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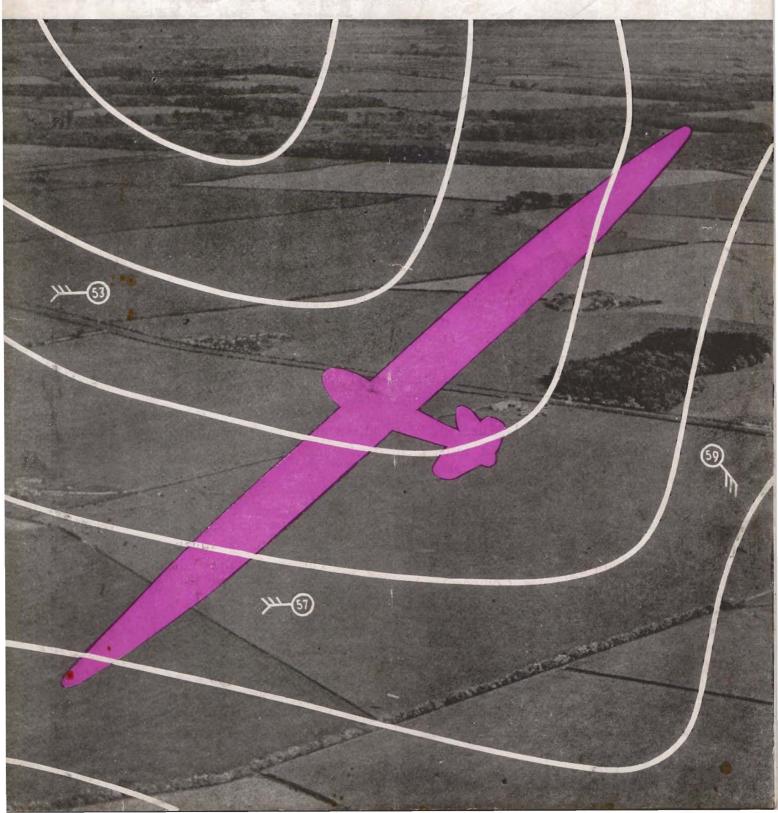
J U N E 1938 Vol.9 No.6

AND GLIDER

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Official Organ of the British Gliding Association

EDITED BY ALAN E. SLATER



SLINGSBY SAILPLANES

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THE SAILPLANE and GLIDER

Official Organ of The British Gliding Association

Editorial Offices: 13, VICTORIA STREET, LONDON, S.W.1 Telephone: ABBey 2615-6-7

Vol. 9 No. 6

JUNE, 1938

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Out and Return

HE Fédération Aéronautique Internationale has instituted a new record—that of out-and-return flights by sailplanes without intermediate land-The first pilot to be recognised as holder of the record was Herr Beck, of Germany, who flew on May 6th from the gliding school at Hornberg, near Stuttgart, to the Hesselberg gliding school and back again, a total distance of 140 km. (87 miles). On May 13th Herr Kraft beat this with a flight from Hornberg to Ansbach and back, taking $6\frac{1}{2}$ hours over the double journey of 168 km. (104 miles). But he only held the record for a day, for on May 14th Fräulein Hanna Reitsch soared from the Griesheim aerodrome at Darmstadt to the Wasserkuppe and back to Darmstadt in 5½ hours, a distance of 280 km. (174 miles) according to Luftwelt, though we make it 160 miles, and the British Press as 155 or 156 miles.

In the realm of soaring flight there is always something new to be done. No one need ever get bored with it, and that is precisely its attraction as compared with power flying. Ordinary one-way distance flights are exciting enough, and we have met no one yet who has done so many that he or she has become sated and never wished to do another. But even if such an unbelievable thing should happen, there will still be new worlds to conquer. Record out-and-return flights have now become the ultimate aim of the world's best sailplane pilots, and the only disadvantage of them, from a publicity point of view, is that it will become more difficult than ever to convince the public that soaring flight is not being developed as a means of commercial transport.

We have looked up the Air Ministry's weather maps of Europe for the dates given above, and find that on every occasion the flights were made in anti-cyclonic conditions, with winds of not more than 5 miles an hour, and perhaps less, at ground level. May 8th was just such a day in England, when two pilots went over 90 and 50 miles south-west from Cambridge, another did an out-and-return of 20 miles, and a pilot in Derbyshire flew 50 miles to the north-east. The longest out-and-return flight so far done in England is that by Mr. Fox last September, when he went 20 miles upwind from Dunstable and returned. But the chief difficulty of setting up an official record is going to be the ensuring of the presence of an official observer at the other end.

Coming Events

June 10th to 26th.—Cambridge University Gliding Club Camp at Draycott Farm, near Pewsey, Wilts.

June 18th to 26th.—Newcastle Gliding Club's "Gipsy Meeting"; headquarters at Cramlington.

June 25th to July 10th.—American National Contest at Elmira, N.Y.

June 26th to July 10th.—German goal-flight tour; course not yet announced.

July 9th to 17th.—British National Contest at Dunstable, Bedfordshire.

July 23rd to August 7th.—German National Contest at Wasserkuppe, Rhön Mountains.

July 24th to August 1st,-Yorkshire Gliding Club

Advanced Flying Course.

Instruction Courses.—Derbyshire and Lancashire Club: June 25th to July 8th; London Gliding Club: July 29th to August 12th and September 9th to 18th; Yorkshire Gliding Club: August 7th to 30th; Midland Gliding Club: August 13th to 21st.

British Gliding Association

Identification of Gliders

The issue of the metal Certificate of Airworthiness label has been discontinued, and has been replaced by an Airworthiness Certificate.

At a recent meeting of the Technical Committee of the B.G.A. it was agreed that, in order to assist the identification of gliders which have been granted B.G.A. Certificates of Airworthiness, each glider should be marked with the number of the C. of A. prefixed by the letters "B.G.A." For example, a glider with a C. of A. No. 343 should be marked BGA-343.

The marking should be painted in letters one inch high, in a conspicuous position near the tail, on the starboard side.

We will supply information as to the number of the C. of A. originally granted on the receipt of details of the type of Glider, Constructor, Constructor's Number, if shown on the glider, or the names of previous owners.

It is requested that owners of gliders having B.G.A. Certificates of Airworthiness will ensure that they are so marked.

HAROLD E. PERRIN, Secretary,

119, Piccadilly, W.1.

National Gliding Contests

DUNSTABLE, JULY 9th to 17th

THE principal regulations for the 1938 National Contests were published in the last issue of THE SAILPLANE. Entry forms had to be sent in by June 1st, and later entries could not be accepted if thirty or more sailplanes had been entered by that date. The entry list is now complete, and we publish below what we understand is the provisional list, though this is not official, and is subject to correction. In the case of machines not entered by a club, an asterisk indicates the pilot who is also the entrant. The entrant of the King Kite is Mr. F. N. Slingsby.

