SAILPLANE AND GLIDER

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Official Organ of the British Gliding Association

EDITED BY ALAN E. SLATER

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Gliding for the R.A.F.

YOU can't keep a good sport down. In the last issue of THE SAILPLANE we had to reproduce an order prohibiting all "gliding or kindred activity." And here, in the very next issue, we can report that our pilots have been at it again, kindred activity and all, *and* with Air Ministry sanction.

The occasion was an Easter camp at the London Gliding Club attended by 22 pupils from an Initial Training Wing of the Royal Air Force. Naturally the club's own members had to be allowed to fly too, and were permitted to spread their wings to the tune of two miles horizontally and 2,000 ft. vertically. This they duly did, as will be seen from the Club News on another page, where also it is recorded who had a hand in making the camp a success.

The campers were men who, having been sent to an Initial Training Wing at the outbreak of war for a two months' course, had been there ever since; and, as *The Aeroplane* puts it: "If the period extends to six months and they take the same end-of-course examination three times and still seem no nearer flying, the place and the work must become a burden and a bore."

The prospect of getting into the air, no matter how, resulted in half the strength of the Wing volunteering for the camp, although they had not only to take it out of their Easter leave, but to pay 10s. a day for the privilege. So those who came had to be chosen by ballot, and it so happened that all but five of them had already flown aeroplanes, either solo or dual. But the *ab initios* soon caught up with the rest, and, in fact, progressed about four times as fast as the average Air Defence Cadet, whatever the explanation. After two days' training, one "B" and 16 "A" certificates (including three by the *ab initios*) were taken off the hilltop on Easter Sunday. The rest could have taken theirs on Monday but for a downhill wind; in fact, a soaring wind on the last day would certainly have resulted in some "C" certificates, for all the campers had been given soaring lessons by dual control.

Since Easter another experiment of the kind has been in progress at the aerodrome of a flying club in Sussex, and we were invited to see a demonstration staged on April 7th to show a number of visitors what had been achieved in the first two weeks of the scheme. It is a sort of spare-time gliding school with pupils all drawn from the R.A.F., and all of them *ab initios*. They had made quick progress, and handled their DAGLINGS very well from winch launches up to about 400 ft. The Squadron Leader in charge is very keen on making the scheme a success, and is carrying on with it as long as the authorities allow, in the hope that it will lead to greater developments.

Needless to say, civilians could not be kept out of this show either, and six sailplanes turned up for the occasion. These were: VIKING I, John Simpson's VIKING two-seater and KIRBY KITE, the Surrey Club's GRUNAU, CAMBRIDGE II, and the Blue GULL, in which G. H. Stephenson well and truly shot up the distinguished visitors sitting in chairs before the club house, and Dudley Hiscox climbed in a thermal off the aerodrome to the 2,000 ft. limit.

The equipment of the "school" consists of five DAGLINGS and a TOTTERNHOE secondary, with winch, all loaned from the Cambridge University Gliding Club, whose member, R. C. G. Slazenger, has been a moving spirit in the business. The VIKING II is now available also for dual control lessons, so there is a promise of pupils reaching the thermal soaring stage.

There is now a prospect of further good news for the clubs, in the shape of a definite scheme for providing glider training for the R.A.F. as a preliminary to learning to fly with an engine. This has been worked out in detail and is being considered by the Air Ministry, and we understand there is no truth in the report of an evening newspaper that it has already been turned down. We hope that, if this scheme is adopted, it will recognise that soaring, not merely gliding, is the true "useful preliminary, etc., etc." In fact, we understand, and with much pleasure, that the scheme, as submitted, includes provision for aero-towing.

It is to be hoped that, if the scheme goes through, civilians will not be debarred from flying at gliding clubs. If flying sailplanes does not interfere with "national requirements," they have every right to be allowed to fly. Furthermore, in view of past experience, it will be difficult to teach the R.A.F. to soar unless they see a large amount of soaring being done by others. Also, those who can but may not otherwise fly, including men on leave from active service, can keep themselves in flying trim in a way which, as Mr. Wills proved in our last issue, serves as well as power flying for the purpose.

From Here and There

France Glides Again.—Sailflying, according to *L'Air pour les Jeunes*, has been resumed in France, and particularly by the *Amicale du Vol à voile Français*, of Beynes (near Paris), since March 24th.

* * *

News of Polish Pilots.—Mr. A. H. Yates, who visited Bezmiechova at the end of last August, has heard from the Polish "Silver C" pilot Wanda Machnowska who escaped to Vilna at the same time as he did, and who will be remembered by the British party which visited Poland in 1938. She writes that many of her Polish colleagues are now in England. Instructor Hasko is in Yugo-Slavia and Mr. Mynarski (who shared the prize for greatest distance in the 1937 International Contest) is in Lwow. She herself is at Vilna, but her university is closed, her father is in a Lithuanian internment camp for Polish officers, and the gliding school near Vilna is shut "because there aren't any gliders."

* * *

Another Down-current Fatality.—At an inquest on March 21st at Upton-on-Severn on Aircraftman R. C. T. Humphreys, the pilot of an aeroplane of open cockpit type stated that, after landing, he found the rear cockpit empty. "When about 1,800 ft. up they had experienced a very severe down-current, which caused the machine to drop a considerable distance" (*News Chroicle*). He concluded from the evidence that his passenger, Humphreys, had found the parachute harness uncomfortable and had undone it to adjust it; this would explain why he was not strapped in. It may be recalled that, in a west wind, Upton-on-Severn would be in the lee of the Malvern Hills, which are steep-sided on the east and stand 1,350 ft. above the Severn valley.

* * *

Thermal Velocities in India.—Over Poona the rate of vertical currents in the afternoon is generally of the order of 3 to 5 km. per hour ($2\frac{3}{4}$ to $4\frac{1}{2}$ ft. per sec.), though on rare occasions it rises to 10 km. per hour (9 ft. per sec.), according to a paper on "Vertical currents in the first few kilometres over Poona . . . .," by K. P. Ramakrishnan (Simla, India Met. Dept., 1939). This makes hay of the popular idea that the hotter the climate, the stronger the thermals, for what is apparently rare in India is by no means uncommon in Europe, while in Lapland, on the Arctic Circle, thermals often reach 30 ft. per sec. and more, as described in THE SAILPLANE last December. The well-known meteorologist who reviews this Indian paper in the *Meteorological Magazine* has the effrontery to write: "While an immense amount of information is now obtained every day regarding the horizontal currents in the atmosphere *practically nothing is published about the vertical currents*, and if for no other reason the present paper is to be welcomed in that it does direct attention to the importance of vertical currents and give some information regarding their magnitude." (Our italics.)

Greetings from America.—From Peekskill, N.Y., where a meeting was held to celebrate the anniversary of the Hudson Valley Soaring Association, comes a postcard dated February 24th with the message: "We're doing some 'winter soaring' here—waiting for spring." It is signed by Wally Setz and 25 other leading personalities in American soaring.

* * *

"You Blow and I'll Watch."—You can put an air-speed indicator out of order by blowing down the pitot tube, as many an owner has found who has left his sailplane unattended when there are small boys about. Some experiments by J. Roos, of Holland, described in a paper on "The Physiology of Playing the Flute," explain why. He says: "The velocity of the air leaving the flautist's mouth was equal to that of a hurricane, even for low notes."

* * *

Huntin' and Glidin'.—In the House of Commons Mr. Leach (Bradford Central) asked the Minister of Agriculture if he was aware that fox and stag hunting damaged agriculture, handicapped the food supply, discouraged the allotment industry, took away fit men and women from productive work, and so was detrimental to the national interests; and would he take steps to procure its prohibition? Mr. Ramsbotham, replying for the Minister, said: "Careful consideration has been given to the effects of hunting on the national economy in war time, but my right hon. friend, as at present advised, sees no sufficient reason for adopting the hon. member's suggestion." Meanwhile, "after a careful and sympathetic review of all aspects of the question, the Department (of Civil Aviation) regrets that the national requirements leave no alternative to a cessation of the activities of the gliding clubs."

* * *

Gratuitous Lift.—F. W. Lanchester, in an article in *Flight* of March 28th, explains how, when birds fly in "V" formation, "the air to right and left of the leader has residuary upward motion owing to the vortical character of the wake disturbance," and works out how much an aeroplane's performance can be thus improved. Keith Turner, applying the theory to sailplanes, writes to *Flight:* "If two Westland 'Lysanders' (for example) were to fly in line-abreast at 60 m.p.h. with their wing-tips 50 ft. apart, a modern sailplane flying between and 50 ft. behind them would be able to keep formation with no other help than that of the 'Lysanders.' The hitch-hiking sailplane pilot . . . . need have no fear that his presence in a flight of 'Lysanders' is increasing the nation's petrol consumption. Actually it is doing the opposite, for just as the 'Lysanders' provide him with soarable up-current, so is he in return providing them with a similar (though smaller) up-current in which to fly. I present this fact to the Government for their consideration when deciding how soon to lift the ban on gliding."

Scenes at the R.A.F. Easter Gliding Camp at Dunstable. Top left: J. R. Ashwell-Cooke, D. G. Hiscox (putting on parachute), E. Lavington and the Officer-in-Charge of the campers. Below: A pupil about to have a dual-control lesson from J. S. Sproule (on right). The other two photos show pupils being, and about to be, winch-launched on training flights.

