for the Club and 220km for the Sport. I'm relieved that we're not risking the big time again—and so are the Met men! To make it a decent Nationals we really must have a good closed circuit day. I'm keeping all fingers crossed. More later.



Club Class winner Leigh Hood

The Finish Line, 3.30pm

Success! They are all roaring home, spraying their water ballast over us as they finish. Leigh Hood was first back at ten to three so it looks as though we've underset. Never mind, at least we've got a respectable Nationals whatever happens now. John Delafield couldn't resist rigging his Kestrel 19 and going round the task he set. He's just done 220km at 98km/h which would have been a new British 200km record if only we had managed to make the triangle a 28% one. The trouble was fitting that shape in between all the airspace hazards we've got. Steve White had a go at the record, outside the comps, by flying a 28% 200km triangle and he beat it—but the margin wasn't great enough for it to count.

The Bar, 11.30pm

The chat in the bar is still going on: "It was almost South African at times" (John Delafield); "Best day for gliding I've ever had in the UK" (Gordon Camp and John Jeffries agreeing with him).

Most pilots worked the band from 3,000-5,500ft and they found excellent, consistent thermals up to 9kts. David Ince won the Club Class in the new BG-135 (102% handicap) probably because he sensibly hung around and did not cross the startline till 12.30pm. Jack Harrison and Jock Wishart were having their own private battle in the Sport Class and Jack just pipped the Scot by 1.6km/h.

Talking of Mr Harrison, who you'll remember got the BGA to accept the new place scoring system for Nationals. Well, I'm giving him a special prize at

briefing tomorrow: the most garish tie we can find at Woolworths to celebrate the most ties we have ever had on one day—20 out of 34 came equal with at least one other pilot. Somebody must do something about it!

The Marquee
10am Saturday, August 12

Dear Geo: Tom Zealley has just chaired one of those discussions on the future of comps like the one they had at Shobdon, and no doubt like the ones we are going to have at every Nationals henceforward. For the record the Sport/Club pilots here wanted: (a) handicapped Nationals classes to continue (33 for, 4 against); (b) 80 pilots in Nationals, not 65 (24 for, 9 against); (c) *Daily Telegraph* money to be spent on sponsoring foreign pilots to attend a British Nationals Class comps in 1973 rather than having another, separate "Super-Nationals" (18 for, 14 against); (d) a two-week National Class comps in 1973 (26 for, 8 against). So much for democracy.

The Launchpoint, 12.30pm

I thought I had been getting away with it rather too easily. Some comps directors do a lot of the work themselves; some delegate so completely that all they have left to do is to chat up the occasional VIP guest. I come somewhere in the middle I suppose and till today I must admit I've been having an easy ride.

The first drama was when I altered the dropping zone from the one announced at briefing so pilots would have a better chance of arriving at the start line at a reasonable height. It meant a different "gate" and starts would be made crossing the line in the reverse direction to that briefed so I made sure every competitor got the message. The only trouble was—I forgot to tell the start line observers about the change. Thanks to Tim Newport-Peace's tape recording of the radio chatter we managed to sort things out afterwards and the pilots who suffered the confusion were kind enough not to complain too much. Bad enough—but I've just run into more trouble.

The Club Class are all away on their task: race to RAF Spitalgate in Lincolnshire via Market Harborough or Pitsford (approx. 123km). The Sport pilots are going to the same goal but on a longer track (159km) via Markfield. We had been warned at briefing about a thundery low over France and the possibility of it advancing from the south later this afternoon. The wind is fresh and easterly which is a problem at Dunstable: gliders take off pointing straight at the hill.



The cover of a short history of the London Gliding Club (25p from LGC, proceeds to British team fund) bearing the autographs of the Class winners and those of various of the organisers (Courtesy Robin Harper, scorer)

When we came to the 11 Sport Class machines we had, for safety reasons, to rely on the two most efficient tug aircraft we had got as they stood the best chance of coping with the downdraught. That meant a delay in launching for the back-markers. It would not have mattered too much but the sky has changed very rapidly from 4/8ths cu to 8/8ths alto cu. France's bad breath has advanced on us much sooner than we anticipated. Five Sport gliders have got away and now the remainder of the field have decided to opt out of the designated start because it appears to them the task is not going to be fair for everyone.

"So be it," I've told them, "we will standby to launch you if you change your minds but the task is still definitely ON so far as I am concerned." Now,

15 minutes later, Ron Cousins has asked for a launch; the rest are hastily lining up to follow him.

Saturday night

Three pilots (Bridson, Hanson and Smith) did not manage to get away from the site but, fortunately for the Organisation, Harry Orme, last of all to launch, not only stayed airborne but actually got to Spitalgate. The rebels had lost their cause.

The task was not far wrong as it turned out; only four Club and five Sport pilots did not reach the goal. A number of competitors found as much as 8kts under the medium cloud layer, but you needed to stand on your wingtips to stay in the cores.

Pilots generally are a more militant lot now than in the old League 1/League 2 days; there was evidence of this at Shobdon too. I'm all in favour—though if they are going to throw the Trade Descriptions Act at Organisers when the weather doesn't live up to the forecast it could just be that champs Directors might have an ally in the new Industrial Relations Court!

In fact I think this new militancy is something we could have anticipated. To get more people interested in taking on the job, the BGA has quite deliberately encouraged tasksetters to take the mystery out of their decision-making. Now comps organisers must be prepared to explain their thinking to pilots and they must expect to get more criticism. It's usually good-humoured and constructive, and really we ought not to mind—provided we've done our homework and our decisions are more often right than wrong.

Now I'm off to the end-of-comps party Barbara Deans has arranged. Sounds as though the real life musicians are trying to keep the inhabitants of Whipsnade Zoo awake—and they are two miles away. And I've got to be up for a task briefing before 8am tomorrow; I have to keep telling myself I'm on holiday.

The Marquee
Sunday afternoon, August 13

Dear George: As Gordon Camp just remarked after finishing: "It was hell; never fly a task after a party." But they all did and a real Nationals task it was too: 144 sweaty kilometres out-and-return via Husbands Bosworth for both classes on the kind of day when you set your speed-to-fly ring at 1½ or 2kts. The task track was sandwiched between an area of layer cloud over Wales and another covering East Anglia; mainly blue thermals were forecast. On the last day we always try to set a closed circuit task with one TP at an airfield so we can get an observer in and out by air. Then we don't need to use photographic evidence so the prizegiving isn't held up while photos are processed and checked. HB was ideal for what we wanted.

Harry Orme, leading the Sport Class this morning by a comfortable 21 points, was an early starter. He planned to round the TP before most other gliders so he could use them as thermal markers on his way back to Dunstable. Thermals weren't at all consistent: 1 or 2kts, the occasional 4-6kts and one bonfire that gave Richard Aldous (2nd in the Sport Class today) 9kts. Not so bad if you could stay high but most pilots got lows of 1,000ft or so. Tom Zealley (K-6E) found himself short of the TP sharing a thermal with two other gliders above him. They called up their crews in turn:

264 (at the top of the stack): "May land at Hus Bos"

29 (the meat in the sandwich): "Will land at Hus Bos"

22: "Will land short of Hus Bos"

But Zealley got away from 800ft and finished 2nd in the Club Class.

Meanwhile John Jeffries had landed



An awful premonition? Photo of John Jeffries taken by David Toulson the day before David's tête á tête with a bull

the Dunstable-based K-13 in a field near Cranfield and had gone off to telephone. David Toulson, his P2 pilot left in charge of the glider, soon realised he was not alone. A hefty bull seemed to regard David as some kind of rival and advanced. Toulson tried to defend the glider but when blood had been drawn, and it wasn't the bull's, he decided there was a limit to a P2's responsibilities. Left to himself the bull gored £100-worth of holes in one of the wings.

So there it is. We've ended up with six downwind races, six closed circuit races (four of which came off from my point of view) and two distance tasks. Fourteen contests flown in I suppose as typical a nine days of British weather as you are likely to find and which, by general consent, produced two worthy champions. We tried out a new idea (alternative TP on a triangle task) that I think you'll be hearing more about and we were possibly more flexible than any previous comps organisation has been in altering tasks and other arrangements as weather conditions changed. This brought problems, not all of which we solved satisfactorily, but I suspect this flexibility is something we shall have to learn to live with in the future.

Now Tony Deane-Drummond is handing over the pots and I'm handing over my hot seat to him for *The Daily Telegraph* Comp which he is directing here in a week's time. If his helpers are as willing and efficient as mine and his pilots and crews are half as friendly and forbearing as this crowd have been he'll enjoy himself.

Yours aye,
ROGER BARRETT

Final results Club *Pilot*	*H'cap* %	*Sailplane*	5.8 46	7.8 40	9.8 44	10.8 42	11.8 42	12.8 39	13.8 39	*Total Points*
1 Hood, L. S.	94	K-6E	39	35	41	42	38	32	39	266
2 Lee, D. G.	94	K-6E	44	23	44	42	42	39	23	257
3 Brown, H. F.	100	Skylark 3B	46	28	37	36	30	31	31	239
4 Zealley, T. S.	94	K-6E	40	8	46	30	38	36	37	235
5 Camp, G.	100	K-6CR	34	30	20	36	26	28	35	209
6 McLuckie, R.	94	K-6E	7	40	34	21	27	31	36	196
7 Ellis, C. A. P.	100	Skylark 3	39	16	41	12	34	26	10	178
8 Ince, D. H. G.	102	BG-135	23	0	32	39	42	26	11	173
9 Hogg, A. J.	96	Olympia 419	30	20	33	16	27	22	23	171
10 Vennard, D.	94	K-6E	34	33	14	2	26	22	33	164
11 Jeffries, J. R.	102	ASK-13	18	24	25	26	38	5	16	152
12 Cooper, R. H.	94	K-6E	0	29	27	8	25	22	35	146
13 Oulds, T.	94	K-6E	28	10	9	21	15	22	33	138
14 Foot, C. C.	96	Olympia 419	11	37	32	33	0	18	4	135
15 Farmer, A. T.	94	K-6E	36	5	4	30	10	22	27	134
16 St. Pierre, A.	102	ASK-13	12	13	32	23	25	8	19	132
17 Cockburn, D.	94	K-6E	2	40	2	21	38	17	2	122
18=Smith, G. E. M.	94	K-6E	26	0	18	15	17	10	32	118
18=Lombard, W. C.	94	K-6E	23	0	6	20	17	36	16	118
20 Gill, C. J.	94	K-6E	20	15	21	21	21	14	DNF	112
21 Graham, J.	102	Olympia 463	11	21	20	20	10	18	11	111
22 Wynch, J. W.	100	K-6CR	4	2	13	8	6	22	35	90
23 Cook, P. G.	102	Olympia 463	12	0	31	8	3	13	11	78
24 Simms, J.	100	K-6CR	7	16	9	16	11	2	13	74
25 Ramsden, P.	100	Skylark 3B	14	5	20	4	3	5	10	61

Final results Sport *Pilot*	*H'cap* %	*Sailplane*	5.8 22	7.8 20	9.8 21	10.8 21	11.8 18	12.8 16	13.8 20	*Total Points*
1 Orme, H.	88	Std Cirrus	20	12	18	18	18	13	20	119
2 Cousins, R.	88	Std Libelle	8	16	21	8	12	11	10	86
3=Wishart, J.	88	Std Cirrus	13	20	21	6	11	7	2	80
3=Day, C. G.	90	Dart 17-R	16	7	10	18	12	2	15	80
5 Harrison, K. A.	88	Cobra 15	2	14	13	21	12	4	13	79
6=Bridson, D. S.	88	Std Cirrus	22	18	13	10	7	0	8	78
6=Gaunt, T. R. F.	88	Std Libelle	6	4	6	14	16	16	16	78
8 Aldous, R. F.	88	Std Cirrus	4	10	4	14	DNF	12	17	61
9 Hanson, D. F.	88	ASW-15	17	1	2	14	12	0	6	52
10 Smith, R. J.	88	ASW-15	14	7	16	4	2	0	DNF	43
11 Manley, N. K.	88	Std Libelle	10	0	8	2	4	6	4	34

SPORT CLASS TASKS

August 5: 153km triangle via Stradishall and Swanton Morley, winner D. Bridson, Std Cirrus, 62.3km/h.

