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JUNE-JULY 1976

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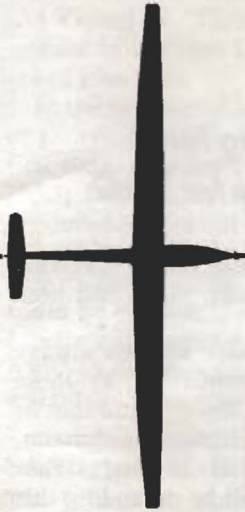
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# SAILPLANE & GLIDING

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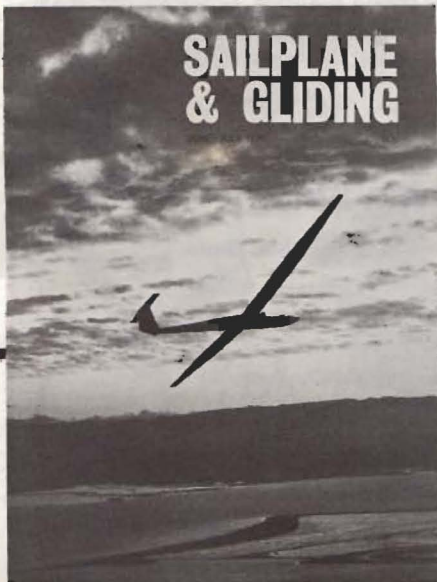
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# COUNTDOWN TO FINLAND

**RIKA HARWOOD**

*gives us the latest information before leaving for Rääskälä to cover the World Championships for S&G.*

As this issue is published, 25 nations are on their way to Finland, the land they hope will bring them fame so that they can return to their homesteads triumphant and bring back with them the most coveted title there is in our sport, that of World Champion.

Rääskälä, the venue for this year's most important competitive event in the gliding calendar, the 15th World Championships, is one of Finland's busiest gliding sites, situated about 80km NW from Helsinki, its capital.

The airfield was built in 1940 for military use, but was never needed and became derelict. Then in 1963 the gliding fraternity took over and with tremendous effort cleared the field of 23 years of pine tree growth, and turned it into a haven for glider pilots where they can relax and enjoy their soaring.

By the time the participants arrive on site, the Finnish Aeronautical Association, the organisers, should be ready, after two years of hard work and planning, to start the more pleasant part of their job—the actual contest when pilots take over to start their struggle for supremacy!

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## *Dry or blue thermals not uncommon.*

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The cross-country season usually starts in May and by mid-June the daily Max temperatures often rise to around 20°C. Cloudbase generally rises to about 6000ft during the afternoon and not infrequently to 7500ft with an average thermal strength of 2—4m/sec. Also dry or blue thermals are not uncommon. In south Finland, however, one can expect about eight days of the month with some rainfall, while thunderstorms can be expected on a few days. Pilots who normally fly near industrial areas will appreciate the excellent visibility which normally accompanies good soaring conditions. Let us hope the weather between June 13-27 won't let us down!

Apart from the weather the countryside the pilots have to fly over also plays a big rôle, and each World Champs creates its own problems for them, as they may have to change their techniques completely from what they are used to. I well remember that I often felt sorry for the pilots who made their debut in Yugoslavia, 1972; they never stood a chance to prove themselves. Even the most experienced of the participants were scared stiff on occasions, of the dreadful and often flukey conditions they had to fly under.

In Finland with its 60000 or so lakes, with Rääskälä lying in the middle of the biggest forest area in the south, final glides (which go wrong for any reason) should probably be counted as one of the main hazards. The Finns, however, have taken great care to give detailed

information for an area of about 50km round Rääskälä and in all directions, and this, no doubt, pilots will heed and bear in mind.

To speculate who will be the ultimate winners always seems a topic discussed, with great animation, by those interested in such things. But one only has to recall that in 1970, the then unknown newcomer, Helmut Reichmann, became Standard Class World Champion at Marfa. That title he won again at Waikerie and will be defending this time. The previous placings, intended for background information, show that there exists no formula, or law of average, to be able to predict the outcome. All one can say is that pilots have to score pretty high marks every day to have a chance to come out top. At Waikerie the average score for the Open Class over 11 days was 966, and for the Standard Class 847 points! As always, so much depends not only on the weather, but on the type of conditions they have to fly under, as well as the number of contest days achieved, that anyone's guess will be as good as mine—but secretly, I suppose, we all back our favourites!

The name probably noticed by its absence from the entry list is that of Open Class World Champion, George Moffat, USA, who has not been selected by the Americans to defend his title (see insert). Even though we shall miss seeing George and a number of other old friends we look forward to making new ones. A total of 88 pilots (39 Open and 49 Standard Class) appears on the list.

With the entry list still liable to changes of pilots and gliders until the start of the contest it is still interesting to note that Schempp-Hirth will have a record number of machines flying in both Classes. In the Open Class over 50% of the entries are flying Nimbus 2. Schleicher ASW-17 follows with 9; the Polish Jantars this time number 5, one of which is a 20m version to be flown by

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Dick Johnson, USA. The only other types in this Class are one each of the Glasflügel Kestrel 604, Slingsby Kestrel 22 and Kestrel 19. There seems to be, understandably, little interest in the 19m Cup as only the Kestrel 19 and Jantar are of 19m span.

In the Standard Class there is more variation in the types of gliders. Six types will be flown in World Champs for the first time, they are : The ASW-19 with 1; Astir, 1; Cirrus 75, 7; DG-100, 2; Hornet, 2; and the PIK 20B which is produced in Finland and which were of course for hire. Of the others the Std Cirrus is still in with 8, but the LS-1F with 6 seems more popular than before; this, however, could be because it is now more easily available. The Std Libelle has dropped to 1 only, while the Std Jantar and ASW-15 are in with 3 and 2 respectively. The new ships will no doubt be watched very closely!

### SAAB sponsors British Team

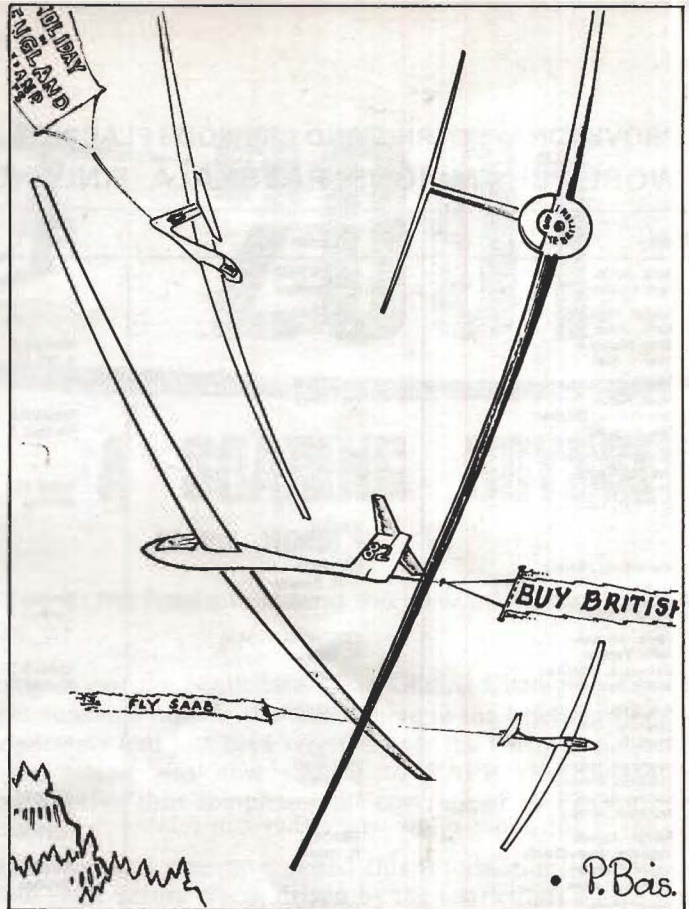
The British car manufacturers were approached without success, but SAAB has come to the aid of our Team and are not only lending us five Combi Coupé cars for two months but are also making a significant contribution to British Team funds. This, we are pleased to say, has put the Team in a much better prepared position than otherwise would have been possible.

### VISIT TO BUCKINGHAM PALACE

HRH Prince Philip The Duke of Edinburgh, KG, who is patron of the British Gliding Association, has invited the British Team to visit him at Buckingham Palace before their departure to Finland on June 2.



"S'cuse me squire, but could you tell me who owns this 'ere field."



"Are you sure that we're not taking sponsorship seriously."

### GEORGE MOFFAT

The non-selection of World Champion George Moffat, USA, has created a lot of emotion and public outcry in various gliding magazines. Letters of disappointment, and possible solutions for future events, by Helmut Reichmann and Fred Weinholtz, were published in the April issue of *Soaring* at the request of K-H Remmp of the German Aero Club.

Most pilots, however, respect George's proven ability as a competition pilot, and will go on doing so. Perhaps a few will be relieved, or others, may feel they have lost a chance to pit their skills against his, at least for this World Championship!

George probably appreciates the concern expressed on his behalf; but I can't believe that he would support some of the alternatives raised after the Team had been announced according to the US current system—the workings of which he knew so well from past experience!

Whatever the different selection systems used all over the world may be—there are bound to be pilots who fall by the wayside. It has happened in the past rightly or wrongly, but when it befalls the reigning Champion it is more difficult to understand but one should not interfere with the system used and accepted, I assume, by pilots of the National Aero Club concerned. The pilots themselves should make it their business to keep their country's selection system under review and recommend changes when it is seen not any longer to be fair.

CIV's rejection of the proposals made to them, of letting a reigning Champion defend his title even if not selected by his own country, was, therefore, no surprise. Had it been otherwise it could have set a very undesirable precedent, which might prove to be difficult to change, once accepted.

PROVISIONAL ENTRIES AND PREVIOUS PLACINGS

WORLD CHAMPIONS, RÄYSKÄLÄ, FINLAND, JUNE 13-27, 1976

Name	Country & T/Captain	Class Open	Standard	1974	1972	1970	1968	1965	1963	1960
Riera, Jorge Rizzi, Roberto	ARGENTINA R. Hossinger		Std Cirrus Std Cirrus	34-S	27-S	17-0				
Renner, Ingo Rowe, John Jinks, Malcolm Wilson, Alan	AUSTRALIA J. R. Muller	Nimbus 2 ASW-17	DG-100 Hornet	2-S	6-S	34-0 16-0	29-0 32-0	29-S		
Hämmerle, Andreas Wödl, Harro Fahrafellner, Othmar Schubert, Alf	AUSTRIA W. Peters	Nimbus 2 Nimbus 2	Cirrus 75S DG-100	9-0 30-S	36-S	21-0 18-S	1-0 18-0	12-S	5-S	
Bluekens, Michel Stouffs, Henry Zegets, Bert de Preter, Luc	BELGIUM J. Verbinen	ASW-17 Nimbus	? LS-1F	27-S 2-0	38-S 18-0	37-S 13-S	5-S 10-0	11-0	27-S	
? ?	BRAZIL ?		? ?							
Werneburg, Helmut ?	CANADA T. R. Beasley	Nimbus 2 Nimbus 2	Std Cirrus ?	21-0 18-S						
Carpenter, Jim Webb, David					10-0	28-0				
Vávra, Jaroslav Wala, Tadeas Matousek, Frantisek Satny, Jan	CZECHOSLOVAKIA M. Gajdos	Nimbus 2 Kestrel 19	ASW-15B ASW-15B		45-S 23-S		11-S			
Øye, Stig Sørensen, Ove Braes, Ib	DENMARK ?	Nimbus 2	Cirrus 75 ?	23-S	43-S		23-0	32-S	22-S	
Nurminen, Raimo Kuittinen, Markku Horma, Juhani Wiitanen, Matias	FINLAND P. Lehto	ASW-17 ASW-17	PIK-20B PIK-20B	13-S						
Rantet, Jaques Lopitiaux, Jean-Claude Ragot, Francois Mazalerat, Alain	FRANCE R. Hersen	Nimbus 2 Nimbus	LS-1F LS-1F	11-0	20-S 2-0	10-0	12-0 24-S	24-S 13-S	3-S ('58/4-S) 14-S	
Jones, Ralph Burton, George Fitchett, Bernard Lee, George	GREAT BRITAIN R. Q. Barrett	ASW-17 ASW-17	Cirrus 75 PIK-20B	12-0 4-S	6-0 32-S	4-0	7-0	5-S		
Paré, Dean Musters, Cees Réparon, Dick Kull, Roel	HOLLAND ?	Nimbus 2F Nimbus 2	Cirrus 75 Cirrus 75	14-S	20-0 17-0	10-0	14-S	21-S		
Petróczy, Györgi Szabadfi, Botond Hahner, Istvan Szentvölgyi, Tibor	HUNGARY V. Lakatos	Jantar-1 Jantar-1	Std Jantar Std Jantar		22-S	9-S	17-S	17-0		
Bryson, Jeremy	IRELAND S. Dunne	Kestrel 22								
Monti, Roberto Brigliadori, Leonardo Vergani, Walter Gavazzi, Marco	ITALY E. Galli	Nimbus 2 Nimbus 2	Cirrus 75 Cirrus 75			22-0	23-0	16-0	4-S 24-S	21-S
Fujikura, Saburo	JAPAN ?		PIK-20	27-0	37-0	38-0				
Cameron, Alan Timmermans, Tony Pryde, Ian Yarrall, Doug	NEW ZEALAND J. Roake	Nimbus 2 Nimbus 2	ASW-19 Std Cirrus	7-S 20-0	15-S 31-S 17-S	5-0	11-0	41-S		
Johannessen, Tor Rønnestad, Einar	NORWAY H. Høimyr		Std Cirrus LS-1F		48-S	8-S		28-S	23-S	
Kepka, Franciszek Pozniak, Henryk Muszczyński, Henryk Ziobro, Julian	POLAND T. Rejniak	Jantar Jantar	Std Jantar Std Jantar	3-S	3-S 15-0 8-0	3-S		3-S 16-S		
Clifford, Bobby Shields, Wesley Goudriaan, Klaas Mouat-Biggs, Tim	SOUTH AFRICA B. Stevens	ASW-17 Nimbus 2	Std Cirrus Astrir CS			11-S		26-S		
Andersson, Göran Karlsson, Gunnar Ax, Göran Pettersson, Ake	SWEDEN P. Ljungren	ASW-17 Nimbus	PIK-20B PIK-20B	11-S 7-0 12-0		1-0 29-0	15-0 13-0	2-0		
Hedinger, Hans Lüthi, Bernhard Fröhner, Herbert	SWITZERLAND H. Knecht	Nimbus 2	Std Libelle Hornet	22-S						
Beltz, Tom Briegleb, Ross Johnson, Dick Butler, Richard	USA ?	Jantar 2A Kestrel 604B	PIK-20B Std Jantar	17-S 8-0	5-0		8-0	18-0	4-0	15-0 (52/24S)
Pasetsnik, Oleg Rudenskij, Jevgenij	USSR A. Karabanov	? ?					26-0			
Peter, Ernst-Gernot Reichmann, Helmut Neubert, Walter Holighaus, Klaus	WEST GERMANY M. Reinhardt	ASW-17 Nimbus 2	LS-1F LS-1F	1-S 5-0	24-S 10-0 7-0	1-S 6-0				
Gatolin, Miodrag Strukelej, Franc	YUGOSLAVIA P. Bugarski		Std Cirrus Std Cirrus	21-S	44-S		27-0			
Hodge, Paul Pearson, Ted	CENTRAL AFRICAN SOARING ASSOC		PIK-207 PIK-20							

S = Standard Class; O = Open Class; Ss = Single-seater Class.

# 2001 -

## A SOARING ODYSSEY ?

GLORIA MUNDI

Another look at gliding in the future following the view taken by Philip Wills in the February issue, p5.

It was the opening day of the Ninth Hebridean Gliding Championships, but despite the bright sunshine outside the atmosphere in the briefing room was heavy with gloom: news had just been received over the videophone that the airspace over the Island was now subject to RAPE (Rotorplane and Powerplanes Exclusively), thus completing the coverage of all Pan-European airspace in this category.

Sadly the handful of enthusiasts present digested this information, and thought bitterly of the day nine years before when, driven by the restrictions on the mainland, they had been welcomed by the leaders of the newly independent Island whose economy, lacking the oil of its wealthy neighbours, depended on tourists coming to see the practice of ancient arts and pastimes. Now it seemed that even the limited airspace over the Island was subject to the conventional wisdom that there was no room for craft which could maintain neither a constant altitude nor heading.

Suddenly the glum silence was broken by the sound of distant cheering, and over the skyline appeared a cavalcade of motorised bathchairs followed by a hijacked hovercraft whose decks were crammed with ancient glider trailers carefully preserved for this moment. The strange procession halted in front of the would-be contestants, and the leader pattered forward to address them in a quavering voice:

“Ladies and Gentlemen, the time has come for one last act of defiance:

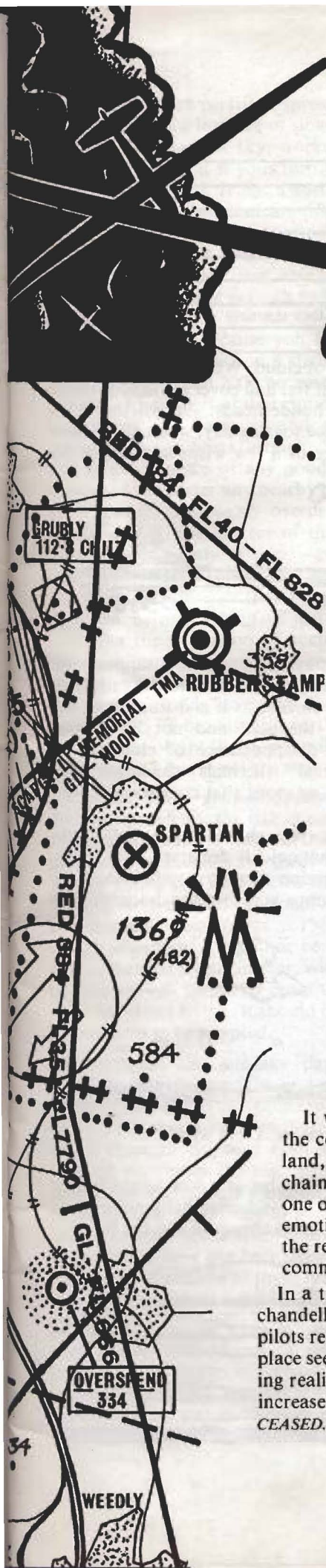
‘One crowded hour of glorious life  
Is worth an age without a name.’

The task for today must be a goal race to London Airport, Heathrow.  
God save the Exiled King.”

Quickly the aircraft were unloaded and assembled by willing hands. Not for twenty years had so many gliders been seen openly together, and there was many a damp eye as the pilots strapped themselves in and prepared to take-off. A green Verey light soared into the air and one by one each graceful craft was launched into the sky.

It was a magnificent day, with a fresh north-westerly wind and lines of vigorous clouds lining the course. Like silver crosses against a dazzling backcloth they sped across the sea to the mainland, then over the Grampian mountains, the Scottish lowlands and southwards along the Pennine chain. From time to time, as they passed over such historic landmarks as Crossfell and Camphill one of the leaders would be seen to falter, and then flutter downwards out of control, overcome by emotion yet content to rest forever on the site from which he had made his first soaring flight. But the remainder sped on, and, with a last thermal over the Aylesbury Synthetic Duck Factory, they commenced their final glides.

In a triumphant line the gliders flashed across the terminal buildings and pulled up into graceful chandelles to land on the six parallel main runways. Dazed by the elation and beauty of the flight the pilots remained in their cockpits, uncertain as to what would happen next. Then they noticed that the place seemed deserted, and there was grass growing up through the concrete. And suddenly the blinding realisation came: the immutable law that the amount of air traffic decreases in proportion to the increase of air traffic control had been taken to its ultimate conclusion: *ALL AIR TRAFFIC HAD CEASED.*



# Too Much or Too Little

ANN WELCH writes another article in her series on Met for pilots starting cross-country flying

During your first soaring season you will have discovered that a good forecast, followed by an arrival at the club to find every glider out and ready, sometimes does not mean a thing. The promise of that perfect morning, with the clean blue sky dotted by the first wisps of encouraging cumulus, dies, and by the time it is your turn to go, the sky is completely covered by an uninteresting grey eiderdown. Alternatively, plenty of blue spaces remain but the cumulus are shooting up like tower blocks and the horizon is already black. Sometimes the forecast may have warned the careful listener of these possibilities, but if not, how can you discover them for yourself with no more equipment than your own eyes?

The two factors that will affect the development of thermals and their cumulus clouds are, of course, the stability—or instability—of the air, and its dampness—the amount of water vapour that it contains.

The stability of the air is determined by the rate at which the temperature falls with height. The normal rate for ordinary “dry” air is 5.6°F per 1000ft (3.1°C/1000ft), called the Dry Adiabatic Lapse Rate (DALR). For thermals to strongly develop, good hot sunshine is needed to boost the lapse rate, at least in the lower levels. This *super adiabatic lapse rate* helps the thermals get started and become established before reaching up into air which is cooling at the more stable dry rate. If the temperature of the air ceases to fall with height, or actually increases with height, even through only a shallow layer, the thermals will find themselves no longer warmer than the surrounding air and will be unable to climb through this *inversion*. If the thermals are weak they will just peter out on reaching the inversion, but if they are strong the rising air will spread out a bit like treacle.

Whether or not cumulus develops at the top of a thermal depends on the amount of moisture—as invisible water vapour—contained in the air. All free air space carries some moisture, and warm air is able to carry more water vapour than cooler air. As the thermal rises it is also cooling, and sooner or later will cool beyond its ability to carry all its water vapour any longer. When this moment occurs the excess water vapour condenses into droplets, becoming visible as cloud—and neatly marks the thermal.

If the air is fairly dry, as it is more likely to be in anticyclonic conditions, cloudbase will be high, and the cumulus remain small, neat and well separated; just perfect, in fact. But if the air is moist, cumulus will develop earlier and lower in the thermal. The clouds will become larger because some warmth—the latent heat of condensation—is given off as the cumulus develops, and this boost to the thermal helps it rise faster and, of course, cool further, producing more cloud. So in moist air

weather expect quite a lot of cloud. What we want to know is whether it will spread out flat and cover the sky, or shoot upwards into towering thunderheads. Or whether it is going to be just a good, nice soaring day, when all we have to go on is the appearance of a few wisps at 09.30 in the morning.

