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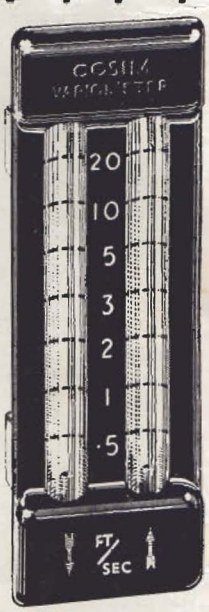
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THE FIRST JOURNAL DEVOTED TO SOARING AND GLIDING

MAY 1949 ★ Vol XVII No 5

EDITOR:
VERNON BLUNT

ASST. EDITOR:
VERONICA PLATT

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COVER PHOTO:

OLYMPIA.
Camphill (Derby & Lancs. Club). Photo by G. E. Thompson. Technical details unknown.

EDITORIAL

The Editor, *Sailplane and Glider*, 139 Strand, London, W.C.2

Dear Sir,

Whilst, of course, the *Sailplane* has full freedom to criticise this Association, it has not freedom in doing so to distort facts and deliberately to mislead its readers.

I am instructed therefore to request that you publish this letter, correcting the major distortions in your April issue.

1. **Editorial**

(*a*) You state that the recent Annual General Meeting of the British Gliding Association was sparsely attended; in fact just under half the Clubs were represented and not one fourth as you report. In all 32 representatives were present as against 38 the previous year. Furthermore there was no representation by proxy.

(*b*) You state that less than 2½ per cent. of the Members of the Royal Aero Club are interested in gliding. It would be interesting to learn how you estimate the interests of the individual members of the Royal Aero Club, the membership of which numbers many hundreds.

2. **Report on the B.G.A. Annual General Meeting**

(*a*) The attendance was not as stated in this report but as above.

(*b*) Your statement that the Budget was taken as read is incorrect, as this was read at the Meeting, in addition to having been previously circulated, together with the Chairman's report and other documents.

(c) Mr. Charles Wingfield, in giving his reasons for retiring from the Council, stated in effect that he had served for two years and was not prepared to serve again as not only did he find it very expensive but he felt the Council was too big. He did not use the words "too much bother".

(*d*) The old Annual Subscription rate for Full Members was £20, not £2, the new rate being £15 and not 15 guineas. The resolution in this respect having been proposed by the Newcastle and not by the London Gliding Club, as your next paragraph implies.

Yours faithfully,

R. D. A. CLOWES,
Secretary.

COMMENT

The above letter was received on May 3rd, after we had, strictly speaking, gone to Press. Nevertheless, in view of the charges against our fairness and accuracy which it contains, we immediately altered our editorial plans,and although there will not be time to print a detailed reply in this issue, we are printing it and giving it exactly the same prominence as we gave our comment on the Annual General Meeting of the B.G.A. last month. This we think is only fair.

It will suffice to say now that we refute the charges of distortion, and we will answer the letter in our next issue.

TERENCE HORSLEY

"Whom the Gods Love, die young" surely included Terence Horsley, to whom the British Gliding Movement owes an enormous debt for his influence since the war. He was directly responsible for the interest Lord Kemsley displays in the Movement which led to the Kemsley Flying Trust being established. He was the most polished writer in the world on Gliding, and his last broadcast, on April 19th, was by far the most perfect piece of Gliding publicity we have ever seen or heard. The tragedy is that his machine was damaged on the ground and it is doubtful if he could have known about it. But of one thing we are sure. Terence would not wish us to repine his loss. He would bid us "press on" and the memory of his gay courage will inspire us to do so.

NATIONAL CONTESTS

This year's National Competitions are to take place between August 19th and 29th at the site of the Derbyshire and Lancashire Club at Camphill, Great Hucklow, Derby. In view of the accommodation problem, intending competitors and visitors are requested to write at once to J. S. Armstrong, Esq., 127 Folds Lane, Beauchief, Sheffield, stating their requirements. Accommodation will be allocated strictly in the order of application. It is typical of the keenness of the Derby and Lancs Club that they should have offered to do all the work relevant to organising such a contest, and we are glad to hear that they, and the B.G.A., have been guaranteed against any loss by the ever-present and munificent Kemsley Flying Trust.

SOUTHDOWN SOARING

By " Squeege "

WE read a great deal of the soaring obtained in other parts of the country, and it may therefore be of interest to hear, for once, of the lesser known gliding sites where sustained flight can occur with certain weather conditions.

Such a site is that of my own club, The Southdown Gliding Club, to give it its full title, and, for the benefit of those readers who have not paid us a visit, a brief description of the topography of the site and the surrounding country may not come amiss.

Friston Airfield, then, is situated upon the top of the stretch of the chalk cliffs known as the Seven Sisters undulating eastwards from the mouth of the River Cuckmere to Beachy Head. The east-west runway of over one thousand yards happens to be on the highest contour of 300 feet above sea-level. This terminates in a fairly steep slope down to the river valley which runs to the north and thus forms a bluff corner to the western end of the cliffs.

Northwards the site is bounded by the Seaford-Eastbourne main road, followed, in the same direction, by a series of rolling downlands ending in the steep slopes marked on most maps as the South Downs, *but divided all the way from the sea by the Cuckmere Valley.* The distance from the coast is roughly five miles, and along the north face of these Downs are, of course, the well-known gliding sites of Itford and Firle.

On Sunday, March 27th, 1949, I arrived at the field for a spell of winch duty around eleven o'clock with an icy north-easter blowing at 25 m.p.h. Thin sheet cloud covered the sky through which, at very long intervals one could just discern the position of the sun. The only sign of life was an odd cow or two who appeared to be taking a very dim view of the weather : but down at the hangar I found our most hardy members and our four machines all ready for anything.

It was finally decided to make a start with our " T21B " 2-seater, and so I went off with a crew to get the winch up to the north boundary fence. I should explain here that our north-south run is the ' dicey ' one for, half-way down it starts to slope towards the cliffs, needing a midway signaller and has down currents on the take-off point. This, however, is all by the way.

With the " all-out " signal I gently hauled the " T21B " upwards only to see her disappear into



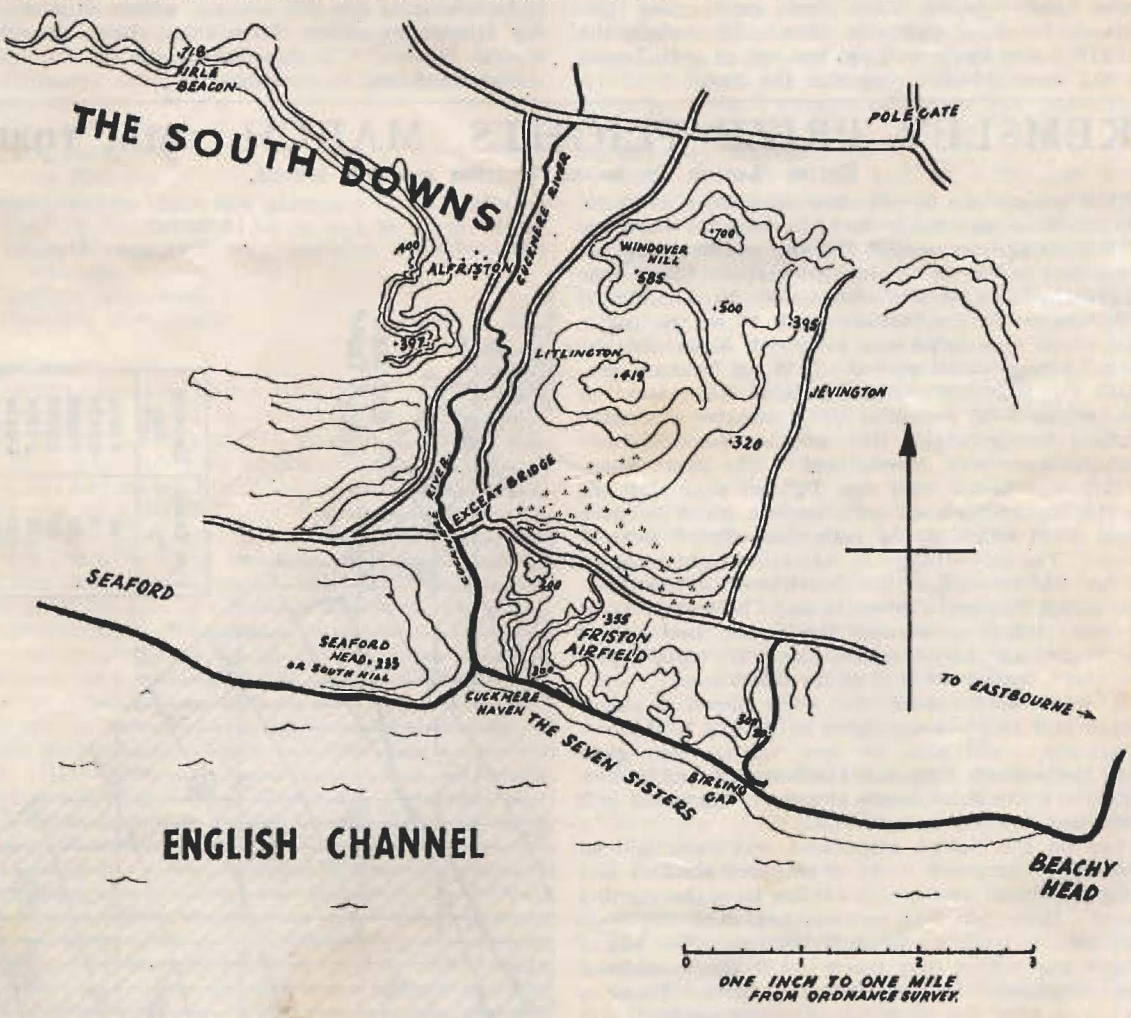
Friston Airfield. Mouth of the Cuckmere River from top of West Soaring Face.

cloud at about 1,000 feet: a second or so later the cable was dropped, and for the next fifteen minutes nothing was seen of her. Then my young keen-eyed partner let out a yell, and there, for a brief moment I saw our white machine at least two miles to the north west *above the cloud* at what we estimated to be at least 2,000 feet up.

From now on we huddled out of the wind in the lee of my car watching, for the first time on our site, unlimited soaring, and over land instead of over the rough, wind lashed fury of the English Channel. All the time the clouds were getting thinner and patchy, so the machine was, by this time, visible for long periods and distinctly gaining altitude.

Nearly an hour later we saw her coming back, still with bags of height, and finally disappear over the brow of the slope to land O.K. A few minutes later Ray Brigden came up to the winch and I learnt that he had been the pilot with our 'half-pint' sized member Dave Tulett as co-pilot. To my great delight he suggested that I have a go before conditions changed, and he would do the launch. Needless to say I was away before he changed his mind!

Back at the launching point I found my passenger Laurie Block (late of the Croydon Gliding Club) all ready and so we climbed into our seats and strapped ourselves in. We were off the deck so quickly it was necessary to hold her down until flying speed was well up, then we climbed up into clear sky, releasing at 1,100 feet. I found the wind very strong, and it was necessary to lose some height in order to reach the Eastbourne road. My airspeed was over 40 knots. Over the road however the first up current of the pine covered ridge got us and the red ball slowly settled down to be followed by a weak hop of the green one. Turning westwards in the direction the previous flight had been made, and with one eye on some filthy looking cloud over the Cuckmere valley, suddenly the green ball came unstuck and went up to '5 up.' From now on lift was continuous: 10 up one moment, then down to 5 up. By this time we were away to the north-west and almost over Alfriston. Altitude was then 2,300 feet, and by flying a rough circle losing, then finding



lift again, we worked ourselves up to 2,500 feet. So it went on until, after thirty minutes we decided to return in order to let others have a bash. At no time did we have to go into cloud, although I observed wispy stuff going by below at what looked like a rate of knots. As we turned towards home Laurie pointed out our " Grunau " coming up fast, but as I had the prospect of a tricky landing ahead I did not watch it, but concentrated on losing height (and believe it or not) it was hard work getting rid of altitude—the thing we all here have prayed for. To end the account of my flight on a sad note I undershot somewhat, but landed lightly enough in one of our wide ' gulleys ' and it took all of us to pull the machine up the slope to the take-off point.

When we had all got our breath back I learnt that Johnny Billeness had gone off on an attempt to reach Portsmouth in the " Grunau." Back at the winch again I watched him miles away to the north-west in the direction of Firle. After some time it became apparent that he was not going to make it, and, in the now clear sunny sky he slowly came home again. On the way he hovered over the valley and reached 2,300 feet maintaining this altitude for a considerable time. Meanwhile the " T21B " was again well up, but not at such height as had been obtained earlier in the day.

At 18.00 hours we cut for the day and back in the club-house with all the machines put to bed, we discussed the remarkable day we had had. We agreed that thermal conditions existed before the sky cleared. Orographic cloud was observed away to the north over the north face proper, and fragments of this seemed to break away and come towards us. Ray Brigden reported that on his flight he went right up through cloud finding terrific turbulence therein with as much as 10 down. Then, on coming out on top of the clouds, he found steady lift. Avoiding getting into cloud again he found lift near the edges of them, but the same conditions prevailed in clear air.

Johnny Billeness reported that he turned back when near Firle because he was down to 1,600 feet, and faced with the problem of going through a dirty looking cloud in the general direction of Lewes. It was considered that if he had made the attempt an hour earlier, he might have managed to win his way along the Downs.

To conclude this article we are agreed that our site offers unknown possibilities, and, given certain weather conditions, cross country flights are likely to be added to our cliff soaring, which, as many of our friends in other clubs know, have provided several Silver " C " duration flights.