August 7: race to Ipswich via either Royston (125.5km), Duxford (127.5km) or Stradishall (128km), winner J. Wishart, Std Cirrus, 63.7km/h.

August 9: prescribed area distance via 11 turning points in East Anglia, max leg length 142km, winner J. Wishart, Std Cirrus, 203.5km.

August 10: 343.5km triangle via Bourne and Winchcombe, winning distance 248km by K. Harrison, Cobra 15.

August 11: triangle via Silverstone then either Newmarket (total distance 219km) or Stradishall (226km), winner H. Orme, Std Cirrus, 70.2km/h.

August 12: 159km race to Spitalgate via Markfield, winner T. Gaunt, Std Libelle, 50.8km/h.

August 13: 144km out-and-return via Husbands Bosworth, winner H. Orme, Std Cirrus, 47.8km/h.

CLUB CLASS TASKS

August 5: 142km race to Swanton Morley, winner H. Brown, Skylark 3B, 78.5km/h.

August 7: race to Ipswich via either Royston (125.5km), Duxford (127.5km) or Stradishall (128km), winner R. McLuckie, K-6E, 71 km/h.

August 9: prescribed area distance via 11 turning points in East Anglia, max leg length 142km, winner T. Zealley, K-6E, 231.7km.

August 10: 321km triangle via Melton Mowbray and Winchcombe, winner D. Lee, K-6E, 44km/h.

August 11: triangle via Olney, then either Newmarket (total distance 180.5km) or Stradishall (197km), winner D. Lee, K-6E, 75.2km/h.

August 12: race to Spitalgate via either Market Harborough (124.5km) or Pitsford (122km), winner D. Lee, K-6E, 74.8.

August 13: 144km out-and-return via Husbands Bosworth, winner L. Hood, K-6E, 43km/h.

Note: all speeds and distances handicapped.

ARMY PILOT TOPS LASHAM COMPS

ARMY pilot Leigh Hood hit the winning streak which culminated in his Club Class Nationals victory by taking the Lasham Regionals at the end of July. Flying a K-6E, he flew consistently well throughout the eight contest days to lead William Kronfeld (Dart 17R) by 14 points. There were 26 competing gliders ranging from the Cirrus to a Kranich which, unfortunately, did not compete on the last day due to an accident. Tasks:

Saturday, July 22: 109km triangle via Stockbridge and Hungerford.

Sunday, July 23: 119km triangle via

LASHAM REGIONALS

Final results *Pilot(s)*	*H'cap* %	*Sailplane*	22.7	23.7	24.7	25.7	26.7	27.7	28.7	29.7	*Total Points*
1 Hood, L.	94	K-6E	25	37	32	36	44	37	37	44	292
2 Kronfeld, W.	90	Dart 17R	25	33	34	42	44	26	32	42	278
3 Rouse, J. E.	98	Dart 15	—	35	—	33	—	33	—	37	241
Beer, L.			12	—	28	—	36	—	37	—	
4=Goodwin, R.	84	Cirrus	—	—	16	21	—	12	—	13	201
Meddings, E.			29	33	—	—	40	—	37	—	
4=Vann, E.	94	K-6E	19	16	28	34	31	28	38	8	201
6 Nicholas, R.	88	Phoebus C	29	2	22	28	31	12	27	37	187
7 Cousins, R.	88	Std Libelle	6	19	28	33	40	5	18	33	182
8 Cranfield, N.	98	Skylark 4	19	7	24	27	31	16	15	29	168
9 Keogh, B.	94	K-6E	25	23	1	8	31	16	30	33	167
10 Jerzycki, E.	88	Std Cirrus	12	29	11	34	27	32	—	—	146
11 Krzystek, T.	98	Pirat	4	23	0	24	15	32	7	21	126
12 Davis, P.	100	Skylark 3F	10	—	12	—	18	—	22	—	125
Biggs, R.			—	0	—	16	—	27	—	20	
13 Marlow T.	94	K-6E	4	23	5	29	23	7	13	19	123
14 Stewart, S. A.	94	K-6E	4	10	17	39	9	37	—	6	122
15 Cole, R. T.	88	Std Libelle	12	—	30	—	27	—	20	—	118
Horne, P. R.			—	0	—	7	—	19	—	3	
16=Gordon, I.	124	Kranich	0	27	19	22	21	27	0	—	116
16=Taylor, J.	94	K-6E	—	0	—	0	—	2	—	3	116
Loewenstein, P.			23	—	15	—	40	—	33	—	
18 West, D.	98	Skylark 4	0	—	0	—	2	—	7	—	97
Walker, D.			—	13	—	12	—	23	—	40	
19 Cochrane, J.	88	Std Libelle	12	0	7	17	27	12	4	16	95
20 Martin, J.	96	Olympia 419	15	13	0	1	5	0	18	29	81
21 Collins, J.	90	Dart 17R	—	19	—	4	—	12	2	25	77
Morgan, B.			0	—	6	—	9	—	—	—	
22 Clutterbuck, A.	100	K-6CR	0	0	0	0	18	11	20	25	74
Gadsden, C.			—	—	—	—	—	—	—	—	
23 Burne, A. J.	90	Dart 17R	12	—	0	—	13	12	—	—	73
Buckley, Philippa			—	0	—	—	—	—	26	10	
24 Walker, R.	110	K-13	0	0	—	10	9	25	10	13	67
Hall, E.			—	—	0	—	—	—	—	—	
25 Hayes, T.	88	Cobra 15	0	3	6	23	5	—	—	—	37
26 Trenchard, J.	84	SHK	4	6	—	16	—	—	—	—	26

Pewsey railway station and Newbury racecourse.

Monday, July 24: Out-and-return with alternative turning points at Compton Abbas (164km), Trowbridge (167km) and South Cerney (167km).

Tuesday, July 25: 102km triangle via Ramsbury and Newbury racecourse.

Wednesday, July 26: 164km out-and-return via Compton Abbas.

Thursday, July 27: Goal race to North Hill (164km); overflying to attempt Gold C to Perranporth permitted.

Friday, July 28: Goal race to North Hill (164km).

Saturday, July 29: 302km triangle via Alderbury Railway junction and Olney.

KESTREL WINS AT COMPTON ABBAS

BARRY ATKINSON (Kestrel 19) won the Dorset Regionals in a closely-fought contest in which Ray Foot (Nimbus 2) and Joe Przewlocki (Std Cirrus) came second and third respectively. Seven consecutive contest days were flown at Compton Abbas during the contest period, July 8 to 16. Thirty gliders ranging from the Nimbus 2 to Capstans, Eagles and the new BG-135 participated. The tasks were:

Sunday, July 9: 96km triangle via Longleat House and Boscombe Down.

Monday, July 10: 120km dog-leg race to Lasham via Chilbolton airfield and Goodwood racecourse.

Tuesday, July 11: 114km dog-leg race to Lasham via Chilbolton and Newbury.

Wednesday, July 12: 234.5km triangle via Nympsfield and Newbury racecourse.

Thursday, July 13: 200.4km dog-leg race to Inkpen via Chilbolton and Thame airfield.

Friday, July 14: 233km triangle via Lasham and Bath racecourse.

Saturday, July 15: 83km goal race to North Hill.

DORSET REGIONALS

Final results Pilot(s)	*H'cap* %	*Sailplane*	9.7 26	10.7 43	11.7 55	12.7 46	13.7 44	14.7 47	15.7 43	*Total Points*
1 Atkinson, B.	74	Kestrel 19	22	23	45	44	41	39	43	257
2 Foot, R. A.	72	Nimbus 2	26	32	50	4	44	47	42	245
3 Przewlocki, J.	88	Std Cirrus	19	7	55	42	37	41	35	236
4 Trenchard, P.	84	SHK-1	11	13	48	18	44	35	41	210
5 Lysakowski, E.	88	Cobra 15	6	33	34	23	37	39	31	203
6 Feakes, R.	74	Kestrel 19	0	11	35	46	26	43	36	200
7 Paul, I.	88	Std Cirrus	0	37	45	13	37	33	29	194
8 Wood, R. A.	90	Dart 17R	26	28	34	26	23	29	27	193
9 Davies, W.	84	Cirrus	10	25	39	12	29	—	—	181
Meddings, E.			—	—	—	—	—	43	23	
10 Tull, V.	80	Diamant 18	10	36	40	14	33	24	20	177
11 Ince, D. H. G.	102	BG-135	15	19	46	38	13	29	10	170
12 Duthy-James, C.	100	Skylark 3	0	43	21	25	23	26	14	152
13 Partridge, Rhoda	88	Std Cirrus	—	—	—	5	4	11	10	147
Von Gwinner, O.			26	40	51	—	—	—	—	
14 Willbie, R.	98	Skylark 4	19	35	8	22	10	16	34	144
15 Watson, B.	88	Std Libelle	—	—	—	23	14	—	—	139
Watson, Patricia			0	36	26	—	—	26	14	
16 Rouse, J. E.	98	Dart 15	3	17	30	35	19	16	0	120
17 Duffin, E. R.	88	Std Cirrus	—	19	4	—	2	—	29	114
Shattock, I.			14	—	—	28	—	18	—	
18 Gardiner, K.	94	K-6E	0	—	17	—	29	—	21	111
Ballard, I.			—	7	—	26	—	11	—	
19 Thompson, P. B. E.	100	Skylark 3	0	—	43	—	23	—	40	106
Cowburn, M.			—	0	—	0	—	0	—	
20 Harrington, T.	88	ASW-15	0	11	2	22	22	34	6	97
21 Howard, D.	94	K-6E	3	23	24	8	15	13	10	96
22 Adams, A. B.	94	K-6E	0	0	17	31	8	13	22	91
23 Treadaway, P.	110	K-13	0	28	30	0	0	7	10	75
24 Linnee, A. & T.	110	T-42 Eagle	0	0	30	0	22	3	4	59
25 Butcher, F.	98	Skylark 4	0	0	12	13	8	7	15	55
26 Lucksford, R.	114	T-49 Capstan	0	3	8	38	0	3	2	54
27 Osborne, P.	88	Std Cirrus	0	25	21	0	—	—	—	46
Macklin, J.			—	—	—	—	0	0	0	
28 Lewington, S. R.	94	K-6E	0	3	8	31	0	0	0	42
29 Lawrence, G.	114	T-49 Capstan	0	0	0	38	0	0	0	38
30 Johnson, D.	88	Std Libelle	0	0	14	5	0	0	0	19

SCHEIBE TANDEM



Two seater L/D 27:1. 60 hp Limbach motor with electric starter and feathering propeller. Winner two seater class 3rd German Motor Glider competition. Demonstration arranged at your site without obligation.

Also single seater class winner SF-27M with 15m (Standard Class) or 18m (Cirrus) wings. Retractable engine. L/D 34 and 38 to 1.

