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The First Journal devoted to Soaring and Gliding



JUNE 1949

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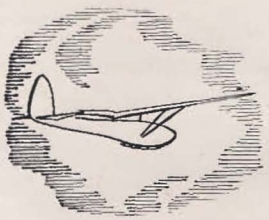
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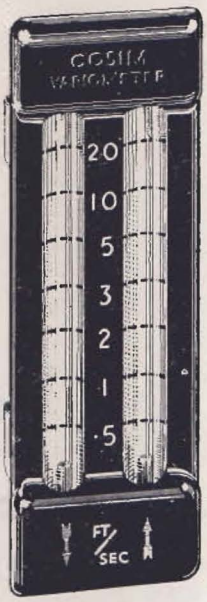
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THE FIRST JOURNAL DEVOTED TO SOARING AND GLIDING

JUNE 1949 ★ Vol XVII No 6

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COVER PHOTO:

Margaret Swale (Derby and Lancs. Club), Star of "Pauline takes Wings." (Times Film Co.)

EDITORIAL

IN our last issue we published a letter from the Secretary of the B.G.A. accusing us of distorting facts and deliberately misleading our readers. We promised to reply to that charge in this issue.

It will be remembered that the charges arose out of our report of the B.G.A. Annual Meeting. The letter of the Secretary B.G.A. read as if we reported the meeting with malice, and intending to reflect unfairly on the B.G.A.

Nothing like was in our minds. It would indeed be an ideal meeting (or would it) in which there was nothing to criticise and which went without a hitch. In our view this was not such a meeting.

Now as to the attendance. The letter from the B.G.A. states that there were under half the Clubs represented. Is this a sparse attendance or not ? There were fewer than last is admitted. But Mr. Wills, Vice-Chairman, now Chairman, was representing Newcastle. Some Clubs sent two representatives. There were 16 clubs represented out of a possible 38. Of the 27 Associated Member Clubs, seven were represented, and in view of what followed, this is important. It was to this figure we referred when we stated that one fourth of the Clubs were represented. We admit that owing to unhappy 'subbing' the word Associated was removed from the original text, and we were very surprised when our attention was drawn to the fact. In this case we apologise if a false impression was given to our readers.

Our statement that less than 2½ per cent of the members of the Royal Aero Club are interested in Gliding seems to have caused some surprise. Yet, on enquiry, it seems to have been an over estimate. A member of the Committee stated there were about 6 (There are about 1,600 members of the R. Ae. Club). Two other members of the B.G.A. Council thought, after contemplation, that about 40 was a fair figure. This is our considered view, and it represents less than 2½ per cent of the Club membership.

In regard to the reading of the Budget, we may have been at fault, and if we have misled our readers again we apologise.

But in regard to Mr. Charles Wingfield's remarks, we have conferred with the Chairman of the meeting who agrees that though the speaker might not have used the words "Too much bother" these words could be used as a fair transcript of what he did say.

As to the point about the amounts of the subscription being 15 gns. and not £15 as against £2 (instead of £20) for the old rate. This was a printer's error which we regret we did not notice. But we do not believe that anyone could have read this without realising that there was something physically wrong with the figures. As to the point about who proposed what, there were several amendments, and our notes were to the effect that the motion was proposed by the London Club. It so happens that it is important who did move this motion, because if Mr. Wills moved that motion, he was at that time the de facto and de jure Chairman of the meeting which was being conducted by the late Chairman, Mr. Hiscox, at Mr. Wills request. In our view, any Club that wished to question any of the proceedings after this incident could well do so, as the proceedings from that point could be argued to be illegal and ultra vires, including the alteration of the fees to Associate Members. Incidentally our notes show that 5 Full Members were for the increased fees and 3 against. Five Associates voted for and 2 were against. Having said this we would like to make an appeal to the B.G.A. to face facts and realise that as constituted to-day is an unwieldly instrument, and to take steps to make it workable. It is simple enough to do so. If the membership of the B.G.A. with an appropriate fee were to be opened to anyone who is a member of a Gliding Club (non-flying even) and also a member of the Royal Aero Club (including Associate Members) a vast reservoir of voluntary effort and goodwill would be tapped.

That would provide people willing to work for the Movement, remove any suspicion that the B.G.A. were controlled by a clique, and give the 'gray beards' an opportunity of helping. They usually have more time at their disposal, and also more experience of the world, as well as more influence. Gliding seems to suffer from the lack of a generation of retired pilots who are willing to place themselves at the disposal of the Movement, without hope of reward or any personal ambition.

The present powers-that-be in the B.G.A. are no doubt equally selfless in their devotion to the Movement, but no one doubts that they would like the policy decisions to rest in other hands, thus freeing them to go after the records which are the spice of gliding, or to represent the U.K. in the International Competitions. They would also be freed of the financial anxiety of the B.G.A., and of raising the funds to be spent on competitions, in which they are participants, and no one could give the Shavian answer to requests for help in such endeavours.

We would like to make it clear that we have never made any criticism which was intended to reflect on the Secretary of the B.G.A. and his Staff. They are always most helpful, informative and courteous. If our suggestions are adopted we are confident they will make the work of the Staff easier, and, dare we say it, better remunerated.

NEWS FROM FRANCE



M. Guy Marchand, holder of the world's official duration record, 40 hrs. 51 mins., in his "Nord 2000" in which he made his record.

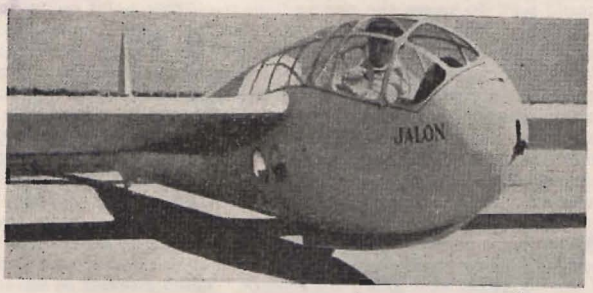
The "Castel-Mauboussin" Jalon Two-Seater.

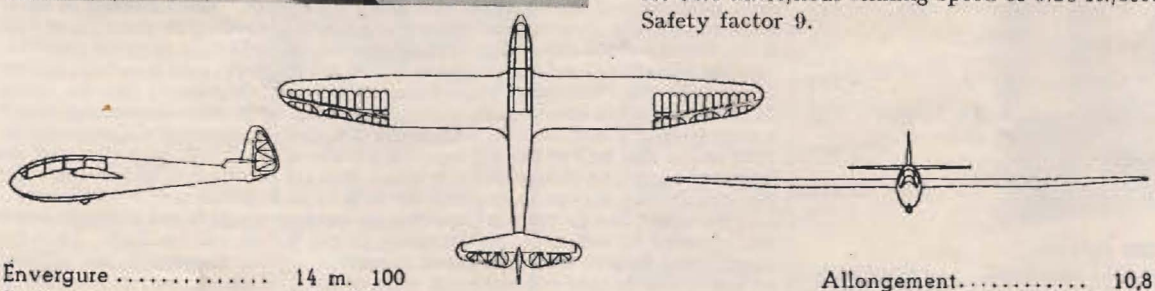
By Guy Borgé

THE "Castel-Mauboussin Jalon" two-seater is used by the O.N.E.R.A. (Office national d'études et de recherches aéronautiques) for aero-dynamical studies by aero-towing to-day. To this purpose it brings a special equipment, handled by the observer in the rear seat; the "Castel Jalon" represents a new trend in the two-seater designs, with its small overall dimensions, its excellent performances at great speeds. Such a sailplane should be very useful in studying aerological phenomena, for instance the Provence waves when the mistral wind blows. The "Jalon" has plenty of space available for special research equipment, such as oxygen feeding. It can fly very speedily without losing altitude. A comparison between the "Kranich" and the "Jalon" shows that the former has a sinking speed of 5.12 ft./second at 62 miles/hour, and the latter a sinking speed of 3.28 ft./second at the same forward speed.

The characteristics of the "Castel-Mauboussin Jalon" are the following:

Wingspan 46.25 feet.
Wing area 198 square feet.
Aspect ratio 10.8.
Length 25.52 feet.
Empty weight 708 lb.
Crew weight 339 lb.
Research equipment load 108 lb.
Full weight 1,155 lb.
Wing loading 5.83 lb./square ft.
Best gliding ratio 26 at 59 m.p.h.
Minimum sinking speed 3.28 ft./second at 52.8 miles/hour.
At 62.1 miles/hour sinking speed of 3.28 ft./second
Safety factor 9.





Envergure	14 m. 100	Allongement	10,8
Surface	18 m.² 400	Facteur de charge	9

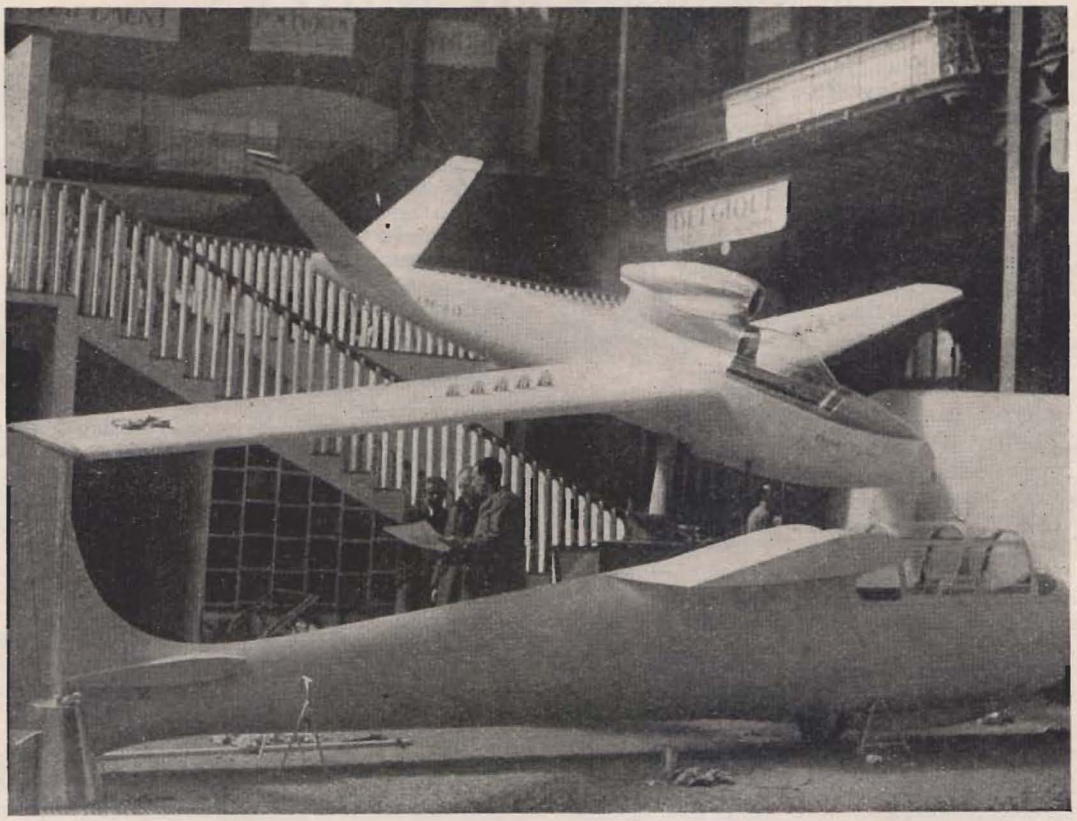
SEEN AT THE PARIS SHOW

THE FOUGA CYCLONE (CM8-R.13)

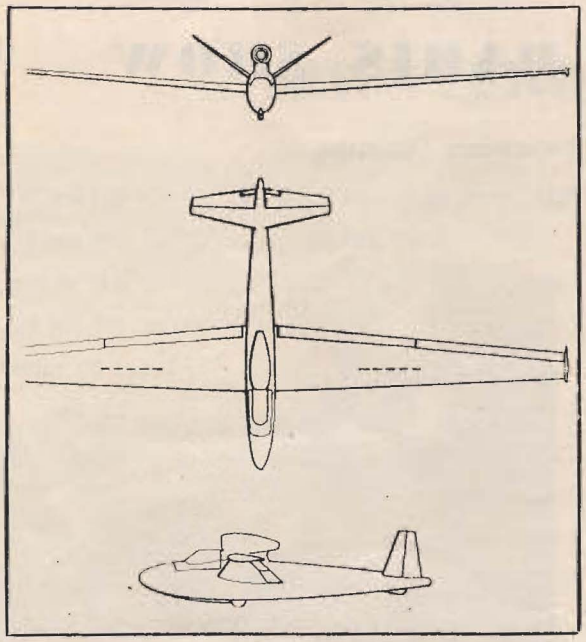
Wingspan	13 metres
Length	6.20 metres
Height	1.78 metres
Wing surface	13 sq. metres
Aspect ratio	13
Safety factor	
Fully loaded at take-off	10
Without fuel	12.5
Empty weight	324 kgs.
Pilot	83 kg.
Fuel	75 kg.
Extras	3 kg.
Total weight	485 kg.