Come and see us sometime.

KEMSLEY PRIZE FLIGHTS, MARCH 19th, 1949

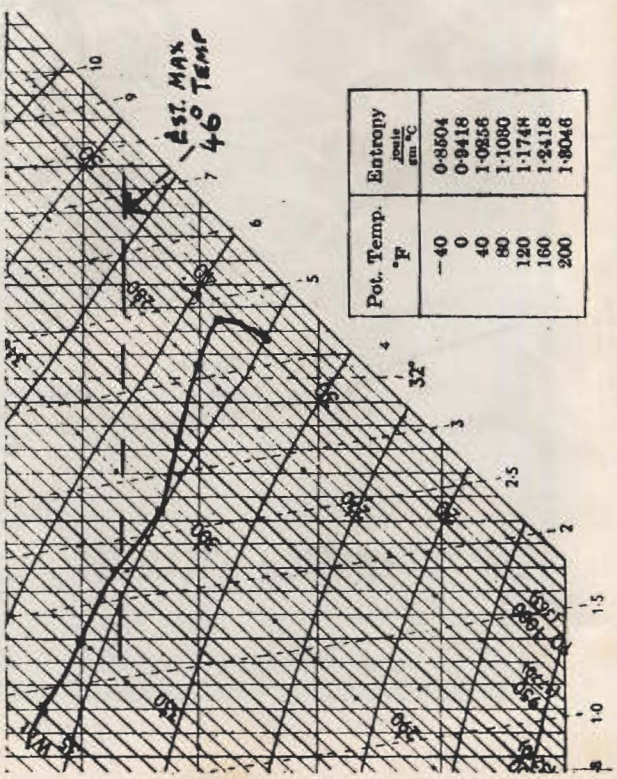
Elstree—Lee on the Solent, 70 miles aero-tow launch.

THE launch was by aero-tow off Elstree at 12.40. Release was made over the eastern boundary of Radlett aerodrome at 1,700 feet in lift taking the green ball to the top of the variometer. Cloud base was reached at 4,200 feet when the lift was abandoned S.W. course set for Denham with 55 on the A.S.I. The whole nine miles was a smooth down draught area. A large cloud over the N.W. of Denham provided the next lift to cloud base at 4,300 feet. A run on the S.W. course of 10/12 minutes was made without losing height, then another smooth down draught area was encountered. The next patch of lift was found over the Thames near Datchet. So the flight continued with smooth glides between areas of lift which in the main exceeded 6 feet per second. The only struggle to maintain height occurred at the western end of the Southdowns. The coast was struck between Emsworth and Chichester. Over Thorney Island aerodrome the second best lift of the flight was found taking the " Olympia " into the cloud bottom at just under 5,000 feet.

A north-west course was then flown to keep inland and to get west, again at 55 m.p.h. Gosport aerodrome could soon be seen, the crabwise glide over Portsmouth City and Harbour was made with a deal of quite unnecessary anxiety as there was still 2,000 feet in hand upon arrival.

Lee on the Solent aerodrome was then noticed (previously assumed to be a seaplane station) and judged to be at least a mile further from the starting point. More lift was encountered over the area and used to work up towards Hamble. The Isle of Wight was within easy reach but it was considered too complicated for the retrieving party. Beaulieu was cross wind the other side of Southampton Water and in poor visibility. No further lift was located near Hamble so a landing was made on the extreme south corner of Lee at 15.15 hours.

DUDLEY HISCOX.



Flight from the Long Mynd to Newbury, Berkshire

NARRATIVE by D. D. Carrow on his winning flight in the winch and bungy launch class.

Introduction

Pilot	..	D. D. Carrow.
Aircraft	..	" Eon Olympia," B.G.A. 511 of the C.U.G.C.
Time of Launch	..	13.15 hours.
Type of Launch	..	Bungy.
Distance Flown	..	104 miles.
Time of Landing	..	17.02 hours.

All times have been worked out afterwards from the barograph, and are therefore only approximate. Heights are above sea level. The launching site at the Long Mynd is 1,500 feet asl. All speeds are indicated.

I made very little attempt to map-read, and flew on a compass course: the pinpoints I have given have mostly been worked out afterwards, but they are correct. I ran off my maps and did not know where I was when I landed.

Pinpoints noted en route (—or sorted out afterwards—)

The Long Mynd
Bromyard
Great Malvern
Cheltenham
Fairford Aerodrome
White Horse, mid way between Swindon and Wantage.
Welford Aerodrome
Newbury Racecourse

Narrative

At 13.15 hours on March 16th, 1949, I was bungied off the Long Mynd in the C.U.G.C. " Olympia." The surface wind was 315 degrees T., 25 m.p.h. to 30 m.p.h. After an hour's soaring at 2,300 feet to 2,500 feet on hill lift, aided by one thermal which took me to 3,100 feet, the surface wind swung to 340 degrees T. and the hill lift became very sparse. I was down to 2,100 feet and thinking of coming in, but discovered a spot 1 mile south of Asterton and over the foot of the hill where there was slight intermittent lift with periods of no sink in between. It was necessary to fly at 45 m.p.h. to maintain position, on a heading of 330 degrees Magnetic.

I remained here for half an hour quite stationary relative to the ground, and gradually climbed to 3,000 feet. Then, edging out over the valley on the same heading, I found quite good lift which took me at three feet per second to 3,800 feet.

A little exploring, drifting to and fro in the area above Hardwick gave weak and intermittent lift to 4,300 feet. Then, at 15.05 hours, in a position exactly mid-way between Bishop's Castle and Asterton I suddenly found an area of five feet per second steady lift, and, flying at 50 m.p.h. to maintain position on course of 330 degrees M., climbed steadily to 9,500 feet. The air was dead smooth and the lift was very steady, with a maximum of seven feet per second. It appeared to be a text-book standing wave.

By 9,500 feet the lift had died gradually to one foot per second. Thinking that I might be drifting down-wind out of the wave, speed was increased to 55 m.p.h., but this did not help, so speed was reduced to 45 m.p.h. giving two to three feet per second lift, but a definite backwards drift.

At 10,400 feet all lift had been lost, and I ran into one foot per second sink. Diving forward at 60 m.p.h. did not get me back into anything, so, after losing 200 feet, at 15.25 hours I turned onto a reciprocal course of 150 degrees M., and set off down-wind at 40 m.p.h. (estimated minimum sinking speed of the aircraft).

At once there was a ten foot per second down draught which lasted for about two miles; then sink decreased to an average of about four feet per second At 15.35 hours the barograph shows weak lift at 8,900 feet, but I cannot remember any noticeable green, though there was a patch of no sink. The air was very smooth.

Then at 15.45 hours, and at 6,700 feet over Bromyard, lift was again found. When it reached three feet per second, I turned back onto 330 degrees M. and increased speed to 50 m.p.h. I then climbed slowly and steadily at an average of three feet per second to 8,600 feet. Again near the top I had to reduce speed to keep climbing, and so probably drifted out of the wave backwards.

As soon as the lift ceased the aircraft was turned back onto 150 degrees M. at 40 m.p.h. A short period of ten feet per second red was followed by three or four feet per second sink to Malvern. Three miles south of Great Malvern another wave was entered at 7,250 feet. It was identical with the Bromyard one, and the same tactics were employed. It took me to 8,450 feet before I lost it at 16.15 hours.

From now on it was a straight glide on 150 degrees M. at 40 m.p.h. A short period of ten feet per second sink behind the Malvern wave soon decreased to about three feet per second sink for the rest of the trip. The air was smooth above cloud base, but rather turbulent below. Only one small thermal was found near the end of the trip and I lost it after one turn.

Near the ground the penetration seemed fantastic, and I was picking fields ahead for the last 15 miles to Newbury. I landed safely on Newbury racecourse at 17.02 hours.

The authorities there were extremely kind and helped me to de-rig the " Olympia " and stow her away for the night.

The following details of the glide from Malvern may be of interest:—

63 miles in 45 minutes for a loss of height of 7,200 feet with airspeed 40 m.p.h.

Average ground speed 84 m.p.h.
Average tail wind 44 m.p.h.
Average sink 2.67 feet per second.
Average penetration 1 mile for 114 feet loss of altitude.

Meteorological Data

The cloud was strato-cumulus, base 4,000 feet to 5,000 feet and 500 feet thick. The average cover was 5/8ths. Very isolated cumulus tops rose another 500 feet.

At each wave there was a large patch of clear sky about two miles long (in direction of wind) and three to four miles wide. The wave lift was encountered rather ahead of the downwind edge of each gap. Cloud was thickest, about 7/8ths, just downwind of the gaps. There was no gap upwind of the Long Mynd, so that this wave was presumably the first of the series.

I think that there may have been a second wave where my barograph shows no sink at 15.35 hours, and I may have flown just through the top of it at 8,900 feet. There was a cloud gap in the appropriate position. In this case the Bromyard and Malvern waves would have been the third and fourth respectively. This would give a wave length of 13 miles.

One Lesson Learnt

When soaring a standing wave in a strong wind, one should get right to the up-wind edge of the wave while the lift is strongest, so that, when the lift becomes weak near the top of the wave, one can decrease speed to reduce the sink of the aircraft, and so keep climbing longer before drifting downwind out of the wave.

D. D. CARROW.

A NEW WORLD DURATION RECORD AT LES ALPILLES— 40 HOURS 51 MINUTES

By Guy Borgé

M. GUY MARCHAND, aged 30, a civil engineer, has just broken the duration record. His name is entirely new in the Soaring world: before the war he was a power pilot; one day he came at Saint Remy de Provence and the sight of the sailplanes of the Alpilles Centre gave him the desire to soar. He began to fly in a "C.800" two-seater in May 1948. In July he had already flown 100 hours, of which 8 flights timed more than 8 hours each one. He holds the "C" badge, naturally the duration and altitude legs of the Silver "C," but not the distance.

For the record, he took off on the 16th March, 1948, at 7.43 a.m. in a "Nord 2000 Olympia" specially equipped with flight lights and the radio which transmitted regularly to him the last "met." bulletins. The airlines planes of the Lyons-Marseille line had received orders to get off the Alpilles country for several days to avoid risk of a collision with the sailplane. The Mistral wind was very strong, and slope lift soarable between 3,200 feet and 5,000 feet. M. Marchand could even climb to 8,000 feet (certainly due to wave effect), an altitude where the lift reached 16 ft./second, but too high, and he preferred to come to a lower level by applying air brakes.

After 27 hours of flight, the sailplane radio was no more heard by the ground station; a breakdown in the battery wires, caused by the turbulence of the mistral, also stopped the lights. And when M. Marchand, very tired by 40 hours 51 minutes of flight, wanted to come down on the 18th March at 0.38 a.m., he had to land without lights amidst a severe mistral gale in the country and not on the airfield. But the sailplane was not damaged, and M. Marchand is a very good pilot indeed.

If the flight is officially registered by the F.A.I., it constitutes a new world duration record. But like Mrs. Gohard formerly Miss Choisnet, M. Marchand wishes to improve on his performance at a later date, and perhaps to try also to break the two-seater duration record.

This flight and the preceding ones at Les Alpilles show how right M. Thoret was in his ideas. He had founded on the 26th August, 1934, a motorless school using power planes at Les Alpilles. Here, he flew 9 hours in a "Hanriot 14," gaining 2,900 feet. Then, on the 9th August, 1936, he flew again 9 hours in a heavier plane, the "Morane 315," of which he had stopped the engine.

M. Thoret may be very glad to see the astonishing results of his 15-year old tests.

THE 1949 FAYENCE SOARING COURSES

THE Fayence Regional Centre organizes soaring courses from the 1st May, 1949. A course begins on the 1st and the 15th of each month. The daily cost is 700 francs (about 13s. 3d.) including bedding, food, accommodation and flights. Long flights are paid at the rate of 80 francs an hour (about 1s. 6d.). Aero-towing is available at a cost of 1,800 francs an hour.

I have already shown in the December number of *Sailplane* how the conditions of the Fayence Centre were ideal for soaring. The proximity of the Cote d'Azur and its attractive towns, Nice, Menton, Cannes, Saint Raphael, gives extra enjoyment.

Performances have been very good from the beginning of 1949. During the first three months, 1,250 launches and 199 hours have been recorded. The only results for March 1949 are: 1 "B" badge, 5 "C" badges, 1 altitude leg of the Silver "C" and 1 altitude leg of the Golden "C." The one-seaters, flown by pupils, have made very nice durations and altitudes, and the lack of space prevents my quoting all: 3 hours 50 (10,000 feet), 8 hours 11 (6,400 feet), 7 hours 10 (5,000 feet), 5 hours 55 (13,300 feet), 3 hours (10,500 feet), 4 hours 12 (7,300 feet), and so.

Full details on request (write mentioning *Sailplane*) from: Association Aéronautique Régionale de Fayence, Aérodrome de Fayence (département du Var). Phone Fayence 68.

BRITISH GLIDING ASSOCIATION ANNUAL GENERAL MEETING

CHAIRMAN'S REPORT

BEFORE reporting on the past year's work of the Association, permit me to refer to the recent great loss sustained by the death of our President. Lord Londonderry was Air Minister at the time of the initiation of the pre-war gliding subsidy, and always a sure friend of the gliding fraternity. Our sincere sympathy was expressed to the family by telegram and by letter.

We also suffered a cruel blow by the tragic deaths of the leading pilots Donald Greig and Christopher Nicholson, who were killed in the Alps during the International Competitions.

This is the third Annual General Meeting of the British Gliding Association under its new Constitution as a Public Company limited by Guarantee, and the nineteenth year of its conception.