A "Viking" in Argentina

THE VIKING taken out to Argentina by Mr. R. P. Cooper, rather more than a year ago, and left by him in the hands of the *Club Argentino de Planeadores Albatros*, has been doing good work there.

On November 27th last, in the morning, Roberto Verginillo in the VIKING and Helmut Teichman in a CONDOR were towed up simultaneously by a "Pelikan" aeroplane to 1,000 metres above the Merlo Aerodrome, 15 miles west of Buenos Aires. They circled, slowly gaining height, and then set off together, keeping only a few metres apart for the first 25 km. Then the VIKING forged ahead, making distance to the north and climbing to a maximum of 2,610 m. (8,563 ft.), and finally, after being 4 hrs. 55 mins. in the air, landed at Estacion Alcine, 106 km. (66 miles) from the start. The place is 10 km. from Baradero, which is 80 miles N.W. of Buenos Aires. The CONDOR reached the same place after being up for 6 hrs. 15 mins. and climbing to 3,150 m. (10,335 ft.) on the way.

On December 31st Teichman set up an Argentine distance record of 200 km. (124 miles) by soaring from Merlo to Estacion Colman, the previous record of 170 km. (106 miles) being held by Peter Riedel.

About the middle of January the VIKING beat this with 230 km. (143 miles), the flight having taken 2½ hours, starting with an aero-tow to 500 m. (1,640 ft.). Another achievement of the VIKING was a flight of 6 hrs. 5 mins. in thermals over flat country, starting from Merlo with an aero-tow to 580 m. (1,903 ft.) and finishing there. The pilot, Raul Olivares, reached a maximum height of 1,800 m. (5,906 ft.).

Since then the Argentine altitude record has been raised to 3,600 m. (11,811 ft.) by a member of the Albatros Club, but the message gives us no details.

Imperial College Celebrates

ON February 21st, 1930, the Imperial College Gliding Club held its first general meeting. So on Saturday, February 24th this year, the club celebrated a decade of activity by staging a dinner at the Imperial College Union, attended by several of the founders of the club, some of the lecturing staff of the college, and a large contingent from the London Gliding Club; also, as a further reminder of the year British gliding started in earnest, Robert Kronfeld.

The present secretary, A. H. Yates, began his review of club history appropriately by describing the first crash, for this happened even before the first launch, the glider being blown over by the wind with the intending pilot on board.

P. Adorjan, the club's first member and first "A" pilot, revealed that the club members were now, at last, doing the sort of things that the founders had expected to do after only two weeks.

J. B. E. Keeble, the club's first "C" pilot, thought that the turning point in the club's history was when it decided, by a narrow margin of votes, to affiliate to the London Club in 1935.

Robert Kronfeld disclosed a secret of 10 years' standing: that he had once been ticked off in Germany for being too friendly to a British team. He claimed that the present parlous state of gliding proved his claim that its future depends on its success as a preliminary training for aeroplane pilots.

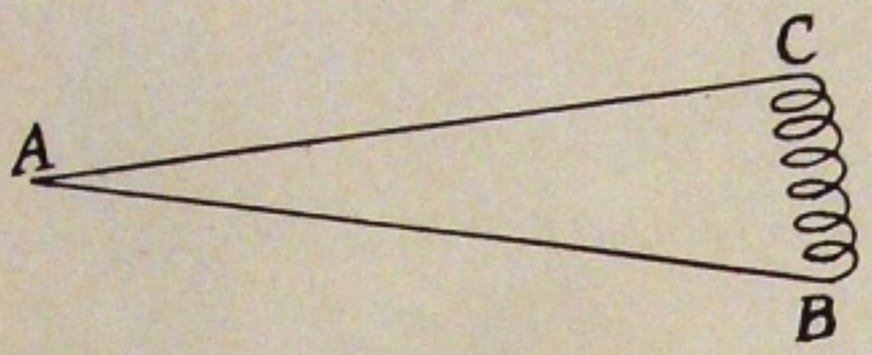
Finally, Professor D. Brunt, the club president, concluded his speech by saying that he regards a sailplane as a meteorological instrument, and hopes that, after the war, the B.G.A. will take up seriously the advance of meteorological knowledge, which would serve as a strong claim to continuance of subsidy.

Cruising Speeds

By CORUNUS

THE average man, like the square root of minus one, does not exist, yet useful conclusions may be drawn by considering them. So let us consider the average cross-country flight.

This may be subdivided into a number of units of the following type:—



Starting from optimum height A, the sailplane descends to B, where it meets the next thermal, in which it circles up to C. The effect of any wind is to slant BC from the vertical, but this may be ignored for the present purpose.

Since the duration of each flight is limited by the declining sun, the pilot who will travel furthest on a given day is he who can get from A to C in the shortest possible time.

The time taken from A to B is, of course, $\frac{AB}{v}$, where v = the speed of the sailplane. The time from B to C is $\frac{BC}{k}$, where k = the average strength of the thermals on a given day, or rather the average rate of climb registered by the variometer on that day. This may be taken as constant on a given day; if one works the first thermal up to, say, 6 ft. per sec., one may expect to find the next thermal to be about this strength. The distance BC varies with v, since the faster the pilot flies from A to B the more height he will lose. What the pilot has to do, therefore, is so to manage v as to reduce to a minimum the time T which equals $\frac{AB}{v} + \frac{BC}{k}$.

It does not affect the value of v if the thermals are not spaced equidistantly so long as they are not so far apart as to bring the sailplane low enough to lose the region of average up-current strengths. If point B comes below, say, 1,000 or 1,500 ft., the system falls down: it is only valid on good days.

As we have said, in the above equation the one term which is in the control of the pilot is v, the velocity at which he flies from A to B. From B to C, of course, he flies at the minimum sinking speed rate, which is constant. Up to now pilots have simply had a general notion that it was a good thing to crowd on a bit of speed between thermals. Clearly, however, v is capable of reasonably exact determination, and *varies from day to day.*

If at speed v the sinking speed is s, then $BC = \frac{s.AB}{v}$, so $T = \frac{AB}{v} + \frac{s.AB}{vk}$. The average *speed* at which the sailplane will cover the ground throughout the flight is $\frac{AC}{T}$. As above, $T = \frac{AB}{v} + \frac{s.AB}{vk} = \frac{k.AB + s.AB}{vk}$.

So the average speed S equals $\frac{AC.vk}{AB(k+s)}$. But since the angle CAB is small, $\frac{AC}{AB}$ is approximately 1, and may be ignored, so $S = \frac{vk}{k+s}$.

Now we get out the performance curve of the sailplane and work out its speed table. Let us take a medium to good summer's day, and a well-known type of advanced sailplane: k = 2 metres per sec. Flying at the minimum sinking speed, 38.5 m.p.h. (you must excuse mixed units of measurement), S comes out at 29 m.p.h. approximately. At 52 m.p.h. S = 35 m.p.h. It will be seen how substantial is the gain to be attained by working to this table. The actual table for the machine in question is as follows:—

k metres/sec.	v m.p.h.	S m.p.h.
0.0	44	—
0.5	48	17
1.0	52	27
1.5	55	32
2.0	58	36
2.5	62	39
3.0	66	42

S, of course, represents the average speed on a calm day, and on days with following winds really remarkable average ground-speeds appear to be attainable.

Prospects in Eire

Several people in Eire are anxious to develop gliding and soaring there, and Mr. D. G. Hiscox has been in communication with them regarding the prospects of their organising a camp to get the movement under way, from both the propaganda and financial point of view. The idea is that visitors from other countries should be encouraged to join the camp (which would be held preferably in August) by the provision of aero-towing facilities. Campers' fees and gate money would help to provide the new movement with equipment, of which a GRUNAU and a DICKSON primary now at Baldonnel Aerodrome could form the nucleus.

More recently Mr. Hiscox has visited Dublin to find out the prospects. He discovered that the owner of West Park Aerodrome, an air line pilot, has a couple of B.A. "Swallows" and is expecting an Avro "Avian," which would be better for towing. If the scheme comes to anything we will give details in the next issue.

Naming the Clouds

THE advantage of a special language for clouds is not only that it saves time and space in describing them, but also that it makes it possible to think about them intelligibly and thus study them.

Now, there are only ten principal cloud types, or *genera*, and in naming them only five different words are used, singly or in combination. To get the hang of cloud language, therefore, it is only necessary to know on what principles the five words are used to make up the ten names. This is shown in the following table:—

Cloud Names

THREAD CLOUDS	**CIRRUS**	
SHEET CLOUDS	*With Pattern*	*Without Pattern*
High	**CIRRO-CUMULUS**	**CIRRO-STRATUS**
Medium	**ALTO-CUMULUS**	**ALTO-STRATUS**
Low	**STRATO-CUMULUS**	**STRATUS**
RAIN CLOUDS	*Cumulus Type*	*Stratus Type*
	CUMULO-NIMBUS	**NIMBO-STRATUS**
HEAP CLOUDS	**CUMULUS**	

At the top and bottom of the table we have the two extremes: the high Cirrus, composed of isolated threads, and the low cumulus, composed of isolated lumps.