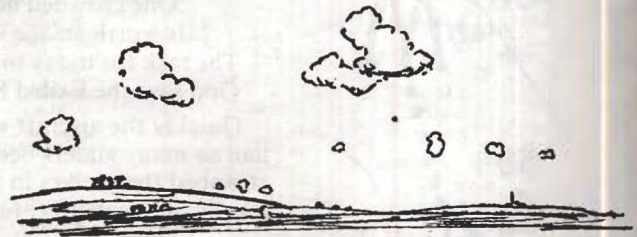


### Some good signs are:

The first rags of cumulus stay small or even disappear; the early scattering of cloud may well be due to the turbulent mixing of the air near the surface as it is disturbed by the first warming effects of the sun, and not be due to “proper” thermals. The disappearance of cloud for a while shows that the “real” thermals which are now beginning to grow are not so moist that condensation will take place at a low height.

Contrails. High flying jets should have only little contrail tails or contrails that quickly disperse.

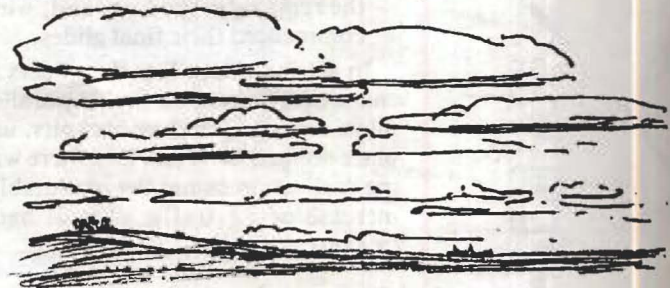
The appearance of genuine cumulus with uneven or irregular cloudbase and more vertical than horizontal in shape.



Pressure high or slowly rising. Light wind.

### Suspicious signs are:

Rapid development of cumulus at a low height before 10.00-10.30hrs, and which grows horizontally rather than vertically, or which has a remarkably even and flat base.



Contrails which persist or spread into broad bands.

Pressure on the low side or slowly falling. Fresh wind.

So you watched the sky, worked out what was likely to happen, and now it is your turn to go. The sky is covered all over with cloud. It has a sort of cumulus appearance, and some lighter bits indicate that it is not very thick, but there is no blue sky left anywhere. The wind is steady and light. This is good because there will be some warmth reaching the surface and able to remain over suitable thermal sources long enough to begin to slowly warm the air above them.

You launched, because you had no choice, but wisely decided to spend extra on a slightly higher aerotow. Even 2500ft is better than 2000 because it gives you an extra few minutes. About half of that cloud above is decaying, so the longer you can hang around airborne the greater the chance of a sun breakthrough. Stay upwind of the field, and in the absence of any good signs as to what to do, wander about under any nearby darker patch in the cloud. Even though thoroughly overdeveloped skies look quite devoid of lift, the centres of the joined treacle pools of cloud may be gently working—even no sink will help you stay there. Watch for patches of sunlight on the ground, but think and observe the sky, your vario, and the wind direction, before dashing off just as the gap closes again.

During the afternoon of such overdeveloped days the sky often becomes a complete mess, because new cumulus have grown and overdeveloped before the older flattened and sagging clouds have fully dispersed. But never give up your turn to fly because this sort of sky looks dead. Later, on some important flight, you will have to cross just such a flat area, and that is not the time to learn how to do it.

Cumulus that grows rapidly upwards provides two different problems; the risk in really unstable air of having the small cumulus over your head grow instantly into a great sucking monster, or throwing turbulence and hail at you, or giving you unexpected windshifts and gusts as you land in a field; and secondly, the widening distance between individual clouds as they grow bigger and taller. By the afternoon it may not be possible to reach a cloud and its thermal from another, without first climbing inside to gain enough height to cross the gap—and you haven't done any cloud flying. It should be apparent that this is not the moment to be tempted.

Sometimes, on blue sky days with a thundery feel thermals develop strongly, and stop abruptly and without cloud as they bump up against the lid of a strong inversion. For a while they even contribute to it so that the height to which thermals rise may even lessen slightly. But by the time of maximum heating, around 14.00—15.00hrs, the amount of increasingly warm air which is bumping into the inversion may be enough to break through into the cooler and less stable air above. Guess what? The air goes up through that hole like beer from a shaken can, and as you watch grows into one of those huge pink and hazy cu-nims. Avoid going with it.

The morning of such a day can provide fabulous soaring, with very strong lift generously distributed—but equally strong downs in between. If you guess this is what will happen get up and get going *early*. If there are big thunderstorms late in the day, the next morning will be useless and you can stay late in bed.

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# Wave Soaring at Sleaf

IAN PAUL

Sleaf airfield is situated in flat country some 15 miles north of the northern edge of the high ground of the Long Mynd and Stiperstones and 12 miles east of the Welsh border mountains. It is thus well placed for wave soaring in winds between south and west-north-west. Launching is by aerotow and gliders are usually towed to a convenient wave slot upwind of the airfield. Cloudbase during good wave conditions tends to be 2000ft to 6000ft asl with the cloud depth to the wave crest 4000ft to 5000ft above the base. Cloud cover varies from  $\frac{1}{4}$  to virtually  $\frac{3}{4}$  and sometimes there is only one small hole or thin patch of cloud through which to descend. Under these conditions recovery onto the airfield is usually by a modified VHF direction finder let down as the hole is rarely in a position from which a safe return to the field can be made from cloudbase. The wind strength on the ground during wave weather is usually between 10 and 30kts and winds at flying levels are 25 to 70kts.

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## Wave clouds seen between September and March

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Heights normally achieved vary between 6000ft and 14000ft with much higher being achieved on the best days. Wave clouds are to be seen between September and March on about 30% of days and our records show that over a 3½ year period there has been a 41% chance of soarable wave conditions during any given winter weekend.

The three highest flights from Sleaf by the Shropshire Soaring Group have been 16000ft, 24000ft and 26700ft on different days over a two year period. The following account is about the latter flight in a Std Cirrus on Sunday, October 5, 1975.

The wind on the ground was about 260°, 20kts and there was  $\frac{3}{4}$  cloud cover over the airfield, reducing to  $\frac{1}{4}$  some miles to the west and north-west. From the ground the cloud looked like strato cumulus but the gaps to the west were at right angles to the wind.

I was launched at 13.00hrs and released the tow at 2800ft asl over Rednal disused airfield some six miles to the west of Sleaf. Vic Carr (Kestrel 19) had earlier released in this spot and reported that the wave was working. He was at this time at about 6000ft working northwards.

After a short search I found 2—3kts of lift which quickly increased to 6kts and I climbed up past cloudbase at 6000ft. The cloud gap in which I was climbing was in the form of a very narrow V with the open end towards the north whilst I was almost at the southern closed end. At 8000ft the lift reduced so I set off northwards towards Ellesmere flying along the eastern edge of the V. As the V opened I was presented with the magnificent sight of an almost vertical wall of cloud from 6000ft to 9000ft curving gently intowind until it terminated at Birkenhead some 35 miles to the north. In the face of this wall at various levels were set the leading edges of lenticular clouds looking like inverted plates sticking out of the cement of the wall.

At 8500ft near Ellesmere I could see that with the exception of a thin high lenticular cloud (*thl*) to the north-west of Wrexham there was no other cloud above the layer past which I was climbing. This *thl* therefore became my objective and as the variometers were now showing only 1 to 2kts, I decided to

transfer to the next wave upwind of the southern end, about two miles south-east of Chirk. The transfer at 90kts cost me 2700ft and I arrived under the upwind edge of the very black cloud at 5800ft. Lift was contacted immediately and the audio variometer started to whistle happily to the tune of 6 to 8kts. As the wind was about 40kts I could hold the same position over the ground and climbed steadily to 13000ft with the glider's nose making a vertical groove in the eastern edge of Amber 25 airway. My pulse was now doing 120 per minute so it was time to go on oxygen. A call to Vic confirmed that he was also planning to sample the *thl* and was executing similar moves to my own.

From well above the top of the cloud layer one could now see that the wave slots were confined to the area immediately downwind of the high ground on the Welsh border. To the east and particularly to the west over Wales, the cloud layer was virtually unbroken. My narrow wave slot curved a little to the west over the top of Wrexham to a position under and about two thirds of the way back from the leading edge of the *thl*. Increasing speed to 65kts, I set off northwards still climbing and was pleased to find that 15500ft was soon passed so that it was possible to fly with a clear conscience over the top of Amber 25 to directly attack the *thl*.

From the width and vertical curvature of the *thl* it could be inferred that the upper wave system had a wave length of 25—35 miles, so that under these conditions this may be the primary wave off the Snowdon range. Certainly there was no other wave cloud upwind of this one, even right down to the lower cloud sheet. As the wave length of the lower system through which I had climbed was the more usual 6—7 miles, it looked as if the transfer to the upper system might be difficult.

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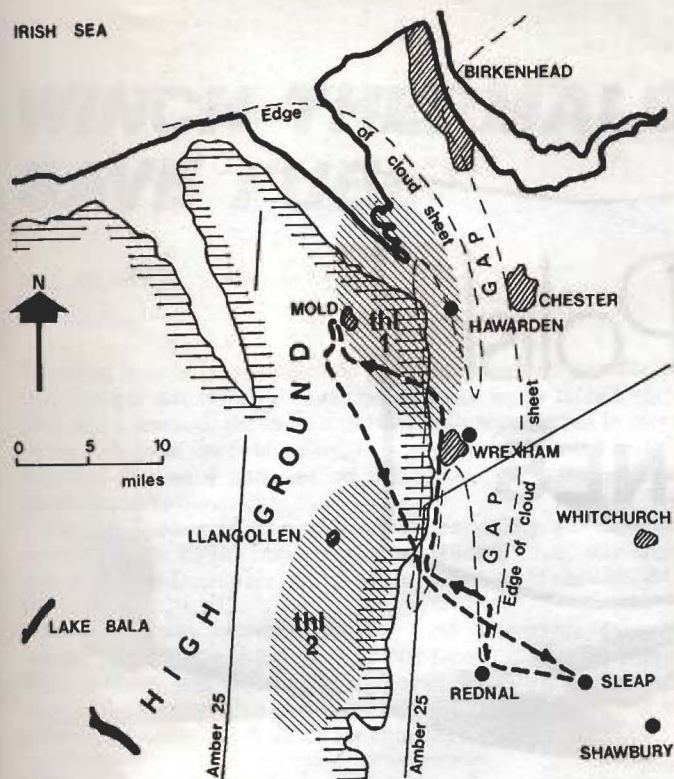
## Mentally pocketed a Diamond as the climb increased

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I decided to follow my present wave keeping as high as possible until I was under the southern edge of the *thl* and then to work north-west towards its leading edge. At 17000ft I made my move and flying at 65—70kts crept out under the *thl*: the rate of climb fell from 1½kts to zero and stayed there for a long time then slowly came to ¼kt, then ½ and eventually up to 3kts as I moved out under the upwind edge. Now pointing west and flying at 60kts, I noted that the base of the *thl* was at 19000ft. The climb increased to 5—6kts and I mentally pocketed a Diamond as the Std Cirrus climbed smoothly through 22000ft (I had earlier decided that a 19000ft gain would give a good safe margin). Behind me the crest of the lenticular fell below the horizon at 23000ft; so the *thl* was not so *thin* after all, it was 4000ft thick but just looked thin because of its great horizontal extent.

The oxygen gauge showed 50% remaining which was a satisfactory level. A call came over the radio from Vic at 20000ft "Oxygen failure—diving"; a pity because the Kestrel would undoubtedly have gone higher than the Std Cirrus in the same wave. This later turned out to be due to wet oxygen freezing in the pressure reducing valve.

The rate of climb had now fallen to about zero so I increased speed to 75kts and moved westwards finding 1½kts again. I



decided to see how far it would take me and maintaining my position over the cloud pattern now far below continued to climb gently. Down in Amber 25 incredibly small 707s were scuttling along. To the SSW about ten miles away a further *thl* was now forming at the same height. Above, the sun was shining out of a clear blue sky and this was keeping me reasonably warm although my feet were becoming cold.

The whole of Wales was covered by an unbroken cloud sheet, the top of which was at about 9000ft, with here and there a steep wave crest embedded in the top of the sheet. To the west the sun was shining on Caernarvon and Cardigan Bays whilst to the north the Irish sea was visible as far as the eye could see. In the extreme west a dark line just below the horizon was suggestive of the shadow of a cloud layer, possibly over the Irish coast.

At 26700ft I could squeeze no more out of my wave and pondered briefly on trying the now quite large *thl* to the SSW as it looked more impressive than my *thl* and might produce 30000ft or more. A check of the oxygen showed 30% remaining and as it would take an hour or more to descend, and also my feet were becoming rather painful, I decided to return to earth.

I opened the brakes and moved to a position near Chirk letting down through a hole to about 5000ft. The rate of sink was held to 6kts and I indulged in nose blowing every 2000ft to minimise unpleasant physiological effects.

On landing the whole aircraft was found to be dripping inside and out with condensation due to the low airframe temperature. On the ground the oxygen gauge showed 25% so perhaps there would have been time to try the second *thl*. I had spent two hours on oxygen, the whole flight lasting 3 3/4 hours.

The *thl* is seen regularly from Wrexham during wave conditions with the wind in the west. Most of these occurrences are inevitably mid-week when we do not fly, but just occasionally it happens at a weekend. It would seem reasonable to assume that 30000ft or more is available in the area and it was probably achievable on this occasion in a Kestrel.

On reflection it seems that we have until now misjudged the magnitude of this wave system. It is much higher and of much greater wave length than we normally encounter, so that a considerable mental re-adjustment is needed to appreciate the possibilities. Full exploration will need oxygen systems of up to five hours duration and improved thermal insulation for the feet and legs.

## SLEAP'S SUCCESS FORMULA

Ian Paul is a member of Sleaf, a small soaring group attached to the Shropshire Aero Club. The background to the club is interesting and their record impressive. JOHN JEFFERSON has amassed the Group's statistics and gives some of the details.

In the early 1970s Ian, a founder member of the Newcastle and Teesside GC, wanted to start a soaring club in his locality and thought the Sleaf site, about eight miles north of Shrewsbury, would be favourable. It was a war-time airfield and the Shropshire Aero Club was allowed to fly from there and use some of the buildings. When the 400 acres of land was sold in 1971 the club made an agreement with the buyer to allow them to continue operating.

Ian contacted the committee in early 1972 for permission to form a soaring group and it was decided this would be acceptable if all gliders carried radios, were controlled by the tower for take-offs and landings and that there should be no training.

He cast around for some likely lads who would form a group not exceeding eight sailplanes and they were soon assembled. The qualification of the members was to be not less than a Bronze C. The next step was to get a tug and build a hangar.

What wasn't realised at the start was the excellence of the site which from autumn to late spring is frequently blessed with strong wave from the Welsh hills some 15 miles to the west. We have had many wave flights of over 5000ft and the site record is 26700ft.

We have now flown for three full seasons and the set-up has been one of success and promise. Today there are 17 members with a K-13, Sky, two K-6s, Dart 15, Std Cirrus, Std Libelle and Kestrel 19.

If you take the cross-country kilometres per launch as an indicator of success, then the extract calculated from the results of 96 clubs in the Feb issue of S&G (p32) shows:

Polish AFA	19.6	Shropshire	16.2	Norwich Soaring	14.1
Coventry	13.7	Hereford	4.6	Cambridge Univ	4

If you take the ratio of Silver C badges per season to total members as an indicator of success, the results for the 1974/75 season show:

Club	Members (A)	Silver Cs (B)	B/A
Shropshire	18	6	333
Enstone Eagles	45	5	111
Inkpen	110	10	91
South Wales	91	7	77

Note: B/A expressed as a whole number gives the chances per 1000 of a random member attaining a Silver C in that season.

We really welcome visitors and they should contact Ian Paul at Fairfields, Cross Lane, Oscroft, Tarvin, Chester. Tel Tarvin 40787. We could take one or two more syndicates and Ian will give information.

Our results show what can be done by small groups lucky enough to find a site and determined to fly.

## Breakdown

Husband and wife driving past Newtownards airfield. Husband catches sight of an Ulster GC glider on tow:—

“Look—there's a glider being launched.”

Wife: “Oh look—it's being towed by an aeroplane. It must have broken down.”

R.R.R.

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# WINCH THERMALS SAVE FUEL

A. E. SLATER

Winching is usually organised to give the maximum number of launches per day. If they could be so timed as to launch each pilot into a thermal, the same number of pilots could put in more flying time from fewer launches, thus saving not only the cost of fuel, but also wear and tear on the winch, the cable and the glider. It can be done.

The classic piece of research into this possibility was done on April 18, 1938, by the Imperial College Gliding Club, who were then housed at Dunstable, and the results were published in S&G for January 1939, p12.

The wind was blowing directly from Dunstable Cement Works, two miles upwind to the NNE from the launch, whose 300ft chimney was pouring forth smoke. To get a partial side view of the smoke, observers were stationed at the north end of Dunstable Downs, from which the chimney was N by E.

## Watchers would signal to the launch point

For most of the time the smoke streamed away almost horizontally, but every now and then it would break up into one or two large lumps which could be seen ascending. The watchers would then signal to the launch point by car lamps: one lamp for a thermal leaving the chimney; two lamps when they estimated it had reached the launch point, the estimation being made by trial and error. Error came first with an allowance of 3 minutes, which gave no thermal contact, then 2 ¼ minutes gave a launch into a downcurrent, which they had actually seen preceding the thermal as it left the chimney.

Then they had the bright idea of timing a cloud shadow from the chimney to launch point; it took 4 ¼ minutes. So that was their allowance from the next chimney thermal, and the normal airborne period from a launch was doubled. For the next launch, five minutes were allowed, and the result was not so good. So the research programme was completed within the space of four launches.

These could have been no "bubble" thermals, or they would have gone up out of reach after two miles' travel. They must have been quasi-permanent thermals in the faster upper air, feeding themselves from successive doses of the slower-moving heated air just above the ground, each dose being downwind of the previous one. The clouds were rather like strato-cumulus with gaps, and their pattern had no relevance to the distribution of thermals below.

Isolated cumulus are different. Soaring at Dunstable in the Kassel 20 in 1934, I noticed a sudden violent increase in the wind every time a cloud shadow arrived. Evidently a thermal had just gone up, and the cold air in the shadow was rushing ahead to fill the gap. But this thermal could hardly have been feeding the cloud, which would have lagged behind its shadow in a west wind in the afternoon.

Five years later John Pringle adopted the same idea, and the Cambridge University Club hoped to try it out with winch launches to 800ft at Caxton on August 18, 1939; but there was so little wind that no one had the patience to wait for the next cloud shadow, as they were getting good climbs without its help anyway. However, I did hear that Pringle succeeded once though it was not recorded in Club News (September 1939).

Another way of detecting an increased wind coming to replace your intended thermal was tried out by the late Louis Slater during the last war when he had charge of an ATC gliding school at Walsall aerodrome, which was out of reach of town thermals but had a number of tall trees outside its boundary. On days of light to moderate wind he would watch the tree-tops directly upwind till the leaves and twigs began to flutter, and then order a launch, which quite often resulted in a prolonged thermal flight.

A similar technique was said to have been used at the 1936 Wasserkuppe Contest on a calm day, when field glasses were directed onto the trees at the bottom of the mountain slope, thus giving ample warning of a thermal's approach.

The inrush of air towards the bottom of a thermal is not necessarily cold air replacing it, but can be warm feeding it. On a day of light wind or calm, quite a thick layer of warm air can be built up just above the ground because, in the absence of mechanical push, warm air will only rise if there is colder air alongside at the same level, not merely above it. So this warm layer is pulled horizontally from all sides towards the root of any thermal that is going up; and since the warm layer is usually thicker than the height of a windsock, this motion shows itself as a deviation of the wind direction on either side of the thermal, or an increase of the wind to windward of it, or a decrease, or disappearance, or reversal, of the wind to leeward of the thermal.

At Dunstable, Dudley Hiscox built up a reputation for catching thermals off the winch by using this phenomenon. When all other pilots were at lunch, so that he could choose his own launching time, he would watch the windsock until it suddenly changed direction, then signal for a launch. This, of course, works best at a club employing caterers who expect their customers to eat to a strict timetable—and thermals tend to be at their best at lunch time.

For stronger winds, in which modification by thermals must be detected before they reach the winch, something or someone would be needed upwind of the site, such as a bonfire, or smoke machine, or a human with anemometer and wind vane and a means of signalling such as flags or radio.

A kite would indicate an approaching thermal best of all—until some fool flies into it.

Finally there is an artificially produced thermal. Once at the Long Mynd a T-21 was circling interminably, very low down in a weak thermal, neither gaining nor losing height, when the late Jock Campbell, who was Club Manager at the time, took out a Beaverette and drove it round and round immediately below the glider, disturbing the warm surface layer and loosing off a lot of hot air from inside the heater. The T-21 began climbing at an increasing rate and was soon well away among stronger and higher thermals provided by unaided Nature:

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# ACCIDENT REVIEW

## — MORE LAUNCH ACCIDENTS

In the last issue, as well as Derek Piggott's "Advice on cable break briefings" (p68), Bill Scull, Senior National Coach, took a look at some of the consequences of low level launch failures and cable breaks (p70). He now focuses on accidents caused by errors in planning, judgment and decision making.

*"I commenced the launch in the normal manner, excessive speed built up and the cable broke. I decided to land straight ahead but due to the lack of wind I carried on and collided with the upwind boundary fence."*

The damage was substantial, the pilot not injured.

The estimated height of the cable break was 500-600ft. What is it that makes a pilot go straight ahead from such a height? If he believes that there is enough room straight ahead then he will be taking what he thinks is the safest option. Evidently this pilot did not have the perception to see that he was overshooting and perhaps his state of confidence precluded him making the necessary decisions on his third solo flight. Perhaps he should have abandoned the launch sooner—which brings us back to decision making.

The CFI's comments were that:

*"He had dealt successfully with cable breaks at 50, 150 and 450ft in his training. We strongly discourage a pilot from trying to fly a short circuit following a cable break or launch failure. . . Normally a height in excess of 500ft will be too high to land ahead and pilots are made aware of this."*

It seems that too much emphasis was being placed on heights. Heights, if used at all, must be related to the position over the airfield at the time of the failure and the strength of the wind. If the launch is different in any way then the height and position will not be appropriate to a typical launch and a pilot "programmed" to respond with "straight ahead" solely related to height will commence the wrong pattern. Too much emphasis on height may result in an incorrect decision if the position and wind are different from previous occasions. One final point emerges from this report. The training that this student had been given was in "launch emergencies". The very connotations to this title suggest the need for hurried action and it is this which often causes the accident.