CRYSTAL ENGINEERING LTD., 13 Pound Crescent, Marlow, Bucks. Telephone Marlow 5740 (automatic answering service)

PETER JEFFERS BERT PAGE PETER ROSS

SOUTHDOWN AERO SERVICES LIMITED

offers YOU a complete gliding service whether your sailplane is made of wood, metal or glass-fibre.

Big stock of aircraft ply, instruments, aero-tow rope, etc., etc.

Send s.a.e. for price list.

Call in, write or phone—

KEN FRIPP,
SOUTHDOWN AERO SERVICES LIMITED,
LASHAM AIRFIELD, ALTON, HAMPSHIRE.
Telephone: Herriard 359 or 025 683 359

Stockists for all PZL Instruments and Equipment

Agents for Slingsby Sailplanes Ltd.

COBRA 15

Order now for 1972



COBRA 15 15M Sailplane 2nd and 3rd in World Championships 1970 1:38 glide angle. Price, delivered Booker Airfield, Marlow, Bucks., with full set of instruments excluding altimeter, £3,078. Delivery 6-7 weeks.
Demonstrations now available. Write for details.

PIRAT 15M Sailplane 1:33.2 glide angle. Price (delivered Booker Airfield) £2,140.

BOCIAN IE Two-seater. Price (delivered Booker Airfield) £2,390.

All prices include full set of instruments, excluding altimeter. Delivery 5-7 weeks.

Trailers from £350 available (low profile)

Polish Tug Aircraft **WILGA 35**. Very short take-off and landing capabilities. Price on application. Delivery 4 weeks.

Full range of PZL instruments in stock

For full details contact John Strugnell at:

Daltrade Ltd., 110, Cannon Street, London, E.C.4

Telephone 01-623 5464 or evenings Bourne End 23458

Sole exporters—Pezetel, ul. Przemyslowa 26, Warsaw, Poland

OBITUARIES

WOLFRAM MIX

BY this date, most of his many friends in the Canadian and International Gliding fraternity will know that Wolfram Mix died as a result of a freak landing accident, which occurred while he was flying in the World Gliding Championships at Vrsac.

He was 47 years old and was a very experienced pilot with well over a thousand hours in gliders and an equal amount in power aircraft. He started gliding in 1941 in Germany and his early flying career included operations in such aircraft as the ME-109.

Wolf occupied a prominent position in the Canadian gliding movement. For many years he was active as a director, or as a member of various committees of the Soaring Association of Canada. Until last year, he was a leading member of the Southern Ontario Soaring Association and during his early years with this club, he was instrumental in making it into one of the largest in North America.

Wolf's primary interest was in the technical and competitive side of the gliding movement and his contest prowess is recorded on three winner's plaques on the Canadian National Championship trophy. His fourth placing in the Standard Class at Marfa showed his real ability in International Competition and he has represented Canada at four World Gliding Championships.



Wolf Mix

His business affairs took him to many different places and countries and, in recent years, limited the amount of time that he had available for flying. He was also obliged to resettle in the USA during the past year, but he kept in touch with events in Canada and was selected to fly at Vrsac as No 1 pilot for the Canadian team.

Wolf was a quiet, thoughtful and friendly person with a well developed sense of humour. He was liked and respected by all who knew him, and we in Canada in particular, will feel the loss of his talents and congenial personality very much. To his wife Margo, and his son Peter, we extend our deepest sympathy.

D. B. WEBB

He was buried in his home town of Bochum, West Germany, on August 2.

J. V. (JACK) RUSHTON

ALL of the gliding fraternity, particularly those who were active in pre-war days, will be deeply grieved to hear of the death of Jack Rushton in Jersey on August 12 at the age of 76. His flying dates back to 1929 when, while training for his power "A" licence, he was also busy building a training glider around a pair of Avro 504K wings. He obtained the licence early in 1930 and put in many hours, including some hill soaring, in his Klemm L-25 aircraft.

His soaring in this aeroplane led to his great interest in gliding and, during 1930, he was the leading spirit in the formation of the original Midland Gliding Club centred at Wolverhampton which commenced operations with his home built trainer. Later, a Zögling was acquired and a great deal of primary training was carried out with these two trainers. In the course of time, interest waned due to the limitations of the site at Pattingham and insufficient support could be found to acquire a suitable hill site to provide soaring. In 1934, the present Midland Gliding Club was founded under the leadership of the late C. Espin Hardwick and, when the Long Mynd site was acquired in 1935, Jack very soon joined, quickly proved his worth and became one of the club's most enthusiastic and active members and later Chief Instructor.

As a private owner he belonged to a syndicate owning the "Professor" and, later, a Slingsby Gull. Having completed the duration leg towards his Silver C in July, 1937, he flew the height and distance legs during the National Competitions at Camphill in September 1937 when he flew a Grunau Baby a distance of 76 miles at an average speed of 65.5mph which was very good going for an intermediate sailplane of that period.

In August 1938, Jack suffered serious injuries while being launched in a Falcon III. His injuries kept him grounded until civilian gliding ceased in 1939. In 1941 he became a Flight Lieutenant in the Air Training Corps and was appointed Chief Instructor for the 10 Counties in the Midland Region. After the War, apart from taking part in the Competitions at Bramcote (about 1947), he returned to power flying and owned several aircraft and continued regular flying until the mid-1950's.

He leaves a widow and two sons to whom all will wish to convey their deepest sympathy. Both sons became glider pilots. The elder son, John, was at Slingsby's for 18 years and his younger son, Alan, is now Chief Pilot of a small air line operating in the West Indies.

B.H.T.O.

BOOK REVIEWS

On Quiet Wings: A Soaring Anthology. Edited by JOSEPH COLVILLE LINCOLN. Published by Northland Press, Flagstaff, Arizona. Price $30.00.

THIS is a magnificent collection of about 90 articles by nearly 70 authors, most of them well-known in the world of soaring. They are grouped in sections: "Mythology and history" begins with Daedalus; then comes "Sunday soaring", "Scientific background", "The glider goes to war" (including that built by prisoners at Colditz), "Duration soaring", "Cross-country", "Record flying" and finally "The crash" (four articles, including Bill Ivans's experience in the French mountains in 1956).

British authors are Charles Darwin (on condors and gossamer spiders), Nicholas Goodhart, Terence Horsley and Philip Wills, whose chapter "The dead end of the Maloja Wind" from his book is described by Mr Lincoln as "the greatest passage on soaring flight in the English language".

This is the sort of volume known as a "source book", and it includes two scientific articles which might otherwise be lost to posterity: By E. C. Huffaker, who was convinced that birds can start thermals by stirring the lower air, and by A. H. Woodcock on thermals over the sea. The book includes numerous photographs.

A. E. SLATER

Private Pilot Studies. By S. E. T. TAYLOR and H. A. PARMAR. Published by P. & A. D. Poyser Ltd, 281 High Street, Berkhamsted, Herts. Price £3.00.

THIS book is directed at the student pilot who is hoping to get his PPL, and it contains more or less everything that he will be required to know. It is a mine of information, and is presented in a most readable way.

From the point of view of the glider pilot, some of the information is naturally irrelevant, but nevertheless the sections on Air Law, Meteorology, Navigation, and the Principles of Flight will be found most useful.

Inevitably there are a few points on which I must take issue with the authors. On page 25, when discussing Position Error, the impression is given that pressure head or pitot pipe is the real cause of this trouble and no mention seems to be made of the static pipe, which is the real culprit. Also, on page 132, when discussing spin recovery procedure the statement is made that "Pushing the stick forward and apply-

ing opposite rudder will unstall the inner wing and restore control". On a number of aircraft this will do nothing of the sort, since it is the exact opposite of the standard recovery procedure of "full opposite rudder, slight pause, and then move the stick steadily forward until the rotation ceases". On page 147, Fig 10.4 "the exhaust stroke", the figure is clear enough, but the chap who assembled this engine managed to get the connecting rod fastened to the main bearing!

The book is written in a delightfully racy fashion and the facts are put across in such a way that they do tend to stick in the memory. For instance, never as long as I live will I fail to ensure that any of my lady passengers who are wearing steel chastity belts do not sit next to the magnetic compass!

The glider pilot studying for the Bronze C will find much in this book of use to him, and he will learn his lessons with many a chuckle. It is good value for its fun aspect alone.

R.C.S.A.

CORRESPONDENCE

MOTOR GLIDERS

Dear Sir,

May I without being bumptious write to congratulate both Ann Welch and I. W. Strachan on their articles on motor gliders in the August/September *Sailplane & Gliding* magazine?

Some five to eight years ago when I first took an interest in gliding at *ab initio* level, the mention of a motorized glider caused most of the senior members to fall on their backs frothing in a fit. It reminded me very strongly of the attitude of the senior rockclimbers in my rockclimbing days of the twenties whenever a piton was mentioned. (The fact that the judiciously placed nail at the foot of one of the great climbs was the only reason that it could be made—I think on Scaw Fell—was never mentioned.) Today many of the great climbs depend entirely upon the judicious use of pitons.

In the same way I am sure that when glider manufacturers wake up to the production of a machine such as Strachan describes, gliding will take on an entirely new look; expensive retrieves, and damaging land-outs, will be reduced and more people will get more gliding.

With regard to the use of motor in gliding competitions I would like to ask Ann Welch if an unpenalised allowance of "x" thousand feet during a task has been tried? This seems to me to equate with the standard procedure of aerotow or winch launching in competitions to "x" thousand feet. It eliminates the problems of petrol consumption and climbing speed with the different breeds of glider, and leaves the use of his motor very much to the judgment of the pilot and his second. I would personally very strongly vote for the development of the two-seater motorized high performance glider.

Derby.

RANDLE LUNT

GLIDER PRICES

Dear Sir,

It is with disappointment that I write to you. I refer of course to the announcement within your pages of the August/September issue of the production of the BG-135 (Gipsy 12/15; BG100). The blow by blow story has interested myself and a number of my gliding companions.

May I refer to S&G, August 1969, p267 and an article entitled "The Gipsy 12/15 —a new, efficient and low cost Standard/Sports Class sailplane". It did the soul good to read the conclusion of that article:

"Gipsy 12 is meant to bring to the gliding world what the racing dinghy brought to the yachting world and what the mini car brought to the motoring world".

In fact throughout all of the reports printed in S&G a low cost sailplane was I believe envisaged for the mass of gliding enthusiasts. At £2,300 plus £300 for a trailer, who is kidding who?

Hemingford Grey, Hants. J. C. DAVIES

THE VOLUBLE MINORITY

Dear Sir,

Without wishing to be accused of a personal attack on Ian Strachan or anyone else, I must take exception to his "Plea for series production of a sophisticated single-seat motor glider" in the last issue (S&G August, p323).

Glider manufacture is difficult enough by any standards. The requirement is to produce an aircraft of 50ft span (or more) with the surface accuracy of a wind tunnel model, the weight of a 500cc motorcycle, and the price of a two-litre car, for a market of around 50 a year.

Gliders are only produced at all because a handful of people are interested enough in the problem to risk (or in some cases achieve) bankruptcy in search of a solution. In this situation it behoves the customer to be a little more thankful for what he gets, instead of emulating Oliver Twist's "Please, Sir, may I have some more".

The present appalling rise in the price of new gliders is directly attributable to the voluble minority who want (ie, think they need) retractable undercarriages, camber flaps, landing flaps, and now retractable engines. Whilst the basic structure, with all the aerodynamic refinements of the last decade, is as cheap in real terms as it ever was, the product is priced out of most peoples' reach by additional features instigated by the voluble minority.