List of Entries

```
CAMBRIDGE I ... G. W. Pirie, G. Kidd (Cambridge Club).

CAMBRIDGE II ... E. J. Furlong.*

CONDOR ... G. O. Smith,* E. Thomas, A. L. Slater.

GRUNAU BABY ... G. Shepard, G. O. Thompson, E. Swale (Derbyshire and Lancashire Club).

GRUNAU BABY ... J. S. Sproule, N. W. Burnett (London Club).

GRUNAU BABY ... H. C. Bergel, A. Ivanoff (London Club).

GRUNAU BABY ... G. M. Thompson,* S. D. Dickson, R. F. James, J. Kendal, J. Phillipps.

GRUNAU BABY ... K. W. Turner (Bristol Club).

GULL ... A. Davies, L. R. Robertson, G. O. Smith (Derbyshire and Lancashire Club).

GULL ... Miss A. Johnson.*
  CAMBRIDGE 1 ... G. W. Pirie, G. Kidd (Cambridge Club).
                                                         Miss A. Johnson.*
W. W. Liddell.*
  GuLL
  GULL
                                             ... J. V. Rushton, G. Edwards, Capt. Davis
(Midland Club).
... F. T. Gardiner,* J. T. M. Parker.
... P. Brown,* F. C. H. Allen, Mrs. F. C. H.
  GULL
  H-17
  KIRBY KITE

P. Brown, F. C. A. Allen.
J. W. S. Pringle, P. M. Thomas, J. T. M. Parker (Cambridge Club).
D. F. Greig,* J. C. Dent, G. H. Stephenson.
W. E. Crease, K. G. Wilkinson, A. B. Wilkinson (Imperial College Club).
F. J. Davies, R. F. James, B. T. Olver, J. V. Rushton, G. Edwards (Midland Club).

  KIRBY KITE
  KIRBY KITE
  KIRBY KITE
  KIRBY KITE
                                              Club).
S. C. O'Grady, R. M. Smart, W. E. Hick (Newcastle Club).
  KIRBY KITE
                                                        J. E. Simpson.*
P. M. Watt, J. C. Neilan.
P. A. Wills.*
J. S. Fox,* P. B. N. Davis.
R. P. Cooper,* G. B. Baker, Mrs. J. Price.
S. Humphries,* L. C. Withall.
R. Pasold,* I. Pasold.
E. Swale,* G. Shepard, L. R. Robertson.
R. P. Cooper,* C. Nicholson, J. P. Dewsbery.
G. A. Little,* A. H. Reffell.
  KIRBY KITE
                                                          J. E. Simpson,
  KING KITE
  MINIMOA ...
  RHÖNADLER
  RHÖNBUSSARD
  RHÖNBUSSARD
  RHÖNBUSSARD
  RHÖNBUSSARD
  RHÖNSPERBER
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A Club Magazine

"Wing-Tips" is the name of an excellent new, and presumably monthly, magazine just started by the Midland Giiding Club. It is the first of its kind in the country, and the May issue contains an account of the Advanced Easten Camp and other club doings and gossip. We hope that when the Editor, Mr. D. A. Hannay, has discovered that his work takes five times as long as is popularly supposed, he will nevertheless carry on with it. Extra copies are obtainable from Lowans Hill Farm, Redditch, at 3d. each.

From Here and There

Soaring at Prestatyn.—On April 7th Mr. R. F. James and Captain Frank Davies, of the Midland Gliding Club, soared their Kirby Kite above the northwest slope overlooking Prestatyn, on the North Wales coast. The former was up half an hour and climbed 800 feet.

"Golden C."—The new gold medal, given for a distance flight of 300 km. (186.4 miles) and a climb of 3,000 m. (9,842.5 feet), has been awarded for the first time to Heini Dittmar, of Germany. In appearance it resembles the "Silver C," with a gold instead of silver wreath.

Lectures to Attend.—Mr. Fox is giving a series of lectures on meteorology to a group of members of the London Gliding Club. They are being given fortnightly in London, and the first two are on June 9th and 23rd, Thursdays, at 8 p.m. There is a limited number of vacancies, and inquiries should be addressed to G. H. King, London Gliding Club.

R.Ae.S. Garden Party.—At Heath Row, on May 8th, sailplanes were among the features demonstrated to an audience of 4,000. Mr. D. G. Hiscox, in his Gull, found a thermal after a winch launch to 400 feet and flew away to Northolt Aerodrome, about 6½ miles. Mr. P. A. Wills, in MINIMOA, was aero-towed to 600 feet and soared it three miles to its home at Heston.

Wolf Hirth.—Almost everywhere in South Africa there are good conditions for soaring, says Wolf Hirth in a postcard sent from Marienthal in South West Africa. In April we described how he soared his heavily-loaded "Buecker" aeroplane under a thick cumulus mass near Nairobi, but the figures given were incorrect. Actually he climbed from 9,000 to 12,000 feet (above sea level) in three minutes.

This Gliding.—"A wind-ruffled British pilot steered his craft across the Hertfordshire hills recently and climbed steadily in a current of warm air. But he dropped as quickly-several hundred feet below him were the green acres of Whipsnade Zoo. Serenely, he waved a greeting to the lions-then gasped horrorstricken. His engineless machine was losing height. A more experienced pilot would have evaded the difficulty-but the man at the controls was inexperienced. He was heading straight for the lions' den! There was nothing he could do about it-only hope for the best. To his relief the glider just skimmed the walls of the lions' pit. It gained height slowly-and finally made a perfect landing in the ostrich enclosure! One of the huge creatures rushed heavy-footed to inspect the strange 'bird'! The pilot ducked in the cockpit as the ostrich peered inquiringly into the machine. Keepers finally dispersed the birds and rescued him. What a hectic afternoon!"—From a highly imaginative article in Everybody's Weekly.

Soaring Possibilities in North Wales



A panoramic view, taken by Mr. E. R. Wilson from Llanbedrog Head, showing the Cambrian Range encircling Cardigan Bay. Note the line of clouds parallel to the coast at the north end. Cader Idris is on the extreme right.

THE mountains of Wales should enable the sky sailor to cruise to his heart's content. Prestatyn and the Vale of Clwyd were explored some time ago and there is a line of hills along the north coast to Bangor, with the beautiful Conway Valley

giving east and west slopes.

But the cream of them all for long out-and-return flights should be the Cambrian Range which encircles Cardigan Bay. From Pwllheli, which is on the northern arm, one sees a continuous line of mountains encircling the bay and facing west, and on any fine day, even in March, one also sees a stationary cloud street whose shape follows faithfully that of the bay, the sky over the sea being perfectly clear. This cloud street is about 30 to 40 miles long.

The foreshore gives one a natural aerodrome along practically the whole distance, with one or two

estuaries to break the monotony.

Near Pwllheli there are several isolated mountains, notably Rhiw, 10 miles to the west and 900-1,000 feet high. Mr. Hardwick and the late Eric Collins approved of this site. There is a fairly level top and one could launch in all directions except south and south-west. As on most of our mountains, there are many loose rocks in the heather, but a fairly large plot clear of stones could be flagged out for landing. It also has the advantage of being Crown land. The lane to the top is very rough, but Scup I and trailer have been hauled up by a 10 h.p. car. The best side for hill soaring is facing east and overlooks the new R.A.F. Bombing Range at Hell's Mouth, and an emergency Air Force landing ground is being prepared here at the foot of the mountain. The aerodrome is eight miles away and two miles from Pwllheli.

Lianbedrog Head is four miles west of Pwllheli and 300 to 400 feet high. The aerodrome is a mile to the east, between the headland and the town. There is a short beat facing west and also one facing east. Owing to rocks it would be difficult to land on the top, but there are good fields and sands on both sides. I have had a rock drilled and an iron bar inserted for the launching block, launching by car and catapult. There is a stone wall below which one should be able to clear

comfortably, but which I did not!

I should be very pleased to assist any pilots who decide to visit this district, where sea and mountain are at their best (vide railway guides).

E. R. WILSON.

The July "Sailplane"

The next issue of The Sailplane will be published during the National Competitions, and will contain, among other things, Mr. Wills's accounts of his record distance and altitude flights, much foreign news, and a description of how Mr. E. L. Mole did 147 consecutive loops in a sailplane.

Club news should be sent in at least a week carlier

than usual.

Odes

To a "Grunau Baby"

Gentle Grunau, free from vice,
Who with the west wind's wrath I dice,
How many times and oft I've spurned
Your mute appeal,
And towards some newer love have turned,
Lured by the brighter varnish
Like paint upon a woman's face,
And then, as ever
When novelty has waned,
Like sorry disillusioned swain
To thee, O simple craft, have I returned.
I. S.

To a Variometer

O little Ball
Who with thy twin doth indicate
The Rise and Fall,
Of thee I pray
That thou wouldst stay
Poised
At fifteen feet per sec.
That I may risk perchance
My neck
In airy cumulus
By heck.

Cross-Country Flights in May

Date	Starting Place	Pilot	Sailplane	Mode of Start	Landing and Mileage	
1st, Sun.	Welburn (Yorkshire Club)	J. C. Neilan	KING KITE	Aero-tow	Harrogate	35
,,	Lindale-in-Cartmel	F. Charles	KIRBY KITE	Slope lift	Ireleth (Furness Club)	14
5th, Th.	Sutton Bank (Yorkshire Club)	G. R. Shaw	GRUNAU BABY	Winch into thermal	Hutton Sessay	6
8th, Sun.	Heston Airport	I. Pasold	RHÖNBUSSARD	Aero-tow	Emsworth, Hants	54
**	Duxford (Cambridge Club)	H. T. Edmunds	RHÖNADLER	,, ,,, ,,,	W. Overton, Wilts,	96
**	11 11 11 11 11	R. P. Cooper	RHÖNBUSSARD	,, ,,,	Datchet, Bucks	55
**	n n n	J. E. Simpson	KIRBY KITE	11 111 111	Duxford, via Royston	20
**	Heath Row aerodrome	D. G. Hiscox			Northolt aerodrome	7
**	Bradwell Edge (D. & L. Club)	A Davies	KIRBY KITE	Slope lift	Goole, Yorkshire	55
15th, Sun.	Duxford (Cambridge Club)	J. S. Fox	RHÖNADLER	Aero-tow	Holkham Bay, Norfolk	67
	Sutton Bank (Yorkshire Club)	L. H. Barker	Scup III	Slope lift	Middlesbrough	25
22nd, Sun.	Heston Airport	I. Pasold	RHÖNBUSSARD	Aero-tow	Cowes, Isle of Wight	64
24th, Tu.	Sutton Bank (Yorkshire Club)	A. J. Dene-Drummond	KIRBY TUTOR	Slope lift	Castle Howard	15
28th, Sat.	Bradwell Edge (D. & L. Club)	P. Brown	KIRBY KITE	Slope lift	Sheffield	9
29th, Sun.	Sutton Bank (Yorkshire Club)	L. H. Barker	Scud III	Slope lift	Sutton Bk. via Rievaulx	9

THE above list shows cross-country soaring flights of over 5 miles, made in England during May. The list includes a goal flight—that by Mr. Charles, of the Furness Club—and two out-and-return flights by Mr. Barker and Mr. Simpson, the latter covering a triangular course with legs 8, 8 and 4 miles long respectively, with corners at Royston and Foxton.

Middlesbrough L. H. Bark TOTVET L. CONISTON Castle Howard J.C. Neilan Harrogate 4 Blackpool Sheffield ROUTES OF CROSS-COUNTRY FLIGHTS DURING MAY 1938 SCALE OF MILES 30 40 50 Cambridge Abingda Wantaga ·Marlborough

Two members of the Midland Club have also gone $4\frac{1}{2}$ miles up-wind, from Long Mynd to Bishops Castle, and back, and doubtless there have been numerous shorter out-and-return flights.

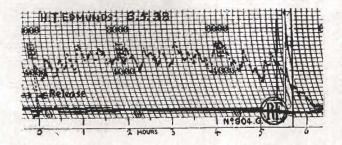
Mr. Neilan, on May 1st, was towed up to 2,000 feet over Welburn aerodrome, near Kirbymoorside, where aero-towing is now permanently "on tap" for members of the Yorkshire Gliding Club. It is reported that he flew blind in clouds for most of the way, and on emerging found himself over Harrogate, where he broke a local by-law by landing on "The Stray," near the middle of the town. The flight took just over an hour.

96 Miles in a Calm

At 12.45 p.m. (Summer Time) on May 8th, Dr. H. Tudor Edmunds had the first aero-tow of his life in the Rhönadler from the Cambridge Club's ground, and, casting off at 2,000 ft., found thermals about. He had no map, but thought it a good opportunity to polish off his "Silver C," so started wandering, first to the west, then to the south-west, until by 6.55 he thought he had gone far enough, and landed where the Ridgway strikes the Bath Road a few miles west of Marlborough.

There was a slight drift of air from N.E. at ground level, but the cloud shadows were stationary, and one reason he landed was that he got tired of prolonged circling in weak thermals—they were mostly at 3 to 5 ft. per second, and some at only 6 inches—and then, on reaching the top, seeing the same patch of ground below him. Another reason was that it was uncomfortably cold up at 6,000 ft., which was the average level of the cloud base.

All the thermals were under clouds, and Dr. Edmunds concludes from the barograph record that there were 33 of them in all, which works out at an average of



one thermal every 12 minutes. He tried a little cloudflying, so chose a little cloud and flew through it, as he thought, on an even keel. He came out on the other side 1,000 feet higher up, but with one wing down. So he practised on a few more, and it was this flying in clouds that gave him his greatest height of 7,100 feet.

There were good thermals right up to 6.30, when he decided to come down and did a long glide from 5,000 ft., but it was evident that he could have stayed up for longer. The barograph record of the final descent shows a small rise near the 6-hour mark. At this point Dr. Edmunds noticed a faint smell of heath fires, and although neither smoke nor fire was visible, he threw a few circles in the smell and found himself going up again. But he had had enough circling by then, so continued on down to a landing beside an inviting café.

In Search of a Garden Party

Mr. R. P. Cooper had the next aero-tow after Dr. Edmunds. Finding all directions equally easy to fly in, he decided to drop in on the Royal Aeronautical Society's Garden Party at Heath Row at the appropriate hour of 4.30.

He relates that he had a very good flight as far as Northolt. Over Buntingford he got his greatest height at about 5,400 ft., and got sucked up into a "great bulgy monster of a cloud," out of which he managed to escape at 90 miles an hour, being without blind-flying instruments. He got a fine thermal exactly over Hatfield Park, and another over Boreham Wood, where he was able to study the film studios at Elstree while circling. The best lift everywhere was between 3,000 ft. and cloud base.

But at Northolt the usual blanket of London reek was getting rather thick. Mr. Cooper got into a thermal over the broken ground to the south of the aerodrome, just before 4 o'clock, which put him up to 3,800 ft., and only three or four miles to go. But the smoke nuisance beat him. When he set off on his course from Northolt the ground could only be seen in a small patch immediately below, except to the westward where the reek cleared and fields could be seen. But he could see nothing but houses below; so he was tempted away to the westward, with the idea of working round over the more open country and coming in to Heath Row along the Great West Road. But he got sunk by the water-logged ground by the Thames, which was sending up no lift, and had to land in a field beside the river, alongside the Datchet-Old Windsor Road, just south of Datchet.