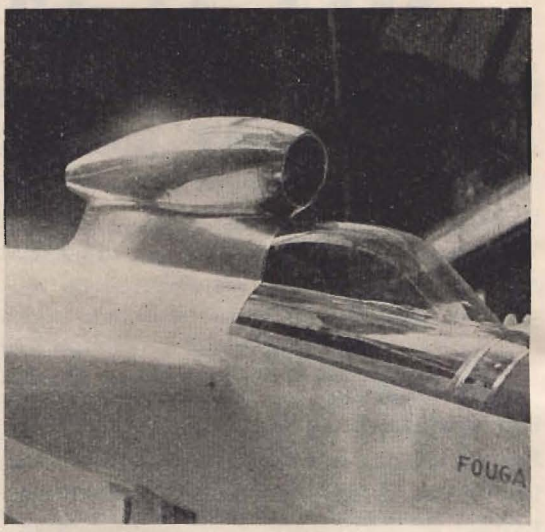
Performance (Estimated)

Max. speed at ground level	250 km./h.
„ „ 3.500 metres	260 km./h.
Climb	3.9 m./sec.
Ceiling	10,000 m. (33,000 ft.)
Time to ceiling	1 hr. 30 mins.
Range	240 km.
Take-off distance	350 m.
Take off to 20 m.	530 m.
Fuel capacity	100 litres (Wing tanks)
Estimated thrust at full throttle	220 lb.
„ „ minimum throttle	11 lb.



(The above photograph and the one on the next page are reproduced by the kind permission of the Editor of "Aeronautics"





IS IT WORTH WHILE?

IN print and broadcast, Terence Horsley has poetically and majestically described the glory of soaring flight.

My own reaction was until recently similar to that of a novice rock climbing enthusiast—anticipation, with more than a twinge of fear; realization, with excitement and some terror; recollection, with relief and a sense of achievement.

The first airborne slide is so recent that the exhilaration and delightful thrill of that smooth swoop, never more than a few inches from the ground, is still fresh in my mind. Subsequent flights have enhanced the interest but dimmed the glory and early efforts at soaring have even degenerated into spells of hard work, concentrating on good flying, an art which I find not easy to acquire.

Probably owing to my commencing to glide in late middle age, I am slower to pick up the nice co-ordination of stick and rudder which appears easier to the care-free abandon of younger pilots.

Interest was re-stimulated with each promotion to a more advanced glider, but, at times, when hill soaring under lowering skies in cold winds, I wondered why the fascination of the sport of soaring was somehow eluding me.

But yesterday, all was revealed.

The sky was lined with cloud streets and a full breeze flowed up the slope to where sailplanes were being catapulted over the sun-kissed valley.

After several false alarms, it was at last my turn to be bunjied off for the first time and with some trepidation I strapped myself in an intermediate sailplane.

The launch was wonderfully smooth and to my surprise the hill lift was also smooth for quite some time and rapidly lifted aircraft and me at 8 to 10 feet per second.

Sidling along the edge the lift continued strong until five or six hundred feet had been gained, an unusual and very pleasurable experience.

A few beats up and down the hill slope, to settle down, noticing the restless eddies occasionally and thinking, hopefully, THERMALS !

Then a decision to fly out from the edge a trifle to leave sufficient room to try a circle if a reasonably strong thermal were contacted and soon a timid attempt at a circle with the variometer indicating strong lift, most conscious that my precious turns had been very poor. But by concentrating on keeping the string, streaming from the pitot head, level with the horizon and not fluctuating too widely from side to side and an occasional glance at the variometer to ensure that we were still in lift, I managed a few circles and when I glanced at the altimeter I could hardly believe that it was correct in indicating well over 1,500 feet.

Only a high hop, perhaps, to the expert, but to me it gave the freedom of the air. No careful eye on the slope lest I am carried behind the lift, no constant correction of direction to keep in the rising currents from the slope. When I left the thermal as I thought we were drifting too far down wind, to glide well out over the valley free from constant restrictions gave me a thrill, not perhaps, as keen as that first airborne slide, but so much more lasting and satisfying, giving a deep sense of achievement, a feeling that, at last, this is flying !

ROSS VICKERS.

EASTER MEET

By GRACE ROBERTS

The Location: Berwick Airfield, 24 miles south-east of Melbourne, Victoria.

The Hosts: THE VICTORIAN SOARING ASSOCIATION.

The Clubs, The Aircraft and The Pilots:

From South Australia: Jock Barrett, Bob Rowe, Crawford Heidrich, Les Brown, Merv Buckley, George Donaldson, Malcolm Holmes, John Wotherspoon, of the WAIKERIE GLIDING CLUB, with the "Kite II" and John Wotherspoon's "Eon Olympia."

From New South Wales: Doctor G. A. M. Heydon and Fred Hoinville of the SYDNEY SOARING CLUB, flying Tiger Moths "VH-AYY" and "VH-BLI," accompanied by Vic Shuback of the ROYAL N.S.W. AERO CLUB.

From Western Australia: Harold Luckly of the PERTH GLIDING CLUB.

And the Victorians: Esme Hilditch, Doug Lyon, John Wallis, Len Travers, Don Williams, Johnny Baldwin, Eddie Byrne, Jack Owen, Alf Bickerton of the BEAUFORT GLIDING CLUB, with the two-seater "Phoenix."

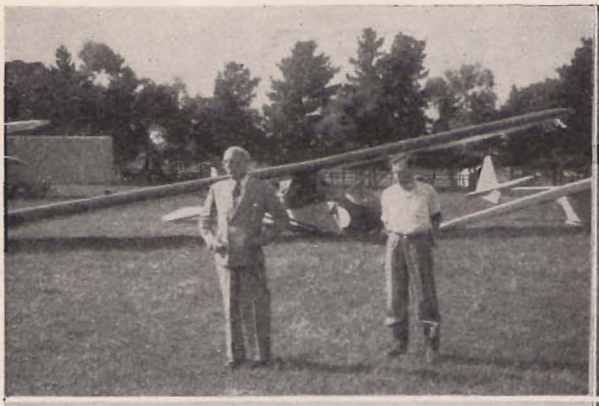
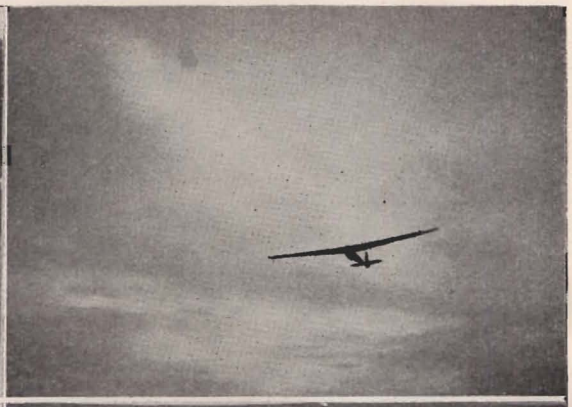
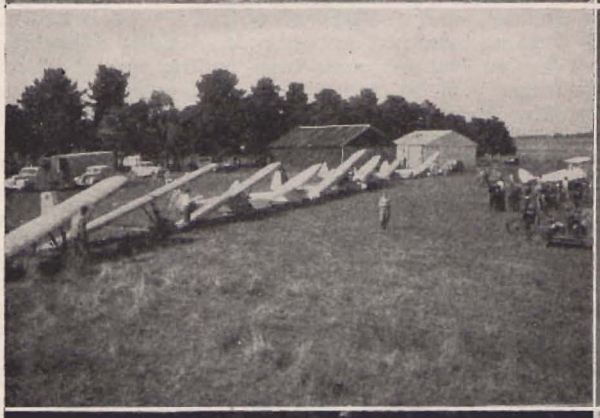
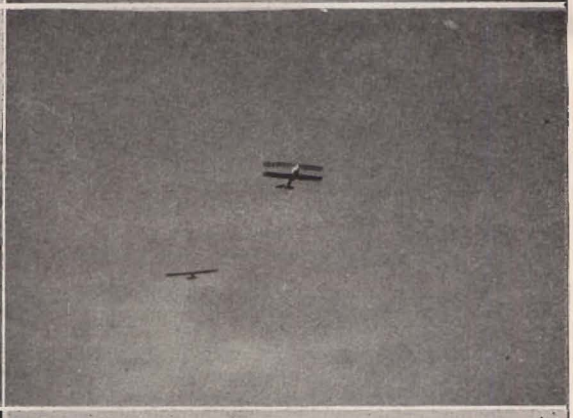
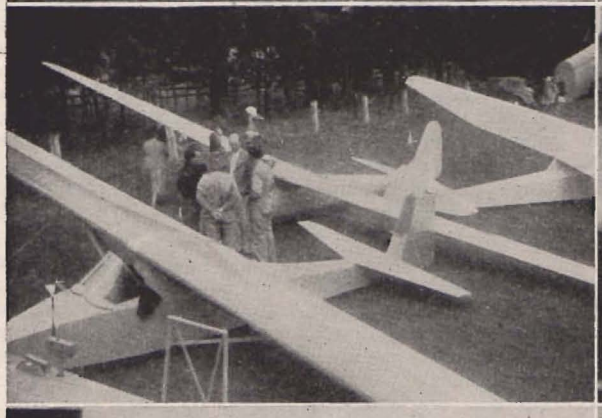
Norm Hyde and Reg McConnell of the GLIDING CLUB OF VICTORIA with the "Blue Grunau." Len Ker and Charlie Martin of the SOUTHERN-CENTRAL GLIDING CLUB with the "Primary." Geoff Richardson, Bill Iggulden Senr., Bill and Jack Iggulden, Mike Bruce, John Day, Viv Drough, Fred Hutton, Bon Vicary, Keith Meggs, Nance Iggulden, Grace and Ron Roberts, Les Williams, Dave Jones, Gordon MacDonald, Joyce and Alex Hogan, Charles Beswick, Ken Summons, of the VICTORIAN MOTORLESS FLIGHT GROUP, with the "Coogee," "Kestrel," "Rhon," and "Heron."

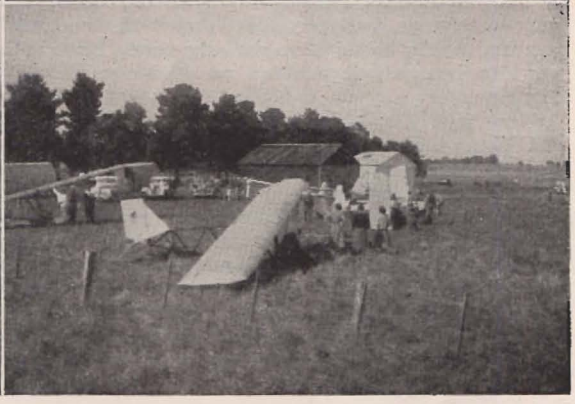
Really, it started off as just a small meet with maybe a few chaps from Waikerie and Harold Luckly from the West, but it grew and grew until all of a sudden there we were holding the biggest gliding meet yet held in Australia. Nor was that the only distinguishing feature for it proved to be the first gliding rally ever held in this country, that failed to turn up ONE thermal. We fervently hope that it will be the last, too. So, if you're interested only in reading about "there was I at blah blah feet with the green ball ten feet above the cockpit" you had really better stop reading now. But if you want to hear about the fun we had one Easter—carry on.

The First Day—Good Friday, April 15th: The VMFG and Beaufort people were there, together with Norm Hyde and the "Grunau," and Harold Luckly. At about noon, a small car drove around the corner with South Australian number plates, followed a second later by another car towing a bright yellow trailer with WAIKERIE GLIDING CLUB painted on it. Our feelings as we went forward to greet the South Australians may perhaps need explanation to people in countries where clubs are situated closely together. Here in Australia, your nearest gliding neighbour may be five hundred miles away. Harold Luckly was 3,000 miles from home, the Sydney pilots were flying 600 miles and the Waikerie people were just completing a 500 mile trek. In the whole of the country there are less than 300 glider-drivers and so the normal goodwill between gliding people is here intensified to something that goes deep and, since we retain a goodly measure of British reticence, can be expressed only by a hard handshake and a grin that threatens to split the face of the wearer. Although only a few of us had met before, there was no barrier of formality to overcome for we had for years been writing to and of each other, club to club. We were happy to meet, too, Mrs. Jock Barrett and Mrs. Bob Rowe, two charming gliding wives, and young John Rowe.

After lunch, things began moving. The "Kite" was rigged and flying began with "Phoenix," "Kestrel," "Kite," "Grunau," and "Rhon." At 3 p.m. "VH-AYY" and "VH-BLI" came in from the north-west and the Doctor, Fred Hoinville and Vic Shuback were greeted with great pleasure. Aero-towing began soon with a 2,000 to 2,500 feet for the "Grunau," Norm Hyde piloting, and Fred in the tug-plane. Fred came back quickly to drop the tow-line then climbed up to Norm where the two proceeded to turn on a wonderful display of aerobatics in unison. We were not then accustomed to Fred's deadly accuracy in dropping the line for the next tow and as he roared in one motorless type was seen to throw himself flat on the ground, to stand hurriedly up a moment later, looking very sheepish. This first day we were embarrassed by an almost vast crowd of spectators. About 6.30 p.m. John Wotherspoon and his wife, accompanied by Mr. and Mrs. Tom Tacey arrived, towing the "Olympia." More happy greetings. About fifty of us sat down to dinner that night at Mrs. Whitehead's cafe but it is difficult to say at what point everyone ate, for, judging by the uninterrupted flow of conversation they had all mastered what we thought was an exclusive VMFG art of eating with one side of the mouth and talking with the other. The first day ended with signs of a still, cold night, and the Victorians trying to force extra blankets on the visitors from the warmer States.