Landing ahead when it isn't possible has its counterpart in turning when *only* a straight ahead landing can be achieved. The consequences in this case are often much more serious.

*"... the cable broke when the aircraft had reached 100-150ft. . . the nose was quickly lowered and normal approach speed achieved after a few seconds. When the glider had been flown into wind for about five seconds a turn to the left was initiated. Speed appeared to be maintained throughout the turn but there was no chance of a turn being completed; the aircraft struck the*

*ground port wing first with 50-60° bank and an estimated ground speed of 60kt still moving but beginning to come crosswind."*  
The picture tells the story better than any words.



What is it that triggers this response; one can only conjecture. Had the majority of the training and subsequent solo launch failures been at a height where a turn was necessary or possible thus building up a habit pattern? It is one and, perhaps, the only possibility. The other is that the pilot believed he was already above a height from which a straight ahead landing was not possible.

### A variety of situations for the student

The problems in training are creating a variety of situations for the student to deal with and suppressing any prompts to ensure that the decision was really made by the student. The three alternatives, straight ahead, "S" turn and full circle are generally considered as appropriate options for different height bands which is wrong in principle. At many large airfields once "straight ahead" has ceased to be an option, then the full circle, or circuit reduced in size, becomes an immediate possibility thus excluding the need for the "S" turn. From the single grass strip—the sort of airfield we will have to use more in the future—especially if it is narrow, then the "S" turn is much more difficult because there is less likelihood of a landing across the field the ideal being the into wind landing in crosswinds. The same is true of an airfield where the landings are confined to the runways. In this sort of situation planning has to be much more flexible and include landings off the airfield and downwind landings.

*"I pulled off the launch at about 450ft as it was too fast. I hesitated and this lost me the chance to do a 360° turn back into the airfield. (I wonder if it really did?) I then tried to find a field to the left of the airfield (the into wind side) but this proved to have electricity poles in it. (Surprise, surprise!) From here I turned downwind and attempted a downwind landing. The wind was too strong for this, about 15kt with 30° across. When it was evident that I would not stop before the boundary fence, I ground looped the glider and this pulled the skid off."*

The pilot seems to have considered all the alternatives—or



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were any really feasible? A field with electricity poles in it was never an option and a downwind landing in a 15kt wind where the approach ground speed would be at least 65kt, compared with a minimum 35kt into wind, would be quite difficult to judge. So, in spite of the 360° turn being rejected as a possibility it surely must have been one. This accident does show up the fact that at some sites there are more alternatives to be considered.

When a pilot decides that an "S" turn is necessary and then runs out of height executing it, I'm always suspicious that a straight ahead landing was a possibility. Undoubtedly there are some sites at which the combination of light winds and unfavourable slopes preclude a straight ahead landing. The following minor accident occurred when the pilot being checked in a simulated cable break was flying from the rear seat.

## Considerable slip in the turn

*"The cable was released at about 150-200ft. This necessitated an "S" turn into the airfield. The second part of the manoeuvre was completed sufficiently clear of the ground and there was also considerable slip in the turn. This combined with the proximity of the sheep (my emphasis!) proved too much for all the last minute action required and the glider descended too steeply striking the front skid heavily in the ground. I as instructor failed to take over in time to prevent damage."*

The question that must be asked is would either the "straight ahead" or the "S" turn have been possible if the sheep hadn't been there? If so there is an obvious message. Because the "S" turn was all below a normal final turn height it was probably under-banked and over-ruddered, in spite of the pilot's statement "considerable slip in the turn" to the contrary. It is often the case in this situation that more field is used up by the "S" turn (for the height lost) than would be if a straight approach had been made using brake and sideslip. Would it have been possible to make a straight approach? There is no answer to this question except for the particular pilot's in retrospect. But what there should be is more consideration of the possibilities—a good imagination helps.

As a slight digression, the practice of having sheep on the airfield worries me. We accept them and I know most of the economic arguments in favour. What about a launch failure, most likely on aerotow, where the only possibility is a landing straight ahead among the sheep. Might not a pilot reject this option on humane grounds and turn away to face much worse alternatives? I suspect that the answer is yes and would not like to have to defend their presence at an inquest.

## A number of sheep in the area

*"As the launch speed was too slow I decided to pull off at approximately 250ft and land straight ahead as that was the only course open to me and there was plenty of space. Unfortunately there were a number of sheep in the area (so there wasn't plenty of space!). I proceeded to carry out a normal braked approach between two sheep and as I rounded out the sheep apparently hit the tail and the nose was directed into the ground."*

The tailplane, fin and rear fuselage were broken off and destroyed. Although it was possible for the pilot to turn away and land elsewhere, in principle he took the right decision.

So there are lots of right factors involved and Instructors should consider whether students have had a proper briefing, not necessarily a comprehensive one before some actual practice, but relating all the alternatives and how they vary with position and conditions. Remember Derek's advice:

*"Do not be surprised when the cable breaks—expect one every launch and be surprised when it doesn't!"*

*B4 you decide – decide B4*



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# TO CREW OR NOT TO CREW

BY DODO

(who has been wondering about Platypus, Armchair Pilot and Aunt Matilda. So now they can wonder about this extinct flightless bird!)

Crewing is definitely not a game to be treated lightly. Organisation is the key: there is no room for mistakes.

Before the competition, or even specific flight, get together with your pilot. This is vitally important as individual rôles must be decided to enable the team to work.

Each person should have a clearly defined rôle and this should be strictly adhered to. There should be no crossing over. If it is your job to wash the glider, do the waterballast, the DI and collect the sandwiches—stick to it. If you try and tell your fellow crewman how to do his job it will probably result in your omitting part of yours.

Obviously, if there is only one crew and the pilot, then the pilot has to be involved in essential chores such as rigging, towing out, etc. If there are two crew then, unless the pilot specifically wants to help, it is best to leave him to think about his coming flight. There are quite a few top competition pilots who don't even want to see the glider until it is time to launch.

Don't forget that although it is his job to fly and yours to crew, your rôles are complementary and your aims should be the same—certainly to enjoy the competition and, hopefully, to achieve the best performance.

If you are efficient as a crew you will undoubtedly inspire confidence in your pilot and he will fly better as a result. His worries will be minimised and he will be able to concentrate completely on the task in hand.

Obviously routine varies from crew to crew but here are a few golden rules.

1 Read the competition rules and regulations—understand them. It may help your pilot and will certainly make the competition more exciting and interesting for you.

2 Work out your set routine for the day. Decide what task should be done before breakfast/briefing/tow-out and who should do them.

3 One member of the crew must always attend briefing and record every thing the pilot records. Start lines and finish lines are vital. It has been known for top pilots to call up five miles out on final glide and ask where the finish line is!! Or even go round a course the wrong way!!! The competition officials are not allowed to pass on this sort of information, so it is your job as crew to have all the answers. Make sure you have a clear idea of the way in which your pilot intends to tackle the task.

4 After getting your glider ready use a check list to make sure that nothing has been forgotten. This is important. This is the double check. It may not be important to you that the tail parachute had been correctly packed and that your pilot has his orange juice, but you can bet your bottom dollar that it is to him.

5 After tow-out (when, of course, you were all ready to follow the marshall's instructions!) locate your pilot. Has he been to the loo, got his sunglasses, walking shoes, had his lunch, etc. Look after him.

6 Use a final check list on the grid for dealing with start pictures and removing tail-dolly etc.

7 Be prepared to move the glider quickly from the grid if your pilot decides to wait for a later launch.

8 When he takes-off make a note of the time. Listen in for his start-line calls. He may also like to know how his fellows are doing—how many have crossed the line. You should have already planned whether or not to leave the site and this depends on task, weather, relights, etc.

9 Keep a record of radio transmissions by jotting down the time, message and position. This could be useful for estimating the landing position if his final message is not received prior to landing out.

10 Remember that "control" should be informed by telephone of the landing position as soon as possible. Controllers and scorers need their evening meal/beer/sleep too!

11 If you are back at base when he returns, be prepared to move him off the airfield quickly without obstructing any others. There may be about 15 other people about to descend: looking for a place to land on a small airfield.

12 Make sure a photograph of the competition number is taken and send your pilot off to report in immediately after landing. Picket the glider or put it in its box. Do anything that may save your time in the morning like re-setting the barograph. You may miss your first beer in the bar but it could mean being out on the grid on time in the morning, especially if the task setters plan a long task with an early start. Put the batteries on charge if necessary.

The list of things to do is endless. Work as much out beforehand as possible—it makes life much easier.

I feel really sorry for those who take-off without taking starting pictures, or with the tail-dolly on or wondering whether their crew has booked out or . . .

well you know what I mean!!

## Specimen check list

### Rig glider

Put in essential equipment such as:

- Barograph
- Fully charged batteries
- Tie down equipment
- Parachute
- Tow rope
- Money for phone
- Pilot's nosh in case of out-landing
- In flight nosh
- Book/Anorak etc in case of out-landing

### Things to do

- Fill water ballast tanks
- Clean glider
- Clean canopy
- Check cable release
- Pack tail parachute
- Check radio
- Daily Inspection

### Out on the grid

- Take start pictures
- Mount or stow cameras
- Check pilot knows the task
- Check he knows of any changes in task
- Switch on barograph (check ticking)
- Check that pilot has maps, pencils, calculator, etc.
- Remove tail dolly
- Check he has sunglasses, hat, etc.

### Once he's airborne

- Pack up trailer (just in case)
- Check car, maps, route
- Book out (if necessary)

# NEW SAILPLANES

RIKA HARWOOD

As already indicated in the October-November, 1975, S&G, p198, designers were ready with their plans to take action the moment the new CIVV decisions on the Standard Class were taken in March, 1975. Since then they have been busy finalising their drawings and building the 15m Class prototypes. Now several have flown and are, or have been, undergoing their test flying programmes so that an early production start can be made.

It seems only a relatively short time ago that a best L/D of over 40:1 was thought only possible for the Open Class. Subsequently this has increased to even 48:1 for the top ships.

The new 15m Class sailplanes, some of which have actually been measured, already claim an L/D of 42:1 with a top speed of around 270km/h. It would therefore not be surprising if hitherto Open Class "fanatics", who don't necessarily fly competitively, feel it is time to have a rethink. With the costs now involved in buying and maintaining a large sailplane, as well as the more cumbersome groundhandling and rigging (despite the many ingenious aids used to overcome this) they may perhaps feel a change could be desirable now that performance gaps are closing up. It could well be, of course, that after the initial rush to establish the 15m Class is over, designers can put their hands into their bottom drawers once again to extract their latest exotic Open Class designs for us to drool over—but only time can tell!

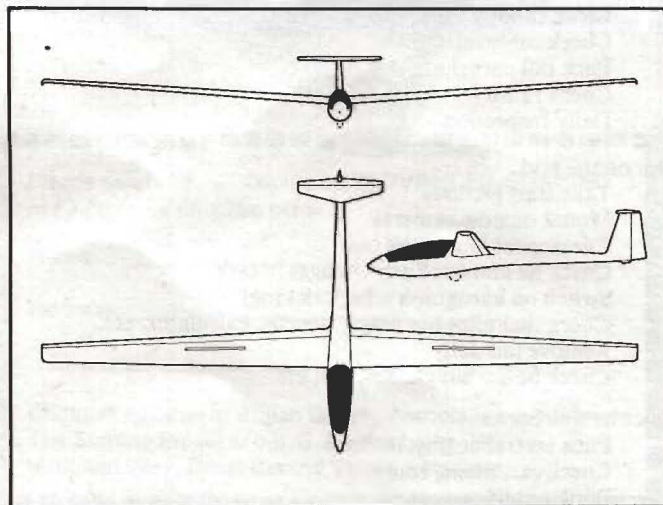
Therefore for the present we give such details as have come to hand; but which unfortunately are still incomplete.

## Rolladen-Schneider LS-3



The 15m Class LS-3 was the first of the new ships to take the air on February 4 at its home site at Egelsbach. The designers, Wolf Lemke and Walter Schneider, were more than pleased with its handling and performance, which although one expects and calculates over and over again, still has to be proved in flight.

Among the new innovations is one which automatically

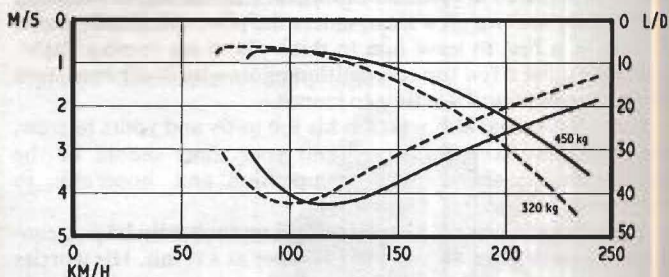
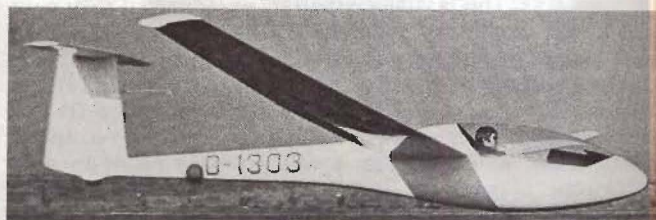


prevents the opening of the airbrakes at the wrong flap setting. The LS-3 has full span flaps and ailerons, top surface brakes and T-tail. Early comparison flights against the Standard Class LS-1F showed that it has an improved low speed curve as well as lower Min sink, while at the high speed end it was considerably better than the LS-1F.

Rolladen-Schneider are unique in that they have only ever developed one type, but both the LS-1 and LS-2 (the latter not in production) won a World Championship in 1970 and 1974 with Helmut Reichmann on board. No doubt they look forward to the challenge of adding the LS-3 in the next but one World Champs.

Deliveries could possibly be made by late summer this year. Further details: Rolladen-Schneider, 6073 Egelsbach/Hessen, Mühlstrasse 10, W. Germany.

## Holighaus and Hillenbrand MOSQUITO



Just 16 days after the LS-3, the 15m Class Mosquito (started by Glasflügel) made its maiden flight on February 20 at Hahnweide and is the first sailplane to roll out of the workshop under the new name of Holighaus and Hillenbrand.

The Mosquito wings are fitted to a Hornet fuselage and the trailing edge airbrake system is arranged in such a way that it picks up the flaps, but it is operated in the normal way with a flap lever and brake lever. This system is most effective and landings in small fields should be possible without any problems.

The Mosquito, flying against the Standard Class Hornet, proved also to be better at the low, and much better at the high, speed ends. The production Mosquito (scheduled for autumn 1976) should have a good start in life as 140 options were paid to Glasflügel even before details on this glider were released. Further details: Holighaus and Hillenbrand, 7311 Schlattstal, Krs Nürtingen, W. Germany.

Provisional data Mosquito	
Span (m)	15
Wing area (m <sup>2</sup> )	9.86
Max wingloading (kg/m <sup>2</sup> )	46
Aspect ratio	23
Empty weight (kgs)	250
Pay load (kgs)	130
Max AUW (kgs)	450
Max waterballast (kg)	120
Min Sink (320kg) at 79km/h (m/sec)	0.58
(450kg) at 94km/h (m/sec)	0.69
Max speed (km/h)	270
Stall at (320/450kg) (km/h)	66-78
Best L/D (320kg at 97km/h)	42:1
(450kg at 114km/h)	42:1

**Schempp-Hirth  
NIMBUS 15**

Although few details are available we hear that at Kirchheim-Teck the 15m Class Nimbus 15 is also undergoing its test flight trials. In this sailplane the Mosquito wings are fitted to a Cirrus 75 fuselage and I gather from those who have flown it that its performance and handling are quite impressive. In the UK orders for 16 have been taken, 14 of which are with paid deposits. Further details: Southern Sailplanes, Membury Airfield, Lambourn, Berks.

**Research Glider**



A photo featured in the March issue of *Luftsport* depicts a research glider Schempp-Hirth are working on and are currently test flying.

The wings of the Std Cirrus have been attached to the fuselage on a short pylon which houses all fittings for assembly. In a vague sort of way it reminds one of an old strutted glider—but, without the struts!

The object of this configuration, one assumes, is to diminish interference effects between the fuselage and the wing.

The glider is intended for research only and not for production.

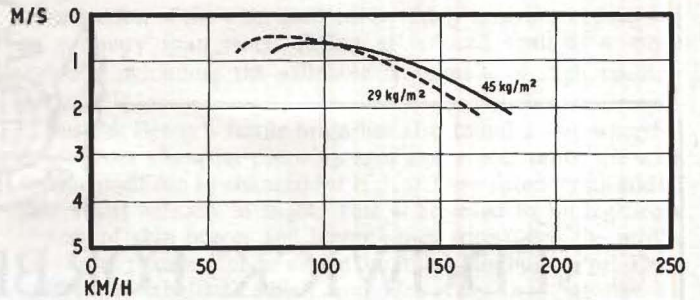
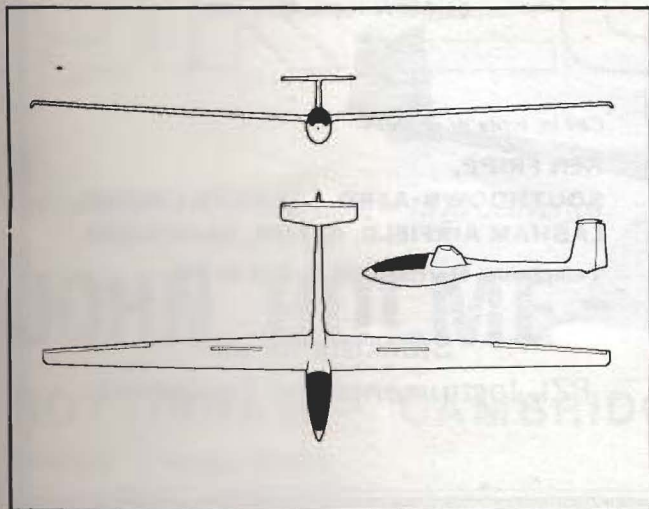
**Eiri Avion  
PIK 20B, C, D, and PIK 20E Motor Glider**

The manufacturers of the PIK series have taken a large step forward and are the first to venture into using carbon-fibres in series production. This means that the saving on the empty weights can be used to allow waterballast of up to 140 litres to be carried; thus giving the PIKs a wide range of wingloadings.

Obviously the firm has reckoned with a large captive audience at Räyskälä in June where no doubt they will create plenty of interest and hope to fill their order books.

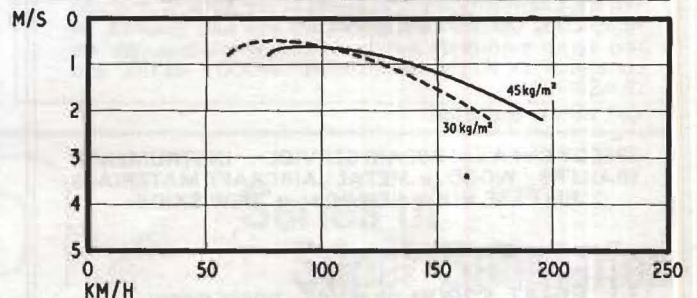
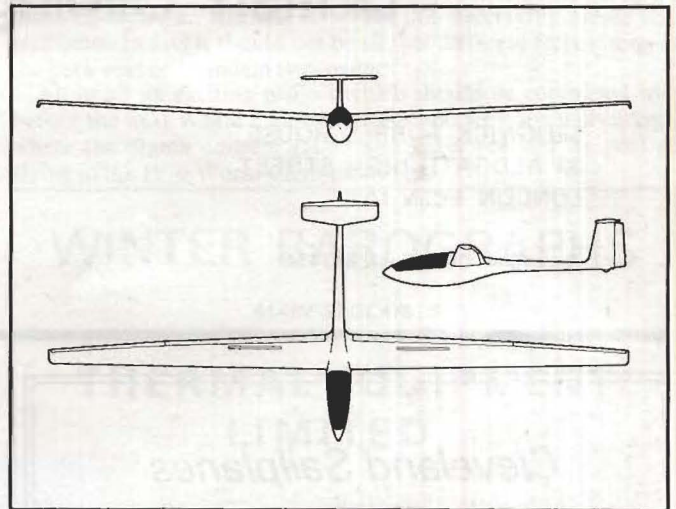
**PIK 20B**  
This is now in production and supersedes the original PIK 20. It can also be ordered with a carbon-fibre spar as an optional extra at a cost of Fmk 4000; it will reduce the empty weight to 225kgs.

**PIK 20C**



The Standard Class PIK 20C with the widest range of wingloadings in its Class, according to the makers, makes it an excellent contest ship. Thanks to its competitive price and docile flying characteristics it is equally suitable for club use; while less costly GRP spars can be ordered. Series production should start this autumn. The claimed L/D of 42:1 at 108km/h is the same as that for the 15m Class models.

**PIK 20D**



This has been specially designed for the 15m Class and features a redesigned cockpit. It has full span flaps and ailerons which are centre-hinged. The wings are fitted with top surface Schempp-Hirth brakes. The D version will be delivered (scheduled for August) in contest finish, with sealed pushrods and control surfaces, and, like all the other new 15m Class sailplanes mentioned, will have new and improved canopy seal.

In this model the flaps can be locked in any position in such a way that it will be allowed to fly in either Standard or 15m Class contests.

**Motor Glider PIK 20E**

The prototype of the PIK 20E should be available at Räyskälä as a demonstrator. It is fitted with a two-stroke 35hp, 5500rpm fully retractable engine to give a rate of climb of 2.5m/sec and a cruising speed of 150km/h. Production is planned for late autumn. It claims to have, engine off, all the performance of the



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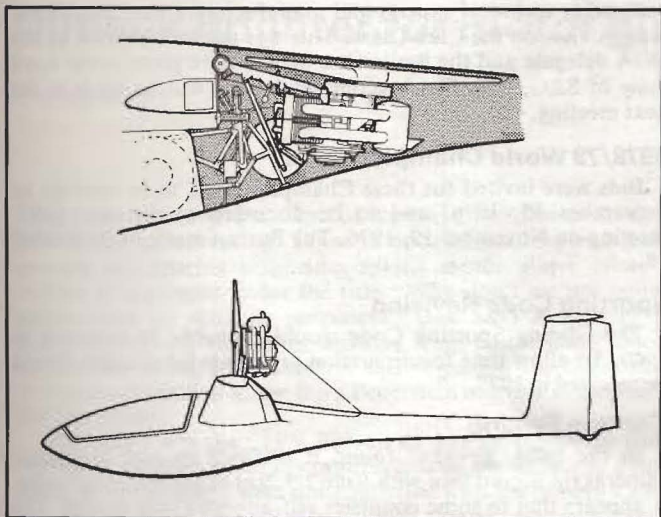
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models above. Further details: Eiri Avion, Kisallinkatu 8, SF-15170 Lahti 17, Finland, or John Hulme, Bottisham, Cambridge.