Equally to blame are the managements of glider firms who give way to such demands without regard to their technical and economic feasibility. What both fail to realise is that a gadget which Fords would make for 10p every 10 seconds costs the glider manufacturer more like £10.

Good, inexpensive and safe gliders can only come about through the sort of continuity of design and production which has been sadly lacking in this country since the mid-'sixties. If Mr Strachan and others were to shelve their demands for about ten years, an economically viable glider industry might then arise, which would be willing and able to produce his sophisticated single-seat motor glider without rupturing itself in the process.

I would add that the above views are entirely my own, since I now have no connection with any UK glider manufacturer.

Scarborough, Yorks. J. L. SELLARS

POLAROID THERMAL SPOTTERS

Dear Sir,

In reply to Wally Kahn's request for opinions, facts and lore concerning "seeing" thermals with the assistance of polaroids, herewith some lore:

1) Green polaroids are least effective, followed by neutral grey.
2) Brown polaroids are better.
3) Further improvement is obtained by wearing sodium yellow ski goggles over brown polaroids.

And some opinions:

1) The ideal colour for polaroids is sodium yellow; it is best for dazzling snow or cloudscapes but also best for dim light and even night driving and at all times enhances visual acuity and contrast.
2) It is desirable to have full cover without any unfiltered light reaching the eye. The best ski goggles seen so far in this respect are the French QUATRAS Lunettes de Ski by Cébé Morez (Jura) with adjustable ventilation. These are suitable for wear over spectacles and can be obtained from Lillywhites Ltd.

A flexible yellow polaroid sheet 7½in. x 4in. could be shaped to fit these excellent goggles provided that the sheet could be given a permanent fold on each side 5½in. apart.

3) For general use spectacle wearers would prefer yellow polaroid clip-ons and non-spectacle users the largest possible "wrap-round" glasses.

4) Rotatable polaroids permitting optimum alignment are desirable for use in the air as it is undesirable to tilt ones head. Dennis Searle of South Croydon manufactured these a decade ago. In 1956 I modified US Army goggles, variable density Stock No 74-G-79-40 by removing one set of polaroids and adding bowden cable controls for rotation which enabled the eye to spot all polarising areas by "flicker" recognition. They were very effective but unsuitable for air use due to tunnel vision and the uncomfortable heavy rubber mask.

Stockport, Cheshire. O. W. NEUMARK

CLOUDFLYING IN COMPETITIONS

Dear Sir,

The BGA has at least been consistent. It has stoutly maintained that risks of collision when cloudflying in competitions are very small and that these are reduced to negligible proportions when radio is used to pinpoint the cloud and the heights being achieved. From the armchair this sounds reasonable until the argument is extended to international competitions when it is maintained that the same procedure can apply, making use of English as the accepted *lingua aeronautica* on one frequency.

Unfortunately this argument has not been accepted by most European countries and, quite apart from unfortunate recent experiences, the counterclaim is made that it is virtually impossible to predict at the beginning of the day how big a large cumulus will grow. The pilot who climbs up towards the top of a cloud with all others flying similar courses after straightening out, is in a better probability of having a collision before coming out of the side or the base. Any old fool, it is maintained, can fly blind using a horizon and it is "grossly" unfair to allow one pilot into a cloud and perhaps force the one below to fly on to another one which may not be so active. Finally the argument is used that in long descents through cloud the possibility of infringing air space rules is obviously much greater and no glider pilot should risk offending statutory regulations of this sort.

These arguments were all aired at Dunstable during *The Daily Telegraph* European competition and a vote among competing pilots revealed that they were nearly equally divided on this issue. There was, of course, a unanimous view that cloudflying must continue to be allowed for single flights, but not in competitions. Indeed I am certain that it will be increasingly difficult to persuade any top class European pilots to come to Britain if cloudflying is still permitted.

I have gained the impression that the rules for international competitions have yet to be decided but that almost certainly cloudflying will be prohibited. This should automatically require us to follow suit for our own Championships in order to give appropriate practice for our pilots.

It is sometimes maintained that if the BGA took such a step, then not much later, all cloudflying would be prohibited. In my view this is nonsense. It would show that a rather tricky nettle has been grasped, and the stature of the BGA would be enhanced. As a side issue, it might cut down the present tiny risks to even smaller proportions. We would, in fact, be behaving in a responsible way—a fact acknowledged by those in control of civil aviation in UK.

To sum up, I am sure that the BGA should lay down that as from 1973 no cloudflying should be permitted in competitions or championships, but that this was positively encouraged for single flights whether for record breaking, wave flying or for scientific purposes. I sometimes dream of coming back from a record-breaking 500km triangle by making use of a big cloud. We must keep this sort of option open by acting in a responsible way over competitions.

Amersham, Bucks. TONY DEANE-DRUMMOND

Advertisements, with remittance, should be sent to Chevron Press Ltd., 8/10 Parkway, London, NW1. Tel. 01-267 1285. Rate 10p a word. Minimum £1.30. Box numbers 40p extra. Replies to Box numbers should be sent to the same address.

FOR SALE

K-6E with automated trailer, full panel, tail towing trolley, easy two-man rigging aids. £2,500. Phone Hoddesdon 65797 or 01-807 4789 daytime.

SHK. ADC, full competition instruments, new trailer, T/chute, C of A. Parachute, Barograph available. Ring Ian Eyers, Uxbridge 35705.

RADIOTELEPHONE car dash mounting. 12 volt Pos/Neg earth. Microphone, Connectors, Handbook. Single channel 130.4MHZ. £45. Two channel 130.4/129.9MHZ. £55. Ultra 3A4 air set, two gliding channels, and one spare. Complete with Ultra battery charger and handbook. £85. Tel. Rickmansworth 79658.

VASAMA, 1/34, 15m, full panel, including art. Horizon and trailer. First class condition. W. Janssens, Gasthuisstraat 31, 2440 Geel, Belgium.

SPEEDWELL aluminium and steel trailer complete with fittings to suit 19 metre Kestrel. Offers over £500. Box No. SG 387.

K-6CR ready to fly. C of A to June 1973. ASI, altimeter, PZL, T&S, Horizon, Compass, Aerial. Trailer 18 months old. £1,850. Pye Cambridge boot mounted £130 ono. Tel. Ilkley 5999 or Rawdon 3676.

*** 1001 Genuine Bargains interest everyone! ***

Huge stocks **GOVERNMENT SURPLUS CLOTHING AND EQUIPMENT,** inc. flying suits from £3.36, p&p 32p; anoraks, outdoor clothing, camping, immense variety of miscellaneous ex-Government equipment. Send TODAY for our 30-page CATALOGUE—Now includes fascinating broadsheet from the Laurence Corner Him and Her boutique, fashion leisure/sportswear and jean centre, few doors from the main store. 10p post free or please call at **LAURENCE CORNER,** 62-64 Hampstead Rd., London, N.W.1. 2 mins. Euston, Warren St. All goods backed by our refund guarantee. Dept SG.

YOUR chance to own an historic aircraft with new C of A. Offers invited. 1942 French Avia P.40 superb ridge soaring machine with open trailer—can be seen at the Cornish Gliding Club, Perranporth, or telephone R. Keeping, St. Austell 2024.

PHOEBUS C with virtually new Speedwell trailer and GQ 737 parachute. Can be seen at Lasham. Phone R. Brisbourne 01-440 6965 (evenings).

PYE Ranger 130.4 mcs with magnetic roof aerial £15. Irvin Parachute £15. Phone Newquay 4759.

CABLE parachute in superior rot-proof material, price £5.50 each, p&p 50p. Quotes for quantities. Wilson, Aken House, Prudhoe, Northumberland.

K-6CR, with trailer, instruments, two channel Storey radio, accumulators. EB.62 parachute. Winter barograph, Competition No. 495. £1,900 offers. View Nympsfield, Stroud. STD 045-36 3965.

PYE "Ranger" groundset, both frequencies, good working order, £25. "Radac" magnetic roof aerial, £6. Write Harwood care BGA.

K-6E "457", C of A to March 1973, full instrumentation including ADC variometer, trailer and fittings; view Dunstable. £2,350. Bellew, 3/23 Madeley Road, London W5. Tel. 01-998 3514.

SKYLARK 3F. No prangs. Full panel. Excellent condition. Good trailer, £1,550 ono. Phone Bourne End 23458 or Henley on Thames 2464.

OPEN CLASS CIRRUS with basic instruments and fully fitted trailer. Offered for sale March 1973. Tel. Little Gaddesden (044 284) 3407.

K-6E white wings/fuselage, coral on the sides—250 launches—light-weight trailer, based Dunstable. Early delivery, £2,500 o.n.o. R. F. Pollard. 4 Spencer Road. Harpenden, Herts. Tel: 4367.

SKYLARK 3B and trailer. No instruments. £1,650. Write Box 65 care BGA.

FOR SALE (continued)

GOVIER Comp. No. 332, canopied 2 seater (side by side) with ballast for solo flying, low wing, full airbrakes, fitted with belly & nose hooks, major C of A May 1971, current C of A until 31st May, 1973, complete with retrieve trailer at Dunstable. Phone 01-346 8094.

EXCELLENT Dart 17R, trailer, full instruments, oxygen, radio, parachute. Enquiries R. A. Wood, SGU or Edinburgh 449 4455 (business).

WANTED

GLIDER radio and instruments required. D. Howard, 9 Linden Gardens, Bath.

WANTED. One or two T-21 wheels. 29 Farndale Road, Nunthorpe, Teesside, TS7 0HJ.

GOOD QUALITY black/white photographs of pre-war Polish and Russian gliders wanted for copying for use in future publications. Box No. SG 388.

LIBELLE. Two quarter share syndicate members required. Delivery Feb. '73. Based Compton Abbas. Meddings, 3 Penn Lea Court, Bath.

INSURANCE

We are experts in glider and aircraft insurance. Let us quote you the lowest rates with the most reliable companies. Write to Brian Gudgin,

Marlow, Gardner & Cooke,
254 Lincoln Road,
Peterborough

Telephone 68543

FINANCE

FINANCE for your glider purchases. Advances made on your present glider. Peterborough & Fenlands Finance Limited, 15 Broadway, Peterborough. Telephone 66191.

SITUATIONS VACANT

TUG PILOT/INSTRUCTOR wanted to assist in development of small club to full-time operation. Details from A. J. Middleton, 56 St. Ronans Drive, Peterculter, Aberdeen.

PUBLICATIONS

AUSTRALIAN GLIDING Monthly, publication of the Gliding Federation of Australia. Prepare yourself for the 1974 World Championships! A complete coverage of Australian soaring and exclusive features of international interest. Subscription £3 or $7.50 U.S. to Box 1650 M, G.P.O. Adelaide, South Australia 5001.

WANTED: June 1972 S&G, 20p paid. Ferret Fantasy, 27 Beechcroft Road, London SW17.

SLOPE SOARING with a radio control model sailplane is a fascinating pastime and a typical phase of aeromodelling. Read about this and other aeromodelling subjects in *Aeromodeller* and *Radio Control Models and Electronics*, the world's leading magazines, published monthly, price 15p each. Model & Allied Publications Ltd., 13-35 Bridge Street, Hemel Hempstead, Herts.