The Second Day—Saturday 16th: We had planned an official opening for 11 a.m. and before that time (strange !) we had all the machines lined up in front of the VMFG hangar with people going clickety-click like mad with their cameras, climbing up on this and admiring the beautiful array of sailplanes, gliders, winches, tow-cars and our two tame "Tigers." Geoff Thompson of Cinesound was there preparing another of his superb newsreels on motorless flight. (We understand that this will be going overseas, too). At 11 a.m. Lieut.-Col. Rupert Ryan, M.H.R., arrived and was introduced by Bill Iggulden, President of the V.S.A., to the

assembled pilots. The Colonel spoke most thoughtfully and knowledgeably of gliding and expressed the sort of ideas that we had heard before only from gliding people themselves. It gave us all a very warm feeling to know that this distinguished gentleman understood and appreciated what we were doing and looked forward to seeing gliding become a more national sport. The next step was to have been a dignified moving off of each machine to the take-off point, and very nice it would have looked, too, but somehow the VMFG " Primary " was off and away, being towed out at the double, with the " Primary " crew eager to get into the air. Still, it was really fitting that a rather elderly " Rhon Ranger " should have begun proceedings, for from such humble beginnings did most of our pilots spring. The weather was still warm and sunny with a light drift and faint clouds pencilled high in the sky. And still NO THERMALS ! The Victorians began to get a shifty look in their eyes but our visitors were very generous about it and adopted the kindly viewpoint that we couldn't be responsible for our weather and after all it was beautifully warm, wasn't it ? And so the day went on, with Fred Hoinville aero-towing and aero-batting alternately—and can that man tow and aerobat ! At 4.30, the VMFG " Coogee," which had been having new pins fitted throughout, was towed out and winched off, with loops the order of the day. " Coogee " for a while seemed to have developed some odd defect in her control system—climb up on the cable to 1,000 feet, down and up and over, down and up and over, down and up and off to one side. The " Coogee " pilots were most talkative about how nicely she handled with the new pins. In the " Kestrel," Jack Iggulden put on a very pretty spin, by way of contrast. Flying continued until night fell, with its usual dull thud. After dinner at the cafe, we gathered around a camp fire and celebrated Nance Iggulden's 20th birthday, with birthday cake, candles and all.

The Third Day—Sunday 17th: The weather was once more sunny, almost cloudless and quite calm, but at 10.30 hours a gusty north-westerly came suddenly in, bringing turbulent conditions. Aero-tows began with " Olympia," " Kite," " Blue Grunau " and " Coogee." Geoff Thompson went up with Fred and took movies of the " Olympia " on the tow. Fred aerobatted. Everyone aero-batted. Still no thermals . . . At dusk, Fred went up in the " Kestrel " and turned her inside out, while we gave a running commentary to the Igguldens in case they missed anything. Bill didn't ; he was so busy watching his " Kestrel " being tied up in neat knots that he drove the drogue right through the rollers . . . At night, we lit a fire in front of the hangar and we sang, played silly games, talked, had cups of tea and about midnight went to bed.

The Fourth Day—Monday 18th: A warm northerly, varying from 25/30 m.p.h. In the morning, we watched lenticular clouds forming about eight miles away—the " Tiger " had blown a gasket the night before and was temporarily out of action. The Beaufort people gave flights in the " two-seater " to the South Australians. No lift around. We had at last resigned ourselves to the awful fact that this meet was going to produce not one reportable flight but somehow no-one really minded for we were having such a grand time. The " Tiger " came out again and the " Kite," " Grunau," " Olympia " and " Coogee " had more aero-tows. As on the other days of the meet, there was always something doing, always something in the air. The control officers had a hectic time. The last official flight of the meet made in the " Kestrel " in darkness. We stacked the machines into the hangar and the corral made by trailers and winches, for the last time, and a feeling of sadness began to creep over us. Dinner that night was a little quieter ; the Easter meet was almost over and we'd just begun to get our teeth into it, just begun to really appreciate being together. Most of the Victorians went home that night and in the morning at 8 a.m. Fred and Vic took off for New South Wales. So many people made the meet the memorable occasion it was, that it wouldn't be possible to single them all out, but we must say a special word about Fred—a grand tug-pilot, one of our finest sailplane pilots, he did a fine and unselfish job, towing in a manner that convinced us he could just as safely have towed the old " Heron " primary. On Tuesday morning, the South Australians had a few last flights in the " Kestrel " and the " Coogee " was flown for a while, but somehow it all seemed pretty flat and we realised that the meet was really over. About noon, we said goodbye to the Waikerie people.

So that was the Easter meet. Of the six Australian States where gliding is carried out, only two—Tasmania and Queensland—were not represented. No competitive flying was arranged but we hope that it will be the forerunner of an annual National Gliding Contest. We believe that out of such gatherings can come developments which will still further strengthen and unify the Australian gliding movement. Where will it be next time ? Albury ? Mildura ? Let's give it a lot of thought, anyway. And thanks for coming over, you people. We hate to tell you but the day after you left, when we were all safely back at work, the whole sky over Berwick way was convolved with cumulus !

1. *Colonel Rupert Ryan, M.H.R., speaking at the opening ceremony, with Bill Iggulden, President of the Victoria Soaring Association. (Beaufort Gliding Club's two-seater " Phoenix " in background).*

2. *Line up at the opening ceremony. Left to Right—"Heron", "Rhon", "Coogee", "Kestrel", "Phoenix", "Kite", "Grunau", "Olympia". Tug plane in foreground.*

3. *"Grunau", "Olympia", "Kestrel". In the group in front of "Olympia"—Harold Luckly (Perth Gliding Club), John Wotherspoon (Waikerie Gliding Club), Bob Rowe (Waikerie Gliding Club), Doc. Heydon (Sydney Soaring Club).*

4. *Berwick Airfield, from the two-seater " Phoenix ".*

5. *John Wotherspoon's Eon " Olympia " on aero-tow.*

6. *V.M.F.G.'s " Coogee " on aero-tow.*

7. *Grace Roberts and " Coogee " waiting for aero-tow.*

8. *Early morning.*

ALTITUDE GLIDING OVER THE ALPS

By E. KLOCHNER.

1. THE METEOROLOGICAL REQUIREMENTS AND OBSERVATIONS.

WAVE clouds caused by upward wind diversion that are most useful to gliding in the Alps are those Föhn winds typical in these parts and most frequent in the early spring and autumn.

Suitable conditions for the development of the Föhns arise when there is strong displacement towards the continent of Europe from the Ocean. In the foreground of the Atmospheric whirl the wind turns to south over the mountains as well as the valleys. When in the autumn and spring, after days of good weather small white feather clouds and Cirrus-veils suddenly appear in the sky in the south west and become more frequent behind the distant mountain range until the whole sky in the valley is covered by a milk white layer in the north and the mountains which have been covered by a mist appear quite near, and the upward pressure begins to sink, then it is time to finish the last preparations for Altitude gliding. On the Aerodrome Chiemsee (Prien) it was usually calm on such days. The air became often as dry as in the desert and sometimes a sudden warm gust would nearly upset the Glider waiting to start.

After many ascents with planes and during reconnaissance flights that often went right into the Central Alps, I came more and more to the conclusion that the Central Alps were the real " obstacles " and not the whole chain of Alps. The Föhn wave and the fluctuating lee-ward clouds that are so useful for Altitude gliding begin, in my opinion in the lee of the Central Alps and not, as is usually accepted, in the lee of the whole mountain range.

Tne Central Alps are divided from the Northern Alps by the two deep (river) valleys Salzach (pinzgau) and Inn. There is no doubt that these two valleys, that lie in lee of the Central Alps, influence the " South Stream." All my reconnaissance and measurement flights confirmed this opinion. Especially during the " Great Föhn Weather." Even when the Föhn cloud cover stretches far over the Alps into Italy it ends (or begins) as a milky wall in the Central Alps. Single cloud particles, that could be seen dissolving, might reach the above named valleys, only to dissolve there. On all days when the Föhns are useful for gliding it can be noticed that the cloud particles begin behind the Central Alps.

The fact that the first stationary " Up " wind always lay in the lee of the great Glockner—Great Venice Massives makes it necessary to tow the Glider over the Glacis of the Central Alps.

Through the approach of the cold winds the stream from the south is stopped and driven by new air masses from the Mediterrainian and the north of Africa to the vertically standing Alps and forced to pass over nearly 3,500 m. height.

During the time that colder air lying in the Italian lowland is dammed up and forms a mighty cloudmass of " FOHN." South of the central peak a closed cloud cover lies, in a short while, higher up, the most formidable thunder clouds (" Föhns ") move north of the central peak.

At any rate the forming of this south winds depend a strong " up winds." Often these south winds lie in several layers on top of each other, the far side of the higher ones always lies further south than the lower ones.

The base of the lowest south wind lay seldom under 6,000 m. While the far side of the cloud always shows a definite rim, the other end of the cloud shows jagginess and signs of dissolving. The south wind is stationary and only changes its position by a growing or declining southwind. It was therefore possible to glide straight due south, without circling, along the front side of the " Föhn " cloud when rising.

The fluctuating Föhn cloud has often a length of 300 km. and a depth of 100 km. and even more.

I would summarize my experiences of the " Föhn " with the following:

According to my experience the characteristics of the Föhns that are usable for gliding can be described as follows:—

1. Cold air streams already sinking on the weatherside of the Central Alps.
2. The Cold air stream damming up on the weatherside and the forming of a Föhn-wall.
3. The Föhn-wall dissolving on the Leeward side of the Peaks of the Central Alps through the Airmasses streaming away.
4. The Airmasses rising again over the Salzach Valley.
5. Strong resonance against the nearly 2,500 m. high Kitzbühler Alps through the re-rising Airmasses over the Salzach Valley.
6. The strongest "up" winds just at the foreside of the cloud of Föhn-waves.
7. At increasing height a backward grading of the " up " wind (see the position of the second cloud-wave).

The backward storing of the " up " wind field at rising height, is evidently dependent on the speed of the main stream.

THE NATIONAL AIR RACES

THE Royal Aero Club announces that it is promoting and organising a large scale air race meeting, to be known as the NATIONAL AIR RACES, over the August Bank Holiday week-end.

The Ministry of Civil Aviation has granted the Royal Aero Club permission to hold the 1949 NATIONAL AIR RACES at Birmingham Airport.

There will be eleven air races at the Meeting and each race will be over a short closed circuit course.

Prize Money of £1,500 (minimum) has been guaranteed.

The Provisional Programme includes:—

Monday, 1st August (Afternoon). An International Race for Ultra-Light Aircraft.

BUSMAN'S HOLIDAY

BY VERONICA PLATT

IT was hot and we were hungry. We were near Mulhouse, the Sunday before Easter, driving through on our way to Austria—looking vaguely for a place to picnic in a stretch of rather uninteresting country. Suddenly there was an exclamation from the back seat—" Look, a glider ! " followed immediately by a muttered " Oh BOTHER ! Why did I say that ? Now Mummy will insist on stopping there and we shall have to have lunch on the gliding field for the four thousand seven hundred and ninety-fifth time." But the twins protested to an empty car ; Tony and I were already on our way across the field to meet the Chief Instructor and get all the dope.



There were a couple of machines in the air and one was being winched off as we arrived. They are a fortunate bunch, the Aero Club of the Haut Rhin, for they have a " C800 " two-seater, a " 310P " high performance sailplane, an " Emouchet," a " Grunau Baby," an " S.G.," a " Castel 301," and a Ford to winch them away. Besides this there is a hangar full of aeroplanes, and flying is reasonably cheap. Their machines are provided by the State, and for those under 21 the cost is only 30 francs per launch ; for those over 21 it is increased to 70 francs. At present the Instructor is the only one with a Silver " C," but there are 6 pupils who each have some part of it—and it is very early in the season.

The airfield is in the middle of a flat area hemmed in between the Vosges and the Jura—Black Forest range, with an open outlet towards the north along the valley of the Rhine. It is not an easy district for distance, but the thermals are interesting and the Club members very keen.

Unfortunately we were behind schedule and could only stay a short time, but gliding was not over for the day. We arrived under a covey of sailplanes





1. *Mulhouse. Waiting around as usual.*
2. *Chief Instructor and Tony Platt.*
3. *Zurich. Getting the " S 18" ready for take-off.*

just this side of Zurich and found ourselves on the field of the Segelfluggruppe of Dietikon-Spreitenbach. Here we were greeted enthusiastically and shown everything, the Club President even sending a pilot up to show us some acrobatics in the last light of the setting sun, one Herr Obrist, who had just completed his Silver " C " that very afternoon with a distance flight. But in that Club a Silver " C " is such a normal event that it hardly even causes excitement ! They are a group of soaring experts, and some of their recent exploits include a distance of 205 kms. by Baur, a height of 3,000 metres by Schwarz, and two durations that take a bit of beating—22 hours and 26 hours, by Bommer and Bald respectively. It is not as if they had many machines, either. There is a " Spalinger S18 " and a couple of privately owned " Mosweys." But again, gliding there is relatively cheap. The subscription is only 5 francs a month, and for students (and for anyone who cannot raise the money) only 2.50. Also any flight of over 2 hours' duration is free.

There are two other gliding clubs in Zurich—the A.F.G. and the S.G. These lie at only a short distance from Dietikon, but again we had no time to visit them—and besides, it was now nearly dark, so we had to press on.

