Sailplane and GLIDING

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AUGUST 1957



CHAMPIONSHIPS ISSUE INCLUDING PROGRAMME

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SAILPLANE AND GLIDING

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION

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COVER PHOTOGRAPH.—Prince Philip, Duke of Edinburgh, about to start for his first glider flight in Peter Scott's "Sea Eagle" from the Bristol Gliding Club's site at Nympsfield —Photo by Associated Press.

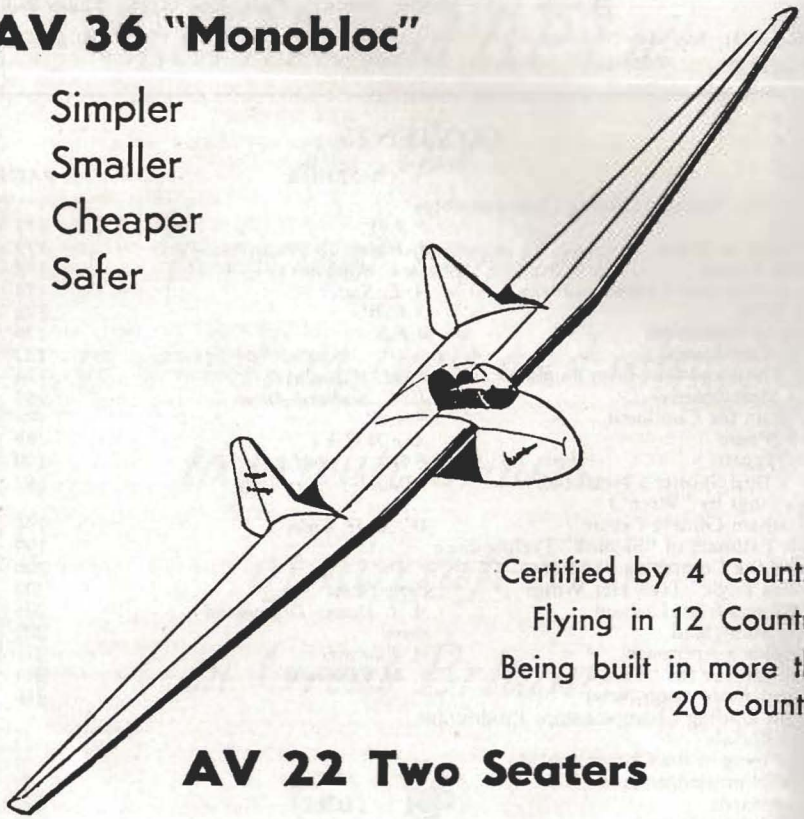
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1957 British National Gliding Championships

ONCE more we welcome all our visitors, those who come to fly or to work, and those who come to watch, to Lasham for the 1957 Nationals.

This year our Patron, the Duke of Edinburgh, has done us the honour of consenting to open the Championships. He is due to arrive, by helicopter, if the weather permits, at 10.00 hours on 28th July, and will spend the morning inspecting the aircraft, pilots and facilities. We can feel justly proud of the first two, but whilst we have done what we can to smarten up the buildings and so forth, we know that they cannot bear comparison with many far smaller gliding centres in other countries, or even with some of our more fortunate British Clubs. This is because we are still without security of tenure at Lasham, so cannot prudently afford to spend money on the sorely needed creature comforts of life on a large airfield, but have to make do with what is already here, which was not built to last after the last war, for Lasham was built singly as a satellite airfield.

Long and complicated negotiations are under way about this, and one can hardly imagine Lasham "folding up", for something like 20 per cent of all British gliding takes place here, and Lasham is known throughout the world as one of the largest and most active gliding centres, if not the largest, in the Western world.

But this is not the time to inflict our worries on our visitors. At the time of writing, it looks as if our 1957 Championships may be the biggest gliding meeting the world has yet seen, and we are expecting over 70 entries. Our visitors will see one of the very few remaining air spectacles to which they are not contributing as taxpayers, for we have no subsidy (unlike most European countries) and are proud to pay for our own sport.

And when we lack money, we substitute hard work. Much of our equipment is made by the members themselves. Much of the instructing, all the winch and car driving, much of the administration and organisation, is carried out by members in their spare time.

If you are good with your hands, if you have a head for figures, if you can wash up or make curtains or repair a car, or serve behind the bar, if you can help to run a committee or dig trenches for drains, if you like a spot of adventure every now and then providing it is well-disciplined adventure, and not simply an urge to "show off" (which is apt to be more expensive than we can afford, and which is consequently strongly discouraged), if you want to find friends in any country in the world where gliding flourishes (for if you wear a gliding badge you will not walk the length of the main street in Cape Town or Melbourne, in Bulawayo, Auckland, Belgrade, Nancy, Madrid, in Stockholm or Rio, without being "picked-up" by a fellow enthusiast) then a gliding club is the place for you, and you will find yourself actually in the air as well, from time to time!

P.A.W.

CAMBRIDGE TO TRURO
268 Miles—United Kingdom Record

by John Hulme

With this flight John Hulme, of the Cambridge University Gliding Club, beat the "United Kingdom Local" distance record of 257 miles, set up by A. W. Bedford in 1951 with a flight from Farnborough to Newcastle-on-Tyne, by more than the 10-kilometre margin needed for recognition as a new record.

MONDAY, 27th May, dawned nice and bright. By 10 a.m., having given conditions a chance to prove themselves, I checked with the Met. Officer for confirmation, which strangely enough agreed with my own observations. A mad stampede to complete a certain amount of work in hand—I am still unfortunate in having to earn my living (some people sometimes doubt this). Then arrived at the airfield at 11.15 to find only stalwart Ted and one other. No tugs immediately available and no tug pilot about.

The young lady in civil control offered to crack the whip, which she did with some success, and by 12.55 the Tiger ambled down the field in search of prey.

In the meantime three of us had rigged Skylark, I filled in the appropriate form in triplicate to say I was going to Exeter, which nobody believed, and collected cushions, chocolate, etc.

As the tug appeared I decided to do a cockpit check; the resultant clonking behind my head caused Ted Warner to remark: "This could be an interesting flight!" wherewith he connected the ailerons for me. Quite a lesson!

As the airfield is not quite the distance required from Exeter, the tug pilot was briefed to fly upwind a few miles and I released in good lift over Swafham Bulbeck and calmly proceeded to cloud base, 6,100ft.

Having switched on the artificial horizon, I waited for it to indicate before I could proceed into cloud with confidence. After what I thought should have been sufficient time, I was still waiting and blessing the previous cross-country participant for not having reported the batteries tired.

Remembering I must avoid going into cloud now, I set course and headed down wind. Wind speed at 2,000 ft. was forecast 25 to 30 knots, so, putting up my speed to 65, I headed for Bassingbourn. I shortly passed Lords Bridge and identified St. Neots on my right and later Bedford and Cardington.



John Hulme has a word with Ted Warner, ground engineer, before starting.

From this I realised that there was rather more east in the wind than was required, and decided I would have to allow for this. I was aiming for Cranfield so as to cross the airway at its narrowest point and therefore allow me maximum freedom of the sky.

Having recently done a retrieve from Cranfield, I recognised it with little difficulty. I am hoping to do more long-distance retrieving in the future—lesson number two, for by now I was out in the blue as regards navigation. This was my first flight with our new "Cook" compass and it was obvious that the battery was in order as it did not cause me any concern at all. I can heartily recommend it.

I was not having any difficulty in staying up, as I could climb to 5,000 or 6,000 ft. at will and then press on down the cloud streets.

At one time flying between 65 and 70 knots I was showing three to five green for some time; this was most encouraging. I thought it was about time I pinpointed my position, so, struggling round with the

half-million map to find the correct fold and view the country-side, I located quite a large place with a fair-sized river. Not having realised my total ground speed, I was anticipating Aylesbury, but could not place the river. Not wanting to displace it, I decided to ignore it and press on. Some time later I decided this must be the other place—Oxford!

Not having been trained in navigation, all this concentration had resulted in considerable loss of height, and I began to take far more interest in fields and aerodromes than in towns and counties. I was now flying on the downwind side of what appeared to be a low line of hills with only about 2,000 ft. showing on the clock and no sign of green about.

A mile or so north of this point was an operational aerodrome, and so, deciding I was ready for a meal if the worst happened, I headed in this direction. I had a slight puff or two off the ridge, but not enough to help, and was down to 1,500 ft. and heading for the downwind end where I hoped to be more favourably placed. This was very successful, and after one or two turns in medium lift I found the right place and rocketed back up to about 6,000 ft. and decided to have a piece of chocolate instead.

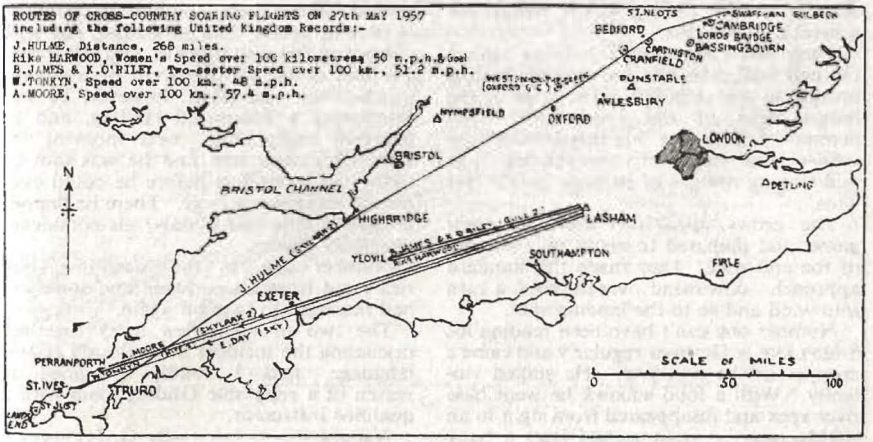
By about 5 p.m. I spotted a large reservoir ahead and hoped once more to locate myself, but found it was difficult, as I was heading into the sun and there was strange glinting along the horizon which developed into a very large river with sandy shores.

Casting back to my school days, I could not recollect any tidal waters in the middle of England, and for a fleeting second began to distrust the compass or the fitting of same, as the nearest tidal estuary I could think of was Southampton, and after a further struggle with maps and controls I decided it was Highbridge on the Bristol Channel—apologies to Cook! I realised I must still head further south to achieve my goal.

In front was a most interesting patch of moorland, so I headed down the west side to be in more hospitable territory. By the time I was south of this moor, what I decided was Exeter was 30 to 40 miles behind to my left. As there was some doubt about this, rather than turn back and kick myself if I had made another mistake I decided to forsake my Diamond and press on. By now the time was about 6.15 and I could clearly see the sea on both sides. From the view below I decided it was a case of picking a convenient habitation, as they were few and far between and I did not relish having to walk miles for a 'phone and a meal.

Working the two last thermals at 6.30 and 6.40, I found myself over a very attractive-looking spot on a river, close by a cricket match in progress, and as there was plenty of room I spent well over 2,000 ft. having a good look round for touching down alongside the match at 6.55, having been in the air 5 hrs. 50 mins.

On landing, the first person to arrive was the park keeper, who was somewhat





A mixture of cumulus and wave clouds over Cambridge at 11 a.m. on the morning of Mr. Hulme's record flight.

staggered to be asked "What place is this?" and I was equally staggered to be told Truro, Cornwall, 100 miles beyond Exeter. With many willing helpers the machine was derigged and stowed in a barn within thirty minutes of touch-down. The park keeper and his wife made me very comfortable with all facilities while the phone was very busy to and from Cambridge, particularly when Ken Machin rang up suggesting that I may have broken the record set up by Bill Bedford.

The retrieving crew, who left Cambridge an hour before I landed, arrived at 6 a.m. Tuesday, having had various adventures of their own. By 9.30 we were on our way, having lunch at Exeter, just to say I got there, and reached Cambridge at 9 p.m.

On this return trip I received a little homely advice on the advisability of uncaging the artificial horizon.

In conclusion I must say: having the opportunity and the weather, any reasonable pilot could have done the same flight. The final figures of 268 miles in 5 hrs. 50 mins. give an average of 46 m.p.h., and in all 14 thermals were used.

Incident Report

I HAD been spray-painting the T-21 and stood outside the big R.A.F. hangar for a breath of fresh air.

There was a strong wind blowing against the end wall, and two crows were fooling around in the slope-lift. The roof of the hangar was of the "saw-tooth" type commonly used for industrial buildings, with vertical ridges of some ten feet high and sloping troughs of perhaps twenty feet wide.

The crows apparently tired of their game, and prepared to alight on the ridge of the end wall. They made the standard approach—downwind over the roof, a turn into wind and so to the landing spot.

Number one can't have been reading his SAILPLANE & GLIDING regularly and came a cropper in the curl-over. He stalled violently. With a loud squawk he went base over apex and disappeared from sight in an untidy spin. A split second later a bang on the corrugated iron roof announced his arrival there.

Number two, who was a couple of seconds behind, immediately took his cue and dived to pick up speed, then pulled out, and with wings and feet well forward, and tail spread out and down, he prepared for a snappy touch-down. In effect, however, he was attempting a downwind landing, and he overshot badly. The next moment the slope-lift caught him and he was shot up twenty or thirty feet before he could even retract his undercarriage. There he flapped around a little uncertainly, his confidence obviously shaken.

Number one, in the meantime, had recovered from his surprise, and somehow had managed to take off again.

The two of them flew away together, discussing the incident in obviously coarse language, and—I fondly imagined—in search of a reputable Gliding Club with a qualified instructor.

Nairobi. D. G. KUYPER.


APPROXIMATE ROUTES OF SOME
CROSS-COUNTRY
SOARING FLIGHTS
IN MAY & JUNE 1957
Note: several flights of under 80 miles westward of Lasham are omitted due to congestion.
N
KINLOSS
C. ROSS
USWORTH
SANDERSON
C. RIDDELL
SHERBURN IN ELMET
CAMPHILL
KAYE
MACKENZIE
EVERITT
BURTON
ALLISON
WINTON
SWANTON MORLEY
RUSHMAN
PRESTWICH
LONGMYND
BAGINTON
NEUMANN
FOSTER
D.SMITH
FURLONG
NYMPSFIELD
CAMBRIDGE
EDWARDS
JAMES
DUNSTABLE
FURLONG
FARNBOROUGH
ANDOVER
LASHAM
SANDERS
COCKBURN
JAMES
WILLS
PIGGOTT
IRVING
LONGLEY
STONE
JEFFRIES
ANDREW
FROM LASHAM:
TONKIN
MOORE
NEILAN
DAY
MILES
0
50
100
150
186·4
0
100
KILOMETRES
200
300

PHILIP WILLS

WHILE considering what I was going to say about Philip Wills, I was continually reminded of my childhood days, and the enormous catalogue of a famous store which used to live in the bathroom. The lists of good things that it contained were endless, and it was always possible to discover something new, however often the book was opened.

It would be easy to fill the next two pages with such a catalogue of the B.G.A. Chairman's achievements, but this would give little idea of the person who has been responsible for tending and educating the poor little gliding infant which arrived in this country in 1930, possessing nothing but the enthusiasm it stood up in. The catalogue will therefore be confined to a list at the end of the article.

Philip Wills was born in 1907, and learned to fly at the London Aeroplane Club in 1928. He bought a Moth, but was nearly killed in this when it was being flown by an acquaintance. After his recovery he purchased a Fox Moth and then a twin-engined Monospar, coming often to Dunstable in the early days of the London Gliding Club. Soon the Monospar, too, was sold and Philip started on the campaign of private glider ownership which is almost a history in itself.

It would be easy to dismiss the succession of gliders that Philip Wills has owned as the new toys of a wealthy man, but to do this would be to get quite a false impression, for these changes were made not for mere personal pleasure or ambition, but to help change gliding, or "aerial tobogganning", into the true sport of cross-country soaring. In the early 1930s the idea of gliding caught on in this country with a burst of enthusiasm that entirely outstripped the technical knowledge and resources available. Numerous clubs were formed, but most of these died soon after, due to a surfeit of preparations on their one crude glider. A few hardy, determined and lucky ones survived, but it was this period, when gliding was a mixture of unlimited enthusiasm and little understanding of the possibilities of soaring, that was born the "messing about with gliders" attitude. This outlook has provided many people, the writer included, with years of fun, but it tended to become an end in itself. It was fun to push gliders uphill by hand, make unserviceable tow winches work and spend days training too many pupils for the flights available so that many of them got frustrated and left.

Philip, fortunately, never for one moment lost sight of the purpose, or of the future. He bought the best British gliders that were available at the time, and if these were not good enough, he would sponsor or cajole, as necessary, people into producing something better. There was often opposition and discouragement, as few others either wanted, or could afford to buy, high-performance gliders, and the expense, even before the war, of building "one off" jobs was appreciable. One such glider was the Hjordis, designed by Mungo Buxton and built by Fred Slingsby, Philip's technical complement in the story of gliding. This was followed by the King Kite, also built by Slingsby, for the 1937 International Competitions in Germany, which, during the test flying, gave use to Philip's well-known story of "the Spin". The following year he imported the latest product from Germany, a Minimoa, to spur on the high-performance side of soaring, still regarded by some as an outlet for personal ambition rather than a highly desirable lead to the whole movement. It was a combination of the Minimoa and the unstable spring easterlies of 1938 that first set the pace in England for the sort of gliding that we do now. There were other people, of course, whose ideas were the same as Philip's and some of them better natural pilots as well, but it was he who led with a determination and energy that never ceased.

The last two years before the war were exciting ones. Besides Philip's repeated sallies over the hitherto unexplored West Country, when he soared 505 miles in seven days in April, and Kitty, his wife, trailered 1,280, there were fine flights by Kit Nicholson in his Rhönsperber, John Fox in the Rhönadler, Greig-and-Steve, the constant partners, first in the Grey Kite and then the Blue Gull. There was also Willy Watt, Peter Davis and Joan Price, and there was the Cambridge Club, whose ideas as a group were similar to Philip's as an individual. Not content to fumble quietly round their own club site, they ranged far and wide,



either in isolated gliders, or as club expeditions which descended on unexplored hills or organised gliding clubs, like a flock of migrating birds. Their enthusiasm was linked with considerable competence, and this carried them over all obstacles.

There was another side to Philip's feverish activity in the pre-war years, equally valuable to gliding, but more tedious for himself. Being a business man he could not stand by and see the great possibilities of gliding as a sport hindered by unsound central administration. It is easily understood how, in the early days of any new enterprise, when there is so much to be done, the administrative organisation is left to take care of itself, or be coped with by those whose ideas may well develop differently from those of people on the flying side. This is all right until the enterprise grows big and needs a competent paperwork side, as its future success and development will depend to a large extent on this being on a sound and flexible basis. The early days of the British Gliding Association produced all the usual problems, but Philip was determined that the B.G.A. should not fail his beloved gliding. It was a hard struggle, but the present strength and position of the Association is the deserved reward.

1939 was a year of great promise and fulfilment. Geoffrey Stephenson made the first ever crossing of the Channel in a Gull I. The new Surrey and Oxford Clubs were finding great support, and new British gliders, such as the Viking, were proving themselves at cross-country flying. But as well as the hopes there came war, and war stopped gliding.

During those five dreary years an organisation existed for which the circumstances are not likely to occur again. This was the civilian but uniformed Air Transport Auxiliary, which ferried fighters, bombers—anything, to wherever they were required. Philip Wills became its Director of Operations, and was largely responsible for the efficient and happy organisation that resulted—happy, because his pilots were

given the maximum responsibility as individuals, and so gave of their best. His C.B.E. was well earned.

After the war and then two years as technical general manager of B.E.A., where he was responsible for the development of the Viking and selection of the Viscount, he returned straight to gliding with all the old enthusiasm and skill, but his long stint of excessive work and over-powering responsibility had been paid for in health and energy, and rest was needed to build up new reserves. In spite of this he has flown in every World Championship since the war, winning in 1952, coming second in 1954, and breaking records for good measure in between. He has two sons with Silver C's, and, of course, Kitty. What a wife! There is little doubt that without her unique calm and sense of anticipation, Philip's efforts would have been much less effective. One day I hope she will write her memoirs. They should be entitled "A Quarter Century of Trailer-towing" or "Through Europe after Philip".

Today, gliding is one of the most truly active branches of aviation, regarded with respect, and with great developments yet to come. But in the early days it was looked on as an unimportant and futile pastime indulged in by a few people with nothing better to do. For this country, with its unsuitable shape, unpredictable weather, and little money for gliding other than from its own enthusiasts, to have reached such a position is a source of astonishment to those in sunny countries whose governments allocate them considerable financial support. It has happened because we have been lucky enough throughout to have had someone who combines a fanatical faith in gliding with the intelligence, and personality, to translate that faith into the realities of sound administration and inspired flying.

If there is anyone left who is still not able to recognise Philip Wills on seeing him, he is the long, thin man who wears a disgracefully battered white hat when flying, and who distracts the members of all meetings he attends by constantly tearing huge sheets of tissue paper into minute squares, stuffing them into his pipe with little balls of tobacco, and then sending extraordinarily stable smoke rings lowly across the table. A.C.W.

Some of Philip's Achievements

BRITISH NATIONAL RECORDS—Single-Seater

Distance :	1934	—	56.5 miles	
	1936—38	—	104 „	
	1938—47	—	209 „	
	1949—51	—	232 „	
Height :	1934	—	4,514 feet	
	1938—39	—	10,0'0 „	
	1939—47	—	14,170 „	
	1947—50	—	15,247 „	
	1952—55	—	22,430 „	(absolute altitude)
	1954	—	29,500 „	(gain of height)
	1954—55	—	30,000 „	(absolute altitude)
Goal :	1937	—	75 miles	
	1946	—	95 „	
	1947—48	—	118 „	

Goal out-and-return :	1951—56	—	163 miles
Speed round 100 km. Triangular Course :	1948—54	—	29 m.p.h.
Speed round 200 km. Triangular Course :	1956—	—	33.3 m.p.h.

WORLD CHAMPIONSHIPS

Senior Pilot in the British Team at all World Championship meetings.