To the Isle of Wight

The first crossing of Spithcad's four-mile width of water by a sailplane was made on May 22nd by Mr. Ingo Pasold in his own Rhönbussard, when he flew from Heston to Cowes aerodrome. The start was made at 2.15 p.m. by aero-tow to 2,000 ft. Upon release (A on barograph chart) he soon found a thermal which took him up at 10 ft. per second into clouds. He had no wish to fly in cloud, however, so quickly came out on the other side.

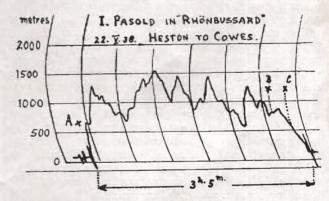
At first Mr. Pasold's course was westerly as far as Windsor, where he had to circle round for quite a while; from there he went south to Aldershot, and saw



Mr. Ingo Pasold with his "Rhonbussard,"

his landing-place of a fortnight before. Then he turned right in order to land at Portsmouth or some other aerodrome, and after that came to the water (B on chart), and found another thermal which took him about a quarter of the way across (C on chart). For the rest of the way over the water there was a fall of 2 or 3 ft. per sec., and he arrived over Cowes aerodrome at 2,000 ft, and landed after 3 hrs. 5 mins. in the air.

Captain Ferguson came from Heston with a "Cadet" and towed him back again; the journey took 1 hr.



5 mins, in particularly calm air. The north-easterly wind was only about 10 miles an hour.

Mr. Pasold's previous flight to Emsworth, which was 10 miles shorter, had taken him 1 hr. 57 mins. from Heston.

Invisible Streets

There are still many experiences of cross-country pilots during April which are well worth recording, and Mr. Wills, a few pages further on, describes the two flights on consecutive days by which he beat his own previous record.

On the second of these days Mr. R. P. Cooper flew 65 miles along the same course to Elmore Farm, Thorncombe, S.E. of Chard, being in the air from 12.10 to 2.41 p.m. His course was at first S.S.W. and finally W. When the clouds were dissolving, and he had passed Shaftesbury and was approaching Cerne Abbas, he found lift in the form of "streets" (such as one gets under cloud streets) between 3,000 and 4,000 ft. This was over hilly "up and down" country with commons and heaths along the tops and streams and small lakes in the hollows. The famous Cerne Abbas Giant, cut in the chalk downs, sent him a thermal to 4,300 ft.

The "Rhönadler" Re-visits Holkham Bay

A 75-MILE TOUR OF EAST ANGLIA

SUNDAY, May 15th, 1938, brought us a day with little promise. Clouds seemed low, and it even rained in places. Having been fools enough to take the Rhönadler to the Cambridge Club at Duxford we had to get it out and rig it, and having been fools enough to rig it I had to have a launch; but altostratus cloud was blotting out all sunshine, and thermic action seemed conspicuous only by its absence.

I released at 1,800 ft. and gained a slow hundred feet more. Then I dashed right away from Duxford to explore the only hope I could see—a dirty-grey lifeless-looking smudge; but it worked. I found cloud-

base at 4,200 feet.

Lift was very meagre after my first opening thermal, and for a full quarter of an hour beyond Cambridge my altimeter stuck at 3,100 ft.; I kept on tapping it to see if it had revoked. Then, again, beyond Ely, I circled for ten minutes, keeping at 3,300 ft. I wanted to take some photographs there, but the dull aspect made it rather hopeless.

made it rather hopeless.

Conditions were interesting. It was difficult to ascertain accurate cloud-drift direction as there were no cloud shadows below. The gentle lift did not seem to be produced by thermic action in the ordinary way, but by layer-interchange, and there were large clouds at frequent intervals. There was a layer of polar air which had been right round the depression's clock, warming up on its journey, and now coming up again from the south. Its temperature was still just cold enough to cause the conditions which were prevailing.

Up north of the Wash there seemed to be bright sunshine and much promise (it was then 2.45 p.m.), and over Norfolk it looked murky. I would have liked to be allowed to turn left towards the sunshine, but the old Rhönadler just refused, so I had to let her have her own way, and lead me back to Holkham Bay.

I followed the "Bedford Roads" up to King's Lynn, over which I found a large cloud in which I circled to 4,800 feet. Beyond it there was some sunshine.

June, 1938

Having plenty of useful height I next explored the coast, keeping the Wash on my left. I then zig-zagged along the north coast of Norfolk, working my way for fifteen miles along the sea shore. There were strong narrow ticklish thermals coming up from the sandy beaches, but I often failed to use them to the best advantage, as I found that taking photographs while circling was an almost infallible method of losing the thermal.

After an interesting exploration over sea, shore and land, I turned back to land at Holkham. I was not certain of the actual spot where Collins had landed in 1934, but the ADLER seemed to remember and took me to within a few hundred yards of its previous landing. That historic 1934 flight of 98 miles was made after a desperate half-hour's struggle *inside* the Bowl at Dunstable. This flight of mine was made after a comfortable aero-tow to 1,800 feet at Duxford.

I was welcomed like an old friend at Holkham by the fishermen there, who were delightful. They gave me, as usual, an enormous and most welcome meal; with more later for the two who came to fetch me with the trailer. It was too good a spot to leave, so at 9 p.m. we all put out to sea. The sunset was a magnificent one, turning sky and water to brazen copper.

The remains of a noble fishing-boat mark the spot where Collins had landed. That beautiful place in the golden twilight seemed to bring back many pleasant

memories.

I am now glad to think that the days of long gliding flights are rapidly passing on. We can now go to interesting places, and we can do interesting things;

or when we have no convenient retrieve we can fly there and then fly back again. It seems to be a possibility, during the summer months in England, to go down or across wind almost where one wants to in about one day out of two or three. The solution of the problem lies in aerotowed launches, as it appears that there are many days when lift is available if one can only get high enough up to make use of it.

J. S. Fox.



A photo taken by Mr. Fox from the "Rhönadler's" cockpit while headed directly for Holkham Bay, where Eric Collins landed the machine four years ago after setting up a British distance record.

Camping at Long Mynd



A photograph of the Long Mynd, taken on March 26th from 2,400 feet over Rock Cottage, which Mr. C. E. Hardwick, our pilot in the "Falcon III," said could always be relied on to throw off a thermal,—and it did.

T some time in the near future," prophesied a writer in THE SAILPLANE of December 5th, 1930, "charts will be necessary giving in all parts of the country the position and force of the rising currents of air for various directions and strengths of wind."

To the Midland Gliding Club has fallen the honour of making the first chart of the kind-at least, the first on any useful scale, for, said the writer of eight years ago: "The production of these charts is a large task, only comparable to the Ordnance Survey of England." And it is on a map built up from Ordnance 6-inchesto-the-mile charts that the Midland Club's "thermal map" of the Long Mynd is being compiled by Billy Hardwick, son of Mr. Espin Hardwick who founded the club and discovered the site.

The idea is to stick small coloured discs on places where thermals are picked up in the air (not their place of origin on the ground). They are coloured according to the wind direction, and the wind speed at the time is written on the disc. There are now, according to latest information from Mr. Hardwick, about three dozen thermal spots on the map, mostly for north winds; and the map is already showing results in improving the chances of picking up thermals from winch launches in north winds.

The Mynd is without doubt an extraordinarily good place for thermals, which tend to rise not only from high ground rather than low, but from heather rather than grass, and here you get both effects combining to reinforce each other.

So, when the west wind refused to blow during the Easter Camp, this did not prevent cross-country flights being made. On Easter Monday, April 18th, there was thermal lift from nearly every winch launch, so

they said. John Saffery, launched to 500 ft. in H-17, started going up at 5 feet per second and rose to 3,000 feet. He set off to the S.S.W., got another thermal 5 miles down-wind from the site, and a third 8 miles down-wind. Each one took him to 3,000 ft. After travelling 20 miles, he got a fourth thermal just as he was landing, but was too low down over a wood to circle in it.

Captain Rattray and Amy Johnson got up in the same group of thermals; she rose to 4,000 ft. in her KIRBY KITE, but without a barograph, and returned to the site. He, in CAMBRIDGE II, went 18 miles.

Next day was J. V. Rushton's turn. Launched by winch into a northerly wind in the club Kite, he picked up one good thermal, then a second which took him to cloud base at about 5,000 feet above Church Stretton. From there he went south to Ludlow, then turned north-east in an attempt to fly home to Wolverhampton. The two Clee Hills were giving off thermals at regular intervals, but whenever he circled up in one from Brown Clee he would drift back southwards over Titterstone Clee, and have to start over again. This got him no nearer Wolverhampton, so he tried to return to the Mynd across an area of clear sky, found nothing, and was let down after a 30-mile trip which included progress in every direction of the compass in turn.

An interesting feature of this ten-day Easter Camp was the presence of six Cranwell cadets and of Brigadier-General and Mrs. A. C. Lewin, recently lost and found again in a Kenya swamp. All six Cranwell visitors got "A" and "B" certificates, and the three who stayed to the end, A. Bouwens, R. J. Sansom and S. N. Goyal, were rewarded with just two hours of soaring wind which enabled each to get his "C"-after

Keeble had shown the way.

Captain R. S. Rattray, C.B.E.

WE regret to record the death, on May 14th, of Captain Robert S. Rattray, as the result of an accident at the ground of the Oxford University and City Gliding Club, which he had done so much to found.

According to reliable eye-witnesses, Captain Rattray, after a winch launch to about 400 feet in his H-17 sailplane, turned right, flew down-wind until over his launching point and turned right again. The machine then went into a steep spiral and struck the ground almost vertically. There appeared to have been no loss of flying speed at any time, and the machine did not appear to be in an ordinary spin. Its condition after the accident confirmed this, as the impact had been taken square on the nose and along both leading edges equally. The controls were examined and all found to move freely and to have been connected properly. The conclusion seems to be that the pilot, for some reason not known, became ill or unconscious while in the air. The other pilots who shared the machine with him have never known it to show signs of vice in any conditions.

Captain Rattray, who was aged 56, had led a life of great interest and diversity. He was a trooper in the South African War, gaining the Queen's Medal with five clasps. At another period he was a professional big game hunter, and in 1914 was called to the Bar. From 1902 to 1907 he was in the service of the African Lakes Corporation, and then entered the Colonial Civil Service on the Gold Coast. He rose to the post of District Commissioner in 1915 and acting senior assistant Colonial Secretary and clerk to the Legislative Council in 1920. Then, in 1924, he was made head of the Anthropological Department in Ashanti, with the result that he achieved fame as an anthropologist through the books he wrote on Ashanti law, art and religion. At the time of his death he was a lecturer on Ashanti at both Oxford (where he had once been an undergraduate and obtained the degree of D.Sc.) and Cambridge.

December 5th, 1928, to January 15th, 1929, was spent by him in making a pioneer flight from Croydon to Accra, Gold Coast, in a "Moth." The most dangerous part of the flight was a landing in thick mist at Lympne, with visibility only a few yards. On January 30th, 1929, he landed at a new aerodrome at Kumasi in the presence of King Prempeh and 30,000 Ashantis.

Captain Rattray joined the London Gliding Club early in 1935 and obtained his "C" certificate on June 16th that year. He qualified for the "Silver C" on June 23rd, 1937, by flying 64 miles from Dunstable to Burnham-on-Crouch in the CAMBRIDGE II, which he shared with E. J. Furlong. Among other notable flights in the same machine were a climb to 5,000 feet in a thunderstorm on October 25th, 1936, with a landing at Hatfield (where no aeroplanes were flying on account of the rough wind); 60 miles from Dunstable to Peldon, Essex, on August 17th, 1937; a climb to 6,700 ft, in a stationary air wave at Long Mynd on September 8th; and 55 miles from there to Broadway later on the same day.

It was a privilege to know Captain Rattray, and those who had his friendship set a high value on it.

Correspondence

Why Tails Vibrate

SIR,

The following experience may be of interest to your readers:-

Last year I always found that the tail of my Scup III tended to vibrate at speeds above about 45 m.p.h., and I was not able to find an obvious cause. I had rather come to the conclusion that the fuselage was too flexible. The vibration was nothing alarming, but was definitely sufficient for me to keep below the critical speed when flying.

This winter, when flying a KITE at Sutton Bank on one of the roughest days I have ever met, I reached 800 feet, which was about the ceiling. I had not been there very long when I suddenly noticed a vibration in the tail, similar to but a trifle larger than the one referred to above. I also found myself slowly pulled down to 300 feet, although the wind was unchanged. I could have held that height but conditions were so rough that it was unsafe so near to the ground and so I made a hasty landing. I then found that the fairing between the wings had been carelessly fitted and was standing up about 2 inches at the thickest part of the wing section on top, being in effect a spoiler of about 4 ins. × 2 ins. in section.

This made me think again about my own machine, which had a rather bad fairing joint which was in effect a spoiler of appreciably less than \{\frac{1}{8}\] inch in height and about 10 ins. accordately disappreciable with the correlately disappreciable.

vibration has completely disappeared.