A week later, on Easter Monday, we were on our way back through Liechtenstein. Again we stopped to picnic—and an aerotow sailed by. So we packed up and went off to find the field. There was an immense concourse of cars and people—and quite a heavy gate charge, which they very kindly let us off. It was an air display put on to encourage airmindedness among the youth of Schaan, and to judge from the crowds they were lapping it up. There were parachute jumps and trapeze dangling and passenger flights—all the usual excitements. And there up above us was our friend Herr Obrist of Zurich doing acrobatics to the accompaniment of a radio commentary by Rudi Heimgartner. We found half the Segelfluggruppe there, the centre of an admiring crowd, and they said they had come over for an Easter week-end camp to test out the local conditions. The weather had been perfect and they were all very happy. The Prince and Princess of Liechtenstein and most of their subjects had turned out to see their show and altogether it was a great day for gliding ! But again we had to leave ; time was short and cash even shorter . . . it was a toss-up whether we could get across the Channel before both expired.

But there was still one Club to visit, the same one I had seen on the return journey from Samedan : Troyes on the Seine. The Chief Instructor greeted me like an old friend and almost persuaded me to stay on and do a month's course right away. Think of it—only 6,500 francs for a whole month's flying training up to and including Silver " C " flights in an enormous variety of machines ; they have no less than four two-seaters, and a hangar full of high performance sailplanes, plus an aeroplane and several winches. And they train all day and every day. No knocking off for tea or even for lunch ! Out on the field early in the morning and back to the Club after dark—that's the way to get the best out of thermals. It reminded me most vividly of the Argentine. There was the same tremendous keenness, the same very friendly rivalry, the same sharing of experiences, and almost the same wide open expanse of country. Troyes lies in the middle of an enormous tract of farming country, not really flat but relatively so. It is the perfect centre for distance and altitude flights. Foreigners are welcomed and board and lodging at the Club costs only 300 francs a day. That means a month of first-class instruction, as much flying as you can take, *and* a holiday abroad, for a total of only 15,500 francs—£15 at the present rate. What about it ?

ULTRA LIGHT AIRCRAFT ASSOCIATION BULLETIN

Volume 3, No. 1. April, 1949.

What the Association is doing

BEING a member of the Executive Committee of the U.L.A.A. is not exactly money for jam. The Association was formed in October, 1946, because it was shown that there was a demand for such a movement. There was a demand for cheap, safe flying at a price far nearer the average man's pocket than the universal £3-4 per hour charged by the Clubs. There was a demand for a body which could represent amateur designers and constructors in negotiations with Ministerial Departments. There was a great demand for a body to direct the interests of the youth of the Nation along practical lines towards the realization of their enjoyment of the freedom of the air.

The Association was founded by a handful of enthusiasts from different walks in life who agreed that the demands enumerated above existed, and who were prepared to do what they could for the realization of these aims. They were prepared to work for the Association, in fact for each individual member, and contribute something constructive. The main point to be borne in mind, however, is that no single one of these founders was in a position to devote his whole time, his undivided attention or a small fortune, to the Association. There are still a number of misguided or misinformed people who imagine that the Association is run by a full time paid staff. There is, of course, no paid staff or fulltime paid staff. There is, of course, no paid staff or full time member within the framework of the entire Association. All business is contracted by Committee members in their own time, and largely at their own expense.

We are often asked " What are the Ultra Light people doing ? " We are finding that question increasingly difficult to answer. The very early days of the Association were fully occupied in establishing a Constitution and a policy. Enquiries were invited from all interested, and enquirers from the same localities were put in touch with one another and assisted in the formation of a Group. Negotiations were started, the successful outcome of which was the re-introduction of the pre-War Permit to Fly, to be superseded by the Ultra Light Category Certificate of Airworthiness. Approaches were made

to designers and manufacturers which resulted in two new ultra light prototypes being produced.

Designers are currently working on other projects. The question of a suitable engine for use in U.L.A. received considerable attention. Every possible contact was made, but here we seem to have drawn a partial blank. A number of suitable designs are available, but nobody is at present willing to go into production, for various reasons. The Association, thanks to the Kemsley Flying Trust, has managed to lay its hands on the last batch of "Aeronca" J.A.P. engines in the Country. These will be available to our members after they have been reconditioned, although this process has presented almost insurmountable difficulties from the point of view of facilities. However, we hope that more engines will shortly be forthcoming.

Considerable research has been done in the field of Solo Flying Training. Details of a suitable solo training aircraft have been drawn up, but again, nobody can be found to finance the construction of the two prototypes. Again, thanks to the Kemsley Fund, arrangements have been made for Groups to have Slingsby "Motor Tutors" on a "Pay as you Fly" scheme. This, however, does not seem to have met with the enthusiastic response we had hoped. What do our members want? What are they doing to get it? Arrangements were well in hand to hold a National Ultra Light Rally at Whitsun, but the response was so poor that it had to be cancelled. We were under the impression that our members wanted to fly and were prepared to work for that end. We were under the impression that they wanted Rallies and Meetings organized where they could meet fellow members. It would appear that we were wrong.

We are often told that appearances are deceptive. We are inclined towards this belief because we are sure that our efforts are appreciated in certain quarters. We are prepared to work (and indeed we do work) hard for our members' interests, but we cannot spoon feed them. Members who want their flying must work for it. We are not on the Committee to get flying for members without any effort on their part. This could hardly be expected from a Communal organisation. Each member must do his bit, and provide a concrete example of what the Ultra Light types are doing.

DESIGN SUPPLEMENT

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

The "Ercoupe" Two-control system

By courtesy of the Ministry of Civil Aviation, the writer has been able to fly their "Ercoupe," an interesting American light aircraft designed to be as simple to fly, and as safe and foolproof as possible. Claims have been made that it has been flown successfully by individuals with no flying experience whatever. Although outside the ultra light class, its simplified control features are of great interest to our movement.

The "Ercoupe" is a neat and robust looking cabin monoplane with side-by-side seating for two occupants, and powered by a 75 b.h.p. Continental flat four engine with a fixed pitch two-bladed airscrew. It has a monocoque fuselage and twin fins and rudders, and is fitted with a sturdy tricycle undercarriage having as much as 12 inches of travel. The wing has 7 degrees dihedral to assist lateral stability. No flaps are fitted. The airframe is built entirely of light alloy, except for the use of fabric covering for the wing, rear of the front spar. The maximum all-up weight is 1,450 lb., with a wing loading of approximately 10 lb./sq. ft.

The main feature of the aircraft, however, lies in the simplicity of its control. Although it has normal rudders, ailerons and elevator, the rudder-control is interconnected with the aileron control and suitably geared so that rotation of the control wheel both turns and banks the aircraft at the same time. Elevator control is obtained in the normal way by fore and aft movement of the control wheel. There are no rudder pedals. For taxying, a single brake pedal is provided, and the nose wheel is steered from the control wheel, being connected with the rudder/aileron circuit.

Taxying is a delight, it is just like driving a softly sprung car, and the view is excellent. The hydraulic brakes are light and powerful. The tricycle undercarriage makes take-off simple, there is no swing, and it is only necessary to open the throttle, and ease back the control wheel at about 70 m.p.h. In the air, the controls are light and effective, and remarkably well harmonized. The rudder and aileron controls are co-ordinated to turn and bank the aircraft correctly at a speed of 70 m.p.h., but there seemed little error over the whole range of speed whether climbing, cruising or gliding. Such effective co-ordination must have required an immense amount of experimentation with the interconnection of the controls.

The aircraft is certified as unspinnable. It can be stalled at about 45 m.p.h. I.A.S. with the elevator control fully back, when it sinks slowly with a mild phugoid motion, but remains under full control. This is probably because of an induced stall at the wing roots, caused by a sharp leading edge there, and the consequent loss of lift prevents the outer wing sections reaching stalling incidence, thus the ailerons continue to function.

The approach to land is rather flat in the absence of flaps, and the angle of glide can only be varied by means of the throttle. Spoilers would improve the aircraft. Landing is simplicity itself, the long undercarriage travel successfully smoothing out all shock and allowing a considerable degree of mislanding to be tolerated. After landing, any tendency to swing because of drift can easily be held by the steerable nose wheel, which touches down instantly after the main wheels.

It definitely appears, therefore, that the "Ercoupe" is almost foolproof in its simplicity of operation. There are some snags, however. First, the experienced pilot feels the lack of an independant and positive rudder control. Next, because of the interconnection of aileron and rudder controls, the lifting of a dropped wing causes the aircraft to swing directionally. Thus, on a gusty day, maintaining lateral control causes the aircraft to snake from side to side, which is disconcerting to an experienced pilot, but might not worry a novice. The third

snag is that it is impossible to sideslip, which in the absence of flaps or spoilers, would be a useful manoeuvre to lose height during the approach to land.

Finally, when making a cross-wind landing, experienced pilots instinctively apply a coarse rudder movement to counteract drift just before touch-down. This impulse must be resisted with the " Ercoupe," because such a movement also applies bank. In addition, it deflects the nose wheel from straight ahead, which results in the aircraft turning sharply at high speed on touching the ground with the probability of a ground loop. The recommended procedure is to fly in and land straight and level and to ignore drift; the sturdy undercarriage can apparently withstand it. This procedure is easier for novices than for experienced pilots.

It must be admitted that the above snags are only of concern to pilots experienced on the conventional three-control system. It is quite probable that novices would not be troubled by them. Consequently the " Ercoupe " may well be the solution for novices wishing to learn to fly with the minimum difficulty, and it would be interesting to discover the average dual instruction time required for them to go solo. They would, however, require further instruction if they wished subsequently to convert on to conventional aircraft with foot-operated rudder control, but it is possible that the total dual instruction time needed might be considerably reduced through experience on the " Ercoupe." Tests to establish the amount of dual instruction required for novices to reach solo standard on a conventional aircraft via the " Ercoupe," would make an interesting comparison with the average amount required for training throughout on the same conventional type.

The two-control system must involve some mechanical complications with the interconnection linkage, and considerable development effort, to obtain proper co-ordination between the rudder and aileron controls. The writer would not, therefore, recommend it for use with normal ultra light aircraft, for which simplicity and cheapness of construction are primary requirements, unless the system becomes more generally adapted for other aircraft. The development of an experimental ultra light aircraft with the two-control system would, however, be of very great interest and it might eventually become a commercial proposition if it could be made really foolproof without too great a penalty of complication, cost or loss of efficiency.

" Chilton Revival "

We are glad to announce that we have at last found a design Group willing to revive the " Chilton " monoplane. This aircraft, which we have often mentioned in the *Bulletin*, was a most successful high-performance type of ultra light aircraft, fully aerobatic, delightful to fly and very good-looking. It was designed and built shortly before the War and three examples are in existence. One of them, fitted with a 44 b.h.p. Train engine and flown by its owner, Sqdn.-Ldr. R. L. Porteous, holds the International 100 km. Speed Record for the 2 litre light aircraft class, at 125 m.p.h. We have been most anxious to revive the type, as it is an excellent example of the high performance U.L.A., but the stressing data available, and many of the detailed drawings, are incomplete, and the designer was most unfortunately killed in an accident some years ago.

Mr. C. H. Roberts, Principal of the College of Aeronautical Engineering at Wimbledon Park, considers that the project offers a useful design and construction exercise for his students, and he is keen to undertake it. Marcus Langley, the well-known aviation consultant and Managing Director of Tiltman Langley Laboratories Ltd., at Redhill Aerodrome, is design consultant to the College; he is particularly interested in the " Chilton " as it was designed and built originally by two of his former pupils.

We hope that negotiations now taking place over the project will soon be successfully completed. Then, with such a useful background, we may expect a new and improved version of the " Chilton " eventually to become available for U.L.A. enthusiasts. We will report developments in due course.

Two-seater trainer Project

Since discussing our proposed two-seater trainer project in the January/February *Bulletin*, we have received a number of letters and suggested specifications on the subject from various enthusiasts. Two members, Mr. W. J. Watkins of Harpendon, and Mr. P. Simpson of Barrow-on-Soar, near Loughborough, went so far as to enclose G.A. drawings of designs that they had in mind. Both were high-wing, side-by-side layouts, details of which will be included in an analysis of views received, shortly to be published in the *Bulletin*. Mr. Watkins considers that the two-seat project is an immediate necessity for the progress of the U.L.A. movement. He favours the writer's suggestion to utilise for economy as many identical components as possible between a single-seat and a two-seat design.

We are anxious that all members interested will, if they have not already done so, complete and return as soon as possible our design questionnaire sent out with the March *Bulletin*, so that we can prepare our formal specification requirements for the two-seater trainer.

Vincent H.R.D. Engine

We can now give further information on the proposed Vincent H.R.D. motor-cycle engine conversion which was mentioned in the last *Bulletin*. The development was first of all considered on the initiative of the Fairey Aviation Co. Ltd., with a view of providing an engine for their " Junior." The Vincent H.R.D. Co., although interested in the conversion, are too busy with their motor cycle business to take an active part with it. Consequently if the work is to go ahead, it will have to be done by an outside firm, although the Vincent Co. will assist as far as possible.

The engine is remarkably well suited for conversion to U.L.A. purposes, with little modification needed. It is a compact and robust air-cooled Vee twin of 1 litre capacity, with dry sump lubrication, and it lends itself to a neat inverted installation. The heavily finned cylinder barrels and O.H.V. heads are of light alloy, and cast iron cylinder liners are used. The gross weight is about 125 lb., but

could be reduced by using magnesium alloy for the crankcase, and by lightening the flywheels. The engine is likely to be rated at about 45 b.h.p. at 4,500 r.p.m. for take-off, and at 30-35 b.h.p. for continuous cruising. The maximum power is capable of being increased up to 80 b.h.p. for racing purposes.