1937	—	Wasserkuppe, Germany.
1948	—	Samaden, Switzerland.
1950	—	Orebro, Sweden.
1952	—	Madrid. Won Individual World Championship.
1954	—	Camphill. 2nd „ „ „
1956	—	St. Yan, France.
Seeded Pilot—1958	—	Lezno, Poland.

BRITISH NATIONAL CHAMPIONSHIPS
Won the Individual Championships in 1937, 1947, 1949, 1950 and 1955. (Prior to 1937 there were no official placings).

BRITISH TROPHIES HELD
The Manio Cup (Best Goal Flight) in 1933, 1935, 1937, 1946, 1947 and 1950.
The de Havilland Cup (Best height) 1934, 1935, 1936, 1938, 1939 and 1946.
The Wakefield Trophy (Best distance) 1934, 1936, 1937, 1938 and 1949.
The Volk Cup (Best out-and-return) in 1951 and 1953.

Awarded by the Federation Aeronautique Internationale
The F.A.I. Paul Tissandier Diploma in 1954.
The Lilienthal Medal in 1954.

Awarded by the Royal Aero Club of the United Kingdom
The Britannia Trophy in 1951.
Royal Aero Club Gold Medal in 1952.

GLIDING IN PARLIAMENT

GLIDING had a good innings in the House of Commons during the adjournment debate on 21st May, when Major Sir Roger Conant, member for Rutland and Stamford, who is a familiar figure at several gliding clubs, asked for a statement of the Government's policy on gliding,.

Sir Roger Conant first made it clear that he was not asking for a subsidy, because the British gliding movement prefers independence and freedom from official control, although gliding is supported by subsidies in almost every other country. He was asking for help and co-operation in other ways.

Gliding, he said, deserves support for many excellent reasons, such as national prestige, research, and the need to encourage a spirit of adventure and exploration. Gliders are being used to get information about weather, cloud formation and aerodynamics, and the study of atmospheric wave formation at Camphill in Derbyshire by the Gliding Club there would have cost about £1,000,000 if done by means of a special experiment, in the estimation of Dr. R. S. Scorer, of the Imperial College of Science. As to national prestige, at the last World Gliding Championships two British pilots, Commander Goodhart and Mr. Foster, won in the two-seater class, and sailplanes of British manufacture were in six of the first 11 places in the single-seater class.

Having shown that gliding is deserving of support, Sir Roger went on to indicate what form it should take. Most important of all is the question of sites, of which more are wanted for new clubs and greater security of tenure is needed for several existing clubs. Detling, where the Kent Club operates, has been de-requisitioned, and the Aberdeen Club has to leave Fraserburgh and wants to use the civilian airport at Dyce.

At Lasham, in particular, where a number of gliding clubs are sited, they have such limited security of tenure that they cannot spend money on amenities like a clubhouse and modern sanitation. Many people envisage a national or empire gliding centre in this country but this depends on a suitable site with adequate security of tenure. Many suitable sites are owned by the National Trust, which unfortunately regards gliding clubs as eyesores; yet the Peak Park Planning Board in Derbyshire considers the gliding club at Camphill to be one of the amenities of the National Park.

The other problem is that of airways and control zones, and unless these take some account of the siting of gliding clubs, distance and altitude flights for the higher international certificates like the Gold C will be obtainable only by those who have the time and money to travel abroad. The airway problem at Camphill, where soaring flights in waves up to 14,500 ft. have been done, must not be allowed to put an end to soaring there. "It seems to me," Sir Roger



Sir Roger Conant, M.P., who spoke about gliding in the House of Commons, is himself a glider pilot.

said, "that just as we have restricted the use of land by planning boards and so forth, so we ought to prevent the use of air solely for commercial purposes."

Another point is that R.A.F. surplus stores include much useful equipment for gliding clubs. "Finally," Sir Roger concluded, "I would say that the gliding movement is not unconscious of or ungrateful for the help which it has received from Governments in the past. It is particularly grateful for the freedom which it enjoys and for the great responsibilities with which it is entrusted, but it asks for continuing co-operation and help from the Government on the lines which I have tried to indicate."

Mr. Frank Beswick, member for Uxbridge and a former Parliamentary Secretary to the Ministry of Civil Aviation, who has also done some gliding, supported Sir Roger Conant in all the points he had made, beginning with the remark: "I know of no sport in any country in which the keenness, self-discipline, self-help and general sense of responsibility in administration encountered in gliding is excelled."

Mr. Beswick referred to a deputation on the subject of Lasham which he recently took to the Air Ministry, when "assistance was given very readily in removing one or two petty restrictions." But there was still the problem of security of tenure there.

Regarding the airways, he admitted that it was a difficult problem to balance the different claims; "but it is the fact that commercial aviation is being developed to make possible a better life . . . in which I would have thought the opportunity for practising the sport of gliding would take some place."

Mr. Anthony Kershaw, member for Stroud, mentioned the Bristol Club's new site in his constituency and the records Peter Scott had established from there, and added his appeal to "help this valuable sport, which is also, as is so often found with our English institutions, a valuable export field."

Mr. Airey Neave, Joint Parliamentary Secretary to the Ministry of Transport and Civil Aviation, started with a compliment: "There is a vigorous spirit in the gliding movement and a sense of pride and independence which we all greatly admire. Gliding provides for many people a delightful sense of isolation from an all-too-busy and hurried world, but it is also a science through which much can be learned, as my hon. and gallant Friend said, of the atmosphere and its waves . . . we welcome the keenness and high standards of proficiency which have been shown by British gliding clubs and the British Gliding Association under the chairmanship of Mr. Philip Wills."

As to the problems, Mr. Neave said in regard to Lasham: "This is a Royal Air Force airfield, and the position at the moment is that the Surrey Gliding Club has been offered a lease by the Air Ministry for quite a substantial period. Negotiations are now proceeding, and I have every reason to hope that the outcome will prove satisfactory to the club." Then, as to Detling, "I hope it will be possible for the club to make a satisfactory arrangement with the purchasers." And concerning Edge Hill airfield, of which the Coventry Club wants to obtain part, "again I hope that it will be possible to arrive at a satisfactory settlement locally for this purpose." He would look into the matter of the Aberdeen Club, and would certainly try to do what he could about negotiations with the National Trust.

Mr. Neave explained the new airways situation regarding Camphill, and added: "we are now discussing a scheme whereby, although the base of the airway would still be 3,000 ft., it should be moved slightly



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westward. Glider pilots should be able to soar safely and without restriction to the east of Camphill. It is also proposed that, in order to give greater freedom in the westerly direction when necessary, the controllers of the Manchester Control Zone should be informed, and traffic along the airway would then not be cleared to fly below 5,000 ft. That is the state of the negotiations at the moment, and, of course, nothing is yet final." However, "the base of the airway must be determined by the height to which an aircraft can climb after taking off from Ringway; and that does make it difficult to raise the base of the airway or to bring it any further to the west. It has been suggested that the proposed route of the by-pass airway—that is, with a base as low as 3,000 ft.—would not be sufficiently safe because it would pass over high ground where there is occasional turbulence and iciness. We are advised, however, that these conditions should not normally be so severe as to affect safety."

And he concluded by offering suitable wire cable which the Admiralty has for disposal, adding: "That is an example of the help and encouragement which we will continue to give to the gliding movement."

The debate started at 11.7 p.m. and, after "Question put and agreed to," the House adjourned at 11.35.

Gliding Certificates

CERTIFICATES are awarded, and the corresponding badges given, for the following flight tests:—

"A" badge (one gull on dark blue background): straight gliding descent of 30 seconds.

"B" (two gulls): gliding flight of 1 minute with right and left turns.

"C" (three gulls): soaring flight of 5 minutes above the starting level.

"Silver C" (three gulls on blue background surrounded by silver wreath): flights of 5 hours duration, 50 km. distance (31 miles), and 1,000 metres gain of height (3,281 feet).

"Gold C" (three gulls surrounded by gold wreath): flights of 300 km. distance (186 miles), and 3,000 metres gain of height (9,843 ft.).

"Diamond": one diamond is added to the "Gold C" badge for each of the following flights: 300 km. to a declared goal, 500 km. distance (311 miles), 5,000 metres gain of height (16,404 ft.).

The following certificates (omitting "A" and "B") were awarded during April and May.

SILVER C CERTIFICATES

No.	*Name*	*Club*	*Date*
617	D. H. Darbishire	Surrey Gliding Club	16.4.57
618	D. J. Marsden	College of Aeronautics Gliding Club	19.4.57
619	M. P. Seth-Smith	Army Gliding Club	13.4.57
620	L. S. Whittingham-Jones	R.A.F. Gütersloh Gliding Club	17.4.57
621	D. Nicholls	No. 643 Gliding School	19.4.57
622	R. Brett-Knowles	Royal Naval G.S.A.	24.4.57
623	I. R. P. Abel	Kent Gliding Club	16.4.57
624	R. D. Ruffett	London Gliding Club	23.4.57
625	E. Day	Kent Gliding Club	13.4.57
626	R. A. Everard	Oxford Gliding Club	19.4.57
627	B. J. Palfreeman	Bristol Gliding Club	28.4.57
628	A. H. G. Murray	Royal Naval G.S.A.	25.4.57
629	S. B. Wills	Surrey Gliding Club	19.4.57
630	G. C. Kilburn	R.A.F. Wessex Gliding Club	7.4.57
631	J. P. Griffiths	Cambridge University Gliding Club	18.4.57
632	P. M. Scott	Bristol Gliding Club	5.5.57
633	P. C. Dirs	London Gliding Club	20.4.57
634	A. W. F. Erskine	London Gliding Club	23.4.57
635	C. D. Duthy-James	Cambridge University Gliding Club	7.5.57
636	K. L. Moorey	Yorkshire Gliding Club	28.4.57

637	J. D. Light	London Gliding Club	5.5.57
638	D. Baxter	No. 633 Gliding School	16.4.57
639	W. T. Kwasny	Polish Air Force Gliding Club	13.5.57
640	E. J. Robinson	Royal Naval G.S.A., Eglinton	3.5.57
641	C. A. Vacey	R.A.F. Nimbus Gliding Club	12.5.57
642	I. E. B. Banting	R.A.F. Wessex Gliding Club	19.4.57
643	R. A. Sandford	R.A.F. Wessex Gliding Club	5.5.57
644	J. M. Butt	London Gliding Club	5.5.57
645	J. H. Parry-Jones	Bristol Gliding Club	26.5.57

C CERTIFICATES

Name	*Gliding Club or A.T.C. School*
S. W. Conlan	RAF Geilenkirchen
K. S. H. Swiderski	Cambridge
P. Millett	R.N. Fulmar
H. E. Oxman	Newcastle
R. G. I. White	London
E. G. H. Williams	London
M. J. Coton	RAF Four Counties
J. R. Teesdale	Cambridge
J. V. Brain	Surrey
T. Roach	London
Miss R. Storey	Bristol
E. Day	Kent
P. D. Evans	RAF Geilenkirchen
H. I. White	Newcastle
A. D. Purnell	Cambridge
J. J. Strauber	Surrey
J. Lowenstein	Oxford
B. Docker	RAF Moonrakers
R. G. Farmer	No. 633 G.S.
P. H. White	London
J. P. Griffiths	Cambridge
D. R. Mickleburgh	No. 611 G.S.
V. R. Collins	Oxford
B. H. Thompson	Coventry
J. B. Ramsden	No. 633 G.S.
N. H. Calvert	2nd T.A.F.
A. D. Briscoe	No. 631 G.S.
C. C. Ungley	Yorkshire
R. M. F. Parkinson	Kent
D. J. Clark	Kent
B. Kirby	Kent
P. A. Hosey	RAF Four Counties

Name	*Gliding Club or A.T.C. School*
P. L. M. Buckley	Kent
A. Cunningham	Coventry
L. J. Pike	Army
E. R. Thompson	Midland
R. I. Laurie	RAF Gütersloh
P. M. B. Nutting	Surrey
P. A. B. Toombs	Army
J. B. Longworth	RAF Geilenkirchen
R. W. Simpson	Coll. of Aeron.
K. P. Smales	RAF Nimbus
A. G. Smith	Imperial Coll.
K. Bhargava	Empire Test Pilots
J. R. Morel	Surrey
A. D. Marshall	Crown Agents
D. J. Corbett	Army
A. Bynon	RAF Wahn
A. W. F. Edwards	Cambridge
P. E. P. Sheppard	Yorkshire
P. E. Hills	RAF Fenland
J. W. S. Matheson	Oxford
A. C. L. Halsall	RAF Nimbus
R. G. M. Bull	Midland
J. R. Bradford	RAF Geilenkirchen
A. D. B. Cason	Bristol
R. S. Waller	Cambridge
D. V. Delap	Cambridge
S. E. Parkinson	Kent
R. C. Taylor	Perkins S.A.
P. E. Collier	Bristol
P. M. Durman	RAF Ahlhorn
A. W. Sample	Yorkshire
F. W. White	No. 662 G.S.
A. L. Roberts	RAF Cranwell
J. P. Ashford	Bristol

Name	*Gliding Club or A.T.C. School*
D. A. Sherman	R.N., Lossiemouth
T. W. Steel	No. 643 G.S.
M. C. Barlow	No. 633 G.S.
P. Keeble	No. 611 G.S.
J. I. B. Bennett	No. 631 G.S.
V. J. Walter	Bristol
E. F. Thompson	Surrey
K. J. Crooks	B.A.O.R.
J. L. Newns	R.N. Fulmar
R. A. Griffin	R.N. Gamecock
J. L. Smoker	Oxford
P. L. Ellis	No. 611 G.S.
D. Gavaghan	I. of Wight
C. Uncles	Surrey
A. H. Jones	Kent
D. Johnson	RAF Windrushers
S. J. Taylor	Oxford
J. R. Wicks	Coventry
R. J. Lyndon	No. 633 G.S.
J. P. Cunningham	Coventry
A. C. Wall	RAF Windrushers
L. G. Watts	Coventry
J. C. Bailey	Kent
R. B. Brown	Coventry
B. H. Baker	Oxford
W. D. Baker	No. 612 G.S.
P. F. Hill	No. 634 G.S.
A. B. Tyler	Oxford
A. J. Ransom	Surrey
M. H. Bedford	Surrey
S. Green	Kent
N. H. M. Maygothling	RAF Windrushers
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Thirty Thousand Feet Over England

by A. H. Warminger

Flying in a thunderstorm, Flight Lieutenant Alfred Warminger reached 30,000 ft. in his Skylark 3, but his barograph could only record to 20,000 ft., so he is in a similar position to Derek Piggott who set up a United Kingdom record in 1955 with an altitude of 25,000 ft., though his barograph only registered 22,800 ft.

ON Sunday, 9th June, 1957, I was launched by winch in my Skylark 3 into an approaching storm front. After releasing at 1,100 ft., I managed to stay airborne in relatively light convection currents until the scud clouds of the storm drifted overhead. My lowest height at this stage had been just under 1,000 ft. I then flew into a smooth lift of about 5-8 ft. per second, which steadily increased. About this time there was a severe flash of lightning and I could distinctly see, a mile or so up wind down to almost ground level, a wave of swirling dust. I called up on my radio and told the ground operator that I was going to have a go at this cu-nim. A few seconds later, with the green ball on the variometer at the top of the instrument, I was sucked into the storm at 2½ thousand feet, and I then concentrated on instrument flying, keeping a steady "rate 1½" turn to starboard. The lift was steady, smooth and Gold C height was reached in a matter of a few minutes. In order to play safe, I had switched on my Normalair Oxygen at 8,000 ft., and during the rest of the flight tended to over-draw on this. Shortly after passing Diamond C height, I experienced a severe electric shock in the left hand resting on the dive brake as well as in my right hand on the stick. The noise from the hail was loud and occasionally the cockpit was lit up, presumably due to the lightning flashes. I remember, at about this stage, opening the peep-hole to see how much ice was on the leading edge, but this only brought in a shovel full of ice particles and flakes and I immediately "shut the door". More electric shocks were experienced around 22,000 ft. but were of a minor nature and not really disturbing. All the time the lift was smooth and comparatively steady, although the green ball moved for a few moments and I straightened out when the hail was noisiest for a few seconds before turning again.

At approximately 26,000 ft. I removed the oxygen mask in order to report my progress on the radio and, although this may be purely imagination, I appeared to feel the effect of the momentary loss of it. As the 28,000 ft. mark was reached the air started becoming turbulent and more minor electric shocks were experienced. I decided at 28½ thousand feet to make a run for it, and turned on to a northerly heading to get clear. The aircraft, however, still rose in the turbulence until the altimeter registered slightly over 29,900 ft. After about two minutes on this heading without coming out of cloud, I became worried about going out to sea, and turned onto a S.W. course, making in effect a dog's leg.

The air gradually became quite smooth and, after what seemed ages but was probably only 7-8 minutes, I became aware, because of the light, that I was in clear air, and on opening the peep-hole saw the ground beneath. This last part of the flight was probably in the "anvil head" spread-out. My first impression was how far it



With acknowledgements to the "Daily Mail."

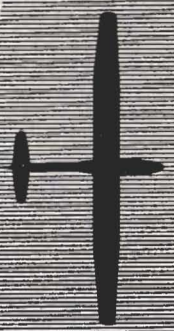


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seemed away and how small and insignificant the other cumulus clouds appeared so far beneath. Height then was about 28,000 ft. and I could see the Norfolk coastline quite clearly from Cromer to Hunstanton and down to King's Lynn, The Wash and, far off, the Lincolnshire coast.

After pinpointing myself over Sculthorpe Air Base I told the ground of my height and position and asked the operator to contact Sculthorpe Air Base to get a height fix on the sailplane by their thunderstorm warning device to confirm my height. I did this because the barograph in the sailplane was of the 6-kilometre type and would not record above 20,000 ft.

I inspected the icing on the wings, which appeared comparatively light and only about an inch in depth along the leading edge. The cockpit canopy, however, was completely frozen up inside and I hardly made any impression with my nails in attempting to clear a patch. Because of the wind, which was moderate S.W., it seemed hardly possible to take advantage of the height for a distance flight; inland direction would give an upwind component, and I did think in terms of the Dutch coast, but this seemed hardly feasible with ice on the laminar-flow wings.

Because of the rapidly diminishing oxygen supply and the low temperature, I put the nose down and quickly lost height, using a bit of spoilers until approximately 20,000 ft., where I put these right out and kept them there until I joined the circuit at Swanton Morley, where I then landed outside the A.T.C. hangar.

To sum up, I would say that I was fortunate in being able to keep in the area of full lift and did the right thing to stay there. Any attempt to get out at a lower altitude might have been disastrous. At or near the top the upcurrents are subsiding and therefore much safer to leave. The roughness or cobblestone effect, experienced there, is probably due to the "spill over", and need not be taken too seriously. These are, of course, my personal views.

A previous flight to 10,000 ft. a few weeks ago had taught me not to worry unduly about the stage effects of the hail etc., and how best to fly with wing icing. A pilot must be well briefed in what to expect and what to look out for, and fully experienced in blind flying, equipped with oxygen A/H and if possible radio. Radio seemed to offset the "lonely feeling".

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Glider Maintenance—2

by R. C. Stafford-Allen

This second instalment of the "Maintenance Handbook", to be published shortly by the British Gliding Association, incorporates Chapter 2, entitled "Repairs, General Considerations". The first Chapter was published in our June issue, pp. 126-130.

REPAIRS are usually the result of accidental damage to a glider. They may be necessary, however, as a result of bad maintenance, or plain old age. If you carry out the necessary maintenance on your glider conscientiously, you should be able to eliminate almost entirely repairs due to bad maintenance, but it is obvious that no part of a glider can be considered to last for ever, and will, sooner or later, require replacing or repairing.

The first thing to remember about any sort of repair is that you *must* only use approved materials in your repair. When the machine was designed and built, great care was taken to ensure that every part of the glider was strong enough for its job. Quite as much care was taken to see that no part was unnecessarily strong, for in this case the glider would be heavier than it need be. Now, in calculating the strength of all the pieces of the glider, the designer used as a basis the known strength of approved aircraft timber, spruce, ply, etc. and the known strength of various specification steels. If you, subsequently, go and replace some of these high-quality materials with any old bits of wood, or metal, your repair may look all right but it will most certainly be all wrong.

An Inspector of Aircraft Materials is a highly skilled man, who has at his disposal a fair amount of testing equipment, and nobody suggests that we should all become Inspectors and set up our own test laboratories. But you must—and this cannot be stressed too highly—you really must make sure that nothing goes into your glider which has not been tested and approved. The best way of doing this is to buy your supplies from reputable firms and to insist upon an Approved Certificate or Release Note for whatever you buy. All good firms issue these Notes as a matter of course and usually the material, wood, ply or metal, bears a stamp or mark which is quoted on the Release Note. All repairs must, of course, be entered up and signed for in the glider's log book, and against the entry for the repair you should enter the number and date of the Release Note for the materials used in the repair. It is, if you like, your proof that you did use proper aircraft materials for the job. The name "Release Note" puzzles some people. It is merely a note issued by an Inspector that he has examined the material in question, that he is satisfied that it is up to standard and that it may be "released" from store for use on aircraft.

A good repair on any aircraft must satisfy four requirements:—

1. It must be at least as strong as the original structure.
2. It must be as nearly as possible as rigid, or stiff, as the original structure but neither more nor less so.
3. It must not be appreciably heavier than the original structure.
4. All protective coverings, paint, dope, etc., must have been made good.

If, when you have completed a repair, you can honestly say that it fulfils all four of these requirements, then you have every right to call it a good repair.

Let us take these four requirements in order.

No. 1, strength, is obviously vital, for on it may depend your life. First, there must be no doubt as to the material in the repair. This is satisfied so long as only Approved materials are used. Secondly, the repair scheme must be worked out and splices, etc., made correctly. For many jobs, standard repair schemes can be employed which have been found satisfactory by many tests. If no standard repair scheme can be used for a particular repair, then one must be worked out. This means that you must plan what damaged material has got to be cut out, how you are going to replace it, where the joints are going to be, and whether any temporary structure has got to be fitted to hold the component secure while the repair is made and glue is setting. This matter is dealt with more fully in a later chapter. If the repair is a replacement of a component, then this aspect of the job is simple.