The compound names of the various flat sheets of cloud are seen in the table to conform to a very simple scheme. The six "sheets" can be divided either into three groups according to their height, or into two groups according to their texture. The first half of each name determines the height, and the second half describes the texture. The only anomaly is Stratus, which, according to this scheme, should be "Strato-Stratus," but isn't.

Either Cumulus or Stratus may grow thick enough to produce rain, so there are two kinds of rain clouds. The only stupidity is that the *nimb-* root, meaning rain, comes in a different half of each name; this is inexcusable, as Nimbo-stratus was only invented a few years ago, and might just as well have been called "Strato-nimbus," to pair off with Cumulo-nimbus.

So there are your ten names, together with the reasons why. Needless to say, this table will not be found in any text-book on clouds. There, the types will be set out as ten disconnected names, each to be learned independently, together with official definitions amounting in all to 230 words, with several hundred words more of explanation, the total being the official description of the types. Thus the student is made to think that he must get the whole lot off by heart before he dares begin using the names at all.

Cirrus clouds are normally five or six miles up; Cumulus are roughly one mile, as their bases are at ½ to 1 mile and their tops at 1 to 2 miles. As to the sheet clouds, the "low" are roughly at 1 mile, the "medium" at 2 or 3 miles, and the "high" at 4, 5 or 6 miles.

The texture of the "sheets" depends on physical conditions in the cloud layer and above or below it. Those with names ending in "-stratus" are in stable air: that is, there are no vertical currents to disturb the uniformity or continuity of the sheet.

The "pattern" clouds, ending in "-cumulus," are, with possible exceptions, in a layer of unstable air; that is, the top and bottom of the layer want to change places and so have to split up into a pattern of up- and down-currents, and it is generally assumed that cloud forms in the upward-moving air and melts away in the downward-moving air. The resulting pattern can be one of speckles, ripples, globules, flakes, plates, rolls, and so on, the smaller subdivisions being usual in the high cirro-cumulus and the larger in the low strato-cumulus; in fact, this is one way of judging the cloud's height and so deciding on its name.

The other way of judging the height of a sheet is to note how much light gets through. High clouds are mostly pure white, even if they have some thickness, since air at that height is too cold to carry much water vapour. Sometimes the edge of an alto-cumulus sheet is so thin, with a pattern so delicate, as to be mistaken for cirro-cumulus, but the rule is that the latter name must only be applied when the cloud has developed from cirrus or cirro-stratus, or looks as if it has. Alto-clouds are grey in their thickest parts.

The rain clouds must be given their official names not only when it is raining from them, but also when it looks as if it is going to. Like the sheets, they are of two kinds, depending on whether they are formed in stable or unstable air. Nimbo-stratus comes with a depression; cumulo-nimbus as the depression goes away, or in thundery weather. The tops of cumulo-nimbus often "freeze" and become fuzzy; in the past this appearance was called "false cirrus," but the scientists objected because they said it was real cirrus, being composed of ice crystals. Some day they will get even nearer the truth and say it is real cirro-stratus, but meanwhile the official name is "Cirrus nothus."

There are 27 Latin words for various subsidiary types of the 10 main ones; for instance, alto-cumulus, alto-stratus and strato-cumulus can, like soup, be either *opacus* or *translucidus*—thick or clear. But the only important subsidiary names are:—

Lenticularis.—Applied to any of the sheet clouds when they look as if they occupy the tops of long aerial waves, though the official definition doesn't say so.

Castellatus.—When the air above a cloud layer (usually alto-cumulus) is unstable, each cloudlet grows upward and looks like a miniature cumulus.

Mammatus (or prefix *Mammato*).—Downward bulges on the under-surface of a cloud.

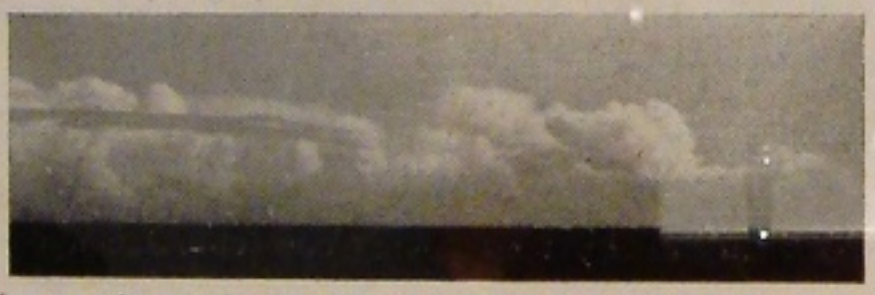
Fracto (prefix).—Applied to cumulus or stratus when in small bits.

On the next two pages are examples of cloud types.

A.E.S.

Cloud Forms

The *cumulo-nimbus* in which the present British height record was made. So far only one protuberance, near the left edge, has become fuzzy (*cirrus nothus*). In upper part of picture is some *alto-cumulus*, or the thin edge of *strato-cumulus*, probably derived from a neighbouring storm.

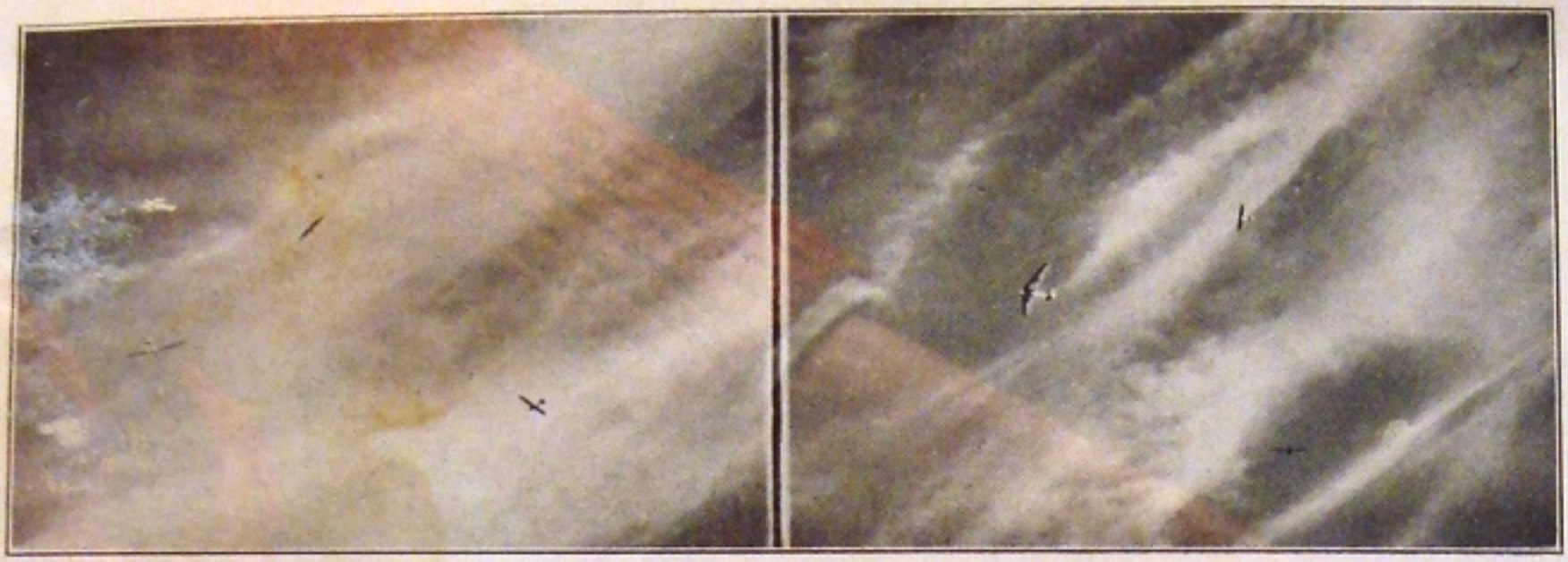


Masses of *cumulo-nimbus* over Holland, seen from the sea. Several tops are transformed into *cirrus nothus*. The dark bar in front of them on the left is a typical appearance; it would probably look like *alto-cumulus* from below.

Alto-cumulus apparently at two different levels; one lot with shadows almost dark enough for *strato-cumulus*, while the other might almost be *cirro-cumulus*.

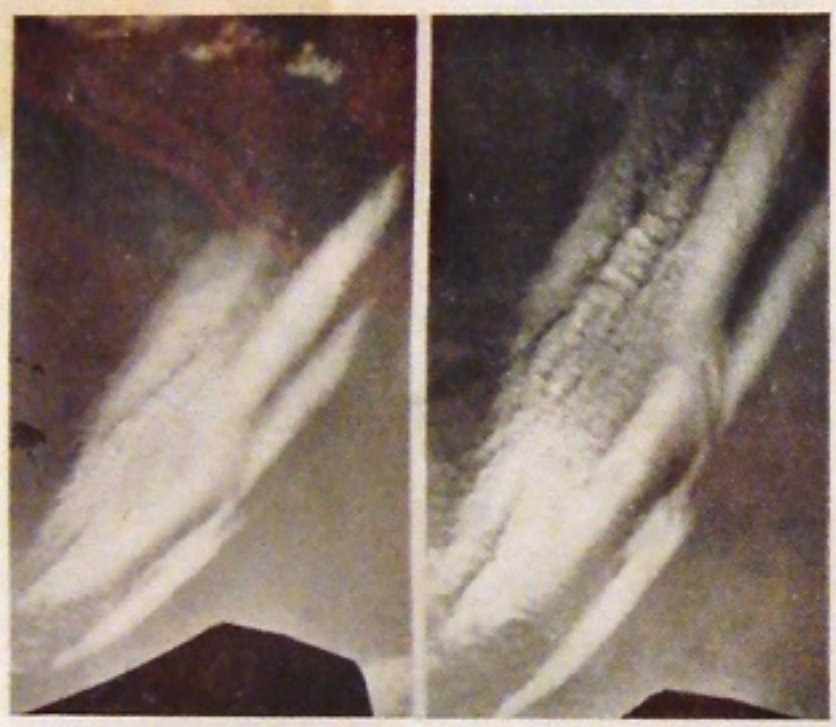
Grey *alto-stratus* covers the whole background, while at the bottom are some dark shreds of "scud," called either *fracto-cumulus* (as here) or *fracto-stratus*.