As I see it, the surprise in this is not that a spoiler spoils but that something so small can cause such a breakaway. The speed range of the machine now appears to be vastly increased. I write "appears" because it is difficult to separate the subjective from the objective in these matters.

L. H. BARKER.

Semi-Technical Matters

SIR

Would you consider devoting space in your magazine each month to the activities of ground engineers? It seems possible that in many gliding clubs in England a number of ingenious and thoroughly practical ideas are in operation, and that if these ideas were ventilated in your columns the entire movement would benefit.

As an instance of the sort of thing I have in mind, there is in use at Dunstable a most remarkable antiskid device, which consists merely of superimposing on the rear wheels of the tow cars extra old covers of which about half of the tread has been removed. These old tyres work extraordinarily well, are absolutely silent, and cost just nothing. There may be other clubs in the country who do not know of this dodge, and who would benefit a great deal by its use.

Another example is the use of inner tube valves as emergency safety-belt pins. These again cost nothing, and may at some time avoid an hour's hold-up in flying because a pin has been lost.

It might perhaps be worth while to raise a limited number of contentious points or matters affecting new design. As an example of this it has occurred to me that perhaps something could be done to improve the

shape of the skids now used. The present shape of skid will not accept even a small amount of drift in landing. Even the most experienced pilots occasionally touch a wing tip in landing, with the almost inevitable result that the skid is badly damaged. Would it not be possible to design a skid with, perhaps, a rounded lower surface, which would accept a moderately severe drift landing without digging into ground? Damage to the present skids arise apparently out of the fact that the point of contact between the skid and the ground is usually well ahead of the centre of gravity of the whole machine, with the inevitable result that a small drift in landing causes the entire machine to tend to pivot around this contact point.

To sum up, my suggestion is that each club in the country should accept the responsibility in turn of contributing a page of semi-technical matter to your magazine. It would not appear that there could be any hard or fast rules governing the type of matter submitted so long as it all had a bearing on the improvement in gliding or launching methods or the reduction in cost of present methods. A great deal of interesting matter could be contributed on different methods of training pilots, the results, and the cost in time to the

pilots and the club.

You might perhaps think it worth while to make a rule against use of nautical phraseology. While most of us can, given time, cope with "port" and "starboard," I believe we shall get into severe trouble if we allow this sort of thing to continue; it is only a question of time before some unfortunate pilot lands rather heavily and cracks a port bow chine stringer. Such an accident would inevitably give the whole movement a bad name.

W.R.H.

The answer to the first question is simple: Space will be devoted to the activities of ground engineers as soon as anyone can be persuaded to fill the space. But if nothing of the kind is sent in, then no space can be devoted to the subject. Similarly, if one club will send enough to fill a page, then the page will be filled. W.R.H. is to be congratulated on contributing the kind of matter he would like to see. Anything useful of this sort is automatically published, without waiting for someone to suggest that we should "consider devoting space" to it.—Ep.]

Observations on Aeroplane-Towing

When we returned from the International Competitions last year we told ourselves that, from then on, sailplane performances would show a tremendous improvement in England. We had seen the most depressing-looking conditions used to great advantage, and I am sure most of us said to ourselves: "Just wait till I get back home and into a sailplane again!"

Individual performances have shown great improvement, and are deserving of the greatest possible praise. For pilots who fly at week-ends only, the standard of skill shown in this country is remarkably high. Any week-end, at any of the clubs, one can watch really good flying-pilots using quite high-performance machines in very turbulent air, and landing them in most tricky places.

Unfortunately, gliding clubs, with but one exception, possess a hill. This, in the writer's point of view, is for thermal soaring (which is the goal of all who fly sailplanes) a blasted nuisance. Here is another complex to add to the long list of complexes: "hill complex."

A pilot of five hours' hill-soaring experience can say he can fly at the right speed, turn reasonably efficiently, and put a machine down without too much emotion being aroused in the onlookers. If he persists in hill-soaring, then, before he throws his first circle in what he thinks is a thermal, he may have put in anything up to 20 hours. He has got to a stage where he doesn't believe in thermals. When he does circle first, it is with one eye on perhaps five other machines,

and the other on the hill, to which he is now psychologi-

cally rooted.

To this disgraceful state of affairs there is but one answer, and it is aero-towing. Most pilots are perfectly safe at this form of start with five hours' soaring experience, and in some cases at even less. A first aero-tow in smooth air is infinitely less emotioning than a winch launch, and mistakes are much less severe on the sailplane. Our pilot is given his first tow in calm air; and as naturally the operations are being carried out on a large aerodrome, a machine of good performance may be trusted to him, landing difficulties in a machine of Bussard performance being

negligible, owing to the easy approach.

When the would-be thermal pilot has made his first tow, he is launched on an unstable day. He casts off at, say, 2,000 feet, up-wind of the aerodrome, and can devote his whole attention to the variometer. He has lots of room to disport himself, and as he starts his thermal experiments at a high altitude, can circle freely without the horrid "blown back behind" feeling so present in operating from a hill. After a little while he begins to believe in thermals, and can take an interest in cloud formations. Clouds which work and clouds which don't work look remarkably alike, and it is only by going up and having a close inspection that one can begin to differentiate. The days on which it is possible to fly are multiplied ten-fold, as one can laugh at the wind direction. The depressinglooking conditions mentioned at the beginning of this epistle can be explored and made use of-the most miserable-looking sky has in my experience often provided a lot of fun and knowledge.

From the early training stages to the time when a pilot can state his landing place many miles away confidently-if we want to improve technique in this country-more aero-towed starting is the answer.

I finish this effusion with the usual note of depression -cost. Aeroplanes are expensive things to maintain, and as most people who sail-fly are not very moneyed (or, at least, they say they aren't!) the hill for thermal training will be used for a long time to come. Clubs, unfortunately, take a disgraceful lack of interest in members after the "C" stage, and it remains to private owners to advance our achievements. A cross-country flight at the present time in an efficient club machine, from an aero-tow start at the present rates-low as they are—is beyond the means of most sailplane pilots. At the risk of bringing down a flood of rudeness on myself, may I whisper just one little word-Subsidy?

J. S. SPROULE.

110 Miles with Foss APRIL 17th, 1938

O do two flights of over 100 miles each on two consecutive days must be credited not so much to my pilotage of the MINIMOA as to my wife's pilotage of the car. I flew over the holidays rather less than 250 miles; she drove nearly 700 miles.

The flight from Ratcliffe to Marshfield was not a particularly interesting one, I was not aware that my distance counted from the point of release from the aeroplane tow, so I never imagined that it exceeded the previous 104-mile record by six miles. This saved me a deal of excitement, because, unknown to me at the time, Nicholson had landed an hour before I had,

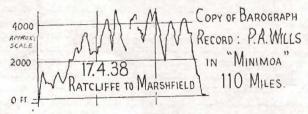
at Bigbury, having covered 119 miles.

I was launched at 12.30-an hour and a half too late-and released at 1,600 feet in a large area of rapidly descending air. Five miles behind me, south of the aerodrome, I saw the CONDOR and the GULL circling. My only hope was a policy of comprehensive boat-burning. I put the nose of the MINIMOA well down and scorched back at 60 m.p.h., losing height at 9 feet per second, until I was down to 800 feet, three miles south of the aerodrome, with a strong north wind making return impossible.

But my prayers were answered: weak lift over a village took me to 1,500 feet and I made a bee line for Leicester. Over its southern boundary was the expected thermal. I climbed to 3,400 feet and made off to the south. The sky was full of dying streets;

things did not look particularly good.

The Air Ministry Weather Dept. had advised me to make a south-easterly course, as they said conditions would be better towards the south-east coast than the south-west. I did not take their advice sufficiently to heart, and allowed myself to be forced south-west. As a result conditions got steadily worse as I went on.



Cloud base was about 4,200 feet, with little or no lift inside the clouds. As I went on they became fewer and flatter. The country below was flat and uninteresting, offering no clues as to where to look for lift.

I had been released over the straight Roman line of the Foss Way. My course followed it exactly. To my shame, in spite of this aid, I lost myself. My only excuse was that, since my map, people had built so many new aerodromes that I was completely misled. When I landed at 3.30 p.m., still beside the Foss Way,

I thought I was near Gloucester.

I was not. I was in the beautiful park of Ashwicke Hall, 21 miles south of Marshfield. A large towered hall faced me down a long drive. From it came Major Pope, wearing the Old School Tie. I was by chance wearing its sweater. The whole family treated me with the most whole-hearted hospitality. I spent a luxurious afternoon in the midst of an Eastertide house P. A. WILLS. party.

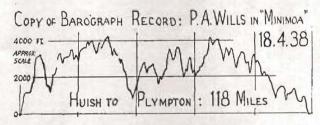
Huish—Plympton APRIL 18th, 1938

N contrast to the one of the day before, this was one of the most entrancing flights I have ever

I was in the air by 10.30 a.m. The "Moth," screaming shrilly, tugged the MINIMOA, much more than twice its size, gallantly out of the field, though seriously discommoded by my failure to realise that with a short cable (used for small fields) one ought to keep the sailplane much lower than with the full-length one. As a result I tugged its tail up so determinedly that we

only cleared the hedge by a few feet.

I released at 1,400 feet about a mile down-wind, and after a little preliminary sorting out found my thermal which took us at an enhanced climb to 3,000 feet. It was a simply glorious day. Although only 10.30 Summer Time, small puffs of cumuli were beginning to form everywhere. I decided, however, that it was rather early yet, and that I would not force the pace for an hour or so until the up-currents had had time to grow and multiply. The wind was N.E., about 15 m.p.h., and I calculated that a down-wind flight would take us to the coast about at the Chesil Bank.



The difficulty was, therefore, to do the first 75 mile cross-wind beat to Sidmouth Bay, where the coast curves round to a more south-westerly direction.

All went well, although exceedingly slowly, until about 12.30, when I was approaching Yeovil from the The Blackmore Vale country seemed greener and moister than elsewhere; certainly it was not so generous of up-currents. A long searching glide brought me down to 1,000 feet, and I made for Yeovil Aerodrome to land.

However, I now spotted a small brown wood on a southerly-facing slope, facing the sun, and I decided to risk it, abandon Yeovil, and look for lift. I found it all right, and by hard work got back to 2,600 feet.

I think that after a long drought, when the country is uniformly dry, it is easier than usual to find lift over the likely-looking places. In the normal way it is impossible to tell from the air whether a particular wood or slope has not been recently soused in rain, and so whether it will in fact produce lift or not. Certainly on this day not only did I find lift over every likely-looking spot on the ground, but also under every

On the way up from my near-defeat at Yeovil I had had time to work out a new plan of action. seemed very few clouds directly ahead along my course, but it seemed possible that along the coast I might find a belt of lift, if there was a landward-blowing sea-breeze undercutting the north-easter, and looking that way it seemed to me that one could make out a



The first launch of the "Minimoa."

line of cumulus running approximately parallel to the coast.

I therefore gave up the cross-wind struggle and made directly down-wind, reaching the coast between Lyme Regis and Seaton. On the cliff top a small heath fire confirmed my theory. The smoke from this started off blowing inland, from a south-easterly direction. As it rose, it curled up, then for some way it ascended vertically, gradually turned over, and blew away to the south-west.

When low down, therefore, one had to look for thermals to the north-west of their point of origin, but as one climbed higher, to the south-west. The result of this was that a short while later I found myself circling under a large cumulus, some two or three miles out to sea. The sea was so blue that it hurt to look at it. It shaded off through turquoise and amethyst and white to the grey pebbly beach, backed by huge red cliffs. Then began the rolling greens and browns of Devon and Dorset, fading away to the north. It was like a railway advertisement, but I like railway advertisements, and ask for nothing better hereafter.

The going was now quite easy, and I fairly rushed along the coast, getting particularly strong lift over Exmouth. Then the coast swept away to the south, and I went on west towards Dartmoor. Over a huge blackened horseshoe cup in Haldon Moor, where the main road crosses it, I looked for good lift. I miscalculated it and found myself in a tremendous down-current. A little frantic searching found the corresponding up, a little to the south of where I had expected it. It was clear that the sea-breeze effect was altering now that I was going inland again.