Our paid-up membership in 1948 was eleven Full Members and twenty-five Associate Members. We are glad to welcome as new Associate Members during the year the Combined Services Soaring Club, the Gloucestershire Gliding Club, the R.A.F. Lubeck Gliding Club, the Portsmouth Aero Club (Gliding Section), the Shoreditch Training College Gliding Club, and No. 615 Squadron R.A.F. Gliding Club. Six Clubs, however, have dropped out and we regret the decline in the fortunes of the Oxford and the Leicester Gliding Clubs.

The Council of Nominees from the Full Member Clubs numbered eleven out of a permissible thirteen and met ten times, or eleven if an adjourned meeting be considered as two.

Sub-Committees to advise the Council met as follows :—

Flying Committee, chairman H. C. Bergel, twice; Technical Committee, chairman K. G. Wilkinson, twice; Research Committee, chairman J. W. S. Pringle, once; Finance and Management Committee, chairman myself, once; International Contests Committee, chairman Col. R. L. Preston (or his nominee), six times. The Kemsley Trust Advisory Committee was not called upon during the year.

Reports of the work of these Committees will be given at the general Meeting.

All Member Clubs are required to report annually upon their equipment and activities. A composite report has been prepared for examination This indicates those Clubs who have failed to obey this rule, and those Returns received show that 91 Club-owned motorless aircraft were operated in Britain. There are in addition approximately 41 privately owned machines. Altogether these have made 38,633 launches; and 7,490 hours soaring flights have been recorded. Compared with 1947 these figures indicate a 55 per cent increase of aircraft making over twice as many launches and putting in nearly three times as much soaring time.

The total number of Certificates issued during the year by the Association on behalf of the Royal Aero Club was 2,918, comprising 1,854 "A's," 640 "B's," 424 "C's," and in addition 59 Silver Badges and one Gold Badge were awarded—all greater totals than for the previous year.

It should be borne in mind that these totals include certificates obtained by A.T.C. Cadets, as well as Service and Civilian Clubs.

Throughout the year the Council continued to combat the threatened imposition by the Authorities of Glider Pilots' Licences and the legal implications of the proposed Certificates of Airworthiness. Mrs. A. C. Douglas was briefed to attend the Wilcock Committee in February and to make the case that they were unnecessary and undesirable. This vigilance was crowned with success when early in 1949 the Ministry of Civil Aviation announced that licences would not be required and that the system of certifying airworthiness would be reduced to a much simpler affair than the original proposals.

Distribution was effected of the thirteen ex-German "S.G. 38" and "Avia" Gliders made available at low cost by the M.C.A. This was attended by many complications as the machines were in a deplorable condition, being in reality throw-outs after the A.T.C. and the R.N. Gliding and Soaring Associations had had their picks from a batch of ex-enemy machines that had been brought over to this country for the A.T.C. by the Ministry of Supply.

Lengthy debates of the Council during the year centered round the Ministry of Supply Flight Trials Contract, value now £1,140 which is still uncompleted. These debates led to revisions of the terms of reference of Sub-Committees, and a resolution passed in February made it double clear that Sub-Committees could not act upon major subjects without first informing the Council of action proposed or recommended. Initiated by the Research Committee, the completion of this contract is now the responsibility of the Technical Committee.

The Council also had to deal with backwash from the earlier allocation of the ex-German aircraft from Farnborough; this had been investigated by the late Robert Kronfeld and Hugh Bergel.

We were glad to welcome during the year a liaison officer between us and the A.T.C. in the person of Flight Lieutenant J. H. Davies of Headquarters Reserve Command R.A.F.

I have attended on your behalf three meetings of the newly formed Londonderry House Advisory Committee.

The National Gliding Contests were conducted on a point-scoring scheme. The number of entrants was disappointing, namely 15. The Londonderry Cup was awarded to the Cambridge Gliding Club (J. W. S. Pringle—Pilot), the L. du Garde Peach Trophy to the Cambridge Gliding Club, the Firth Vickers Trophy to A. D. Smith and the EON Cup to C. J. Wingfield. I am sure we all congratulate the winners.

Dr. Slater attended the International Scientific Congress at Samedan in July and I myself, deputising for P. A. Wills, the session of the Gliding Section. Full reports of these conferences have been made available to members.

Other work has included approaches to the Ministry of Civil Aviation and Ministry of Supply with a view to obtaining the construction of a prototype of the 2-seater design which won the competition organised by the Association in 1947. So far there has been no result.

Information on British Gliding Association work is now being regularly sent out to the Aviation Press for Publication.

Quotations were secured and forwarded to the Ministry of Civil Aviation, New Delhi for the training of Indian Instructors in gliding and soaring.

Rules have been drawn up for the Kemsley Trustees in connection with the 100 guineas prize money offered for the best winter cross-country flights.

During 1948 there has been considerable improvement in the financial position of the Association. The Accounts show a balance carried forward of £47. 11s. 9d. which has been achieved after paying off a deficiency of £281. 16s. 6d. resulting from the 1947 National Contests at Bramcote and after writing off £124. 6s. 0d. re-formation expenses.

Increased income resulted from the greater number of Certificates issued and badges sold, a contribution for administration of £200 from the International Contests Fund and a windfall of £96. 5s. 0d. accruing from the sale of ex-German gliders and barographs.

The International Contests Fund still has a credit balance of £192. 4s. 9d. which with the Kemsley prize money of £105 and the Research Fund of £25 goes to swell the cash in hand which is shown as £1,086. 17s. 11d., a sum which might otherwise seem inconsistent with the indebtedness of the Association to the Royal Aero Club of £400.

Although comparative figures for 1947 are given on the Balance Sheet and Income and Expenditure Account, these must be read with the understanding that the 1947 ones cover a period of fourteen months. Further it should be explained that the item " Subscriptions " included all money received under that head during those fourteen months. Although these became due on various dates 1948 was not credited with proportions equal to the unexpired terms. This method has now been amended and accounts for the small amount of £246. 13s. 4d. applicable to this year. (If you will refer to the Balance Sheet you will see £105 has been carried forward to 1949). There is another point to which I would like to draw your attention. When the balance of £87. 0s. 2d. was carried forward to 1948 it was then not known that the deficiency on the 1947 contests was going to be as much as £281. 16s. 6d. The Admiralty Bill for the ten days use of Bramcote had been wrongly estimated at £50. It turned out to be £284. 0s. 7d.

Your Honorary Treasurer, Basil Meads, presenting his Budget for 1949, does not paint a rosy picture. In it he has estimated an income of £1,385 and an expenditure of £1,375. The A.T.C. having reduced their total of Gliding Schools he advises the anticipation of a fall in revenue from the issue of Certificates and Badges. Our office rent has been raised by £25 to £175. Salaries are estimated at £808 as against £776. 8s. 10d. the previous year. This comes about because a junior office assistant was taken on towards the end of 1948. The estimate makes no provision for any increase of salaries, although these are merited and will be granted as soon as the affairs of the Association permit.

At this juncture you will probably be interested, even surprised, to learn that between 300 and 400 letters go out of the office every month. One month it was 415. Unless considerable regular voluntary help can be made available it is not considered practical to reduce the paid staff to its original two.

Suggestions for practical means of raising our income, or reducing expenses, so as to make " rises " possible will be most welcome.

We are all, I am sure, very appreciative of our staff's enthusiasm and devotion to their duties. Likewise we are grateful to Councillors and Committee men for their unselfish work and particularly to those who have to travel considerable distances to attend meetings.

On three occasions you have elected me to the Chair, for which honour please accept my sincere thanks. I only hope it will be considered that I have been worthy of the trust. Lately I have been conscious of the fact that I have not given all the time and energy the position demands. The Gliding Club of which I am also Chairman has expanded very considerably this year. It is my first love, and with the greatest respect may I state that I prefer to give to it first call on my time. Therefore, just in case there should be any thought of re-electing me, please permit me to retire, and so let a " new broom " take the chair.

If I may be permitted to offer a parting word of advice it is—select a successor who is not wrapped up in any particular Club.

D. G. O. Hiscox,
Chairman.

2nd March, 1949.

REPORTS ON INTERNATIONAL COMPETITIONS COMMITTEE—1948

IT had originally been intended to hold the 1948 International Competitions in this country, but the continuing post-war difficulties of the country in general and the Gliding Movement in particular, made it necessary to withdraw our offer to the F.A.I. to do so. When Switzerland then offered to hold these Competitions, it was decided to enter a full British team, and the B.G.A. created this Committee to make the necessary arrangements.

At first it was believed that each country would be limited to four teams each, consisting of pilot and two ground-crew, but when the final rules were issued, it was found that each Nation was permitted to enter six teams. The full British entry was then selected and contained two teams from the B.A.F.O. Clubs in Germany, who were able to provide their own finances.

Finance. To cover the four remaining teams, a

total sum of £1,684. 15s. 0d. was raised by voluntary subscriptions. Notable donors were :—

The S.B.A.C.	£400. 0s. 0d.
de Havillands	£100. 0s. 0d.
R. Aero Club	£500. 0s. 0d.
From R.Ae.C. Aviation Activities Fund.	
Kemsley Flying Fund ..	£100. 0s. 0d.
R.N. G. & S. Assoc. ..	£100. 0s. 0d.

A large part of the balance was subscribed by team members themselves. In the event the sum raised was adequate, a surplus of £192 being allotted eventually to a B.G.A. Contest Fund. But for the two tragic fatalities which occurred to the British Team, a considerably larger surplus would have been available.

Equipment. Slingsby Sailplanes generously lent two specially constructed "Gull IV" machines, Messrs. Elliots, an "Olympia" and Mr. Wingfield a second "Olympia." The B.A.F.O. Team lent two "Weihes." Other notable equipment lent included four Landrover cars by Messrs. Rovers, and Rice trailers from various sources. All this equipment proved itself to be first class. In the special conditions of Alpine Flying, the 15 m. span of the four British Machines as against the numerous other entrants of 18 and 19 m. span, proved no serious handicap. Such is not, however, likely to be the case in more normal conditions, such as are to be expected in Sweden in 1950.

Performance. The outcome of these Competitions is too well known to require description. Our equipment and ground-crews proved themselves first class, but our pilots' technique was inferior. The two fatalities we suffered may be ascribed to our appalling luck—tragic they were, but significant only of the special risks inherent in Competition Flying in Alpine conditions. Our Pilots' enthusiasm was of the first order. Between them our six pilots exceeded 250 hours in the air in three weeks—but their skill was not up to that of the top International Class. Why was our standard of Pilotage inadequate? Our air record in the late war disposes of any suggestion that we cannot, in this country, find Pilots capable of being trained to the highest International Standards.

Lessons Learned. It is my opinion that the following steps are required if we are sufficiently anxious to bring our top level pilots up to International standards :—

1. The establishment of advanced flying training facilities, either by an extension of one or more of our existing Clubs, or by means of a special Unit created for the purpose.
   The cost of advanced sailflying training and equipment is to-day so high that this could only be achieved by a subsidy scheme, extended specially to cover such training.
   It may be that at present such an ambition is beyond the horizon of practical possibilities. It will remain beyond this horizon at least until a sufficient body of people within the movement desire it.
2. Remodelling our future National Competitions on sterner lines, as laid down by the F.A.I. and as carried out in all other countries at present really interested in motorless flight.
   In such competitions, machines would not be shared by more than one pilot. Only the best Pilot of each Group or Club would partake, possibly preliminary knock-out trials would be held previously within each Club.
   These Competitions should last for a fortnight, and should include "Goal Races," which is a technique overcoming the limitations inherent in unrestricted long-distance flying in a comparatively small island.

The 1950 F.A.I. Competitions. Unless we are prepared this year, to hold Competitions on the above lines, the mere selection of a large team for 1950 will be difficult, if not impossible, even were sufficient finance available. It is only possible to assess the relative competence of Pilots when they are flying in the same conditions against each other in competition. There is also possibly little to learn until the lessons of 1948 have been applied.

Efforts are being made to produce an 18 m. Sailplane by next year, but if these fail, it will be better to take "Weihes" than to accept the disadvantage, unfair to both Pilots and Manufacturers, of entering 15 m. machines.

My view is that we should not be the only important Nation of Western Europe not competing, and that we should therefore, endeavour to enter a small team to keep our flag flying until better days.

P. A. WILLS,
Chief Pilot of the British Team.

From H. C. Bergel, 7.2.49.

REPORT FROM THE FLYING COMMITTEE

The Flying Committee only had two full meetings during the year, but the chairman and various members met unofficially several times on a number of different matters.

At these meetings one of the most important subjects discussed, both among themselves and with the Ministry of Civil Aviation, was the question of licences for Glider Pilots. This subject was finally taken over by a special Sub-Committee, with results now known to you.

Other important matters dealt with included organisation of the 1948 National Competitions, discussions with the Secretary General of the Royal Aero Club on the F.A.I.'s Regulations for gliding records (which appeared to be quite impracticable in many respects) and the question of the high flying accident rate in Clubs, and the consequent high cost of Insurance. Out of this discussion arose the idea of the Chief Flying Instructor's Conference which has recently been held.

The Committee inspected and approved claims for a British National Goal Flight Record by Fl./Lt. Forbes; for a National Kingdom out-and-return Flight Record by Charles Wingfield; for a Gold "C" Certificate by Fl./Lt. Forbes (the third British Gold "C"), and for various "legs" of the Gold "C" Certificate—on all of which the Flying Committee offers its congratulations.

At its second meeting the Committee co-opted Mr. Lorne Welch and Mr. Peter Brooks, and took the opportunity of loading up the latter (who works

in M.C.A.), with a number of jobs involving the Air Navigation Act.