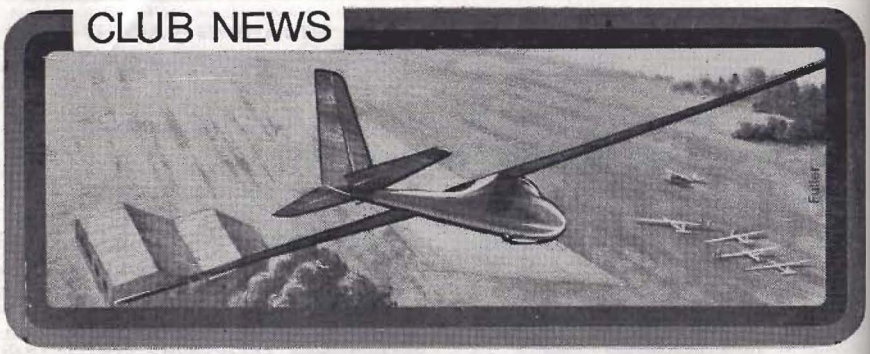
"SOARING"—official organ of the Soaring Society of America. Edited by Douglas Lamont. Address: Box 66071, Los Angeles, California 90066, USA. Subscription: $8.00 outside USA; apply to your post office for a form.

Put yourself in the Picture. Buy AIR PICTORIAL each month for the world air view in pictures and features. Reports and photos of aircraft and sailplanes, military aviation news, spotters' notebook, etc. Price 20p from your newsagent. For free specimen copy send 4p in stamps to Dept S.G., Seymour Press Ltd., 334 Brixton Road, London, S.W.9.

NEW ZEALAND: "Gliding Kiwi" Official Gliding Magazine of the N.Z. Gliding Association. Printed October and alternate months. Write N.Z. Gliding Kiwi, P.O. Box 545, Tauranga, New Zealand. £1.80 sterling for year's subscription (inclusive of postage).

It will, of course, be understood that the British Gliding Association cannot accept responsibility for the claims made by advertisers in "Sailplane and Gliding".

CLUB NEWS



Copy and photographs for the December/January issue should reach the Editor, S&G, British Gliding Association, Artillery Mansions, 75 Victoria Street, London, SW1, telephone 01-799 7548, not later than October 18.

Copy and photographs for the February/March 1973 issue should be sent to the Editor not later than December 4.

August 23, 1972

BLACKPOOL & FYLDE—hill site nearly ready

AFTER a poor start the thermal season has since given several members the chance to make good badge flights, even if we haven't done anything very heroic. The training programme has proceeded well and we have not needed to advertise for members.

Our Swallow got bent on a first solo, but luckily the pilot hurt only his pride, and it has finally persuaded us to use our precious Blanik for first solos.

Our farm site is nearly ready for limited operations. We have built a broad entrance with cattle grid, piped two ditches that take drainage water across our land, and levelled several internal hedges and earth banks.

We would prefer to wait until the hangar is erected before we move our two-seaters there, but we aim to start some solo flying soon, to gain experience in many wind conditions before moving our whole fleet. Initially we will have to limit the flying to pilots with Silver C and at least 50 hours hill soaring behind them, whilst we are virtually unable to give site briefings. We expect to be able to reduce these requirements rapidly as we gain confidence in the airflow patterns over our unique and potentially often soarable hill.

K.E.

BRISTOL & GLOUCESTERSHIRE—vandals damage T-49

A NEW aircraft has made its appearance on site: A K-2 owned by a syndicate of 10 headed by Arthur Duke. Our T-49 was slightly damaged by vandals who entered the hangar one Sunday night, but thanks to Roy Jeffreys it was repaired in three days.

On July 29 we held an "information meeting" to familiarise members with the proceedings of the committee. The planning of the mains water scheme is now complete and waiting for grant approval before work starts; the Mumford winch has been re-engined and Ted Waterman has done some sterling work replacing the fences along the road side of the field.

Bill and Evelyn Malpas paid us their annual visit in July, and took 242 back to France with them for the Angers competition; it will be back for Ron Sandford to fly in *The Daily Telegraph* competition. We have been visited by a group of Kent Club pilots, who had reasonable weather and seemed to enjoy their stay with us. On the flying side, nothing much of note has happened lately except for Howard Johns' latest attempt at a 300km triangle, which ended at Lasham after he had made very good speed on the first two legs.

M.J.C.

BUCKMINSTER—additions to the club

A CLUB Olympia 2B and a syndicate T-21 have joined the four sailplanes mentioned in our last report, bringing the number of aircraft on site to six. On the membership side, the club has swelled to 50 members, several of whom have contributed towards club aircraft.

Our gliding activities have now been extended to include Friday afternoons and evenings, which, with two complete flying weeks in August, is helping to get the club "off the ground".

The club's next project, through the winter months, is the proposed erection of a hangar, and this will determine when the club can have a resident tug.

Our treasurer, Don Bricknell has two Silver legs—"both pawnable"!—and our senior citizen member, Dibton Clewes has gained his Silver distance.

R.A.A.

COVENTRY—feet and knees together

SUMMER 1972 at HB has broken all records—the least sun, least flying and most rain. I am sure that this reflects the picture at most other clubs. The weather marred the club competition for the Club Class gliders, veterans, two-seaters, etc. There were 19 entries for the two days but the task for the Saturday was cancelled. No-one completed the course for either tasks on the Sunday but several passed the turning point. Conditions were very marginal, but it appeared that more kilometres were flown in that one day (550) than in the whole season!

Our newly appointed chairman, Lou Frank, had a nasty experience while on a gliding holiday at Schänis, Switzerland. He was soaring a mountain ridge in a K-6, when a tug aircraft collided into him and broke off the tailplane. Remembering all he had heard at our parachute courses, Lou jumped out and was heard to utter "feet and knees together . . ." all the way down. He landed on a handkerchief of grass, a small clearing in the rocks, without serious injury. Lou can now boast that he is a current member of "der Schweizer-Katerpillarklubb".

Many congratulations to two more instructors who passed the course at HB—Joe Horwood and the new secretary, Guy Gothard.

V.G.

DERBYSHIRE & LANCASHIRE—what the butler saw

OUR second task week for Bronze C pilots was held early in August and proved to be another successful week. Peter Boneham won it and completed his Silver C. On one cross-country he landed in the garden of a very large house. When his crew arrived the butler came to the door and asked them if they would mind waiting as Mr Boneham hadn't finished dinner.

Our club K-13 was damaged in an outlanding, but we hope to have it with us again by the time this goes to print. The passenger, on her first air experience flight at the time, has since joined the club. Some people will never learn!

Radio Sheffield has done another programme about us and articles have been written in local newspapers. The K-4 list is thus getting longer and longer and all three are kept busy bashing the circuit. The Swallows are also well used as more people go solo. Peter Blacklin has joined the instructors' ranks.

The Tost winch has had a major overhaul and is now in full working order. Pete Gray has rejoined us and spends most of his time in the workshop. In fact he still wears the same filthy sweater he wore ten years ago. Servicing of our mobile winches will be easier in the winter months, now that half of our "Folly" has been converted into a winch workshop. The end elevation has been rebuilt with hangar-type doors and a concrete apron. The whole building has been insulated, re-roofed and painted.

P.H.

DEVON & SOMERSET—besieged

THIS Summer seems to have slipped by unobtrusively without any major feats of flying. Despite bad weather, courses have been well attended and we seem to have saved enough filthy lucre at least to think about another solo machine for the club fleet.

The clubhouse security system is now

working and the second winch almost so; the re-turfing and grading of the field is proceeding almost as planned. Wish we could say the same about the footpaths and caravans, both of which continue to pose problems. A few Saturdays ago we were besieged by a flock of exotic ships from the Compton Abbas regionals which, coupled with the Libelle brought down by the Derby lads, promoted a lot of heart (and pocket) searching to try and emulate.

Janet Halfacre is still struggling manfully with our embryo publication the "North Hill News" and finding that even a small effort like this takes a heck of a lot of time to produce. The ladies behind the scenes who toil over hot stoves on our behalf also deserve our gratitude; the social life of the club depends a great deal on them.

A.E.R.H.

DORSET—first Gold C member

THE limitations of a weekend club in a season like 1972 are highlighted by the fact that so far this year the only notable flights by our members have been made from sites other than Tarrant Rushton. Graeme Morris became our first holder of a Gold C when, flying from Lasham, he completed a seven hour, 330km flight on June 30th. (It has to be admitted that Graeme's gain of height was achieved even further from Dorset, too, but we are none the less proud of the eminence of a senior member).

Back at Tarrant Rushton, Mike Brown and Ken Besent organised a painting gang which repainted the hangar roof in three weekends.

Helping out with the aerotows at Tarrant is a venerable shape familiar to the older members of the club, a Tiger Moth loaned by Humphrey Meade which has necessitated the tug pilots hunting out their long discarded goggles again and tasting the delights of vintage flying once more.

M.L.B.

ESSEX & SUFFOLK—new CFI

THE club welcomes a new CFI, Elvin Hibbard, and in so doing wishes to express many thanks to his predecessor, Eric Richards, for all the help he has given to the club over many years. After completing an instructors course at Husbands Bosworth, John Barnes joins the instructors' ranks.

At last, in recent weeks, the weather has been much kinder, and as a result there have been a good number of Bronze C legs and completions, new solos, and Silver legs.

Ralph Brooker's syndicate Swallow has now been flying again for a month, and looks brand new after its rebuild. Its trailer, built by Jack Birkin, also reflects the standard of workmanship and time put into its construction; it is also big enough to take 17m!

The club's first series of courses at Ipswich Airport are proving a success and have been fully booked. The number of gliders at Whatfield continues to increase with another new Skylark 3F syndicate formed.

M.L.

IMPERIAL COLLEGE—first lady captain

LIKE most clubs this year, we have been disappointed by the lack of gliding weather. However, by entering the Lasham Regionals, three of our pilots struck luck—Bill Kronfeld flying his syndicate Dart 17R, and Doug Walker and Dave West sharing the club Skylark 4. The weather and hard work combined to result in 60 hours flying between these aircraft, and gave everyone renewed hope for the year. The "IC Day" was the last, when Bill finished second and Doug third on a 300km task. We were very pleased when Bill finished second overall; so much so that we bought his glider for the club. It will soon bear the familiar number 96 which our Eagle wore for many years.

With three single-seaters, we are looking forward to much more cross-country flying next year. That will not be the only change next year. At the AGM, when we decided to buy the Dart, we also elected our first lady captain, Mary Short, to whom we wish every success.

One problem facing her is that our new training scheme is not proving as successful as the old one. The main factors seem to be the high initial rate of expenditure, and the lack of identity within a club as large as Lasham.

C.E.H.

Gliderwork
C of A OVERHAULS and REPAIRS
by L. Glover, senior inspector



Husbands Bosworth Airfield, Near Rugby
Tel: Husbands Bosworth 375

Solid State Glider Radio Telephones, single channel, 130.4 MHZ. **£49.50**

Car Radio Telephones, re-conditioned, **£45.** One free Magnetic Antenna when 2 sets ordered simultaneously.

Send for details
Electechniques, Selsley, Stroud, Glos.
Tel. 045-36-3129

GREAT SOARING WEATHER ALL SUMMER at WAIKERIE

Site for the 1974 World Competitions

Gold and Diamond Distances every week

Sailplane conversions and Hire

Ka6, ES60, Libelle, Kestrel

WAIKERIE GLIDING CLUB
P.O. Box 320, Waikerie
S.A. 5330

BGA CAR BADGES

Metal car badges, featuring 3 gulls design in blue on white behind perspex shielding. Available boxed, complete with fastenings, at **£1** each (plus 10p mail order)

A COLOUR GUIDE TO CLOUDS

A limited number of these beautiful and instructive books by Scorer and Wexler (retail at 75p) are available at **60p** including postage and packing

Apply now to:
BRITISH GLIDING ASSOCIATION,
Artillery Mansions,
75 Victoria Street,
London, S.W.1
01-799 7548

WINTER BAROGRAPHS

Order now for that Gold 'C' or Diamond Task. Height range to choice, 6, 8, 10 or 12 km. **£59.00** complete with 50 aluminium foils, packing and postage 63p. Motor Glider model, to record engine on/off. **£68.00** complete with 50 aluminium foils or paper charts, packing and postage 63p.