Your workmanship must be of aircraft standard. Now, this does not imply fantastic skill. Any normal person can fairly quickly acquire sufficient skill with woodworking tools, and files, and hacksaws, to produce first-class repairs. The operations in themselves are relatively simple, but you must make sure that nothing but first-class work goes into your repair. All wood joints, splices, etc., must fit. If they do not, then they must be chiselled, filed, sandpapered, until they really do fit. Unless the repair is a relatively small one, in which case you can use the damaged parts as patterns, you will need to obtain drawings of the damaged component, and you must make sure that the sizes of timber and thicknesses of ply, dimensions of gussets and all other details are exactly as called for in the drawing.

One might be forgiven for thinking that, if a repair is strong enough, then it is satisfactory. Things are not quite as simple as this, however, and this is where this business of stiffness comes in (our No. 2 Requirement). Take, for example, the spar of a cantilever wing. The booms, or flanges, of the spar are carefully tapered, being thick at the wing root where the big bending loads act, and thinning out at the tip where the loads are lighter. Built like this, the whole spar will bend evenly and smoothly like a well-designed bow. Now, suppose we make a repair to the spar somewhere near the middle of the wing, and, misguidedly, we beef it up with lots of timber and make it very stiff at this point. The spar will now not be able to bend, or flex, at the repair point, and in consequence it will throw a lot of extra load onto the sections of spar at the ends of our repair. If it fails, it will not fail at our repair. Oh no! Our repair is much too strong, but it will fail at the ends of the repair. Do not get the idea that we have somehow weakened the spar at these points. The spar here is as good as ever. What we have done, though, is to put a lot of extra *load* onto these points in the spar—extra load which they were not designed to cope with and which ought to have been spread over the repaired portion evenly. The net result is that the spar as a whole is weaker than it should be.

Requirement No. 3, that the repaired job should not be appreciably heavier than the original, will, in general, be satisfied if the repair satisfies our first two requirements as to strength and stiffness. A repair is almost bound to involve some extra weight, but this should be kept as small as possible. In all big repairs, and any repairs which are a long way from the centre of gravity of the glider, the machine must be re-weighed, and its new centre of gravity determined. Any alteration in weight or C. of G. position will alter the permitted maximum and minimum pilot weights.

Requirement No. 4 should be only common sense. Apart from appearances, it is clearly lunacy to spend time and money on a good repair job without making sure that, when the job is finished, the elements cannot get at your work and destroy it.

News from the Continent

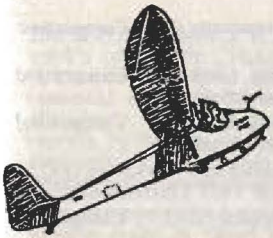
MAY 27th, 1957, will undoubtedly go down to history as the finest long-distance day for Western Europe.

Apart from the many remarkable flights carried out in England on that day, most of which were terminated by the arrival of the coast, Toutenhoofd, the young Dutch pilot who flew so well in the 1956 World Championships, got his third Diamond with a flight from Terlet, ending in France, of 560 kms. in a Skylark II.

On the same day Lacheny flew from Terlet to Nantes—740 kms. in seven hours in a Bréguet 901. Two German pilots flew from near Württemberg to Nevers, around 600 kms., and two pupils just arrived for a course at Pont St. Vincent were launched for their first flight on the course and landed over 600 kms. away!

On 30th May Lepanse just missed a World record 200 km. triangle speed, but obtained the French record with a speed of 65 km./h. by flying from La Ferte Alais in a Bréguet 901.

Earlier this year, on 6th May, Francine Abadie obtained the French distance record with a flight of 560 kms. from La Ferte to Arles in the Rhône Valley. She had declared Avignon, which would have been a World goal record, but the mistral was so strong that she overflew it and could not get back, so she carried on to Arles. She flew straight down the Rhône valley under a cloud street, and in the last hour of her flight covered 85 miles. P.A.W.



ITS - ALL - YOURS

For and About Instructors



IN few clubs is there a lack of pupils, and the patient pushers and pullers at the launching point, all waiting their turn, tend to obscure the whole object of learning to glide. This is not to do endless circuits, but to fly across country and to climb in clouds.

The problem of advanced training is a difficult one. It is much easier to restrict pilots to local flying than it is to teach them how to soar properly, to navigate, and to land in fields, etc., since all this takes time and effort to organise. Is it worth the risk of losing members to devote the whole of a summer day to getting off a couple of five-hour thermal attempts, and coping with some Silver C distance aspirants, including fetching them back?

I am sure that it is. The atmosphere of achievement, and of having really succeeded in doing what has been merely a hope for so long, is infectious. Further, it gives the pupil the idea that soaring is something which is meant for him too, and not only the province of distant private ownership.

A great deal can be done by getting club members to undertake their Silver C cross-country flights by flying triangles, with a return back at the site (minimum length of leg, 15 kms.; total 50 kms.; photographic evidence acceptable—see regulations). This is a matter of outlook almost as much as of weather. In this way more cross-country flying can be obtained from each glider, and even if the pilot fails to get back, his retrieve is short and cheap and, with very little organisation, quick.

THE ADVENTURES OF JOE

JOE, being young and healthy, soon recovered from his broken jaw, and was back at the Club helping to Increase the Launching Rate. Somewhat surprisingly, he had been promoted to driving the Beaver and retrieving the winch cable himself, and he prided himself that he did not waste a second.

The Super Cirrus went up on the launch and let its cable drift badly to the side. Like a flash Joe raced after it, hooked it on and made a beeline straight for the launching point, nearly running headlong into a Tutor which was landing towards him. With great presence of mind he swerved at the last moment and detoured round it, taking care not to jerk the cable. As soon as the glider was passed he curved back to the launching point and dropped the cable at the very nose of the next glider to be launched. It was hooked on, and the glider signalled off. This glider had a good launch . . . and so, unfortunately, did the Tutor.

TAKING OFF WITH THE AIRBRAKES OPEN

Every year a number of pilots take off with their airbrakes unlocked, with the consequence that as soon as flying speed is reached the brakes open fully.

The most interesting aspect of this error is that it is committed by pilots of considerable experience just as much as by beginners, and worse still, the experienced pilot is not necessarily quicker at realising what is wrong. Sometimes the glider is even back on the ground again before the pilot has found out what the trouble was. He knew that *something* was wrong, and spent most of his short flight blaming the unserviceable winch, the tug pilot, or the strong downcurrent for his poor climb and rapid descent.

As the consequences of taking off with the brakes open can be very serious, particularly if this occurs at the beginning of

an aero-tow, every effort should be made to reduce the number of these incidents. This can be done in two ways.

(a) Better cockpit drill.

(b) Teaching pilots that if at any time something seems wrong, before starting to blame others, they should see that they are not at fault themselves by *looking out sideways* to see if their brakes are open.

ANN WELCH.

NEW INSTRUCTORS

B. M. Buckley, Southdown G.C. Categorised April 1957 (Provisional).

D. Collinson, Newcastle G.C. Categorised April 1957 (Provisional).

A. Coulson, Newcastle G.C. Categorised April 1957.

P. M. B. Nutting, Cork G.C. Categorised April 1957 (Provisional).

I. Paul, Newcastle G.C. Categorised April 1957 (Provisional).

A. Pratt, Newcastle and Yorkshire G.C.'s. Categorised April 1957 (Provisional).

P. Collier, Bristol G.C. Categorised May 1957.

G. A. Cornell, Perkins G.C. Categorised May 1957.

W. Owens, Southdown G.C. & R.A.F.G.S.A. Categorised May 1957 (Provisional).

DEREK PIGGOTT, C.F.I.—LASHAM GLIDING CENTRE



THAT old saw, "those who can, do, and those who can't, teach," takes on a sharp ironic twist in gliding clubs where those who teach have no time to "do" anything else and those who specialise in "doing" are never around when you want them. In the case of Derek Piggott there was never very much doubt that he could put in some serious gliding when he tried, but everyone at Lasham breathed a sigh of satisfaction when he finally brought home a Gold C to prove it.

As matters now stand, he holds one diamond for height—gained for a flight to 23,200 ft. in 1955, which has held the U.K. local height record for two years. He admits that, much against his better judgement, he got there without oxygen. In theory, of course, Gold C's should come easily to any pilot who can be sure of being on a gliding site when the day of days arrives. In practice, Derek does so little free-lance gliding that when he takes a solo flight half the Lasham membership turns out to see if it is true. It has thus been established beyond reasonable doubt that he set off on his own four times this year in search of distance.

This reluctance to stop work, a priceless asset to Lasham, is not a sign of stagnation but rather of an intense, enquiring interest in the craft and art of instruction. Derek Piggott is, first and foremost, a professional flying instructor of the highest qualification. His career in the R.A.F. began in 1942 when, after qualifying as a pilot, he trained as a flying instructor in Canada. After "miscellaneous" flying jobs that took him around India and the Far East, he found himself, from 1948 to 1950, a Category A1 instructor on the staff of the Central Flying School at Little Rissington, training instructors on all current types, including Meteors.

His interest in gliding had been growing

and in 1950 he went to R.A.F. Detling on a week's course for gliding instructors. At that time his total gliding experience consisted of some 24 assorted hours on Hotspurs, Hadrians and Horsas. He reports, by the way, that these vast machines soar very nicely, but that he never did any operational or cross-country flights in them.

In retrospect this course was obviously a turning point in Derek's career, and the record of it in his log book is appropriately dramatic. It opens with a couple of dual flights under Pete Mallett, the first of which was a 20-minute soaring trip with Derek flying, while the second is rather curiously labelled "circuits". At this point Pete Mallett apparently gave up and Derek took over the instructing business on flight No. 3, never looking back. He was therefore obliged to return privately to Detling a month later in order to get his C certificate with a soaring flight of 47 minutes. After that he still had to do two more solo circuits for his A and B.

Gliding set in for Derek when he was just in the process of getting posted to the Empire Test Pilots' School. Warning signs of the onset of high-tone deafness were discovered, and he was posted instead to Detling as C.F.I. of the Home Command Gliding Instructors' School, training and testing instructors for the A.T.C. This was a job that enabled him to experiment with new instructional techniques for speeding up training—a field of enquiry still bearing fruit.

After three years, Derek left Detling to become C.F.I. at Lasham, where the combined clubs were expanding fast and running into the problems of organisation and training that lie in wait for large, amorphous, civilian flying schools. Bigger and bigger notice-boards were covering the club house walls and fewer and fewer people were reading them.

As a first step, training for all clubs on the aerodrome was united and systematised under one hand, and mid-week courses were successfully developed and increased. Putting his theories into practice, Derek persuaded the clubs to stop sending pupils solo in unfamiliar types until they had got used to being alone and they now get pushed off in T-21s with ballast. The logical step after that was to abandon intermediate types altogether and convert direct from T-21s onto Olympias. He now feels that T-21s will soon have to give way to two-seaters with the handling characteristics of the latest sailplanes, as training time is being wasted in teaching people to deal with problems of co-ordination that do not arise in Olympias—he hopes.

Apart from routine instruction at the rate of well over 2,000 launches a year, Derek spends quite a lot of time teaching advanced soaring and instrument flying and supervising the technique of his supporting band of volunteer instructors. Characteristically, he started a series of tape recordings to save time and supplement their work. Pupils can now hear his talks as often as they care to turn on the switch and listen.

Not unnaturally, Lasham is rather proud of Derek Piggott and just at the moment all its best brains are being bent to his latest major problem. Unexpectedly enough, this is shoes. He wears out a pair of leather soles on the runways in about five days. Rubber and composition soles last a little longer—sometimes two weeks. Parcels are arriving from all quarters as experimental and prototype shoes pour in and Derek Piggott, the flying man, is testing them to destruction.

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From a Bird Spotter's Notebook



The KHAKI SWIFT

THE KHAKI SWIFT (*Deanedrummondum*)

The Swift announces its arrival by loud screams as it wheels, soldierly fashion, high overhead or rushes at marvellous speed through the air. It is a master of the art of flight—one of our most aerial species—and never seems to tire.

Easily recognisable by its sandy head colour and a number of whiskers or bristles around the bill.

Prevalent in Hampshire, where recent reports of curious triangular flights of remarkable skill have caused comment in the popular Press.

The Swift is an ardent believer in freedom and it will be recalled that when cornered in German-occupied Holland several years ago it proved its ingenuity by contriving an escape from a singularly confined space.

THE SMOKE-RINGED PLOVER (*Philiporum Willsorum*)

A unique bird of the Plover family, long familiar to ornithologists throughout the world, though normally resident in this country. It is as skilful and agile in its turns and twists as any bird; the speed is never slow, and when in competition few can excel it. A report from Spain in 1952 enthusiastically confirmed that it flew faster and better than any other species.

The general colour of the upper parts of the adult bird is mouse-grey. It is gentle of habit and its horn-rimmed eyes suggest warmth and friendliness. It is easily recognisable by a lean wiry body and a remarkable ability to blow smoke-rings, hence its name. These are normally produced during periods of anxiety, when its haunts are threatened. At these times it utters short, sharp notes of protest.

Sociability is not limited to its own species. It consorts freely with Auks, Dunlins, Swifts, Wrens, etc., flying and feeding with them. Most frequently observed near Henley-on-Thames in the company of a Kittiwake. These birds are conscientious parents and have reared four promising fledglings, two with marked migratory tendencies.



The SMOKE-RINGED PLOVER



The ANNIE-WREN

THE ANNIE-WREN (*Annwelchi Annwelchi*)

The Annie-Wren is with us all the year round. A hustling, bustling little bird, extremely energetic, constantly bobbing up and down and scolding or creeping like a mouse under a cabbage leaf to evade its persecutors.

Like the Secretary bird, the Wren does much towards the good of the flock. With whole body a-quiver it pours forth a song of challenge to the Nightingales that sing in Berkeley Square, and is often to be heard chirrupping encouragement to young birds trying out their wings.

Brown-grey upper parts, penetrating blue eyes and often brilliant plumage distinguish this bird. Its habitat is a corner of the Hampshire-Surrey border where it is spasmodically to be found rearing its three young. The cock of this species differs widely from the hen in appearance, though equally industrious and very agile on the wing.

THE DUNSTABLE DUNLIN (*Steviae Stephensoniae*)

The Dunlin is a shy and retiring bird but it has achieved much. Quick on the wing, its great aerial skill is shown by an ordered manoeuvring in large flocks, as was observed in France last year by ornithologists from many countries. The speed of the flying Dunlin is always great: it can be watched soaring and swooping high up on the Chilterns.

Though normally confined to these shores, this bird aroused world-wide interest and enthusiasm for a sensational cross-Channel flight in 1939.

The cock is a brownish colour streaked with grey head feathers, whilst the hen is more brilliant with distinctive head markings and a chirpy manner.



The Dunstable Dunlin

The Razorbill Auk



THE RAZORBILL AUK (*Goodhartibus Nickii*)

The Razorbill is an ocean-going species often confused with the Bearded Auk, with whom it is closely related. It is noted for its spasmodic migratory habits and was recently reported for three successive years in America, where it not only flew to 37,000 ft. but also outflew all other American species. Last year it received world recognition in France with a Foster bird and a Yorkshire Eagle.

Its mating habits are obscure but it is often seen at its parent-nest at Inkpen after long periods of absence in Somerset and elsewhere.

It seldom walks, being a poor pedestrian, but flies fast and straight, seeming always to be in a hurry. The stern blue eyes of this species betray a somewhat argumentative nature at times, usually announced by a deep growling note, but offset by a manner of undeniable charm. It is interesting to note that this species is prone to early moulting.

The Bearded (Non-Razor) Auk

THE BEARDED AUK (*Goodhartibus Tonii*)

The Bearded Auk derives its name from a massive growth on both upper and lower mandibles, predominantly tawny in colour. When walking it has a distinct nautical roll. Like its brother, the Razorbill, this marine species is migratory, having recently returned to these shores from Australia, where it was acclaimed for record-breaking flight.

The Bearded Auk is seldom silent for long. The note of the bird is a chattering growl, rising at times to a loud honk. It is a proud parent and often to be seen in the company of its fledglings (four in number).



The Greater Golden Secretary Bird

GREATER GOLDEN SECRETARY BIRD (*Yvonnbonnum*)

This is a largish bird, instantly recognisable by its brilliant yellow plumage and its loud, laughing cry. It is predominantly a city dweller, to be seen beneath the eaves of Londonderry House, but is known to roost near Hampstead Heath. This bird is extremely sociable and gregarious although remarkably industrious towards the well-being of the flock.

It seldom takes to the wing but can be seen strutting purposefully across near-by sanctuaries.

"DODO"

The Lasham Gliding Centre

by Wally Kahn



A Skylark II soars over a corner of Lasham Aerodrome

DURING a recent visit to a foreign Gliding Centre, I was asked: "What actually is Lasham?" I will try to answer that difficult question, though I would like to add that, whatever you think after reading these lines, do come and judge for yourself.

Basically, Lasham is an aerodrome 600 feet above sea level in North Hampshire. The clubs which operate there are the Surrey, Imperial College of Science, Army, Crown Agents, British European Airways Silver Wings Club, Polish Air Force Association and two units called the No. 1 B.G.A. Test Group and No. 1 B.G.A. Instructors' School. These clubs use each other's equipment, which has all been pooled.

Those are the bones, but what of the rest? Lasham is not just that—a place to go gliding. Since the amalgamation in the spring of 1954 of the Army Club with the Surrey-Imperial College unit, a grand conception has been born in our minds. This dream is slowly taking shape as the "Lasham Gliding Centre". But, before we examine it, let us look back a few years.

The immediate post-war years gave rise to a great spirit of air-mindedness among the youth of this country. There were those who had tasted flying during the war, but far more who had grown up during those troubled years and were weaned on stories about air aces and their machines. In this atmosphere the Gliding clubs in Britain flourished. One of the most prominent was the Surrey Club at Redhill, capably led by Lorne Welch. Gliding is essentially a sport of the individual, and Lorne welded us together into a team which soon produced wonderful results. Although

our aim was just to spend as much time in the air as possible, technical development of our equipment was not forgotten and we were never idle. In August 1951, we left Redhill to come to Lasham, then being used by the Army Club. Lasham—the airfield from which Robert Kronfeld flew his last flight, for he was killed within two miles of the peritrack.

For us the move was like the first few flights of a young bird. We could spread and expand, we had room to move. After the congestion of Redhill, Lasham was paradise. In 1954 we amalgamated with the Army, persuaded Derek Piggott and Warren Storey to leave the R.A.F. and join us as Chief Flying Instructor and Glider Ground Engineer, respectively, and the Lasham Gliding Centre began to take shape.

Most clubs cannot expand because of site limitations. Here we were blessed with an enormous airfield. Finance is a worry which is with us all, but we have been able to cope remarkably well. True, we still have only one month's security of tenure, and through the years this fact has given us many sleepless nights. However, after the first year's very successful operation, the question on our lips was, "Whither now?"

We talked, as we still do, of 60,000 launches per year, of T-42s for all-through training, of a large number of privately-owned gliders and many other things. Without wishing to detract from any other club in this country, we wanted to make Lasham a centre for gliding with the finest possible facilities. That is still our aim. Apart from giving gliding instruction through to the Gold C stage, we want to build up the "Empire Gliding Instructors' School", to which instructors would come from all over the world to learn our methods; we would like to persuade a glider manufacturer to build a factory at Lasham—when we can be granted a sound sensible lease—so that design and development can go hand-in-hand with actual operation. We want to establish a design office which would produce winches, tow cars and other ancillary equipment.

All this and many other ideas make up our dream. But what of the present? What have we achieved to date? The figures will show the development during the past few years. The equipment we use is modern and fairly streamlined. The club fleet consists of three T-21s, four Olympias, three Skylark 2s, one T-42 and a Weihe. The latter may only be flown by approved pilots with Silver C's when the machine is not wanted by an instructor. This is the carrot by which we keep our instructors happy. When you realise that our two (now three) full-time instructors average 2,500-3,000 flights per year and the keener voluntary ones about 300-400, some substantial carrot is needed. Many of our members join private glider syndicates. At Lasham we now have 18 of these: five Skylark 3s, two Skylark 2s, three Olympias and a Petrel, Kite 1 and 2, Gull 2, H-17, T-42, Sky and Prefect.

Now let us look at the instructional methods. When a pupil joins, he is allocated to either Daisy or Fanny Flight. Each Flight, named after the T-21 it uses, has its own instructors, thus cutting down the number of different instructors an unfortunate pupil flies with during his training. He is sent solo in the T-21 carrying ballast in the shape of two small lead-filled tyres, and after some seven flights is converted onto Rudolph, which is a T-21 fitted with a canopy. He flies this about five times before he is let loose in an Olympia. Soaring instruction in the T-42 and aerotows follow. Cross-country checks with the C.F.I. are given when he has gained his Silver C height and duration, and if found to be competent he is converted on to the Skylark 2.

For his distance, he can either attempt a straight-line flight or a 50 km. triangle which will reduce the retrieving costs. Thereafter periodic checks and further instruction are given in the T-42. Expeditions are arranged fairly often to our hill-sites at Cocking on the South Downs or to Inkpen, near Newbury. In order to encourage pupils to make the most of the day, all launches before 9 a.m. are one shilling cheaper than normal.

The Glider maintenance side is conventional. The workshops are spacious and Warren is ever busy on Cs. of A. and minor repairs. Perhaps it is the motor transport which deserves the closest inspection. As a large number of launches are given by auto-tow, it is vital to have a really sound towing vehicle. After all, clubs happily spend £1,000 on a glider, but how often do they fail to launch that machine because they did not spend the same sum on a really serviceable piece of ground equipment? We bought an American Ford F.100 truck with automatic drive. It is worth its weight in

gold. The M.T. Committee have spent a great deal of time, money and thought in planning the workshops and the result is astounding. Our M.T. engineer, Bob Lintern, is able to work in surroundings which would do most garages credit. "Diesel Oil" is the new magic formula which will help to make our pipe dream a reality. Already the M.T. Committee have produced a jeep with a Perkins Diesel engine for cable retrieving—we operate the two-car system on the runway whereby the launching vehicle comes up to the end of the cable which has been put there by the jeep. Whilst the launch is in progress, the jeep picks up the second cable and takes it to the next glider to be launched. Soon the winches will be converted or built to house diesel engines, and, in a year or so, all vehicles will be driven by the very much cheaper diesel or fuel oil.