Mr. P. A. Wills obtained his new "Minimoa" sailplane at the beginning of April, and by the end of the month had covered 505 miles in cross-country soaring and set up a new British distance record. In the accompanying articles he describes two flights of over 100 miles, done on consecutive days, each of which exceeded his previous distance record. Next month he will describe the flight of 209 miles on April 30th which set up the new record. This map shows not only the routes of Mr. Wills's flights, but also the journeys made by Mrs. Wills with the retrieving trailer.

There were very few clouds now to be seen ahead, but from the top of this thermal I saw another bush fire over Chudleigh way, the rising smoke from which was capped by a small cumulus. I rushed joyfully to it, and as I got there the rising column broke away from its upper mooring and drifted sluggishly downwind. I found nothing, and as I had lost a lot of height getting there the position rapidly became serious. As a last resource I decided to try a hill-soar along the broken southern slopes of Dartmoor. They were sloping towards the westering sun, so ought to be thermically useful.

We reached the slope at 1,000 feet above sea-level. Dartmoor ahead loomed up another 1,000 feet above me. Here I found a gentle upward drift in the air, which consolidated itself into small thermals towards the head of the numerous small valleys that ran up into the moor. It was nervous work, because the moor to my right looked rocky and treacherous, and the valley on my left seemed to contain no field larger

than a football ground.

However, I managed to carry on for half an hour, cutting over one or two spurs of high ground with not more than 200 feet to spare. At last we reached the end of the moor, came over the last spur, decorated with two or three large white pyramids of china clay, and saw Plymouth ahead.

There was no chance of reaching the aerodrome, which is to the north of the town and fairly high up, so we turned left and sailed feverishly down to the valley. There were still no fields to be seen big enough to swing an H-17 in, but I spotted one which, though small, was more or less on end, sloping steeply down to a railway cutting at its foot.

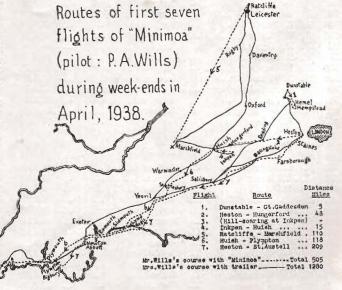
to a railway cutting at its foot.

We flew head-on at this, I pulled the stick hard back, touched down, then instantly put on full left rudder. The MINIMOA swung round on her landing wheel and came to rest at right angles to the slope, like a

fly on a sloping window-pane.

It was fortunate that I remembered seeing at the Wasserkuppe a Minimoa land up a steep slope, come to rest, and run down backwards again, eventually breaking her sternpost. In my field we would probably have fetched up straddling the main line of the Great Western Railway.

P. A. Wills.



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Accident at Portsmouth

We regret to report an accident on Portsdown Hill on May 1st, as a result of which Mr. Reginald James was fatally injured. The machine was a primary, and was having its third auto-launch that day. After stalling immediately after it got into the air, it flattened out and then, to the surprise of onlookers, quickly reverted to a badly stalled attitude. The left wing dropped until, passing through a vertical bank, the machine nose-dived through 30 or 40 feet and struck the ground almost perpendicularly. The pilot had had previous experience of auto-launching, having done nearly 100 such launches, and his previous flights had been exemplary. At an inquest held on May 4th the jury returned a verdict of "Accidental death caused through an error of judgment on the part of the deceased." It was stated to be the first accident the club had had.

Mr. James, who was aged 18 or 19, was a carpenter and joiner, and lived at Allcot Road, Copnor. The Organising Secretary, who has sent the above account, writes: "We shall miss his cheery presence—a gallant gentleman in whose honour be it said we can aspire no better than to preserve among ourselves the spirit of courageous loyalty and friendship of which he set so high an example."

Gliding Certificates

The following gliding certificates, for which qualifying flights were made on the dates shown, were granted by the Royal Aero Club on May 4th:—

"A" Certificates

No.	Name.			Club.		Date.
896	J. N. Price			Midfand	The state of	 4.7.37
897	C. A. Hinton			London		 12.7.37
898	G. V. Tarrant			London		 19.8.37
899	J. O. A. Fraser N	Iackenz	ie	Inverness		 20.8.37
900	T. Horsley			Derby and	Lancs.	 13.3.38
901	K. S. Morton			Newcastle		 -
902	D. Swale			Derby and	Lanes.	 12.4.38
903	J. Bramwell			Furness		 10.4.38
904	R. T. Paul			Southdown		 12.3.38
905	G. T. Slater			Derby and	Lanes.	 12.4.38
906				Furness		 10.4.38
907	H. D. Philipson			Newcastle		 17.4.38
908	H. Walton			Derby and	Lancs.	 9.4.38
909	H. F. Holme			Furness		 10.4.38
910	E. Steward-Ande	rson .		Norfolk and	Norwich	 18.4.38
911	C. L. Faulkner			Derby and	Lancs.	 23.4.38
912	Baron de Veauce			Yorkshire		 29.8.35
913	W. H. Thompso	on .		Newcastle		 17.4.38

"B" Certificates

896	J. N. Price		Midland			23.7.37
897	C. A. Hinton		London		***	15.7.37
840	W. P. Waid		London			6.3.38
899	J. O. A. Fraser Mack	enzie	Inverness			5.9.37
868	S. F. Broome	***	Derby and	Lancs.		9.4.38
901	K. S. Morton		Newcastle			10.4.38
904	R. T. Paul		Southdown	111	***	17.4.88
878	E. A. Edmonds		Southdown	***		16.4.38
875	W. W. Blake	***	Cambridge	Univ.		4.3.38
900	T. B. Horsley	***	Newcastle	***		10.4.38
834	G. U. Strawbridge	***	Midland			19.4.38
912	Baron de Veauce		Yorkshire			31.8.35

"C" Certificates

No.	Name.		Club.	Date.
896	J. N. Price		Midland	 24.7.37
666	B. Robinson		London	 8.3.38
645	E. M. Lewis		London	 8.3.38
738	J. V. Inglesby	***	London	 8.3.38
858	G. W. Pirie		Cambridge Univ.	 6.4.38
710	H. W. F. Jones	***	Cambridge Univ.	 6.4.38
904	R. T. Paul		Southdown	 18.4.38
692	L. J. Turtle	***	Ulster	 17.4.38
881	A. H. W. MacBean		Cambridge Univ.	 12.4.38
773	J. D. Phillips	***	Derby and Lancs.	 24.4.38
867	J. C. D. Langley	***	Derby and Lancs.	 24.4.38
729	P. S. Taylor	***	Newcastle	 18.4.38
712	N. McClean		Newcastle	 18.4.38

The following further certificates were granted on May 25th:—

"A" Certificates

No.	Name.		Club.			Date.
914	E. H. J. Moos	111	London			18.4.38
915	P. D. Oliver	111	London			11.4.38
916	W. E. Wilbur		London			16.4.38
917	K. S. Morton		London			6.4.38
918	Mrs. H. Aspell		London			30.1.38
919	N. P. Ewart	***	Cambridge	Univ.		19.2.38
920	E. W. Skirrow		Furness			10.4.38
921	H. H. Hipperson	***	Norfolk and	Norwic	h	24.4.38
922	S. Anson		Hull	***		25.4.38
923	L. J. Huggett		Southdown	***		8.5.38
924	A. P. Pedrick		London	***		19.4.38
925	J. B. Skrender		London	***		19.4.38
926	O. R. Cramer		London	***		24.4.38
927	P. C. Kavanagh	444	London			19.4.38
928	R. Batra		London			24.4.38
929	W. S. Moore		Ulster			24.4.38
930	R. D. Williams		Vorkshire			23.4.38
931	J. E. Baskerville	***	Vorkshire			24.4.38
932	R. G. M. Walker	****	Yorkshire			24.4.38
933	W. H. Nelson		Vorkshire			24.4.38
934	J. A. Piddington.,		Vorkshire	***		24.4.38
935	G. A. Terry		London			13.5.38
936	G. J. Harris		London			9.5.38
937	J. A. Rooper		London	***		9.5.38
938	A. D. King		London	***		9.5.38
939	H. Belart		Yorkshire		Swi	tzerland
940	N. W. Lee		Cambridge	Univ.		2.5.38
941	R. J. Owen		Midland	•••		15.5.38
942	G. A. Lane		Yorkshire			24.4.38

"B" Certificates

15	P. D. Oliver		***	London	 16.4.38
18	Mrs. H. Aspell			London	 6.3.38
19	N. P. Ewart			Cambridge Univ.	 7.3.38
20	E. W. Skirrow			Furness	 23.4.38
49	I. A. Else			Derby and Lanes.	 24.4.38
66	R. R. A. Bratt			Cambridge Univ.	 20.2.38
69	R. M. Lynn			Cambridge Univ.	 20.2.38
28				London	 9.5.38
02	D. Swale			Derby and Lanes.	8.5.38
05	G. T. Slater		***	Derby and Lancs.	 8.5.38
28	J. J. Stuart			London	 13.5.38
01	A PART OF THE PART			Cambridge Univ.	 7.4.38
200				London	9.5.38
	AND THE RESERVE OF THE PARTY OF	***		Cambridge Univ.	 3.5.38
	C. M. Cass			Derby and Lancs.	14.5.38

"C" Certificates

885	M. S. Hancock	 Yorkshire	 2.3.38
838	W. D. B. S. Davie	 London	
711	L. Wright	 London	 3.3.38
888	D. T. W. Gibsem	 Yorkshire	 2.3.38
646	A. P. Pringle	 Cambridge Univ.	 6.4.38
918	Mrs. H. Aspell	 London	 30.3.38
	N. P. Ewart	 Cambridge Univ.	 12.4.38
828	S. J. James	 London	 13.5.38
937	I. A. Rooper	 London	 13.5.38
301	A. G. Payne	 Cambridge Univ.	 12.4.38
030	H Rolant	Vorkshire	15 5 38

News from the Clubs

Cambridge University Gliding Club

Saturday, April 30th.—Eleven aero-tows, with a total flying me after release of 5 hours 48 minutes. There was a strong time after release of 5 hours 48 minutes. There was a strong wind, making it difficult to soar and return to the aerodrome; however, most pilots were able to stay up for at least half an

Lingford went off across country, and landed 1 hour 13 minutes later on Hendon Aerodrome. He circled up to the clouds and continued about 600 feet inside them. The compass then fell continued about 600 feet inside them. The compass then fell off its pin, so he came out of the cloud to see where he was. He couldn't see the aerodrome and therefore went back into the cloud and came out the other side to see if it was there. By then he was well down-wind, and went on to a landing at Hendon; he said it was one of those "goal flights" in which the goal is chosen half way on the journey.

Thursday, May 5th.—One acro-tow in the dinner hour. Kidd was towed up in the Cambridge at half-past one, and flew around

for 42 minutes, reaching a height of 4,000 feet.

Friday, May 6th.—Another member thought he would rather have an aero-tow instead of his lunch; this time it was Pat Pringle, who flew for 50 minutes, mostly above 3,000 feet.

Sunday, May 8th.—A good soaring day, over 16 hours of flying were recorded from 16 aero-tows. The wind was very gentle and conditions were ideal for floating round the aerodrome, but nevertheless some long cross-country flights were made. Dr. Edmunds flew the RHONADLER 95 miles to Overton, and Cooper went 52 miles to Datchet in his RHÖNBUSSARD.

Jones and Charles Wingfield both climbed to 6,000 feet in the CAMBRIDGE, qualifying for their "Silver C" height, and Fox in the club Kite climbed higher still. He had got down to 300 feet when he found a thermal in which he climbed to 6,500 feet taking nearly an hour on the climb. Simpson, who has now bought Lingford's Krre, started off to fly to Dunstable; however, after 1½ hours he found he had only got 12 miles to Royston, so he turned round and went back to Cambridge for tea. In the evening Simpson was towed over the town at about seven o'clock and was able to held height for the town at about seven o'clock and was able to hold height for twenty minutes in the up-currents over the sewage farm!

Tuesday, May 10th.—Assheton flew for 29 minutes in the CAMBRIDGE, and John Pringle for 1 hour 5 minutes in the KITE. Pringle flew for a long time at about 800 feet in the cement works smoke, which showed him the shape of the thermals. He said that at times the smoke was so thick that he was using the turn and bank indicator as he couldn't see the ground.

Wednesday, May 11th.—This was another of these perfect soaring days which appear to be so frequent just before the Tripos, and two more members took some time off work in order to fly. Kidd flew for 1 hour 1 minute in the CAMBRIDGE and several times reached cloud base, but unluckily during Parker's tow in the KITE the cable weak-link broke and he was not high enough to connect with any lift.

not high enough to connect with any lift.

Friday, May 13th.—As the insurance company had not sent a request for flying to be suspended on this day, two members were sent up in order to defy superstition. They did not break anything, but they were unable to soar.

Saturday, May 14th.—From force of habit Gardiner had a tow in the club Kite, but the sky was completely overcast and

he found nothing.

Sunday, May 15th.—A fairly good day—7 hours 15 minutes

soaring from 10 aero-tows.

Fox arrived at about 2 p.m. with his RHÖNADLER and an hour later had disappeared in the north. We heard fairly soon that he had landed on the coast at Holkham Bay, 67 miles away.

Simpson climbed to cloud base in his Kite, but did not set off

across country owing to trouble with the turn-and-bank indicator.

In the evening the mobile winch was in operation on the aero-drome, and five circuits were made. Experiments were made with a special light cable and MacBean was launched to 1,350 feet in the CAMBRIDGE.

Saturday, May 21st .- The KITE was recovering from her annual C. of A. inspection, so the CAMBRIDGE had to do all the work this week-end. Piric flew for over an hour and climbed to 3,800 feet, at one time managing to outclimb another member who was flying in a "Moth" (but not in a thermal).

Sunday, May 22nd.—Five hours soaring, all in the CAMBRIDGE.
The longest flight of the day was one hour, by John Pringle, and the shortest was 14 minutes. The latter was made by an ex-member of the London Club who, not having noticed that the Collins variometer was mounted upside down, proceeded to circle all the way to the ground in a down-draught!

Tuesday, May 24th.—One member decided to fly on this day to Ipswich. When he got in the air, however, he changed his mind and only went as far as the other side of the aerodrome.

Thursday, May 26th.—Rehearsal at Duxford for the Empire Air Day Display. The club Ktrß had been entered for the spotlanding contest, together with ten power 'planes, including a "Blenheim" and a "Battle." In the rehearsal this item was won by John Pringle.

A further demonstration was rehearsed, consisting of a winch circuit and two aero-tows. The first sailplane soared until the second one was doing its aerobatic descent; it then started to

come down, and both machines landed together.

Saturday. May 28th.—The weather was very unpleasant, and the display started with heavy rain and low cloud at 300 feet. It became a little clearer later on and three flights were made.

While an aero-tow was in progress, Kidd showed how the CAMBRIDGE goes up on the winch, and then John Pringle did a loop and a spin in the KITE, followed by Simpson, who showed how quickly a KITE can be brought down from 2,000 feet. He finished by diving from 400 feet to a point just in front of the enclosure and then making a complete circle, enabling him to

Gardiner flew in the spot-landing contest, and touched down exactly on the spot. However, he was only awarded second place as the judges said he had not got his tail right down when he landed!

Sunday, May 29th .- On the invitation of the Oxford Club, the was taken over to their site at Cumnor Meadow. KIRBY KITES belonging to Amy Johnson and Simpson were in operation, and six aero-tows were made. Unfortunately it rained most of the time, and no soaring was possible.