In order to utilise the high engine operating speed, an airscrew reduction gear is necessary. Two schemes are under consideration by Fairey's; one is to utilise the existing method of triplex chain drive, and the other is to re-design with spur gearing. Of the two systems, we prefer the chair drive as being the cheaper and simpler, but it would require the retention of a flywheel to damp out snatch in the chain. We do not favour gear drives for two-cylinder engines, as they have proved unreliable in the past because of fatigue failures through torsional oscillation. We would suggest serious consideration of the mutiple Vee belt drive, which is now used extensively in industry. This would be cheaper, smoother and more reliable than a chain drive.

It is by no means certain that Fairey's will continue with the conversion, as they have other ideas in mind for the provision of an engine for the "Junior." So far, they have drawn out a number of schemes for consideration, but no actual work has been started. They point out that the engine has not yet been tested on the bench under aero type tests conditions, and it might not prove suitable without further modifications. We believe, however, that the project shows promise of providing an engine reasonably suited to our needs with far less effort and expense than the development of an entirely new engine. We can only hope that work on it will be continued.

50 b.h.p. Monaco Engine

We regret to announce that the proposed 50 b.h.p. Monaco engine which we described in the December *Bulletin* has had to be dropped. The Monaco Engine Co., has recently been taken over by A.E.C. Ltd., who have decided to discontinue with light aero engines. This is a pity, as the cylinder components had been fully developed for a larger engine, and it would not have required very much further expenses to produce the flat twin engine proposed.

WHAT CAN BE DONE

Contributed by the Chairman, Public Relations Sub Committee

One of the most interesting of a wide diversity of ultra light aircraft types which have been produced all over the World since the end of the War is the little American "Mooney M 18" monoplane. A single-seater with a retractable tricycle undercarriage, the "M-18" is powered by a 25 b.h.p. Crosley liquid-cooled motor car engine. In view of the comments in the Design supplement of this issue, the adaptation of this engine is particularly interesting.

The Crosley engine, which is mounted in an in-line, inverted installation, has had a peculiar history since it was originally developed to drive electric generators for the U.S. Navy. The aircraft adaptation, which is designated the "Mooney CC46M-2," has a bore of 2.5 in., a stroke of 2.25 in., and a displacement of 44 cu. in. The dry weight, including generator, is 101 lb., giving a power/weight ratio of 4 lb./b.h.p. This high figure is typical of adaptations, although higher than most. Maximum b.h.p. is delivered at 3,900 r.p.m., so that a reduction gear was necessary. After many experiments, the Goodyear Company developed a wedge steel belt drive, which was light, simple and apparently effective, running the fixed pitch wooden airscrew at half engine speed.

The necessary adaptation was therefore small, and the engine retains its original carburettor, ignition system, and cooling system containing 1.8 quarts of a glycol mixture. Cooling is through an external belly radiator. The choice of a liquid-cooled engine seems unfortunate to us, because of the inevitably high weight penalty. With the Crosley engine, the "M-18" has the astronomical power loading of 28 lb./b.h.p. giving the startling take-off figure of 800 yards under certain conditions. The airframe is quite definitely underpowered, and although the question of economy has been raised, a more powerful engine will have to be installed for safety's sake.

Despite its power plant, however, the "M-18" possesses many noteworthy features. Construction forward of the cockpit is all metal, with a wood monocoque rear fuselage. The whole tail unit, and rear part of the fuselage is hinged, and interconnected with the flap mechanism, so that movement of the trim lever in the cockpit is coupled with flap settings for various flight conditions. Throttle movement is also transmitted through a linkage which will provide automatic trim. The "M-18" is said to have extremely good landing characteristics.

Of cantilever construction, the mainplanes incorporate the mainwheel wells, and have sharpened leading-edges on the inner sections to induce centre-section stalling, before the tips. The main-wheels of the tricycle undercarriage retract manually inwards, balanced by a spring-loaded counterweight. The nose-wheel retracts backwards into the fuselage. Toe brakes are fitted on the mainwheels.

Apart from a shocking rate of climb, the "M-18" performs excellently in the air, with a maximum speed of 100 m.p.h., and a cruising speed of 85 m.p.h. With about 8 U.S. gals. of fuel, has a maximum range of 460 miles. Because of the low power, an average fuel consumption of 1.55 gals. an hour has been obtained (about 60 miles per gal.) Controls are very sensitive, but well co-ordinated. Reported stalling speed is around 40 m.p.h. I.A.S., but as the P.E.C. is unknown to us, we assume that it still falls within the ultra light category. "Stall" is perhaps a harsh word, since by careful design, the "M-18" nods into phugoids at low speeds, under ample control. The wing loading of 7.4 lb./sq. ft. compensates somewhat for the high power loading.

One of the best features of the "M-18" is the low structure weight. With engine, the airframe

weighs 460 lb., tare, and has a gross weight of 700 lb. With a retractable, nose-wheel undercarriage, this figure is indeed startling. Span is 27 ft., and length, 18 ft. Six of the type are reported to have been built, and the provisional price has been quoted at about £500. With increased production the price is fixed at about £400.

The " M-18 " has certainly shown what can be done with imaginative design and clean construction, although it is hardly suitable for Group construction. We must refrain, in view of the tremendous structural advances during the past decade, from basing our ideas exclusively on pre-War designs, without, however, being too ambitious. Let us hope that we, in the Association, may assist in setting the lead towards the procurement of that ideal " ultra-light."

OPERATIONS SUPPLEMENT

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

" Zaunkoenig "

We are still negotiating with the Ministry of Supply for the transfer of the " Zaunkoenig " to the Association. If the outcome is successful, the aircraft will normally be kept at Elstree. It will be available for flying by our members, with prior arrangement, who hold current Private Pilots or " A " Licences. We should also be very happy to exhibit this aircraft at any Rallies or meetings organized by our Groups in the coming season. Early applications for these visits should be made to this Sub Committee, once we announce that we are in possession of the machine.

Summer Training Camp

Provided there is sufficient demand from members, it is proposed to hold another Flying Training Camp again this Summer. The location of this Camp will probably be in the Home Counties (to facilitate co-ordination and organization by the Association), and the suggested month is July.

The object of the Camp is to train ab initio pupils up to Private Pilots Licence Standard, and to serve as a refresher course for more experienced pilots who are out of flying practice. The normal duration of the course will be fourteen days, but the minimum period for which a booking will be accepted will be seven days.

Definite arrangements cannot be made by this Sub Committee until we can gauge the demand. It is therefore requested that those members who would like to attend this Camp, notify the Operations Sub Committee as soon as possible, stating which weeks in July are preferred. At a later date, booking fees will be requested.

Subject to favourable conditions, the cost per head for the Camp will be approximately 25s. to 30s. an hour for flying, and about £3 per week for messing and accommodation. Naturally, this is hardly a luxury Camp, and members should be prepared to live a bit " rough " probably under canvas. The main object of the Camp is organized flying instruction, and one can hardly grumble at 30s. an hour.

Cowes Aero Club Rallies

Information has been received from the Cowes Aero Club that they are holding Rallies on Sunday, June 19, Sunday, July 17 and Sunday, August 28. An invitation has been extended to all members of this Association to attend these Rallies in their aircraft. The organizers are particularly interested to see " unique " types of aircraft, and it is thought that ultra light aircraft owners and operators will be interested.

Further particulars may be obtained direct from Mr. Richard Turlington, Cowes Aero Club, Cowes Airport, Isle of Wight. It is hoped that our members will avail themselves of this very kind invitation.

ULTRA LIGHT AIRCRAFT RALLY

1. I/We hope to attend the Ultra Light Aircraft Association Rally to be held at Ingoldmells airfield (Skegness) in September.

2. I/We prefer the week-end Sept. 9th—11th.
Sept. 16th—18th.
(Delete whichever is not applicable).

3. I/We shall be arriving by air/road/rail.

4. I/We shall require accommodation at Butlin's Skegness Holiday Camp from the Friday evening to Sunday mid-day for.....persons.

5. I/We shall be interested in taking part in competitions which may be organised, and would like to receive details of the Flying Programme as soon as they are finalised.

6. The details of my/our aircraft are as follows :—

Type.....

Registration.....

All-up weight .....

Engine type and h.p. .....

Engine c.c. .....

Maximum speed .....

Normal cruising speed .....

7. The following are details of my/our F.A.I. Competitors Licences :—

Signature.....

Full name and address.....

(In the case of a Group or Club, please state names of pilot(s).....

.....

PAULINE TAKES WINGS

WE were privileged to see a pre-view of this film and we thoroughly enjoyed it. The photography was beautiful and brilliant, the story non-existent (thank goodness) the commentary restrained and informative—and accurate, and the acting just plumb natural.

It is a pity we could not hear the natural sounds of club life and any dialogue. The music to replace this was not obtrusive, but we thought we noticed a high pitched and gradually rising note as of the increasing wind speed towards the end of the 20 minute film which we thought was overdone. Congratulations to Margaret Swale and Hugh Midwood, not to mention the chief instructor, Louis Slater the Club Members and all. We foresee that there will be many more applications for membership for all Clubs as a result of this film.

* * *

CONGRATULATIONS to Lorne Welch on his Gold "C" qualifying distance flight of 199 miles from East Grinstead to Yorkshire. He thus becomes our fifth Gold "C."

* * *

JOCK FORBES writes to say that we were wrongly informed that he was the pilot of the "Horten IV" featured in our April issue. In fact it was not the same machine at all, although the initiated alone could spot the difference. The Oerlinghausen machine has metal wing tips and the one we featured has wooden ones.

* * *

WE hear that Marmols recent endurance record attempt cost him about £100, and that bills were presented by all sorts of unlikely people, some of whom ought to have known better. We're getting a bit browned off by these stories of selfishness we hear nowadays, so different to the true spirit of most gliding clubs throughout the world.

* * *

WE want more Club photographs—of newcomers please. N.B. If you take pictures of Gliders against the sky in bright sunlight its a good tip to use a yellow filter.

* * *

ARTHUR HARDINGE'S New Zealand trip seems to have done a world of good to the Gliding Movement there. We hope they'll cheer the coming winter of our discontent with stories and pictures of their reviving Gliding Movement in N.Z.

NEWS FROM THE CLUBS—*continued from page* 142.

CAMBRIDGE UNIVERSITY GLIDING CLUB

The thermal season was started well by Bell (G. J.) who, on April 9th, left Cambridge in our "Olympia," after 1½ hours' local soaring, and reached Clacton-on-Sea an hour later. He had been in and out of cloud all the way. Instead of landing immediately he amused himself for a further 2½ hours by drifting out to sea in cloud, up to 5,700 feet, and then racing back to the coast; thus he carried out all three Silver "C" tests on the same flight (duration 5 hours 10 minutes, distance 56 miles, climb 4,500 feet). A month later he repeated the climb so completing the qualifications.

A week later, Grantham, with 1 hour 20 minutes, became this year's first holder of the "Pot, pewter (Pringle)" which is awarded for *local* duration flights. He kept it only for a day or two, as Austin on his first "Olympia" flight soared around the town for 2 hours 40 minutes. The present holder is Phillips (3 hours 40 minutes on April 20th).

On April 29th, Phillips, during his first cloud flight, climbed to 8,000 feet and 11,000 feet (gain 9,100 feet) in large cumuli on his way to Southend for his Silver "C" (56 miles). This flight was made rather late in the day as take-off was not until 4 p.m.

The following day another instrument-flying novice, Gee, climbed to 9,400 feet (gain 6,400 feet) in a similar cloud, notable for its lack of turbulence despite the usual strong lift. He eventually landed near Bishops Stortford (24 miles).

At the same time, the "Kranich" with Blanchard and Bell (G. J.) went up to 7,400 feet in another cloud.

On May 10th, under anticyclonic conditions, Ward, with half his arm in plaster, soared the "Olympia" to Luton (32 miles) from a 1,600 feet aero-tow. Halfway there, he was down to 800 feet but caught another thermal to 3,000 feet, his greatest height on that trip, so he still awaits his height qualification.

May 19th saw Carrow's first venture into a large cumulus, where amidst great turbulence he was hoisted to 6,800 feet at which height he emerged and promptly put on the brakes, and lots of speed, coming in to land very smartly after a mild attack of mal de l'air. As soon as he landed, the "Olympia" was taken off again by Phillips who reached a similar height.

On May 28th, Gee completed his Silver "C" qualifications by soaring to Great Yarmouth eventually landing at an aerodrome 68 miles from Cambridge. He, also, used large and very violent cumulus clouds one of which took him to over 11,000 feet (climb 9,100 feet).

The "Prefect" has been performing well and a number of good flights have been made in it. On May 29th, while Grantham soared the "Olympia" over Cambridge for 3½ hours (6,600 feet), the "Prefect," at Bourn, was taken to 5,500 feet by Martlew, who thus obtained his Silver "C" height. Then Free climbed to 4,600 feet, so ending his long wait for his Silver "C." With our "Prefect" on the runway, all present were surprised to see another "Prefect" circuiting the aerodrome; this had come from Dunstable and after landing was given a couple of auto-launches before being de-rigged. The piano-wire launching is still working very well and we have been getting up to 60 launches in an afternoon (flying commencing about 2.30 p.m.).