A word about finance. During 1956 the total income was £10,000. £6,700 was revenue from flying. The staff were paid £3,500. The staff, apart from the caterers who pay us a contract fee, consist of three instructors, Bill Gotch the Manager, Assistant Secretary Ann Procter, Ground Engineer Warren Storey, Motor Transport Bob Lintern, Bar Steward Mary Dixon, and the Elsan Man. Last year we had an additional tow-car driver. For the benefit of our foreign readers, we do not receive any money from our Government; we are, however, allowed a rebate on petrol duty of 1s. 9d. per gallon. Petrol costs about 4s. 10d. per gallon.

Many times I hear: "Don't go to Lasham, it is too big." A northern club calls us "The Hub" (of gliding). We are big, yet our pilots are able to do productive flying to a very large extent. Lasham is not impersonal: we have more gliding songs than any other club in the country and the club spirit has never been higher. Many new ideas have been evolved. Way back at Redhill we decided that, once in the glider, it is yours until you land. This sensible rule has stood us in good stead. You have only to look at the list of records and fine flights to see why. Piggott's tape recordings, his dog-leg Gold C, since successfully repeated by other pilots, subsidised flights over 100 miles and cheap retrieving, all-the-year-round courses run by our own instructors and some from other clubs who are given board, pocket money and flying. Soaring ballots every week so that everyone gets a chance. The rule that no single-seater may leave the hangar apron without a ticking barograph in it.

That is Lasham. Apart from being a large club, we hope that it is developing into a centre which will be visited by pilots from all over the world for our mutual advancement. Already I claim that we are the largest and most successful unsubsidised gliding centre in the world. We do not want to compete with any other club in this country; we each have something to offer the other. But at Lasham we have almost unlimited space and excellent launching facilities which make getting into the air at the right time and at the right place a great deal easier. Britain leads the world in glider sales because of their design and low cost; if we can achieve our dream at Lasham, we will go a long way in all the other fields.

If these words sound bombastic, please believe that they are not meant to be. I have refrained from mentioning names as there are a large number of us who have worked to build up Lasham and I could not include them all. Philip Wills, in a previous issue of SAILPLANE AND GLIDING, wrote about the "World's Largest Centre". We only want to have the most successful, free from contol, where, as adults, we can achieve our aim of more productive and enjoyable gliding.

Results 1953-56

Year	*Total Launches*	*Club Hours*	*Private Owners Hours*	*Club Miles*	*Private Owners Miles*	*Days Soaring*
1953	6,466	708	100	1,037	377	68
1954	15,457	1,521	213	1,423	1,190	117
1955	18,238	2,304	392	3,038	1,189	157
1956	20,808	2,550	630	4,050	2,536	168

N.B.—The figures for 1953 are Surrey/Imperial College results only.

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"THE HUB" OF BRITISH GLIDING

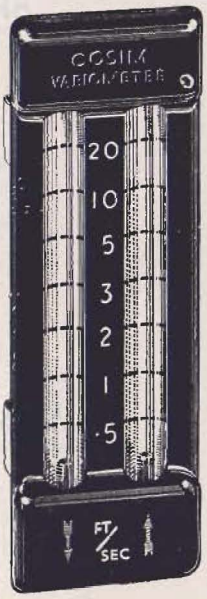
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27th July—5th August

ORGANISED BY THE SURREY AND ASSOCIATED GLIDING CLUBS

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The Organisers wish to thank the many helpers not listed above who have given up a great deal of time, or are devoting their annual holiday, to making the Championships a success.

Flying in the Championships

DURING recent years gliding performances have improved to such an extent that competitions no longer consist of pure distance flying; this would be impractical since the pilots are capable of flying so far each day that it would take all night to bring them back again. Today, in gliding championships all over the world, tasks are set by the organisers for each day's flying and the pilots have to try and complete these tasks. The tasks are based on distance and speed, and there are now no tasks for height or duration. Each day one of the following will be set:—

1. Free distance.
2. Distance along a set line.
3. Pilot selected goal.
4. Speed flights (point to point, out and return, dog leg or triangular).

The particular choice will depend on the weather and on the desirability of having some variety in the type of flying. The first day might, for example, be free distance, with each pilot trying to fly as far away from Lasham as he can in any direction which he likes; the winner for the day is the pilot who lands furthest away. The second day might be announced as a "speed flight" with a point to point race from Lasham to Bristol; in this case the winner for the day is the pilot who reaches Bristol in shortest time.

The particular "task for the day" is announced at the pilots' briefing in the morning, and once this has been done it cannot be changed. The pilot can have up to three launches each day and he can therefore make more than one attempt at doing the task which he has been set, but he can score marks only for his best flight that day.

Scoring is carried out by a system of marks and points according to a few simple formulae. These are worked out in such a way that the glider which puts up the best flight each day is awarded 100 points and the other gliders in proportion to their performance. To prevent the competition becoming, in unsuitable weather, a series of futile downward glides, a minimum performance is set. If no glider exceeds this performance, the day is declared as a non-contest day.

A full understanding of the method of marking can only be obtained from the detailed rules, but the following notes may help in showing the general system.

Free distance. One mark is given for each mile flown in excess of 20. Thus a pilot who goes 60 miles will get 40 marks; a flight of 140 miles, 120 marks and so on. At the end of the day the best performance is given 100 points and the others receive points in proportion.

Distance along a set line. The set line is announced at briefing; it may be straight, as for example Lasham-Lands End or kinked, Lasham-Hungerford-Lowestoft. Marks are given for the distance flown along the line with a severe penalty for those who land appreciably to one side of it. There is again a minimum distance to qualify; this is normally 20 miles but it may be reduced, and this would be done if the line of flight is set into a strong wind.

Pilot declared goal. This is practically the same as Free Distance; but before take off the pilot declares a goal of his own choice. If he lands there he gets a bonus of 20% on the distance he has flown in excess of 20 miles. He can fly beyond his goal if he wishes, but if he does so he forfeits his goal bonus.

Speed flights. The task is declared as a race to another aerodrome, or a race around a course with the finishing line at Lasham. It is quite impractical to start all the gliders together and see who finishes first; instead the time of each glider is taken from the moment of crossing a starting line at Lasham to the moment of crossing the finishing line. 40 points are given to each glider which completes the course, while in addition the glider with the shortest time is given an additional 60 speed points. Other gliders which complete the course are given speed points in proportion. Gliders which fall by the wayside obtain no speed points at all, but they are given points for the distance flown.

Since a glider may be flown by different pilots on different days, points are awarded to gliders and not to the individual pilots. The winning glider is naturally that with the largest number of points; as a maximum score of 100 points is awarded each day,

after three days the possible total is 300 and after four days, 400 points. However it is laid down in the rules that if there are more than four contest days, each glider's worst day's score will be disregarded and consequently if there are six contest days the possible total is 500.

THE LEAGUES. This year for the first time the competitors will be divided into two separate leagues—League One and League Two. This has been done so that tasks can be set which are appropriate to the pilot's skill. The two leagues are run as two quite separate competitions with different tasks, different scoring and if necessary, different times of take off.

For League 1 the tasks will be difficult and consist mainly of speed and into wind flying, whereas for the other league there will be more down and cross wind distance flying, rather easier races and the opportunity for the pilots to qualify for their Gold C distance (flights of 187 miles).

The competitors can in general choose the league in which they wish to fly except that those who have flown in International championships or been placed in the first five in the last three British Championships must fly in League 1, whereas those with no competition experience must fly in League 2. Single seater and two seater gliders will fly on equal terms in whichever league they are entered and more than one pilot may be entered to fly each glider.

ACKNOWLEDGMENTS

Donations, prizes and other help from the following are very gratefully acknowledged:

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P. A. Wills

AND MANY OTHERS BY WHOSE CO-OPERATION THIS MEETING HAS BEEN MADE POSSIBLE.

Buy SAILPLANE AND GLIDING (2/6d.) on the site for photographs and details of competing sailplanes, caricatures of pilots, articles on record-breaking flights and all the gliding news.

AWARDS

1. The 1957 British National Champion will be the Pilot (P.1) in League One who amasses the greatest number of points during the Contest in that League.
2. The Winner of League One will be the Entrant of the glider which amasses the greatest number of Points during the Contest in that League.
3. The Winner of League Two will be the Entrant of the glider which amasses the greatest number of Points during the Contest in that League.
4. Two Daily Prizes will be awarded each day normally to the glider which gets the highest marks in each League.
5. Prizes will be awarded to the best Team entry in each League.
6. Prizes will be awarded to the 1st, 2nd and 3rd Competitor in each of the two Leagues.
7. The Organisers may announce additional trophies and awards to be competed for during the Contests.

NATIONAL GLIDING CHAMPIONSHIP ANNUAL AWARDS

THE KEMSLEY CUP	To the Gliding Club whose glider has the highest placing in either League 1 or League 2.
THE LONDONDERRY CUP ..	To the winner of the Individual Championships in League 1.
THE L. DU GARDE PEACH TROPHY	To the winner of the Team Championships in League 1.
THE FURLONG TROPHY	To the winner of the Individual Championships in League 2.
THE FIRTH VICKERS TROPHY ..	To the winner of the Team Championships in League 2.
THE EON CUP	For competition among entrants of whichever type of British built glider is numerically the strongest in both Leagues, awarded to the entrant of the glider of that type having the highest placings in either League.
THE SLINGSBY TROPHY	For competition among entries of whichever type of two-seater glider is numerically the strongest in both Leagues, awarded to the pilot/s of the glider of that type having the highest placing in either League.

YEARLY AWARDS

The following Cups and Trophies are also open to Competition by British Nationals for the year ending 31st December:—

DE HAVILLAND CUP	Greatest height during the year.
MANIO CUP	Best goal flight during the year.
WAKEFIELD TROPHY	Longest distance during the year.
VOLK CUP	Best Out and Return flight during the year.
SEAGER CUP	Best two-seater performance during the year.
DOUGLAS TROPHY	The Club putting forward three Flights by three different Club members in Club aircraft, aggregating the largest total cross-country mileage.
CALIFORNIA IN ENGLAND TROPHY	Longest distance by a Woman pilot during the year.

GLIDING RECORDS

Single-Seaters	INTERNATIONAL	BRITISH NATIONAL
DISTANCE	R. H. Johnson (U.S.) 535mi.	H. C. N. Goodhart (in U.S.A.) 318 mi.
HEIGHT GAIN	W. S. Ivans (U.S.A.) 29,100 ft.	P. A. Wills (in N.Z.) 28,200 ft.
ABS. ALTITUDE	W. S. Ivans (U.S.A.) 42,100 ft.	H. C. N. Goodhart (in U.S.) 37,050 ft.
GOAL FLIGHT	R. Fonteilles (France) 421 mi.	H. C. N. Goodhart (in U.S.) 318 mi.
GOAL & RETURN	L. A. Maxey (U.S.A.) 311 mi.	R. C. Forbes (in U.S.) 217 mi.
100-KM. TRIANG.	J. Wojnar (Poland) 57 mph.	D. A. Smith (in Poland) 37 mph.
200-KM. TRIANG.	E. Makula (Poland) 42 mph.	P. A. Wills (in France) 33 mph.
300-KM. TRIANG.	G. A. J. Goodhart 48 mph.	G. A. J. Goodhart (N.S.W.) 48 mph.

Multi-Seaters		
DISTANCE	U.S.S.R., 515.6 miles	L. Welch & F. G. Irving, 254 mi.
HEIGHT GAIN	U.S.A., 34,425 ft.	A. D. Piggott & B. Whatley, 15,240 ft.
ABS. ALTITUDE	U.S.A., 44,255 ft.	
GOAL FLIGHT	Poland, 336.3 miles	J. Williamson & D. Kerridge, 131 mi.
GOAL & RETURN	S. Africa, 270.9 miles	H. C. N. Goodhart & F. Foster, 141 mi.
100-KM. TRIANG.	Germany, 49.7 mph.	D. B. James & D. Marshall, 35 mph.
200-KM. TRIANG.	Poland, 41 mph.	
300-KM. TRIANG.	Yugoslavia, 40 mph.	

UNITED KINGDOM RECORDS

These may be set up by pilots of any nationality starting from the U.K., whereas British National records are set up by citizens of the U.K. in any country.

Single-Seaters

DISTANCE	J. Hulme on 27.5.57, Cambridge-Truro, 268 miles.
GAIN OF HEIGHT	A. D. Piggott on 14.7.55 at Lasham, 21,000 ft.
ABSOLUTE ALTITUDE	A. D. Piggott on 14.7.55 at Lasham, 22,800 ft.
GOAL FLIGHT	A. W. Bedford on 2.5.51, Farnborough-Newcastle, 257 mi.
GOAL & RETURN	P. A. Wills on 3.6.51, Redhill-Little Rissington, 163 mi.
SPEED, 100-KM. TRIANGLE	A. J. Deane-Drummond on 21.4.57, from Lasham, 31.9 mph.
SPEED, 200-KM. TRIANGLE	A. J. Deane-Drummond on 20.5.56, from Lasham, 20.5 mph.
SPEED, 300-KM. TRIANGLE	A. J. Deane-Drummond on 19.4.57, from Lasham, 32.3 mph.
SPEED TO 100-KM. GOAL	D. G. Goddard on 30.7.56, Lasham-West Malling, 67.2 mph.
SPEED TO 200-KM. GOAL	B. Thomas on 7.8.55, Camphill-Ferryfield, 42 mph.
SPEED TO 300-KM. GOAL	E. A. Moore on 27.5.57, Lasham-Perranporth, 57.4 mph.

Multi-Seaters

These U.K. records are the same as for British National, except the following:—

GOAL & RETURN	D. G. Goddard & T. Hargreaves on 28.4.56, 84 miles.
SPEED TO 100-KM. GOAL	D. B. James & K. O'Riley on 27.5.57, 60 mph.
SPEED TO 200-KM. GOAL	J. Williamson & D. Kerridge on 9.4.55, 34.9 mph.

Women's Records, British National & U.K. Local

DISTANCE	Mrs. Ann Burns on 6.4.57, Lasham-Harrowbeer, 145 miles.
GAIN OF HEIGHT	Mrs. Ann Burns on 2.12.56, at Long Mynd, 10,500 ft.
GOAL FLIGHT	Mrs. Rika Harwood on 27.5.57, Lasham-Yeovil, 74 miles.
SPEED, 100-KM. TRIANGLE	Mrs. Ann Welch on 12.6.57, 22.6 mph.
SPEED TO 100-KM. GOAL	Mrs. Rika Harwood on 27.5.57, 51.6 mph.

Single-Seater Records Awaiting Confirmation

U.K. GOAL & RETURN	A. J. Deane-Drummond on 1.6.57, approx. 197 miles.
NAT. & U.K., 200-KM. TRIANG.	A. J. Deane-Drummond on 2.6.57, approx. 38 mph.
U.K. 300-KM. TRIANGLE	H. C. N. Goodhart on 23.6.57, approx. 41.2 mph.
U.K. 100-KM. TRIANGLE	F. Foster on 23.6.57, approx. 46.3 mph.
WOMEN'S NAT. & U.K. DIST.	Mrs. E. Deane-Drummond on 23.6.57, approx. 155 mi.

Entries in E

Contest No.	PILOTS
1	P. A. Wills
2	A. Pickup, J. H. Hickling
3	A. Coulson
4	W. A. H. Kahn
5	F. Foster
6	Cdr. H. C. N. Goodhart
8	G. H. Stephenson, E. J. Furlong
9	Lt.-Col. A. J. Deane-Drummond
11	J. C. Neilan, L. Welch, M. Seth-Smith, D. de Boulay
13	Cpl. J. C. Cotton
15	W. N. Tonkyn
16	Sgt. A. W. Gough
20	D. H. G. Ince
21	J. S. Williamson
22	D. B. James, W. Shephard
29	Fl./Lt. K. C. Fitzroy
40	G. H. Lee, R. C. Stafford-Allen
42	C. A. P. Ellis
44	A. H. Warminger
56	G. S. Neumann, P. J. Neilson
58	D. M. Kaye, F. Breeze
59	P. L. Bisgood
64	D. A. Smith
66	F. G. Irving, P. Minton
68	A. D. Piggott
73	Cdr. G. A. J. Goodhart
74	J. Tweedy, B. Thomas
75	
76	K. O'Riley

Entries in

7	J. V. Inglesby
10	P. Scott, P. Collier
12	Brig. N. J. Dickson, Major R. C. H. Barber, W.O.II. E. Stark
14	A. O. Sutcliffe, J. M. Hahn, T. R. H. Parkes
17	S. Morison, W. Monteith, I. A. King
18	G. Benson, C. Green, J. Knotts

EAGUE ONE

ENTRANT	GLIDER	Total Points	Final Pos.
P. A. Wills	Skylark III		
J. H. Hickling and Partners	Skylark II		
A. Coulson and Partners	Skylark III		
W. A. H. Kahn and Partners	Olympia		
F. Foster and Partners	Skylark II		
Cdr. H. C. N. Goodhart	Skylark III		
E. J. Furlong and Partners	Skylark III		
Lt.-Col. A. J. Deane-Drummond	Skylark III		
M. V. Laurie and Partners	T42 b		
Army Gliding Club	Skylark II		
Imperial College Gliding Club	Skylark II		
R.A.F.	Skylark III		
D. R. Clayton and Partners	Skylark III		
Surrey Gliding Club	Weihe		
R. Procter and Partners	Gull II		
R.A.F.	Gull IV		
G. H. Nixon and Partners	Olympia		
D. A. Smith	Olympia		
A. H. Warminger	Skylark III		
Cambridge University Gliding Club	Skylark II		
Derbyshire and Lancashire Gliding Club	Skykark II		
Empire Test Pilots' School	Sky		
London Gliding Club	Sky		
Slingsby Sailplanes, Ltd.	Skylark III		
Surrey Gliding Club	T42 a		
H. C. G. Buckingham	Olympia IV		
Tweedy and Partners	Sky		
Cdr. G. A. J. Goodhart			
How and Bridges	Olympia		

AGUE TWO

J. V. Inglesby	Olympia		
P. Scott	T42 b		
Army Gliding Club	Skylark II		
Bristol Gliding Club	Olympia		
Shorts Gliding Club	Short Nimbus		
G. Benson and Partners	Skylark II		

Contest No.	PILOTS
23	Mrs. G. Harwood
24	Sq./Ldr. J. L. Bayley
25	A./Cdre. G. J. C. Paul
26	Fg./Off. D. Ellis
27	Sgt. M. Jobling
28	Wg. Cdr. N. W. Kearon
30	Fl./Lt. F. Allen
31	Sq./Ldr. C. S. Scorer
32	H. A. Pitt-Roche
33	J. N. Cochrane, B. J. Palfreeman
34	R. D. Dickson, H. Corney
35	G. W. Mackworth-Young, E. A. Moore
36	P. Hampton, D. Scallon
37	J. B. Jefferson, A. H. Baynes, K. W. Blake
38	J. D. Jones, M. J. Hodgson
39	B. E. Lastowski
41	R. Rutherford
43	J. E. Torode, G. Burton, D. Martlew
45	J. C. Riddell
46	E. Day
51	Fl./Lt. R. C. Jones, Fl./Lt. W. Verling, Fg./Off. Whittenbury, Fg./Off. Denman
52	Fl./Lt. J. Oliver, Sq./Ldr. Hunt, Fg./Off. Naylor, Fl./Lt. Mawson
53	Sq./Ldr. P. Hart, Fg./Off. Ladley, Fl./Lt. Binder, Fl./Lt. Pearson
54	Sq./Ldr. Hayter, Fg./Off. Allan, Fl./Lt. Mackenzie Lowe, Fl./Lt. Farrell
55	J. H. E. Edwards, A. A. McDougall, A. W. F. Edwards, C. R. Vandome
57	G. R. Whitfield, M. I. Gee, M. C. Jackson
60	R. J. Cockburn
61	M. P. Garrod, C. W. Bentson
62	J. M. Hands, S. R. Dodd
63	J. C. Everitt, P. Dirs
65	R. Brett-Knowles, E. J. Robinson
67	J. H. Holder, D. Snodgrass
69	J. K. Mackenzie
70	B. Sinclair, G. R. Paddick
71	H. Hilditch, J. Simpson, D. Kerridge
72	N. Anson
77	R. A. Young

TWO (continued)

ENTRANT	GLIDER	Total Points	Final Pos.
Crown Agents Gliding Club and Ptnrs.	Olympia		
R.A.F.	Kranich		
R.A.F.	T21b (Sedbergh)		
R.A.F.	Olympia		
R.A.F.	Olympia		
R.A.F.	Olympia		
R.A.F.	Gull I		
R.A.F.	Grunau 2b		
H. A. Pitt-Roche and Partners	Sky		
R. H. Perrott and Partners	Skylark II		
R. G. F. Fowler and Partners	Gull IV		
E. A. Moore and Partners	Skylark II		
P. Hampton and Partners	Skylark II		
B. Thomas and Partners	Skylark II		
J. D. Jones and Partners	Olympia		
Polish Air Force Association Gliding Club	Olympia		
P. A. Macnaughton and Partners	Skylark II		
J. E. Torode and Partners	Petrel		
J. C. Riddell and Partners	Skylark I		
E. Day and Partners	Sky		
A.T.C./R.A.F.	T21b (Sedbergh)		
A.T.C./R.A.F.	T21b (Sedbergh)		
A.T.C./R.A.F.	T21b (Sedbergh)		
A.T.C./R.A.F.	T21b (Sedbergh)		
Cambridge University Gliding Club	T21b (Sedbergh)		
Cambridge University Gliding Club	Olympia		
Empire Test Pilots' School	Olympia		
London Gliding Club	Olympia		
London Gliding Culb	Skylark II		
London Gliding Club	T21b (Sedbergh)		
R.N.G.S.A.	Kranich		
Southdown Gliding Club	Olympia		
Surrey Gliding Club	Olympia		
Surrey Gliding Club	Olympia		
Surrey Gliding Club	Olympia		
N. Anson and Partners	Olympia		
R. A. Young	Schweizer SGS 1-26A		

Learning to Glide

THERE are many different reasons why people start flying gliders. For some it is merely a cheap way to eventually flying aeroplanes; for others it is a means of getting into the air which is less noisy, or nearer their home than a flying club, or by which they can solo at 16 instead of 17. But for most people the reason that they continue to go on flying gliders is invariably not the often mundane one which prompted them to start. For gliding is a sport, which gets more and more fascinating the more skilled the pilot becomes. All cross-country flights, and soaring inside thunderstorms, can only be achieved by the pilot's own efforts. There is no question of just opening a throttle and pointing the aircraft in the right direction. All the lift the pilot needs must be found and used with skill and cunning, and at the end of every cross-country flight the pilot must choose a strange landing place, perhaps 10 miles away, perhaps 200, from home. The unexpectedness of gliding is one of its greatest charms.