Charles Wingfield at last found his vocation, and spent a happy afternoon explaining all about gliding to the crowd in a very efficient manner by means of the amplifiers. There were also musical interludes by the Editor of THE SAILPLANE, whose ampli-

musical interludes by the Editor of THE SALPLANE, whose amplified imitation of bagpipes has to be heard to be believed.

At Caxton.—With Lingford engaged as instructor for the term, primary training has been possible on any day when more than two people decide to go to Caxton.

On Sunday, May 29th, a very remarkable flight was made in the TOTTERNIOR. W. R. Assheton was the pilot; he was winched up to 500 feet and proceeded to climb at 6 feet per second up to 2,000 feet. As he had not permission to go across country in the TOTTERNHOE, he then left his thermal and returned to the launching point, where he landed 20 minutes after the launch. Assheton had obtained his "C" certificate one month earlier at Inkpen, when he made his only hill-soaring flight to date, climbing to 1,000 feet in the same TOTTERNHOE. He has also done about two hours thermal soaring in the CAMBRIDGE.

Summary of Flying for May.—275 winch launches, 72 aerotows, with flying time after release of 44 hours 5 minutes.

Certificates gained: 6 "A's," 3 "B's," 1 "Silver C" distance, and 3 "Silver C" heights.

Southdown Gliding Club

During May there have been no outstanding performances in thermal or cross-country flying from this club's sites, and since Stevens's Kirby Kirb has been under repair, the other instructors have joined in with him in concentrating upon the training of newly joined members. In this very good progress has been made.

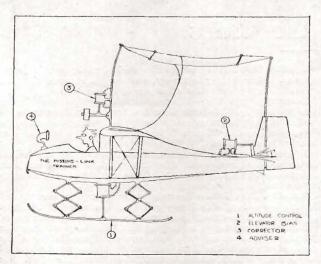
On Saturday, May 28th, the club put up its usual show for Empire Air Day on behalf of the R.A.F. Benevolent Fund, but this year we co-operated with the R.A.F. who were giving a display at Shoreham Airport. The club was accorded the honour of the longest period item in the programme (half an hour), and enjoyed the satisfaction of seeing, and of being informed officially, that the gliding display was one of the most popular

events in the programme.

A note to designers of trailers. Use care in designing large covered trailers, from the point of view of wind resistance. G. A. Little had the misfortune to have his large Tern trailer blown over while towing it across the Down land on the way back from the airport. Beyond hoisting the back of his car a couple of feet off the ground, and cracking a bit of the side of the trailer,

no real damage was done!

The committee is arranging for another Training Camp to be held probably during the first week in August, but further notice of this will be given later.



[Other half of picture on next page

London Gliding Club

Annual General Meeting .- This was held on May 7th in the club house, for the first time. (Every previous one, from 1931 onwards, had been held in London.) Captain A. G. Lamplugh, President of the club, was in the chair. A telegram was read from Lord Wakefield, sending his warmest wishes for the club's continued success.

The Chairman's Report, read by Mr. D. G. Hiscox, was published in THE SAILPLANE last month. He announced, further, that the club has contributed 10 guineas to the Midland Gliding Club's Building Fund Appeal. Mr. Arthur Sweet was re-elected unanimously to the position of treasurer and secretary to the company. Of the ten members of the committee, five do not retire this year: H. E. Bolton, J. S. Fox, C. Nicholson, C. L. Ruffle and P. A. Wills. To fill the other five places the following were elected: J. R. Ashwell-Cooke, D. G. Hiscox, S. Humphries, A. W. Lacey and H. E. Petre.

At the subsequent Annual Dinner, held in the Restaurant at Whipsnade Zoo, the Dent Cup was presented to P. A. Wills for his flight to Dover last August, and the Derry Trophy to L. C. Withall for the most consistent volunteer work for the club. A replica of the trophy was given to C. L. Ruffle, who won it last year. Captain Lamplugh, proposing the health of the club, said it was an amazing example of a spirit which is very rare in these days. He paid tributes to the work of Mr. Hiscox, the chairman, Mr. Hervey, chief instructor, and all the staff of

Sunday, May 8th.—On a practically calm day, with very slight drift of air from the north, thermals were again got from winch launches. There was promise of good instability when a dust whirl crossed slowly in front of the hangar at 11 a.m.; it was like the pictures of tropical "dust devils"; there was a central core, about 2 ft. wide and 12 ft. high, with whirling dust all round it. Needless to say, we forgot to see which way it was

Burnett, launched at about 12.20 by the winch, was up for 1 hr. 54 mins. in a Grunau and climbed to 5,600 feet, at which height he was frozen stiff. This gave him his "Silver C" height.

Greig went up just after Burnett and, finding nothing at the top of the winch cable at 400 ft., was coming in to land when, at 200 ft., he got what was apparently the tail end of Burnett's thermal. He stayed up in it for 32 minutes in the grey Kite, gradually drifting south, and when it gave out he landed in a field beside what turned out to be the residence of Mr. E. L.

Hawke, secretary of the Royal Meteorological Society, at Dagnall.
There were 29 winch launches in all, but only these two found

good thermals.

One pilot stalled the Desoutter Grunau at the top of a winch launch and performed two turns of a spin before coming out of it with 40 feet to spare. He says he first of all put on opposite rudder and ailerons, and stick forward, without result; then he centralised everything and the spin stopped. Was the "opposite aileron" responsible?

On May 12th a member of the camp, trying for a "C" in the FALCON, turned due east from the knob of the Bowl, landed inevitably on the bank by the roadside, and overturned—but apparently broke nothing but the top of the rudder.

Sunday, May 22nd .- More soaring from winch launches. And this time the wind sock was watched to judge the right time for a launch. The normal wind was light N.N.E. (later N.N.W.), as shown by the wind sock, which is west of the launching track. The sock would go limp when a thermal approached from the N.E., then blow out from the N.W., or even west, as the thermal passed by to the east of it.

Carefully watching the sock for these signs, Hiscox was launched in his Gut.i. and caught a thermal which took him to 1,000 ft. Turner, on a visit from Bristol, also tried the GULL and got up to 1,200 ft., staying up 16 minutes. He was entranced with the machine. W. Adcock did the most spectacular flight of all, taking the Desoutter G.B. up to 2,800 ft.; he flew over Mr. Butler's aerodrome three miles away and returned, after being up for 1 hr. 7 mins., to assure the "waiting list" that he

hadn't gone on a cross-country after all. Pilots said the thermals were difficult to keep in and some said they made the air very rough. Perhaps this explained the epidemic of wing-tip landings. First, the club Bussand landed while turning, slewed round on its wing tip and slid sideways across the ground, and yet not the slightest thing gave way, and it was flown again later. Then a power pilot of 600 hours' experience, after stalling the Facon all the way down from the hill-top, did a final stalled turn into wind, struck his wing-tip, and wind off most of the pass. The Crut Landing chilewels and wiped off most of the nose. The Gull, landing obliquely up a slope, was kept level so that a wing-tip touched, but only the skid was damaged. And then, to complete the quartette, someone landed on the wing of a nacelled DAGLING.

One pilot, however, said that the air was quite smooth.

During the day news was received that Pasold had flown from
Heston to the Isle of Wight and been nero-towed back.

The fencing round the ground is now complete, and to-day, much to everyone's surprise, it actually did keep the public out.

Tuesday, May 24th .- West wind and large masses of cumulonimbus. Lacey went up at mid-day and found cloud base at 2,400 ft. This was not under the cumulo-nimbus, but the small clouds between. He got two miles down-wind, but decided the clouds were too low for a cross-country flight.

A newspaper to-day mentioned that on Empire Air Day (May 20th) the Course Park Lindson Country flight.

28th) the "Queen Bee" wireless-controlled aeroplane would be on show somewhere, and, in the same paragraph, that gliding would be demonstrated at Dunstable. The result was that a member of the public turned up at the club to-day (Empire Day) and demanded to see the "Queen Bee.

Sunday, May 29th.—Conditions started well, with a strong west wind and cumulus, and the Cambridge Club's "Moth," our only source of news, reported seeing a Grunau at 2,000 ft. and the FALCON III nearly as high. But it can't have been long before the rain came down and the lift went, as elsewhere. flew his Gull for 2 hrs. 25 mins.

Machines.- A long-wing, tapered, or Extended Kadet has been bought with a subscription got up by Miss Anne Wakefield, with subsidy help,

The Hjordis, formerly the property of Wills and Buxton, has been sold to a buyer in South Africa.

The FALCON III's wheels have now been dispensed with and substituted by two little "runners" incorporated into the skid near the back end.

May Instruction Course. - Eight people attended the course, four being club members. All members of the course who had not already got them took "A" certificates; total certificates for the course were: 4 "A," 2 "B," 2 "C." There were 756 launches, and timed flights totalled 1 hour 36 minutes. Captain Percival gave permission for the course members to visit his factory at Luton Aerodrome, and an interesting afternoon was spent there.

National Competitions.—Volunteers are still required for jobs in connection with the competitions. Donations are also invited for the prize fund. The fund at the end of May amounted to £49 9s., which included donations of 10 guiness each from A. Carpmeal, Esq., and the Air League of the British Empire. Members have been notified as to camping accommodation on the site. Apart from this, Mrs. Collins (Hill Cottage, Flamstead, St. Albans) can supply three bedrooms, bath and breakfast during

Tailpieces .- From the public, guaranteed genuine:-

Boy of twelve, watching descents on a calm day: "Are they doing it for sport or because they want to get to the bottem?"

Man watching ground-hops: "Why don't you launch them down wind? They'd go further then."

First boy, pointing to Pitot head: "What's that for?" Second boy: "These gliders go so fast they have to have a tube to breathe through."

Summary of Flying.

			Days of	Ground-	Timed	Flying	Time
Week ending:		Flying	hops	Flights	hrs.	mins.	
May 8th			2	220	92	4	28
May 15th	***		7	372	123	5	51
May 22nd			3	201	84	4	31
May 29th			4	40	150	32	28
m				VAR 1 1			

Total since January 1st: 4,567 launches, 567 hrs. 57 mins. flying time.

Certificate Flights.

May 9th.—Rooper, "A"; Burnett, part "Silver C" (height).
May 9th.—King, "A"; Harris, "A"; Rooper, "B"; Batra,

B."
May 10th.—Priestman, "A."
May 13th.—Stuart, "C"; Rooper, "C."
May 15th.—Stonhill, "A"; Mrs. Crossley, "B."
May 22nd.—Jameson, "A."
May 24th.—Dixon, "C"; Greenshields, "C"; Naylor, "C."
May 25th.—Williams, "A"; Priestman, "B"; Wilbur, "B";
loos, "B." Moos,

May 28th.—Winston, "B." May 29th.—Lavington, "C."

Newcastle Gliding Club

At Cramlington.—A new tapered-wing Kadet, presented by Mr. Runciman, arrived on March 12th. Next day a demonstration was staged for the benefit of the Press, who saw both winches in action launching the primary and nacelled Daglings,

KADET, and KIRBY KITE.
On March 6th and 27th the more advanced pilots were pressganged on to blasting rocks and heaving boulders off the future

ganged on to brasting focks and heaving bounders on the future landing and launching grounds on the Chillingham Ridge.

Mayhew got his "A" on March 12th. Horsley and Morland, two new members, who received their training in the south, took their "B" certificates on April 10th, and on Monday, April 18th, Thomson and Philips got "A's." Also during April, Lucas, McClean, and P. Taylor took "C" certificates.

On the night of April 24th three vandals, purely from concern for John Allan's need described him of the remains of the Landau.

for John Allan's neck, deprived him of the remains of the Jallan. He was more than mollified when it took 10 men (George Coates counting as two), bouncing in unison, to break the spar of the main plane.

Major Taylor has offered the club a set of blind-flying in-struments. We are convinced that as soon as O'Grady, Hick & Co. have found out how they work, a flight to the south-east from the Northumbrian Hills will collect the British distance record.

Norfolk and Norwich Aero Club

The Norfolk and Norwich Aero Club have started a gliding The Norlolk and Norwich Aero Club have started a gliding section at the Norwich Airport, Mousehold, Norwich. They have taken over the Dickson primary, lately the property of the Norfolk Gliding Club; they have also, through the generosity of Mr. Alan Colman, bought a DUNSTABLE KESTREL sailplane, and are having one of their "Moths" fitted for aero-towing. At the present time training is proceeding by auto-towing in the Dunstage and more advanced work is proceeding, with the

At the present time training is proceeding by auto-towing in the Diekson, and more advanced work is proceeding with the Kestree. Mr. Colman has also bought Mr. Scott's yellow H-17 and is flying it regularly at week-ends.

Our method of launching may be of interest, as we seem to get better heights than usual. We have a run of about half a mile in all directions. We use a Ford V8 launching car, to which is attached 80 feet of treble §in. bungy; to this is attached 1,450 feet of 8 cwt. cable. The resulting launch is a combination of auto-launch and tow. The sailplane leaves the ground almost immediately, and climbs rapidly to 150 feet or so, on the bungy, and by this time the car has accelerated to the necessary towing speed, and the climb continues till the car stops at the towing speed, and the climb continues till the car stops at the other end of the acrodrome. If there is a moderate wind the sailplane is almost vertically above the car at the end of the tow, and the bungy is well stretched, when the pulge is pulled the sailplane bobs up about 50 feet. We regularly get from 1,000 to 1,200 feet, and the best shot has been 1,500 in H-17. The position of the release on this particular machine is very far back under the seat, the stick is kept fully forward at the beginning of the launch, but in spite of this the climb is terrific and has scared off most of the power men, who seem to be very nervous of gliding in any case.