THERMAL EQUIPMENT LIMITED
Lasham Airfield, Alton, Hampshire. Tel: Herriard 359 or 0256-83 359

YORKSHIRE SAILPLANES LTD.

North's Leading Glider Repairers

(JUST OFF THE A1)

Increased workshop facilities now available

Large stocks of glider spares and instruments

Gliders collected and delivered free of charge within 30 miles radius

Major and minor repairs

Rebuilds a speciality

C of A inspections

Resprays

Gliders bought and sold

For all your gliding club requirements contact:

Gerry Kemp, Bondgate, Ripon

Telephone 3360

(or Barry Goldsborough, Ripon 3784)

CROSSFELL ELECTRIC AUDIO VARIOMETERS

FAST

COMPACT

EFFICIENT

Electric Variometers proved over ten years. Available with or without Audio.

Agents throughout the World.

Crossfell Variometers

8 Fraser Close, Malvern, Worcs., England.

How to get "SAILPLANE & GLIDING"

"Sailplane & Gliding" can be obtained in the UK at all Gliding Clubs, or send £1.80 plus 36p postage 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, 75 Como Parade, Como West, NSW2226.

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

INKPEN—first club solos

CONGRATULATIONS to Margaret Young, who became the Club's first solo pilot, and also to Eugene Stewart who is the first pupil member to become solo. He has now been followed by Hugh Barnard. Roger Cook has passed an Instructors' course at Lasham.

Early in July saw the arrival of the club's first solo machine, an Olympia 2B.

Ralph Jones had the misfortune to lose his Nimbus in the World Championships, but this has been temporarily replaced by a Std Cirrus.

We welcome Tony Hanfrey with his ex-Airways Gliding Club Skylark 3, and look forward to John Young joining us with his Skylark 2. Membership, although small, still shows a gradual increase.

I.R.C.

KENT—mid-week successes

WHAT must be one of the greatest non-seasons ever is fast approaching the end and very few people have made much real progress. The great exception is Ray Hunt, who completed his Bronze C at the beginning of the season and went out to get all three Silver legs. He is a mid-week flier and rarely flies at the weekend. Early in August, Albert Hover and Eric White both did their five hours, again during the week.

Several people have made trips to other clubs including Mike Honey and Pauline and Peter Kingsford to the Devon and Somerset for their task week and half the Skylark 2 syndicate to the Bristol and Gloucestershire club.

We have lost one instructor and regained another. Charlie Cramer, one of our professionals has, unfortunately, left us to take a job outside flying, but we are pleased to welcome back Richard Pitman after a year or so in Jamaica.

R.J.H.

LAKES—one of the 'few'

FOLLOWING the wave flights reported in the June/July issue, on April 23, Roger Bull hoisted the Libelle to 15,000ft for his Gold height, and then gave an encore with the T-53B, flown dual, to 13,000ft.

During June, Pete Gillette in the Libelle joined "the few" who have got away from Walney with a flight to Salmesbury for Silver distance, thus completing his badge requirements. Ian Jennison also netted a Silver distance during our Whitsun visit to Bickmarsh, with a flight to Husbands Bosworth. He also experienced an interesting return tow, at low height and high speed, which impressed him more than the outward journey.

Bad weather and launch problems dogged our annual outing to Bickmarsh, but on the Saturday, when both improved, members disappeared over the horizon in all directions, to make good use of the conditions.

We have also scored one complete Bronze and seven first solos since last reporting. We welcome Charles Boucher to our instructor list, and Mike Edwards, already categorized, a visiting instructor who could only be kept on the ground by nailing his boots to the runway! Mike may manage to stay with us, and we sincerely hope this can be arranged.

Interesting sea-breeze effects were flown during June, centred over the peninsular during the day, and moving seawards during late afternoon and evening. The whole fleet of club and private owners were airborne on one of these occasions, in a glorious gaggle, just south of the airfield. Top height in these conditions, about 3,500ft. It all makes a change from our gritty little slag-bank!

R.R.H.

LONDON—airspace threats continue

MEDIOCRE weather has been responsible for a poor summer season, and nobody to date has claimed a Gold C distance.

The Nationals, though starting with windy weather and the inevitable races to Ipswich and Swanton Morley, proved in the end to be a good contest. Tom Zealley was our best performer, while Charles Ellis proved he hasn't lost his touch.

The fleet has at last reached the proportions planned some years ago, and we now have four K-13's and five K-8's. This is just as well, as a number of incidents have temporarily put some unserviceable. In particular, some children drove a tractor into the tail of one of

the K-8's during one lunch hour, while on another occasion a K-13 was "unparked" during a strong wind. Fortunately the latter did not cause any damage, but wandering visitors from the Downs remain a potential hazard to Club equipment.

We recently sold our last remaining Tiger Moth, and we may purchase a second Commodore following a successful proving period. The Condor continues as our second string for the time being.

We still await findings of the Luton airport enquiry, and meantime there is news of a further threat in the shape of an extension of the London TMA and the Luton SRZ. However, we are hopeful that we will be able to defend most of our flying freedom as we have managed to up to now.

M.P.G.

NORFOLK—harvest festival

WE really should have celebrated Harvest Festival this year. During the crop-growing season, our activities have been restricted to operating the Falke only, and the arrival of the combine-harvester signified a return to normal



auto-tows for our gliders. We have been extremely grateful to the Norwich Soaring Group at Swanton Morley who were able to offer us aero-tows and to share their facilities.

Our thoughts are now directed to organising our own tug before next May, an arrangement which should suit both the farmer and the start of the soaring season.

C.E.H.

OXFORD—overseas visits

GOOD flying has been achieved midweek and on expeditions. The Phoebus has visited Germany, Lasham and Long Mynd, while the K-6E went to Vinon in France where Peter Brooks and Malcolm Roberts climbed in wave for their Gold C heights.

Enough dry weather at weekends has enabled Doreen Rose and Messrs Forrest, March, Hill, Horne and Davis to go solo. On Friday 9 August three aircraft attempted a 300km triangle. Peter Curtis completed it in the Phoebus, Peter Brooks may have flown far enough for his Gold distance and David Lidbury flew 290km in the Skylark 3.

Thanks to Chris Tomkins for his many years writing for this column. Shortage of time has meant the curtailment of his gliding.

J.R.

PETERBOROUGH & SPALDING—in and on the air

THE club's participation in "Peterborough Fortnight" was well rewarded; not only were many column inches devoted to our activities but it attracted the interest and imagination of the Regional BBC programme planners. They commissioned a 20 minute sound recording of a typical training flight, which was so successful that it took up the majority of VHF sound time the following Monday morning. The evening paper, not to be outdone, devoted two tabloid centre pages to give the club the feeling that at last it had arrived and was a valuable asset to the sport-aviation scene.

Norman Brown attained his assistant instructor rating in July, in time to provide valuable assistance on a very successful training week held later in the month. While our T-49 held the fort instruction-wise, our Bocian performed aerobatics at our local air display held at Sibson.

J.V.L.

SCOTTISH GLIDING UNION—October traditional Lasham month

THE SGU held a very successful "At home day" on June 25. The weather was kind to us. A westerly breeze blew on to Bishop hill all day, which meant that each launch resulted in a soaring flight. Over 85 hours' flying was done that day.

Our *ab initio* summer courses have been fully booked all June, July and August and most people have had good flying. The club Falke is being used for training as an alternative to the T-21 when the winches give trouble.

Due to an accident on take-off, one of the club's Olympia 463's was extensively damaged, so the club has only two solo aircraft in operation. It is hoped to have another Swallow and the 463 back in service by the time the wave season starts. However there is no shortage of privately owned single-seaters at Portmoak, and several syndicates have bought or are about to buy glass-fibre sailplanes. A new Kestrel recently arrived at Portmoak.

The SGU clubhouse has been completely booked by visitors from Lasham for most of October, which has now become the traditional Lasham month. We wish them all good flying.

K.E.B.

SHROPSHIRE—soaring group at Sleap

AS this is our first note a description of ourselves is perhaps in order. We are a gliding section of the Shropshire Aero Club who fly from Sleap airfield, eight miles north of Shrewsbury. Being a soaring group, we provide no training. Thus, all pilots must be of Bronze C minimum standard and have been cleared for aerotow launching.

All gliders are privately owned and we have a Std Cirrus, K-6E, and Sky stationed on the airfield with a further two syndicates soon to base their gliders at Sleap, plus a few visiting gliders. We have our own tug (Terrier) and there are also six light aircraft operating from the airfield. At present we fly only on Saturdays, Sundays and public holidays.

The area is well known for its vigorous wave activity and as the airfield is clear of airways, we look forward to some high flights.

Visitors are welcome either by air or road but if intending to land your glider at Sleap, please call Sleap tower on 130.4MHz for landing advice. Prior notice of an intended visit would be appreciated by calling Tarvin 40787 during the week (evenings) or the airfield (Wem 2882) at weekends.

We started launching with our own tug on Saturday, 29 July, and managed 12 hours thermal soaring with three gliders. The following Saturday produced our first wave with this scribe ascending at 3kts through a gap in the strato-cu and just about to enter 8/8 stratus at 3,200ft when the electrics failed!

We look forward to the winter wave season as with the airfield being only 275ft asl we should be able to soar almost throughout the year.

I.P.

SOUTHDOWN—members' courses

MUCH flying time has been lost this spring and early summer due to low cloud on the hill. However life has been brightened by a few good weekends, particularly in late April, when we also had several visitors flying in. Jasper Partington revisited us from Lasham in a Skylark 4 and Peter Stafford-Allen and Hoye arrived from Challock.

The members' course in June suffered from the weather. The August course started with low cloud on the first day but everyone had a flight in the evening. The second day gave us gale force winds. However we flew on the remaining three days with Chris Backwell doing his Silver distance to Ashford and Derek Eastell in his 460 flying from Firle to Lewes to Bexhill and back in the sea breeze front before it damped down soaring for the day.

Away flying at Sutton Bank and Compton Abbas has been uninspiring.

K.I.P.M.

STAFFORDSHIRE—move still pending

A LONG period of poor weekend weather has limited our flying in general and cross-country flying in particular. However, the first weekend in June proved a little better and the club Olympia and a syndicated K-6E soon disappeared into the distance.

The first of our club courses, organised by Boris Clare, also suffered from the poor weather conditions in that not much thermal activity occurred. However, a good number of launches was achieved and course members had an enjoyable holiday.

The second course, organised by Laurie Birch, was blessed with several good soaring days and it was nice to see every available aircraft airborne and the retrieve crews lazing around in the sun while awaiting their calls.

We have still not moved to our new site, although the land has been pur-

chased and a great deal of preparatory work completed. We are still negotiating with the local planning authority about the detailed construction of the hangar and other problems, which we hope to resolve following a meeting to be held shortly.

C.J.R.