Arising out of this, the Flying Committee has pointed out to the Council that a large proportion of its work involves dealing with the M.C.A. and other official or semi-official bodies, and that it might be able to do better work for the Association if it was composed more of people living in or near London, and with a sound general knowledge of gliding and its problems, rather than of a representative selection of members of the various British Clubs, many of whom live too far away to be able to attend regularly. This is, of course, not an attempt to pack the Committee with members of a particular section or clique, but an honest facing of the fact that the work of the Committee is changing, and that its most useful function is perhaps the carrying on of a steady fight against bureaucratic interference.

And finally, the Committee has to record the loss of one of its oldest, most valued and most hard-working members—Christopher Nicholson. There is, surely, no-one left in this country with anything like his experience, his enthusiasm, and his common-sense, or his willingness to place all these qualities at the disposal of the B.G.A. The Flying Committee is most deeply aware of how much harder is its job now that he is not there to help.

H. C. BERGEL.

From J. W. S. Pringle, 7.2.49.

RESEARCH COMMITTEE REPORT

The Research Committee has settled down to a form of organization which seems well suited to the present needs of the gliding movement. It meets as and when a sufficient volume of business has accumulated to justify bringing together people from various parts of Great Britain. During the last twelve months this has happened once and it may be necessary to have another meeting in the near future.

At the meeting held in August, 1948, the following matters were reported which are of interest to members of the British Gliding Association.

(1) A specification for glider winches has been drawn up and sent to a manufacturer who is building a prototype winch.

(2) Flight Report Forms to enable the Research Committee to collect information about soaring flight have been printed and have been circulated to Clubs.

(3) The G.P.O. has allocated a wavelength of 131.9 megacycles for air-to-ground and ground-to-ground radio communication for gliding clubs and regulations governing the operation of radio stations have been drawn up.

(4) Tests have been carried out on the laying of smoke trails from gliders to make thermals visible. Unfortunately the small smoke generator available from wartime developments proved unsuitable and no success is reported.

(5) Dr. Slater represented the B.G.A. at the first meeting in Switzerland of the new International Research Organization O.S.T.I.V. A full report of the proceedings is available in the B.G.A. Office.

(6) Attention of Member Clubs is drawn to the scheme for supplying Research and Technical Publications (R.T.P.'s), in a folder for a single initial payment. More subscribers are needed. Much valuable information is contained in these publications and more will be issued from time to time.

(7) The Research Library is now housed in the B.G.A. Office in Londonderry House and Clubs are being notified of the procedure for borrowing books.

It does not appear that many Clubs have yet been able to undertake much research work on top of their normal flying activities. The Research Committee would welcome reports of work done and is always glad to invite Club members who have anything to report to attend its meetings. There may, in the near future, be a small amount of money available to help individual research projects, and anyone with proposals to make as to how this money should be expended to the greatest benefit of the gliding movement should write to the Secretary of the B.G.A. outlining his ideas.

I am not being nominated by the Cambridge University Gliding Club to serve on the Council next year and under these circumstances the Council should consider whether I can continue as Chairman of this Committee.

REPORT ON WORK OF B.G.A. TECHNICAL COMMITTEE

The Technical Committee held two meetings during 1948. The most important development in the field of interest of the Committee has been the increase in activity of the Test Groups, which now number three. The combined action of Research and Technical Committees secured a Ministry of Supply contract for flight tests on certain glider types; this contract has enabled useful work to be carried out by the three Groups and a background of test experience is being accumulated which will be of benefit to the whole movement. The Groups themselves have made a good start in collecting test instruments and developing suitable techniques.

Tests have been carried out on the following types:

"Gull IV"	..	Performance
"Olympia"	..	,,
"Weihe"	..	,,
"Moswey III"	..	Handling
"Kranich"	..	,,

Reports have been written by the Groups and submitted to the Ministry of Supply.

A good deal of work has been put in on matters connected with the new Air Navigation Regulations in efforts to lessen their interference with operations.

It is hoped that an arrangement will shortly be concluded with A.R.B. by which special category C's of A. can be issued (through a specially constituted B.G.A. technical body), for experimental gliders. This procedure will assist those who wish to design and build experimental types with the minimum of expense and will also, we hope, give them the benefit of such experience as is available in the Technical Committee.

K. G. WILKINSON.

1st February, 1949.

ULTRA LIGHT AIRCRAFT ASSOCIATION BULLETIN

Volume 2, No. 11. March, 1949.

NATIONAL BASIC TRAINER

We are happy to record that we have already received many letters, sketches and even G.A. drawings of the two-seat project, in response to our leader in the last issue of the *Bulletin*.

Experience of all those who have written seems to show that a two-seater is, at present, a " must," and until such time as a satisfactory method of solo training is evolved, is likely to remain so.

This issue of the *Bulletin* includes a questionnaire set out by the Chairman of our Design Sub-Committee, in an endeavour to ascertain the exact requirements of our members for a two-seat ultra-light training aircraft. This will enable an idea of the optimum layout to be obtained, a layout which then must be adapted to fall within the Association's capabilities.

All are cordially invited to complete the questionnaire and return it to the Association in order to evolve a suitable specification for our National Basic Trainer.

FINGER TROUBLE

Contributed by Geoffrey Dorman, A.R.Ae.S. Chairman, General Purposes Sub-Committee.

Several *Bulletins* ago I exhorted U.L.A.A. members to pull their fingers out, show some enthusiasm, and not wait to be led. Get cracking yourselves in a big way, or you will get nowhere. Your ultra-light fingers are still well in ! Pull them right out !

Stop being so " Rolls-Royce-minded," and be thankful for anything which you can fly for the present. Once you get into the air, other and better aeroplanes will follow.

I know that you want the " Fairey Junior," the whole " Fairey Junior " and nothing but the " Fairey Junior," but as Fairey's are still right at the very bottom of your gardens, you seem to have had it for the present.

Groups could have had the " Motor-Tutor " by the end of April if they had shown any enthusiasm. If half a dozen groups had ordered " Motor-Tutors " then, apart from getting much amusing flying, the U.L.A.A. could have sent teams to several flying meetings, such as the *Daily Express* Show at Gatwick on July 27th and the Lympne Show on August 28th, and raced them. That would have given a great fillip to the U.L.A.A. movement, would have resulted in many recruits, which in turn would have proved to the makers of ultra light aeroplanes and motors that there was money in it if they too would pull their fingers out.

I agree that my friend Mr. Slingsby has done nothing to arouse your enthusiasm by sending a " Motor Tutor " to your groups to demonstrate, and for you to fly. Possibly he had very good reason for not doing so. Indeed he must have good reason, You have shown such few signs of being alive that manufacturers may well think you are so lifeless and unenterprising that you are hardly worth bothering with.

A few months ago Dick Worcester wrote an article in the *Aeroplane* on the joy he found in flying the " Motor-Tutor." I thought that would have whetted your appetites, and you would have come clamouring to the Committee and demanded " Motor-Tutors " at once. I am beginning to wonder whether any of you are even sufficiently air-minded and enthusiastic to read the aviation technical papers !

At the A.G.M. last year we promised you that if you wanted ultra light aeroplanes to fly you would have them by the same time this year, and if you had the enthusiasm to order " Motor-Tutors " you could have been flying them. There is still time for you to get flying on " Motor-Tutors " this year, and to fly them in class races. If you wait for the " Junior " or any other " pie in the sky " you may remain firmly on terra firma for a very long time. So pull those fingers right out and the U.L.A.A. may still prove to be worth the time and energy a few—*only a very few*—members put into it.

LONDON TO MANCHESTER BY ULTRA-LIGHT

Thirty-nine years ago on April 27th, a Frenchman, Louis Paulhan flew from London to Manchester in an elapsed time of 3 hours 47 minutes on a " Farman " biplane powered by a 50 h.p. rotary Gnome motor which in its best moments developed about 35 h.p. He thereby won a prize of £10,000. A 30-year-old Englishman, Claude Grahame-White made a gallant attempt to win the prize the previous week, but at an intermediate stop his aeroplane was blown over and badly damaged. He took it back to London by road and repaired it at Wormwood Scrubs. He made a gallant attempt to overhaul Paulhan, having started an hour after him and was forced down by darkness at Roade near Northampton. There being then no U.L.A.A. to spoon-feed him, he depended on lots of enthusiasm, energy, and initiative and did not wait to be led. No one had flown in the dark then. But that did not deter Claude. He made a bold and original effort and announced to his friends that he was going to fly in the dark and to try and overtake Paulhan who had landed for the night near Lichfield.

He took off again by the lights of motor car head lamps and flew on by feel only, as he had no instruments in his " cockpit " which was an open seat on the front edge of the main plane. He was almost frozen, with no protection against the chill night air ; when he got over the Midland hills the turbulence was too much for him and he was forced to land at Polesworth, short of his rival. Paulhan restarted as soon as it was light and landed at Didsbury, Manchester.

Grahame-White leapt into world fame over night, but did not rest on his laurels. He formed the Grahame-White Aviation Co. and turned the field at the end of the lane named Colindale Avenue, from which Paulhan had started his flight, into Hendon Aerodrome. There he started a flying school which made a big success. Other flying schools started up at Hendon, and by 1914 the air was getting so crowded that one school, the London and Provincial, rented another large field at the end

of the little country lane a couple of miles away named Stag Lane. The school flew its low-powered "Caudron" biplanes over from Hendon each morning, and back again at night. In 1920 Stag Lane was rented by the de Havilland Aircraft Co. when they first started up, and they remained there for ten years before they grew so big they had to go to Hatfield.

The fortunes of de Havilland Co. were founded on the production of the "DH 60, Moth" with a 60 h.p. Cirrus motor. The "Moth" was designed by Capt. (now Sir) Geoffrey de Havilland, and the Cirrus motor was designed by Major Frank Halford. Both these eminent gentlemen have done us, the U.L.A.A., the honour of accepting office as Vice Presidents.

This is a story to try and impress upon members of the U.L.A.A. that rewards will follow real enterprise.

DESIGN SUPPLEMENT

Contributed by G/C. E. L. Mole. Chairman, Design Sub-Committee.

Proposed Primary Trainer Design Project

The publication of Mr. A. R. Weyl's provisional specification of a primary trainer ultra-light aircraft in our *Bulletin* of last November has resulted in drawings and a description of a similar project being submitted to us by Mr. G. A. Henwood, of Wandsworth Common, London. Mr. Henwood agrees with Mr. Weyl on the need for extreme simplicity of construction, and he has schemed out a practical looking single-seat, low-wing aircraft embodying a number of features of sailplane construction.

A tapered, high aspect-ratio wing is used, of monospar construction and with a plywood nose to take torsional loads. Mr. Henwood considers that the aerodynamic advantage gained by such a wing justifies the increased production difficulty. Sailplane type spoilers are fitted to reduce float when landing, and to eliminate ballooning from the ground from gusts.

The rear fuselage is of simple triangular section, apex upwards, and is ply covered. Mr. Henwood suggests that this is the simplest possible structure, and is also very light, and rigid. It is also capable of construction without jigs. The fin is integral with the rear fuselage, and a two-piece wire-braced tail-plane is fitted. From the cockpit, forwards, the fuselage develops into a deep box section terminating at the fireproof bulkhead. The pilot's seat is mounted directly on the spar, and a cockpit cover is provided since Mr. Henwood considers it desirable to give the impression he is sitting in a real aircraft and not an amusing toy.

For extreme simplicity, low drag and lightness, a single wheel cum-skid undercarriage is used, in sailplane fashion. This is unsprung, and the only shock absorption lies in the low pressure tyre. Mr. Henwood claims that as gliders have been taking-off and landing on such undercarriages for years, there is no reason why the technique should not be applied to ultra-light aircraft. He suggests that if light wing tip skids were fitted, independent taxy-ing should be possible with light aircraft. Moreover, he adds, for solo training a single wheel undercarriage would enable a pupil to get the feel of his aileron control before commencing ground hops.

Mr. Henwood concluded by remarking that a general impression seems to exist among "light" aircraft pilots that ultra-light aircraft are too susceptible to bumps. He feels, on the contrary that a good deal of pleasure can be derived from the intelligent use of these self-same bumps, and recommends that ultra light aircraft should be equipped with a sensitive variometer for the purpose. With such an instrument, he considers they would be of value to the gliding movement for exploring atmospheric phenomena such as standing waves.

Mr. A. R. Weyl, A.F.R.Ae.S., head of our Design Team and Chairman of our Research Sub-Committee, has studied the project, and agrees with many of the points expressed. He considers, however, that the high aspect-ratio, tapered wing would be unduly sensitive to bumps, besides being difficult for amateur construction. He prefers the simplicity and robustness of the braced "square" wing for a primary trainer, for which aerodynamic efficiency is not required. With such a wing, there would be no necessity for lift spoilers, which Mr. Weyl feels might be a potential danger in the hands of a novice.

Mr. Weyl's main criticism, however, lies in the single wheel undercarriage. He suggests that unless very substantial wing tip skids or side wheels are provided, the pilot will have need of assistance for taxy-ing and taking-off, which would rob much of the fun from solo flying, besides being inconvenient in field landings away from help. With regard to this snag, however, we recall the ingenious solution used on the "Carden-Baynes" auxiliary powered sailplane, which had a single-wheel undercarriage. A remote throttle control was fitted at a wing tip, thus enabling the pilot to taxy the aircraft while supporting it at the tip.