In each of these photos the cloud shows dark against the light, with downward bulges on its under-side, called *mammatus*. The actual cloud is, in the lower picture, the base of a *cumulo-nimbus*, and in the upper one, "false cirrus" (*cirrus nothus*) spread from a cumulo-nimbus top.



A patch of *cirro-stratus*, with *cirrus* edges.

Cirrus, rather thick; almost *cirro-stratus* in parts.



This cloud was in a clearing sky just after a secondary depression. Photos were taken at an interval of one minute, during which it has developed a *cirro-cumulus* pattern.

Lenticular patches of cloud. Although some of them are thick enough to show grey in the centre, they look high and should probably be called *cirro-stratus lenticularis*. There are also some fragments of *fracto-cumulus*, distinguished by their different shape, less sharp outline, less pure white, greater apparent motion and greater obvious turbulence.

This line of *alto-cumulus* is pushing upwards like small cumulus clouds and is therefore called *castellatus*. The air above it is unstable, so thunderstorms may come later.

Strato-cumulus: an example of the thick variety. Its thickness may be judged in the gap between the nearer and further portions. Cumulo-nimbus may develop above thick strato-cumulus, remaining unnoticed until it disgorges rain.

Cumulus clouds tending to grow into *cumulo-nimbus*. Many of them are arranged in cloud streets, of which one on the left is seen from the side, and one in the centre, under which two sailplanes are going away, appears end-on.

Australian National Rally

DECEMBER 24th, 1939, to JANUARY 1st, 1940

[The following account of a Christmas meeting organised by the Australian Gliding Association has been sent by its secretary, Mr. R. Duckworth. A unique feature, for a National Meeting, was that all thermal and cloud soaring had to be done from mechanical launches from flat ground, without the help of an aeroplane.—ED.*]*

THE rally was held at Geelong, Victoria, on the Belmont Common aerodrome, where the long flat ground provided good facilities for launching. Most of the tows were by car, there being two special cars for this purpose, but a winch was also in use. The usual heights attained on tow were between 700 and 1,000 ft.

For most of the time the weather was hot, and there were mainly light winds. Many excellent thermal flights were made. Night flying was also carried out.

The highlight of the meeting was the Slingsby GULL sailplane, which was entered by the Sydney University Gliding Club. This machine was brought over from Sydney by Newbigin and Warner, by means of the trailer in which the machine was imported from England. The speed range of the GULL was surprising in comparison with the other sailplanes present.

On Saturday, December 30th, a new Australian height record of 5,300 ft. was made by Hyde in the GRUNAU BABY II, when he rose in cloud lift to 6,000 ft. from a car tow to 700 ft. Taking off at 12.16 p.m., he landed back on the 'drome at 2.50 p.m., having been in the air for 2 hours 34 mins. On the flight he toured the country within a radius of approximately six miles from the 'drome, and threw five loops.

On the same day Newbigin, in the GULL, took off at 9.56 a.m. and later reached 5,600 ft. He toured the countryside and eventually landed at 12.6 p.m. at Werribee, 25 miles away in a straight line. This was the longest cross-country flight.

In the same lift Pratt, in the red KESTREL, made an amazing effort without instruments. Taking off at 10.49 a.m., he later reached cloud base at approximately 5,500 ft., and made an out-and-return flight of about 13 miles. He landed back on the aerodrome at 12.32 p.m. after being in the air for 1 hour 43 mins.

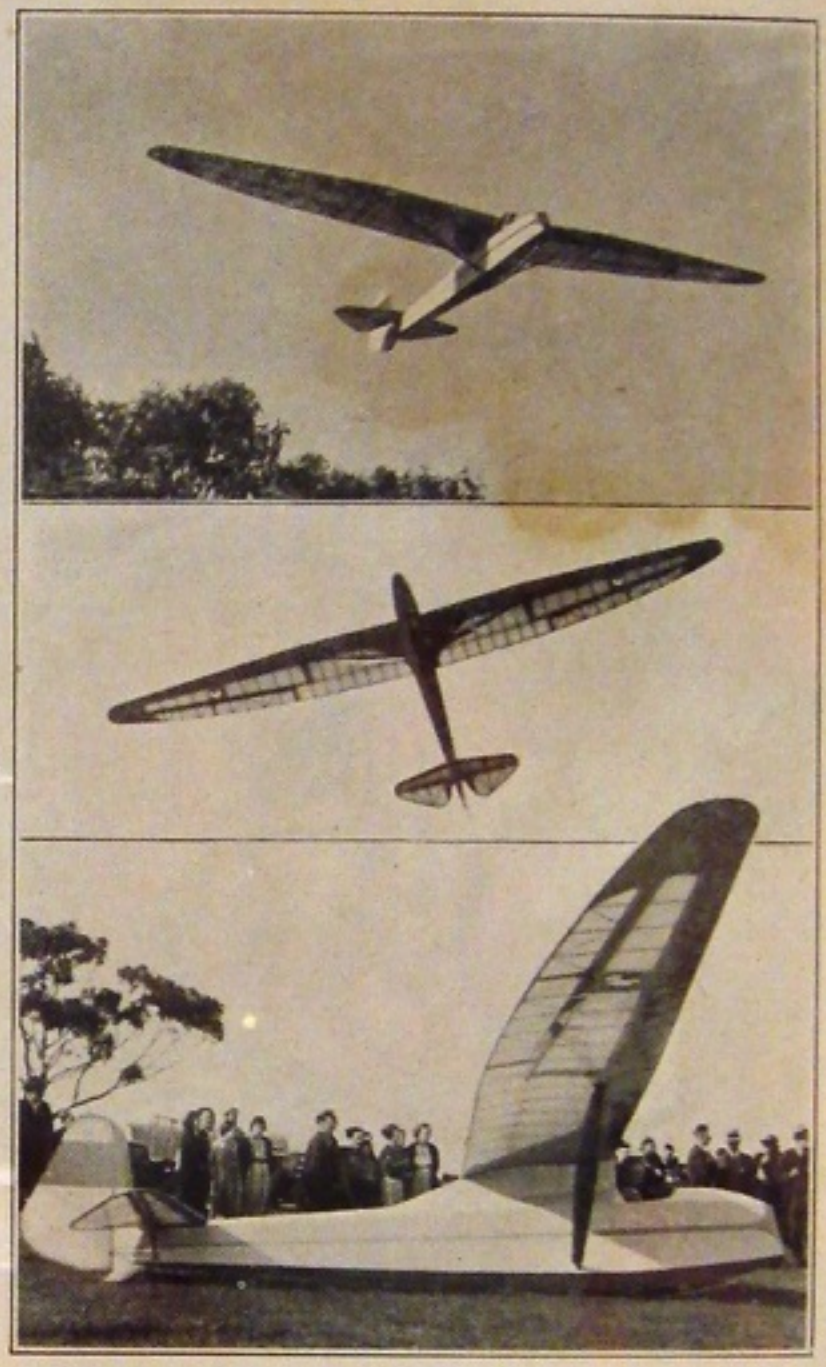
The low temperature at the heights reached on these flights was a handicap, as the pilots were only lightly clad. Hyde was blue with cold for some time after landing.

Other outstanding flights were :—

Dec. 25th.—M. Warner in GULL, 1 hour 28 mins. Towed to 900 ft.; climbed 1,700 ft. to cloud base at 2,600 ft.; toured Geelong.

Dec. 31st.—M. Warner in GULL, 1 hour 18 mins. Reached approximately 3,000 ft. over Geelong.

Dec. 24th.—M. Warner in GULL, 26 mins. Towed to 800 ft., climbed in cloud lift up to cloud base at 2,800 ft.



Above is shown the "Golden Eagle," a sailplane of Australian design which took part in the Australian National Rally last Christmas and made a thermal flight to 2,300 feet from an auto-tow under a clear sky. Its designer is H. G. Richardson, of the Gliding Club of Victoria. The span is 45 feet, empty weight 320 lbs., and wing loading in flight 3.3 lbs. per square foot.

Jan. 1st.—L. Williams in GOLDEN EAGLE. Towed to 800 ft.; reached maximum height of 2,300 ft. under a clear sky.

The following pilots flew during the meeting :—

GULL.—S. Newbigin, M. Warner.