So far this year, which is still quite young as far as thermals are concerned, we have obtained five Silver Badges and there is still promise of more to come.

AUSTRALIAN 2-SEATER HEIGHT RECORD



Ron Roberts (rear) and Edie Byrne in "Phoenix"

Report on the Australian Two-seater Altitude Record Flight: Eddie Byrne, of the Beaufort Gliding Club writes:

"From a meteorological viewpoint the morning of 26th February at Berwick is worth recording. The sky was blanketted from view by high cirro-stratus cloud interspersed with a general light cloud haze, also at a high altitude. The wind was a light north-westerly which comes to Berwick from the Dandenong ranges and proceeds towards Westernport Bay in the general direction of Tooradin. By the time flying operations commenced, the meteorological scene had changed slightly to the effect of the day becoming warmer and small cu. forming over the Dandenongs and drifting towards Berwick airfield where they disintegrated. This small cumuli 'factory' was still situated beneath a canopy of high cirro-stratus and cloud haze, although, due to the action of the sun and slight wind the cloud haze was beginning to disperse. It was under these conditions that the Beaufort Gliding Club began operating with our two-seater 'Phoenix,' in accordance with our usual training programme. Ron Roberts, of the Victorian Motorless Flight Group was, as usual our pilot-instructor. Several flights were made of average duration in condition of small rate of sink. After what was to have been the last flight before lunch, it was found that definite areas of small lift were now present in the atmosphere so it was decided to try one more flight before lunch. The blue sky was now visible in large portions, the earlier cloud haze having vanished, leaving the cirro-stratus formation more defined. The cu. beneath the stratus clouds was no longer breaking up when it reached Berwick and was drifting towards Westernport Bay in more solid masses. The temperature now was approximately 80 degrees F.

"With Ron Roberts as pilot instructor and myself as trainee we were winched to 560 feet at 13.00 hours; after a few seconds we contacted an area of no sink, which became lift of 1 to 2 feet per second, and, as usual when thermal conditions are present, I handed over to Ron, who began circling immediately. From the launch height to 1,200 feet conditions were about the same, fluctuating between no sink to 2 f.p.s.; after reaching 1,200 feet the lift increased to 5 f.p.s. and held the rate approximately till 2,000 feet was attained. From this height the thermals were growing stronger and steady lift carried 'Phoenix' to 4,000 feet; at this altitude, the air was quite warm and cloud base had not been reached. On previous flights, on days of 80 degrees F. temperature, with moderate wind, cloud base is usually contacted between 3,000 feet and 4,700 feet, and the air is quite cold at this height. The presence of cirro-stratus type cloud formation above the cumulus clouds, seems to indicate that the air at certain altitudes is greater than when cumulus alone are present. The warmer air at 4,000 feet was, of course, forcing condensation to occur at a much higher level than we had previously experienced.

"From 4,000 feet, the thermals were of the pulsating variety, recording on the variometer from 5 feet to 15 feet per second and, for one brief period, 20 f.p.s. was experienced. It was in this area of turbulent thermal conditions that we were occasionally thrown hard against the safety harness. The lift from 4,000 feet to 6,000 feet on an average was about 10 f.p.s. and was the best rate of ascent attained throughout the flight.

"From 6,000 feet the lift was steady at 5 f.p.s. and did not fluctuate a great deal and it was in this smooth lift that we reached cloud base at 7,000 feet. This was the highest point attained during the flight and the nett climb above release was 6,440 feet. No attempt was made to enter cloud as the machine was not equipped with blind flying instruments, and the lack of parachutes and canopy, coupled with a little wisdom, decided for us the unwiseness of carrying on into cloud. The air at this height was cool, but not cold, and the visibility was excellent.

"A survey of our position showed that we were about 5 miles downwind of the Berwick airfield. From this vantage point, the Packenham airstrip was clearly visible on our forward left flank three miles away; to our right the whole of Port Phillip bay coastline was in view with the Heads quite discernable. Shipping at anchor in Hobson's Bay was very clear in outline with no suggestion of haze. Directly ahead was Westernport Bay, with its channels of light greenish water around French and Phillip Islands in contrast with the deep green of Port Phillip Bay. At this juncture we decided to head back towards Berwick and on the way we contacted several small thermals, but extreme difficulty was experienced in endeavouring to stay inside these narrow thermals with our large machine; on some occasions the lift was under one wing only, thereby tipping us into a side slip. Even after remaining in the thermal, the lift was not to be compared with what we had encountered earlier in the day, and it was quite apparent that the lift conditions were deteriorating as areas of sink became more prevalent.

"We arrived back at Berwick with 2,000 feet of height left and after contacting a small area of weak lift over Berwick township, we landed back at the airfield at 14.43 hours, having been in the air for 1 hour 43 minutes. An inspection of the cloud formations revealed that the cirro-stratus had faded and in a short time would disperse completely, leaving only small cumulus formations, and, as subsequent flights proved, lift conditions had vanished.

NEWS FROM THE CLUBS

VICTORIAN MOTORLESS FLIGHT GROUP

May 1st, 1949

Flying Diary

Saturday, 2nd April: 16 *flights*: "Rhon" 10, "Coogee" 6. Harold Luckly of the Perth Gliding Club, had his first day with us. One instructor finished the day with a Very Red Face, having landed the "Beaufort" two-seater ten and a half inches closer to the fence beside the hangar than he had intended to. The rabbit-proof wire-netting is NOT proofed against "Phoenix's" nose! The pitot-head turned right around and glared at said instructor accusingly. John Wallis, of Beaufort, made the best crack of the year when he warned the VMFG—"Be careful what you say to him—we asked him to land back at the hangar and he took offence." (Offence—a fence—get it?) The unfortunate instructor is still wondering how long it will be before people stop warning each other, with loud sniggers, "Look out, he'll take offence!"

Sunday, 3rd April: 46 *flights*: "Heron" 19, "Rhon" 8, "Coogee" 9, "Kestrel" 10. Street of cu. right over the field but no-one could get up to it or even find lift that didn't mysteriously disappear before the first turn was completed. Most aggravating. A "Rhon" type, zealously perfecting an approach, made a last turn that made Colonel Ryan's paddock over the road and behind the hedge seem a more appropriate landing ground than the airfield. It was hard luck that the understandable excitement caused in the trainee's heart by this unpremeditated cross-country induced a lack of speed so that the landfall was a little abrupt, bending one section of the lower fuselage boom. However, during the week, Harold Luckly suggested that the crunchery be taken to the Roberts' home (where he is staying) so that he could uncrunch it, which it was and which he did, with the result that the "Rhon" was ready for action again next week-end. (W bend 'em, he mends 'em). Harold accepted an Honorary Membership of the Group on Wednesday.

Saturday 9th and Sunday 10th April: With the V.S.A. Easter meet only a few days ahead we made this a working week-end, both on our own equipment and getting things ready for the Meet.

April 15th to 19th—Easter Meet—reported separately.

Saturday, April 23rd and Sunday, April 24th: Saturday and a good portion of Sunday was spent putting in torpedo-drains, i.e. a drain with a slit on the top surface opening out into a torpedo-shape below the surface—with Mr. R. G. Casey supervising the job. Your correspondent was unfortunately absent on Saturday so cannot amuse you by describing people falling flat on their faces in the process but, judging by appearances at dinner that Saturday night, it was rather a dirty business. We are hoping that the new drainage system will keep the field open longer. On Sunday afternoon a new skid was fitted to the "Coogee" and various jobs done on the hangar.

Monday, 25th April: 28 flights—"Heron" 3, "Rhon" 9, "Coogee" 7, "Kestrel" 9.

Total Flights for April—184.

Of General Interest

The Richardson Cup: It has been decided that the cup presented to the club by Bettye and Geoff Richardson shall be presented at the next annual general meeting to the pilot who attains the highest net height in a club machine from a winch launch for the period 1st January, 1949, to 31st December, 1949.

"Olympia" in New Zealand: Arthur Hardinge continues his epic tour of N.Z. and he and the "Witch" continue to feature in the N.Z. press. In a magnificent full-page photograph, the "Witch" appears on the front page of the New Zealand *Free Lance*, the caption stating—"One of the highlights of the most spectacular air pageant yet held in N.Z. was the appearance of a sailplane in which the Australian gliding enthusiast, A. Hardinge, gave two remarkable demonstrations of aerobatics. Pictured here at a height of 3,000 feet the graceful craft delighted 18,000 spectators as it swooped, soared and circled above the field." (Boy, what an audience!) Several Aero Clubs are forming special branches to cater for gliding and Arthur reports that the trip has been well worthwhile. A tour of R.N.Z.A.F. Stations is proceeding with the "Olympia" being transported in a "Dakota" from 41 Squadron. (Dear oh dear oh dear, how ever will the boy react to winch launches and those old-fashioned two-wheel trailers after this?) "At Ohakea Station," says Arthur, "we acquired all the odd pieces of rope around the Station and the Group-Captain gave us an auto-tow, slightly downwind, but the runway is 7,000 feet long so reached 800 feet, and released in just under no-sink; after circling diligently for several minutes gained about 10 feet, then slowly she started to go up and eventually 3,700 feet in 15 f.p.s. lift. Stayed up for 56 minutes and aerobatted from 1,000 feet."

Arthur is now carrying out an extensive tour of the South Island. Incidentally, as a fisherman, he's a good glider pilot! On a day off, he was taken out on the Manakau Harbour for a day's fishing. He caught two fish! Never mind, Art, the others must have been equipped with variometers to show no sinkers.

POET'S(?) CORNER

Owed to the Ab Initios

"They fly through the air with the greatest of breeze
The young ab initios who've paid all their fees,
The 'Primary' is screaming with excess of speed
To the instructor's dull whimpering they pay little heed.
The ground far below excites, not appals,

Up goes the nose, and My God, how she stalls !
You warn them of kiting, of terrible things,
That happen to jokers who tear off their wings ;
You tell them of fences, the hardness of same,
They sneak in behind 'em—the endless old game.
They head towards obstacles, cars and the like,
And sometimes they land on a spectator's bike.
They skim over haystacks and fall into ditches
Then laugh themselves silly until they get stitches.
They privately organise spot-landing regattas
And finish up tearing the skid into tatters.
Oh the whole sky's their oyster, they love every minute,
They circle in downdraughts, crying, ' gotta be in it.'
Dear Lord, when I die (and I pray this prayer well)
If there's trainees in heaven, please send me to hell.
(P.S. I really don't mean that—trust you saw my sly winkers,
Because somehow I just can't help loving the stinkers.) "

New South Australian Duration Record: We are very glad to report that last Sunday, 24th April, Les Brown of the Waikerie Club, flying the " Kite II," had a thermal flight of 3 hours 44 minutes, which breaks the S.A. record. Good work, Les, sorry you didn't do it at Berwick the week before.

Department of Comment: Remarks taken at random from the Visitors' Book, Easter meet—" Hope that this will become an annual meet "—" An experience I would not have missed even though it cost us 1,000 miles of indifferent road. All the best for the future of gliding in Australia."—" Good holiday, good as Luna Park."—" Best holiday ever."—" Two flights — converted ! "—" First flight—bute ! "—" Take that thermal out from under my - - -, I feel like I'm soaring up to Kingdom Come, The Green ball's popping out the top of the spout, The altimeter works are beginning to hum, If someone doesn't help me I'm going to bail out, Take that thermal out from under my - - -."—" Congratulations on an excellent camp."

DERBYSHIRE AND LANCASHIRE GLIDING CLUB

Club Notes for April

Good conditions during April enabled us to continue the excellent flying results shown so far this year. There appears to have been only one or two standing waves this month but there have been several good thermal days. Easter provided good mixed flying weather, being suitable for training on most days except Monday, which was a first-class soaring day with plenty of thermal. The tragic accident to Terence Horsley overshadowed our activities for the month. A faulty launch, during which the sailplane was seriously damaged on take-off, resulted in the tail of the machine falling off in the air. The machine dived into a tree in the valley and the pilot was killed instantly. Terence had the gift of interpreting gliding in terms which ordinary people could understand and appreciate. It will be a long time before anyone like Terence comes along to take his place.

Saturday, 9th April. Wind West 18 m.p.h.

Roger Dickson completed his five hour test, reaching a height of 4,100 feet in thermal. Bill Elrington reached 3,950 feet in the " Eon Baby " and Derek Roper reached 3,700 feet in the " Gull."

Total. 37 launches, 22 hours 32 minutes.

Sunday, 10th April. Wind S.W. 15 m.p.h.

Jefferson took off at 8.22 to do five hours but landed with four hours, forty-three minutes still to go. Later conditions improved and machines were able to soar over the south and west slopes at will. Shepard, in his " Olympia," was the first to venture to Eyam on the south slope and was soon well above the machines which stayed on the corner. Terence Horsley followed and the two of them climbed steadily to 5,000 feet in a wave situated well out in the valley. Six machines came back from Eyam during a temporary lull and ran into a superb lift in the Bradwell valley. Led by George Thompson in the " Viking," Alf Verity, Margaret Swale and one or two others reached between six and seven thousand feet.

Total. 41 launches, 38 hours 9 minutes.

Thursday, 14th April. Wind S.W. 10 m.p.h.

A small party under Harry Midwood had the " Eon Baby " to themselves, but apart from two short thermal flights, it was a disappointing day.