One major point of difference between Mr. Henwood's and Mr. Weyl's conceptions of a primary trainer lies in the question of appearance. Mr. Weyl stresses that the essential requirements of simplicity, robustness, and safety must outweigh appearance, and that we must accept the somewhat antiquated look resulting. On the contrary, Mr. Henwood considers that for psychological reasons the aircraft must not look out-of-date, or it will lack selling appeal and our Groups will not be keen to build and operate it. This is a point of fundamental importance to the design of our proposed standardised primary trainer, and we would welcome views on the matter as well as on the specification in general.

Fairey "Junior" Progress

We have heard from Mr. E. O. Tips, designer and constructor of the Fairy "Junior," that he has now completed a fabric covered, metal wing for the aircraft which is much lighter than the previous wooden one, although not suitable for home construction. He is using the existing "Junior" prototypes to test out his new method of construction. We earnestly hope to see many more demonstrations of this interesting aircraft this summer, and will do all we can to arrange for it to be seen and flown by as many of our members and Groups as possible.

No construction programme of the " Junior " can be planned by Fairey's until a suitable engine is available in production. We were, therefore, interested to hear from the Vincent H.R.D. Co. that they are investigating the conversion of their motor-cycle engine for the " Junior " The development of a suitable engine is, of course, vital to the whole U.L.A.A. and we will publish further news of this project in due course.

Slingsby " Motor Tutor "

The " Motor Tutor " prototype is shortly to be fitted with one of our " A.R.B. approved " Aeronca J.A.P. engines, and will then undertake official flight tests for issue of its C. of A. Although the original J.A.P. engine fitted has functioned perfectly, it was not acceptable to A.R.B. as it had not been put through the routine bench test required by them. Consequently there has been a considerable delay whilst Mr. Rose Dale (Chairman of our Construction Sub-Committee) struggled to comply with A.R.B.'s metriculous requirements for the equipment and instrumentation of the test bed. He has at last succeeded, and " A.R.B. approval " engines for the six " Motor Tutors " at present under construction are now becoming available.

Mr. Slingsby mentions that he has on several occasions successfully used the " Motor Tutor " as a glider tug, which is really a remarkable performance with only 37 h.p. ! He feels that if fitted with the 50 h.p. engine we are striving to obtain, the " Motor Tutor " would have a desirable margin of power for towing, and would provide a cheap and economical glider tug. The secret of its success as a tug with such low power is, of course, the low towing speed possible which need be little greater than the gliders optimum speed.

Mr. Slingsby also adds that a " kit of parts " scheme will soon be operative for the " Motor Tutor." It will include all the wood and metal parts, but the customer must purchase the engine, propeller and engine accessories from other suppliers. In this connection members are reminded that we hold a limited quantity of unused Aeronca J.A.P. engines, and we would suggest to those interested that they write in to us as soon as possible to reserve any engines required.

Pulse-Jet Engines

We mentioned in last month's *Bulletin* a suggestion from Mr. R. Swinn of Blackpool, for the use of a pulse-jet engine (the principle used on the V.1 flying bomb), for providing auxiliary power on a sailplane. Mr. Swinn has now gone further with the idea and really intends to make up an experimental unit for trial. He has sent us rough drawings and calculations for comment, and is anxious to contact anyone interested in the idea or who can give him design information. There seems to be remarkably little design information available, but so far we have located two enthusiasts who have actually made and run their own model pulse jet engines. The first is Mr. W. Burrows of the National Gas Turbine Establishment, at Farnborough, who made up three models between $\frac{3}{8}$-inch and $1\frac{1}{2}$-inch diameter, the largest giving 4 lb. of thrust. His spring steel valve design is particularly neat. Mr. Burrows, however, managed to get his models to work only after a very considerable amount of experimentation, and he considers that a successful model cannot just be scaled up to an increased size without completely repeating the experimentation.

The second designer is Mr. D. E. Felce of N.G.T.E., Whetstone, near Leicester, who is one of our most refreshingly keen members—he holds a glider " C " certificate, and is building his own " Luton Minor " U.L.A. He also saw possibilities with the pulse-jet engine for a sailplane, and decided to make up a small one to give just enough thrust (25/30 lb.) for the sailplane to be cruised around whilst looking for thermals and to be capable of re-starting in flight when the thermal was lost. He intended to rely on the normal method of launching, as he considered that a pulse-jet engine with sufficient thrust to launch a sailplane and to climb it to 2,000 feet would be too bulky and heavy, with excessive fuel consumption.

Mr. Felce first of all produced a successful 2 inch diameter model, and having established his design principles went on to produce a larger version for the sailplane with an 8 inch diameter combustion chamber and a 4 inch diameter jet pipe. After an immense experimental effort he got the engine to start, but it ran only for about two seconds at a time. He eventually gave up the project owing to complaints from the neighbours of the ear-splitting noise, small and occasional conflagrations !

We consider the project is interesting and well worthy of investigation and we wish Mr. Swinn the best of luck in his efforts. The advantages of the pulse-jet engine lie in its extreme simplicity, cheapness and lightness—it consists solely of a shaped tube, a valve grid and a controlled fuel supply ; no special alloys or expensive machined parts are required. The main disadvantages are its heavy fuel consumption (which is not so serious for short duration running with a sailplane), and its noise, short life, vibration, fire risk and difficulty in starting.

Offer of Miniature Engines

Mr. John Mackay, of Stirling, writes to say that there are a number of 174 c.c. O.H.V. flat twin A.B.C. engines available at his works, ex war contract. These have, apparently, a three throw crankshaft (presumably with a counter-balance weight on one of the throws) which, he says, entirely eliminates the out-of-balance couple due to the off-set of the cylinders. He states that it is quite impossible to detect any vibration with the engine except at tick-over, and that the whole unit is incredibly light. It developes 5 b.h.p. at 4,000 r.p.m.

Although an engine of such low power would be inadequate for taking-off a sailplane, it might be suitable for maintaining height once launched and thus enable a pilot to search for thermals. Mr. Mackay offers the engines for sale at £10 each, and should any members be interested in carrying out an experimental installation we shall be glad to forward any enquiries on to him.

OPERATIONS SUPPLEMENT

Contributed by F/O. I. G. Imray. Chairman, Operations Sub-Committee.

U.L.A.A. Rally at Whitsun

It is with mixed feelings of regret and disgust that I have to announce the cancellation of the proposed Rally for Whitsun. My feelings of regret are for those whose keenness and enthusiastic support was evident from their letters, unfortunately too few in number. My disgust is for those " keen types " who never even bothered to reply to my letter, sent to individual owner members. In case there were other private owner members about whom we did not know the letter was due to be reproduced in this *Bulletin* in the space now occupied by this supplement, but the response was so poor that it would have been a waste of valuable time and space to publish it.

In spite of, or perhaps because of, the poor spirit shown in connection with this Whitsun Rally, the Operations Sub-Committee are going ahead to arrange another week-end Rally for some time towards the end of the season. It is hoped that this Rally can be held at one of the Butlin's Holiday Camps which has its own airfield, and possibly the attractions offered by Messrs. Butlins will be a better inducement for our members to attend. With all due respect to (and great admiration for) the Butlin organisation, we feel that an ultra light aircraft Rally of its own should be sufficient inducement.

My apologies therefore, to those few keen types who had agreed to attend this Whitsun Rally. Would they be good enough to accept this as official notice of the cancellation of the Whitsun Rally ? We wish them many happy airborne hours during the coming season, and we hope that they will be just as keen to attend our proposed End of Season Rally. To the others, I hope they will take this in the right spirit, " words fail me."

Training

Some very interesting information has been received from one of our new Members on a synthetic trainer. It is called the primary " Flying Trainer " and is manufactured by Air Trainers Ltd., of Aylesbury. It may best be described as a mechanically-operated as opposed to pneumatically-operated Link type trainer. It is hoped that the Operations Sub-Committee will have the opportunity to examine one of these machines soon, and a full report will appear in a subsequent *Bulletin*.

INSPECTION SUPPLEMENT

Contributed by Capt. K. M. Sturton. Chairman, Inspection Sub-Committee

Danger with Fabric Covering

Group Inspectors should pay particular attention to aircraft in their charge, the surfaces of which have been treated with an oilbase varnish. It has been found that the actinic rays of the sun tend to destroy the mechanical qualities of the fabric treated with such varnishes, the danger naturally being greater to the top than to the under surfaces of aerofoils. Under no circumstances should bleached cotton or linen fabric be used, as this tends to hasten the rate of decay.

Special attention should be given to surfaces which have been covered for a period of say two years ; decay can be detected by pressure with the thumb, or better still by a small slit and subsequent patching. The only remedy for decayed fabric is recovering, and the use of a dope with aluminium powder pigment. This may slightly reduce the performance.

Maintenance

It cannot be too strongly urged that the greatest care and attention must be given to the maintenance of Ultra Light aircraft. Their very simplicity may lead one to suppose that " there is nothing to go wrong." Proper log books for both engine and airframe must be kept, and also maintenance schedules which have been approved by the Air Registration Board. A combined airframe and engine log book can be obtained from the A.R.B., Brettenham House, Strand, W.C.2., at a nominal cost. If now approved maintenance schedule is available, application should be made forthwith to Association Headquarters.

A leaflet dealing with all requirements under this important heading is being prepared for distribution to Groups.

LETTERS TO THE EDITOR

THE E.G.S. AND THE SLOPE SOARING CLUB

Possibly other readers of the *Sailplane* seeing the contribution under this heading by an A.T.C. Civilian Instructor will share my feeling that " Slope Soaring Clubs " were accused of a dog-in-the-manger attitude.

This is far from the truth of the matter. Almost " every elderly member of every well established club " seeks to encourage interest in soaring flight even at the risk of being a bore to his acquaintances! He knows also what it costs to run his club having struggled to make both ends nearly meet.

He finds it is now costing £100 a year to properly maintain each machine ; probably the same for each winch line. Then comes rent, rates, taxes, tithes, third party, fire, storm and tempest insurance, lighting, heating, wages, printing, stationery, postage, telephone, legal costs. B.G.A. contribution and finally interest on borrowed money and depreciation.

Is it surprising then when these despised elderly gentry don't eagerly " fall " for propositions for visitors to use the club's hard earned resources on the cheap ?

At Dunstable it was decided, for one year at any rate, to permit all such applicants to " have a go " so as to whet their appetites for soaring flight. They were merely asked to pay a nominal day-membership or " green fee " of 5/- for the use of the club rooms, washing and changing rooms " usual offices " and to legalise their participation in the social life at the club bar. Some visitors even expected to be excused that fee if the weather was unsuitable for flying !

This concession in each case was followed with the suggestion that to meet their special cases the club committee would favourably consider applications for interchangeable block membership. Thus all instructors at an E.G.S. could club together to pay say four normal subscriptions which would enable up to any four of their number at any time to enjoy the same full use of the club's facilities as any other member, young or elderly ! So far no such application has been forthcoming.

DUDLEY HISCOX.

NEWS FROM THE CLUBS

BRITISH GLIDING ASSOCIATION

Extract from Circular No. 1/49. Kemsley Flying Trust Winter Cross-Country Competition

The prizes for this Competition have been awarded by the Judges as follows :

(a) *Aero Tow Launch Class.* £42. 0s. 0d. to Mr. D. G. O. Hiscox for his flight of 70 miles in a Chilton " Olympia " sailplane, from Elstree Aerodrome to R.N.A.S., Lee on Solent, on 19th March, 1949.

The runner-up in this class was Mr. L. Welch who made a flight of 66.5 miles in an " Olympia " sailplane, from the Surrey Gliding Club's site, Redhill Aerodrome, to Hawks Hill Farm, Walmer, Kent, on 15th March, 1949 ; in respect of which £10. 10s. 0d. has been awarded to the Surrey Gliding Club in recognition of the best flight from a Club site off an aero-tow launch.

(b) *Winch or Bungy Launch Class.* £42. 0s. 0d. to Mr. D. D. Carrow for his flight of 104 miles in an " EON Olympia " sailplane, from the Midland Gliding Club's site at the Long Mynd to Newbury Race Course, Berks, on 16th March 1949 ; in respect of which £10. 10s. 0d. has been awarded to the Midland Gliding Club from whose premises this flight commenced.

The runner-up in this class was Mr. G. H. Stephenson, who made a flight of 76 miles in an " Olympia " sailplane, from the London Gliding Club's site at Dunstable Downs to Frinton-on-Sea, on 25th February, 1949.

The interest and endeavour raised by this competition has been considerable ; in addition to the eight entries received a number of other flights were reported as resulting in distances of between 25 and 60 miles.

Gliding in Norway

Mr. Bror von der Lippe, the Secretary of the Tonsberg Flying and Gliding Club in Norway, recently visited the Association's Office and indicated that British glider pilots would be most welcome at his Club, which has a 1,200 feet soaring ridge, and where board and lodging are available from 13/- per day. For further information please write direct to Mr. von der Lippe.

Royal Aero Club Competition Rules

Attention is drawn to the Royal Aero Club Competition Rules, Part II, Records, a copy of which is enclosed, and which supercedes all previous regulations on this subject. A copy of this document will be circulated to all Royal Aero Club Official Observers in the near future.

B.G.A. Research and Technical Publications (R.T.P.'s)

Information and reports from the B.G.A. Committees, Test Groups, Clubs and individuals, doing research work, have been collected. Copies of each report produced to date, complete in spring back binder, are available to Clubs, Council and Committee Members, for 10/-. Further Reports will follow free of charge to subscribers as and when they are produced. The cost to subscribers not connected with the B.G.A. and all extra sets will be £1.

The first five reports are as follows :—

(i) Some notes on Aero-Towing (produced in response to an unofficial request by the A.R.B.).
(ii) Handling Trials on the " H.17 " (interim report).
(iii) Notes on Car-Towed launching.
(iv) Auto-Towing on Runways.
(v) Data on Centre of Gravity Launching.