A list of gliding clubs is given on another page, and for more detailed information about a particular Club you should if possible visit it one Saturday or Sunday, introduce yourself, watch what goes on, and perhaps have a ride in the two-seater.

It is impossible to estimate costs in advance, as this depends very much on how often you visit your Club, and how much flying you do. You will find out that many people enjoy this sport who have quite modest incomes, and as most of the work is done by members themselves, costs are kept down. For members coming from a distance most Clubs have bunkhouse accommodation. Many Clubs hold holiday courses during the summer where you can spend a week or a fortnight packing in the elementary lessons in as short a time as possible. The prices range from 12 gns. to 21 gns., depending on the length of the course, but this includes full board and lodging for the period, gliding instruction and flying charges.

When you first start you will be introduced to your instructor who will take you up for a short flight in a two-seater to see how you like it. The glider will be launched either by winch or car tow, and before the instructor releases the wire, you will probably have reached about 800 ft. in a steady, steep climb. After the launching wire has fallen away the instructor will adjust the speed to about 37 m.p.h., and will fly you on a wide circuit of the aerodrome. It will be easy for him to explain what is happening and what interesting landmarks to look out for, because the only sound will be the gentle whistle of the air past the glider.

After this flight your training begins in earnest. First you are taught the use of the controls, and how to fly straight, and make gentle turns, then how to take off and climb up, and how to make an approach and landing.

You will also have to learn stalls and spins, not because it is necessary for you to be able to do them, but because it is important that you learn to recognise how inadvertent bad flying can lead to stalling the glider, and what you must do to recover from a stall or spin should you still be so careless as to do one by mistake.

After a while you will be flying the glider from take off to landing without much help from the instructor, and when he is finally satisfied that you can fly circuits properly, and are able to deal with such possible occurrences as the cable breaking on the launch, you will go on your first solo. From this point on, although you will have further dual flights to see that you do not get into bad habits, it will be up to you to put in as much practice as possible until you can fly the glider really well, and have learnt to find and use the lift that will carry you high above the gliding site, so that you can visit the clouds and fly for miles over the country.

You will find it helpful to do some reading on the subject before attending a course or joining a Club. Among many books which may be obtained from the bookstall on this site or from the British Gliding Association are, for a general introduction to the subject "On Being a Bird" by Philip Wills (cheap edition, 5s.) and, for the theory of gliding, "Elementary Gliding" by Paul Blanchard (also 5s.).

SAILPLANE AND GLIDING is a magazine published every other month (2s. 6d. per copy) which you will find full of news and views about gliding.

BRITISH GLIDING CLUBS

IN this list of Full and Associate Member Clubs of the British Gliding Association, the club name, site and telephone number, Secretary's address and telephone number (if any) are given in order.

Full Member Clubs

AIR TRAINING CORPS (Maidenhead 2300). S/Ldr. P. I. Hart, D.F.C., H.Q. Home Command, White Waltham, Maidenhead.

ARMY GLIDING CLUB, Lasham Aerodrome, Alton, Hants. (Herriard 270). (Lt.-Col. Sir Charles Dorman, Royal Military College, Shrivenham, Wilts.

BRISTOL G.C., Nympsfield, nr. Stroud, Glos. (Uley 342). The Manager, at the Club.

CAMBRIDGE UNIVERSITY G.C., Marshall's Aerodrome (Cambridge 56291). B. H. Smith, 316 Cherry Hinton Road, Cambridge (Cambridge 87411).

COVENTRY G.C., Baginton and Edgehill aerodromes (Toll Bar 3176). M. Stather Hunt, 17 Anchorway Road, Green Lane, Coventry, Warwickshire (Kenilworth 846).

DERBYSHIRE & LANCASHIRE G.C., Camphill, Gt. Hucklow, Derbys. (Tideswell 207). The Secretary at the Club.

IMPERIAL COLLEGE G.C., Lasham Aerodrome, nr. Alton, Hants. (Herriard 270). Secretary, Imperial College Union, Prince Consort Road, S.W.7 (Kensington 4861).

KENT G.C., Detling aerodrome, Maidstone. Mrs. Gardiner, 1 Devon Gardens, Birchington, Kent (Thanet 41453).

LONDON G.C., Dunstable Downs, Beds. (Dunstable 419). The Manager, R. Stafford-Allen, at the Club.

MIDLAND G.C., Long Mynd, Church Stretton, Salop. (Linley 206). S. H. Jones, 43 Meadowbrook Road, Halesowen, Worcs.

NEWCASTLE G.C., Usworth. Miss D. Hails, 30 Station Road, Forest Hill, Newcastle-upon-Tyne, 1.

OXFORD G.C., Weston-on-the-Green aerodrome, Bicester. J. Gibbons, 70 Linkside Avenue, Five Mile Drive, Oxford.

SCOTTISH GLIDING UNION, Portmoak, Scotlandwell, Kinross. W. S. Adamson, 12 Leebank Drive, Netherlee, Glasgow, S.4.

SOUTHDOWN G.C., Firle Beacon, Lewes. Mrs. Glassborow, 4 Elmer Court, Elmer Sands, nr. Bognor Regis, Sussex.

SURREY G.C., Lasham aerodrome, Alton, Hants. (Herriard 270). P. A. Riddoch, 1 Roland Gdns, S.W.7, *or* the Club Manager.

YORKSHIRE G.C., Sutton Bank, Thirsk, Yorks. (Sutton 237). Mrs. M. H. Lawson, 607 Anlaby Road, Hull, Yorks.

R.A.F. GLIDING & SOARING ASSN. Sites at Swinderby, Feltwell, St. Atham, Bicester, Lyneham, Andover, Wittering and Scampton. S/Ldr. C. G. Parsons, R.A.F. Record Office (Unit), Innsworth, Glos.

ROYAL NAVAL GLIDING & SOARING ASSN., Sites at Eglinton, Arbroath, Gosport, Lossiemouth, Yeovilton, Culdrose and Bramcote. Lt.-Cdr. L. F. Coulshaw, R.N., R.N. Air Station, Arbroath, Angus. (Arbroath 2201, Ext. 31).

Associate Member Clubs

ABERDEEN GLIDING CLUB, Fraserburgh Airfield. A. J. Milne, Lawsondale Cottage, Kingswells, Aberdeen.

AVRO G.C., Woodford Aerodrome (Bramhall 1291). W. Parker, A. V. Roe & Co. Ltd., Greengate, Middleton, Manchester (Failsworth 2020, Ext. 67).

BLACKPOOL & FYLDE G.C., Squires Gate Airport (South Shore 43529). J. S. Aked, 99 South Promenade, St. Annes-on-Sea, Lancs. (St. Annes 297).

COLLEGE OF AERONAUTICS G.C., Cranfield aerodrome. J. C. Gibson, College of Aeronautics, Cranfield, Bletchley, Bucks.

CORNISH GLIDING (AND FLYING) CLUB, Perranporth aerodrome. J. W. S. Berry, Parc Sparbles, Carbis Bay, St. Ives.

CROWN AGENTS G.C., Lasham aerodrome. J. E. G. Harwood, 4 Millbank, Westminster, London, S.W.1.

HANDLEY PAGE G.C., Radlett aerodrome (Radlett 5651). Mrs. A. Essex, Handley Page Ltd., N.W.2. (Park Street 2266).

ISLE OF WIGHT G.C., Sandown Airport. P. Ward, Alsace, High Park Road, Ryde.

NORTHAMPTON G.C., Sywell aerodrome. A. G. Clarkson, 6 Mill Road, Kettering.

PERKINS SPORTS ASSN. G.C., Polebroke Aerodrome. A. V. Samwell, Perkins Sports Association, Peterborough, Northants.

POLISH AIR FORCE ASSN. G.C., Lasham aerodrome. T. S. Kasperkiewicz, 14 Collingham Gardens, London, S.W.5. (Frobisher 1051).

ROYAL ENGINEERS G.C., Detling Airfield. Capt. G. F. Page, 21 Field Engineering Regt., Invicta Lines, Maidstone, Kent.

TAUNTON VALE G.C., Dunkeswell. Miss R. Edmonds, Fosse End, North Curry, Taunton.



LASHAM GLIDING CENTRE comprises: Surrey G.C., Imperial College G.C., Army G.C., Crown Agents G.C., Polish Air Force Assocn. G.C.

R.A.F.G.S.A. Clubs at the following R.A.F. Stations: Andover, Bicester, Duxford, Marham, St. Athan, Wittering, Upavon.

R.N.G.S.A. Clubs at following R.N. Air Stations: Arbroath, Bramcote, Culdrose, Gosport, Lossiemouth, Yeovilton.

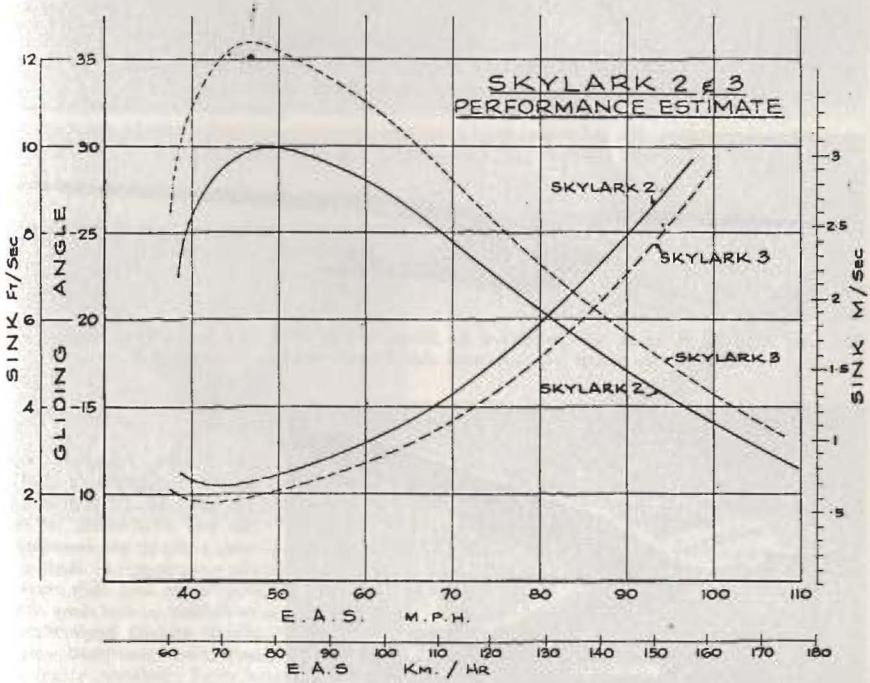
A New Estimate of "Skylark" Performance

So much flying has now been done on the Slingsby Skylark 2 and Skylark 3 types, that it has become increasingly obvious that their performance, as originally calculated when they first appeared, has been underestimated. For instance, it is now generally agreed that the best gliding angle of the Skylark 2 is not less than 1 in 30 and that of the Skylark 3 not less than 1 in 36.

So, using these figures as a basis, Messrs. Slingsby have re-estimated the performance of both types, and Mr. J. C. Reussner, on behalf of the firm, has sent us the resulting curves given below. It is possible that even these curves may be too conservative, as some pilots claim to have obtained even higher performances on occasion. Messrs. Slingsby would be interested in having the comments of Skylark pilots on these estimated performance curves.

The curves starting at top left show that the Skylark 3 achieves its best gliding angle of 1 in 36 at 47 m.p.h. (76 km.p.h.) and the Skylark 2 its best, 1 in 30, at 49 m.p.h. (79 km.p.h.). The curves starting at bottom left give the Skylark 3 a minimum sinking rate of 1.8 ft. (55 cm.) per sec. at 42 m.p.h. (68 km.p.h.), and the Skylark 2 a minimum sink of 2.2 ft. (67 cm.) per sec. at 43.m.p.h. (69 km.p.h.).

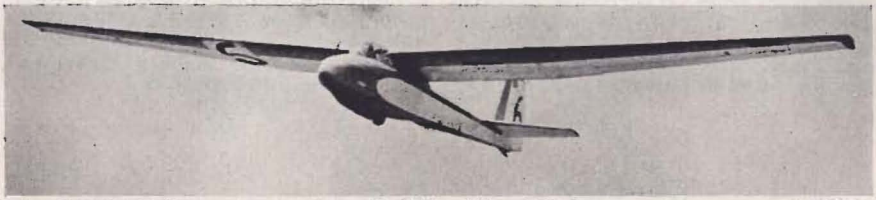
As to high-speed performance, a sink of 2 metres per second (6.56 ft./sec.) corresponds to a speed of 87 m.p.h. (140 km.p.h.) and a gliding angle of 1 in 20.3 for the Skylark 3, and 82½ m.p.h. (133 km.p.h.) and 1 in 19½ for the Skylark 2.



Some of the Competing Sailplanes



The Slingsby Skylark, with laminar-flow wings, first appeared in 1953. The Skylark 2, shown above, is an improved version, and the Skylark 3 has a larger span, 59 ft.



The Slingsby T-42 two-seater, also called "Eagle", of 58 ft. span, first appeared in 1954, flying in the World Championships. A modified version is the T-42b.



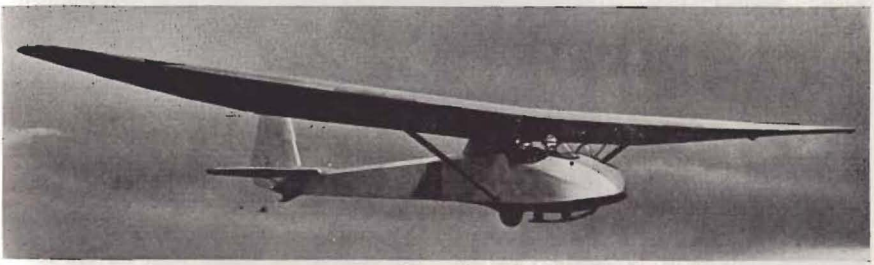
The Gull I, of 50 ft. span, was produced by Slingsby's in 1938 and many were made. An enlarged two-seater version, with side-by-side seating, is the Gull II.



The Short Nimbus two-seater, produced in 1947, has an unusual feature in the low attachment of the wing roots at the bottom of the fuselage. Built at Rochester and then moved to Belfast, it has done little flying and its performance will be watched with interest.



The Olympia, of 49 ft. span, produced by Messrs. Elliotts of Newbury, is based on a "one-class" design intended for the abortive Olympic Games of 1940.



The Slingsby T-21b two-seater or "Sedbergh", with seating side by side, came out just after the war and is the standard training machine in many countries.



The Petrel, of 59 ft. span, was produced by Slingsby Sailplanes in 1938. It has a remarkable low-speed performance but a poor speed-range, in spite of which it won the Midland Gliding Club's Easter Rally in competition with nine modern Skylarks. Evidently its owners know how to get the best out of it, and they will be worth watching.



The Grunau Baby II, of 46 ft. span, designed in 1932 and still going strong, has been the most widely used sailplane in the world, over 40,000 having been built. The only major change found necessary in a quarter of a century has been the addition of air brakes. It has a reputation for docility, having been designed in the days of all-solo training.

The "Sea Eagle" Tries Her Wings

by Peter Scott

Peter Scott, Director of the Wildfowl Trust in the Severn Estuary by the Bristol Gliding Club's site at Nympsfield, had done many years' sailing on the sea when he decided, just over a year ago, to take up sailing in the air. He believes that both forms of sailing are best done with a companion, and here presents his case for the private owner operating a two-seater sailplane in preference to a single-seater, illustrating it with his own experience of owning and flying a Slingsby Eagle.

I MADE my first flight in a sailplane at Easter 1956. We soared for 20 minutes in the T21 in dry thermals and I was caught —hook, line and sinker. At Whitsun my training began and about three weeks later, with the aid of 50 hours power flying and the infinite patience of Peter Collier, I finally staggered into the air by myself in a Tutor. In July I joined an Olympia syndicate and spent many memorable hours soaring over the Cotswold edge, five of them dedicated to a specific if tedious purpose connected with the Silver C Certificate.

There seemed at this time only one shortcoming to these delights—that I could not share them with my wife and my family and my friends. I could only store up my adventures to be retailed endlessly to a long-suffering audience over consistently belated evening meals. Somehow it was not quite satisfactory. I recalled that the same problem had faced me when trying to decide whether to sail International Canoes (single-handed), or International 14 ft. Dinghies (two up); and I came to the conclusion that the arguments which had then decided me in favour of Dinghies were still, for me, applicable to sailplanes. At about this time I read about the success of the T42 at St. Yan and soon afterwards I found myself by chance not far from Kirbymoorside.

Thus it came about that at Easter 1957 a superb and shiny cream-and-flame Eagle was dragged from its trailer at Lasham to be test-flown by Lorne Welch and Frank Irving. On the evening of Good Friday she was formally handed over and the next test, conducted by Derek Piggott, was to ascertain whether her owner was fit to fly her. The results of this test were marginal. My second aerotow ever was a distressingly jerky affair (my first had been in half a gale in New Zealand); my cloud flying was deplorable, and my copy-book was finally and lamentably blotted by an approach turn which took our starboard wing tip below the tops of the (extremely) near-by trees. In spite of all this, however, my wife and I had our first flight together later that morning, soaring locally for an hour and a half, and by nightfall we had flown our Eagle for 4 hrs. 56 mins.

The first and second Eagles ever built were of course, also at Lasham. The second, painted blue, is known as the Blue Eagle, B-Eagle or Beagle. Clearly the third Eagle to be built must be the C-Eagle or Sea Eagle. The first two Eagles were markedly different in design, but the Sea Eagle differs from its immediate predecessor only in the size of its dive-brakes and having a longer snout by about six inches. On Easter Sunday it was time to take her home to the Bristol Gliding Club at Nympsfield and we had decided to try to fly back. To bolster our resolve the trailer went on the night before, and to tempt providence even further we rang up Sling, who was at Nympsfield for a few hours, asking him to delay his departure until we arrived. Then, taking a cue from Tony Deane-Drummond who was about to break the 100 km. triangle record, Peter Collier and I got the next launch and were away on the Sea Eagle's first cross-country.

The flight itself was cautious and slow. The only important thing was to arrive. Only twice in the early stages were we momentarily apprehensive when the altimeter dared to slip below 3,000 a.s.l. But then at Swindon with 25 miles still to go the day changed ominously. Ahead was a high grey sky and the remaining puffs of cumulus dissolved before our eyes. We dashed for the last one and squeezed to 4,500 a.s.l. (3,800 above Nympsfield) in the very last dregs of its lift. The wind was abeam and no help to us at all. Suddenly there was nothing left to do but glide on and hope. Being more familiar with the cockpit attitude of the Olympia, we could neither of us believe that the apparently steep downward tilt of the Eagle would get us to the



The "Sea Eagle" has just arrived at Nympsfield from Lasham after its first cross-country flight. The two pilots, Peter Scott (left) and Peter Collier get out as the canopy is held up by the Bristol Club's membership secretary, Mrs. Joy Jones.

dim distant edge of the Cotswold. But that is precisely what it did. There came a moment as we flew along with doubt-filled hearts when I noticed we were opening out the fields in the valley beyond; we were unquestionably gaining; we were going to get there; success was ours. We arrived still 1,200 ft. above the site, with incomparable feelings of relief, and noted in a moment of competitive satisfaction that an Olympia launched just before us with the same declared goal had not yet arrived.

I intended to land at the launch point but the approach was rather high so that we ran down the hill to the hangar; this was all to the good for we came to rest a few yards from a group of pundits clustered round the distinguished designer of our aircraft. As we opened the canopy we felt that it needed only a couple of laurel wreaths and some champagne to complete the picture of triumph.

Ten days later I decided to put the Sea Eagle through her paces as a single-seater. The day had been good to begin with; then the cumulus suddenly faded away before I could be launched. The sky looked dead, but when I was finally airborne I was amazed at the power of the blue thermal that whisked me to 3,500 ft. almost vertically over the site in spite of the 20-knot easterly wind. When that one petered out and I found a second one quite near, I decided to turn down wind for a Silver C distance. I flew ten miles without a smell of lift, bitterly regretting my decision; then I found a small one and drifted along, circling in no sink which took me past Bristol. There was more powerful stuff beyond and I climbed in rings between the new Chew Valley Lake and the old and famous fisherman's paradise, Blagdon.

There were patches of no sink on the gentle slope of the Mendips to their lip, but by now I was outside the 32-mile circle from Nympsfield and I had to think of the next objective. I unfolded the map and at once my eye lit upon Yeovilton. Was not this the home port of the World Champion two-seaterer, and had he not asked me to drop in if I was passing? Furthermore, might he not have an aircraft capable of towing me back to Nympsfield? The only trouble was that I had to turn sharply south across the strong east wind to get there. But it seemed the best thing to do, especially as I had gone away on the spur of the moment without making any arrangements for a retrieve. As I slipped into the lee of the Mendips just north of Wells on this glorious cloudless day, I hit rather powerful turbulent lift. I circled and was taken up to 4,000 a.s.l., at which height, as before, the lift petered out and I could see the flat line of the inversion sitting on top of the haze. I thought I made this and the next climb in wind-shadow thermals. Only later was it suggested to me that there might have been

some kind of low altitude lee-wave system operating to the west of Mendip escarpment. I wasted a lot of time trying to get Silver C height out of these climbs, but the inversion beat me every time. My last attempt was almost over Yeovilton, but I was less successful than earlier, although I reached 3,500 a.s.l. I might have headed off for Exeter or points yet further west, but I decided that, having achieved the necessary distance for which I had set out, I should not now increase the retrieving problem. So with three loops and a couple of ropey chandelles I landed at the foot of the control tower and glanced upwards expecting to see some outraged faces at the window. It was deserted; but a few seconds later the Champion himself hove into sight and immediately everything was under control. To be sure there was no aircraft available which would tow the Sea Eagle back to Nympsfield, but Nick Goodhart laid on the next best thing—immaculate hospitality while awaiting retrieve. Eventually my wife arrived with the trailer and some unfortunate guests who had not bargained for such a jaunt but seemed to take it all in good part, though we didn't get home until 1.30 in the morning.