SURREY & HANTS—blithe spirits

JULY and August have lifted our spirits a little as well as our gliders. Derek Piggott (Phoebus C) was 1km short of his 500km on June 30. His turning points were Bath Racecourse and Lincoln Cathedral, giving him 500km if he landed south of Thame on the way back. He was expecting a freshening southerly wind and unfortunately it freshened just enough to rob him of the vital centimetres. Tony Burton landed at Husbands Bosworth in his Std Libelle on the return leg of a 500km out-and-return to Doncaster on August 11; time lost on early scrapes couldn't be made up in the Texan conditions north of Leicester. Weekends however still have to show good conditions and no one who needs it has done a 300km flight this year yet.

The Lasham competition was a great success with eight consecutive contest days splendidly won by Leigh Hood in the Army K-6E. The comps party was good too with superb buffet nosh and an excellent pop group playing on the "patio" outside the clubhouse inciting lots of people to leap madly about under the full moon and nearby windsock.

C.L.

WOLDS — sea breeze fronts

WE seem to have suffered from the east coast "clag" more than usual this year, and as a result our weekend weather has been very poor as regards soaring. Cross-country days have been very few and far between. However, we are becoming experts at soaring sea breeze fronts and achieving fast runway changes as they pass through.

Jim Smith took over from Irving Paine as CFI in June; our many thanks to Irving for the many hours of hard work put in by him on behalf of the Club. Recent additions to the instructor list include Eddie Room and Bob Fox, following their course at Booker.

We now have a very well organised canteen, producing excellent meals at weekends, run by Audrey Cooper, Madge Phillips and Janet Smith; in fact, some days the canteen takes more money than the flight logkeeper.

J.G.S.

WYCOMBE AIR PARK—the Duke pays us a visit

PRINCE Philip was the principal guest and one of the many people to see the Kings Cup Air Race and Flying Display at Booker on Saturday, 15 July—and what a day; it couldn't have been more perfect.

During that weekend a number of gliders and a tug went to RAF Abingdon at the invitation of Jock Manson. Our thanks and appreciation go to him and his staff for all the help and assistance (and their winch launches at 15p). Tim Chapman did quite well on the Saturday in the club Dart competing in the one day task, and on the following day "Fred the Shep" and David Margetts exceeded two hours in wave. The rest of us only managed an hour or so, but it was glorious at 4,000ft over Oxford (see also p453).

Launches and hours flown at last show a significant increase over last year; even so weekends have been poor.

K.W.W.

YORKSHIRE—weekend tasks

THE soaring season only started in earnest in July and pilots are flying cross-country whenever the opportunity arises and half a dozen Silver C distances have been flown. We have managed to set small tasks on some weekends and it is encouraging to see so many pilots attempting them. On July 29 five pilots completed the set 100km triangle and on August 13 five completed a similar task.

The Northern Regionals in June was marred by bad weather but we hope the excellent catering by our two student helpers and the party run by Betty Lilburn and Co helped to compensate for this

To end on a sad note: It was with great sorrow that we learned of the death of Chas Boyer in the Cathay Pacific air disaster over Vietnam in June.

GLIDER RE-PAINTS

First-class workmanship

Reasonable prices

Seven day service

Contact:—

Southward Garage (Retford) Ltd.
Nottinghamshire

Telephone: Retford 2841

SCOTLANDWELL CARAVAN SITE

Suitably situated for fishing, touring and ½ mile only from GLIDING site at PORTMOAK.

Toilets, showers, hot water, free.

Also 6-berth and 4-berth caravans for hire on site.

All tourers welcomed.

D. L. Paterson, The Well Garage, Scotlandwell, Kinross-shire Tel: Scotlandwell 289

JOHN HULME

Tunbridge Lane, Bottisham
Cambridge CB5 9DU

Telephone: Cambridge 811323

Wood, Metal and Fibreglass Repairs

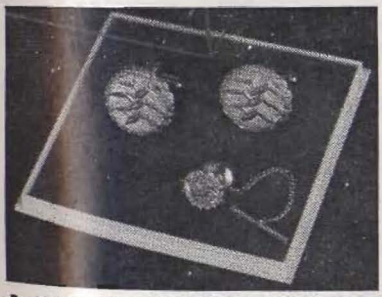
•

Spares and Materials

•

Trailers

UK Repair Agent for Diamant and Phoebus Sailplanes



A MUST FOR ALL PILOTS

A set of gold plated cuff-links and tie-tack in a presentation box

£1.75 inc. post & packing

Available from:

LITA LAMPS LIMITED
1 Station Grove, Wembley
Middlesex
Tel: 01-903 4471

AIRCRAFT INSURANCE

Phone, Call or Write

J. A. HARRISON (BROKERS) LTD.
"SECURITY HOUSE"
160-161 BROMSGROVE STREET.
BIRMINGHAM B5 6NY

Telephone 021-692-1245 (10 lines)

FOR KEENEST RATES,
SERVICE AND SECURITY

COBB-SLATER INSTRUMENT CO. LTD.

Write for details of Introductory Offer

Sole Manufacturers of:

Cook Compasses

and

Electric Variometers

with Audio Unit

Barographs Calibrated

Cosim Variometers

Irving Venturies

Water Traps

Total Energy Units

New Cosim Audio Unit works with PZL, Cosim or Electric Varios

Leaflets from:

'COSIM' WORKS · DARLEY DALE · MATLOCK

Derbyshire DE4 2GG **Telephone: Darley Dale 2344/5**

DONCASTER SAILPLANE SERVICES

The Powered Glider Specialists

UK AGENTS FOR TOST AND WINTER EQUIPMENT

Sailplane Sales & Exchanges

Present Stock Includes:
2xT21B's

Trailers Built to Order
in all Fibreglass Construction

New & Used Instruments

ALTIMETERS ASI's
HORIZONS INVERTERS
VARIO's BAROGRAPHS

OTTFUR & TOST HOOKS
RECONDITIONED BY POST

STEEL TUBE WELDING

GLASS-FIBRE REPAIRS

'Winter' Instrument Stockists
BAROGRAPHS 10 km
VARIOMETERS ± 10 kts
COMPASSES
A.S.I.'s 0-140 kts

'Danum' Transistor Inverters
Small Size. 12v. Input, Fused
Matched to all types of horizon
(State type when ordering)

Large stocks of Ply, Fabric, Tyres, Dope, etc.
The new "Supersafe" Tost Europa Hook now in stock

YORK ROAD, DONCASTER. **Phone 0302-65381**

Chas was a great person who loved life and lived it to the full. He was well-known at Sutton Bank as an enthusiastic soaring pilot and a keen instructor, who could fill even the most timid of pupils with confidence. To Liz, Fiona and Nicholas we extend our sympathy for their great loss.

S.V.G.

SERVICE NEWS

CHILTERNS—wave over Abingdon

THE first paragraph of last issue's news could almost be reprinted. It referred, of course, to the terrible weather.

There have, however, been a few brighter spots in the gloom. The most memorable was a task weekend at Abingdon organised with the Airways and Thames Valley clubs from Booker. Saturday and Sunday were both task days and in the Nationals style (see also p450). Saturday featured a 100km triangle in weak conditions, and was won by Geoff Millward, flying the club K-6CR, who landed 15km short of Abingdon on the last leg.

Sunday was even worse, the task being a token out-and-return via Newbury. The wind was easterly but pilots local-soaring suddenly discovered wave over Oxford. Bob Sharman, Shep Sheppard and Jack Harrison all had 6,000ft climbs before setting out on the task. Again only three people rounded the turning point. Graham Saw won the day in a Std Cirrus, landing 10km short of Abingdon and Bob Sharman and Jack Harrison were equal second, both landing in the same field at a place called World's End!

On the instructional side Brian Cogger, our aircraft member, has gained his full Category and Jed Stone, Bob Sheffield, Malcolm Norris and Eddy Wright have new assistant ratings.

The club van has just had yet another engine rebuild, this time with a new crankshaft, big ends and piston. We hope it will last a bit longer—Malcolm Norris, our new MT member, is to be congratulated on his efforts.

G.M.

CLEVELANDS (RAFGSA) & HAMBLETON (BGA)—peculiar weather

THE peculiar weather over the last two months has allowed nothing more than local area soaring; despite this quite a few pilots have had reasonable flights.

It has unfortunately been found necessary to increase the launch fees by 5p. Generally rising costs over the last four years have forced this on us. The launch rate, however, is excellent, and the hospitality is superb. I have been forced into the unloved category of the 10 to 50 hours-a-year man and twice now I have committed the sin of rushing onto the site of a summer evening (to up-date the newsletter notes) and actually accepting the flights that have been offered.

The latest fleet changes are a K-4 acquired by Clevelands and an Oly 463 by Hambleton to replace a sold Oly 2.

One of our aircraft was used in a static exhibition at a school summer fair in Thirsk; most of the children in Yorkshire clambered in for a polaroid photo.

For the immediate future, we look forward to a visit by a private owners' group from Mainz and another *ab initio* course.

M.I.O.

CRUSADERS (Cyprus)—good weather

THE weather over the last few weeks has been extremely good. An impressive number of hours and badges have been notched up, with five completing their Silvers during June and July.

Unfortunately, with good times come bad and the club has had to say farewell to our chairman Gordon Camp and his wife Jill, along with Vernon Bradbrook and Chalky White. Wing Commander Saundby is with us at the moment carrying out instructor category checks.

F.P.G.

PHOENIX (RAF BRÜGGEN)—new CFI

ABBO MAUNTON our CFI for the last two years has resigned for personal reasons. The club would like to thank him for the tremendous amount of work

he has done while he has been at the helm, raising the club from its low ebb to the good position it is now in. To mark his retirement from office Abbo was presented with an engraved trophy by his successor Nigel King. We wish Nigel luck in his new post.

The K-6CR is now sporting its new livery of pale lilac and the club eagerly awaits the reappearance of the K-7 which is being refurbished. Mick Parkin and Pete Haig have joined the instructors ranks. Several first solos have been flown in the last few weeks.

Sqn Ldr Cotton (RAF rtd) of the Australian Gliding Federation was shown the local area when he flew with Mick Parkin in the K-4. An ex-CO of 17 Sqn RAF, he was visiting Brüggen after the World Championships in Yugoslavia. He will be responsible for the organisation of the 1974 championships.

In July Nick Nicholls from Two Rivers, Nigel King and Pete Haig visited the Crusaders club in Cyprus while we were on detachment. We would like to take this opportunity to thank CFI Len Barnes and the club for the hospitality given to us.

P.H.

RAFGSA Centre (Bicester)—Gough leads the way

WITH weather conditions improving towards the end of June there was a marked increase in our activity and a number of Silver C height climbs and cross-country flights were successful. On July 13 Frank Burgess in the Dart did 300km distance via Melton Mowbray and Newmarket in company with Dick Cole in the K-6E with Andy Gough leading the way in the Std Cirrus.

The exigencies of the service has led to the loss of our deputy CFI Jock Wishart and Pete Abbey has taken over the post. Jock is remaining at Bicester however.

On July 23 there were two Gold C height climbs by Doug Parrish and Tim Harrington, the latter completing his Gold; on the same day Frank Burgess managed to get into a cloud but missed his Gold height by about 500ft.

After having pegged back our flying charges for quite some time, rising costs and a poor season has meant that we have had to increase our charges for winch and aerotow launches but only by a modest amount.

LASHAM GLIDING SOCIETY

★ BASIC TRAINING COURSES—motor glider

★ GLIDER COURSES—ASK 13 Ka 7

★ TRAINING FOR CROSS COUNTRY—Falke

★ CONCENTRATED COURSES—for beginners with limited time

★ AEROTOW AND CAR LAUNCHES—every flyable day—over 30,000 last year

★ DEREK PIGGOTT CFI—PROFESSIONAL INSTRUCTORS

The Secretary will gladly send details of

COURSES — MEMBERSHIP — FACILITIES

LASHAM AIRFIELD, Nr. ALTON, HANTS. Tel. Herriard 270

The Blanik syndicate has acquired a new aircraft and by the time this issue is out the Kestrel should have arrived.