Numbers six and seven, which will be copies of reports on the handling trials of the " Kranich " and " Moswey III " sailplanes respectively, will shortly be available, and it is hoped that as in the case of these two reports permission will be granted by the Ministry of Supply for the publication of the similar reports in respect of the " Gull IV," " Olympia " and " Weihe " sailplanes.

Will those wishing to take advantage of this service please inform the Secretary, remitting cash. In addition would those who have information which they consider would provide a useful report, please get in touch with the Secretary.

R. D. A. CLOWES,
Secretary.

DERBYSHIRE AND LANCASHIRE GLIDING CLUB

Club Notes for February 1949

Saturday, 5th February. Wind S. 10 m.p.h.

The " Cadet " was brought out for hops and circuits. Threlfall and Brayshaw each completed his first circuit satisfactorily. It is a curious fact that although a first circuit is as big an ordeal to the instructor as a first solo is to a power pilot, in fifteen years only one has not been completely successful. There must be a moral in it somewhere.

Totals. 14 Launches.

Sunday, 6th February. Wind S. 10 m.p.h.

A similar day to yesterday. Threlfall and Brayshaw qualified for " B " certificates. The " Tutor " and the new " G.B." did circuits and the German " S.G. 38 " with Nacelle was rigged and tested.

Total 29 Launches. 2 " B " certificates.

Sunday, 13th February. Wind W.S.W.

Low cloud and intermittent rain. Three circuits in the " EON " Baby were all that we could manage.

Saturday, 19th February. Wind W.S.W. 15 m.p.h.

Twenty-eight launches totalled 7 hours 13 minutes. The " Cadet," " Tutor," " Grunau," and one or two " Olympias " all had their fair share of what turned out to be quite a good day.

Sunday, 20th February. Wind S.W. 20 m.p.h.

Low cloud. Similar to yesterday. Generally speaking, the "Olympias" and other private machines managed to soar, the " G.B." sometimes failed and the rest did circuits.

Totals 27 Launches. 6 hours 58 minutes.

Saturday, 27th February. Wind N.W. 35 m.p.h.

Owing to the strength of the wind, only "Olympias" and the "G.B." were brought out. Maximum height was approximately 1,500 feet.

22 Launches produced 9 hours 9 minutes.

Flying Results for February

121 Launches. 25 hours.

Sunday, 6th March. Calm.

With snow on the ground we were lucky to get any flying at all. However, the "Cadet" was brought out for circuits and Kathleen Bodell and Barbara Richards had six circuits each in poor visibility, other circuits brought the total up to 25.

Saturday, 12th March. Wind W.N.W. 20 m.p.h.

Everything seems to happen on Saturday at the moment and the hours creep up as the days lengthen. To-day we did 21 launches totalling 11 hours. Curly Bulling was first off in the "G.B." and had 32 minutes in excellent conditions much of it being thermal. The new "EON" Baby was finally delivered, rigged, tested and passed into service in quick time.

Sunday, 13th March. Wind W. 55.

Private owners benefit day. The decision to keep Club machines in the hangar satisfied everyone except Curly who sat in the "G.B." for 1 hour 30 minutes hoping either that the wind would subside or that the timekeeper would have the temerity to ask for eighteen bob. Launches were by car bungy and it was necessary to maintain 50 to 60 on the clock to keep position on the hill. The "Viking" and three "Olympias" did 5 hours 26 minutes. Phil. Leach in the "Viking" had as much as he could cope with on the approach but his handling of the machine was very creditable.

Saturday, 19th March. Wind North 10 m.p.h.

Godber had five launches in the nacelled "S.G. 38" and made some progress. This is the first time we have had the opportunity of using this machine for training. The "Tutor" and "G.B.," using the long wire, had some high launches and some good circling practice was put in ready for whatever summer the Gods provide.

Gerry Smith was launched to 1,200 feet in his "Olympia," caught a thermal up to 1,500 feet and set off for Castleton. After an hour or so of indifferent conditions at Mam Tor, he caught a snorting thermal and arrived back with 1,000 feet in hand. This is the first time that this minor feat of launching to Mam Tor for soaring in a north wind, has been performed in winter.

Totals 20 Launches. 2 hours 18 minutes.

Sunday, 20th March. Wind S.W. 15 m.p.h.

Margaret Swale was launched first in the "G.B." to 1,000 feet, straight into a standing wave. She climbed steadily to 4,000 to enjoy that purest and most unalloyed of human pleasures, the contemplation of the comparative lack of success of others, the standing wave having moved over to stand somewhere else. For an hour or so, the second "G.B." and one or two "Olympias" searched for the wave without success but about mid-day, all the machines in the air began to climb steadily. Terence Horsley reached 4,500 feet with Stan Armstrong just underneath. Eddie Swale in his "Olympia" and Curly Bulling topped 3,000 feet and three other pilots topped 2,000 feet.

It is noticeable that the provision of efficient air brakes has led to increasingly slovenly approaches and heavy landings. In strong winds it is considered a good practice to keep the brakes full out throughout the whole of the approach and landing in which case the air speed must be kept up to a figure at least 10 m.p.h. above the usual speed. When circumstances justify only the partial use of brakes or spoilers, it is generally considered advisable to apply the brakes during the final approach without increasing air speed, and to ease them off gently at the point when the approach is checked with the stick. Attempts to apply even the smallest amount of brake during hold off often result in a heavy landing. (Brickbats should be addressed c/o "The Sailplane.")

"Wings for Pauline"

A large number of members saw a preview of this film, taken at Camphill with the co-operation of Club members, at the Tideswell Cinema on Saturday night, 19th February. Bearing in mind the time and trouble taken by the Times Film Company in making the film, its technical excellence was not unexpected. What was unexpected was the sincerity and restraint with which the theme of gliding club life had been treated. Many films have been made about gliding but none has previously attempted to show something of the friendly intimate atmosphere which is at once the most obvious and pleasantest feature of the sport. With a painstaking attention to detail and with reasonable accuracy the film purports to show the progress of two new Club members throughout a course of training. Included are scenes covering most of a Club's activities.

Unexpected too was the performance of Club members quite inexperienced in their role of actors, if you can call it acting. Almost without exception it can be said that those taking part in the film are as little conscious of the film apparatus as they are of the casual snapshotter. Margaret Swale takes the part of a young girl progressing steadily through all the stages of instruction with an unaffected charm and lack of self-consciousness which more than justified the choice. Harry Midwood in the role of a dope who just can't get off the ground brings the same care and enthusiasm to the part as he does to flying "Olympias." His performance in the film must have given him quite a pain.

The Times Film Company are to be heartily congratulated on producing a first rate film which will not do the gliding movement any harm. Club members who devoted a considerable amount of effort in the making of the film also deserve a word of thanks. Was it Margaret who said that filming was not much different from gliding. They - - - - - you about from morning 'til night, just the same.

SCOTTISH GLIDING UNION

Snow and half a gale stopped gliding on the 27th February, but the Sunday was nobly spent by the Good Types, notably Mr. Fyfe,

who overhauled the petrol and ignition systems on the winch, and David Hendry, who fixed a new boom on the Austin. March 6th saw five gliders flying at Balado, including the " Olympia," and both winches were in use. On the 13th, the wind was too high for flying—55 m.p.h., gusting up to 65 m.p.h., on the top of the Bishop. Sunday the 20th March began in stormy weather, but the wind steadied and then dropped, and the " Baby " and " Cadet " flew all day. We were glad to see Lt. Stevens again, and also Derrick Colvin, who arrived at Balado after a charter-trip, Prestwick-Turnhouse-Oxford and back, for a pilot's holiday in the " Baby."

ARGENTINE NOTES
By Joe S. Ortner

As you will no doubt remember, I mentioned in my last letter that Prince Bira was here and that we had offered the club's gliders to enable him to complete his last leg for the Gold " C." Bira took a special liking to the " Spallinger," and after two " training days," to get the feel of this machine (he flew on both ocassions for more than 5 hours) he decided to make his attempt on the 22nd January. Both Faggi and I decided to " accompany him " in this flight to make certain of his being well attended to, on landing. Bira took off first at 12.20—I followed him in the Rhon Buzzard " Nimbus " releasing at 12.30, and Faggi, who had stayed behind to attend to the press representatives that were present for this event, took off an hour later.

I kept Bira in view for about 30 kms. from Merlo—in the direction of Gonzalez Chaves, and then he went into a cloud and I lost sight of him. In view of this, and thinking a bit about the " Albatros," the country and what have you, I decided to make an attempt to beat Bira's distance, whatever that might be, and so, after 7 hours 10 minutes flight, landed in the beach of the lake of Guamini—427 kms. S.W. of Merlo and 40 away from Carhue, thus establishing a new Argentine Record.

On phoning the Albatros, I was told that Bira had landed in Gonzalez Chaves—about 20 kms. away from the " Otto Ballod " thus completing his long waited for Gold " C." Faggi, I found out later, landed about 10 kms. east of the field of the Pehuajó Gliding Club. That day, a total of 1,112 kms. were flown by 3 machines. The respective distances of Bira and Faggi being 375 and 310 kms.

You can well imagine the sensation this caused, especially because the press had given Bira quite a write-up previously, and this served to make our flights even more important (at long last the press has given Gliding the importance it merits).

I have requested Bira to get in touch with you, to let you know the details of the flights, personally.

Well, fortunately, my record did not last long, because José Cuadrado broke it on the 21st February, by flying from Merlo to Pincen—a small town in the very south of the province of Cordoba, almost in the boundary with La Pampa, covering the exceptional distance of 472 kms., in 8 hours 39 minutes (the longest time flown in this country up till the present). Thus you see, we are keeping the old " Alabastro " flag way up top, waving furiously and proudly.

Another interesting flight, made on the 23rd of January, a day after ours, a Cordoba lad, José Picchio, flew in the " Buzzard " of the Club de Planeadores Cordoba a distance of 400 kms. As Picchio already had his 3,000 metres gained altitude, this flight gave him the Gold " C "—the first in the country ! ! !

SOUTHDOWN GLIDING CLUB

There seems to be a standing wave. The morning of the last Sunday of March was bathed in mist and it was touch and go whether there would be any visibility at all, but about noon it started to clear and Ray Brigden took the " T.21 " up to 1,100 just after 1 o'clock. Cloud was then at 900. Cautiously explaining to David Tullett that 5 f.p.s. up on the variometer was only stick lift, Ray continued to hang on to stick lift for another 400 feet and was by that time very nicely above the tops of clouds. 5 up again over Westdean took them to 2,100 and, before they came down after 50 minutes, they had watched the clock go round to 2,400.

K. H. Ashton subsequently passed over Alfriston at 2,500 feet and two other flights achieved similar results. That was about as far as anyone dared go with the " T.21 " without a trailer. At 3 o'clock, however, J. Billenness tried out the " Grunau " and took it up the Cuckmere valley, finding lift all the way, and went off over the Firle ridge 5 miles from Friston. He was now sinking, so pushed back to the east and flew three miles to the Long Man at Wilmington (which, perhaps one should explain is a relic of prehistoric origin upon the side of the Downs), picking up altitude again as he passed Alfriston. And so back down the Cuckmere again to the aerodrome to land after a 70 minute flight. All these flights had been carried out well above any direct hill lift.

Wind was NE/20 or so throughout the day and a cloud remained stationary between Westdean (south end of the valley) and Litlington (1½ miles north), both on the *windward* side of the valley. The height of the Downs averages 400 feet and the windward slope to the north-east, which may have accounted for the standing wave, lies 3—4 miles away.

Although limited to Sundays and now Saturday afternoons also, the first three months of 1949 have credited the Club with 48½ hours and 486 launches. This compares favourably with the 150 hours and 1,407 launches during the whole of 1948, or the 900 launches during the whole of 1947. Certificates gained during January-March were 4 " A," 1 " B," and 2 " C." Best week-end was March 19th-20th with 80 launches (60 of them on the Sunday) and February 19th—20th was a near runner up with 75.

March 20th, good as it was for launches, was bad for durations, as our drivers had to turn in at the stipulated 400 feet despite the evidence that lift might have held at 300. Our 300 ft. cliff is to be congratulated on making so much of a wind of something under 10 m.p.h., but what made the day noteworthy is that half an hour before dark and with wind remaining constant the green ball made an appearance at around 600 feet, which we attribute to a land breeze effect.

BRISTOL GLIDING CLUB

April, 1949.

An Easter Camp held at the Long Mynd was much enjoyed by the twelve or so members who took part. "Olympia" and "Tutor" were taken, the latter machine providing some of our newer members with their first taste of hill soaring. Six "C's" were obtained on Easter Monday when the wind swung round to the west after three days on which only sun bathing was possible. A total of 14 hours was put in two days by the hard working "Tutor." The "Tutor" has lately come into its own at Lulsgate, thermal flights of up to half an hour have been made recently while the "Grunau" has been out of action.

The longest cross country flight so far by a Club member was made on the 26th March, by K. W. Turner, one of the founder members of the Club before the war. He flew the Olympia "Mayflower," of which he is part owner, a distance of 80 miles to Thame. The wind was east and as the Bristol Channel lies a few miles west of our site the flight was of necessity made up wind and took over five hours.