GRUNAU BABY II.—R. Roberts, K. Davies, R. Duckworth, N. Hyde, J. Hearn, H. Bartram, J. Edmonds, E. Ehrenberg.

GOLDEN EAGLE.—H. G. Richardson, L. Williams, J. Iggulden, W. Iggulden, F. Gascoigne.

Red KESTREL.—P. J. Pratt, N. Humphries, T. Thompson.

Yellow KESTREL.—R. Balsillie.

HAWK Primary.—K. Sedgman, C. Lambeth, I. Kinross, J. Robinson, A. Fraser, K. Hearn.

Crashery items were : (1) Yellow KESTREL damaged the front of its fuselage in a side-wind landing on Dec. 25th, but was repaired by the owner before the end of the meeting. (2) GRUNAU fuselage was

damaged when the towline parachute fouled its skid; the wire caught on a fence and the skid was pulled clean off the machine when it was about 6 ft. from the ground. The bottom of the fuselage was damaged in landing without the skid.

Analysis of Flying

Date	*Total Flying Time*	*Flights*
24th	4 hours 20 mins. 26 secs.	64
25th	9 hours 34 mins. 55 secs.	147
26th	5 hours 9 mins. 45 secs.	89
27th	2 hours 42 mins. 20 secs.	55
28th	2 hours 13 mins.	31
29th	37 mins. 30 secs.	9
30th	11 hours 4 mins. 15 secs.	67
31st	3 hours 34 mins. 30 secs.	41
1st	1 hour 22 mins. 45 secs.	20

Aircraft	*Total Flying Time*	*Flights*
Gull	9 hours 50 mins. 21 secs.	55
Grunau Baby II	8 hours 36 mins. 45 secs.	57
Golden Eagle	7 hours 51 mins.	108
Red Kestrel	6 hours 8 mins. 35 secs.	60
Yellow Kestrel	10 mins.	4
Primary	2 hours 8 mins. 45 secs.	97*
Stunter	1 hour 42 mins.	45
Two-Seater	4 hours 12 mins.	97

* Includes about 30 flights not timed.

Total flying time for the meeting was 40 hours 39 mins. 26 secs., with 523 flights.

Ten Years Ago

In March and April, 1930, many new gliding clubs were being started, but the only one of them to get into the air was the London Club, which fixed a "secret" meeting for Sunday, March 16th, on a flat field at Stoke Park Farm, Guildford. Unfortunately a certain well-known aeroplane pilot got wind of the affair and announced to the Press that he would "test" the gliders, so Press and Public duly rolled up in force. But the famous pilot did *not* test the gliders.

There were two machines: a German Zögling lent by the B.G.A. (they never got it back), and a modification of the type built by Mr. R. F. Dagnall and presented by him to the club. Mr. Marcus Manton was first off in the Dagling, then Mr. D. C. Culver in the Zögling, and after many others had not succeeded in breaking anything, the only *ab initio*, Mr. Dagnall himself, tried his hand. He zoomed, stalled, spun and finished upside-down in the mud amid his own wreckage.

Other events in this period were the first congress of the "Istus" at Darmstadt, and an aero-tow across the American continent, in stages, by Captain Frank Hawks in his glider Eaglet.

Correction.—"News from South Africa," in the last issue, was *not* written by A. H. Yates, whose name still haunted the page where his article had appeared in the previous issue.

Gliding Certificates in 1939

We have received from the British Gliding Association the following statistics of gliding certificates issued during 1939:—

Club	*"A"*	*"B"*	*"C"*	*Total*
Bristol	1	–	–	1
Cambridge University	28	22	10	60
Channel	2	–	–	2
Derbyshire and Lancashire	23	9	6	38
Furness	1	1	–	2
Imperial College	1	1	3	5
London	134	63	28	225
Midland	47	19	15	81
Newcastle	25	8	1	34
Norfolk and Norwich	1	1	–	2
Oxford Univ. and City	57	19	10	86
Scottish Union	10	6	1	17
Southdown	24	9	7	40
Standard Telephones	2	–	–	2
Surrey	26	23	18	67
Ulster	1	1	1	3
Yorkshire	61	21	12	94
Totals	444	203	112	759

The above figures include certificates issued to Air Defence Cadets as follows:—

Club	*"A"*	*"B"*	*"C"*	*Total*
Cambridge University	13	–	–	13
Derbyshire and Lancashire	7	–	–	7
London	75	4	–	79
Midland	20	–	–	20
Newcastle	15	1	–	16
Oxford Univ. and City	22	–	–	22
Southdown	15	1	–	16
Yorkshire	34	–	–	34
Totals	201	6	–	207

For corresponding statistics for earlier years, see The Sailplane for March, 1939, pp. 44 and 45.

Books on Clouds

In connection with the article on clouds which appears on another page, the following list of books on the subject may be useful. All are profusely illustrated with photographs:—

(1) "Cloud Forms." Fourth Edition. Published by H.M. Stationery Office, 1939. Price 1s.

(2) "Clouds and Weather Phenomena," by C. J. P. Cave. Cambridge University Press, 1926. Price 5s.

(3) "Clouds," by G. Aubourne Clarke. Constable & Co., 1920. Price 10s. 6d.

(4) "Cloud Studies," by A. W. Clayden. Second Edition. John Murray, 1925. Price 15s.

(5) "International Atlas of Clouds and of States of the Sky." I. General Atlas. Office National Météorologique, Paris, 1932. At the rate of exchange holding in 1934, the price was £5 5s. 9d. An abridged edition was published; price in 1932, £1 4s.

News from the Clubs

London Gliding Club

The club has been exploring the possibilities of sailing on land and water while waiting to resume sailing on air.

As for the water, an arrangement has now been come to with the sailing club at Elstree, whereby gliding club members can join the sailing club by paying its usual 10-shilling subscription. They will then pay just normal "flying fees" for the use of the London Gliding Club's own sailing dinghy.

Sailing on land started on February 25th, when the land yacht, built by Walker, was launched on its first ground-slide, but with insufficient wind it would, like a sailplane, only maintain speed with loss of height. Not till March 10th did it really sail, when Wheatcroft found that, by keeping the sail close-hauled in a south wind of 15 to 20 m.p.h., he could sail to and fro along a level beat between the clubhouse and the foot of the Downs. He thereupon became unofficial instructor and soon everyone else was doing it. Since then we have had much fun with the craft, but in a wind of over 25 m.p.h. it wants careful handling; on March 17th, with a following wind, travelling transverse to the "waves" on our ground, it performed a double bunt, and has since had to be fitted with a new mast and bowsprit.

On March 3rd the first good thermal of the year broke loose out of the Bowl and sailed off southwards chock full of seagulls. Three model sailplanes were also in action but failed to catch it.

Easter Camp.

On Palm Sunday the news leaked out that a camp for certain R.A.F. pilots would be held during the Easter holiday, coupled with the equally important news that club members would be allowed to fly too, so long as they didn't stray further than two miles horizontally and 2,000 ft. vertically. So the two-seater and other machines were got out of storage and rigged, and after strenuous labour one of our five towing cars was actually made to work. Throughout the following week Fender and Wheatcroft, joined later by Lacey, lived at the club and worked hard preparing the club equipment for the great event.

Thursday, March 21st.—As Fender got out a GRUNAU and was launched in it at 6.20 p.m., our four months' period of being grounded came to an end. He soared for 25 minutes in a good west wind and was followed by Wheatcroft, who came down in the dusk at 7.20. There was no need to retrieve him, for our R.A.F. visitors, by this time assembled, were so thrilled with their first sight of soaring that they rushed across the ground to do it for us. Total: 2 flights, 55 minutes.

Friday, March 22nd.—After a comfortable night in the Air Defence Cadets' bunkhouse, our 25 visitors got down to their training on two open primaries. Some had already had several hours on aeroplanes, some dual instruction only, and five were absolute beginners, but before the end of the day it was impossible to tell these three classes apart by their style of flying. The only flying crashery of the camp—primary wing-roots bust in a heavy landing—took place in the first half-hour.

We were indebted to Robert Kronfeld for bringing over the Oxford Club's "Kronfeld System" winch, and Miss Nicklin for driving it; also to Copeland and Hatcher for bringing their own private winch from Croydon. One of our own club winches also worked, so we had three in all.

The FALCON III was kept busy by E. J. Furlong, Hiscox, and Sproule, giving dual instruction to the R.A.F. and taking up civilian passengers. Other sailplanes to perform were CAMBRIDGE II (Copeland and Hatcher), Hiscox's GULL, which he also allowed Furlong to try, and two club GRUNAUS (Smith, Manning, Slater, Fender, Wheatcroft, Lacey, Arnold, Lavington, Horsley, Powell, and Hervey). The wind started south, but veered gradually until by the afternoon soaring was possible.

Primary instruction was in the hands of Hervey, Lacey, Dixon, Sproule, and Ivanoff.

Totals for the day: Two-seater, 6 flights, 17 mins.
Other sailplanes: 40 flights, 1 hr. 59 mins.
Primary hops by R.A.F., 140.

Saturday, March 23rd.—The R.A.F. progressed on to the "mantlepiece," but a strong S.W. wind prevented their going off the top. Soaring for sailplanes was possible in the Bowl, and there were thermals and cloud lift. The sight of three sailplanes under a cloud together, 2,000 ft. over their heads, made the R.A.F. rub their eyes incredulously.