A.E.B.

SOUTH WEST DISTRICT—home and away

ALTHOUGH the weather has restrained us from cross-country soaring much activity has taken place, such as trailer painting and clubroom improvements.

Two instructors, John Dabill and Wally Lombard, obtained their full category rating after visiting Tarrant Rushton.

Two more pupils have joined the solo ranks, several pilots are ready for their Skylark 2 conversion and the return of the Oly from the workshops is eagerly awaited.

Ian Terry, after a soaring week at Bicester, came home with two completed Bronze legs. His weather prediction must be spot on as he picked the best week of the year so far—July 10 to 16. We managed to be with him on one of his successful days and with great interest watched the Flying Wing and the Primary towed into the sky.

On July 16, a glorious day with thermals everywhere, we were restricted due to low level flights by the Hercules and parachute drops. Tempers were not good —happy soaring followed by full air-brake!

We have recently been visited by members of the Keevil, Chiltern and Colerne clubs and wish to extend our hospitality to any adventure seeking pilots.

J.R.A.

TWO RIVERS (RAF Laarbruch)—beetle versus winch

OUR main recent venture was the fortnight's visit to Kamp Lintfort airfield. As well as several first solos and bronze legs, the weather was kind enough for some Silver legs to be achieved. The main ingredient of the success of the expedition was Con Greaves putting in nearly 50 hours in the Auster tug, no mean feat!

Thanks to the efforts of Tim Baldwin and his helpers we are now in possession of a fully serviceable standby winch. A snarl-up on one drum of our Tost is now not quite such a damper on our launch rate.

Launches and hours are well up on last year, which in itself was a record. Our statistics board has had to be extended beyond its original capabilities.

We have had our share of mishaps. Unfortunately the Skylark was bent on a field landing and will be out of action for several months, and also we regret the passing of Con's twelve year old "Beetle" which had an argument with the winch. The winch won. It must be put on record that Con was not driving at the time.

Forthcoming ventures include our annual wave soaring expeditions to Zell am See in October and Issoire in February.

D.W.

WREKIN (RAF Cosford)—Diamond over Cosford

OUR Bocian is almost ready to air-test which ends a massive fleet overhaul of our five gliders and two winches since December last, by our all too small band of sturdy workers. May their efforts be rewarded by some decent soaring flights when they emerge at long last from the hangar, their jobs well done.

In spite of the elements in the last three months we have had four A & B's, six Bronze legs, two Silver distances, and Ben Goodman capping them all with a Diamond height over Cosford.

We are awaiting the return of our K-6E and Oly 419, at present at Dunstable in company with the best-looking Auster in the business. That's right, it's ours.

SIDESLIP

BRISTOL & GLOUCESTERSHIRE GLIDING CLUB

Welcomes private owners, beginners and holiday members at their unique site in the Cotswolds. Open seven days per week. Why not ring the Club Manager on 045-386 342 or write to:

BRISTOL & GLOUCESTERSHIRE GLIDING CLUB
Nympsfield, Stonehouse, Glos. GL 10 3TX

INDEX TO ADVERTISERS

The Birmingham Guild Ltd	415
Bristol & Gloucestershire Gliding Club	455
British Gliding Association	445
Cameron Balloons Ltd	377
Chiltern Sailplanes Ltd	414
Classifieds	440-441
Peter Clifford Aviation Ltd	Back cover
Cobb-Slater Instrument Co Ltd	452
Cornish Gliding & Flying Club	456
Crossfell Variometers	446
Crystal Engineering Ltd	433
Daltrade Ltd	434
Deeside Gliding Club (Aberdeenshire) Ltd	456
Doncaster Sailplane Services	452
Dorset Flying & Gliding Club	377
Electechniques	445
Gliderwork	445
J. A. Harrison (Brokers) Ltd	451
J. Hulme	451
Irvin Great Britain Ltd	423
Kent Gliding Club	456
Landsman's (Co-Ownership) Ltd	371
Lasham Gliding Society	454
Victor Laurence (Merchants) Ltd	440
Lita Lamps Ltd	451
London Gliding Club	456
McBroom Sailwings Ltd	373
Marlowe, Gardner & Cooke	441
Midland Gliding Club	Inside back cover
Mowbray Vale Insurance Brokers	417
Northumbria Gliding Club	Inside back cover
Pilatus Aircraft Ltd	367
T. & A. D. Poyser Ltd	418
Sailplane & Engineering Services Ltd	417
Sailplane & Gliding	446
Alexander Schleicher Segelflugzeugbau	417
Scotlandwell Caravan Site	451
Scottish Gliding Union	Inside back cover
Slingsby Sailplanes	386
Southdown Aero Services Ltd	433
Southern Sailplanes	401
Southward Garage (Retford) Ltd	451
Speedwell Sailplanes	Inside front cover
Sport Para Services	421
Three Counties Aero Club Ltd	423
Thermal Equipment Ltd	445
Torva Sailplanes Ltd	418
Trafford Facilities Ltd	372
Waikerie Gliding Club Inc	445
Brian Weare	422
Wesley Sailplanes	420
West Wales Gliding Club	Inside back cover
Yorkshire Gliding Club	Inside back cover
Yorkshire Sailplanes Ltd	446

CORNISH GLIDING & FLYING CLUB

Gliding courses in modern fleet from MAY 11th – B.G.A. categorised instructors – fine soaring – lovely coastal airfield – ideal for a different family holiday.

AERO-TOW COURSES AVAILABLE

Details with pleasure from: **The Course Secretary, Cornish Gliding & Flying Club, Trevellas Airfield, Perranporth, Cornwall.** Tel. Devoran 862518

DEESIDE GLIDING CLUB (Aberdeenshire) LTD.

WAVE SOARING

Club gliders equipped with oxygen
Aerotow facilities 7 days per week

Details from: A. J. Middleton, 56 St. Ronan's Drive, Peterculter, Aberdeenshire
Tel. Culter 2043

At the
KENT GLIDING CLUB
We welcome any glider pilot . . . . prospective or pundit

Learn to fly on a week's holiday course, with professional instruction. April — November or — bring your glider to fly our thermals, or ridge soar the Kent Downs.
Facilities: Winch or aero-tow launches
Residential Clubhouse with licensed bar
Apply to: The Secretary
KENT GLIDING CLUB
Challock, Nr. Ashford, Kent
Telephone: Challock 307 or 274

LONDON GLIDING CLUB

Dunstable Downs, Bedfordshire
Telephone: OLU 2 63419

Situated at the foot of the Chiltern hills, and within easy reach of London and the Midlands by road (just off the M1). The Club has a comprehensive fleet of dual and solo aircraft, reliable launching equipment including tug aircraft. This famous site has plentiful thermals in summer and hill soaring with favourable winds throughout the year. Resident instructors, catering every day (weekends only in winter), licensed bar, accommodation and other facilities. Visitors welcome.

Write for 1972 course brochure or club membership details to the Manager or ring 0582-63419.

WEST WALES GLIDING CLUB
HAVERFORDWEST

Withybush Airfield is centrally situated for over 70 miles of National Park coastline and unspoilt beaches for your family holidays.

Ab-initio courses on Falke, Capstan and T21B. May to October.

Camping and caravan facilities available.

Brochure & fuller information from Gliding Secretary :
136 HAVEN RD., HAVERFORDWEST
Tel. Haverfordwest 3156

Northumbria Gliding Club

Currock Hill

The English Wave Site

Situated ten miles west of Newcastle upon Tyne. Learn to glide on a week's holiday course from £18 to £22 per week, or bring your own glider for a winch or aerotow launch into the Pennine Lee Wave and do Silver C Duration at Gold C Height

Details from: D. Wilson
Aken House, 6 Kepwell Bank, Prudhoe on Tyne

There is no better place to fly from than

THE LONG MYND

home of the

Midland Gliding Club Limited

WHY NOT COME AND SEE FOR YOURSELF?

Private Owners welcome
(Advance booking necessary)

Holiday courses April-October

All Enquiries:
Course Secretary
Tel. Shrewsbury 4131
(24 hour answering service)

Or if you have time to write(!)
256 Crowmere Road, Shrewsbury, SY2 5LF

SCOTTISH GLIDING UNION

Portmoak
Scotlandwell
by Kinross
Scotland

Telephone
Scotlandwell
243

THE WAVE SITE

Excellent Hill, Thermal and Wave soaring in beautiful surroundings

Full accomodation available with catering and bar

Flying 7 days per week all year round

Resident Instructor

Aerotow and Motor Falke facilities

Summer Holiday Courses from April to September

Visitors and visiting aircraft welcome

Advance bookings necessary in writing to the Secretary

VISIT THE YORKSHIRE GLIDING CLUB IN 1972

*Holiday Gliding Courses
*Modern Fleet
*Superb Clubhouse & Airfield

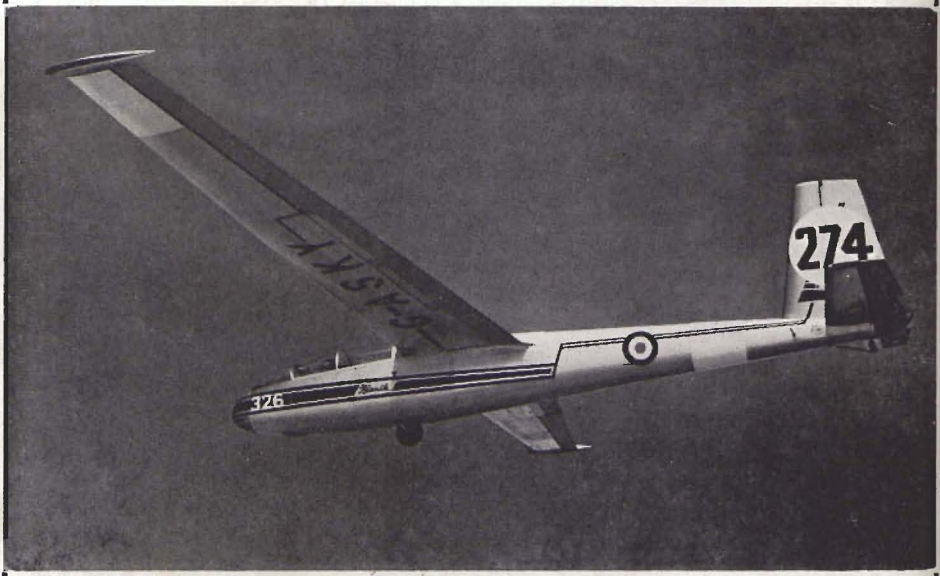


For illustrated brochure, write:
THE SECRETARY, YORKSHIRE GLIDING CLUB, SUTTON BANK, THIRSK, YORKS.
Tel. STD. 08456-237

SOAR AHEAD WITH A 'BLANIK'

Unsurpassed in Performance and Reliability
Fully Aerobatic

Now with Improved Airbrakes



Delivered U.K. £2,425 (including instruments)

Over 1500 manufactured and production continuing

Get with it—join the 'BLANIK' set and progress in the '70's

Distributor for U.K., Eire and Canada:
Peter Clifford Aviation Limited, Oxford Airport, Kidlington, Oxford
Tel. Kidlington 4262 Cables: Cliffair, Oxford

Sole Exporter for Czechoslovak Aviation Products:
Omnipol Limited, Washingtonova 11, Prague 1, Czechoslovakia