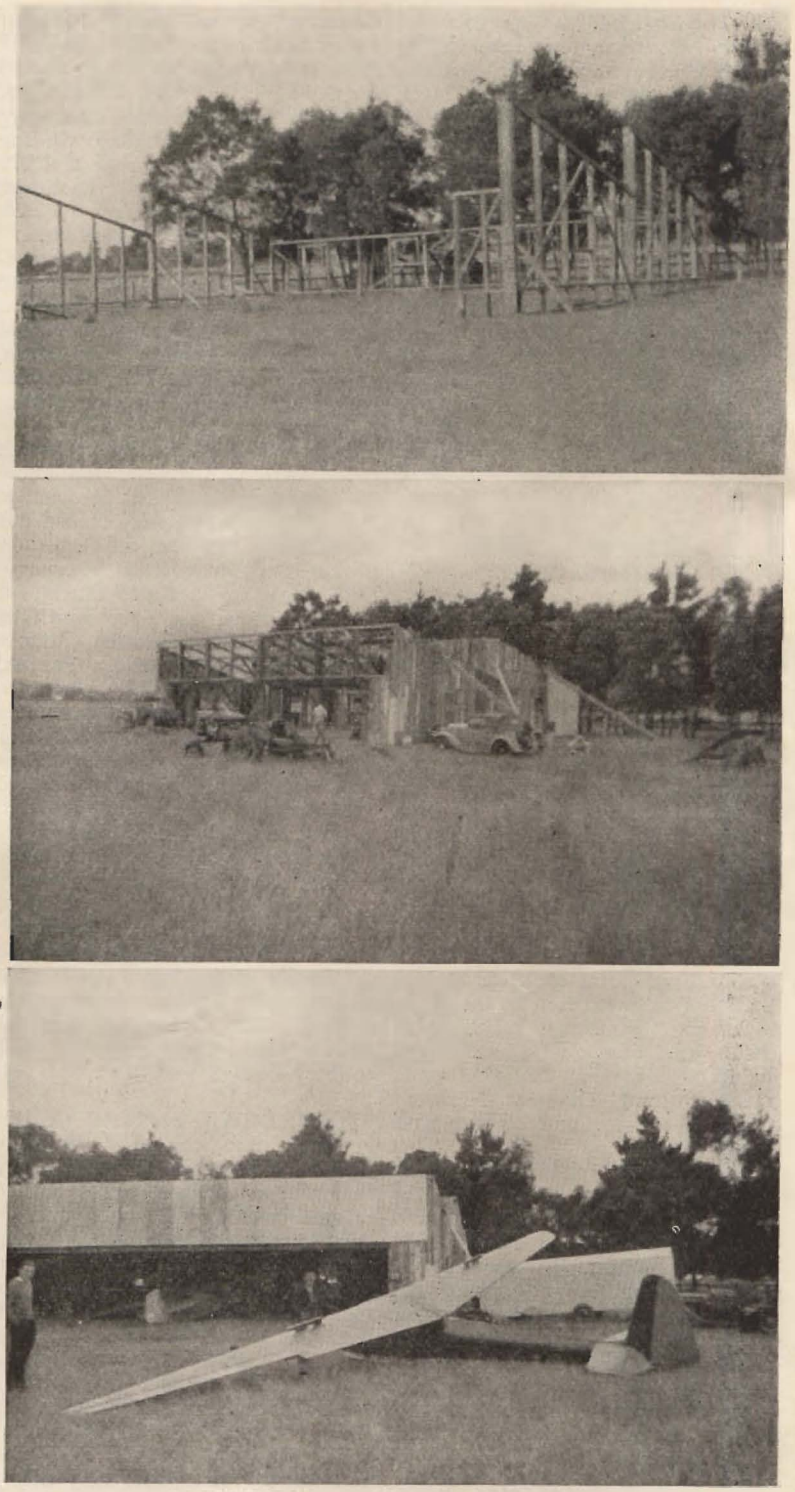
A great deal of work is now being done towards making the nissen huts which serve as our club house rather more homely. A cosy bar has been constructed and club room, cooking facilities and sleeping accommodation are all being improved. We hope by these means to develop the social side of the Club and make the site a rather more attractive place for members to bring their families.

THE VICTORIAN MOTORLESS FLIGHT GROUP

Newsletter No. 13. 1st April, 1949.

Flying Diary:

Saturday, 12th March. Fine sunny day without a cloud in the sky. 21 flights. 6 straights in the "Heron," 15 circuits in "Coogee" and "Rhon." Conditions completely flat. Somewhat arduous morning, operating, to begin with, with a crew of four. John Day arrived last, about 16.56 hours, distinctly disgruntled, having been trapped into going to darkest South Gippsland. This little contretemps should be carefully noted by all who travel to Berwick by the early Saturday afternoon train, which involves changing at Dan-



V.M.F.G. Hangar, September, 1948. (Top).
November, (Centre).
Arthur Hardinge's Olympia and Completed Hangar, December, (Bottom).

denong. As you step out of your train, you see on the opposite platform a fussy little puffpuff, with a man shouting urgently and unintelligibly—" glub . . glub . . Gippsland." Naturally, you run like a hare and leap into the nearest carriage. Well, don't—unless you want to finish up where John did.

Sunday, 13th March. Overcast from dawn to dusk. 59 flights. " Kestrel," 24 ; " Coogee," 17 ; " Rhon," 18. Bill Iggulden in " Kestrel," 700 feet to 1,600 feet, 12 minutes ; Grace Roberts in " Coogee," 1,000 feet to 1,100 feet (and no barograph !) 15½ minutes. Fred Hutton, Bon Vicary, Nance Iggulden circuiting the " Rhon " ; Clem Meadmore, Dave Jones, Gordon MacDonald on straights. Nance again getting winches to about 1,300 feet. The wind was slight but chopped and changed maddeningly so that we had to move the winches three times.

Saturday, 19th March. Maintenance jobs all morning ; " Coogee" flying in afternoon. Steady wind and more good high launches up to 1,400 feet, but red air all over.

Sunday, 20th March. 45 flights ; 12 in the " Rhon," 9 in the " Heron," 13 in " Coogee " and 11 in " Kestrel." Viv Drough 8 mins. in " Coogee," Bill Iggulden 8½ mins. in " Kestrel." Convection still conspicuous by absence.

Saturday, 26th March. 15 flights in " Coogee." Crew of four in the morning, with Ron Roberts again having the misfortune to be the only winch driver. Grace Roberts launched in those unmistakable conditions which sets up the mental hub-bub of THIS IS IT only to have a cable breakage at 200 feet. By the time the cable was repaired the good conditions had sneaked just out of reach. In disgust, we went in and cooked ourselves a hearty lunch and when we went out again the wind had strengthened, bringing turbulent conditions but still no green air.

Sunday, 27th March. Out with the " Rhon " at 08.30 hours. Three " S " turns for Gordon MacDonald then he was advanced to his first circuit, followed by two more. Gordon's progress is worthy of special mention, illustrating as it does the very definite advantages of a settled field and a hangar and a trainee who's on the spot at every possible moment. He had his first ground slides on January 2nd this year. This is gratifying to club, instructor and trainee alike and is very much as it should be. The Aero Club held competitions and a picnic meeting at Berwick this day, so the " Rhon " was put away when the first planes arrived. " Coogee " and " Kestrel " were brought out but flown only spasmodically as Berwick is by no means a large field and the competitions were of the flour-bombing and spot-landing variety. However, about 12.00 hours an appetising cum. churned itself up on the edge of the field and Grace Roberts was the lucky pilot to be launched at that time. Strictly speaking, the understanding was that the pilot should turn to the right ; but, there was that cloud on the left and a hasty survey of the sky and field on the way up showed no aircraft in close proximity so, like a piece of steel to a magnet, " Coogee " homed to that cloud ; 10 fps red first, then the red dropping rapidly down to the bottom, green and red side by side, then the beautiful moment when the green dances up the tube. " Coogee " circled rapidly up to cloudbase, 4,400 feet, and, though we says it ourselves what shouldn't, she did sort of outclimb everything else in the sky. We're horribly prejudiced, of course, but earlier in the day when " Coogee " was being towed out from the hangar, she appeared over a small rise with " Tigers " to left and right, and there was something about those clean slender lines, the simple dignity of her functional honesty, that created a moment of quiet in one's mind. With no malice towards the Aero Club, we must add that at the end of the day a surprising number of our people had violent headaches, which is apparently what comes of being conditioned to silent flight.

Total Number of Flights for March : 209.

Looking back on our past struggles, here are a few figures from the flight records—From the beginning of 1944 to 26/4/48, the " Rhon Ranger " made 1,545 flights, flown on 73 days. From the same date to 22/1/49, the " Heron " primary had made 554 flights on 38 days. The " Coogee," first flown as a club machine on 28/12/47, made 482 flights for 40 hours 27½ minutes, to 22/1/49, flown on 42 days.

Dept. of Increased Efficiency (We Hope) : At the last Committee meeting our President came up with an idea which we at once put into effect, namely, that each Committee member should have a specific job allotted to him, in addition to usual duties. So we appointed :

In charge of completion of hangar —Geoff Richardson, with Gordon MacDonald as deputy.

In charge of " Coogee "—Ron Roberts.

In charge of " Rhon "—Viv Drough.

In charge of " Heron "—John Day.

Procurements Officer — Mike Bruce (a job he's done well for some time now).

In charge of mechanical equipment—Les Williams.

In charge of packing machines into hangar—Ron Roberts (and don't we know it !)

Flight Recorder : Bettye Richardson has kindly allowed herself to be appointed Flight Recorder. If Bettye's as good at this job as she is at turning on supper, then our records will be something to see.

" Olympia " in New Zealand. The N.Z. tour undertaken by Arthur Hardinge and his " Yellow Witch " is being outstandingly successful. It surely took more than average imagination and courage for a young man to pack up his sailplane and, with no more finance than that provided from a workingman's earnings, to set forth on a tour of a country which possessed only a handful of gliding enthusiasts and, therefore, could hardly be expected to be in the least glider-conscious. However, the New Zealanders lived up to their reputation for being an intelligent community and, although there was at first some little delay over Civil Aviation regulations, things soon began to progress smoothly and well. Arthur has received sound factual publicity in leading N.Z. newspapers, has lectured at the Auckland University and given radio talks. On the flying side, he has soared for 3 hours 38 minutes, reaching an



1. *V.M.F.G. "Kestrel."*
2. *"Coogee."*
3. *"Coogee."*
4. *Arthur Hardinge & Olympia "Yellow Witch."*
5. *Boiling the billy for afternoon tea, when the hangar was being built. Our gliding grandfather —Bill ("Pop") Iggulden, Senr. and Mrs. Iggulden, motorless flight devotees since* 1931.
6. *Beaufort Gliding Club's 2 seater "Phoenix" Auster. All. (2 place) record holder—500'–7000' Ron Roberts, Les Williams.*

altitude of 4,300 feet. The previous best duration in that country was 1 hour. He has flown at a number of air displays and pageants, including the National Air Pageant at Auckland, attended by 18,000 people. The Deputy Chief of Air Staff, R.N.Z.A.F., has suggested that Arthur tour Air Force stations at Whenuapai, Ardmore, Hobsonsville, Chakea and Wigram; if the "Witch" could be fitted into a "Dakota," the Air Force was going to supply one.

Arthur writes most happily of the enthusiasm shown and help extended to him by the gliding fraternity and the various Aero Clubs; Of Wellington, he says—"....to Wellington by air, seeing the volcano of Nguarohoe in full splendour, cloud ceiling was about 7,000 feet and the top of the crater was not visible, but the plume was rising to about 25,000 feet. The country near Wellington is most unsuitable for gliding, but certain localities can be used. Wellington is hopeless, although a gigantic lenticular cloud is quite common, about 8 miles long and reaching about 30,000 feet—of magnificent structure—but what the hell is the use of a standing wave of such dimensions if there is not a square inch of landing field anywhere

within miles, plus the vicious down-draughts and heavy gusts which are evident in Wellington." Of Wellington and Rongotai aerodromes—" When the wind whips into action, the down pressure of the roll-over from the mountain range is so deadly that " Tiger Moths " have to fly with full throttle to delay the rapid descent to keep from being pushed into the ground; the long runway at Rongotai is blanketted by a 75 feet rock-formation terrace and on this particular runway the wind covers half the drome with downward turbulence . . . . I have transferred the ' Witch ' to Auckland." Of his 3 hour 38 minute flight—" I was over the Manukua Harbour most of the time, four to five miles from the shore—where the convection was coming from at times was a mystery."

From a New Zealand friend (non gliding) comes a report of Arthur's appearance at the National Air Pageant—" . . . . it was a glorious day, although Arthur said it was not the best for sailplane conditions as there was not a cloud in the sky. The crowd that assembled at Mangere drome absolutely amazed me; cars rows deep, an estimate of 18,000 people . . . Arthur and his sailplane were towed into the air by a " Moth " and in conjunction there was a height-guessing competition. Then he came down slowly, looping and doing other manœuvres. It was amazing to everyone to think he was away up there without an engine. He stayed up about 20 minutes and came in to a perfect landing, thrilling the crowd by skimming like a terrific bat over them and landing with hardly any runway at all. He went up again later to 2,000 feet and flew around with perfect ease and grace for half an hour, before coming in to another perfect landing. It is certainly a super little aircraft and it makes one wonder how a mere human could have built it."

From a New Zealand newspaper report—" Local enthusiasts are very pleased with this flight (3 hour 38 minutes) as they consider it shows the potentialities of Auckland as a soaring area. It follows a successful week-end when Mr. Hardinge was towed 72 miles by aeroplane to Waharoa, where he gave a display, including aerobatics. He was towed to Rukuhia on Sunday morning to give a similar exhibition and was then towed back the 60 miles to Mangere on Sunday afternoon. These were the first cross-country glider tows ever made in New Zealand."