Wills made his first appearance for six months, and was astonished to meet so many familiar faces. He said he felt as if, after departing this life, all his fellow-conspirators had turned up again in the nether regions. Anyhow, he dashed off to Mrs. Turvey's barn for his MINIMOA and was soon playing about as near the 2,000 ft. limit as he could be sure of with an altimeter reading in metres and a rough idea that a metre is about three feet. Anyhow, it was higher than he had been since the war started, for all his ferrying.

Bergel, in Desoutter GRUNAU, reached "1,975 ft.: that's my story and I'm sticking to it." He tried hard to get that last 25 ft. which the law allowed, but in vain. Hiscox, in GULL, got a thermal off the Bowl which took him to Dunstable cross-roads, and another good one off Dagnall village (2¼ miles, but just within the limit by the time it reached him). Both Bergel and Hiscox tried the MINIMOA. Hiscox said he preferred his GULL; he and the MINIMOA could not agree as to who could fly the latter best.

Of the other machines, CAMBRIDGE II was first off with Hatcher at 7.56 a.m. Three GRUNAUS were in action, one of which Wright landed on top of the Bowl, but he was "shouldered" off again in the high wind without a bungy. Bolton, Lee, Wilkins, and Cole were added to the previous day's pilots.

Totals: Two-seater, 24 flights, 3 hrs. 36 mins.
Other sailplanes: 37 flights, 16 hrs. 38 mins.
Primary hops by R.A.F., 131.

Sunday, March 24th.—Light S.W. wind, gradually backing. This enabled many R.A.F. campers to be launched off the hilltop. Of 16 pilots, only five had to have two shots at their "A"; the rest got it first time, while one progressed to his "B." Most of the test flights were done in exquisite style.

Sailplanes were mostly unable to soar, the only exceptions being the CAMBRIDGE II (for 8, 10 and 8 minutes) and Hiscox's GULL, in which he got a thermal, or cloud lift, off the knob of the Bowl and reached quite 2,000 ft. somewhere beyond Watling Street, staying up 26 minutes.

While a DAGLING was crossing the winch cable in the hollow, where it is invisible from either end, CAMBRIDGE II was launched and the cable duly caught in the DAGLING's aileron gap, whereupon the pilot released and the cable severed the rest of DAGLING's wing.

Cooper, Bramson, and Dr. Edmunds joined the list of club pilots.

Totals. Two-seater, 9 flights, 21 mins.
Other sailplanes: 56 flights, 2 hrs. 41 mins.
R.A.F.: 86 hops, 26 hill-top flights, 16 mins.

"A" Certificates. Ross, Horley, Fletcher, Hopgood, Green, Thompson, Brailsford, Smith, Vandeword, Etchells, Anderson, Case, Bown, Duff, Blatchford, Young. "B" Certificates: Fletcher.

Monday, March 25th.—With a wind from N.N.E. further hill-top launches for the R.A.F. were impossible, so they contented themselves with 31 ground-hops before leaving in the afternoon, being due back at their station at night. It should be explained that "ground-hops" during the camp included a large proportion of winch launches to something between 50 and 100 ft.

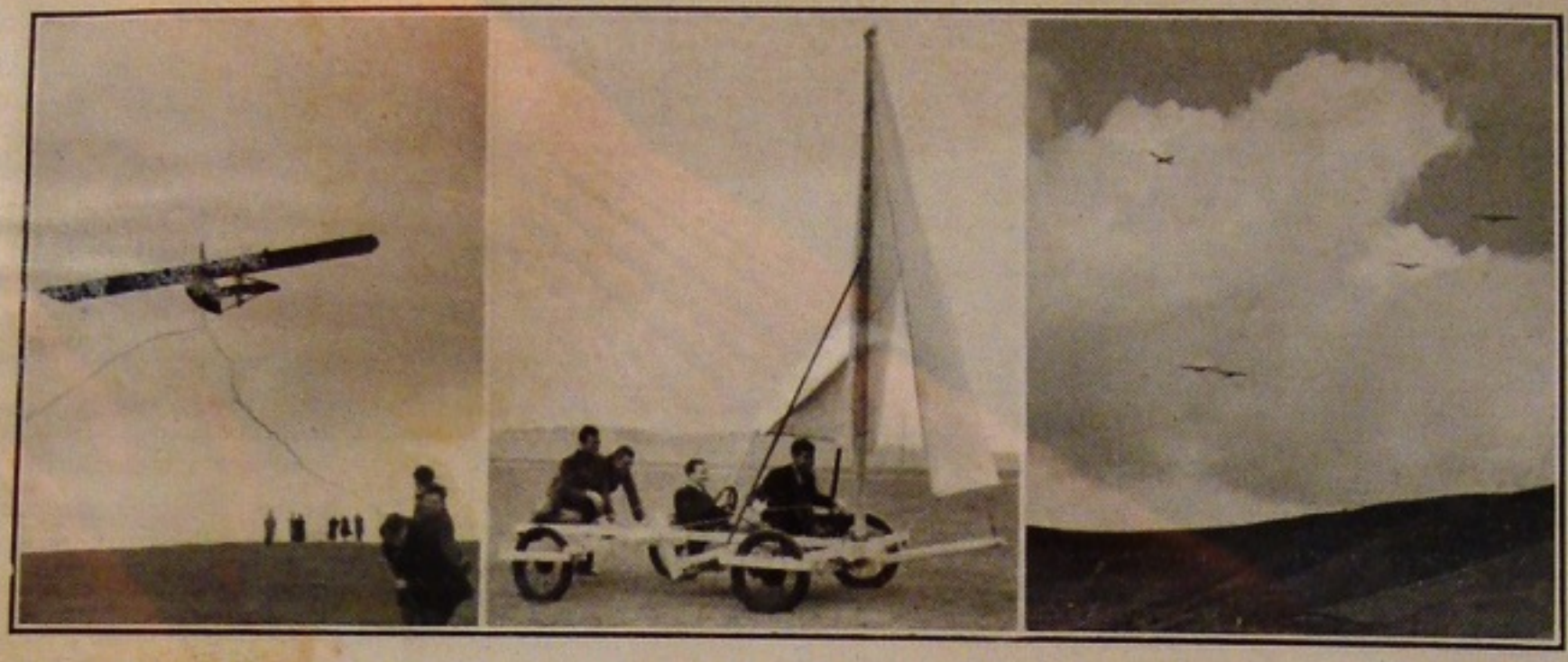
The two-seater put in 12 flights totalling 25 minutes, and other sailplanes 16 flights with 46 minutes.

About one o'clock Hiscox caught a thermal over the field by the knob of the Bowl and, circling at first without gain or loss, soon began to climb slowly till he was over the glasshouses at Eaton Bray at 1,100 or 1,200 ft. The only other thermal lift was found by Smith, who kept a GRUNAU up six minutes.

Totals for Camp.—During the camp the R.A.F. had 388 ground-hops; also 26 hill-top launches with 16 minutes flying time. The two-seater did 51 flights with 4 hrs. 39 mins. and other sailplanes 151 flights with 23 hrs. 7 mins. This adds up to 616 launches and 28 hrs. 2 mins. flying time.

As the idea of this camp was for a long while kept brewing in secret, it is difficult to discover who was really responsible, but it may be said that Squadron-Leader Searle, who was in command of the campers, worked hard and made a thorough nuisance of himself in high quarters in order to get permission for it to be held, and Ashwell-Cooke put in a lot of work on the arrangements and organisation. Hervey also appears to have had a hand in the conspiracy.

Week-end, March 30th and 31st.—We are able to report further flying this week-end, on the understanding that any permits for gliding are only possible because Air Force contingents obtain them for their own use, and club members are included as "over-



Three stages in the London Club's war-time history. Left: A member is launched for a "C" attempt on November 19th, 1939, the last day before flying was stopped. Centre: The next best thing, the club's land yacht, with "Dagling" booms supporting the mast. Right: Soaring once again on Easter Saturday, 1940, showing a "Grunau," "Falcon III," "Cambridge II," "Minimoa," and "Gull."

weight." On Saturday the Desoutter GRUNAU was got out and winched several times in a light S.W. wind, until one pilot wiped off its skid.

On Sunday, in a rough and high wind from S.W., several machines soared over the Bowl in hill lift which fluctuated in strength, often with great suddenness. Among them was the RHÖNSPERBER, which, in spite of its German name flaunted in large letters along its side, managed to escape being shot down by any of H.M. Forces. It was brought over by Cooper, and Bergel and Nicholson also turned up to fly it. The new GRUNAU was damaged when a pilot undershot, stalled over the lynches, and dived into the gully.

Nicholson, resplendent in naval uniform, had tales to tell of his intensive training as a meteorologist. He learned a lot, but much of what they tried to teach him about cumulus clouds was nonsense. For a time he was a resident meteorologist at Scapa Flow. Dr. T. G. Armstrong, once a shareholder in the GREY KITE, turned up dressed as Captain, R.A.M.C.

The TERN, once owned by one Gardiner, who hasn't been seen for some years, has been sold to Williams, Waghorn and other members from De Haviland's, where they are taking it for renovation.