Total. 15 launches, 1 hour 36 minutes.

Friday, 15th April. Wind South 10 m.p.h.

A rather scrappy day with moderate lift on the south slope.

Total. 44 launches, 11 hours 24 minutes.

Saturday, 16th April. Wind N.W. 5/15 m.p.h.

Mainly training. The " Cadet " and " Tutor " did about thirty launches but later in the day Cooper managed to hold the " Tutor " up for half an hour. A small front passed through in the evening and Heck Booth in his " Olympia " and Derek Roper in the " Gull " shot up to 3,000 feet but it was too late for anyone else to use and there were two fairly hectic landings later on, free hand and from memory.

Total. 60 launches, 13 hours 33 minutes.

Sunday, 17th April. Warm and windless.

A snap decision sent our " Eon Baby " to Burnaston Aerodrome with a party for an introduction to aero-towing. The pilots had a pleasant and successful day and if the skid did get torn off on the last launch, it was mended the following day. At the Club training was in full swing.

Total. 55 launches, 2 hours 24 minutes. 9 aero-tows, 2 hours 12 minutes (Derby).

Monday, 18th April. Wind N.W. 35 m.p.h.

The presence of lenticular clouds seemed to indicate another standing wave, but it was not much in evidence at first. A strong wind and a tendency for the sky to cloud over prevented the first attempts to search for it. Around 11 o'clock however the sky cleared and a certain amount of thermal activity, coupled with the strong north-west breeze, gave excellent hill and thermal soaring. Stan Armstrong reached Cranwell but found that conditions were not

nearly so good as they appeared to be at Camphill. Kathleen Bodell was launched in the "Cadet" after waiting for a chance to get her "C" for goodness knows how long. After a nice flight of eight minutes she came in and put the machine down pretty hard. However the damage was not as bad as had been suspected.

After tea the evening thermal developed and several pilots topped 6,000 feet. Charles Verity, after reaching Silver "C" height regularly for twelve years, at last had a barograph with him and made quite sure with a height of 6,200 feet. Gerry Smith had an interesting trip up wind to Edale Valley and after losing 3,000 feet on the way, won most of it back in what must have been the wave in front of our own. Owing to failing light, he was unable to explore the forward wave to its fullest extent.

Total. 44 launches, 62 hours 39 minutes.

Wednesday, 20th April. Wind S.W. 5 m.p.h.

Circuits in the "Eon Baby" and "Tutor."

Total. 20 launches, 1 hour 11 minutes.

Thursday, 21st April. Wind S.W. 20 m.p.h.

Midwood, Roper and Jefferson each had a flight in the "Eon Baby."

Total. 3 launches, 2 hours 25 minutes.

Friday, 22nd April. Wind West 25 m.p.h.

Jefferson, having made about fifty attempts during the past week to do five hours, it is a great relief to report that it has now been achieved at great cost and no small inconvenience. The "Eon Baby No. 2" has gone back into circulation.

Total. 5 launches, 10 hours 23 minutes.

Saturday, 23rd April. Wind W.S.W. 15 m.p.h.

We were particularly pleased to see Messrs. Wheatcroft, Arnold, Marsh and others at the Club. The weather was indifferent and the week-end marred by the fatal accident to Terence Horsley. Hugh Bergel also turned up to discuss the arrangements for the National Competitons.

Conditions were not sufficiently tempting for anyone to stay up very long but most of the private machines had an hour or so each.

Total. 29 launches, 19 hours 19 minutes.

Sunday, 24th April. Wind S.W. 15 m.p.h.

Pretty much the same as yesterday. Harry Midwood set about the primary squad with real enthusiasm and achieved 53 launches on the "S.G.38" Nacelle. Walter Godber managed an "A."

Total. 64 launches, 5 hours 8 minutes.

Saturday, 30th April. Wind N.E. 5 m.p.h.

Bert Wardale had his first trip in an "Olympia." In view of the conditions there were only eleven launches, totalling 36 minutes.

Gerry Smith took his "Olympia" to the Air Display at Woodford to demonstrate sailplane aerobatics.

Totals for April.

454 launches, 205 hours 10 minutes.
1 "A" Certificate.
2 Five-hour Tests
3 Height Tests

SCOTTISH GLIDING UNION

By the end of March, Andrew Thorburn had flown our new "Eon Baby" on aero-tow, and we were expecting great things in April. But bad weather cut down the week-end gliding, and though there were some training launches and the "Tutor" was in use again, it was not until the 30th April that the "Tiger Moth" was in use as a tug again. It was quite a good day. Norman Manclark had an aero-tow to 2,000 feet in the "Olympia," and climbed to 4,000 feet, staying airborne for 1 hour 10 minutes. Even the "Cadet," in David Hendry's hands, managed a six-minute flight, cruising round the aerodrome, as he put it, and sneering at the "Baby" waiting for an aero-tow. It seemed an auspicious week-end for the welcome arrival of Andy Laidlay from the Surrey Gliding Club. On May 8th and 15th, training took chief place on the flying list. George Whyte gave generous joy-rides to Deserving Cases (I was one) in his "Puss Moth" on the 8th, and on the 15th, most of the Club's flying members took up the "Tiger."

We have moved into new Club premises since the beginning of May. The Scottish Gliding Union and the Loch Leven Flying Club are now going to amalgamate to form a social club, in huts on the south side of the aerodrome, close to Kinross. Flying facilities of both clubs will still be controlled by each club, but members of one club will automatically become honorary members of the other and will be able to participate in the type of flying controlled by each. We are now struggling for a suitable name for the social club, the prize being the winner's free membership of his own club for a year.

LONDON GLIDING CLUB

Flying News

April 2nd. Wind South 15-20. Training and circuits.

April 3rd. Same again with a difference. Hawkridge did their first hops on the prototype "Venture" two-seater.

April 4th. Wind S.W. 20-25. Pereira was launched in the "Prefect" and enjoyed two and a half hours of pleasantness. Marmol tries again to break the world endurance record, getting launched at 13.57, we left him sitting in a comfortable cockpit whilst all those available were co-opted to the task of lamp trimming. The last lamp was put in position just at dusk. Many people stood by to attend to any lamp that might go out, and the Golf Club co-operated splendidly by leaving an outside light burning for our benefit. The fatique party divided in two, to enable them to get some sleep and attend to the lights all through the night. It seems that Marmol had a thermal in the middle of the night, going up to 2,500 feet. What with standing waves and midnight thermals, our education seems to have been sadly neglected, we must get really genned up on these matters. A minor warm front passed in the morning causing the wind to back. Marmol stuck it in the hope that it would be only for a short time, but after half an hour below hill-top he was forced to land having flown 17 hours 24 minutes.

April 5th. A few people tried to-day but the wind was too much along the hill.

April 7th. Wind N.W. 20-25. Cumuli and fronts. We had a visit from Midwood of The Derby and Lancs. Club who managed

an hour in various machines. Jack Lang was not too happy and landed after one hour in the "Prefect." Carr flew the "G.B." for over two hours, and many other pilots were airborne for varying times, but no one connected with those beautiful cumuli that seemed so plentiful.

April 8th. Wind N.W.5 in the morning strengthening to 20 m.p.h. later. No one managed to stay up in the morning, but plenty of activity later. Midwood amused himself with the "Prefect" for one and a half hours and Georgeson had three flights for over three hours, while Erdman did one and a half hours in the "Cadet," that being the only machine left on the ground. 14 hours to-day with some good heights.

April 9th. Wind N.W. 5-10. THE PERFECT DAY. "Daglings" dagled "Cadets" cavorted, and the better machines just went mad with delight. F. E. Allen was launched at 8.50 and flew for 5 hours 22 minutes. Frank Moore spent an hour in the "Tutor" at 2,300 feet for his "C." Lawrence Wright did a goal flight to Lympne to complete his Silver "C", and Buckley went to Southend to complete his. Mercy took the "G.B." to Stanford-le-Hope in Essex. 48 miles and 4,800 feet he resourcefully hired a removal van to save time on retrieving, but it failed in its object as the removal people damaged it a little on the way back. Jeff Arnold took the "Blue Gull" to Wadhurst, and landed in a field the size of a stamp. Warner did a very nice circuit to finish his "B" and then went on the ridge for 25 minutes that should have been his "C" but coming in to land a trifle high, he decided to take off the height in S turns very slowly, realising he was stalled, he made a hasty grab for the throttle which of course was not there, and met the ground in a most undignified manner.

April 10th. Wind backed to S.S.W. 15. Circuits were the order of the day.

April 11th. Wind S.W. 15-20. Georgeson still getting plenty of practice, nearly 3 hours in the "Prefect." Carr, Ross, and Erdman also flew. John Hands and Peter Renshaw came over in the evening to help build up our flying time.

April 12th. Wind S.W. 20. Who said flying time? Georgeson again, Silver "C" duration this time also Ken Sands accomplished that awful bind, but to Laddy Marmol five hours is only a moment, he was launched at 12.23 on another attempt at the world endurance record, this time he managed 33 hours 5 minutes although not a world record it is a U.K. local record, the previous best being 25 hours by the same pilot in 1947. The local members turned out en masse to assist in the ground work, but special mention must be made of Peter Parker, who stood guard over the lamps in the early morning when all the others were worn out.

April 13th. Wind W. 15-20. Laddy still flying, a very good day, plenty of room in the air for everyone. Erdman and Savage putting up the longest flights, other than Marmol of course.

April 14th. Light variable winds, circuits and hops.

April 17th. Same again, but being holiday time the equipment protested. The Rice winch in trouble again, and the old faithful Wild winch also gave up the ghost clutch trouble. We were very sorry to disappoint all those who wished to fly in the evening. The "Dagling" squad continued with the bungee . . . interesting and instructive . . . experienced pilots seem to need a little "Dagling" practice, judging by their antics.

April 18th. Wind N.W. 5-15. Strenuous efforts by Messrs. Arnold and Co. resulted in two winches being serviceable, instability was very good. At one time six machines were seen at about 3,000 feet under one cloud, but no one went away. Grant took his "C" with a nice flight of 25 minutes. Ralph Court took his "A," "B," and "C" over the week end. The nacelled "Dagling" was landed on top several times to enable Dave Clark and Audrey Battlebury to get their "A", Dave going on to the "Cadet" to complete his "B."

April 19th. Wind S.W. 15. Good soaring days Rys and Sell sat out their Silver "C" duration Jack Lang did a couple of hours in "Gull I" and Grant did over two hours in the "Cadet." 26 hours to-day. Not bad for a week day.

April 20th. Forecast N.W. gales, actually bright sunshine and no wind, a few circuits were flown, without making contact.

April 22nd. Moderate westerly wind. Nothing spectacular. Vic Carr did 2 hours in "Gull I."

April 23rd. Geof. Stephenson deputised as C.F.I. and the "Daglings" put in a good day. Clark took his "C" with 21 mins. Paddy Benson dropped the "Prefect" on landing and caused a little damage.

April 24th. Light westerly wind. Dan Smith deputy C.F.I. to-day with good results for the trainees. It was interesting to see the sailplanes contacting thermals from the winch, many pilots making good height. Steve meandered around the countryside going as far as Aylesbury and back. Anson had a thrill when attempting a stalled turn, left his ruddering too late, and performed a tail slide.

April 25th. Good cumuli and west wind, everyone ambitious. Woodhouse went up for five hours but landed after only 55 mins. Hurry practiced cloud flying. Georgeson flew the "Gull I" to Sheering in Essex getting 4,800 feet on the way, he had a nibble at a cloud, and came out in a hurry, landing soon after. That completes his Silver "C." Robinson was not so lucky landing the "G.B." at Radlett 14 miles away. Eric Read came along in the afternoon and flew the "Gull IV" to North Weald reaching 3,500 feet on the way. Another completed Silver "C". Renshaw and Silvester also flew.

April 26th. The tephigram showed instability right to the angels and Millicer was ambitious to complete his Gold "C" requiring only the height, but he failed to contact.

April 27th. Wind S.S.W. 10-15. A few people soared. Dodd and Hands had their first flights in "Gull I."

April 28th. Light wind and low cloud. A few short flights. Jessie Wright had a good time with the "Dagling" making some progress.

April 29th. Wind N.W. 10. Derek Hughes was launched in the "G.B." at 10.25 and after half an hour's stooging around he caught a thermal and set off on his first

crosscountry flight. The wind unfortunately went straight across London and he was forced to land at Mill Hill 23 miles away. Lawrence Wright played around at 4,000 feet for 3 hours in the "Olympia," but others failed to contact.

April 30th. Wind N.E. Circuits only. The "Nacelle" was landed on top a few times and Cienciala got his "A." Bridson also made a couple of very nice descents.

Summary of the month.

4, "A"; 3, "B"; 4, "C"; 5, Durations; 5, Distance; 3, Heights; 8, Cross country for 358 miles; 822, Launches; 330 hours 11 minutes.

BRISTOL GLIDING CLUB

Good soaring weather continues to prevail in a most unprecedented way this season. The week-end of 30th April—1st May provided some of the best soaring we have ever had at Lulsgate. A cross country flight to Yeovilton by M. R. Clentrill started the ball rolling; he was unfortunately let down 3 miles short of Silver "C" distance by the damp country south of the Mendips. However an aero-tow retrieve allowed time for the "Olympia" to make some further local flights. Meanwhile the "Grunau" had been doing some good soaring from the winch, the best being a climb from 400 to 4,000 feet by N. D. Batstone, thus getting his "C" and Silver "C" height in one.