We have not had much luck with thermals yet, but have had several 8 to 81-minute flights, and this week-end (May 28th-29th) Mr. Colman in H-17 picked up a thermal off the tow and quickly reached 2,000 feet, maintaining this height for six or

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seven minutes, finally landing after 123 minutes.

As regards certificates, we have so far taken eight "A's" and four "B's," and should soon be adding to this.

Oxford University and City Gliding Club

The club started flying on May 7th, and we spent the last week-end of May visiting it. The loss of Captain Rattray, who did so much to get the club started, has naturally been a severe blow. Hardly any of the members at present have experience of on the 22nd, E. J. Furlong took charge, and the result was the club's first "A" certificate, gained by Michael Fellows, of Balliol College, who is a member of the University Air Squadron. He was in the air 1 minute 33 seconds from a launch to 350 or 400 feet in the open Dagling, so it looks as if he found some thermal 15th. lift.

On the 28th the club took part in the Empire Air Day show put on by the R.A.F. at Upper Heyford Aerodrome, and lent its winch for launching Fox twice in his RHÖNADLER and Gerry Edwards, of the Midland Club, and Sproule, of the London Club, in turn in Amy Johnson's Kite. The Kite was put through aerobatics, while Fox floated round in search of lift, in spite of the sodden ground, and actually found some at $1\frac{1}{2}$ feet per second, which delayed his descent. As none of the Air Force present, and few of the public, had seen gliding before, they were much thrilled.

Sunday, May 29th, was spent at the club's ground at Cumnor Meadow. This is a very large field with the Thames running

It rained nearly all day, but so well had Mrs. Aspell organised things that there was plenty to interest the crowd which came to see the club's first public demonstration. Robert Kronfeld took charge of instruction, and before long the Cambridge Club's "Moth" turned up by air, followed shortly by Simpson's Kite (by road) and several Cambridge members, who very sportingly gave up the chance of a day's aero-towing at their own site. Simpson had hoped to soar from Oxford to Cambridge, but torrents of rain and absence of lift prevented him from even trying. Anyhow, the two Kites were repeatedly towed up and aerobatted down, and Amy Johnson had her first aero-tow and did her first sailplane loops.

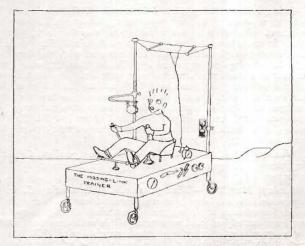
The winch, which was worked by Riley, of the Midland Club, is a most intriguing affair, produced by Grice and Young, of

Dunstable, and has given great satisfaction.

The club secretary is now Mrs. Hope Aspell, 5, Holywell, Oxford. (Tel.: Oxford 3448.)

Tees-side Gliding Club

The club has been doing primary training during the past three weeks at Coatham Stob, Hartburn, Stockton-on-Tees. We have obtained an excellent winch and enrolled ten new flying members during this time.



[Drawings by J. S. Sproule

Derbyshire and Lancashire Gliding Club

May.-Some interesting thermal soaring has helped to put up the total flying time of the month to 68 hours. A. Verity in the KITE worked up to over 3,000 ft. off a winch launch, whilst Jerry Smith reached 4,700 ft. in the club G.B., neither of them leaving

Congratulations to Alan Davies, who has achieved the three legs of his "Silver C" during May, all well deserved efforts.

Our first two lady members to get their "A's" are Miss Rowlands and Miss Fawcett, and we hand it to them for braving the rigours of a Derbyshire winter.

Week ending Saturday, May 7th.—N.E. winds provided good training weather except on Friday evening, when the wind swung to N.W. and gave good soaring. Then at about 8 o'clock the point of a trough of low pressure passed over, and in a flash the wind veered through N. to E. at the lower altitudes. which had just been winch-launched, descended as quickly as it had ascended, and the NACELLE sank like a stone from 800 ft.; but the KADET at 1,700 ft. took no notice of it. Thereafter the wind alternated every five minutes between W. and E.

Sunday, May 8th.—Wind 10 m.p.h., S.W., veering to 15 m.p.h. W. in the afternoon. Sky full of flattish cumulus, cloud base being over 6,500 ft. above sea level in the afternoon. Hill lift was very small all day; a little thermal flying was done in the morning, but the fun started in the afternoon, when it was really good. Shepard in the club G.B. set the ball rolling by climbing to 3,600 ft.; thinking he had his "Silver C" height in his pocket, he toured the countryside and landed only to find that the barograph had not been inking. Davies in his Krra went away at 3 p.m., and reached 5,000 ft., landing at Goole, 45 miles away—comfortable "Silver C" height and distance. Thomas in his FALCON made a very creditable attempt to follow Davies but was sunk over Bamford, and very cunningly crept along the valleys back to our official landing field at the bottom. Later at 5 p.m. Smith went up in the club G.B., without a coat, intending to take a short flip before tea, but he was soon at 4,700 ft., and still going up; the intense cold forced him to put an end to this with divers loopings. It is very encouraging to see the great increase in thermal flying which is taking place. Later in the calm of the evening a pair of good "B's" were obtained by the rivals Slater and Swale, Juniors.

Saturday, May 14th.—Wind 15 m.p.h. S. Brown in his Krre got in half an hour of hill-scraping before the rain started; it cleared up after tea and Cass got his "B,"

Sunday, May 15th.-Wind 15-20 m.p.h., S. by W. Soaring on the south slope, which did not prove very enjoyable; it is so unreliable a slope, and one can be lowered rapidly and without warning from 400 ft. to the very tree-tops; even lower in some cases, as Kendal found out to his cost in the FALCON!

Week ending Saturday, May 21st.—Easterly winds provided good training weather culminating on Saturday in "A's" for Rita Rowlands and Semerset; Miss Rowlands is thus the first

lady member of the club to obtain an "A."

A. Verity in a Kitte caught a thermal off a 600 ft. winch launch and circled steadily upwards. At 3,200 ft. he was still rising, but having no coat or barograph he left it to return to the club. Bad luck.

Sunday, May 22nd.—Wind 5-10 m.p.h., S.E., veering to W. and then N.E. The day was largely spent in shifting the winches, with all the gear appertaining thereto, from place to place in an attempt to follow the puckish wind. The variation of the wind might well have been connected with the formation of a large sultry-looking cloud over Bradwell valley, which grew thicker and blacker as the afternoon wore on. However, no one wanted to burn their boats by flying out into the valley, and the air over the club ground was dead smooth, so there was no excitement. In the evening Miss Fawcett obtained her "A," and was very nearly followed by her brother, A. W. Fawcett, who did 45 seconds, but unfortunately he spun it out too far, and got tied up in Thompson's Tree.

Week-nights, May 24th to 27th.—There was good evening soaring this week, with Kites at 2,600 ft. on Tuesday; 151 hours

Sunday, May 29th.-Wind 20 m.p.h., W., backing S. in the afternoon. With large cumulus forming outside our window every five minutes at 8 a.m., and a west wind stirring the curtains, we leapt out of bed, and sure enough this rash step was justified by a grand day. In spite of the strongish wind, hill lift was almost negligible, so that there were some sticky periods in between clouds, but they didn't last very long.

Brown in his Kite went to Sheffield, 8½ miles, and Davies in his Kite completed his "Silver C" by doing his five hours. He oscillated fairly rapidly between 1,500 and 150 ft., and was once down to 50 ft. over the wood-agonising moment!

Summary of Flying During May.-Bungy launches, 331; winch launches, 347. Flying time, 68 hrs. 11 mins. Certificates: 3 "A," 5 "B," 1 "Silver C."

There have been two cross-country flights this month: Philip Brown to Sheffield, 8½ miles; Alan Davies to Goole, 45 miles.

Ulster Gliding Club

Saturday, May 7th.-Wind N., 15 m.p.h. A really good day with the wind in the right quarter and thermals galore. Even the FALCON III felt the wind in her tail and did mild aerobatics to the surprise and (tell it not in Gath) consternation of the passenger. Strangely enough, very few members turned up, so Mrs. Mackie and Siderfin had the Kite to themselves for the afternoon, to their great content. Another resentful raven has appeared, this time over Binevenagh.

Sunday, May 8th.—Wind N.W., 10 m.p.h. An unsympathetic tide prevented operations until late in the afternoon, so we contented ourselves with training hops in the KADET. superintended affairs, but his parade-ground manner was somewhat spoiled by a pronounced limp and two stout walking sticks. (He had been playing cricket the day before.)

Monday, May 9th .- Wind W., 10 m.p.h. The local contingent turned out in the evening to fly the KADER but, alas, after two tows, Boanerges jibbed and could not be persuaded to go again until too late to be of use. Who was the nit-wit who first discovered the sugar-in-the-petrol-tank trick?

Sunday, May 22nd,-Wind N.N.E., 5 m.p.h. We were favoured with the presence of Miss Amy Johnson, Mrs. Slingsby and, last but not least, "Sling" himself, and though we did our best to show off our site, the lift wouldn't oblige. Various folk tried to soar the Kite but without much success, so we had to content ourselves with circuits in the two-seater.

Tuesday, May 24th .- Wind N.W., 15 m.p.h. The evening was too good to be missed, so Henry and Siderlin, who live near the site, turned out and put in a couple of hours' good work in the

Saturday, May 28th.-Wind N., 10-15 m.p.h. The new KADET arrived from the works looking very spic and span, and was duly put through her paces by N. Metcalfe. Bell took her up later on and soared for most of the afternoon. Mackie, meantime, was busy with the FALCON III training our new members. The tide came in when he was aloft with Bigger, so there they stayed until it went out again-a matter of three hours or so. That's the way to train them!

Sunday, May 29th.-Wind N.W. Very slight and variable, accompanied by heavy rain squalls. Activities were limited to training circuits in the two-seater, though some of the downpours were enough to damp anyone's enthusiasm. In spite of this we added a new member to our ranks, so there must be something in this gliding after all.

Summary for May.—Flying Time, 18 hours 50 minutes. Launches: 80.

A Club at Bristol

By the time these words appear in print the formalities of founding the Bristol Sailplane Club will, it is hoped, have been completed, and an order placed for club equipment.

It is surprising that gliding has not started in Bristol before, as the district is well suited to it. There are several possible soaring slopes in the neighbouring hills; thermal conditions, according to J. S. Fox and other experts who have observed them, are excellent; the possibility of winch- and aero-towing from are excellent; the possibility of winch- and aero-towing from flat ground exists close to the city; and, finally, here is a large centre of population with no equipped gliding site within nearly a hundred miles. It appears that there was already a nascent interest in the sport in several quarters, which, however, had to await the arrival of enthusiasts from outside before uniting into an active whole. The present skeleton membership includes no less than seven members of other gliding clubs, of whom two are former club secretaries, and one a "Silver C" pilot.

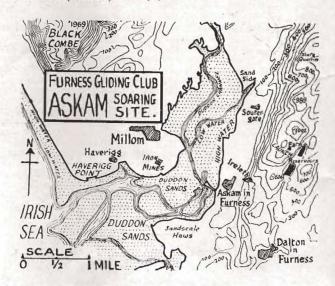
It is hoped to publish more details next month. In the mean-

time inquiries will be welcomed, and should be addressed to M. H. Maufe, 585, Gloucester Road, Bristol 7.

Furness Gliding Club

Progress during the past few months has been so marked that it has become impossible to describe each individual flight in these notes. It must suffice to state that the old brigade, W. A. Stevens, Frank Charles, Wilf Smith, and Len Redshaw, have lost no opportunity of soaring during the past two months, often in winds which used to be considered impossible in both direction and strength. On several occasions soaring took place over the easterly slopes. Landings in the flat field behind the hangar are commonplace, but perhaps the most gratifying results have been the landings of Falcon III on the western slopes, Frank Charles has mastered the art of bringing her down in typical joy-riding manner; often the bungy need not be moved more than a few yards for the next launching, thus cutting down the donkey-work to a minimum.

Dual instruction is making its mark on the old hands as well as new, as shown by results. During the last two months six "A" and two "B" certificates were earned, 41 hours of soaring took place, and Charles made 32 instructional trips in the FALCON III, and yer he found time to fly a similar machine elsewhere. And all this in spite of long spells of east winds, which have never previously been popular with us.



Outstanding events have been some good out-and-home flights by Charles and Stevens, and some good altitudes by Smith and

Charles in Kirby Kite I made a tour of the Duddon Valley in a west wind when in theory he ought to have been in a down current from the Black Combe range of hills. He visited "Walna Scar" and returned home safely.

April 24th .- On this day Bill Stevens, in that very excellent GRUNAU, took a trip to Tover, near to "Coniston Old Man," and got back after many anxious moments. Never in his long experience of soaring has the need for good instruments been so manifest as on this particular flight. Cross levels and a full

instrument board are now being installed.

Those "Silver C" badges still evade us; nevertheless we are getting some good experience for the great day which cannot be far distant. We are, however, convinced that to create really hefty thermals ground-friction is necessary, or, in other words, inland sites are easier to break away from. With the object of proving this Frank Charles took the KIRBY KITE to an east wind site near Lindale-in-Cartmel, 14 miles from here. It was on May 1st, and he declared our site as his goal. He arrived at his destination with 5,000 feet to spare. He toyed with the idea of a trip to the Isle of Man, but very wisely put down near the hangar with not a soul to greet him.

Sunday, May 8th, was another grand day. Len Redshaw in Charles's Kitt reached 2,800 feet for the first time in his career, Charles's KITE reached 2,800 feet for the first time in his career, Stevens in Grundu kept him company. And at 5.30 p.m. Charles, in Falcon III, with Bramwell as pupil, was little, if any, below them. Earlier in the day all three pilots had circled in value and the most themsels which only could not succeed in keeping to the weak thermals, which only the gulls could make use of.