What they are doing.—H. E. Hervey, our chief instructor, is about to take up a job in the Air Ministry, but if the R.A.F. gliding scheme goes through he will probably be transferred into that.

E. P. Zander, who came to England seven years ago and set up as a glider manufacturer, first with Zander and Weyl, then Zander and Scott, and Scott Light Aircraft, of Dunstable, has now become naturalised as a British subject, much to his own pleasure. He has just joined the Auxiliary Pioneer Corps.

C. H. Latimer-Needham, our first club captain and one of the club's founders, whose firm, the Dunstable Sailplane Co. (Luton Aircraft), markets the KESTREL, is now with the R.A.F. somewhere in Wiltshire as Technical Officer on experimental testing, which he finds a very interesting job.

G. H. Briggs visited us on February 25th while on leave from France, and the same day C. L. Ruffle left his barrage balloon to pay the club his first war-time visit. Ruffle has great fun watching the cumulus clouds and telling his companions just when the balloon is going to get a nasty jolt; his experience is that large cumulus clouds have the up-current under the front of the cloud, with a down-current under the rear.

C. J. (Gracias) Wingfield was on leave from France the following week-end; before visiting the club (with car and chauffeur from Daimler Hire Co.—the only available transport), he entertained a party of gliding friends in London from 6 p.m. cocktails to 2 a.m. coffee—what came between is less clearly remembered. He has now written for a large model sailplane, with launching twine long enough to reach the thermals, to be sent to him in France to relieve the monotony.

R. Sellar, air gunner since pre-war in the A.A.F., has been out over the North Sea a lot; he has now also learnt to fly with power. T. T. Davies, also an air gunner, unexpectedly found himself in action against a German submarine while still technically under instruction.

L. H. (Bonzo) Heath, still in Egypt, has in his spare time become hon. director of the gliding school run by the Royal Aero Club of Egypt. He has his own GRUNAU BABY there, and in it a pupil of his recently gained a "C" off a winch launch with a flight of over half an hour, mostly at 3,000 ft.

F. K. Harvey was torpedoed in the S.S. Beaverburn, but turned up alive at the club a few days later in dry clothes and told us all about it.

C. A. P. Ellis volunteered for Finland, but peace was declared the day after his arrival there. (Is that why?)

Finally, D. F. Greig writes of an unexpected meeting in France. Visiting an aerodrome a few miles from the Chateau where he is billeted, he was told that in the machine just landed was the C.O. on a visit. The C.O. "proved to be the one and only Bill Murray." Murray was duly billeted at the Chateau, and took Greig up for two hours ("Oh, boy, what joy to fly again"), of which 40 minutes was in darkness. Landing in the dark "in the hands of Murray seems to work out much the same as a DAGLING ground-hop, even though there are about 500 knobs, levers, wheels, buttons, switches, and dials to push, pull, turn, press, and look at."

Newcastle Gliding Club

Soaring at Hartside.—Two club sailplanes were able to get permission to fly at Hartside one day in March. The KITE, flown by Hick, reached about 2,000 ft. above take-off in a light S.S.W. wind, and Morton managed to soar for 20 minutes in the same wind in the TUTOR at a height 200 ft. below take-off.

Annual General Meeting.—The war has made many changes in gliding club life, but the most unexpected change to our knowledge is that on February 23rd we had the largest attended General Meeting in our history. It was held in the Grand Hotel, Newcastle, and the most important decision made was the approval of the committee's war-time subscription proposals, which are as follows:—

Every member who wishes to retain his membership must pay 5s. per year, or part of a year, from September 1st, 1939, until the end of the war. Any balance of their previous full subscription, which was unexpired at August 31st last, shall automatically come into operation again immediately upon the restart of our activities after the war. Members who do not pay this 5s. subscription will cease membership on the date on which their last subscription would have expired. Members serving in H.M. Forces or the Mercantile Marine will be exempt from payment of this war-time subscription and will retain their membership, providing they complete the special form which has been issued to them.

In the event of any intermittent flying taking place during the war, those members who take advantage of this shall be required to pay a subscription of 10s. 6d. per year, plus 5s. for each day on which they fly, up to a maximum of three guineas in any year, in addition to the usual flying fees.

Club Dinner.—The first event of this nature to be organised by the club took place in the Grand Hotel, after the Annual General Meeting. It was most successful. F. W. M. Ruck made a 400 mile car trip to be present. Mr. S. C. O'Grady presided.

Soaring Debate.—We have spent many years now trying and testing all manner of soaring sites. Like gypsies, we are here to-day and gone to-morrow. But the time has now come when we must seriously consider settling down on one permanent soaring site. The pioneer spirit of testing different sites has become part of the life blood of some members, and it will be difficult to stop if this is not done now. It is possible that we may have gone too thoroughly into the selection of a site and, eventually, produced a host of members each with his own particular site. It is proposed to hold a debate to select a site.

Park Headquarters.—The attendance at the Refreshment Rooms in Armstrong Park fluctuates more than is good for us. A new billiard table has been installed to make these quarters feel more like the old club house, and it is hoped thus to attract those members who have not yet shown up.

The KADET which was bumped off by a now much maligned R.A.F. pilot is almost back to its original form, and it should not take much longer now for it to be lined up with its stable mates awaiting release from bondage. All the work on this machine has been done by Maurice (our young engineer), whom we have wisely retained.

We have learned of two more members in H.M. Forces: A. B. Mau is now an ambulance driver with the R.A.M.C. in France. K. Morton is Captain, R.A., stationed in the west of England.

Wood Green Aviation Training Corps

This club, run by L. C. Ottley, of Ottley Motors, Ltd., has been recruited from former members of the local Air Defence Cadets' Squadron. They have built an open primary glider from drawings supplied by Scott Light Aircraft, and brought it to the London Club's Easter meeting at Dunstable, where its smart appearance and shining blue woodwork attracted much notice. It is now kept at Dunstable, and club members come over to train on it whenever flying is allowed there.

Yorkshire Gliding Club

The club is still in the position of having only to open the doors and fly—*after* putting petrol in the winch. This was confirmed at Easter, when L. H. Barker and George Hinchcliffe made a trip to Sutton Bank to "inspect the wicket." So far it has not been possible to get anything going; however, we are aware of the various prospects and we *might* get the cadets again. Norman Sharpe was in London at the end of March doing his best to stir things up. Meanwhile, to keep contact and maintain enthusiasm, Hinchcliffe is busy showing lantern slides to cadet squadrons round about, and would be glad of the loan of decent negatives, especially of training pictures, for making slides.

Certain gliding wights attended a Red Cross dance at Thirsk at the beginning of April, and it is hoped this may start an urge to do a little donkey work around the premises of the club during this spring.

Derbyshire and Lancashire Gliding Club

During most of February Camphill was almost completely isolated from the outside world by snow, although one or two members managed to go there nearly every week-end by one means or another, and one of our skiing group had to travel 15 miles home on skis.

On March 3rd a dance was held at the Rising Sun Hotel, Bamford, but, due to lack of support, was not a great financial success. We were very pleased to have our secretary, Lieut. C. A. Kaye, with us for the week-end.

It has been decided to let the ground for grazing, so that any members who turn up are now put to work to repair the walls or make fences, and very soon the old place will have regained some of the pastoral beauty which it had before the advent of motorless flying.

Easter week-end saw quite a number of members at Camphill, including E. Swale and Langley, on leave from somewhere in England and France respectively.

It is with deep regret that we have to record that, during Easter, some of our most cherished and beloved retrieving cars were heartlessly handed over to a dealer in scrap iron.

We are still hoping that we shall be able to fly again soon; but meanwhile we hope that all members who are able to get up to the club will do so, as there are many jobs to be done in order to keep the place and machines in good repair.

In addition to the above, THE SAILPLANE has received from "The Vicar of Higher Wincham" a report of an Extraordinary General Meeting, on January 13th, in the Guild Room of the "Ramshole Arms" to consider a letter from the Civil Aviation Dept. prohibiting all flying activities for the duration. The following are a few extracts:—

A rumour of "free beer" resulted in the largest attendance since our famous legal battle with the sanitary authorities. Large quantities of refreshment were, in gliding parlance, "knocked back" before proceedings commenced. The Vicar then rose with some difficulty and commenced reading that ill-fated letter, while an amazed assembly listened in intense silence (apart from frequent appeals for clearer speech) until the letter was concluded.

Ere the matter could be thrown open, the storm broke with angry cat-calls and fruity noises, an outraged and livid audience flouted the chair, hard words preceded harder blows, and the sound of shattering glass from the landlord's case of stuffed birds heralded the arrival both singly and in pairs of the whole collection. Seldom had such an amazing array of ornithological specimens ever been seen in full flight, either dead or alive. Vulture soared in company with willow wren, while snipe and plover "spun in" and landed with disastrous results to pint pots and small ports. "Agnes," our beloved albatross, so often used by Brother Basil as his model for correct turns and spins, continued to float majestically from the ceiling with complete indifference to the uproar, until a passing bottle struck her full amidships, spinning her so violently that she broke her mooring cable and departed down-wind on her last cross-country. Alas, she caught her port wing-tip against the paraffin lamp and plunged the room in darkness and utter confusion.