On Sunday, 5th May, the opportunity arose for the last remaining Silver C test. I strapped a barograph into the back seat like a tiny but infinitely precious passenger and wound myself up in one thermal to 4,500 ft. above the point of launch without going more than 100 ft. or so into cloud. Half an hour later I was back on the ground embarking a more substantial and more responsive passenger. I definitely prefer two-seatering.

The following day, Monday, produced a sky full of macaroon-shaped cumulus arranged in irregular streets with 15 knots of northerly breeze. Peter Collier and I decided to continue our practice for the Comps. by trying a 100-km. triangle. The National two-seater record stood at 19.7 m.p.h., so we might at the same time try to improve on it.

The clouds seemed to be spreading out, so we conceived the notion that there was a great hurry to be airborne. We clicked off the necessary photograph of our observer and were hoisted onto the ridge which was not working properly. After 20 minutes of scraping we realised we had made no plan for a flying start, so we went back to arrange it. Our second launch at first

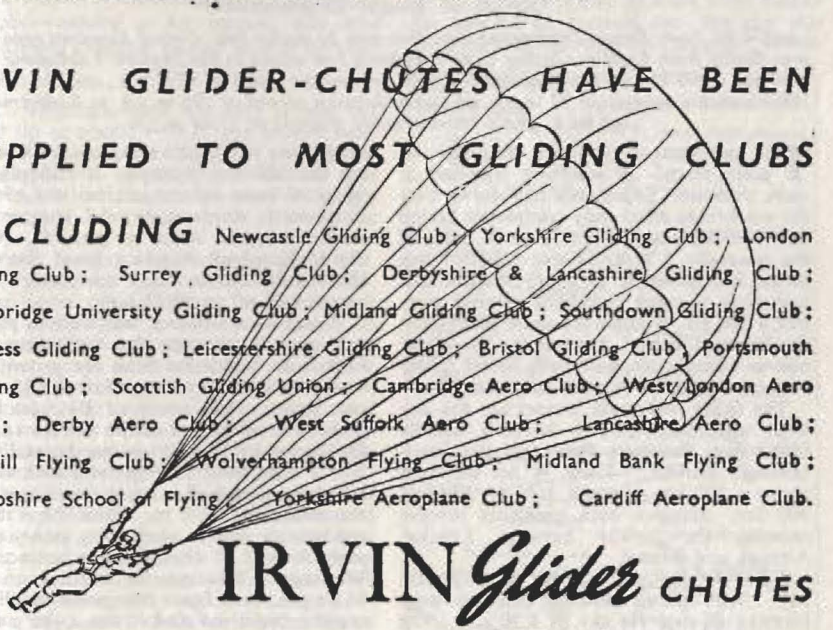


seemed equally fruitless, but at 400 ft. we caught a fruity thermal that took us up fast, but drifted us some way down wind of the site. At 3,500 ft. above site we left it and headed up wind towards the cloud street which was to be the first leg of our triangle. I reckoned that to be on the safe side we should cross the starting point not higher than 3,000 ft. above it and the extra 500 ft. could be lost in the mile or so we had drifted down wind; so I put the nose down to 60 m.p.h. But that was not enough to suppress the green ball. At 100 m.p.h. I managed to raise the red one and we just worked down to 3,000—a safety margin of 281 ft.—by the time we crossed the launch point. Then I pulled the stick back and converted some of our speed into height. I flew at about 50 m.p.h. and the green ball varied between 3 and 20 ft./sec. Flying straight and level, we were soon 1,000 ft. higher than when we started. I doctored the course in accordance with the cloud shadows and we hurtled towards Tewkesbury. We agreed that we should try to remain higher than 3,000 ft. above site (3,700 ft. a.s.l.) and that we would not bother to go far into cloud. Just before we reached Tewkesbury, with the altimeter at 3,500 above site, we decided to do our

first circling, as we were in a patch of very strong lift. It kept the green ball steadily at the top of the tube for the four or five circles which took us to cloud base at 5,000 ft. At Tewkesbury our luck temporarily deserted us. There was a good cloud over the town but we couldn't find its lift, and we performed two tight turns in strong sink while Peter snicked away with his camera. Half a mile further on on the new course, we found the lift and regained our loss. The clouds were now less in streets and more in amorphous patches and it was not difficult to select a cross-wind course to take us towards Little Rissington. Just north of Cheltenham we stopped again to circle—nearly half way round the triangle and so far only three thermals to make circles in. As we got to cloud base Peter suddenly came to life after a long silence. I heard him tap his altimeter and gasp "You've put on height pretty quickly this time." I thought he had been timing our climb but he explained that he had been reading SAILPLANE AND GLIDING and trying to understand that chart of Tony Deane-Drummond's about gliding to a goal. It seems he had not been entirely successful.

At Little Rissington there were two Meteors and a Canberra in the circuit below us and we were down to a bare 3,000 ft. Again our tight turns for the photographs were in sink and we headed off towards home to get clear of the other aircraft. (In passing, it is interesting to note that we were not observed from the ground.) There was a good cloud ahead, but slightly down wind, and for a while its lift eluded us. For the first time anxiety loomed up. There was a disused airfield just ahead of us. Peter said he couldn't identify it as it wasn't on the map. "Never mind," said I, "we'll soon know because we'll be landing on it in a few minutes." But a timely burble of lift led us quickly to yet another fountain of hot air and up we went to 4,000 ft., which should have been enough for a long glide home. We turned onto course, put the nose down to 60 m.p.h. and set off.

But what goes up has to come down (unless it achieves escape velocity) and the red ball remained resolutely at 20 feet per second. Clearly the long homeward glide wasn't going to work. We were down to



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IRVIN *Glider* CHUTES

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2,500 ft. and barely level with Cirencester with about fifteen miles to go. The nearest clouds were to leeward of the track, but the windward ones were too far, so to leeward we turned. The lift was not quite so good as before, so after gaining a thousand feet we dashed on at 60, but again we had not reckoned with the down-coming air. In five miles it became evident that we were going to need yet another hitch to make Nympsfield—500 ft. should, we thought, suffice. Even then I doubt whether it would have been enough but for some final wind-shadow lift in the valley round Stroud. This gave us a few hundred feet to burn and we whistled in at 80 m.p.h., only to find our observer and his course pupils having lunch in the clubhouse. But the whistling brought him out and he timed us at 4 minutes under the two hours for a triangle of 112 km.—an average of 36 m.p.h. The photographs came out all right, but in our innocence we had taken no barograph, so the record could not be confirmed. Since then there has not been, in our area, a day to compare with Monday, 6th May, nor can more than half a dozen such days be expected in any one year—even such a remarkable one as this. (On the same afternoon with Brian Powell we climbed from 400 ft. above site to 6,500 ft. in 8 minutes—it was that sort of day!)

The Sea Eagle had been flying less than a month when she was charged with great responsibility. How successfully she rose to the occasion in Peter Collier's capable hands is recounted elsewhere in this issue.

She has emerged as a lady of great character, and if rather dignified, even matronly in her bearing, she is nevertheless a poppet to fly; and who knows?—one of these days we may get around to taking a barograph with us too.

Four Flights from Lasham

by A. J. Deane-Drummond

Lieut.-Col. Tony Deane-Drummond describes how he broke four United Kingdom records in four flights from Lasham Gliding Centre within a few weeks in his Skylark 3 sailplane. The first was a 300-kilometre triangular course at an average speed of 32 m.p.h., and the others a 100-kilometre triangle at 32 m.p.h. an out-and-return record of 195 m.p.h. to Kidderminster and back, and a 200-kilometre triangle at 37.84 m.p.h.

THE problem of selecting triangles to glide round in southern England is quite difficult. Experience has shown that the sea breeze effect may completely clamp down unstable air within 30 to 40 miles of the coast by 6 p.m. From Lasham this means it is unwise to go south of a line east and west through Salisbury after 4 p.m. For a 300 km. triangle the same effect from the Bristol Channel deadens the air as far east as Cirencester, as I have found to my cost on two or three previous occasions.

The other two main factors are the airways and the excellent thermals usually found over Salisbury Plain and the Marlborough Downs. There is no difficulty about a 100 km. triangle, but the 200 and 300 km. triangles both probably involve crossing the airway between London Airport and Bristol.

Good Friday was a glider pilot's dream day. Well-spaced summer cumulus were forming all over the sky by 8.30 a.m. The forecast was excellent and included a slackening wind, and this persuaded me to try the 300 km. triangle. I had planned many of these beforehand, but the 15-knot north-west wind made me shorten the northern leg as much as possible. I declared Kingham Junction (near Stow-on-the-Wold)—Castle Cary and return, and was towed off at 10.32 a.m.

It was soon obvious that we had started too early, although the conditions had looked so wonderful from the ground. It was quite difficult to stay aloft at all, and at one point, while north of Basingstoke, I decided to return to Lasham and start again. On the way back we hit a strong thermal about half a mile from Lasham at about 400 ft. which soon pushed us up to cloud base over the airfield at 11 a.m. From here it was moderately easy to keep going slowly north and it was 12.20 when we were just north of Wantage. This was an average of only 15 m.p.h., but from this point conditions rapidly improved and it was quite easy to average about 40 m.p.h. for the rest of the



Anna Deane-Drummond, aged 23 months, is as glider-minded as her parents, who hold five United Kingdom gliding records between them.

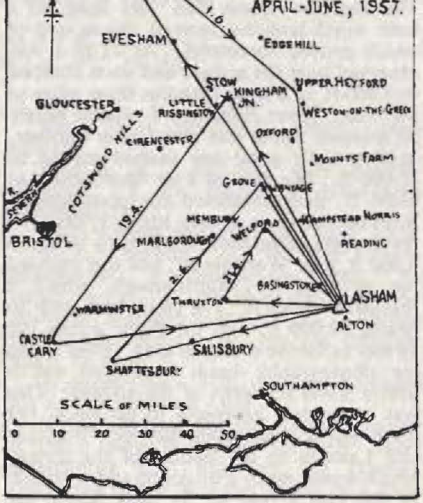
trip. Thermals were not very strong but built up to about 8-10 ft. per second near cloud base at about 5,000 ft. during the latter part of the flight. Visibility was stupendous and the clouds were obligingly arranged at 3-5 mile intervals all along the course.

Easter Sunday also looked a good day, although the sky was over full with cumulus. After some playful banter at the launch point, I declared a 100 km. triangle of Thruxton-Welford and back. A rather low car tow put us in rather a bad place and it took 10 minutes to get up to 1,000 ft. From then on it was plain sailing (soaring?) and all the clouds downwind of the patches of sunshine proved workable. The speed from take-off to landing was 32 m.p.h.

The air was dead still on Saturday, 1st June, and the forecast included well-spaced cumulus to 12,000 ft., although the first puffs were not expected to start forming before 11.30 a.m. In spite of this late start it looked like a good long-distance out-and-return day and I declared Kidderminster and back. The take-off was at 12.18 into a sky full of cumulus, all formed during the previous 30 minutes. Already some of the cloud tops were up to 8-9,000 ft. The first quarter of an hour after release was a bit tricky, but soon the clouds were speeding me on my way, and enabled me to fly through the airway well clear of any clouds. Cloud base was rising and was now about 5,000 ft. above sea level, but unfortunately cloud tops were also coming down, and by Little Rissington airfield the sky ahead appeared completely blue. The lower levels below about 3,000 ft. were extremely hazy and limited visibility to about five miles. At this stage I thought that I had overcalled my hand and so did David Carrow who had declared the same task. David made sure of his Gold C by photographing Edgehill and then flying to Great Yarmouth.

The saving grace during this part of the flight were the thermals which continued to blow up to 5,500 ft. at a maximum of about 5 ft. per sec. Near the top of the climb a small cap of cumulus formed for a few minutes before dissolving.

Over Evesham the sky cleared completely and visibility was now at least 20-30 miles. In the distance about 20 miles away and as far beyond as I could see, the sky was studded with fair-weather cumulus. Fortu-



nately the edge of this line passed right over Kidderminster. There was a west wind blowing at about 10 knots between Evesham and Kidderminster and may have accounted for the clearing of the haze. Having climbed up to 5,500 again we had to go back across the 20-mile cloudless strip to reach the occasional puff which was forming over the edge of the Cotswolds. Once again visibility came down to about 5 miles and somehow I failed to allow for the wind until I saw a factory chimney near Upper Heyford with the smoke streaming off horizontally. The base of the puffs of clouds was now up to 6,000 ft. and I could see the gliders of the Oxford Club apparently stationary in the middle of Weston-on-the-Green airfield.

All the way back from Kidderminster I rather expected that my last glide was about to take place and this particularly applied from Weston to the south. A thermal from Mount Farm pushed me up again and gave me enough height to get to Hampstead Norris. From here two more thermals enabled me to reach Lasham at 6.15 p.m. The average speed for 197 miles was about 33 m.p.h.

Sunday, 2nd June, was another very hazy and still day, although cloud tops were predicted to go higher after starting to form at 11 a.m. By noon, large cumulus was seen all over the sky, and I declared a 200 km. triangle with Shaftesbury and Grove Airfield (near Wantage) as the turning points. The aero-tow queue was very long, so I took winch launches instead, the second of which proved successful. At 12.28 I was observed over the airfield and soon climbed to 9,000 ft. in a large cumulus three miles to the west. Over Salisbury I wasted nearly 30 minutes trying one cloud after another, until a really good one pushed me up to 12,000 ft. We arrived over Shaftesbury at 9,000 ft. and completed the photography from between two clouds, losing 1,500 ft. in the process. One more cloud took us up to 9,000 ft. near Warminster, and this enabled me to glide to Marlborough, which I reached at 5,000 ft. The cloud here went to nearly 10,000 ft. and the flight across the airway to Grove was then easy. After doing the photography again I climbed up to nearly 9,000 ft. north of the airfield. This was more than necessary to get back, but there was a large cloud between Wantage and Lasham in the middle of the airway which would mean a diversion to get round. In the end I had to fly back along my original course to Membury Airfield where a wide strip of clear air led back to Lasham. The course was 140 miles round and the diversion added another 10 miles to this.

The speed on this flight was about 38 m.p.h. But for the hold-up at Salisbury and the diversion, the speed would have been about 45 m.p.h., which perhaps demonstrates the value of cloud-flying.

It is interesting to reflect what speeds are possible for triangular courses on good days in England. Provided all goes well, a speed approaching 50 m.p.h. should be possible for 100 km., something like 45 for a 200 km. and 40 m.p.h. for a 300 km. triangle. There are plenty of pilots well able to match these performances and I hope I will be forgiven if I end on a note of advice. Any cross-country flight must be regarded as a hunt for the strongest thermals. Provided you have the height, it is well worth while trying several clouds in turn until the strong thermal turns up. Flying the glider at its best speed naturally helps, but the aim must be to make the best use of the strongest possible thermals. Experience will tell you when you have gone low enough. Otherwise you will land—which will be a pity—but not my fault.

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Alice in Bunjyland

This feature first appeared in THE SAILPLANE AND GLIDER *in the days of solo training on primary gliders*

As Alice came over the hilltop she heard a mild and mournful voice singing the following song :

'Twas mornig, and the sliding coves
Did gyre and gimble on the ground.
Reversed were all the rudderfeet
And loud the landingsound.

Just over the edge was a glider which appeared to have landed rather heavily on the hillside. In the cockpit sat the Kite Knight, singing :

Beware the bunjibang, my son,
The landingbiff, the turningstall,
Beware the terrordive, and shun
The yankup most of all.

Seeing Alice, he stopped abruptly.

"Have you crashed?" asked Alice politely.

"Not at all," said the Kite Knight, offended; "I am practising down-wind up-hill landings."

"That sounds very difficult," said Alice.

"It isn't difficult," said the Kite Knight indignantly; "it's impossible. But," he added hopefully, "I shall try up-wind down-hill landings tommorrow . . . Excuse me for not getting out, but the machine might fly away."

"It doesn't look as if it would fly again for a bit," ventured Alice.

"True," he said gloomily, disentangling a piano wire from his whiskers; then, brightening up: "but I've had crashes, compared with which this would be a mere

bump. Why, the last days of the camp I learned at were like the last days of Pompeii. . . . How big would you say the biggest part of a sailplane was?" he asked suddenly.

"I suppose about twenty-five feet long . . . " began Alice.

"When *I've* crashed them," interrupted the Kite Knight, "you can take them away in matchboxes."

"It must take a lot of matchboxes," said Alice thoughtfully.

"It does. *Ever* such a lot. But we don't usually bother to take my crashery away. We get spades and dig it in."

Alice was toying with the two little tubes on the nose. "Be careful," he warned her. "Those are to work the air-speed indicator."

"I don't see any air-speed indicator," said Alice.

"There isn't one," said the Kite Knight; "this is a secondary machine, and we aren't allowed them."

"I should have thought it would be very useful to know how fast you were going," said Alice, "especially when you are learning."

"It *would* be useful," he agreed, sadly, "it would be *very* useful."

"But I suppose you always know when you are flying too fast," said Alice, comfortingly, "because you get down so quickly."

"Yes, but how do you suppose we know when we are flying too slow?"

"Because you get down so slowly," said Alice promptly.

"That's what *I* thought," said the Kite Knight miserably, "but I found that if you fly too slow you get down faster than ever."

"That doesn't make sense," objected Alice.

"I didn't say it made sense," retorted the Kite Knight; "nothing connected with this business makes sense. For instance, which is the rudder and which is the elevator?"

Alice pointed them out.

"And if I were doing a 75-degree banked turn, which would be which?"

"An elevator must always be an elevator . . . " began Alice, but was rudely interrupted: "That shows how much you know. And I suppose you think you go up if you pull the stick back?"

"I'm quite sure you do," said Alice indignantly.

"Not if you were flying upside down," he retorted.

"You wouldn't be likely to be doing that," argued Alice.

"Wouldn't I, though? You haven't watched me fly. But even flying the right way up," he went on, "you don't always go up if you pull the stick back. Not beyond a Certain Point . . . " a far-away reminiscent look came into his eyes . . . "I found that out when I was on DAGLINGS."

"I suppose you start on those because they are easier to fly than sailplanes?" ventured Alice.

"They are *much* harder to fly than sailplanes," said the Kite Knight in hurt tones; "we start on the hard ones and end on the easy ones."

"That seems a very silly idea," said Alice.

"It *is* a very silly idea," he agreed.

The wind by this time was howling furiously, and Alice had to sit on a wing tip.

"Call this a wind?" muttered the Kite Knight, "why, I've seen winds, compared with which this would be Force One on the Beaufort Scale. Do you know, I once flew east at forty miles an hour, and landed an hour later twenty miles to the west?"

"Where I come from," said Alice, "if we travel at forty for an hour we arrive forty miles away."

"*We* might have to fly at a hundred miles an hour to do that," said the Kite Knight grandly; "why, we sometimes have to fly at sixty just in order to stay in the same place."

"Aren't you afraid that the wings might come off?" asked Alice.

"They *do* come off," he answered gloomily.

"That must make it very difficult to get down safely," said Alice.

"You mean it makes it very difficult to stay up safely," he corrected her, "and now do you mind staying on the wing whilst I get a retrieving car?"

"I don't think you can drive a car up this hill," Alice called after him as he disappeared down the slope.

"Nor do I," he shouted back, "but I often try." And as he hurried down, the following song was wafted back on the wind:

But I was thinking of a plan
(Since WRENS *are painted green*
And always fly so near the hill
That they can not be seen)
Involving Klaxons, coloured lights
And poles marked off with various heights.

My scheme to slot the DAGLING *wing*
Would end for good and all
This bandying with the burbling point
And flirting with the stall,
One might do well to raise K_L
By fitting flaps to the nacelle.

He was now at the foot of the hill, but his last words came back faintly :

My wingtip wheels, my triplane KITE,
My bumpers for KADETS,
My scheme for landing in the night
In floodlit safety-nets,
My floats for FALCONS *lost at sea,*
Are all a great necessity. . . .

ANON.

A Beginner's Approach

by Anthony Edwards
(Cambridge University Gliding Club)

DURING the past few weeks I have been thumbing through old copies of GLIDING and SAILPLANE & GLIDING (I keep all those that the Cambridge University Gliding Club fails to sell in my room: competitive prices), and I have not come across one article by a beginner saying what *he* thinks about gliding. I have, in my imagination, accompanied pilots on cross-country flights from the Mynd to Much Binding, from Cambridge to the sea; I have soared every wave from January round to December; and if I had a good memory I would know how fast to fly everything from a Tutor (iced) to a Sky (plain, please) between thermals of every possible strength. But nowhere can I find an account of the Beginner's Approach (*sic*). So here is mine, in the hope that it will not be so typical as to be dull, nor so atypical as to be unrepresentative.

I suppose some people glide because they want to, but I really had no choice. One day I was proposed, seconded, enrolled, and medically examined, for, for, into, and according-to-the-rules-of, the University Gliding Club, by my brother. I took ten months to go solo, although that was not my decision. But once I was let out without a chaperon, all sorts of wonderful things began to happen. Would my C count if my left-hand circuit did not include any left-hand turns? Would Ted notice that last quick 270 anyway? Actually, although loth to add yet another flight description to the pages of this journal, I am going to tell you about my C.