Provisional data	C	D	EM/GL
PIK 20C, D and E			
Span (m)	15	15	15
Wing section	Wortmann	Wortmann	Wortmann
Wing area (m <sup>2</sup> )	10	10	10
Aspect ratio	22.5	22.5	22.5
Wing loadings (kg/m <sup>2</sup> )	29.45	30.45	35.45
Empty weight (kgs)	210	220	290
Max AUW (kgs)	450	450	450
Max waterballast (kg)	140	140	—
Min sink at 85km/h (m/sec)	0.65	0.63	0.63
Max speed (km/h)	262	262	?
Stall at (300kg) (km/h)	65	60	(370kg) 65
Best L/D at 100km/h	42:1	42:1	42:1

#### NEW CONCEPT

An article in the April issue of *Soaring* reports that Pat Beatty of South Africa, well known for his revolutionary ideas on the BJ series, is at present working on an entirely new concept called the B-5.

Like the German FS-29 of Akaflieg Stuttgart, which was the first sailplane to fly (last July) with "telescopic" wings, the B-5 is also capable of varying its span—from 15 to 19m.

At extended span, intended for low speeds, circling in lift or flying at Min sink it is not put under heavy loads, and thus the

outer section of the wing need not be nearly as strong or heavy as an ordinary span wing. Flying at reduced span at a much higher wingloading the sailplane is capable of high cruising speeds.

But Pat Beatty's fertile brain has also found a way whereby, apart from changing the wing area and aspect ratio, the wing section itself can be changed for high and low speed flying and all this whilst actually in flight. This is achieved by an ingenious system of skin braces and levers which transforms the profile from a 12 percent Eppler design to a thick Nimbus 2 type! Thus, unlike waterballast which provides only one change of wingloading and once jettisoned is gone forever, this system provides as many variations throughout the flight as desired and when conditions or strategy demands.

As already mentioned, we gather that Schempp-Hirth are testing a pylon-fitted wing for research into drag and separation problems; Pat is trying to overcome this in a different way by positioning the wings of the B-5 right forward at the nose of the glider with the appropriate amount of sweep back for correct balance. Visibility is obviously blocked in different areas than one is accustomed to but the author of the article, who sat in the mock-up cockpit, felt that it would not necessarily create any problems. In fact it should not be all that different from sitting in the back seat of a tandem two-seater!

All in all an exciting project which should be completed well before the next World Championships and we hope will succeed where the Sigma concept failed and never reached its goal of flying in the 1970 World Championships.

## WINTER BAROGRAPHS

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# CIVV MEETING—

March 5, Paris

IAN STRACHAN, BGA Delegate

There were 24 countries present and Ann Welch attended in her capacity as Chairman of the CIVV Rules and Classes Sub-committee. A comprehensive report has been submitted to the BGA Executive and Flying Committees and the main points of interest are as follows:

## Finland World Championships

Further details of organisation were given by the Finnish delegate and some queries on Rules were cleared up. The Technical Symposium (OSTIV Congress) will begin on June 18. The International Jury (which decides on contest disputes) will be chaired by Ann Welch.

## CIVV Elections

"Pirat" Gehriger had previously announced his intention to retire after 25 years as President of CIVV and, as reported in the brief report in the April issue, p77, there was a special lunch at the Aero Club de France with speeches and presentations to mark his unique services to world gliding.

Bill Ivans (USA) was voted as the new President "by acclamation", after other nominated candidates had stood down. It should be explained that the President chairs the CIVV meeting and in the UK we would call him the Chairman. Bill Ivans is a very distinguished glider pilot, holding Diamond badge No 9 on the world list.

Voting took place for the Vice-Presidents. Under the FAI statutes Vice-Presidents have no executive power, but in CIVV they constitute the Bureau (with the President and Secretary) which meets before the main CIVV meeting and makes recommendations to the main decision making body. The Vice-Presidents elected were François Ragot (France), Pierro Morelli (Italy), Tor Johannessen (Norway), Edward Makula (Poland), Fred Weinholtz (West Germany) and Hans Nietlispach (Switzerland).

Hein Schwing (Holland) was elected CIVV Secretary and Johannessen as Chairman of the Rules and Classes Sub-Committee.

## Motor Gliding

Per Oberg (Sweden) summarised the report of the CIVV Motor Glider Sub-committee, of which he is Chairman. The current CIVV Rules (Sporting Code, Chapter 9) appeared fairly satisfactory. Because so few high-performance motor gliders were flying, not many records had been set. There was a need for a Recognition Rule for motor gliders so that they could take-off and motor to a remote start line to begin their soaring task. (See Outlook Brighter for Motor Glider Competitions and Records, on the opposite page.)

## Lilienthal Medal

This is an annual FAI award, the highest medal CIVV can bestow. After a vote it was awarded to the Polish record breaking pilot, Adela Dankowska.

## Club Class

Per Oberg (Sweden) Chairs the CIVV Club Class Sub-committee. The intention of the Club Class is to have a simpler and cheaper Class below the existing 15m Class and the Restricted 15m Class. Papers were circulated before the meeting and the BGA Flying and Executive Committees, in consultation

with other technical experts and manufacturers, had established a BGA view on the Club Class. This was put to the CIVV by the BGA delegate and the limitations agreed were given in the April issue of S&G, p77. Final recommendations will be made at the next meeting.

## 1978/79 World Championships

Bids were invited for these Championships, to be received by September 30, 1976, and to be discussed at the next CIVV meeting on November 19, 1976. The Bureau meets on November 18.

## Sporting Code Revision

The Gliding Sporting Code would probably be reprinted in 1980. To allow time for discussion proposals for changes should be received in 1977.

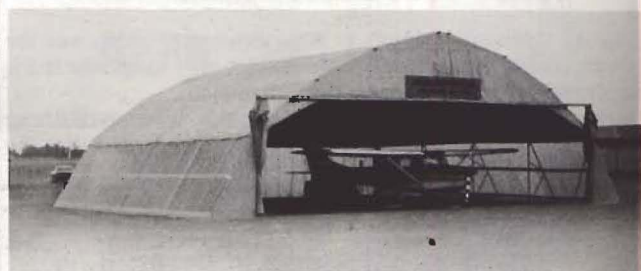
## Camera Sealing

In the BGA we have found it difficult to seal Instamatic cameras (in accordance with Rule 2.7.2(a) of the Sporting Code). It appears that in some countries self-adhesive tape is used. The BGA has not allowed this, preferring to use gummed tape because self-adhesive tape can be removed and then replaced without evidence to show that this has been done. The Flying Committee will discuss this and make recommendations.

## Handicapping

There was interest in methods of handicapping and, as the BGA probably has more experience of this than anyone, copies of the BGA system will be sent to the CIVV Rules and Classes Sub-committee. The interest appeared to be for Regionals level contests for the same reason that BGA Regionals are handicapped, *ie* to give a chance to lower performance gliders.

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# Outlook brighter for motor glider competitions and records

P. WEISHAAPT

After being appointed President of the FAI CIVV Motor Gliding Sub-committee last spring, I sent an open letter to international aviation and soaring magazines asking motor glider pilots a number of questions under the title "Why don't we use motor gliders more for sporting purposes?" (See S&G August 1975, p180.) There were interesting answers from motor glider pilots all over the world and based on this response, the committee arranged a discussion at the Burg Feuerstein meeting in Germany last September.

After that I sent the CIVV Bureau an interim report for their November meeting about my impressions of the situation. I told them that many pilots were quite satisfied with the present CIVV rules for motor gliders and thought new and better motor gliders would result in more competitive flights.

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## Now allowed to start with small records

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With regard to the nearly empty FAI record list for motor gliders, we found that the FAI had originally homologated in error some German records which had been flown before the records were inaugurated on January 1, 1971, and for that reason they had been cancelled. Another reason for the few records might have been the minimum requirements in the 1971 Sporting Code. They seem to have been too hard, and with the publishing of the 1975 Code they have been deleted. So we are now allowed

to start with small records and improve upon them—this in itself may stimulate the battle for records.

As to badge flights, quite a number of the Silver and Gold, as well as some Diamonds, have been flown in motor gliders, but as they are not registered separately their number is unknown.

Competitions have been few because in most countries there are too few motor gliders and they are too scattered. There have been some informal meets and motor gliders have taken part in regular gliding competitions, but the only real development has been the German competitions held at Burg Feuerstein in recent years. Until further experience has been gained, the committee state that competitions should be run according to the German rules.

It was strongly rejected by nearly everyone that the engine should be used as part of the competition. And even if there are still people in CIVV that like this idea, I think the FAI Gliding Committee ought to appreciate that motor glider pilots really want to make gliding and soaring flights and not give motor flying performances.

However, it was stressed by the pilots that they not only wanted to use the engine to get into the air but also to fly, *eg* away from the control zone or to get to an area better suited for soaring. And after soaring, they wanted to be able to restart their engine and fly back to base, so saving the expense and frustration of landing out, as well as improving on safety. This wasn't possible according to the old code which prescribed a flight after passing a starting line to a *landing*.

In the 1975 Sporting Code the word landing has been replaced with finish point which is defined as "the finish line or the landing place." This means that having arranged your course with official observers in a way acceptable to your National Aero Club, you can motor out to a starting place somewhere, stop your engine and cross your starting line, perform say a triangle, pass your finish line and then restart the engine to motor back to base.

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## A combination of a clock, barograph and camera needed

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Now the question of documentation. Apart from some system with recognition time interval and site clocks to make sure turning points haven't been photographed before passing the start line, it would be advantageous to have a more advanced method combining a clock, barograph and camera. Some interesting projects were shown at Burg Feuerstein.

The above points were taken *ad notam* at the CIVV meeting in March and there are no intentions of forcing motor gliding people to accept something they don't want, even if some committee members think a competition, including some use of the engine, will appear. Well, let's wait and see! One possibility is what the Germans call *Wandersegelflug-competitions*, a combined tourist-and-soaring course, using the engine where necessary to reach the day's goal, and soaring whenever possible.

In my opinion the first thing is to fill the empty places on both the FAI and the National Aero Clubs' record lists for motor gliders. Let's show we *are* interested and what we can do with the motor gliders available. With time we can improve upon performances, not necessarily with the Nimbus M but with the newer and not quite as expensive types such as the SF-32 and the PIK 20E, and don't forget our two-seaters. They may not be as high-performance, but they are able to make impressive soaring flights. And when we have shown what we can do, the manufacturers will understand we want even better machines.

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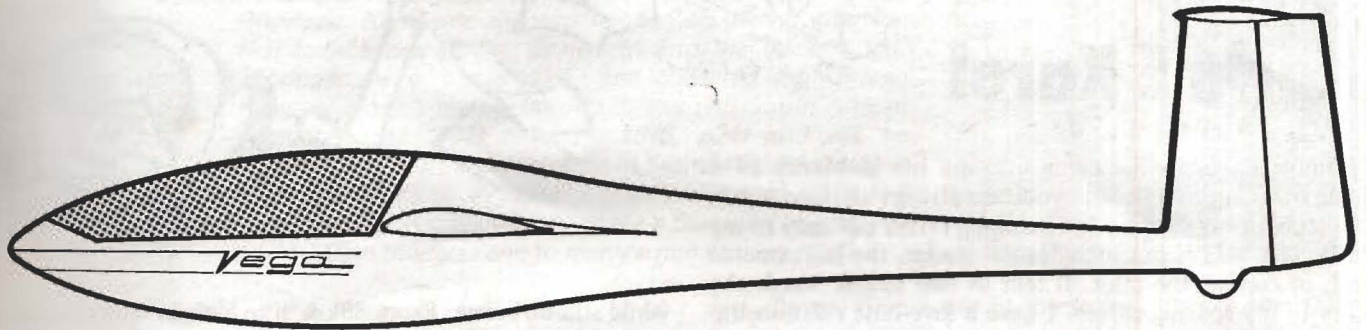
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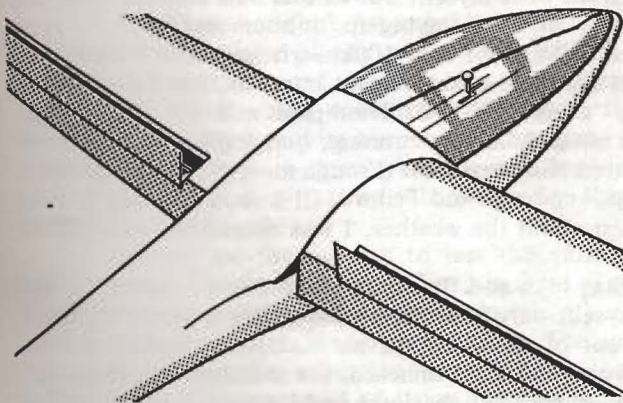
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# FUMBLE FACTOR

(or a bird on the wing)



**Karla E Karel**



“Fumble Factor” first came into my life in March 1974 when after six months of syndicate flying I decided I just had to have my own bird. The name refers not only to my ASW-15B, “73”, but includes the trailer, the instruments and, of course, the pilot. It tells in two simple words the story of my soaring career. I have a love-hate relationship with gliding. Periods of elation are interspersed with frustration, fear or just plain discomfort . . . yet I keep coming back for more. Here are just a few of the ups and downs.

The club was visiting another airfield and I was determined to get my five hours to complete my Silver C. My last attempt had ended in a bog, two miles from my home airfield, with no access except on foot. It had taken half the club members the whole afternoon to get us out. This time I was concentrating hard on a scratchy morning, waiting for something soarable. It was a long tow, but I released in lift and slowly wound my way up. Glued to the vario, I found myself at cloudbase, 3000ft, and looked around. I couldn’t see the airfield or anything recognisable; then I lost the lift, found more, went up, scanned the horizon, still no airfield; studied the map, lost the lift again, and so it went on for an hour until, as happens all too frequently in this part of the world, the vario went down on the stop and stayed there.

From the passing thought that I had better choose a field as I might have to land; to the realisation that the crops were high, the grass long and there wasn’t a decent field in sight; to the knowledge that a landing was inevitable and so that little field, probably full of ant hills, would have to



do; to line up, straps tight, wheel down; to change one’s mind, the road was wide enough, no, there was a signpost, aim at the field, must land short; to feeling as we flared out that, despite the last minute panic, we should be OK; to stopping short, only took a few minutes. *It took less time to realise that I was lucky to be alive.*

I hadn’t even seen the fence (whose presence I should have anticipated) and collected it like an arrester wire,

while still airborne. From 80km/h to zero in under 15yds, with the fence post lodged an inch from my head! My ASW still had two wings and a tail and, apart from my face which was rather a mess, I was fine, not even a bruise—at least I’d remembered to tighten my straps. I learned a lot of lessons the hard way that day.

Now, some 20 months and 500 soaring hours later, it makes me shudder. That was more than just the fumble factor—it was plain stupidity.

“Fumble Factor” and I were duly healed; though not before I had spent a cold, uncomfortable night in my Landrover waiting for the trailer towbar, which had broken *en route* to Jo’burg, to be mended.

=====

## *Never ventured far from the field*

=====

I was in the air again and the ’74 Nationals were drawing nigh. We were entered and flying as much as possible. Even the five hours had been accomplished without fuss. I thought it had gone unnoticed, in fact I was hardly conscious of it myself, but I never ventured far from the airfield. Oh, I was staying up for hours and hours, I’d even flown a couple of slow 100km triangles with friendly airfields scattered at convenient intervals; but I’d not really been “away.” But Alf Thompson and Ted Pearson had both noticed. Alf by cunning, bullying and even a bit of kindness had steered me through most of my “I’m giving it all up,” episodes and Ted was CFI: so, with a half-hearted protest about the weather, I was despatched on a 300km O/R.

“Stay high and fly slowly, time doesn’t matter,” I said to myself: only I flew so slowly trying to stay high, that I ran out of daylight! Advice had been pouring in from everyone, but went unheard, for somehow the “Squelch” had been turned right down and I’d been so busy fumbling along I hadn’t even noticed the absence of the usual chatter. Eventually a tug with a powerful transmitter got through to me, and I advised them I was going to have to land.

I was about 40km out, the sun sat poised on the horizon, I had 2000ft and about 15 minutes of reasonable light in hand. Plenty of time to plan a landing, no tall crops or long grass, right by the main road, but I was scared. An

*Karla, who was born in Czechoslovakia, came to England when five years old. She studied medicine in London and started flying in Kenya by getting her PPL in 1972. She hadn't even seen a glider until July 1973 when she came to Rhodesia. Karla said she was hooked on gliding after her first launch and power flying slid into the background, although she is a tug pilot. She collected four British National records during the Rhodesian and South African Nationals (see S&G February 1976, p24) and will be coming to work in Southampton in September when she is looking forward to trying a new sort of flying, ridge and wave soaring. Karla's ambitions are a Diamond height, 750 and 1000km triangles and to marry a rich soaring pilot!*



enormous ploughed field between two other large ploughed fields was chosen, carefully scanned for obstacles and a model circuit flown.

"A good approach is followed by a good landing," I repeated to myself. Straps tight, wheel up (this was also a new experience for me and would require a lot of elbow-grease afterwards to erase the inevitable scratches), we were down, as planned and all was well.

A car screeched to a halt and a young man rushed over. "Are you all right?" "Oh fine, thanks, couldn't quite make it home—just routine really. Could you drop me at the farmhouse so I can phone for my trailer?" "Liar", I said to myself: and at the farmhouse over a cold beer I remembered my "fence episode" and knew that although I hadn't dare admit it to anyone, I had been plain terrified of any away landing ever since. How I had thought I could face the Nationals in that frame of mind I don't know, but I think Alf and Ted suspected something was amiss. That outlanding did me more good than if I'd got home and from then on I began to enjoy cross-country flying.

It was the weekend before the '74 Nationals; the trailer had been modified by a non-gliding expert and was a costly heap of rubbish, but usable. An expensive electric vario and audio had just arrived and was reading what it felt rather than what was happening. My crew were trying to fit some lead ballast which, considering I had been flying without it until now, was quite unnecessary, but at the time I thought it essential—women! All this was happening while everyone else was getting into shape by actually flying practice tasks.

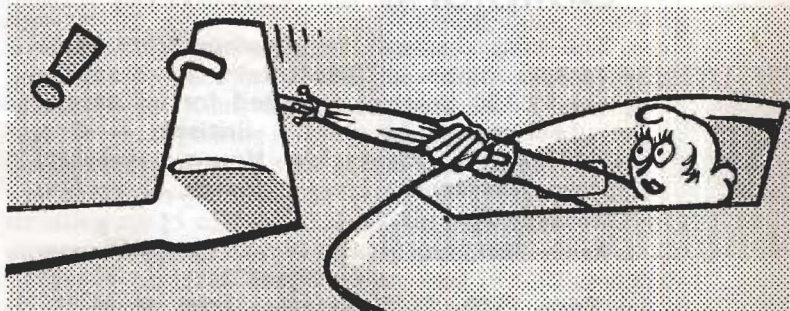
I got airborne on the Sunday to test the vario, but coming in to land someone towed a Cirrus in front of me. I put my brakes away and cleared him comfortably, but followed it up by stalling on for no good reason. The undercarriage took it and after adjusting the vario again, I tried another flight. This time cries of "stop the launch" over the radio told me I still had my tail dolly on! I landed ahead safely. I had noticed she was a bit hard to steer on the ground run.

Unbeknown to me at the time (though I was told afterwards), the CFI was wondering whether it was safe to let me fly; but neither Ted nor Alf had the heart to tell me, so I flew.

The first day of those comps will be the most memorable

ever. By the time I was at the second turn of the 300km triangle I was sure I was getting home. I was happy, keeping up with the fleet, and Ted in his Cirrus was supposedly lost some 40km off track, so I felt quite smug as I set off for home. But I hadn't anticipated that sudden "cut-off" which is common at this time of year.

Soon I was downwind for an acceptable little ploughed field 30km from home. While scanning the field and planning the approach, that cursed electric vario squeaked, just a little. I looked at the panel to see the mechanical showing a ¼ metre. "High enough for a turn?" "yes"—and there I stayed—up a little, down a little, having to change my choice of landing place as I drifted. Several times I almost gave up, but John Colban came to join me in his Libelle. The two of us gradually worked our way up, using each other to stay in the best of almost nothing.



Eventually John disappeared. I hung on a bit longer until the lift faded to zero; not enough height to get home but just enough to reach those few late evening clouds, off track, but the only hope. I got there low, but the lift was there and better than the last long scratch in the blue. As I reached cloudbase with enough height, according to my calculator, to get home with MacCready on zero, I saw John to one side. Great minds think alike and we flew home together, burning off the last few hundred feet to finish in grand style.

Ted had managed to sneak home a long time before; but nearly half the field landed out, mostly near to home, and I'd got a Gold C distance and Diamond goal! On reflection it was an ordinary flight, but at the time I experienced those exaggerated feelings of elation, disappointment and tinges of fear at the prospect of an away landing. Such

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feelings and the sheer amazement of getting home will never be repeated, for they can only be fully appreciated by the novice experiencing those things for the first time.

Three uneventful outlandings out of 12 days increased my confidence in field selection. A 500km triangle was missed, but on the next I got home only to find that the barograph had jammed half way and I couldn't claim my Diamond. The weather held and another was set the following day. Armed with two barographs, I repeated the performance and found I had a Gold C height as a bonus. One's first contest must always be memorable. Mine was grand. I'd expected to come last and didn't. I'd flown over 4000km and enjoyed it. And I'd even won the pilot's award—I think because they were so amazed, considering my pre-comps frolics, that I should complete a task at all.

Christmas found me at the South African Nationals. "Fumble Factor" was now printed on the fuselage and we lived up to our reputation. The boost to my morale after the Rhodesian Nationals had faded and my fear of outlandings hadn't really gone. It was windy, the terrain unfriendly, varios were again giving trouble and the trailer, modified once more, was still a compromise. I'd not learnt the lesson to be ready well in advance, and again everything had been a last minute rush.

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### *My crew nearly went on strike*

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All this made me twitchy; both temper and flying were erratic, and my crew nearly went on strike.