The bill for the meeting is to hand, and apart from the charge of 2s. 6d. for rent of room, the remaining £22 16s. 8d. is claimed for refreshment and breakages. This compels us to make early application for subsidy this year.

Midland Gliding Club

THE SAILPLANE has discovered the true story of how gliding came to be stopped at the Midland Club's primary ground at Handsworth at the end of last September. It appears that the wind was blowing down the hill on one of the last Sundays of the month, and after unsuccessful attempts by other members to get a good height on the launch, A. Sheffield was launched at maximum car speed (eight cylinder Packard) from the farthest extremity of the field. He climbed right above the down-draught and got terrific lift from the belt of trees at the top of the hill, so made a lovely wide circuit over the golf course and had to approach from a long way back to avoid over-shooting. It was then dusk.

Next day the pilot was called on by two detectives. They took down a long statement, in which the height attained on the flight was described at "over 20 ft., as we had no altimeter!" and arrangements were made to have the machine inspected. The facts, as ascertained, were duly forwarded to the Air Ministry.

As to how this particular flight came to be reported to the police, a club member obtained the story from a special constable friend of his, and it is this: "It seems that a young courting couple were indulging in a little surreptitious love-making in a distant field, and noticing what they took to be an aeroplane landing 'from a great height,' and seeing it met by a private closed car, they immediately conjured up colourful pictures of espionage, smuggling and everything pertaining to enemy action, and started 'hollering copper' for all they were worth."

Another bit of news comes from a member's friend in a balloon barrage, who was taking incoming telephone calls on a Sunday prior to this. He received a message "that an enemy aircraft had been observed over Handsworth golf course at 6 p.m. flying very fast at a great height." This tallies with another club flight at that time and place, in a secondary machine.

RECOMMENDED GLIDING CLUBS

London Gliding Club

(Affiliated to the B.G.A.)

Address:—Tring Road, Dunstable, Beds. (Tel.: Dunstable 419.) Flying ground, Dunstable Downs (1½ miles S.W. of Dunstable). Primary training and soaring. Clubhouse and hangar; sleeping accommodation; 20 gliders and sailplanes for members' use. Subscription, 3 guineas p.a. (country member, 2 guineas); entrance fee, 2 guineas. Associate member, 2 guineas p.a.; no entrance fees. Flying charges, from 3s. per day. Resident full-time instructors. Flying on Sundays and every week-day except Thursday. London Secretary: Arthur Sweet, F.C.A., 11, Bow Churchyard, E.C.4. (Tel.: City 5997-8.)

Derbyshire and Lancashire Gliding Club

(Affiliated to the B.G.A.)

Address:—"Camphill," Great Hucklow, Near Buxton. The perfect hill soaring site, wind direction of no consequence. Evening thermals to 5,000 ft. a speciality. Comfortable clubhouse with sleeping accommodation. Hangar, full flying equipment, workshop and ground staff. Subscription, flying members, £3 3s. p.a., associate members, £1 1s. p.a. Flying charges from 6d. per flight, soaring 7s. 6d. per hour. Secretary, C. A. Kaye.

Southdown Gliding Club

(Affiliated to the B.G.A.)

Secretary:—S. G. Stevens, "Southerlea," Meadow Close, Hove. (Tel.: Preston 3284.) Soaring at Devil's Dyke and Atlingworth Ridge. One of the finest Primary and Secondary training sites in England. Clubhouse and hangar ½-mile S.S.W. of Devil's Dyke Station. Subscription, 2 guineas and 1 guinea entrance. Auto towing and winch launching facilities. Very moderate flying fees and expert tuition.

Oxford University and City Gliding Club

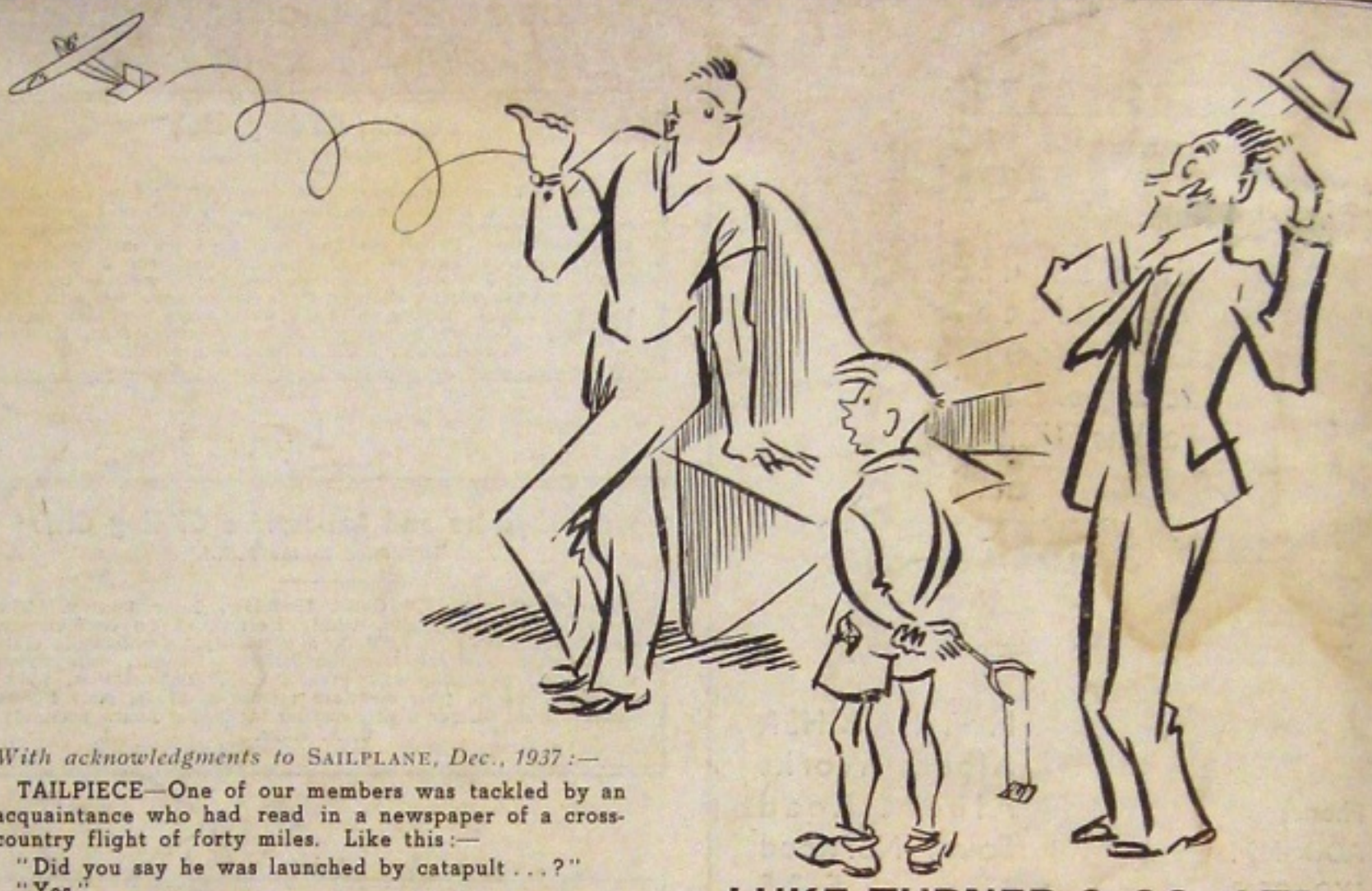
(Affiliated to the B.G.A.)

Secretary:—Miss B. M. Nicklin, 532, Banbury Road, Oxford. (Tel.: 58300.) Primary training and soaring site at the Lambert Arms, Aston Rowant, Oxon, 15 miles E.S.E. of Oxford on the Oxford-High Wycombe-London road and 39 miles from London. Resident full-time Instructor: R. Kronfeld, A.F.R.Ae.S. Flying every day except Mondays. Subscription, 3 guineas p.a. Entrance fee, 1 guinea. Flying charges, 1s. to 2s. per winch launch. Temporary (course) members, entrance fee, 1 guinea. Subscription, 1 guinea per week. Flying charges, 1s. to 2s. per launch.

Scottish Gliding Union

(Affiliated to the B.G.A.)

Patron: Lord Weir. President: Hon. A. R. Boyle. Secretary and Treasurer: R. B. Rogerson, 20, Blythswood Street, Glasgow, C.2. (Tel.: Central 4209 and Shettleston 1328.) Main training and soaring site and clubhouse: Feal Farm, Bishop Hill, Lochleven, Kinross; also other training sites in other parts of Scotland. Primary training and soaring. Full residential accommodation, including rooms for married couples. Flying and training every week-end, together with organised camps. Flying charges from 6d. per flight. Soaring flight from 2s. 6d. Subscription, £3 3s. flying member per annum. Associate, £1 1s per annum. Entrance fee, £2 2s. Full range of machines for members' use. Large hangar accommodation.



With acknowledgments to SAILPLANE, *Dec., 1937 :—*

TAILPIECE—One of our members was tackled by an acquaintance who had read in a newspaper of a cross-country flight of forty miles. Like this :—

"Did you say he was launched by catapult . . . ?"

"Yes."

". . . and he went forty miles ?"

"Yes."

"Gosh ! What a catapult !"

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