Arthur and the " Yellow Witch " are undoubtedly doing a great deal to help firmly establish gliding in New Zealand and his visit will also cement the foundations of a close kinship between Australian and New Zealand glider pilots. In concluding this account of the tour, we can perhaps express the sentiments of all of us in the words of Lady Freyberg, wife of the Governor-General of New Zealand, who, in a letter to Mrs. R. G. Casey, said—" How much I admire anyone as keen and enterprising as Mr. Hardinge. It shows so much courage and character to have achieved what he has done with his glider."

Letters from Inter-State: Kev Sedgeman, of the South Australian Gliding and Soaring Club writes that he recently took the club's two-seater solo to 2,600 feet for 15 minutes, and reports that landing strips have been cut on their field at Virginia, which they hope to make their permanent home. (I do not mean to imply that Kev had to go to 2,600 feet to discover this little fact.) The next step contemplated, is to erect a hangar

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at Virginia. It's good to know that the S.A. Club is making steady progress as those lads have certainly worked hard and long. So good luck, chaps.

Nial Hart, of the Toowoomba Gliding Club, writes that, while their two-seater ' Falcon ' has not flown since last Easter, they hope to have it flying, if not this Easter, then soon afterwards. They have a winch half-finished and are progressing well with the construction of a " Primary " and a " Grunau," although Nial adds that the increased cost of materials is a heavy item to reckon with. A Queensland wood, Silver Quondong, used in aircraft construction during the war, has been found suitable for glider construction—Nial checked with the Forestry Commission. This may be of interest to other glider builders.

Harry Ryan writes that the Southern Cross Gliding Club members are repairing their " Primary " and doing major alterations on their " secondary."

We were pleased and interested to receive a letter from the Hon. Sec. of the Albatross Gliding Club, " H.M.A.S. Albatross," Nowra, 06, N.S.W., who wrote that a gliding club has recently been formed at the R.A.N. Air Station, with Mr. Kent as Chief Instructor. The club hopes to have an " S.G. 38 " ready in a few months time and also has spars, frame and other small parts completed for a " Grunau Baby," while the fuselage of an ex-German " Kranich " is on its way from England. All three aircraft should be airborne by next Spring. Many of the club members have been in Australia only a few months and would be, we're sure, glad to hear from other clubs. Anyway, here's a very warm welcome to the R.A.N. club, wishing them many happy hours of soaring.

New Members. This month four new flying members were accepted — Clem Atkins, Charles Beswick, Allan Harley and Stewart Moyes and one associate member, Leo O'Donnell. Allan and Stewart have already begun their training, travelling some sixty miles on motor-bikes to do so.

WAHN GLIDING CLUB (B.A.F.O.)

During the last few months a considerable number of hours have been logged by the Wahn Gliding Club. The very mild winter has made flying possible at most weekends and training has proceeded apace.

With some twenty five flying members, of whom more than half are in the advanced category the Club is hoping for some interesting performances during the coming summer. Already this year several flights of over fifteen minutes duration have been achieved. Most interesting of these being a trip of thirty minutes obtained by Collins flying one of the Grunau " Babies " on a day during which frequent snow showers were encountered. Following a good launch he successfully utilized cloud lift and reached a height of over 3,500 feet.

Although considerable damage was caused by recent gales when one of the hangars collapsed, the club fleet is once again fairly comprehensive and on most flying days several aircraft are in action. The " Kranich " two-seater is proving popular for passenger flying and all pupils are given periodic dual checks by the C.F.I. Members of the W.R.A.F. are now permitted.. to fly as pilots, but so far we have not had the pleasure of welcoming any of them into our ranks. Although frequent spectators of our aerial endeavours they appear to possess an inherent distrust of the worthy " Open " or " S.G.38." and appear strangely unconvinced when we attempt to convince them that this contraption of fabric and bracing wire is really as " safe as houses ! " Three highly successful dances have been held and helped considerably to swell the exchequer. On these occasions F/Lt. Perks, the C.F.I. and his assistant F/O. Hills spared no pains to make the evenings a success. As many of our members are National Service Men it is hoped that they will carry on Gliding after being demobbed and several have in fact already expressed their intention of joining local clubs in England, after leaving the Service.

P.S. Several soaring flights of ten minutes were made over the Easter break in the open " S.G. 38.," more about Easter in the next letter.

Cpl. Firth.

GLIDING CLUB OF VICTORIA
Vol. 2. No. 8. April 1st, 1949.

Gliding isn't Child's Play

How many times have you told some one you are a member of a gliding club only to hear them say—" You mean to say you fly those things ! ! " or then again—" You mean you make those models ! ! " ? ? How many times have you heard those answers or others like them ? ?

The number of people who know what a glider is and recognise it for that which it really is, is very small ! !

A large number of people who, when they think of a glider, think not of a high performance sailplane or even of something which resembles an aeroplane beyond the fact that it has wings ! No, they vision a crude machine in the " primary " class—from which you are in constant danger of falling and which has no controls with which to steer beyond a " joystick." In fact some people who ought to know better have referred to gliders as uncontrolled flight.

Some also consider that a glider is of no use whatever to the community as being merely a plaything of the rich !

Our Club has proved all this to be wrong ! ! We have conducted for the University of Melbourne many tests which have proved of great value for its research in meteorology. Also many of the latest jet fighting planes were developed from gliders. A glider is not a toy by any means, but is in fact a highly efficient machine.

Since the Gliding Club of Victoria was founded in 1929 there has been but one serious accident and our actual crashery rate is very low—the standard of flying being equal to the best.

Many amazing feats have been performed by our pilots, predominant among which is the Australian Altitude Record of 15,300 feet above sea level, the Australian Duration Record of 9 hours 51 minutes and a flight of 85 miles by the Club President, Mr. Norman Hyde, which earned him the " Carr Withall Annual Memorial Trophy " for 1948.

Also out of the 3 " Silver C's " earned in Australia, 2 have come from our Club.

There is a great deal of pleasure and excitement to be gained from gliding which can only be experienced to be appreciated. There is nothing quite like the elation experienced on your first thermal soaring flight or in the quiet smoothness of free flight.

4, The Avenue, Oakleigh, S.E.12.

Annual General Meeting

The 13th Annual General Meeting of the Gliding Club of Victoria was held at 51, William Street, Melbourne, on Tuesday evening, 15th March, 1949, and was very well attended.

The *13th Annual Report and Balance Sheet* was unanimously adopted.

Office Bearers for 1949.

The following were elected unopposed :

President : Mr. Norman Hyde.

Vice-President : Mr. Leo Dowling.

Committee : Messrs. Rob Dowling, Reg. Pollard and Lin Beck.

Honorary Auditor : Mr. T. G. Gleeson, L.C.A., Dip. Com., was re-elected and Honorarium of £2. 2s. 0d. approved.

Honorary Vice-Presidents elected were : Messrs. Fred Haig, Chas. Smith, E. E. Gunn, C. J. Gordon, L. Withall, T. Silvester, Uwe Radok, H. W. Harrison, Dr. Fritz Loewe, Group Gaptain Garing.

Subscriptions : The members decided that subscriptions would remain unaltered for 1949

Honorary Secretary : The meeting carried a vote of thanks to the Honorary Secretary, Mr. R. Duckworth in appreciation of his work for the club. In responding Mr. Duckworth said he had now been Honorary Secretary since 1936, and although the duties were somewhat onerous he was pleased to carry on while there was such good co-operation from the members.

First Award of " Carr Withall Annual Memorial Trophy "

The winner of the 1948 trophy is Mr. Norman Hyde, President of the Club. He made the *best soaring flight of the year*—Benalla to Jerilderie, 85 miles on 3rd January, 1948, in the Blue " Grunau."

He was presented with the *Replica Trophy* by the Hon. T. W. White, D.F.C., V.D., F.R.G.S., M.H.R.

Mr. White spoke of meeting the late Latham Carr Withall (in whose memory the Trophy was named) in England and of a flight he had with Withall in the London Gliding Club's " Falcon " two-seater at Dunstable. He referred to Withall's part in the " Battle for Britain " as a " Spitfire " pilot, and later of meeting a member of Withall's squadron who gave him all that is known of Withall's end, and which Mr. White expressed in his work on Empire Airmen, " Sky Saga."

" Yet all were high on Death's long waiting list. For just before the year was out, ' L.C.,' returning from a combat in the clouds, called to his Flight, ' My engine has been hit. Its getting dark. Don't wait for me.' And vanished in the night."

Bad Eilsen, Germany
April 5th, 1949.

DEAR SIR,

When the article " The Obverse Side " appeared in the January issue of *Sailplane*, I was about to embark on my first week-end with one of the B.A.F.O. Gliding Clubs. Naturally, though I took the article with a grain of salt, I must confess I regarded the club with an air of suspicion at first.

Now, starting on my third month with that club, having spent all my weekends at Scharfoldendorf, I can truthfully say that never have I flown with such a grand group. Their equipment is kept in excellent condition, the instruction is first rate in calibre, and always they emphasise " play it safe, never take unnecessary chances."

The view presented in that article was indeed, most unfair, and decidedly gave an incorrect impression of the B.A.F.O. clubs. As a visiting American airman, I have been most impressed by the friendly attitude and hospitality displayed by the A.H.Q., B.A.F.O. club.

Though I started gliding from scratch I can base my opinion of the B.A.F.O. groups on the large number of flyers I came in contact with during more than three-hundred hours of power flying in the United States and four years of service in the American Air Force. And, I repeat, never have I come across such a group of friendly, hospitable and efficient flyers. I do hope that the perverted attitude of " Autolycus " will not be taken seriously by the readers of *Sailplane and Glider*.

Respectfully yours,
BERTRAND A. HANDWORK.
Sergeant, U.S.A.F.,
Hqs. Sq., 1st Airlift Task Force,
A.P.O. 633, U.S. Army.

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May 23—June 3. June 20—July 1.
July 11—July 22. Aug. 8—Aug. 19.
Aug. 29—Sept. 9. Sept. 19—Sept. 30.

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"B" .. 31
"C" .. 16
Silver "C" 1
Gold "C"

MARCH, 1949.

"B" CERTIFICATES

No.	Name	A.T.C. School or Gliding Club	Date taken.
4372	William Ernest Blair	31 G.S.	23. 2.49
4870	Dawson MacLeod	7 G.S.	6. 2.49
7809	Colin Gordon Alfred Kent	89 G.S.	6. 3.49
8718	Herbert Charles Moreton	48 G.S.	12. 3.49
9319	Alexander James Fyfe	Scottish G.U.	6. 3.49
9351	Donald Beatie Kent	Southdown G.C.	27.12.48
9398	Clarence Dawson	Shoreditch G.C.	20.11.48
9700	Sholto Hamilton Georgeson	London G.C.	21. 2.49
9714	John Frankland Hughes	42 G.S.	29. 2.48
9717	Peter Henry Firth	Wahn G.C.	23. 1.49
9718	Wallace Benjamin Youngman	102 G.S.	20. 2.49
9751	Walter George Dent	12 Group G.C.	2. 3.49
9752	Timothy Paul Dighes La Touche	12 Group G.C.	30 1.49
9755	Eric Stanley Cook	R.A.F. Lubeck	10. 8.48
9758	John Graham Murray	Southdown G.C.	6. 3.49
9772	Ronald Wilber Holland	Fulmar G. & S.C.	30. 1.49
9775	Robert Henry Whitehead	London G.C.	30. 5.48
9789	Brian Robert Lacock	Oerlinghausen G.C.	28.11.48
9794	Leslie Charles Jackson	4th Arm'd Brig.	8.12.46
9797	Arthur John Sumner	Bristol G.C.	13. 2.49
9799	Ifor Harland Mansfield	Oerlinghausen G.C.	16. 2.49
9808	William Sangster Borthwick	R.E.F.C.	12.12.48
9809	John Robert Gibbons	Martin Hearn Ltd.	6. 8.48
9817	Donald Wright	Fulmar G. & S.C.	6. 3.49
9818	Robert McKillop	Fulmar G. & S.C.	6. 3.49
9819	William Guthrie Hosie	Hamburg G.C.	31. 7.48
9835	Allan Samuel Everett	Luneburg G.C.	25. 4.48
9836	Robert Applegarth	Gutersloh G.C.	1. 8.48
9851	John Hardy	4th Arm'd Brig.	28. 3.48
9852	Leslie George Leech	192 G.S.	20.2.49
9853	David Dunbar Carrow	Cambridge G.C.	26. 4.48

"C" CERTIFICATES

2680	David Alexander Ogilvie	Cambridge G.C.	17. 3.49
6426	Kenneth Ewart Machin	Cambridge G.C.	15. 3.49
7371	Frederick Ernest Walter Phelps	London G.C.	26. 2.49
8255	Ian Bedford Leno	125 G.S.	29. 8.48
8945	Oliver John Coode Cotton	Midland G.C.	15. 3.49
9080	Edward Henry Leschallas	Midland G.C.	15. 3.49
9288	Ernest Walter Clarke	London G.C.	21. 2.49
9398	Clarence Dawson	Shoreditch G.C.	21. 2.49
9700	Sholto Hamilton	London G.C.	21. 2.49
9714	John Frankland Hughes	42 G.S.	1. 9.48
9775	Robert Henry Whitehead	London G.C.	2. 6.48
9789	Brian Robert Lacock	Oerlinghausen G.C.	4. 3.49
9808	William Sangster Borthwick	R.E.F.C.	20. 2.49
9835	Allan Samuel Everett	Luneburg G.C.	15. 5.48
9836	Robert Applegarth	Gutersloh G.C.	6. 3.49
9853	David Dunbar Carrow	Cambridge G.C.	9. 5.48

SILVER "C" CERTIFICATE

No.	Name	Certificate No.	Date gained
186	C. L. Ruffle	441	13. 3.49

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