Then came January 1, 1976. Happy New Year. It was blowing hard, the sky was blue, a crosswind 325km O/R was set for the Standard Class and a 500 for the Open. The new National O/R speed records were to be recognised from that day, so competition was keen. I only had to get round to establish the British feminine record!

I let a few ships go first to mark a few early thermals for me and set off, finding one had to fly almost 45° to the track to keep upwind and having to work really hard to stay in the best lift. I never saw the early starters I'd hoped would mark the course and nearing the turn I was fairly low.

Still scanning the horizon for sailplanes, I spotted a "dusty". I was in a miserable two metres, but there were lots of landable fields around (for a change) and I took a chance. Full speed ahead, faster, faster before the whirly dissipated, under 1000ft . . . contact! What a super feeling to get lifted as if by the seat of your pants and hurled upwards, then turning tight to keep in the core, watching the speed carefully, vario off the clock and even my metric altimeter visibly climbing. A Nimbus joined me but he was too unwieldy in the turbulence and the nifty '15 outclimbed him. The top of the climb took us to just about the turn and still slightly upwind, so a quick dash in and around brought us to an uneventful trip home.

Change to control frequency, "73—coming in", no answer, tried again and again; eventually someone with a mouthful of cake replied. "watching out . . . finishing now." Pulled up, wheel down, surveyed the scene . . . deserted airfield, where were they all? Panic, did I go to the right place? After all I only saw the Nimbus.

I then got a cold beer thrust into my hand by a jubilant crew, congratulating me on my "record". My time went on the board and the others started coming in. For a while it seemed as if I might be first, but then I got pipped by Chris Falkingbridge and Ted Pearson to end up third. No disgrace, I felt. Just to show it wasn't a fluke, the next day, when it was blowing even harder and the 300km triangle originally set was commuted at the last minute to a 200 O/R, I came second. This was too much for Paul Hodge (who was actually lying second overall and therefore had a strong incentive to try for that 1000 points). He went round again and beat me by a minute, so I was third. It seems as if the wind I had been so afraid of before was really my friend and "Fumble Factor" revelled in it.

Pride comes before a fall. On the next and last day there was no wind and I landed out on phillipolis airfield. Seeing my trailer hurtle past I ran to the road to stop them on the way back. Trying to locate the entrance to the airfield the car got bogged down, and we spent four hours trying to dig it out, thus missing the prizegiving . . . that's soaring!

The incredible thing about the 1975 Rhodesian Nationals is that after one year of fumbles I still didn't have my instruments or trailer sorted out. The electric vario was in the States for repair and, urged on by a frantic telegram, arrived as the Nationals finished; while the trailer though painted was technically still a b. . . . nuisance. However the real thorns in the flesh were the water bags!

When the original bags were found to be leaking, and no suitable repair material could be found, the simple solution seemed to be to have a new set made; so a firm who had done this before was approached. No problem? I now have three sets of useless water bags, and an outer protective cover lying idly round the garage. Two firms are wishing they'd not been so eager to be helpful, and the set of water bags, which eventually saw me through those and the South African Nationals, are leaking again! You can imagine the parts I've omitted! However, I couldn't help laughing when Klaas Goudriaan came back from a task one day literally sitting in a large pool of water. He'd been flooded soon after the start and, if I remember rightly, it was a 500 day . . . or was it the 750! I'm thinking of replacing my 15 with an ASW-20; but does it have built in water tanks or water bags? (Klaas flies an ASW-17.)

The '75 Nationals have been reported in S&G, and for me personally were most enjoyable, but no flight really stands out in my mind as particularly thrilling. Of course the Standard Class wasn't given a chance at the 750, where Tim Biggs' world record outshadows any other achievement. I did get my first ever 1000 points, but slightly by default. I'd come second, but the winner's barograph was faulty and showed a high start, so his time was taken from release. Still it looked good.

Again we flew over 4000km, this time in a more relaxed frame of mind, and after it was all over everyone exchanged the usual stories, tales of disappointments, frustrations, exhilarations, which are told by glider pilots in one form or another all round the world. And that fumble factor that always creeps in somehow—if only I'd done this, or, if only I'd gone there, or, if only that storm hadn't come, or, if only . . . *If only!* Yes, perhaps that's what I'll call my next sailplane!

# VALUE FOR MONEY or all for 82½p

BARRY ROLFE—BGA General Secretary

Club treasurers should by now have settled a bill for the annual subscription to the BGA. It is calculated on the basis of £1.50 each for the first 25 members and 60p each for the remainder. For a club with 100 members this works out at 82½p a head. What do you get for this?

## **Fédération Aéronautique Internationale**

FAI is the world organisation for aeronautical sports, including the promotion and control of sporting gliding. It lays down the standards for Silver, Gold and Diamond badges and also the requirement for obtaining records. The BGA is affiliated to FAI through the Royal Aero Club.

The BGA's share of the annual subscription to the FAI is £1400. If this is not paid and we ceased to be affiliated there would be no FAI Diamond, Gold and Silver badges awarded to British pilots, nor could Great Britain take part in World Championships. In 1975 approximately 680 completed Silver, Gold and Diamond badges were registered, the number of separate legs of these badges totals well over 1500.

## **A voice for gliding**

The BGA speaks on behalf of gliding in the UK whenever the views of the sport must be put forward, its interest protected and its achievements made known. This involves negotiations with Government departments on behalf of gliding as a whole and clubs in particular, and its success may be judged by the wide and remarkable measure of autonomy which gliding enjoys. Unlike any other major national gliding community the BGA is entirely responsible for the airworthiness of gliders, the flying competence of pilots and the standard of safety, instructors and instructing.

It is because the Ministry of Aviation in the past and now the Civil Aviation Authority, recognises the BGA as a responsible body able to manage its own affairs that gliding in Great Britain is so free from Government control. Were it not so there would undoubtedly be not only onerous restrictions but introduction of fees for certificates, tests and licences which could more than treble the cost of gliding in comparison with the fees etc charged by the BGA.

## **Flying Competence and Training**

The high standard of flying gliders in this country is largely due to the years of steady effort by the Instructors' Panel and the National Coaches. They have formulated standards of instruction, organised instructor courses, attended by over 90 instructors in 1975, tested and categorised other instructors and upheld the standards by a constant review of methods. As a result the whole field of training continues to be controlled by the BGA. If the responsibility were not entrusted to the BGA we might expect Government control and pilots being charged Government fees.

Nevertheless, the costs of the BGA coaching programme are considerable, taking into account Coaches' salaries and expenses, and motor glider maintenance and insurance etc. In 1974/75 it showed a loss of £9000 after deducting course and flying fees received. This is the most expensive, and perhaps the most rewarding part of the service provided by the BGA, but it must be financed from income—82½ per head doesn't cover this aspect alone!

## **Airworthiness**

The BGA is responsible for all aspects of glider airworthiness and there are over 1000 gliders currently flying. The CAA has delegated the supervision of motor glider airworthiness to the

BGA. This work involves evaluating new gliders, disseminating technical information to all clubs and owners and examining and appointing technical inspectors throughout the country. As a result it is possible to keep airworthiness costs considerably lower than those charged by the CAA.

The Technical Committee is at present discussing with the CAA the possibility of accepting responsibility for the airworthiness of tug aircraft with a view to reducing present costs and frustrations.

## **Safety**

Safety regulations and operational recommendations made by the BGA in co-operation with clubs, and based on a vast amount of practical experience, have achieved a high level of safety in club operations. The BGA accident reporting system enables a study to be made of all aspects with a view to anticipating trends, and making recommendations in an endeavour to prevent future accidents. Some of the work is done in conjunction with the CAA, but in most cases the CAA are satisfied to leave investigation to the BGA experts.

## **Airspace**

The considerable degree of freedom of the air, compared with some countries, is largely due to the efforts of the BGA Airspace Committee. The threat of increasing encroachment of controlled airspace to the detriment of gliding is ever present. The Airspace Committee negotiate directly with the National Air Traffic Services on conditions nationally and also on local problems affecting individual gliding clubs.

## **Competitions, badges, records**

The Flying Committee is responsible for the sporting aspects of gliding. It makes recommendations for the FAI Sporting Code, compiles the rules for National and Regional Competitions, draws up the programme for competitions, compiles the National Rating List and organises the selection of a British Team for World Championships.

This Committee homologates British National and UK record claims and approves FAI badge claims—some 2000 pilots claims in 1975.

## **Club development and administration**

The Development Committee advises clubs on administrative matters and assists in the formation of new clubs, deals with planning and public enquiries, and processes applications by clubs for Sports Council grants. Gliding clubs receive a generous share of the financial aid available through the Sports Council. This committee is the general source of information for members, clubs, the general public and the press.

## **Projects**

Developments of importance to gliding are investigated and evaluated (and, from time to time, instigated) by the BGA. The Motor Glider project, which set up the whole system of motor glider operation in this country so much to the advantage of glider pilots, is an example of such a project.

## **Liaison**

The BGA Committees and individual officers maintain liaison with a number of official bodies whose co-operation is invaluable

to the gliding movement. These include Royal Aero Club, the Sports Council, the Central Council of Physical Recreation, National Air Traffic Services, the CAA and the General Aviation Safety Committee (GASCO), to name but a few.

#### Sailplane & Gliding

The BGA publishes *Sailplane & Gliding* every two months. This is the official magazine of the association, although editorial policy is independent of the Association. The magazine has a world wide circulation of over 6700 copies. It fulfils an invaluable rôle in disseminating information, providing a forum for discussion and giving considerable pleasure to its readers.

#### Sales and Publications

The BGA sells and publishes books and handbooks on various aspects of gliding, sells badges, ties and a wide range of gliding items. The sales contribute largely to the BGA income and certainly go some way to preventing too steep an increase in subscriptions.

#### Bursaries and awards

A number of bursaries and awards are available to members. These, together with a variety of national and international awards and honours, are administered by the BGA.

#### Conclusion

From the foregoing it will perhaps be appreciated that the work done by the BGA is extensive to say the least. The aim of the Association is to cater for all pilots from *ab-initio* to British Champion by making gliding available at reasonable rates, with the minimum of frustrations and the maximum enjoyment.

With the subscription of a typical club averaged out at 82½p per head, it must be agreed that members are certainly getting value for money.

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# BGA

## & general news

### LASHAM CLAIMS FIRST 750km $\Delta$ IN UK

Hugh Hilditch, one of Lasham's pioneers in long distance closed circuit flying, lays claim to the first 760km  $\Delta$  carried out in Britain.

On Wednesday, April 28, he took a car launch at 09.45 to fly his Nimbus 2 to Norwich in Norfolk then to Llanfair Caereinion in Wales (west of Welshpool) and back to Lasham, a total distance of about 762km which took him 9hr 10min 83km/h. Unfortunately, the flight was only declared verbally and does not, therefore, qualify for the record. It was one of the easiest flights he had ever done he told his partner, Alan Purnell.

Apparently there were 6kt thermals at Lasham by 09.15. The forecast, however, had given no indications of what turned out to be exceptional conditions over southern England, and thus many pilots started too late to take full advantage of the day. Nevertheless, at least two 600km and a number of 500km  $\Delta$  were attempted by many pilots.

Chris Garton, Kestrel 19, flew 600km of his declared 750km  $\Delta$  (next day). His 2TP, however, was too far North and he had to turn short. Alan Purnell, likewise, had to divert from his declared 600km  $\Delta$  Shobdon, Thetford, Lasham. He flew into overdevelopment and snow showers in the Doncaster area but on the way back he diverted, on purpose this time, to make sure he had flown at least 600km—the longest flight in a Cirrus in UK.

Because the dew point was very low at 4°; freezing level was also low at between 1500 and 2000ft, and perhaps it is as well to remind pilots, who carry waterballast on such days, to add an antifreeze when they fill up—iceblocks can't be jettisoned and this could lead to serious consequences on landing!

Thursday, April 29, saw another interesting day—although not so good as the previous one. No doubt this had something to do with the eclipse of the sun (about 25%) which occurred during the late morning. According to Alan Purnell, on another 600km  $\Delta$  attempt,

pilots had to scrape away from Lasham ... Alan had to turn short again!

Over these two days many pilots flew or attempted large triangles, starting from all over the country, among these was Chris Rollings, who completed a 505km  $\Delta$  from Booker in his K-6!

With the drought still continuing (at the time of writing), cloudbases are higher than ever and pilots are experiencing conditions not normally found in Britain.

### TWO 300km GOAL RECORD ATTEMPTS

There was a strong element of coincidence about two flights on Saturday, April 24, when Alf Warminger (Kestrel 19) and Justin Wills (Std Libelle) both decided to try and beat the 300km goal record which has been held since 1957 by E. A. Moore (Skylark 2) at 92.1km/h.

Alf aerotowed from Swanton Morley, Norfolk, and started the flight at 11.48, arriving at Weston-Super-Mare Airfield, a distance of 309km, in 2hrs 7mins. And his 133.38km/h was the faster time, the flight helped along by a 20 to 25kt north-easterly wind.

Justin, who aerotowed from Cambridge at 13.26hrs and released upwind near Newmarket, flew to North Hill, 302km, at 131.8km/h.

Alf thus claims the record on the general UK list while Justin qualifies for the Restricted Class record, (subject to homologation).

### BGA CLOUD FLYING FREQUENCY

1 130.4MHz is currently the frequency for cloud flying in gliders in the UK. It is also drastically overworked for non-cloud flying messages.

2 In order to minimise the chance of another collision in cloud (like the one in May 1975) it has been suggested that because 130.4 is so busy, another glider frequency should be designated for cloud flying to take effect from an agreed date in the future, such as Jan 1, 1977. With the present frequency allocations this would be 130.1MHz.

3 The BGA Executive will decide on this at a meeting later in the year, probably in September. You are invited to send your views to the BGA.

**Ian Strachan**  
*Flying Committee Chairman*

### GLIDER MAKES SEA CROSSING

Gliding history was made on Sunday, April 25, when Gil Scurrah (Club Libelle) flew in wave from Walney Airfield, home of the Lakes GC, to the Isle of Man. This is believed to have been the first time the 33 miles of water has been crossed in a glider.

He was at 12000ft before setting off and landed at Jurby Airfield, Isle of Man, where he was retrieved by Super Cub.

It was described by a club member as "a flight of opportunity." We have been promised a full account for the next issue.

### BGA DIPLOMA WINNERS

Congratulations to the three BGA Diploma winners who have given long service to gliding.

#### Leslie Allard

Leslie, Chairman of the Southdown Gliding Club for 15 years, has led the club through the difficult years of its transition from the old site at Firl to a new and flourishing life at Parham in West Sussex. He was in the forefront of the planning and negotiations, the complexities of the move itself and the safe establishment at the new site. Through all the problems he has remained resourceful, resolute and good humoured. He has the respect and affection of the whole club.

#### Jack Minshall

Jack joined the Midland Gliding Club 21 years ago and was appointed their first professional instructor in 1958 since when he has been in charge of summer courses. In this rôle and as a weekend instructor he has introduced thousands of people to gliding. In 1964 he was approved as an inspector and for several years has been the ground engineer. Apart from his skill, he has a general practical engineering ability which has been a major factor in maintaining launching equipment. Jack's cheerful presence has been a welcome

part of the scene for as long as most can remember.

### Robert (Jock) Wishart

Jock has devoted himself wholeheartedly to gliding, and particularly club operations, for some 15 years. He was an instructor at the RAFGSA Centre, Bicester, and is now the CFI of the Mawgan Vale Club in Cornwall. He has continuously striven to maintain the highest standards of instruction and done his fair share on the ground from maintenance to administration. He has crewed for the British team at three World Championships and for the New Zealanders in 1965. He typifies that regrettably small group of enthusiasts who, at club level and at considerable personal sacrifice, make gliding possible for the majority.

### MINOR AIRSPACE IMPROVEMENT

The 14nm section of Airway Amber 1 to the south of the Manchester TMA has had its base raised from 3000ft to FL 35. This amendment will no doubt appear on the next printing of aeronautical maps.

J. J. Ellis

*Airspace Committee Chairman*

### ANNUAL AWARDS—1975

The BGA has announced the following:

Douglas trophy (for clubs with three flights by three different club members aggregating the greatest cross-country distance): Surrey & Hants for flights by P. Loewenstein, 602km on May 31; C. Garton, 596km on July 3 and R. Brisbourne, 510km on May 31. Total 1708km.

California in England trophy (longest flight by a woman): Anne Burns, Lasham, for a 515km triangle on May 31, Nimbus 2.

De Havilland cup (best gain of height): R. Henderson, 27500ft, on October 25, K-6E.

Frank Foster trophy (best speed 100km triangle): F. Pozerskis, London, 130km/h, on September 13, ASW-17.

Manio cup (best speed 300km triangle): J. Cardiff, London, 88km/h on July 28, Std Libelle.

Seager cup (best closed circuit in two-seater): J. R. Jefferies, London, 515km triangle at 89km/h on May 31, Calif A-21.

Volk cup (longest closed circuit flight): P. Loewenstein, Surrey & Hants, 511km goal and return on July 2, Kestrel 19.

Wakefield cup (longest flight): P. Loewenstein, 602km triangle on May 31, Kestrel 19.

National Ladder trophies

L. du Garde Peach (winner in club aircraft): P. Loewenstein, 6097pts.

Enigma trophy (winner in private aircraft): L. E. Beer, Thames Valley, 6801pts.



CHRIS SIMPSON

## BGA CHAIRMAN



ROGER BARRETT

### CHRISTOPHER SIMPSON—Immediate past BGA Chairman

When Chris Simpson succeeded Ken Wilkinson as BGA Chairman in 1972 he brought with him a great enthusiasm for gliding and the experience of having been Vice-Chairman for the immediately preceding four years. He started gliding in 1959 and was a founder member of the Leicestershire Gliding Club. For ten years he has been a fully rated instructor and in his Kestrel 19 he is a keen competition pilot. Last year he flew his Diamond distance and thus became the first BGA Chairman to complete the Diamond badge with flights in the UK.

When he was Vice-Chairman he was a member of the study group which redrafted the constitution of the BGA. The need was for a constitution that met the changing needs of an expanding gliding movement. Chris's skill as a lawyer was of great assistance to this study group. Later in his capacity as BGA Chairman he has actively pursued the spirit of the constitution. In particular he has encouraged sub-committees to be effective in their specialist areas and yet has retained the Executive's rôle in the decision-making process.

His four years as Chairman have seen a variety of external pressures on our sport. He has by consistent watchfulness, well directed action and wide-ranging contact with officialdom kept the effect of these pressures to a minimum. For example the ban on Sunday flying that came with the fuel crisis would probably have been a seven days a week ban had it not been for Chris's vigorous representation of our case.

He tackled the long-standing and thorny problem of the BGA's offices by proposing and effecting the move right away from London. This has proved very successful, especially in terms of staff morale.

As Chairman he has dealt skilfully with the different, strong and sometimes conflicting personalities among the Executive Committee members. He gained the respect of all of them in his handling of Executive matters.

His primary concern has been to enable people to glide. This has involved encouragement and guidance of development, protection from red-tape and the promotion of an appropriate public image for our sport. In his dealings with Government departments and the other aviation bodies he has ensured that the gliding movement has been well represented and that the BGA has been seen to have its own house in order. Our high standing in such matters is in no small way due to his personal influence.

Now that he has stepped down from the Chair he will have more time to fly, and to relax with a good bottle of wine. I feel sure that his experience, advice and help will continue to be available to the gliding movement for many years to come.

His recent election as a Vice-President of the BGA is a well deserved honour. Our sincerest thanks are due to Chris for all that he has done for us. We should also thank his wife, Jane, for the support that she has given him.

### ROGER BARRETT—New Chairman of the BGA

Roger Barrett was elected as Chairman of the BGA at its AGM in March. You may wonder what the immediate Chairman of the British Balloon and Airship Club is doing as Chairman of the BGA. On the other hand you may feel that as an expert in hot air he is ideally cast.

Roger has been gliding since 1958 when he attended a course at Dunstable. As his experience increased he competed in various Regionals and flew several times in the Alps. He became involved in the organising side of competitions and was Director of a Nationals held at Dunstable. He was for two years Chairman of the BGA Flying Committee. He was Manager of the British Team at the last World Championships and is Manager of the Team which is shortly going to Finland for this year's World Championships. Thus he is both Team Manager and BGA Chairman.

He was co-opted to the Executive Committee last year but his experience of the workings of the Executive goes back further since he has often attended meetings in his capacity as Flying Committee Chairman or as Manager of the British Team. He has many attributes that make him a suitable person to be BGA Chairman. He knows gliding well and in particular the competition side. He knows aviation officialdom and the other aviation bodies from his time as Chairman of the British Balloon and Airship Club. He has an infectious enthusiasm for gliding.

When not raising funds for the British Team or worrying about some aspect of BGA affairs, Roger flies a Kestrel 19 or his balloon. Outside of sporting aviation, he is a publisher and has an interest in music.

On your behalf and personally I wish him every success for I am sure that in Roger the BGA has, yet again, chosen a very worthy Chairman.

Keith R. Mansell (Vice-Chairman, BGA)

## FATAL ACCIDENT

Donald Searle, London GC, died in hospital shortly after a gliding accident on Saturday, May 1, when the IS-29 he was flying from Dunstable to Norwich crashed into a field near Cambridge.

## ATTENTION ALL 00's (OFFICIAL OBSERVERS)

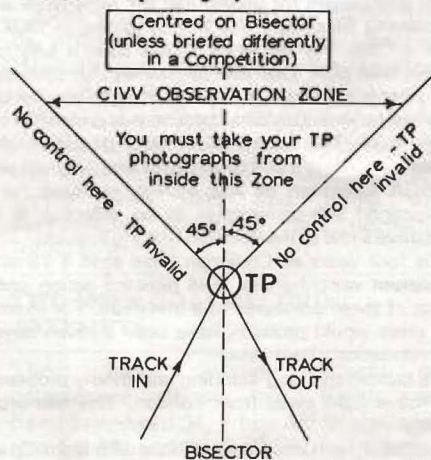
**Sporting Code.** The rules under which badge and record flights are conducted are in the 1975 edition of the FAI Sporting Code Section 3 Class D "Gliders". As has already been announced, all future Observer renewals will result in 00 getting his personal copy of this document which is produced by the *Fédération Aéronautique Internationale* in Paris.