The secrets of this site are still unsolved and some exciting country surrounds us.

Yorkshire Gliding Club

May.-Our first visitor this month was Frank Charles, who had a ride to the bottom in a KITE.

Later in the same week, Shaw, in the GRUNAU, climbing in a thermal which he found "off the winch," found himself at 2,000 feet too far down-wind to return. He flew, therefore, to Hutton Sessay-about six miles-and carefully chose a landing in every

way satisfactory to the retrieving party.

At the week-end the wind backed to the west, but was very light. Thermal flights from winch launches were attempted by various members in turn, flying the GRUNAU; Shaw reached 2,800 on one occasion.

May 7th.-Barker flew the Scup III for the first time this year in a stormy north-east wind, and had need of her excellent aileron control! Calmer in the evening and plenty of training.

Sunday, May 8th.—A very light south wind, good for training, and Jones and Moon qualified for "B" certificates. In the afternoon it became soarable on hill-lift and plenty of useful thermals, and a number of intending passengers waiting patiently "on the off-chance" were flown in the two-seaters by Heath, Norman Sharpe, Wordsworth, and Hastwell. A notable passenger was Mrs. Foggitt, of Thirsk, who, we understand, was the first Englishwoman to fly in an aeroplane; she had flown in almost every type of aircraft, and having broadcast at the same time as Nicholson in April, she was very anxious to fly in a sailplane. We have her permission to say that she is 64 years of age. Later, Forbes, Moon, and Jones, with 23, 14, and 12 minutes respectively, qualified for "C" certificates.

[Mrs. Foggitt may be known to many readers by the books she has written under the name of Gertrude Bacon. Her late father, the Rev. J. M. Bacon, a remarkable man, made many scientific ballooning trips during the nineteenth century, and often wrote of his experiences, but he did not believe in heavierthan-air flight !- Ep.

On May 11th and 13th, Barker, A. O. Pick, Shaw, McMurdo, and Fisher made the best of a good south wind and put in 12 hours' flying between them. Shaw did five hours towards by the state of the state o his "Silver C.

Sunday, May 15th.—Barker was first away in SCUD III, and using the very little hill-lift there was—south-east wind—he found a thermal and departed for the north; he landed at Middlesbrough, reaching 3,400 feet on the way, distance 25 miles.

Pick reached 2,200 feet in thermals in a two-hour flight. Later, the wind veered a little and Belart, trying for his "C," reached 500 feet above the edge, having commenced his flight well below it.

May 18th.-Shaw had ten winch-launches in search of thermals, but found nothing. He arranged for aero-towing at Welburn the next day and was joined by Drummond, but conditions were still unfavourable, the longest flight being 35 minutes only. The wind had been in the north during these two days, and on the 20th was still in that direction, but very light; still no thermal!

May 21st and 22nd.—Very light south-east wind. Mostly training. The two-seater held height occasionally over the South Slope.

May 24th.—A good west wind and thermals once more! McMurdo did five hours towards his "Silver C"; Drummond, in the Kirby Tutor, reached 4,600 feet, the height leg for his "Silver C," and landed at Castle Howard, fifteen miles away.

Pick flew his GRUNAU for 21 hours, and other flights amounted to 2 hours 50 minutes. Leach, after two hours in the Kadet I, found himself below the edge and, hanging on for more lift a little too long, discovered a sylvan glade 'twixt himself and the only possible landing field. He flitted amid the tree-tops, apparently seeking a path through the wood, until he found a leafy moneter harring further recorres. leafy monster barring further progress. He promptly sat the KADET upon it, where, after a few sickening lurches, it stuck, and Leach thereupon made good his escape. A learned one remarked, "It might 'a bin wuss!"

May 25th.—West wind, 5 m.p.h. to nil. Very little hill-lift, but cloud-lift strong at times. Drummond did over an hour in the Grund, and other flights up to half-an-hour were made.

Maw and Sutton, from our Durham Branch, secured their
"A's" in the NACELLED DAGLING.

It is particularly satisfying, on reviewing the activities of the month, to see the amount of flying that has been done in weak hill-lift, and sometimes in the entire absence of hill-lift. This is causing great keenness amongst the younger folk to go hunting thermals.

The Blonde: "He'd be in an awful mess if the cable came off, wouldn't he?"

The Man with the Axe (or the shears): "He'd be in a h----l of a mess if it didn't!"

Midland Gliding Club

April.-Some flying was put in on the 1st, 2nd, and 3rd, but after the 5th the west winds, which had held for so long, disappeared and a persistent anticyclone arrived, and it was not until the 22nd that a west wind returned for even just a few hours.

The Easter camp was held from 15th to 24th inclusive, and for the whole period, except for an hour or two one morning, the wind was off the hill. However, a vigorous course of winching was put into action and, aided by the presence of the Mynd thermal over the Easter week-end, a good number of thermal flights were made by the better machines

Rattray flew to Orleton, 18 miles; Saffery, on his first crosscountry in the H-17, got to Kington, 20 miles; whilst Rushton under an overcast sky flew a circular course of some 30 miles via Ludlow and Cleobury Mortimer and the Brown Clee to within nine miles of home-only the presence of a family prevented him from going away on a straight-line course, since there was lift everywhere. Amy Johnson had the misfortune to reach 4,000 feet without a barograph, whilst Furlong and Reilly and others also had short thermal rides.

We had with us half a dozen R.A.F. Cadets from Cranwell,

who were the life and soul of the place. All got their "B's," and three of them, Bouwens, Goyal, and Sansom, who were able to stay after the others, got their "C's" in the very short period of west wind that blew. Doc. Slater turned up for the last few days and right glad we were to see him, complete with his tin whistle.

Amongst others who joined us during the camp for a time were Brig.-Gen. Lewin, who came up and flew the Dagling very well, and Hoare, who joined and flew FALCON for his "B."

Special mention should be made of Gerry and Cecil who spent such a lot of time working the winch when they might have been flying.

May 1st, Sunday.-Edwards and Olver did a few very short length winches to amuse the visitors that had come to see us; otherwise a dud day, overcast with an easterly wind.

May 8th, Sunday.—A light westerly wind which increased later, but too late to enable much flying to be got in. The new NACELLE was winched for the first time.

May 9th .- Keeble took out the KITE and had a busman's holiday, putting in 2½ hours under mild thermal conditions, and reaching 2,100 feet. This, of course, was in the Monday west wind which always blows at gliding clubs except Easter, Whitsun, and August. Cruising height in the Kite on hill-lift was 1,500 feet.

May 15th, Sunday.—A southerly wind, so a lot of work was put in with the winch. Miss Owen got her "A" and was very pleased therewith. Gerry took up the KITE for a demonstration and disappeared into the low cloud whilst still on the end of the cable; next minute he reappeared in a vertical dive and then, just as suddenly, shot up again and disappeared. The next appearance was in the middle of a stalled turn from which he went into various other contortions, and so on until he ended this terrific show with a very tight spiral to earth and a normal landing in front of the hangar. Spectators who were underneath suffered severely from cricked necks trying to follow the flight.

May 17th, Tuesday .- Price and Rowe came over in the evening and Price went off in the KITE to enjoy himself, whilst Rowe had his first soar in the KADET; lift, however, was rather poor and the awkward landing necessary was not so good for KADET.

May 21st, Saturday.—A practically windless day with wonderful thermal conditions, but not a soul to fly. Why? However, towards tea time Gerry and Testar turned up and some winches on Kite were made. Gerry caught thermals both times he flew, and on one flight got up to 2,200 feet before the good condi-tions disappeared. He was seen diving and circling over one spot for a time, and when asked for an explanation said that he was trying to burst a thermal; no lift appeared, despite all his attempts.

Sunday, May 22nd .- We were visited by the Singer Car Club, 100 strong, and were interested to note that their secretary possessed the car registration number A.1.

After a cloudy morning, good thermal conditions appeared with a light northerly wind. Rushton was winched off and got a thermal straight away and was up to cloud base at 2,400 feet in a very short time, from whence he toured all over the Mynd and district in the Good Old Mynd Thermal. When he decided to land after 50 minutes he lost his height over the valley and came in at 200 feet over the hill. To his own and everybody else's surprise he couldn't get down; for a full five minutes, at 200 feet he twisted and turned and slipped without avail until a particularly violent slip finally got him down to terra firma.

Gerry also connected and repeated Rushton's performance, reaching 2,600 feet. He lost his height by going over the valley as far as Bishops Castle and back, finding nothing but downdraughts there. Reilly and Price also flew KITE, but were unable to contact the lift, although it was noticeable. Hicks got his "A" on Nacelle.

Saturday, May 28th .- As folks started to turn up after lunch the wind strengthened, and grand conditions appeared with a nice west breeze. Machines toured all over the sky as they

Mr. Hardwick got his "Silver C" height in his Falcon by flying up-wind 20 yards from the side of a wall of cloud 1,500 feet thick, getting within 500 feet of its top. It is interesting to note that he did not gain height as he flew down-wind in the The Two-seater and Kitte went for a circular same place. tour right out to Bishops Castle at vast heights; we were epecially pleased that Dugdale, who was visiting us, was the passenger.

Large numbers of folks flew and flew. Machines out included TAPER-WING and PROFESSOR and all the usual crowd. The KITE suffered on the hillside during a momentary lull.

Olver and Wynne got out our new NACELLE and soared it. This is the first time that a NACELLE has been soared here. Local residents thought that they were seeing things when this large gnat floated overhead.

Sunday, May 29th.—A wonderful wind first thing, but sleep claimed members. By the time they started to fly the wind was backing fast, but Olver managed 14 hours in Tiddler; Mr. Hardwick had 34 minutes in Two-seater, and Slingsby flew Falcon II. After Price had taken Falcon II to the bottom in faultless style and Rushton scraped to the north end and back in an emotioning flight in the Two-seater, we gave it up except for two experimental launches to test conditions.

Towards the evening the wind went S.F. and strengthened to

Towards the evening the wind went S.E. and strengthened to gale force whilst cloud came down on the hill and torrential rain, such as is seldom seen, poured down on the hill. On Monday there was, of course, a snorting west wind. So ended May.

A notable visitor during the month was Kronfeld, who came over with Mrs. Aspell on a flying (metaphoric) visit.

We should like to record just how much we shall miss Rattray. He has visited us on a number of occasions and became a Country Member; his personality and manner made us all value his friendship, 'The Gliding Movement has lost a very valuable member.

Portsmouth and South Hants Gliding Club

1937-1938.-Following tons of primary work, a B.A.C. 7 twoseater was brought into active commission at Whitsun, 1937. Flown by Clear, who has become a past-master in the handling of it, innumerable circuits have been carried out - times, with passenger, averaging about 14 mins. per circuit, from auto-towed launches to about 350 ft. On occasions as many as 36 circuits have been flown in a day. Portsmouth Aerodrome at times showed distinct threats of thermals.

The Kassel 20, ex London Club and via Enser, was acquired about July. Handling the KASSEL is "a piece of cake" compared with the two-seater, which we have come to the conclusion requires "flying"—in spite of the improvement effected by increasing the size of the ailerons. Although, generally, the KASSEL can only be circuited, Clear has twice been able to soar it from Portsdown Hill-two priceless periods of 15 to 20 mins.

Our gratitude to the London Club for the addition of a "Paige" to our history-but we have not yet really got the hang of winching.

After losing the use of Portsmouth Acrodrome we eventually obtained permission to use the R.A.F. 'drome at Gosport. We made our first appearance there during the Easter holiday-the two-seater and Kassel being freely circuited by Clear, Parnell and Hopkinson. The high spots were two circuits of 21 mins. duration flown by Clear and Parnell respectively—Clear from an indecently low start of barely 400 ft. We were favoured by visits from certain important inhabitants who had not previously seen any gliding. From friendly curiosity they were moved to the point of appreciative interest (and comment) at what, to them, appeared to be the almost incredible. We blushed—a little but we liked it.

All has been overshadowed by the tragic accident on May 1st, which has already been remarked elsewhere. Among so small a community the burden is very heavy, but the feeling is solid that we cannot betray the trust. We must recover.

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The 'RAINHAM'

Strong framing with I in.
weather-boards to string course. Upper portion of asbestos sheets with broad wood overlays.
Roof frames of principals and purlins with covering of Italian Pattern Galvanised Iron.
Half glass doors strongly framed and braced.
Despatched in sections, all nuts and bolts supplied.

16' x 9' x 7' 20' x 10' x 7' £13 11 6 Available on Easy Terms. Carriage paid in England and Wales.



ARMY TYPE HUT

Built in complete sections on strong framing covered T.G. and moulded weather-boards. Suitable as store shed, canteen, etc.

16' x 12' x 7' 24' x 12' x 7' 32' x 12' x 7' £14 3 0 £18 18 0 £23 16 0

Carriage paid within 50 miles.

G. ELLIS & CO. Coombe Wharf, Gainstorough Road, Eastway, London, E.9