It was my third solo in the Prefect, when I was just beginning to be daring and to attempt 360's, and the green ball was, as usual, lost in its tube during the launch. On release, I found the air around bubbling with excitement, and, incredibly, the green ball was still absent without leave. So this was a thermal! Full rudder to turn quickly, a little aileron so that it would look good from the ground, and the altimeter was unwinding visibly. At 1,600 ft. I panicked, the green ball still hidden, and set course for home, arriving at 1,500 ft. I think I must have started my approach soon after, but the Prefect's brakes saved the day, for I did not overshoot. But alas! as the Prefect toppled to a standstill, I happened to notice the variometer. It was still showing 20 green, and continued to do so in spite of my efforts to dislodge the ball. Would anyone believe that I had reached such altitude without a vario?

"Well done, Anthony, that's your C." Official Observer 1241 had arrived, and I was at peace with the world again.

So started my soaring career, and if it ends with a flight equally rewarding, I shall be very happy. And I think there is a moral attached: achievement is not only to be measured against maps and barograms, but against experience as well. It will do no holder of a Silver C credit if, forgetting that he was once a beginner, he does not appreciate the early triumphs of a solo pilot.

It was another 20 circuits before I stayed up again, and my strongest impression of this and following thermal flights is the mounting horror as each 1,000 ft. passed by. 1,000 ft. was, to me, a luxury; 2,000 was the gateway to another world (and still is); at 3,000 I began to feel distinctly unsafe, and if I was still going up at this height, every further foot was viewed with the greatest suspicion and alarm. An incident which I shall not forget is how, on my first thermal flight proper, I had to stretch out the

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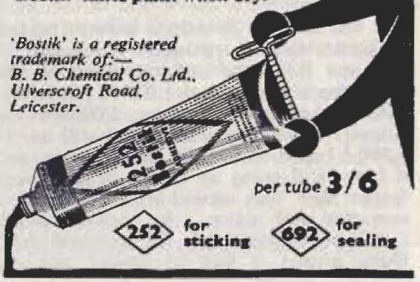
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fingers of my right hand with my left at the top of the thermal, so tightly had I been gripping the stick!

Last winter came before I had broken away from the circuit, either horizontally or vertically, and the advent of spring found me buying maps. It is odd how delightful are the hours spent poring over maps: what a poor substitute for seeing the ground itself slipping away beneath, and yet I don't suppose there is a pilot in the country who has ever tired of route-spotting! I was interested in doing my Silver C distance as cheaply as possible, and some of the methods I considered might be worth recording.

A 25-kilometre out-and-return does not count, unfortunately, but a triangular course does. It must have no side less than 15 km., so it is possible to do an upwind triangle, and never be more than 9½ miles from home. If one is optimistic enough to assume that, on a homeward dash, the following wind would offset any down-currents that might be encountered and still provide some circuit height, then from 2,000 ft. anywhere on the triangle one could still get home. An alternative is to situate one's triangle so that the airfield (or what-have-you) is in the centre, for then one is never more than six miles away: but this requires more flying in the end. Both methods do, of course, need a camera for the turning points (and the ability to use it successfully). On a good day it might be worth while for someone who has done some successful local soaring to consider being towed upwind for 50 kilometres. At Cambridge, in the Olympia, the total flight would cost about £4 10s., whilst a down-wind journey costs about £6, including the retrieve, the whole expedition taking $n + 5$ times as long, where n is the fumble factor for the day in question. Anyway, downwind flying is more like ballooning than gliding. I know, because that's how I did my Silver C distance a few days ago.

Whilst on the subject of Silver C flights, you might like to hear about my first loop. It happened when I was trying to come down from the regulation kilometre climb, which I had done in the grand style in a Long Mynd wave. I say "happened" advisedly: I put the Olympia into an 85-knot dive to see (as I told myself) "what she felt like." But it seemed a pity to waste 85 knots, so I pulled the stick back and waited. After a few seconds a mixture

of heather and tobacco left the floor and flurried round the cockpit. When it had settled again (on the floor, I was relieved to note), and the A.S.I. was back to normal, I noticed that I had gained 100 ft. during the complete manoeuvre. The barogram endorses this. Wondering at Nature's ability at disguising a bad loop, I tried the brakes instead.

If, soon, I can stop calling myself a beginner, it will not be because I want to, any more than I will want to stop calling myself young: it is just evolution. There has certainly been plenty to learn, and it would be a dull prospect if there were not plenty more. Not the least thing I have learnt, through several near-incidents, is that there is no substitute for experience. Launches and landings, cloud-flying and aerobatics, are simple enough until somethings gets misjudged, when experience, and therefore thorough training, count so much. Nor can the importance of always concentrating be overstressed: many times, on doing a bad circuit or landing, I have realised that I did not really have my mind on the flying. Relaxed flying, which we are taught to practise, does not include lack of concentration!

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PUBLICATIONS

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PUBLICATIONS

"SOARING"—Official organ of the Soaring Society of America. Edited by R. C. Forbes, British Gliding Champion 1951. Obtainable from Soaring Society of America, Inc., Post Office Box 71, Elmira, N.Y. Apply to your Post Office for a currency form.

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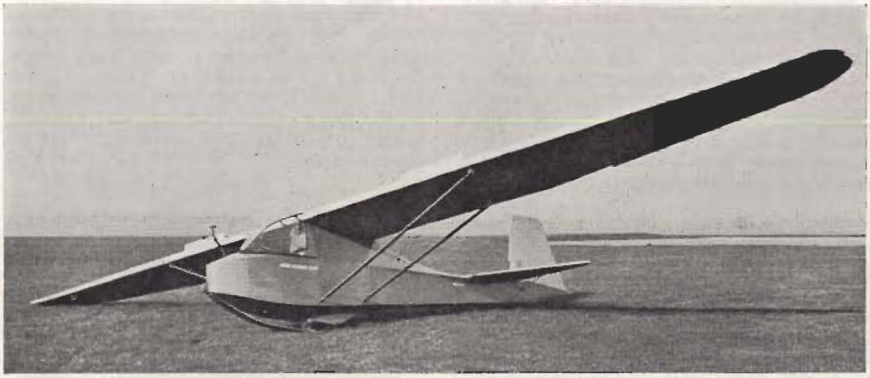
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A Face-Lift for the "Tutor"

by J. M. Holbrook



The Slingsby Tutor, though designed originally for elementary training in soaring flight, has proved itself capable of better things, and here, reprinted by permission of "Avro News", is a description of how the Avro Gliding Club "hotted up" its aerodynamic performance.

LAST September the Avro Gliding Club's Tutor single-seater made a welcome re-appearance on Woodford aerodrome after overhaul and modifications. It looks, and indeed it is, a very different aeroplane compared with the old Tutor we used to know. It really is a much better glider both in appearance and in flight.

Resplendent in a fresh colour scheme of bright and glossy cellulose—flame orange fuselage and rudder, cream wings and tail surfaces, it has an enclosed canopy of pleasing appearance. This "mod" makes driving "de-luxe" in all weathers. A larger rudder improves stability in yaw and the top surface of the wing has been ply-sheeted 30 per cent back from the leading edge, thereby improving the airflow over the wing. Control surface gaps have been reduced and control response is better. All these alterations have resulted in such a considerable improvement in performance that it has become necessary to fit lift-spoilers to steepen the approach and facilitate landing—to "git it dahn", in other words.

This transformation—to the best professional standards let it be said at once—has been accomplished entirely by the voluntary efforts of club members. Tom Smith, the club's inspector, was responsible for the C. of A. and for obtaining approval for the modifications. Before work started there were consultations with Slingsby's, the manufacturers, regarding the structural and aerodynamic effects of our proposed refinements. After favourable replies orders were placed for the necessary materials and for the spoiler modification kit.

The Tutor was de-rigged in mid-February and all the fabric covering was stripped off. The airframe was inspected and minor repairs were done where necessary. The drawings and kit for the spoilers arrived early in March and work on this installation started right away. It was completed on schedule by mid-April. At the same time the aileron circuit was being modified with ball-bearing pulleys in place of plain bearing pulleys. The gaboon ply arrived and sheeting of the wings was completed in two week-ends by some half-dozen members who worked like mad to secure the ply to the framework before the glue set.

It was now the end of May and with

offcuts of the gaboon ply, work on the canopy was started. It commenced with the "fattening up" of the fuselage-to-wing pylon to give more headroom under the canopy.

One member took the rudder home and reappeared with the larger version. We understand his mother is still trying to get the glue off the kitchen table.

The Tutor was rigged, checked for alignment, and the controls were checked for correct functioning.

After de-rigging again, the job of re-covering was carried out and initial coats of tautening dope were applied. Some members became a little intoxicated at this stage with the dope fumes. A week-end later the colour scheme was sprayed on. When the dope was dry the Tutor was re-rigged, weighed, and was found to be 30 lbs. heavier.

Approval for the alterations and the weight increase was sought from the Technical Committee of the British Gliding Association.

Meanwhile, work was proceeding on the canopy, the framework of which was constructed with half-inch diameter, 20 S.W.G. tungum tubing, brazed at the joints and covered with one-sixteenth inch thick "Celastoid" which was "pop" riveted to the framework. It is secured at the rear of the cockpit by brass dowel pins on the canopy and fastened at the forward end by "snap" fasteners. The result is very pleasing, as our photographs show.

The awaited clearance arrived from the B.G.A. and test flights were carried out by Tom Smith. The glider was found to be entirely satisfactory. Our Tutor had passed all tests, literally, with flying colours and all the keen types were queuing up to have a flight in her. At the end of the day's flying all who had flown in the aircraft agreed that she was better than ever. The glide seems better, control response is better and stability is improved. No longer does she drop a wing after a stall and the air-brakes make spot-landings easy. The canopy really is a big improvement and adds the finishing touch to our Tutor which, we can proudly say, is the best in Britain and probably the best in the world. And it's all our own work!

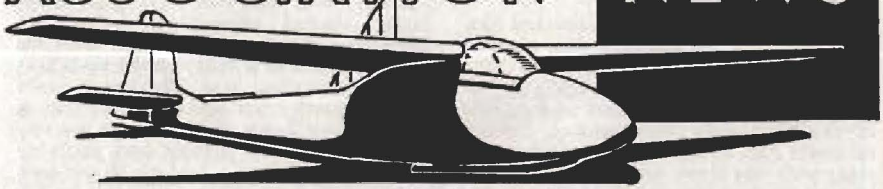
Although so many members have helped in the job it would not be fair to complete the story without some appreciation of the efforts of those who have been chiefly responsible for the work.

First, of course, is Tom Smith, our B.G.A. approved inspector. Martyn Holbrook (Maintenance Committee) was responsible for the lift-spoiler installation. Walter Parker, Charles Christianson, Peter Teagle and Tom Smith joined forces to design the canopy, which was built by H. Orme with the assistance of M. Fenton, who did the brazing. Dave Pearson modified the rudder and installed a box for the barograph. C. Christianson, the club's Chief Flying Instructor, took charge of re-covering and Tom Smith did the final colour scheme.



The "Celastoid" canopy, which the Avro Gliding Club has fitted to its Tutor, streamlines the airflow which used to impinge on its unprotected pilot.

CLUB AND ASSOCIATION NEWS



IN this issue we have space only for two more of the many "design studies" which have been entered for the competition now running for the best design for a new heading for this section of the magazine. One is shown at the head of this page, the other, described in the artist's covering letter as "a little spare moment's doodling", appears on page 223.

As stated in the April issue, the entries will in all probability be judged by assessing the letters of praise or condemnation which are received from readers. Please, therefore, do not be backward in putting pen to paper. This is one occasion when adverse criticism is just as welcome as constructive criticism.

The closing date for Club News contributions for the October issue to arrive at 33B, Eccleston Square, London, S.W.1, will be 24th August. Pressure on our space is now such that late news must perforce be regretfully discarded.

GODFREY HARWOOD,
Club and Association News Editor.

ACCRA

WE were sorry to read that Lasham did not quite make 21,000 launches last year . . . In spite of *no* petrol rationing here, our first launch is yet to be realised. The sad story from Accra is that the T-31B was badly damaged in transit from U.K. and it will be some little time yet before our strenuous efforts to prepare a launching site and hangar (if a 30 ft. x 15 ft. shed can be called a hangar) will be rewarded. One piece of good news: we were fortunate enough to have presented to us an automatic transmission Pontiac for use as a tow car for the give-away price of £30. Meanwhile the ants on the launching strip are making the best of the lull.

P.G.B.

AVRO

THE statistics for 1956 have not come up to the Club's record of 1955, but nevertheless are quite good, the launches totalling 1,898 for 134 hours. The Skylark is clearly proving its value as may be seen from the number of Silver C legs. The figures are:—B Certificates—4; C—1; Silver C Height—4; Duration—2. Our Tutor, a former Lashamite, has been hotted up and now soars better than ever. C.C.

BRISTOL

THE high spot in the history of the Club occurred on 15th May, when H.R.H. Prince Philip visited Nympsfield, and subsequently flew with Peter Collier in Peter Scott's new T-42. The weather man

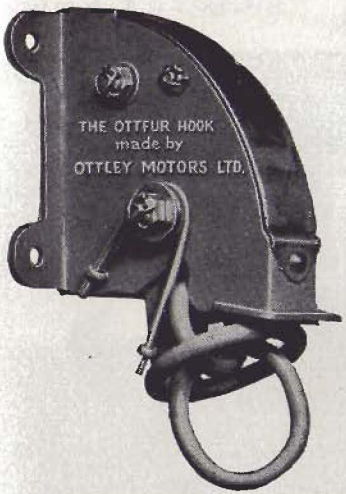
was rather unco-operative, for he provided a boisterous south-westerly wind, and even heavy showers which curtailed the visit. Nevertheless, he relented sufficiently to provide a thermal off the launch, which enabled the T-42 to reach 2,000 ft. before the Duke took over to fly back to the site. We are all very grateful to our vice-president —Peter Scott—for arranging this visit, and for loaning his sailplane.

We have been able to soar practically every week-end since the beginning of April, and up to the end of May we logged 460 hours. The best daily and monthly totals have crept up to 46 hours and 200 hours respectively, with about half of each due to the six resident privately owned sailplanes. Five-hour durations in thermals were flown in the Skylark by Keith Aldridge and Gordon Fisher, and the latter became the first pilot to complete all three Silver C legs this year, when he flew the Prefect 33 miles to Calne. Other distance and height legs completed Silver C's for Peter Collier, Peter Scott, John Parry Jones and Bernie Palfreeman.

A regrettably large number of the cross-country attempts from the site have been less than 25 miles, but as there is no clearly defined flat area such as existed round Lulsgate, pilot fumble seems a more likely factor. Among the longer flights however was a 65-mile goal flight to Bournemouth in 2 hours by Doug. Jones, 55 miles to Salisbury by Ted Chubb in the Prefect, and 55 miles to Wellington, Somerset, in the Olympia by John Parry-Jones, when a very strong tailwind gave him the distance with only three thermals. Lasham has become a popular goal, and Bernie Palfreeman and Jim Tudgey have both flown there solo, whilst Peters Scott and Collier have done the 65 miles in the T-42.

The advent of the Eagle No. 3 has provided added interest at Nympsfield, especially as Peter Scott is letting every club member sample the machine. Its soaring record in his hands is outstanding, as for example on Easter Sunday, when he and Peter Collier delivered it to the site by a goal flight from Lasham. On 6th May the same two pilots flew round a 100 km. triangle at 36 m.p.h. to exceed handsomely the then British two-seater record. Unfortunately, and particularly after re-reading Peter Scott's article in SAILPLANE AND GLIDING last year, they did not carry a barograph, and so could not get the flight ratified.

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Apart from club flying, our summer courses this year are again fully booked, and Peter Collier is making another good job of instructing on them. We have also had camps by the R.N.G.S.A. and by the College of Aeronautics Club, the latter, in spite of an unfortunate week in March, plan to come again in July. We can now offer basic facilities to any others who would like to camp at what we claim is the prettiest site in the country, and which can provide also some very interesting soaring.

On the ground, the club house now has running water—and fully functioning canteen and bar, whilst our oil engined generator is proving very satisfactory. All of the C. of A.'s have been completed, and we have a fully operational fleet. As we expected, the twelve sailplanes on the site are too much for the hangar, and the private owners have had to operate a de-rigging rota. The recent A.G.M. showed no great changes in either club policy or in the elected officials, who, for the current year are—Chairman John Cochrane, Secretary Tom Parkes, Treasurer Alan Smith, C.F.I. Alwyn Sutcliffe, Ground Engineer Doug Jones. The meeting however, did end with a film show during which four short films were shown, each film requiring a different size of projector. Besides three amateur films, the B.B.C. loaned the one they took of our activities in February, and which was shown on the West Programme.

M.G.

CAMBRIDGE

THE traditional Spring camp at the Long Mynd included more thermal soaring than usual. To keep the pioneer spirit alive, Andrew Stephenson and Bill Crease organised an expedition to the Black Mountains, where Stephenson soared for 1½ hours in a 5-knot easterly wind.

The Task Flying produced two major events for the Club. Mike Gee took the Olympia 150 miles to Hornchurch on the practice day. Secondly, our President, John Pringle, invented a new incentive scheme, now referred to as the "President's Ladder". This has the object of improving the standard of cross-country flying on competition lines. Pilots declare a task on a suitable day and marks are awarded for each flight over 31 miles, triangular courses scoring much higher than undeclared distance. The pilot at the top of the Ladder will receive a trophy at the end of the academic year.

By the middle of June, Club aircraft had already done more than 1,100 miles of cross-country flying done during the whole of 1956. Above all, there was John Hulme's flight to Truro, of which the National Press has already taken care. Subject to confirmation, his 268 miles are a new United Kingdom Distance Record.

Then there was the stormy Whitsun week-end, when three pilots gained their Gold C heights in cu-nims, S. Neumann with 11,200 ft. climb from a winch launch, Mike Gee with 12,400 ft., and Vin Pollard, who reached 18,500 ft. The last named climbed 3,000 ft. in the process of getting out of his cloud and had the tailplane of the Olympia riddled by hail-stones. The Mug Metal Machin, a Club trophy for "going nowhere by the most tedious route", was well earned by John Griffiths with an 80-mile triangle.

On Sunday, 16th June, two vehicles with empty trailers set out for a camp at Clwyd Gate in North Wales, the two sailplanes having been sent ahead by air. Anthony Edwards in the Olympia was picked up at Bedford, and Siegfrid Neumann at Shobdon after a 144-mile flight via Madley in completely cloudless conditions.

Great things have also been happening on the ground, and even below the surface. Maurice Pleasance and Bryce Smith have almost completed the extension to our hangar in a stout, unprecedented effort, and the telephone system ploughed in by Ken Machin is beginning to pay its dividend by stepping up the launching rate.

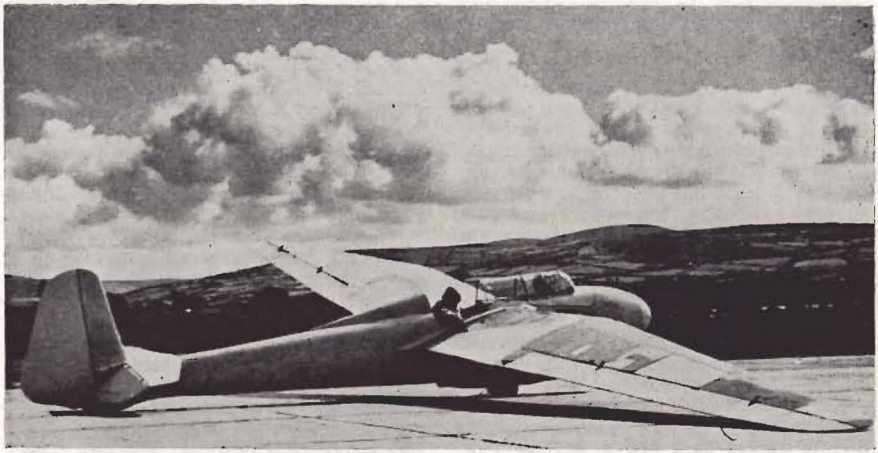
G.S.N.

CORNISH

THE Club has been open for flying since 18th May, and in the first four weeks membership rose to 110. 361 launches were made for 32 hours' flying. To date our longest flight has been by the C.F.I., George Collins, who remained for 1¼ hours in wave lift up to 5,300 ft. near Truro. We assume this wave was caused by the China Clay moorland area, which rises to just under 1,000 ft. away to the north east, assisted by Dartmoor, some 30 miles further upwind.

With a west wind the cliff at Perranporth has been soared easily at 650–700 ft., and in general the site may be said to be soarable in all wind directions.

E.J.T.



Freddi Heinzl, C.F.I. of the Dublin G.C., tightens his straps prior to take-off in the Kranich rom Baldonnel aerodrome 7 miles from Dublin. In the background, seeming farther away and lower than the reality, are the Dublin mountains.

DERBYSHIRE AND LANCASHIRE

THE Committee has been trying to encourage cross-country flying for some time and it seems as if we are not getting our fair share of the good conditions this year. In spite of this there have been some notable attempts. D. M. Kaye reached Hornchurch at Easter, 150 miles, and on Whit-Monday he reached Brighton, 183 miles. Cruel luck for a pilot who deserves a Gold C more than many a pilot wearing one. John Tweedy, who landed at Coalville on Whit-Monday, 50 miles, tried again on Tuesday and reached his goal at Hawkinge, 195 miles. He reached Gold C height several times on the way and had an interesting and enjoyable flight.

Whit-Monday was a remarkable day in one way. By noon, the only machines left at the Club were two Tutors, two two-seaters and the Krajanek, which was doing the five-hour test. Conditions were not as good as they looked and most of the pilots had to land before reaching Leicester. On Whit-Tuesday apart from John Tweedy's Gold C flight, J. S. Armstrong landed at Dunstable and B. Jefferson landed at Loughborough.

B.T.

DUBLIN

THE outstanding event of the past two months has been the gaining of our first five-hour leg for the Silver C—this by John Byrne, the Club President, in the Petrel. As we operate from a flat site, the flight took place entirely in thermals. In addition John made the required gain of height at the same time, and has thus only one leg to complete what looks like being the first Irish Silver!

Lift on the day in question—Sunday, 2nd June, was exceptional. The Grunau was soared for almost four hours and then the unfortunate pilot had to land as he was suffering from a bout of airsickness. The Kite II and the Kranich both joined in the fun, the instructor in the latter reporting that he had to open the airbrakes to make any progress downwards!