Although the 1975 edition became operative on January 1st, 1975, printed copies were not available until September. So for the 1975 season only, the BGA was virtually forced to accept claims prepared to the Rules of the previous (1970) edition. This note is to inform all 00's that for 1976, claims must be certified strictly in accordance with the 1975 edition Rules. The only dispensation permitted by the BGA is under Rule 2.7.2(a) which demands cameras to be sealed by an 00. Because we have found great difficulty in doing this (without resorting to complicated methods) the BGA is taking the matter up with the International Gliding Commission (CIVV) and meanwhile camera sealing is not required.

00's may find similar cases in other Sporting Code Rules, where traditionally in the UK we have adopted slightly different procedures. In any such cases,

please complete the pilots "green form" but annotate the form, or send a covering letter, so that the Flying Committee can discuss the matter. Indeed we hope to have extensive feedback on the 1975 Sporting Code so that in 1977 the BGA can present a paper to CIVV proposing amendments for the future.

**TP Zones** One particular Rule that 00's and all pilots must be aware of is that the Turning Point Photographic Observation Zone is centred about the *Bisector* of the two tracks at the TP. There is also a mistaken idea that "as long as the distance (300/500km) is exceeded then it doesn't really matter how the TP was photographed."



Unfortunately nothing could be further from the truth. Once the TP is declared, the badge or record achievement becomes one not only of soaring skill, but of navigational ability and a certain small level of photographic expertise. Indeed compared to the old Rules for direct observation by 00's at TP, the photographic Rule is very easy to fly and gives a  $\pm 45^\circ$  latitude for positional error.

## Official Observers

All pilots and 00's must realise that claims *will* be rejected if photos are taken from outside the Observation Zone. Marginal cases may, of course, be submitted to the BGA with a covering letter for further analysis to see whether the possible assessment error could just put the pilot in the "zone". The only exception to the "Bisector" Rule is in contests—contest pilots simply have to follow the organisers' briefings on TP zones and the briefed zones are the legitimate ones for all CIVV purposes.

**Unusual Features.** Remember to tell the BGA every time if there are unusual features about a claim—we have even had pilots touting their claim from Observer to Observer before finally getting someone to stick his neck out. In this case we certainly want to know so that we can do a very thorough check on the claim. A covering letter with the claim is best, but remarks scribbled on the green form will do. Remember that your reputation as an Observer is at stake if you do not tell the BGA of unusual features in the claim.

### Summary

- 1 Please read the 1975 Sporting Code carefully and raise any queries with the BGA.
- 2 Be particularly careful in assessing whether photos are taken from inside the Observation Zone.
- 3 In the event of *any unusual feature* in the claim, tell the BGA. Be particularly careful if another observer has already rejected the claim.

Ian Strachan

*Flying Committee Chairman*

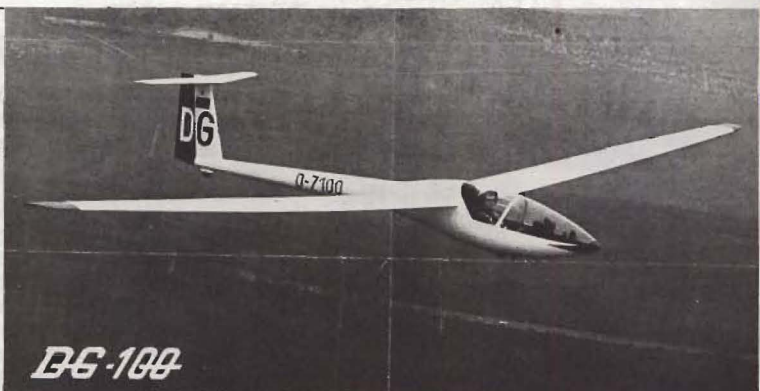
## SUNSHINE AND SHOWERS

Since April 26 the Radio 4 weather forecasts given at 06.55, 07.55 have

**NEW**  
**DG-100**  
**15m Glassfibre Sailplane**

Wing loading	5.9 to 7.75 lbs per sq. ft.
Best glide angle at Max A.U. weight	39 at 55 kts.
Min sink	1.2 kts. between 38 & 43 kts

1st Place Austrian National, flown by Harro Wödl  
2nd. Place Swiss Nationals flown by Horst Arber.



**DG-100**

WORKS NUMBERS CAN NOW BE SECURED FOR THE DG 200 FOR DELIVERY 1976

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been cut to a brief synopsis. Pilots who wish to complain should write to the Presentation Editor, Radio 4, BBC Broadcasting House, Portland Place, London W1.

## NATIONAL LADDERS

John Cardiff (London) is at the top of the Private Ladder with just one very fast flight in his Std Libelle—a 365km out-and-return in the last week of March.

### Private Ladder

Leading pilot	Club	Pts	Fits
1 J. C. Cardiff	London	2581	1
2 D. Roberts	Cotswold	2246	4
3 L. A. Beer	Thames Valley	1737	4

### Club Ladder

Leading Pilot	Club	Pts	Fits
1 C. Lovell	Surrey & Hants	1185	2
2 R. Henderson	Deeside	1080	1
3 P. Loewenstein	Surrey & Hants	1026	1

## WORLD CHAMPIONSHIPS FUND

The BGA acknowledges contributors to the 1976 World Championships' Fund, received from February 1 to April 23, from the following:

Anon	J. F. F. Lathbury
P. Arthur	G. Lawley
C. Boyle	D. G. Lee
A. J. Burton	R. A. Lowndes
M. R. Carlton	E. J. Mason
T. Carpenter	C. Nightingale
Cornish GC	Norwich Soaring Group
Coventry GC	Oxford GC
D. W. Davis	A. Pattison
H. R. Dimock	S. J. Redman
R. T. Dixon	R. N. Gedra
Dorset GC	Shropshire GC
A. Doughty	Surrey & Hants GC
S. Goldsbrough	J. C. Tait
T. C. Harrington	Thames Valley GC
R. Henderson	Vickers Ltd
Kestrel GC	G. J. Wedgwood
P. King	P. F. Whitehead
Lasham GC	F. J. Wiseman

TOTAL CONTRIBUTIONS TO DATE  
£1,794.61

## GLIDING CERTIFICATES

### DIAMOND HEIGHT

No.	Name	Club	1976
3/262	C. J. N. Waller	Wrekin	25.2
3/263	J. M. Chisholm	Deeside	26.10.75
3/264	J. A. Dandie	SGU	5.10.75
3/265	C. J. Tipney	Airways	11.3
3/266	R. N. Hunt	Anglia	28.3
3/267	R. Penswick	Anglia	28.3
3/268	C. A. Boyle	Northumbria	28.3
3/269	C. D. Street	Lasham	6.4
3/270	R. J. Lyndon	Bicester	28.3

### GOLD C COMPLETE

No.	Name	Club	1976
514	A. F. Thomas	South Wales	11.1.75
515	R. G. Pitman	East Sussex	1.3
516	I. D. MacFaddyan	Cranwell	1.3
517	A. R. Hancock	SW District	1.3
518	D. G. Roberts	Cotswold	28.3
519	R. P. Enswick	Anglia	28.3
520	J. C. Shipley	Derby/Lancs	28.3
521	C. D. Rowland	Bath/Wilts	27.3
522	D. P. White	Bicester	28.3
523	G. P. Plunkett	Southdown	7.4
524	E. J. C. Vann	Cranfield	28.3
525	A. Linee	Dorset	7.4
526	R. V. Barrett	Bristol/Glos	27.3

### GOLD C HEIGHT

Name	Club	1976
A. F. Thomas	South Wales	11.1.75
D. S. Innes	Deeside	8.1.75
M. Lynch	Imperial College	23.9.75

I. D. Moss	Wrekin	25.2
J. Saunders	Wrekin	25.2
Jenny Saunders	Wrekin	25.2
J. H. K. Jefferson	Shropshire	12.1
R. P. Whitehouse	SGU	1.3
J. R. C. King	Buckminster	1.3
A. Cliffe	Staffordshire	25.2
R. Harding	Herefordshire	6.1
I. Corkell	Herefordshire	1.1
R. G. Pitman	East Sussex	1.3
I. D. MacFaddyan	Cranwell	1.3
A. R. Hancock	SW District	1.3
R. Brown	Bannerdown	1.3
M. J. Munday	Bannerdown	1.3
M. F. Webster	Buckminster	26.2
S. J. West	Buckminster	25.2
A. V. Day	Buckminster	26.2
B. J. Poole	Stratford	11.1
T. J. Murphy	Buckminster	1.3
M. V. Boyden	Wrekin	28.3
C. J. Tipney	Airways	11.3
D. G. Roberts	Cotswold	28.3
R. P. Enswick	Anglia	28.3
P. D. Turner	Doncaster	28.3
R. Davidson	Coventry	28.3
H. J. Warbey	Herefordshire	28.3
J. D. Hessey	Doncaster	28.3
J. C. Shipley	Derby/Lancs	28.3
C. D. Rowland	Bath/Wilts	27.3
J. M. Alcock	Bicester	25.3
D. P. White	Bicester	28.3
G. P. Plunkett	Southdown	7.4
E. J. C. Vann	Cranfield	28.3
A. Linee	Dorset	7.4
R. V. Barrett	Bristol/Glos	27.3
N. H. C. Harris	Bristol/Glos	7.4
A. J. Hulme	Cambridge Univ	1.3

### SILVER C

No.	Name	Club	1976
4272	D. G. White	Bristol/Glos	11.2
4273	P. W. Howland	Kent	24.8.75
4274	P. C. MacNaught	Yorkshire	3.11.75
4275	L. Cooper	Wolds	11.2
4276	A. A. Grout	Essex/Suffolk	17.8.75
4277	M. Burns	SGU	17.11.75
4278	D. W. Bryans	Midland	29.2
4279	B. A. Roberts	SW District	29.2
4280	J. Wotherspoon	SGU	24.1
4281	J. R. C. King	Buckminster	1.3
4282	F. L. Cox	Buckminster	25.2
4283	J. Foey	Phoenix	14.3
4284	V. Luck	Airways	23.3
4285	A. Penfold	Midland	15.6.75
4286	E. M. England	Bannerdown	4.4
4287	G. S. Forsyth	Fulmar	4.4
4288	A. G. Faulkner	S Yorks/Notts	4.4
4289	S. Lowe	Avro	4.4
4290	J. G. Bell	Surrey/Hants	3.4
4291	P. R. Pentecost	Cornish	8.4
4292	R. Sargeant	Aquila	4.4
4293	J. Wilson	Cranfield	17.4
4294	P. Tribett	South Wales	19.4
4295	D. R. Lamb	Anglia	19.4
4296	W. Simpson	Kirknewton	16.4
4297	J. Jenkins	Anglia	11.4
4298	A. Hegner	Thames Valley	14.4
4299	L. Grimshaw	Ouse	16.4

## OBITUARY

### E. C. GORDON ENGLAND

Eric Gordon England, who died on February 1 at the age of 85, was Chairman of the BGA for its first four years of existence. He had previously set up a British gliding record of 58 seconds in 1909, and flown in the first British gliding contest at Itford in 1922.

At the 40th anniversary reunion of this contest, held at the Kronfeld Club, he described how he came into aviation at the age of 17. The first British Aero Show at Olympia in March 1909 determined him to devote his life to aviation, but he was first made to attend a family conclave who were determined that he should not. He was still defying them when at last Grandma played her trump

card: "If the Lord had intended you to fly. He would have given you wings." He replied: "Grandma, if the Lord had intended you to go by train, He would have given you wheels." At that, Gordon England related, the meeting broke up.

He tackled various Olympia exhibitors in search of a job, and was taken on by José Weiss, so it was in a Weiss glider that he set up the 58sec record at Amberley Down on June 27, 1909.

On the last day at Itford, a fierce wind blew his glider into the curl-over. "My machine" he told a reporter "was quite delightfully out of control"—but he landed heavily and badly smashed an ankle. At the hospital in Eastbourne the duty surgeon wanted to amputate the foot, but a navel surgeon turned up and said he recently had just such a case and was able to save the foot, and thought he could do so again. He did, and the foot continued to serve its owner well for another half century.

In the 1920's Gordon England took up motor racing, and also ran a firm with an original idea: instead of buying an ordinary car, you bought the chassis only, and he would fit it with a racing-type body. But this firm had to be wound up just about the time that the BGA was formed.

For its first two years, 1930-31, the BGA organised some good soaring demonstrations; also a conference at which Gordon England outlined his scheme for a "Central Gliding School and Research Station", which he estimated would cost £5000 to set up. But in 1932 dissatisfaction with the BGA by the leading clubs set in; the events which lead to his disappearance from the gliding world were described in my article "Eighty years of British Soaring," S&G December 1974 p250. He then began collecting directorships of firms, one of which, General Aircraft, produced the first British military glider, the eight-seater Hotspur, in 1940.

I last saw him in 1970 at the 40th anniversary celebration of the 1930 Firlle demonstrations, and asked him about a rumour that he had taken up with ecology. It turned out that he considered ecology on a planetary scale, and in fact at the time of his death he was Acting Chief Executive of the Ecological Research Foundation. Then, in answer to another question, he said he had visited Lasham and "it ought to be 20 times as big." As he could hardly have meant 20 times as many sailplanes occupying the airspace, this showed that he still conceived a gliding club as a place where masses of "youth" took their turns at instruction flight—the sort of set-up he must have wished had been available when he was 17.

A.E.S.

# overseas

## news

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

### MORE 1000 + KM WORLD RECORDS

Karl Striedieck in an ASW-17 and Leonard McMaster in a Std Cirrus will, subject to homologation, jointly hold the world goal-and-return record for a flight of 1299km which they carried out on March 17. (No details available).

The 750km triangle world record claim by Tim Mouat-Biggs of South Africa last October has been homologated at 125.44km/h.

### LONG DISTANCES IN THE LOW COUNTRIES

Friday, April 23, was what the Dutch call a "Saint Cumulus Day", when Dr K.W. Hinkel flew his K-6E from Terlet to the Bay of Biscay in France—847km away. According to Dr Hinkel this flight proves that a 1000km starting from Holland has a distinct possibility of success.

On the same day, N. Bertels, CFI of the Belgian club St Hubert, flew the club's K-8 over a distance of 650km.

An unverified report has also reached us that a 1300km has been flown from Denmark—*Aeropress*.

### US 300km SPEED RECORD BROKEN

J. Robert Burk of Palos Verdes, California, is claiming a US national multiplace 300km triangle speed record for a flight in a Calif A-21 at 111.7km/h from Mirage Field, near Adelanto, California, on September 4. With Fred Sill as the passenger, the maximum altitude was 12000ft.

### FRENCH GOLD MEDALLISTS

The General Assembly of the French gliding organisation, FFFV, has awarded Gold Medals to Robert Castello and Annet Segeron. Castello is the designer of all the Castel glider types, starting with the pre-war Castel 24, the first French high-performance two-seater, from which he derived the Castel 242. Then came single-seaters 30s, 30Is, and 32P and 311P, and the two-seater 325s of which some are still in service with clubs. With Maubuasson he created the CM-7 which set up two-seater duration records, then the experimental two-seater Jabon. Then

came CM-215, a high performance single-seater, and its aerobatic version, CM-8/13, from which was derived the Sylph with jet motor, and its descendants. Military planes designed by him were Dewoitine 520 and Fouga "Majister".

Annet Segeron, who flew in the first world war, was "one of the most dynamic animators of soaring in France" and was a glider pilot from 1924 onwards. His son is now Vice-President of the FFFV.—*Aviasport*.

### FINNISH THERMALS LAST ELEVEN HOURS

The following letter was sent from Mr. Jussi Soini of Helsinki to "The Aeroplane" some 20 years ago apropos some remarks in "Gliding Notes", but was not published. Now, however, it is once again topical.

On July 3, 1949, Martti Kahva, flying a Weihe from Jämijärvi Gliding School, made the country's longest duration thermal flight. Jämi school is situated in south-west Finland about 60km from the coast of the Gulf of Bothnia on a very long and broad gravel ridge, Häeenkangas. The ridge originates from the Ice Age. It is no use for slope-soaring.

The thermal conditions at Jämi are very good. In the sunny summer mornings the thermals usually begin at about 8am. The first cumulus clouds form half an hour later. The thermals (both ground and cloud thermals) are good till 11—12hrs, when the sky is full of clouds. Then there are only cloud thermals until 1—2pm, when the cloud-base breaks and the ground thermals begin again. The ground has in the meantime become cool and the new ground thermals are very good.

The Jämi School lies on the ridge, but on both sides of the ridge there are wide forests. These forests become warmed in the blaze of the sun. In the evening, when the ground thermals proper have stopped, the forests begin to give up their warmth and form a weak evening thermal. The thermal is not very strong for the winning of altitude, but it is strong enough to hold the sailplane up for a much longer time than normal. With the help of this "forest thermal" we can often hold the sailplane in the air till 9pm. Mr. Kahva,

for example, flew on September 2 1949—the day before the record flight—for over 5 hours; he started at 3pm and landed after 8.30pm.

Mr. Kahva is not the only man in Finland to have flown for over 11 hours. Four such flights have been made in Finland: Brkki Kantonen, 11hr 14min; Olavi Petrala, 11hr 7min; Martti Kahva, 11hr 5min and 11hr 32min. We now wait for the 12 hours to be exceeded. It can be done in thermals, but the weather is not often good enough for such a long duration.

The following extracts are from Mr. Kahva's account of his flight in the journal *Ilmailu*, translated by Mr Soini.

#### Martti Kahva's Story.

I started from the pass between the two parts of the field, and asked the tow pilot to release me near the field because I expected to find the best thermals there. At about 200m above the school I passed through weak lift, but dared not release so low. Better lift should be found after a couple of circuits, and it was so. I released just above the school at 8.30am. Rate of climb was 1.5m/sec. At 600m the climb surprisingly stopped, and I lost 200m before finding a new thermal. In it I climbed to 800m and then this thermal finished too. But I could maintain height and saw a Weihe coming to join me. At 9.30am we were soaring in the same lift and climbing to 1500m without difficulty. The thermal was very uneven and torn. At 11am the first small cumulus clouds were forming in the western sky. They were still rather far off and I flew slowly towards them. Too late I realised that their distance was too great, so I returned to the field, the altimeter then showing 800m.

At the same time I found a "festival thermal" in which I climbed to 1900m. The variometer showed an average of 4m/sec. Now I was sure I could reach the cloud area to the west. At 12.45 I made the first circle below clouds. Cloudbase was at 2000m and I climbed 200m more in cloud.

I sang and whistled. After a long time I looked at my watch and it showed 4pm. I flew to Kovesjoki, about 25km from the airfield. Cloudbase was now at 2000m. I reached 2500m in clouds and the best climb rate was 6.5m/sec.

At 6pm I flew slowly towards the airfield and wondered which of the clouds would be last to break up. I flew under a cloud near Ikaalinen, about 10km from the airfield. At 7pm this cloud also began to break up. I climbed as high as possible, but after half an hour the cloud had disappeared. I flew to the airfield, the variometer showing 0.5m/sec sink. When I came over the forest on the south side of the field, the sink became less and was

often zero. I was able to maintain this long enough. After some circuits I lost the weak thermal and had to land. Contented and tired, I landed at 8.02pm. A new Finnish duration record was set up.

## OBITUARY

### ERIC NESSLER

The French gliding world has lost one of its very first pioneers, Eric Nessler, who died on February 18, at the age of 78.

Born at Luneville on May 20, 1898, he was drawn to aviation while still very young, and in 1916 built an amateur aircraft of revolutionary design which he tried out at the Ruchard military camp.

In 1917 he joined the Air Force as a fighter pilot and was wounded over the Verdun area. From 1918 to 1920 Eric Nessler was an instructor and test pilot. He returned to gliding, however, and between 1920 and 1923 participated in the first gliding meetings in France at Combergrasse, Vauville and La Banne d'Ordanche.

He gained many French gliding records and set an international duration record of 38hrs 21min on June 18—19, 1942. In 1937 and 1938 he participated in the first

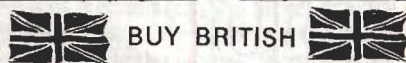
World Championships of the ISTUS (which became OSTIV) and in 1938 at Berne he was second.

In 1938 he became gliding inspector within the Popular Aviation movement, then in 1941 became head of the National Gliding Centre at the Montagne Noire and participated in the evaluation of the Olympic glider Meise-Olympia in 1939. He was the first pilot of a French glider to obtain a Gold FAI badge (1938), was the third Frenchman to obtain three Diamonds (1952) and the first to fly more than 500km, performing this feat at Wichita Falls, USA, in 1947.

A pioneer of gliding, Eric Nessler helped to found this new sport and to train the first instructors. Author of the *History of Gliding*, he was a reserve officer of the Air Force, Officer of the Legion d'Honneur, holder of many decorations, and in 1969 he received gliding's highest tribute, the Lilienthal Medal. Finally, in 1973 the French Gliding Federation awarded him its first Gold Medal.

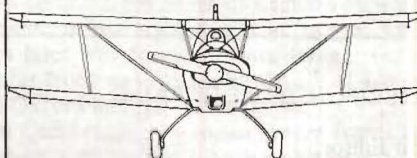
He continued to fly gliders until just before his death and was regularly seen at Buno Bonneveau with his Fauvel flying wing. A man of great charm and modesty, he will be missed by many, and in particular by young pilots, for whom he was a source of great encouragement and inspiration.

W.E.M.



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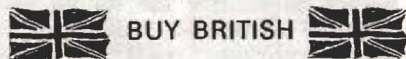
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# your letters

## A DISCIPLINED USE OF RADIO

Dear Editor,

I believe that the time has come for some action by the BGA to secure a more disciplined approach to the use of radios by glider pilots and their ground crews.

With the introduction of a further unrestricted frequency (130.1), an opportunity presents itself for some serious consideration to be given towards the training of radio users and the provision of a safer medium of communication.

The original intention of airborne radios in gliders was to enable the pilot to relay landing information to his crew. The development of the airborne radio has reached the stage now where for competition and safety work its use has become in many cases mandatory. In view of the predominance of gliderborne radios throughout the UK, might I suggest that better use and understanding of the facility might be achieved, at the same time as accomplishing a specific cloud flying requirement, by making the existing 130.4 frequency a general category frequency to include unrestricted use for all purposes of club flying, training and recreational gliding. The new frequency (130.1) would be a privileged frequency, the use of which would be restricted to all users both airborne and ground who had proved their proficiency on the basis of a simple paper and test, prepared by the BGA on the basis of minimal requirements for correct radio-telephony procedure.

The suggested introduction of a privileged or restricted frequency obviously hints of legislation and I must stress that in my view formal licensing must be avoided at all costs, and that the proficiency test referred to would be in the best interests of the gliding movement as a whole and could, or may, form part of the Bronze C paper.

