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June 1963



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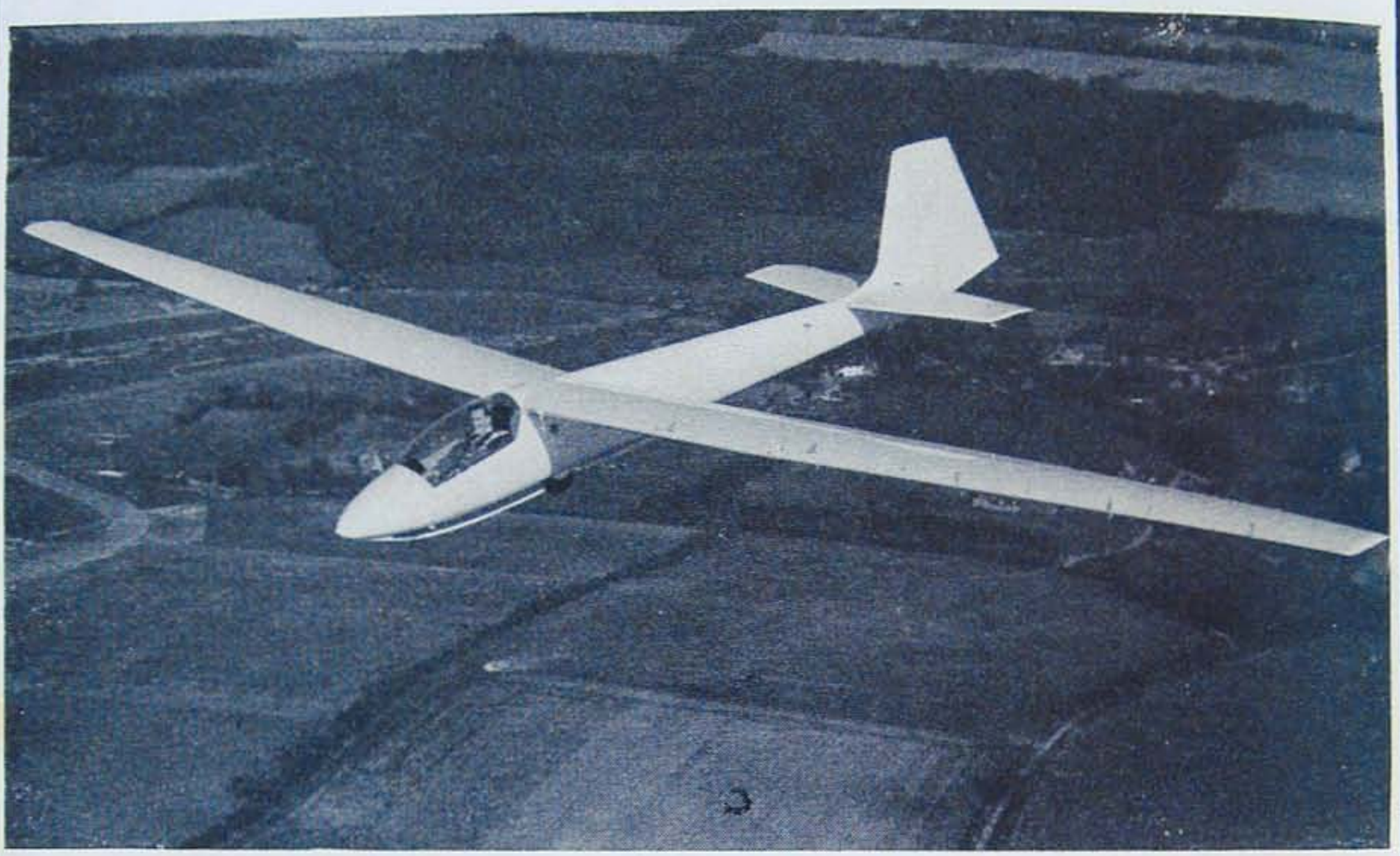
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Cover Photograph: H.R.H. The Duke of Edinburgh on a visit to Lasham

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1963 Nationals: Lasham

ONCE again we are honoured by our Patron, H.R.H. Prince Philip, Duke of Edinburgh, who is opening our Championships on May 25th.

We had hoped that at the same time he would be able to inspect our new Commonwealth Gliding Centre clubhouse. Alas, we have been defeated, firstly by the really exceptional beastliness of last winter's weather. The suspension of all building activity delayed completion of our plans; with the thaw they collapsed, and we had to start again, nearly from scratch.