There have been a number of cross-country flights with the Petrel, Kite and Grunau. One of these, by Mike Harty in the Kite, took him on an interesting tour through, rather than over, the Dublin Mountains. This is the second time that Mike has become involved with the peaks—there are rumours that a guide book is in the offing.

All members were glad to see Jim Bellew finally achieve, officially, his Silver height on Whit-Monday. On previous climbs he had either been without a barograph or, on one memorable occasion, had forgotten to switch it on.

Unfortunately, our Whitsun Rally had to be cancelled as the Air Corps were using Baldonnel. However, being an Irish Club, one can only say that the Whitsun Rally will be held later in the year.

T.B.B.

HANDLEY PAGE

THE Easter week-end saw some reasonable soaring at Radlett. Alan Vincent took the Rhönbussard up to 5,000 ft. and soared locally for 1½ hours and Angi Chiesa reached 4,960 ft. on a 1¼-hour flight in the same machine. Both thereby achieved their Silver C heights.

On 4th May, John Rymill converted from Meteors to the Rhönbussard and gained his C.

The Tutor C. of A. has been held up by unforseen jobs and the lack of persons to do them. It is unfortunate that at this time of year most of the younger and keener members have their annual examinations and are unable to spend much time gliding.

A.E.

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ISLE OF WIGHT

ALTHOUGH there is very little from the Island to report in this issue, what there is definitely indicates a step forward.

One of the soaring sites referred to in previous issues, Afton Downs near Freshwater Bay, is to be made available to us for trial launches. There is little doubt that this ridge would suit us admirably, since gliding took place there in pre-war days.

The ridge is approximately two miles long, and runs north-west to south-east, thus exposing a flank to the prevailing south-westerlies. From the south-east end of the ridge it should be possible to bridge the gap between Afton Down and Brightstone Down, thus throwing open the whole of the Island.

All that remains to be done now is for the Grunau trailer to be completed.

Since its repair the Grunau has completed about fifty launches, but only Derek Gavaghan has been fortunate in obtaining his C. Many others have been patiently nibbling here and there around the circuit, but those accursed sea breezes are most frustrating.

We are now sharing Sandown with scheduled air services from the Midlands, and so far everything has gone smoothly. All that is needed is an extra careful lookout, both on the ground and in the air, consequently we all have swivel necks now.

P.W.

KENT

ALTHOUGH the threat of having to move is very much with us these days with the possibility of the airfield coming up for sale in the near future, it is to be hoped that we shall be able to continue our flying on an amicable arrangement with the new owners. Nevertheless, we are not being discouraged by this thought and plans are under way to build up the Club. Renewal of membership has been very good and new members are joining every week.

Our C.F.I., Ken O'Riley, in company with Dr. Brennig James, beat the existing 100 km. speed record for two-seat gliders by flying from Lasham to Yeovil at an average speed of 51.2 m.p.h. Ted Day got his Gold C distance from Lasham to St. Ives; he obtained the necessary height

last year. Dennis Monckton also gained the height leg for his Silver C and just failed to get distance. These flights were the more successful ones during a week at Lasham.

S/Ldr. Furlong, our President, paid an all too infrequent visit to Detling on 19th May and took the T-21 out on the ridge with Margaret Crabtree and Roger Neame for an hour each.

Dennis Monckton, Chairman of the clubhouse committee, has asked for a "clubhouse scrounge" and items required include Calor gas oven, electric water heater, piano, settees, armchairs, etc. The clubhouse offers very good facilities now, but with the additional items it will become even more luxurious. C.M.

KRONFELD

As forewarned in our last Club Notes, the wall between the Bar and the Lounge is now no more—thanks to John Holder and sledge hammer. As a result we now have a far more satisfactory Lecture Room, and Frank Kinder and Ron Willbie have been hard at it redecorating the old lecture room to form the new Bar.

The usual Wednesday evening meetings have continued with either talks or films. We do welcome any suggestions for new topics or names of potential speakers so that we can keep up the interest of our members during the summer months.

Finally, as we now have a decent sized room—has anyone a table-tennis table they don't need? If so, please contact the Hon. Sec., 74 Basement, Eccleston Square, London, S.W.1. H.T.

THE LAKES

On Sunday, the 9th June, with a brief formal ceremony performed by Lord Lonsdale, "The Lakes Gliding Club" officially came into being.

Early in 1956 ex-Glider Regiment Pilot Matt Hall of Kendal, and ex-R.A.F. Pilot Ron Reid of Arnside got together to examine the possibilities of a club in the area. A meeting was called for the 7th May, 1956, in the R.A.F.A. Headquarters in Kendal, to which gathered about fifty people. At this meeting, a working committee was set up, and every other club will know the seemingly insurmountable difficulties in the long period which followed, with too little income chasing too expensive equipment.

Very gradually our assets grew—a winch, a Jeep of thirsty character, then four ex-R.A.F. Tutors. Many man-miles were then covered in search of a site, and eventually one was chosen at Tebay, ten miles N.E. of Kendal.

Naturally, at this early stage, no outstanding statistics can be quoted, but flying is quietly progressing, and several visible and not-too-distant ridges are being eyed wistfully by the more ambitious members. With a useful Westerly on the 10th June, Matt Hall, with passenger, took the "Venture" above 3,000 ft. Flying Members are now round the 40 mark, recruitment being stimulated by recent activity.

J.W.A.

LASHAM

The absence of any news from "the 'ub" in the last issue should not be taken as evidence that we have given up the ghost, cut our painter and sunk. In fact, modest as we are, we do feel that, thanks to some excellent weather, we have achieved a wee bit of gliding so far this year. During May and June, 11 U.K. records have been broken from Lasham, six members have achieved Gold C distances (three with Diamonds), and numerous others have started to stretch their Silver C legs. We congratulate Jill Walker on being the first New Zealand woman Silver C.

We welcome the addition of Brian Masters as our third full-time Instructor, to help out the Dereks, Piggott and Goddard, in keeping us up to the mark in our training and soaring. Also we congratulate Derrick Goddard on his Diamond height in 18th June's thunderstorm. With the Nationals only a month away we hope to see far more competitors and visitors than last time and that they will have a satisfying and enjoyable ten days. H.T.

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LONDON

AT the Annual General Meeting the Committee was returned as for last year, with Godfrey Lee as Chairman and Dan Smith as Vice-Chairman. One of the Committee's first tasks has been to standardise our flying charges as the same for all types, i.e., 3/6d. for a winch launch and six-minute circuit; 15/- per hour flying from the Tutor to the Sky, with a reduction after three hours of flight—a very fair system, we feel.

Vic Ginn has, almost unaided, repainted the Bar, while John Hands has been responsible for a lot of decoration in the form of a large screen with a map of the U.K., etc.

There have been a large number of good cross-countries. On 5th May John Furlong went to Lympne in his Skylark III, while Frank Foster did a 43-mile out-and-return to Edge Hill in his Skylark II. John Jeffries, in his veteran Scud II of 1932, went from Dunstable to Goring-on-Sea.

On 15th May, John Everitt, our C.F.I., reached "Dunstable's furtherest NORTH" —a fine flight to BARTON-ON-HUMBER, 125 miles, in an Olympia via King's Lynn around the Wash. This involved a great deal of cross-wind flying and was a very good effort. Frank Foster went to Henley-in-Arden, which is exactly cross-wind. Mike Garrod, in the Club Skylark II, went 29 miles upwind to Benson, and from there to Cambridge, a further 66 miles, but downwind.

On the 28th May, Charles Ellis narrowly missed his Gold C distance, as after 6½ hours of flight in the Club Olympia he had to land at Ashburton—172 miles from the point of release. On the 2nd June, Frank Foster flew his Skylark II from Dunstable to Hereford, and back to Winslow, 15 miles off, a total of 172 miles—almost a new British record.

We are holding on September 22nd an aerobatic contest for sailplanes, full details of which will be announced shortly, all launches will be by aerotow and a trophy will be awarded to the winner—entries are hoped for from as many clubs as possible to make this not only a good one-day contest, but a social occasion as well.

P.F.

MIDLAND

PERHAPS the most important item of news was our decision taken in the spring to sell part of the fleet, namely the Venture two-seater and the Tutor, and to order a T-42b, Eagle high-performance two-seater from Slingsby.

We now have the balanced fleet which has been the aim for several years, to provide ab initio training in T-21b, followed by solo flying in Prefect I and II. Advanced training in T-42b during the Prefect period will be done before Olympia and Skylark flying commences. With three Olympia's in operation soon, the total fleet will be eight aircraft.

Ric. Prestwich, who is soon to leave us for Africa, has been making the most of the weather. He flew down to Nympsfield in April, near Norwich in May, and in early June to the U.S.A.A.F. base at Fairford, besides a height climb to 13,800 ft. for good measure.

On two occasions recently, 27th May and 2nd June, we had "continental" thermal conditions with strong lift up to clouds, based at nearly 8,000 ft. above sea level.

J.H.

NIMBUS (R.A.F.)

THE Club was formed soon after the War at Bad Eilsen and operated at the famous Scharfoldendorf Ridge as the "Headquarters Second T.A.F. Gliding Club". Little can be traced of the Club's history and by 1954 it had almost disappeared. However, when the Headquarters moved to Muenchen Gladbach, Group Captain Earnshaw and Corporal Bill Greenall got the Club going again at the nearby airfield of Wildenrath and during 1956 membership and equipment had increased sufficiently to produce 1,110 winch launches in the year. One Silver C height, 7 C's and 12 A/B certificates were gained. Membership and enthusiasm alike continued to rise during the winter and a club house was built near the landing strip by the members and the equipment generally was overhauled for the 1957 season.

This year gliding started at Wildenrath in February and a good deal of training was done on the S.G. 38 Open Primary, the Grunau Baby, the Buzzard and the Weihe in preparation for the annual camp in May. Unfortunately the Govier Two Seater did not become available until the camp started.

The first soaring flight of the year was done from Wildenrath by Corporal Farrand in the Grunau. He gained his C by a comfortable margin, having had not the least intention of soaring when he was launched. His friends on the ground watched him drift away far downwind in only light lift, industriously circling, but happily he afterwards met stronger thermals and decided to return for a successful landing just on the boundary of the airfield.

The annual camp (it is the first, but we hope it will be annual) was held between 6th and 20th May at the well-known German gliding site on the ridge at Oerlinghausen (near Detmold) where the National Championships were held in 1955. We took with us the recently acquired Tutor, two Grunau Babies, the Govier Two Seater, the Meise/Olympia and the Weihe. The nearby Gutersloh (R.A.F.) Gliding Club were very helpful and lent us their Minimoa. Without their aid it is doubtful whether we could have held the camp at all. "Nimbus" are most grateful.

The Flughafen Gemeinschaft at Oerlinghausen is a centre for about twenty German clubs. It has an excellent school, space for six or seven launching cables, two landing strips, two hangars and a control tower. For the unattached males bunkhouse accommodation with good food and drink was available right on the site and for those who brought their wives there was an excellent modern hostel nearby at 10s. per day including meals. For anyone on holiday in the district who wants to take advantage of this very good soaring area sailplanes may be hired from the school at reasonable charges on production of gliding certificates and after a checkout. The Chief Instructor made us very welcome and several members flew the LO-100, a nice little aerobatic glider which is soarable and capable of 300 k.p.h.

During our stay the weather was delightfully unstable and we had snow out of thunderstorms, a freak fall of sand out of a cunim and several days of good thermals.

Early in the camp Flt. Lt. Hirst went off in the Weihe, soared to 12,000 ft. and iced up, literally to the eyebrows, in a thunderstorm. He thought he had lost his "line shoot" when the last piece of ice fell off the leading edge as he landed, but he produced an icicle from under his coat collar to prove his story. Unfortunately, to put it mildly, no barograph record was available to give him his much needed Gold C height. We live and learn! Later, Fg. Off. Edwards, also in the Weihe, 2/Lt. Peter Goldney in the Meise, Capt. Whittingham Jones in the Minimoa, and the German C.F.I. in a K-2 were all driven away from the strip by a snow storm and arrived at various points not very far down wind.

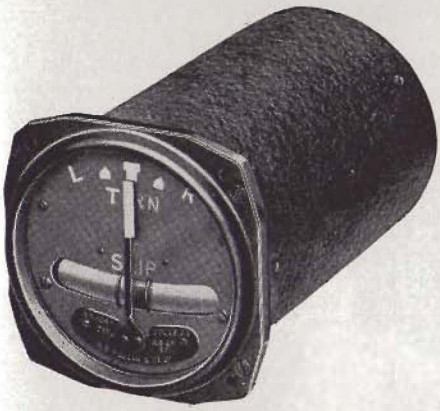
Then came the glorious thermals of the 10th May. S.A.C. Allsworth, who normally refuses to prepare for anything more than a circuit on superstitious grounds, shivered his way up to 8,000 ft. in one of the Grunaus to gain his Silver C height. Tony Vasey in the Weihe got his Silver C duration and also a Gold C height. Fg. Off. Calvert soared the other Grunau for nearly four hours and got his Silver C height, and Allan Loveland spent two hours in the Gutersloh Minimoa before he was forced to earth, not by lack of thermals, but by cramp in the leg. This excellent day was one for the really big distances, but one of the objects of the camp was to qualify as many members as possible and so the Gold C distance aspirants held off.

For the rest of the camp, Fg. Off. Edwards got his Silver C, there were Silver C heights and durations by Wg. Cdr.

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Smales and 2/Lt. Peter Goldney, Silver C heights by Flt. Lt. Anderson and Capts. Kirk-Smith and Lindsey Smith, and a C by Capt. Halsall. Colonel Walker went solo in the Tutor for his B after remarkably few dual trips and a large number of Govier launches laid the foundations for more B's and C's later in the season.

To wind up the camp the Weihe and the Minimoa were flown back to Gutersloh (only just, thanks to some last minute lift off the autobahn!) and the remainder of the gliders were trundled home by road. The score for the two weeks was 361 launches and 102 flying hours. The Club is now settling down to normal week-end flying at Wildenrath and the increased fund of experience, both in airmanship and organization, should help it to flourish still further.

K.P.S.

NORTHAMPTON

THE Gliding Display, which was presented to the Public at Sywell on Saturday, 15th June, is acknowledged to have been quite a success, and we owe a debt of gratitude to Mr. Peter Scott and his party, Michael Hunt, Vic Carr, Coventry, the Dunstable and Cambridge Gliding Clubs, the Northamptonshire Aero Club, Mr. Althan Turner of the C.C.P.R., and all the other people whose efforts helped to show the 4,000 people who attended, a small slice of the joys of Gliding. The weather for once was on our side, and brilliant sunshine helped to make the display a social and financial success.

Other club news seems rather insignificant, but the salient features have been the successful completion and modification of the two-drum winch and installation of radio contact which renders "Bat wagging" obsolete.

G.G.

OXFORD

SINCE our last notes John Matheson and Jack Luker have soloed in the Tutor and since the week-end before Easter a high proportion of new members, as well as those who were less fortunate with last year's weather, have qualified for their C certificates. They include Messrs. Baker, Matheson, Smoker, Collins, Tyler, Beevers, Pratt, Lowe and Joy Taylor.

So far Club members have carried out six cross-country flights this year of which four counted as Silver C legs, namely for Anita Schmidt, Nick Hughes, Chris Hurst and Dick Everard. Dick's cross-country completed his Silver C—the first obtained by an Oxford Club member for some time. The following gained Silver C height legs—Messrs. Hurst, Baker, Parrott, Smoker, Harris, Roberts, Collins, Everard and Anita Schmidt.

The Club Olympia figured prominently in the list of Silver legs obtained; notably a flight to Lasham by Nick Hughes and a by no means easy triangular course covered by Chris Hurst. John Smoker took the Club Tutor up to 5,200 ft. and this machine has also been soared successfully by several members in recent weeks.

We were pleased to welcome a visit from Tony Neilson and Siegfrid Neumann from Cambridge in a Skylark and Olympia and have also had a flying visit from Tony Deane-Drummond as well as a more indirect call by Nick Goodhart who chose a field adjacent to our local cement works.

D.W.H.R.

PERKINS

WE made reference in our last notes to the presence of vertical air currents at Polebrook. This month we would like to place on record their consistency. The club Tutor has had to be *restricted* to thermal soaring flights of half-hour duration. Making the most of his, our secretary, Roy Taylor, climbed at an indicated rate of between 15 and 20 f.p.m., to cover over 5,000 ft. in the Tutor, giving him silver C height, but yes, you have guessed correctly —no barograph.

Marvin Donald qualified for her A and B last month and so becomes our first young lady solo pilot; she is just sixteen years old.

We are grateful to Gordon Cornell, who spends all his flying time at week-ends as P.1 in the T-21b giving training circuits and check flights.

Our C.F.I., John Hulme, recently flew from Cambridge to Truro and we are looking forward to the day when, as the result of his training methods, we, too, will cross-country in a similar fashion.

In conclusion, we mention our solid cable, which, up to the time of writing, has done 1,000 launches and has only five knots in it. We think this is quite good considering we are using hard runways which have a loose gravelly surface.

S.W.H.

SCOTTISH G.U.

THE Club's ten-year tenancy of Balado came to an end on 5th May. The occasion was marked by flying to Briarfield, Lancs, a distance of about 175 miles, in just over five hours. Progress at Portmoak, the Club's new site, has exceeded the hopes of even the sanguine Mr. Thorburn, who has done most of the negotiation, much of the planning and more than his share of the toil. The first task, laying a water-pipe to the site, occupied only an afternoon.

While the enthusiasm of members is understandable, that of the local farmers is at times overwhelming. Their initial friendly interest soon expressed itself in the form of tractors and a great deal of help in many other ways; lorries, trailers, cement-mixers and even less likely articles have astonishingly materialised when required.

The approach road to the site has already been completed, and the hangar is half-built.

The smooth manner in which the S.G.U.'s great migration has been achieved is a great relief to one and all and was made possible only by much devoted and selfless enthusiasm by the members. As an example of what we mean, we shall tell you the sad story of Andrew Wishart, who during the construction of a bridge, of which we are all extremely proud, got hit on the nose by a 10 lb. sledge hammer. There was frenzied activity on the bridge at the time, and as Andrew sank to his knees under the blow, a member shouted, "Move over there, Andrew, you're in the way." With the last of his strength, and just before unconsciousness overwhelmed him, Andrew, brave soul, moved over.

D.B.

SOUTHDOWN

NORTH-EASTERLIES since Easter have provided good soaring conditions on a number of week-ends. On the 27th April, after soaring the home ridge, the Olympia was taken to Mount Harry at the commencement of the Downs to the immediate west of the Lewes Gap, and was successfully bungied off for a 29-mile flight along the Downs in the hands of Brian Buckley. The next morning it was rigged before dawn, and, with a first launch soon after it was light, completed two five-hour legs with Ray Marshall and Pat Whittaker.

In May we received as replacement for a broken Tutor, the BANANA (alias MIKANA)—a modified yellow Cadet with an awesome-looking canopy, but a surprisingly uncadet-like performance. May ended with a blustering north-easterly and the T-21 provided the latest form of V.T.O. at the bungy point by the simple expedient of closing the spoilers. Soaring heights along the ridge of up to 1,500 ft. were reached during the week-end.

June opened with a light south-easterly wind and cloudless sky, which nevertheless offered good soaring, even though the wind was off the sea. Mike Meeks had a 70-minute flight as P.1 in the T-21, reaching 3,350 ft.

On the ground side, Leslie Allard, our new Transport Officer, has already done a magnificent job of overhauling the No. 2 winch and is generally injecting a new look into our ground equipment.

R.M.

ULSTER

WE are off to a good start. The Club activities did not start until after Easter but on week-ends between 27th April and 19th May, we have had five days on which it has been possible to soar. The tides and winds have been favourable and 18 hours of soaring have been clocked between the two machines.

Beck, Rountree and Heaslip have been flying in the Tutor, and Liddell in Gull. On 18th May, Beck had a remarkable flight in high winds and low cloud for an hour, and at times only the lower part of the Tutor was visible. Next day Liddell in a 3 hour flight completed his 400th solo soaring hour.

There is a rumour of a R.N.A.S. two-seater putting in an appearance. We keep our fingers crossed.

W.L.

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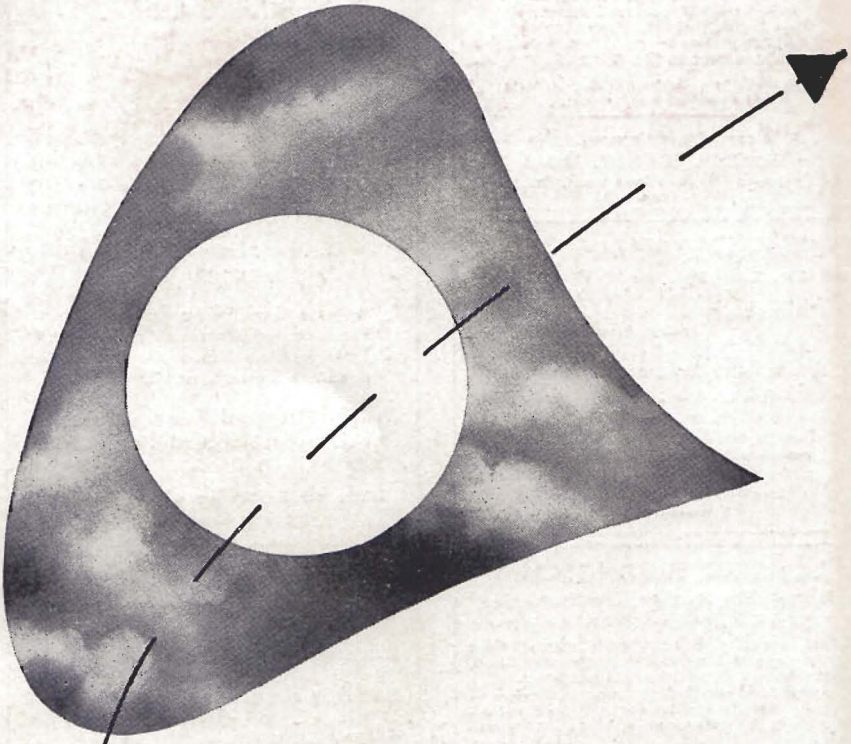
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