These proposals are not intended to create a race of gliding airline pilots, but are intended to give the opportunity to both competitive pilots and progressive club pilots to use a frequency which enjoys the condition of better communication and thereby less frustration in the passing of urgent or safety messages.

I would appreciate comments concerning these suggestions which I believe should be treated urgently in view of the recency of the introduction of the new frequency.

Sevenoaks, Kent.

M. R. CARLTON

## RHODA'S MNEMONIC

Dear Editor,

I like to say	L	Look
	U	Undercarriage
	S	Straps and speed
	T	Trim

on the downwind leg. But I learnt that LUST alone will not save you. After a difficult launch and two happy hours ridge soaring (my first flight of the season), I joined the circuit and said "LUST!" I peered anxiously about, raised the wheel, attended to straps and speed, set the trim and then scratched my beautiful tummy most cruel on the vicious flints that are set like Stone Age axeheads in that lovely gliding site. I then had an undercarriage warning fitted, but it warned when the wheel was down as well as

when it was up, so I took a large screwdriver to it and invented an off-tow mnemonic—TRUE (Trim and undercarriage)—and now I trust to TRUE LUST.

People who are absent minded or scatter brained are much helped by mnemonics. Our character failings are exaggerated when we are airborne, due to having been born without wings.

Cardigan, Dyfed.

RHODA PARTRIDGE

## TUG LEFT, GLIDER RIGHT?

Dear Editor,

In June 1972 I asked, in the now alas defunct *Instructor*, which way the tug should turn after the glider releases as my club (Doncaster) seemed to be out-of-step. I suggested that it was best for the tug to descend off a left turn while the glider turned right. Nobody disagreed with me, which I found rather surprising, and one chap, who had had a tug descend on top of him in Switzerland, heartily agreed. The ensuing correspondence brought out the following points:

- 1 In a side by side two-seater tug *ie* Condor, Auster etc, it was easy for the pilot to see if the area to his left and below was clear.
- 2 It seems to be more natural to look out to the left.
- 3 If the tug is fitted with a mirror, as it should be, it is easier to see the glider release if it turns right.
- 4 On some gliders the release is on the left of the skid and therefore a right turn is away from the rope.

I am reluctant to suggest that we burden ourselves with yet another rule but perhaps we could add "tug left, glider right" to the list of recommended practices.

Huntington, Yorks.

M. C. USHERWOOD

## DON'T MUTILATE MACCREADY

Dear Editor,

Dr Paul MacCready opened up the Bishop Wave in California to world altitude records; then he became World Gliding Champion in France in 1956. Now, with the invention of his famous Ring, his name deserves to go down to posterity; but it won't unless people learn to spell it properly. European aviation journals persistently call him McCready, and at least two British gliding pundits have managed to cut him right down to McReady, while I have even seen the first "c" replaced by an upside-down apostrophe.

The rule is to use the maximum possible number of letters: but don't overdo it by turning the final "y" into "ie"—he's not Scots.

Cambridge.

A. E. SLATER

## LOOK BEFORE YOU LEAP

Dear Editor,

Derek Piggott's article on cable break briefings and Bill Scull's article on launch accidents (S&G April, p68 and p70) were, in my opinion, admirable as far as they went. May I venture to suggest, however, that an important aspect of cable break briefings neglected? Even before teaching the mechanics of cable break was recovery pilots should be trained to be prepared and plan for launch failures *before* they happen, *ie* plan before flying. Much of the routine thinking and decision making will then already have been done leaving the pilot freer, at a critical time, to get on with the recovery. At most the pilot's thinking load, when the launch does fail, need only concern minor modifications, if any, to the plan.

Pilots should be trained to have a jolly good look around and check the windsock before each flight. Having done these things he can then work out which way to turn after a launch failure (assuming a "straight ahead" isn't on) and where to land and where to avoid.

Reading

DON WEBBER

## A TRIBUTE TO JOHN REUSSNER

Dear Editor,

The mention of John Reussner's name in the obituary to Air Cdr L.P. Moore (S&G April, p82) reminded me of his sad death in December 1974 at work. He was in his early fifties.

I first met John in 1955 when I went to the Yorkshire Club at Sutton Bank to fly my first Skylark 1. John was then Chairman and working at Slingsby's as designer and draughtsman. His mentor and chief, the late Fred Slingsby, asked him to take an interest in the club and play a part in its development.

John had learnt his aeronautics in Hull where he lived with his widowed mother until his marriage. His enthusiasm and ready wit, somewhat laconic, was a constant stimulus, and set off the energies in others. However John's energies were equally apparent at Ings Lane where the combination of the thrustful Reussner and the more cautious Mr Slingsby produced a period of creative effort that has not been seen since. It started with the Skylark 1 in 1952 to the Dart in 1965. A corporate achievement that placed the name of Slingsby on the world gliding map, and the products are still with us today in their distinctive simplicity.

Perhaps John's significant contribution was the conception and design of the Swallow, a commercially successful glider. He himself built the enlarged version, the Swift, in his garage, and it was flown successfully for some time by a syndicate at Sutton, of which he was a member. Although a successful glider, it did not go into production at Kirbymoorside.

John prospered for a while with Jack Bradley, but then became Sub-Contracts Manager at Hawker Siddeley at Brough until his death. This immensely practical man gave us a great deal in gliding. John Reussner was not the principal, but I do not feel that Slingsby's could have been so successful without Reussner.

Wetherby, Yorks.

J. C. RIDDELL

## DATA WANTED ON SEA BREEZE FRONTS

Dear Editor,

Are you in favour of sea breeze fronts? Or against them? Whichever is true you cannot afford to ignore them, because good soaring days are good sea breeze days.

As part of my work as a research meteorologist I have been

able to make measurements of a great many sea breeze fronts and it may be encouraging to know that in the last 23 traverses I have made (with moral support of engine) across these fronts, all included some air rising at more than 1½kts. In flights made between 750ft and 2400ft, the average peak lift was 3.5kts and the area of rising air extended over a line ¼ mile long.

These flights were mostly made between 4pm and sunset in June and July, and it is clear that on many days the front is "improving" during this period and can still be highly soarable at sunset. For example a certain front south of Lasham on which Hugh Hilditch was unable to maintain height at 3.0pm, when investigated four hours later was found to have large areas of strong lift. This particular front was found, by the aid of ground records, to have passed Oxford later in the night!

I am now working in Cambridge, where sea breeze fronts are also known to occur, although so far I have only three well-documented records of fronts past here. I should be very grateful for any news from gliding types of sea breeze fronts in East Anglia. I should like to follow as many case studies as possible this season. At what rate do they advance? Does a line come in from the north as well as from the south-east? Any information of time and place and, if possible, soaring details at fronts would be most helpful if sent to me at the Department of Applied Mathematics and Theoretical Physics, Silver Street, Cambridge, or telephone 60475 (evenings).

JOHN SIMPSON

## T-21, HISTORICAL DETAILS REQUIRED

Dear Editor,

I have just formed a syndicate to operate one of the best T-21s that Slingsbys ever built—sorry, Rhoda. It will be based at North Weald, HQ of the Essex Gliding Club. Whilst it will mostly be used as a "funmachine", we do hope to go across country etc.

I am ploughing through all the available literature to try to find out what unusual and record flights (distance, duration, height and anything else) have been made in a T-21. Undoubtedly many flights of merit in this delightful machine have gone unsung.

If any readers would care to send me details of such flights I shall be pleased to refund the postage. We can't yet decide whether to call her Icarus or Darius. Any other suggestions?

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# Club News

*The winch that Carl built for the Cornish GC—with a little help from his friends. Carl Knight is in the driving seat with John Turner, centre, and J. Wooldridge.*



Copy and photographs for the August—September issue should be sent to the Editor, S&G, 281 Queen Edith's Way, Cambridge CB1 4NH, tel Cambridge 47725, to arrive not later than June 9 and the October—November issue to arrive not later than August 11.

April 22

GILLIAN BRYCE-SMITH

## BICKMARSH

Bickmarsh prospers, supporting gliding, parachuting and power flying groups, and we hope to run gliding courses later this season. The hangar is bulging with a syndicate Blanik, T-21, K-7, Grunau and Pirat, together with a variety of powered aircraft.

Launch facilities consist of two tugs with winch back-up, so the only delay now is caused by the elements. We are entering the second season under the new club, having had an accident free record, despite heavy traffic at times. Much credit must go to the Management Committee, particularly our Secretary, Wendy, and Field Operations Manager, I. J., for unfailing enthusiasm to keep things moving.

Wave appeared over Bickmarsh on March 28 and D. B. took the Blanik up to 8000ft at an average climb rate of 600ft/min in blue skies.

Membership is increasing steadily but there is still room for some private syndicates and all visitors are welcome.

D.B.

## BRISTOL & GLOUCESTERSHIRE

There was a big shake-up in the officials at the annual meeting. Chairman, Mike Harper, and Treasurer, Norman Harris, gave up and were replaced by Keith Aldridge and Robbie Robertson in an election rivalling the US Presidential for complexity.

On March 27, a good wave day, Robbie got to 18000ft and Gold C height claims were made by R. Barrett, Lance Peters and Brian Curtis.

We have had a good crop of first solos as well as a successful visit by the RAF, who attracted some TV coverage. Norman Harris, who gave up the money worries in order to fly more, succeeded with 27hrs and a Gold height in a week at Portmoak.

B.S.

## BUCKMINSTER

The club expedition to Portmoak was a resounding success, members returning with four Silver heights, four Gold heights, and five duration legs. Rupert King sat at 10000ft for seven hours without a watch. I think he would

have still been there had not Brian Spreckley been launched in the Bocian to fetch him down.

New syndicates are being formed and already an IS-29D8 and K-6E have arrived with the promise of more exotic merchandise such as an ASW-20 and PIK 20.

The first AGM of the Limited Company was held in April and the newly approved committee has settled in to its duties. All augers well for the future.

D.R.B.

## BURTON & DERBY

Although our achievements in 1975 were less spectacular than in the previous year and Keith Bowlder (Dart 15) was the only pilot to complete his Silver C, there were more cross-countries with out-and-returns by Messrs Towson, Lawley, Specht, Lawrence and Shelton. Durations were gained by Terry Burton and Mick Delahay with Bill Prince failing by four minutes due to a launch fumble delaying the flight.

The cups were presented at the annual dinner-dance, the George Edge ladder trophy going to Don Towson and the CFI trophy to George Edge for outstanding effort in flying and club operations.

The K-6CR was the only casualty in the January gales, having been rolled in its trailer before meeting the hangar. There was minor

structural damage, a shattered canopy and a bent trailer. Look after your canopies—they are very expensive!

Congratulations to Bill Yates on going solo on his 16th birthday. A syndicate Grunau Baby has appeared on the site which has yet to show its paces.

The early months saw feverish C of A activity and a small group went to Shobdon at the end of March when Garth Lawley gained Silver height.

Site security still remains unconfirmed but we are carrying on, with developments expected in the near future.

P.A.W.

## CAMBRIDGE UNIVERSITY

March was abysmal in terms of hours and launches flown, and a record for screaming crosswinds. There were two wave climbs on two days near Duxford, to 6300ft and 5500ft, which were certainly unusual.

April went off with a bang with Sigfrid Neumann whizzing his Kestrel 19 round a 300km declared triangle on the third day of the month—perhaps the earliest long flight in East Anglia. On April 19, Paul Street (Skylark 3) flew to Dunstable and Eric Fenner (Olympia 460) to Finmere for their Silver distances. There was also a 300km triangle in a PIK 20, by Steve Longland.

S.N.L.

## CORNISH

The soaring season has opened a little late at Perranporth. First away was Roy Pentecost completing his Sliver C with a duration and distance flight to Alternun on Bodmin Moor, picking up the Early Bird Trophy *en route*.

Our new Chairman, Pete Arthur, is on an instructors' course as is Cherry Sincock, who will be our first lady instructor—nice one Cherry.

CFI Dave Pentecost has arranged an inland site for use this summer and while normal training will continue at Perranporth, solo pilots can soar under the sea breeze front, all made possible by Carl Knight's winch. The club's thanks to Carl and "his friends".

J.W.



## Gliderwork

### C of A OVERHAULS and REPAIRS

By L. GLOVER senior inspector



Husbands Bosworth Airfield, Near Rugby  
Tel: Husbands Bosworth 375

## COVENTRY

The season really started at the beginning of April. Nick Hackett flew the first 100km cross-country from HB and during the following weekend conditions were excellent and most other cross-country pilots notched up their first triangles.

On Sunday April 4, an Astir CS visited the site and was flown by six or seven interested club members all of whom were very impressed.

The levelled and re-seeded strip has been brought back into use. Our holiday courses have started so it's seven days a week gliding at HB for the rest of the season.

C.T.

## DEESIDE

There are now three two-seater gliders at Aboyne, a ten man syndicate having bought a Capstan to team with the club Capstan and Aberdeen University Bocian. All are available for instruction at times.

There have been about five Diamond climbs this year, the top height being 24000ft on April 17 by John Fraser (K-6E).

R.H.

## DEVON & SOMERSET

The annual expedition to Scotland returned last week, after an abortive visit to Aboyne—apparently the weather just wasn't co-operative.

Simon Minson has gone solo, just ten days after his 16th birthday. He is the first second generation pilot to do so; Dave, his father has flown with the club since the early days at Dunkeswell. Joe and Bob Beard have also gone solo and Geoff Cook has completed his Bronze C.

We have recently instituted a "Fly In and Take Me Home" trophy with the Weston-Super-Mare Gliding Club called the Woodsprings/North Hill challenge trophy. With this, we hope to encourage more cross-country flights between the two clubs. As Woodsprings is "downhill" from us it is not a Silver distance, due to the 1% rule, but we hope to see lots of Silvers from the other direction. Whilst on the subject, may we remind Tarrant Rushtonites, that the Tarrill trophy is still at North Hill.

Congratulations Frank Bell and Rob Hobbs on becoming fully rated instructors. The recent fine weather has given some fine soaring flights. Over the Easter weekend we added a connection to our field telephone to be used from the aerotow line, making the job of log-keeping much easier.

As this issue appears, we shall be just beginning Competition Enterprise, and trust that the weather will be kind to us, and for our task week at the end of June.

J.R.H.

## DUNKESWELL

Ian King found our first thermal of the year on March 24. Bronze legs have been completed by Dave Parker, Steve James and Kschell Eleffsen and in April we had climbs to 6000ft from car launches without reaching cloudbase.

Our CFI is running a well attended course of Saturday night lectures and we have a good social programme. Our Secretary, Barbara, has taken up powered flying and went solo after

two hours' instruction. In due course she will be an additional tug pilot.

Our tug has returned from its overhaul and is working hard. We continue to have visitors from many clubs and hope this will continue.

W.J.E.

## EAST SUSSEX

We enter our second full year in an optimistic mood with several courses and a task week planned. Our first annual dinner was a howling success—90 members and guests attended including Bill Scull and Chris Simpson, (recently retired BGA Chairman).

Sixteen members and four aircraft migrated to Portmoak at the end of February and flew a total of 80hrs during the week with two Gold heights and several Silver legs.

This year we will have a second two-seater and several syndicates are undergoing birth-pangs. Visitors, as ever, are welcome.

R.P.

## ENSTONE

Life is now back to near-normal after the gales of January 2. Our club gliders are back in service after repair, but unfortunately we have to de-rig them every night due to lack of hangarage.

Doug Blore organised a gliding course over the Easter holidays which proved to be very popular and very over-subscribed. Ron Dewhurst has arranged a programme of entertainment for the season including a disco every month. All gliding types are welcome.

Our congratulations to the following members who have recently gone solo: Harry Johnson, Dave Wilson, Peter Wardell, Tony Glanville, Paul Adams, Robbin Smitton, John Crewe, Eddie Tidbury, Martin Lewin and David Thomas.

M.W.

## ESSEX

First a correction to the last report. The Chairman's cup was won by Mike Jeffries for his 300km flight in a Pirat in 5½hrs. Humble apologies for the error.

## GLIDE ESSEX

You can join as a Flying Member or come on one of our Holiday Courses, held on the edge of Epping Forest. Essex Courses are a unique mixture of Reverse Pulley and Aerotow. 1976 Holiday Courses run from early June until late August.

Learn to Glide just 45 minutes from Piccadilly, (or Soho)—but don't try landing in Hyde Park!

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### ESSEX GLIDING CLUB

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John Wilson has resigned as Chairman to become our new CFI. Mike Thrussell has become CFI at Swanton Morley but we are glad he will continue his membership at Essex. Alan Dodd has taken over as our Chairman.

The last months have been make and mend time, getting gliders and trailers ready for the season. A T-21 has been added to the private fleet.

We had one superb day when Peter Gill did his duration and the SHK a 380km cross-country. We have four aspiring instructors this year with Tim Healey and Malcolm Nixon at present on their course.

S.B.

## ESSEX & SUFFOLK

A large number of changes of key club officers were made at the AGM in March. Mike Lee, Chairman for five years, resigned and his place was taken by a former Chairman, Eric Richards. "Nobby" Bone, Treasurer, handed over to Jamie Walters and has become President. Bob Green replaces John Osbourne as Secretary. Both "Nobby" and John have given long and valuable service.

Russ Richards (Std Cirrus) climbed to 15000ft at Portmoak to complete his Gold C and Mike Lee (K-6E) has claimed Gold height with a flight at Aboyne in March, also to complete his Gold. In early April Eric Lewis (SHK) and Colin Smith (Pirat) had duration flights in thermals, Colin completing his Silver C. Bronze Cs have been achieved by Brendan Grimsey and Ed Leach, with a C by Frank Bodiam.

We have tug troubles. Both our Condor and Auster have hit expensive problems now being sorted out. Tony Sutton and syndicate helped out with their Auster and at Easter we were grateful to Harry Fennelly and Pete Clark, Peterborough & Spalding GC, for bringing their Rallye Commodore to allow flying to continue.

C.C.S.

## HEREFORDSHIRE

Keith Wilson, our CFI felt that he needed a break after many years instructing. He will continue flying with us, and our thanks to him for his help in building up such a marvellous club. Chas Nightingale has the difficult task of following such a likeable and competent CFI as Keith.

On April 15, our Chairman, John Hunt, had the pleasure and privilege of meeting the Queen, who flew from Shobdon after her visit to Hereford to distribute the Maundy money.

Bill Scull and Brian Spreckley are running Instructors' courses at Shobdon at present. Our fleet is back to normal with C's of A completed on the Pirat and one Blanik and the Falke with a re-lifted engine and C of A.

Some excellent wave flying produced the club height record (22500ft) for Lemmy Tanner, and other lesser achievements for many pilots and visitors. Ten knot thermals were recorded in March, too.

C.R.B.

## HIGHLAND

On Sunday, April 11, the Highland Gliding Club, after four months hard labour, began operating at a new site at Dallachy Airfield, Spey Bay, Morayshire; length 1100 yards; width 70 yards; direction, NE/SW. "Never have so many stones been

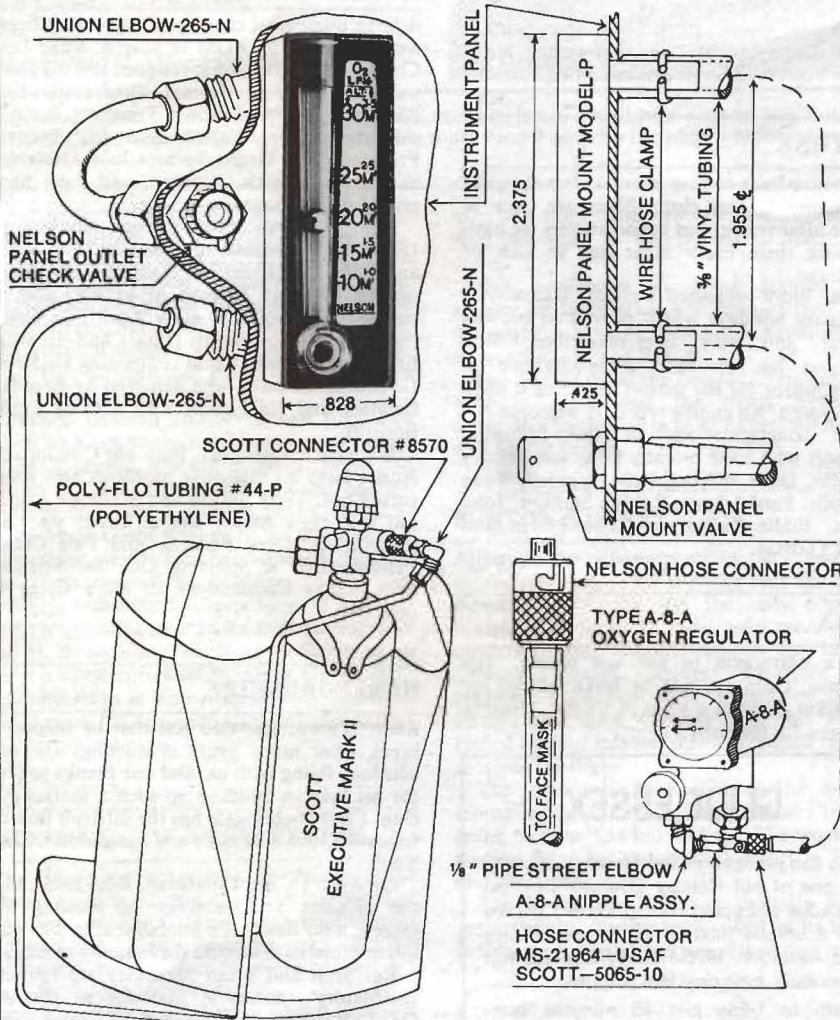
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The above SCOTT PORTABLE MARK 2 installation is an example of how any portable unit can be plumbed to allow a panel mounted flow meter to be installed on the aircraft panel and thus be in easy view of the pilot at all times.

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LIST PRICE - \$35.00

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lifted by so few for the convenience of so many."

By almost universal consent, members gave up flying this spring to get Dallachy ready before April 10, when Aberdeen University Gliding Club was coming for a week's flying and winning experience. We picked up the last stone as their trailer rolled in.

We started out at Dallachy with a new CFI, Jeff Howlett, and a greatly reduced fleet: an ex-RAFSA Bocian 1E, beautifully refurbished by Harry Orme, a K-6cr and a privately-owned Oly 2b. Launching is by win drum winch and the occasional aerotow. Appropriately, Hendry Dyce, Chairman, and Bill Hill, Treasurer and prime mover of the whole project, were the first to land at Dallachy after a soaring flight from Milltown, eight miles away. The first launch was a soaring flight of 18min by Jeff Howlett and Bill Hill—a good omen for the future, perhaps?