We are unbowed. It took us ten years or more to achieve security of tenure at Lasham; since then we have rebuilt our hangar, improved our water supplies, laid down hard-standing for our caravans, all within not much more than a year. If it takes us another year to build a clubhouse, it can't be helped. We are now (nearly) masters of our fate.

The "nearly" is because, though we are secure on the ground, we are under constant threat of restriction of our rights to use the air above it. But mankind has to fight to achieve freedom, and once achieved the battle to retain it is equally fierce and never-ending. Gliding folk may be relied on to fight with tenacity to retain their rightful share of the vast spaces of the sky.

The British National Championships are still the biggest in the world—the field varies between 80 and 90 sailplanes (although many more would enter if we could handle a greater number), and the standard of flying is very high indeed. Granted good weather, we may hope to exceed last year's total of nearly 59,000 miles and 2,400 hours' flying in the nine days available.

Whilst, on the ground, our distinguished guest will not therefore see much change since he last visited us in 1961, he will see, ready to take the air, a remarkable galaxy of new sailplanes, British and foreign. The three new British types are each in their field amongst the world's leaders. Quite a number of Skylark 4's (amongst the most lovely aircraft of all time) and Olympia 460's (a light and handy 15-metre machine with an excellent performance) will be competing this year, as will the T-49 (Capstan) two-seater. We hope that His Royal Highness will fly one of these aircraft and try for himself the splendid handling qualities, excellent visibility, and comfortable cockpit of this high-performance side-by-side two-seater sailplane, which we expect to mark a great step forward in the whole arduous adventure of learning to be a top-class gliding pilot.

Finally, for the benefit of those of our visitors who are new to the game, may we repeat one or two basic facts?

First, almost everyone you will see here is an amateur enthusiast—we pride ourselves on maintaining very high standards of skill and of safety, but very few of us indeed are being paid; the vast majority of the work we do ourselves, in our spare time.

Secondly, we have, over the past 30 years and more, established a record of safety and self-discipline which has enabled the authorities to leave us almost entirely free to control our own activities. For gliding is a sport, and no more than in other sports—mountaineering, sailing, underwater swimming—is it necessary to impose official control, except to the degree necessary to protect third parties. In this field we are much freer than many other countries, yet our safety record is possibly the highest in the world. We intend to retain both our freedom and our self-discipline, for we know the one is dependent on the other.

P. A. WILLS.

A Satellite View of English Cumulus

by A. E. SLATER

THE accompanying photograph was taken on April 13th, 1962, from Tiros IV Weather Satellite on its 920th orbit, and televised to Earth. The most remarkable feature is the outlining of the shape of England and Wales by virtue of their being almost covered with cloud, while the adjoining seas are mostly devoid of cloud. Ireland and Northern France, with little cloud, are outlined less brightly against the dark sea, while cloudless Anglesey, having a width of only two scanning lines, is difficult to locate.

Even without reference to a weather chart, a northerly wind can be guessed from the fact that the south English coast is obscured by clouds drifting a few miles out to sea before disintegrating. What with this behaviour, and the clouds being widespread over the land, we can guess that they are cumulus clouds and that the photo was taken in late morning or in early or mid afternoon (no information as to the time of day was sent with the photograph).