The following day another Silver "C" climb from the winch was achieved by E. A. Thompson this time in the "Olympia." He was not so lucky however a few weeks later in an attempt on his duration leg, as the thermals petered out after he had been airborne for 4 hours 43 minutes.

Our first visiting sailplane arrived in a somewhat spectacular fashion on 14th May and was found to contain W. Jennings who had soared the 50 miles from Thruxton, near Andover.

Much activity has been evident in the clubhouse recently and has resulted, among other improvements, in the appearance of two wash basins complete with running water. However it still has to be carted across the airfield first.

A large amount of work has also gone into preparing equipment for the first of our summer training courses which starts on 23rd May. These are being run this year by Mr. Hobkirk who has been engaged for the season.

ULSTER GLIDING NOTES

On Sunday, 17th April, F/O. Reggie Brown flying a "Tutor" belonging to 203 Gliding School A.T.C. was winched to 800 feet and reached 3,800 feet and remained aloft for 2 hours over Sydenham Airport, Belfast. His report is as follows:—

Launched 15.50 hours and flying down-wind maintained height. Circling in lift between 3 and 5 f.p.s. Air very bumpy. In 20 minutes had reached 2,500 feet which was condensation level. Air then became smooth and by sitting into wind continued to gain height at 3 f.p.s. Cumulus clouds began to form at 2,500 and ground became obscured. By now I was halfway across Belfast Lough and decided to cross Lough if I reached 4,000 feet. However, the clouds became dense and realised that 3,800 feet was the maximum height so flew down through clouds and emerged, luckily over the Airport. The wind was W. to S.W. coming directly over the City of Belfast, and probably met the cold sea air over which it rose.

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LONDON GLIDING CLUB

Flying News. May 1949.

1*st*. Wind N.E. 5-10 m.p.h. Marshall took his 'A" and Cienciala his " B." Brooker landed the " Dagling " so hard as to compress the boat, and put it out of action. Lawrence Wright, flying the " T.21 " found such a violent down behind the thorn hedge on the south side of the field that he rammed the hedge causing some damage.

Notice to Flying Members. Excuses will not be acceptable from pilots who get caught out in this manner, if you have 200 feet or less. **You must not exceed the boundary** of our own field. **You have been warned.**

3*rd*. Wind N.E. 20 m.p.h. Midwood, Wright and Hanks did a few circuits in the " G.B." and Marmol a few rolls and loops off the launch with his " Krajanek."

4*th*. No wind. Jessie Wright took her " A " in the " Nacelle " and hopped the " Cadet." Roger Dickson came down from the Derby and Lancs. Club and will stay with us for a time.

5*th*. Wind N.W. 5 m.p.h. Roger Dickson and Harry Midwood went to Bradwell Edge and fetched the " Viking," flying it at Dunstable the same evening. Tough guys, these Derby lads. Lawrence Wright took the " Olympia " to cloud base at 4,000 feet. Wally Kahn flew the " Gull IV " and " Krajanek" Pereira flew the " G.B." Marmol and Renshaw also flew. 8 hours' flying for the day.

6*th*. N.W.10 backing. Good thermal conditions. Millicer still ambitious for his Gold " C " flew the " Gull IV " for an hour and a half without getting higher than 1,500 feet. Frank Foster toured the countryside in his " Buzzard," Pat Foster circuited the " Tutor," Doc Slater spent one hour twenty minutes in the " G.B.," and Dickson got over 3,000 feet and landed at Luton. Midwood flew the " Viking " and Iles of the College of Aeronautics got his " C."

7*th*. N.E. 5-10 m.p.h. This is not a very good wind direction; the approach seems to bother a lot of pilots. Scott landed the " Tutor " with a spot of drift and damaged the skid; " Johnny " repaired this in record time, and it went back into service, only to be really bent by Williams, who made an unplanned approach and hit a huge chunk of hardcore that had been left around by the people who had moved the winch. This sort of mishap can easily be avoided by not leaving these hazards all over the place. Protect your own property by making sure the landing area is clear of all such obstructions. Crawford gave us a very exciting ground hop, doing a couple of snappy turns close to the ground, but he failed to break anything.

8*th*. W.S.W. veering N. Geof. Stephenson made a very good flight up wind. He went to the Royal Aeronautical Societies Garden Party at White Waltham, did some aerobatics and returned to Dunstable. On the way he got as low as 300 feet over Wendover, which is very unfriendly country, being chiefly wooded. Good show, " Steve." Dudley Hiscox flew to Southend via Luton, Hatfield, Panshanger and North Weald, and at one time was preparing to land on a chicken farm, but with endless circling in small lift he managed to regain height and arrived at Southend with 2,000 feet to spare. Anson who had nominated Martlesham, failed to go away although he stooged around at high altitude for 5 hours 20 minutes. The new " Krajanek " group tried out the machine, and Allan Ash has discovered that a skidded machine must be landed without drift. The whole group are now busy overhauling the machine for C. of A. Langford took his " C " with a flight of 9 minutes which seemed very good, considering the conditions. Marshall got his " B." The " Dagling " team put in a great number of launches. 30 hours were flown this day.

10*th*. N.5. Roger Dickson and Harry Midwood rigged and flew the " Prefect." Dickson on his 9th circuit released under load and caused the cable to lock round the drum which of course created an irritating delay.

11*th*. N. 15-20 m.p.h. The Misses Wright and Battlebury are making good progress, Carr and Case also flew.

13*th*. By way of a change we did a few bungee hops with the " Nacelle Dagling."

14*th*. E. 5. Brown, Kay, Dunbar, Troman, Bilham, Eacock and Bonnaud had a number of slides and hops, while the experts used the long launch. Launching from Tring Road toward the hill, getting as much as 1,000 feet and sometimes more on the cable. This launch, owing to the long cable retrieve and general length of time between launches will cost a shilling extra per launch.

15*th*. N.E. 5-10 m.p.h. This is the first time we have used this direction since the wires came down, without any incident. We hope pilots have now become conscious of the extra-ordinary wind gradient that prevails in a N.E. wind. All aircraft were returned to the hangar without damage. Hurrah ! The " Dagling " school is increasing in size, but with Jack Hanks on the winch everything went with a swing. At seven o'clock we were honoured by a visit of the Polish Protestant Society. The " T.21," had already been put away, but Jeff. Arnold and Ron Reid soon got it out again and put in seven rapid circuits that satisfied their immediate desires.

19*th*. Practically no wind. A good " Dagling " day. Elliott, Dunbar, Wright J., and Laxton hopped the " Nacelle," Carr and Clarke flew in the evening.

21st. E. 10-15 m.p.h. Quite a large " Primary " school and a long launch for the advanced pilots. Mr. Irani, our Indian member, brought a large party of fellow countrymen to sample the joys of motorless flight. They spent quite a long time looking for an engine and were finally convinced there was no deception. Irani had a busy time giving them rides in the " Two-seater." Anson, in the " Red Olympia " made a very spectacular approach, but somehow failed to damage his aircraft. Only the telephone wires suffered, and of course our nerves.

Continued on page 135

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LETTER TO THE EDITOR

Hepburn Hall,
St. Andrews.
11th April, 1949.

DEAR SIR,

In your March issue, we note a letter from Cambridge University G.C. We at St. Andrews should like to put it on record that a small but enthusiastic and ambitious Club has been finding its way into the air at Kinross for over a year, through the courtesy of the Scottish Gliding Union. Individual students joined the Union from time to time until there was a sufficiently large number to form a University club. Since we are at present limited by the high capital outlay needed to become independent, we are all full members of S.G.U., and all flying and training is done on their aircraft.

However, we should like to give advance warning to the other two University Clubs that they may hope for a little more competition during the coming season.

Yours faithfully,

PETER J. PEARCE.
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Gold "C"—

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6668	John Henry Hickling	Midland G.C.	9. 4.49
7441	Stanley Joseph Thomas Steer	161 G.S.	9. 4.49
8748	Arthur Stuart Forbes	183 G.S.	17. 4.49
8859	Robert James McCullough	203 G.S.	29. 1.49
9069	George Whyte	Scottish G.U.	17. 4.49
9287	John William Alfred Smith	48 G.S.	26. 3.49
9327	William Osborn Tomsett	Southdown G.C.	10. 4.49
9457	Geoffrey Frank Rowley	Surrey G.C.	24. 4.49
9548	Ronald Edwin Garratt	95 G.S.	6. 3.49
9638	Thomas Joseph Robinette	203 G.S.	5. 2.49
9651	Norman Howard Blewett	95 G.S.	6. 3.49
9748	Gilbert Hannington	Army F.C.	27. 3.49
9857	Gordon Ernest Jervis	Bristol G.C.	26. 9.48
9858	Peter Llewellyn Bisgood	Surrey G.C.	10. 4.48
9860	Alfred Edward Cain	Bristol G.C.	16.10.48
9861	Charles Drysdale	Luneburg G.C.	30. 5.48
9862	Brian William Plenderleith	Cambridge U.G.C.	11. 6.48
9863	Hugh Charles Holman	Cambridge U.G.C.	17. 7.48
9879	Frederick George Hillyer	12 Group G.C.	18.12.48
9883	John Walshe	Lubeck G.C.	31. 5.48
9885	Bertrand A. Handwork	H.Q., B.A.F.O.	13. 2.49
9891	G. Silyn Roberts	Oerlinghausen G.C.	16. 2.49
9897	Clarence Godfrey Gauden	Hamburg G.C.	11. 7.48
9916	Trevor Roberts	B.A.F.O. G.C.	12. 8.46
9917	Derek Ivan Burkitt	12 Group G.C.	30. 3.49
9919	John Shapcote Williamson	Wahn G.C.	21.11.48
9932	Matthew Alexander Hutchison	Bristol G.C.	9. 4.49
9933	James Anderson	Scottish G.U.	17. 4.49
9964	Anthony Donald Wilkey	Bristol G.C.	14. 8.48

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3640	Richard Charles Birch	142 G.S.	27. 3.49
3916	Derek Norman Jesty	Gutersloh G.C.	20. 3.49
4424	Dennis John Stanford	166 G.S.	10. 4.49
6190	Douglas Alex MacDonald	125 G.S.	10. 4.49
6243	Herbert Howell Edwards	London G.C.	21. 2.49
6275	Hugh Mawhinney Gordon	203 G.S.	11. 4.48
6368	Lionel Eric Moore	142 G.S.	27. 3.49
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7284	Kenneth Roger French	161 G.S.	17. 3.49
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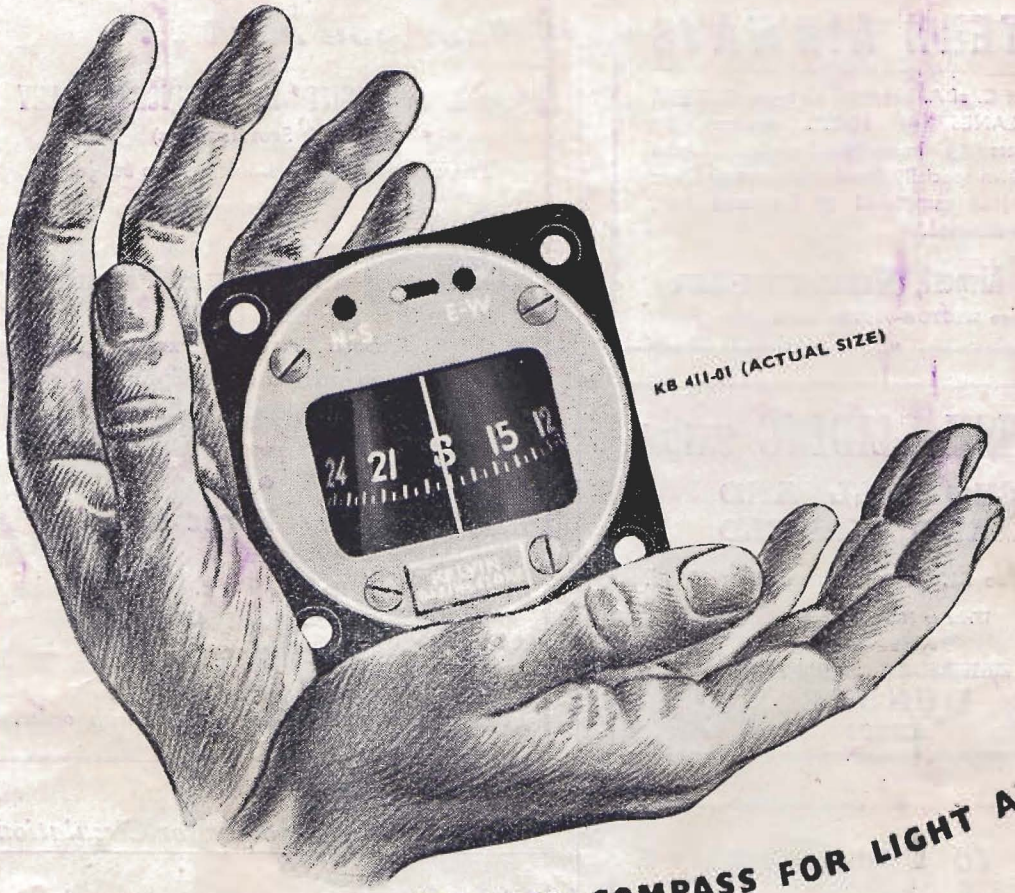
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