This move ends our long association with Milltown, first as the civilian core of RNAS Fulmar, then as the Highland Gliding Club sharing the site with RAFSA Fulmar. We have some regrets, and many happy memories. We hope that our Fulmar friends past and present, and others, will visit us to enjoy the amenities of Dallachy as we iron out the snags and conquer the hazards in our progress towards creating a really good site.

R.E.T.

## IMPERIAL COLLEGE

At the annual dinner in February the Irving pot for speed round a triangle was awarded to Doug Walker, the Horse Shoe trophy went to Pete Verkroost for his performance in last year's Lasham Regionals and Tony Crease was presented with a special non-recurring trophy for the first 500km triangle in a club glider, the Dart.

At the AGM: Richard Metcalfe was elected next year's Chairman and Hieronymus Bosch was elected to the newly created post of trailer painting officer.

A group of students took the Skylark 4 up to the Mynd at the end of March and they all managed to do some soaring from bungee launches.

A.P.P.

## INKPEN

Our landlord has decided to make every available square metre pay its way and sown the area bounding our airstrips with cereals. In these days of economic strife who can blame him—we just need to fly more tidily.

There were also drastic changes at our AGM with the retirement of our Chairman and Secretary. Ralph Jones has rather pressing business in Finland this year and Peter Purdie deserves a rest after carrying the administration for several years. Our thanks to them both.

We welcome John Francklow, a member of three separate syndicates, as Chairman and Max Fendt as Secretary. Mike Whittingham continues as Treasurer. There was a willingness of volunteers to take office this year and an election was necessary, whereas last year we virtually press ganged our depleted Council.

A new aircraft has arrived—the Hurst Air Scouts have joined us with their T-31, purchased apparently by the sale of horse manure collected from local stables in bulk and sold off in bags.

R.G.W.

## KENT

We had some good ridge soaring in March and quite fast flights were made along the ridge to Rochester and back. The first weekend in April saw 8kt thermals to a 5000ft cloudbase.

We are very sorry that "Uncle" Bill Bailey has retired as deputy CFI after ten years. Many of us have reason to be grateful for his quiet, careful words of wisdom.

C.B.

## LONDON

The first cross-country of the season was on February 14 when "Lofty" Russell flew his Kestrel 19 to Lasham to be the first of the year to collect the plate. John Cardiff did a 365km out-and-return to the Long Mynd in 4 1/2 hrs in early March with a 30kt wind.

The John Jeffries' high-performance courses are again being run for post Bronze and post Silver C pilots, and are over subscribed, as are our *ab-initio* courses. At one post Bronze course in April they all flew to Lasham in K-8s, leaving our site at 17.00hrs to gain Silver distance and Silver height on the way. Earlier in the week they completed their duration.

Our mini competition at Easter completed the atmosphere and some 30 pilots joined in with close competition in both Classes. John Cardiff won the "more experienced" Class and Gillian Case the "less experienced" Class.

Gillian and Bob Drewel gained their Silver distances during the competition to complete their Silver Cs. Apart from general competition procedures being learnt, there were some exciting aerotow retrieves with a shuttle service on one day from Husbands Bosworth, which included five dual tows.

D.Y.

## MIDLAND

We all congratulate Jack Minshall on his BGA diploma. We have been aware for years of our good fortune in having Jack's wide-ranging knowledge and skills so readily available.

Don Brown and John Brenner collected a clutch of club trophies between them at the annual dinner, leaving Chris Aldiss the Long Mynd cup (best distance in a club glider), Louis Rotter the Maxam (club effort) and Dave Woolf the Neill cup (best *ab-initio*).

After a sometimes frustrating winter and a poor beginning to March, the season proper got off to a promising start. Mike Horan got 15000ft asl in wave on March 28 and at about that time the first 8 to 10kt "Shropshire Boomers" began to make their presence felt. The early courses did well with good wave and thermals. April 5 must have been a fine introduction to gliding with almost every two-seater flight having a gain of between 3000 and 6000ft, the best two-seater height, flown by Jack Minshall, being more than 10000ft.

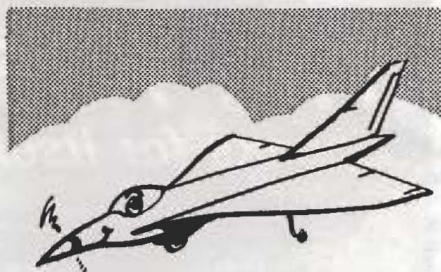
A substantial reconstruction of the bar is nearing completion. Bob Scarborough and Vic Teague led the team responsible for this enormous improvement.

W.J.T.

## NORFOLK

We understand that the Super Falke is a considerable improvement on the early version, and by the time this is published we expect to be the first civilian club to have one in operation.

On Easter Sunday we held a very successful fund raising event by combining a static glider



"a considerable improvement on the early version . . ." See Norfolk.

display with an open day at a fish farm, thanks to club member Robin Combe.

CFI Joe Podolski has recently earned two distinguished qualifications—first as a motor glider examiner, and second as a senior inspector for glider repair and maintenance.

C.E.G.

## OUSE

The RAF vacated Rufforth over a year ago and the ownership of the site is now in doubt. We hope to remain here, but as yet this is uncertain.

We welcome R. Burton, a 15 year old school boy who is taking part in the Duke of Edinburgh Award scheme. We wish him luck in his gliding project.

The tug, a Rollason Condor, now belongs to the club after hiring it for the past four years.

J.G.

## OXFORD

We have decided to sell the Skylark 3 and replace it with a K-8 to make conversion from the K-13s easier for early solo pilots. The Skylark 4 will remain as the top club aircraft for the present.

The syndicate Blanik is now back on the field after a lengthy C of A, in its distinctive red and white livery. Phoebus 640 went to Portmoak at Easter, and Steve Evans obtained Gold height.

The first Silver leg of the season went to Phil Hawkins, who flew to Nympsfield in the Skylark 3 on Easter Monday. Recent first solos include Peter Mosses and Terry Green.

P.H.

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## SCOTTISH GLIDING UNION

Club members and visiting pilots are trying their hand at winning credit for free board or aerotow time as a reward for producing one of the five best gliding pictures (transparency or print) which they took whilst at Portmoak. The celebration for the winners will be in October—just in time for the autumn wave season.

Poor gliding weather in March produced long faces, but in spite of this, we are having a good wave flying year, and the totals could be well above average.

The figures for two weeks in March and April were 22 Golds and two Diamonds, plus half as many again calibrated elsewhere and a similar number who have done it several times before and did not need to claim. As we also had many Silver C claims at "just missed Gold by 150ft", some idea of the recent amount of wave flying can be assessed.

W. Rozycki (Richard), our local barograph boffin with approved conditions for calibrating results, has a detailed list of claims made over the past 14 years, and his statistics are adding up to an interesting pattern, which means that he can tell when he should be making high flying attempts at Portmoak.

The airfield at Portmoak is just about to have another facelift with 10000 cubic yards of soil moved from one end of the new north runway to the other.

A.J.T.

## SOUTHDOWN

Following the driest winter for many years, during which fortune kindly allowed north winds to blow mainly at the weekends, we had the spring pilgrimage to Portmoak. Wave was the goal but over a ten day period 12 members were disappointed. However, stop press reports indicate that late arrivals climbed to Diamond regions and Chris Backwell completed a 200km triangle. "Boffin" Plunkett attempted to fly home but landed near Doncaster after 330km.

A highly successful year was reviewed at the AGM in March with a record number of launches, cross-country kilometres and hours flown. Further growth of our fleet now depends on how well we handle the present range and number of aircraft during the coming soaring season.

Following the AGM, trophies were presented as follows: York cup for most meritorious flight, John Frampton, Lawford cup for best climb, Keith Mitchell and the Skysailing cup for the best distance, Chris Backwell and John Frampton.

Our annual party for farmers' kind enough to allow members to drop in uninvited, was held in April and again proved worthwhile.

B.A.B.

## SOUTH WALES

Our Easter wave week, organised by our British representative in Germany, Allan Harris, was patronised by members from four clubs from Borkenberge airfield—a German Lasham. Two members flew over in a tandem Falke claiming we think, the first radar controlled glider approach into Manston, Kent. The German pilots, finding that their Marks bought plenty of flying, never ceased flying, some taking aerotows to 5000 and 7000ft. Freed of the restrictions imposed in Germany against aerobatics, our instructors were repeatedly asked for lessons in loops and chandelles. One member was heard to say that this should be called "The South Wales Loopin' Club".

The Easter holiday itself was good and on

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the odd day when it was not soarable we managed 40—50 aerotows. Poor visibility restricted cross-countries but strong lift provided several Silver durations and plenty of Bronzes.

The Glamorgan Club's K-7 set an example with a Silver flight of over 70km early in the year. One effect of the dry weather is that our water supply ran dry. A daily 80 gallon water run was operated by a member in his van. Cross-country visits this season will be welcome at Usk.

J.D.S.

## SOUTH YORKS & NOTTS

Our soaring season began in early March with several good flights logged. These notes are written at the start of our Easter solo week with aerotowing being used for the first time at Winthorpe.

We have recently had a large crop of first solos including Andy Lloyd, Bob Ellis, Bob Grant, Frank Hunt, Margaret Rochester and

Syd Thackray. The first cross-country from the site was in mid March when Tony Faulkner took the Capstan 73km to Skegness.

Progress is continuing with the acquisition of a hangar and we are building a second single-drum winch.

J.M.

## STAFFORDSHIRE

The winter evening lectures have now finished and we thank those members who gave their time to this new venture. After a winter remarkably lacking in westerly winds, they have finally swung in that direction and given us some good hill soaring days. Frank Hemmings took the Std Libelle through a wave slot in the cloud layer and the first Silver leg was flown from Morridge when John Howle kept the Olympia 2B airborne in hill lift for five hours, never exceeding 1000ft.

Congratulations also go to Alan Cliffe who

gained his Gold height on a visit to Portmoak with the Dart 15.

A new syndicate has acquired the ex-Peter Scott Olympia 419X and are already extolling its virtues.

F.B.

## SURREY & HANTS

The extreme dryness of the winter and spring has produced cloudbases of 6000ft or more on some days and the intrepid few, Purnell, Hilditch, Garton and Loewenstein, have taken full advantage. Over Easter, when the sky locally was full of soaring gliders, Chris Garton returned from an out-and-return to North Hill, 330km, in 3 1/2 hrs!

Lasham was in a permanent fine weather patch over the Easter weekend but visibility was too poor to allow general cross-country flying. Heights for Silver, along with some five hour successes, made it an excellent start to the season with real sunbathing rather than last year's blizzards and drifts.

C.L.

## TRENT VALLEY

Our soaring season has started early and already many hours have been logged. Our two most memorable flights so far have been in wave, which rarely visits our site. Georgina Stewart (B-4) reached 8000ft and Bob Baines (K-6) set a height record for our club at 12000ft, but with no barograph!

At our annual dinner-dance, again most ably organised by Georgina Stewart, cups were awarded to Peter Fillingham (longest solo flight in a club dual glider) and to Brian Fowkes (longest flight in a club single-seater), Fred Johnson (for achieving 100% in the Bronze C paper), Adele Swannack (CFI's cup) and our CFI, Vin Fillingham, won the cup for the fastest 100km triangle in his B-4.

John Rice (Pirat) and Bob Baines (K-6CR) shared the cup for the most outstanding flight which was for their Gold distance 300km triangles. John Rice, Chairman, also won the ladder and the cup for the longest out-and-return.

We have bought a double-decker AEC 9.6 litre bus and are building our second winch to use alongside our already overworked winch. Congratulations to Chas Grof and Vin Marchant who have gone solo, and to Ray Shaw and Lou Ryan for completing their Bronze C.

J.P.N.

## ULSTER

We'll have a member flying in heavyweight competition for the first time when Jeremy Bryson takes the new Kestrel 22 to Finland for the World Champs. Our expensive isolation from the rest of the British gliding movement has inhibited Ulster pilots entering competitions but when at last one of us is taking the first step, don't let anyone say he didn't go in full plunge.

Jeremy's participation will be an all-Ireland effort, though airing the latest British built high-performance sailplane. Making up the Team will be his partner in the Kestrel, Alan Sands, and three members of the Dublin Club, led by Stan Dunne as Team Manager.

Lesser pundits are looking forward to the Irish Nationals at Edenderry, Co Kildare, from July 4-16. But cross-border flights and our occasional flights across the North Channel to out landings in Scotland are threatened by

onerous new restrictions requiring all aircraft to check through designated aerodromes on flights to and from the province.

We hope representations by the BGA will gain exemption for gliders but, meanwhile, anyone in Britain tempted to glide across to here (it hasn't happened for some years) should be warned that they'll be breaking the letter of the law if they haven't checked say, through Carlisle, Glasgow or Prestwick and then land at either Aldergrove or Sydenham. But nonetheless, we'll give them a very warm welcome and see they're comfortable in jail.

R.R.R.

## WOLDS

A well attended AGM confirmed John Durman (Chairman), Bob Fox (CFI) and Sue Accy (Treasurer) in their offices and elected Bryon O'Neill as Secretary, following the resignation of Les Cooper who has steered the club skilfully and energetically for so long. Brian McFadden inherited the social responsibilities with Edric Wood in charge of group equipment and Jan Nowicki looking after aircraft equipment. Eddie Rooms is the tugmaster.

A mass Bronze theory examination produced some highly satisfactory results which now need to be matched by the ability to stay in the air. Recent signs of improved soaring conditions and an unusually large crop of A and B candidates should produce more Bronze C badges this year.

The refurbished Skylark 2 has returned from her C of A unrecognisable in new red and white colours, the identical livery of all four club machines.

G.H.H.

## WYCOMBE AIR PARK

At the Thames Valley AGM on March 23, trophies were presented to Lyn Walton (best *ab-initio*), Laurie Beer (best overall achievement), Alistair Kay (best height gain) and Mike Pope (longest flight).

During the last weekend of March, demonstration models of the PIK 20, Astir CS and DG-100 were flown by members and visitors. The club fleet is being up-dated—one Pirat has been sold, two Astirs ordered and a further K-13 is due in July.

John Nunneley gained Gold C height at Portmoak, whilst Chris Tipney and Harry Cook obtained Diamond height and Doug Freeman Gold height at Aboyne. Harry Cook becomes our ninth member to complete all three Diamonds.

A club task day was held on Easter Monday, but conditions were difficult and outlandings plentiful. The revitalised old clubhouse had a re-christening with a "Flashers' and Schoolgirls" party.

M.H.B.P.

## YORKSHIRE

There has been an encouraging start to the season. Although we haven't had classic wave conditions at weekends, there have been plenty of climbs to 8000ft.

The report and accounts produced for the AGM in April show that the club made a profit of £1500 after generous provision for the replacement of capital items. A bank overdraft of £8000 has been repaid. The results are due to prudent planning and a realistic pricing

structure which puts us in a healthy position to face whatever problems 1976 can produce.

A new Blanik is being added to the club fleet in May. The Vintage GC held an Easter rally at Sutton Bank, creating a great deal of interest and nostalgia. Easter Saturday provided perfect hill soaring conditions for the "oldies" and everyone enjoyed the occasion.

There are still a few places on our courses held every week until the autumn and also in the Northerns, at Sutton Bank from August 7-15. Visitors, with or without a glider are always welcome, but we appreciate a telephone call (Sutton 237) to give us advance notice.

P.L.

## SERVICE NEWS

### BICESTER (RAFGSA Centre)

Since our last entry we have managed three Joint Service gliding courses, taken part in an expedition to Aboyne and a ridge camp at Nympsfield. Congratulations to Jack Alcock on his Gold height at Aboyne, to Bob Welsh and John Saunders on their Silver duration at Nympsfield and to "Chalky" White on Gold height and Bob Lyndon on Diamond height at Dishforth during a break on the return journey from Aboyne.

The ASW-17 has arrived and we are delighted with its performance. We wish George Lee all the very best with the aircraft in Finland. The K-18s should arrive soon to replace our K-8s and K-6es. Finally, good luck to Bill Tootell in Germany. He will be missed from the tugging scene.

B.L.

### CHILTERN (Weston-on-the Green)

We are sad to say farewell to Geoff and Pauline Millward—Geoff, deputy CFI for six years, has been posted to RAF Laarbruch, and to Oscar Constable, MT member, who is going to RAF Kinloss.

Our new Cirrus and K-18, plus the K-4, K-8 and K-13, are ready for the soaring season which started well with several first solo flights and Bronze legs. We also welcome the many newcomers.

S.F.

### CRANWELL (RAFGSA)

Gary Bennett received the *ab-initio* award at the AGM on March 6, with the Aspirant's trophy going to Charlie Wakeham. The wooden spoon was suitably mislaid when the CFI's name featured at the top of the list! A party followed the meeting.

Jayne Denham achieved both Bronze legs during the same afternoon and Clive Bailey climbed to 13200ft at Aboyne for Gold height. Several other Bronze Cs are nearing completion and we are now attempting some Silver distances.

We bid farewell to K-7, 226, a Blanik having taken its place in the fleet. Many thanks to Bob Farman, now in Salalah, for his work as the Engineer Member, and good luck to Jim Bond in the Inter-Services.

E.G.N.

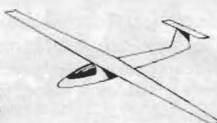
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## FOUR COUNTIES (RAF Syerston)

Our membership has swelled since the East Midland Club ceased operations at Swinderby and amalgamated with us. They brought good company which we welcome, and lots of useful bits, but sadly no aircraft.

Good soaring flights and cross-countries were achieved during the early spring. Several of our members went to Belize in the Caribbean for part of the winter and had the frustration of looking at high cumulus, superb sea breeze fronts and wave.

The spring fancy dress party went well. Nigel Parry finally made it solo after 260 launches and 50hrs flying. One of our earliest risers and hardest workers, he celebrated his 16th birthday during the April task week.

D.D.

## HUMBER (RAF Lyndholme)

Our T-21 has completed its 25000th launch and still remains the "old faithful". We are exchanging the K-7 for a Blanik in the next few weeks. The Cobra has returned from its stay in Poland, resplendent in its new finish and minor modifications.

Ray Milner, Paul Goddard and "Noddy" Aherne gained their Gold heights at Dishforth a few weeks ago and Noddy achieved his duration into the bargain. Our deputy Chairman, Sqn Ldr Downs, was converted to the K-8 over the Easter weekend, having gained his A and B on a course at Bicester.

There is much activity in the hangar as trailers and aircraft are fettled in readiness for the forthcoming Inter-Services. Unfortunately Ray Milner and Paul Gilham have withdrawn for various reasons, but we wish luck to the two remaining entrants.

K.M.G.

## KESTREL (RAF Odiham)

We welcome the K-8 which fills the slot left by the sale of the Skylark 2. It is nicely finished and the Piep audio ensures that nearly every flight is a soaring one. The Oly 463 has gone to Husbands Bosworth and a new K-18 is due in the near future.

Easter weekend saw nearly 500 launches with 164 on the Monday. There have been numerous Bronze legs and Silver heights including flights by Alex Miles, who is off to Cyprus, and Simon Davis, soon to leave for Iran.

Our best wishes to Pete Charwell, Gerry Odell and Mike Pobjoy in the Inter-Services

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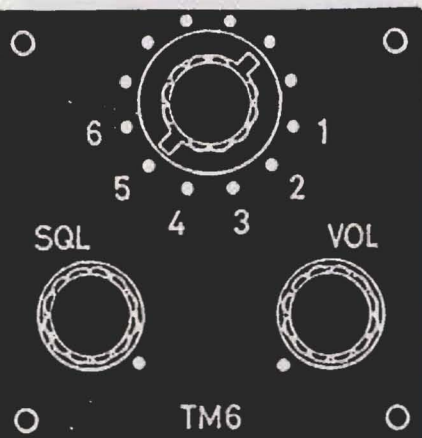
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and to Ted Shephard and Gerry Wheeler in the Nationals. Finally, a sincere welcome back to health to Gordon Berry, who has brought us a new member from the nursing staff at Aldershot.

M.A.P.

### WREKIN (RAF Cosford)

On one good day of the Portmoak expedition Chris Waller reached Diamond height, and Jenny and John Saunders and Ian Moss gained their Gold height. The next day Steve Burnell achieved his duration in difficult conditions.

Early in March three members joined the RAFGSA expedition to Aboyne, but bad weather prevented any notable achievements. While they were away Mick Boydon took the Club Libelle to Gold height after an aerotow from Cosford, thus re-establishing us as a wave soaring site after many years.

Neil East has resigned as CFI after an outstanding contribution to the Club for two and a half years. We are all grateful for his unstinting efforts which were recognised last year by the award of the AOC's Commendation. Chris Waller takes over on a caretaker basis, and other changes include the election of Ken Routledge as deputy CFI and Ian Wilson as Aircraft Member.

Our K-18 has arrived in time for Dave Wood to take it to the Inter-Services in company with Stuart Maclean flying the K-8.

We welcomed Colin Moore back to flying after a long spell off, congratulated Martin Platt on his Bronze C and Andy Hill on going solo after a comparatively short time.

I.D.M.

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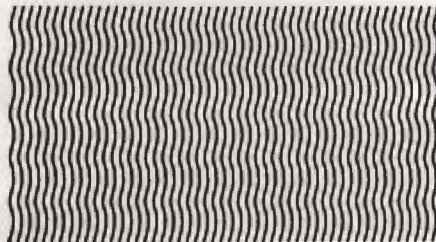
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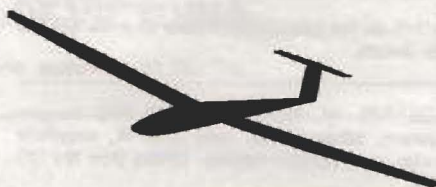
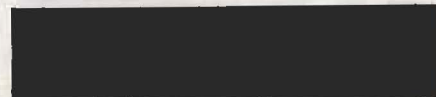
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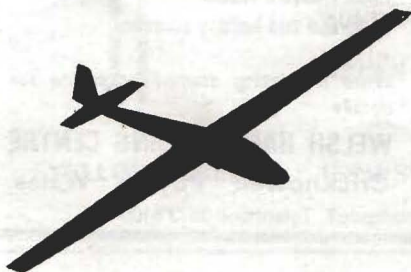
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