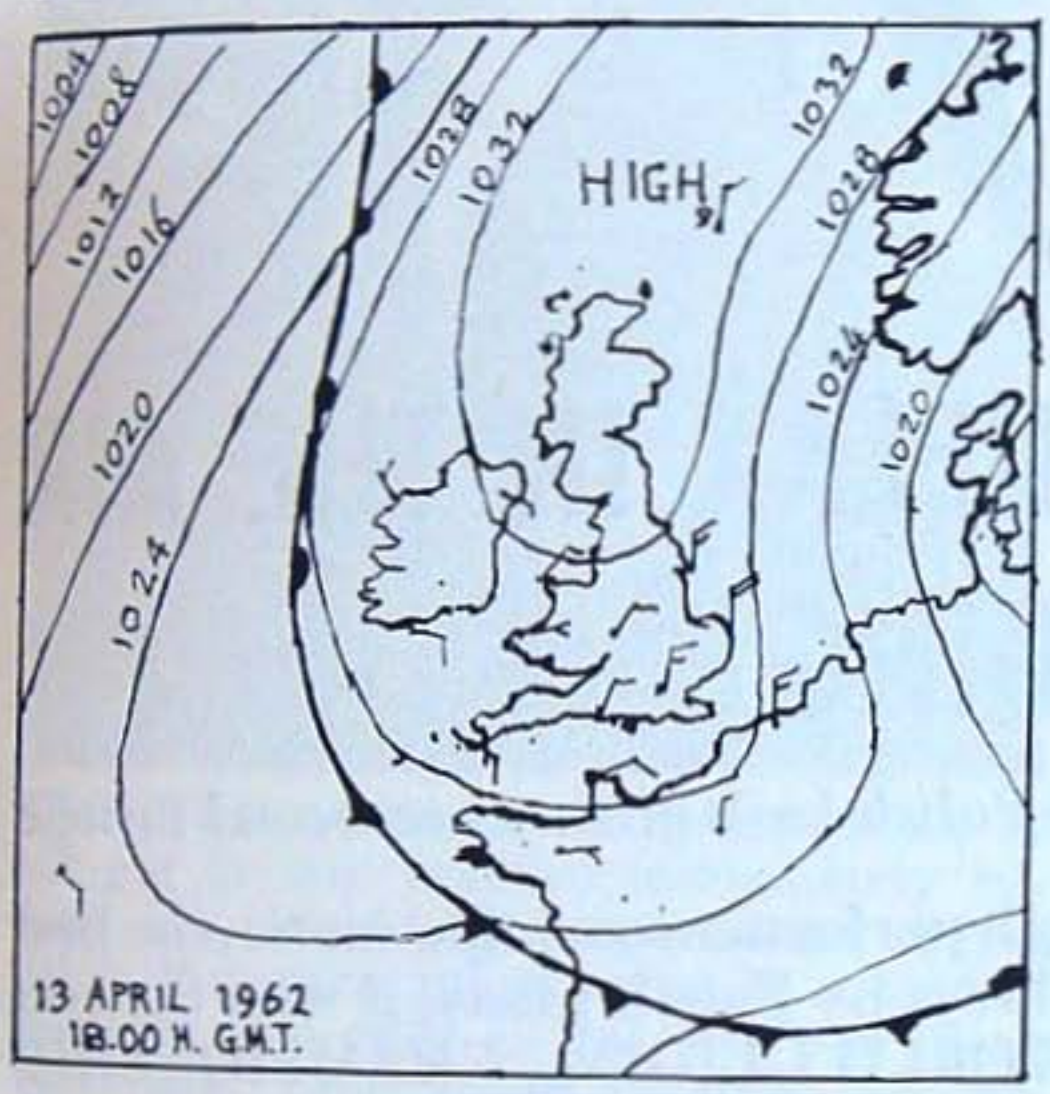
Wind reports at noon on this day vary



Photograph by courtesy of United States Information Service

at different met. stations, but in S.E. England they average about 10 knots from N.E., being stronger and more northerly in the east and north, and easterly over Cornwall. There is some diminution of cloud in the lee of the Pennines. Cloud streets over N.E. France, seen crossing a gap between two cloud masses, are in line with the N.E. wind.

Cloud reports over England and Wales at noon are nearly all of small or large cumulus (Code Nos. CL 1 and 2) and even the Irish stations all report small cumulus except at the south-west corner. Strato-cumulus, however, was reported from Elmdon (Birmingham), Dishford (Yorks.), Hurn (Hants.) and Cornish stations. Rhoose (Cardiff), bordering the Bristol Channel, reported no cloud at all.



As to the conspicuous bright patch to the east of The Wash, with a fuzzy northern edge, only large cumulus was reported from West Raynham and Gorleston, in north and east Norfolk respectively, covering 6 to 5 eighths of the sky.

A long front, shown on the weather chart, curving round from west of Ireland to central France, is very well shown in the photo by extensive cloud sheets except for a gap S. of Ireland where it is stationary, and there are other odd gaps and irregularities, including an offshoot to Cornwall. On its outskirts, too faint to show, cirrus filaments "not progressively invading the sky" (Code No. CH 1) were reported from nearly all stations in western Britain, though not from central or eastern Ireland.

Perhaps the biggest puzzle is the nature of the big blobs of cloud over the North Sea, from which no weather reports came. Being in a northerly airstream which has passed over progressively warmer sea surfaces, they may well be cumulo-nimbus; but they are of great size, being 20 or 30 miles across. The only cu-nim report from a land station in Britain at noon was from Spurn Head in Yorkshire, which reported CL 3, meaning cu-nim in an early stage of development. Then at 6 p.m. both West Raynham (Norfolk) and Wattisham (Suffolk-Essex border) reported having had cu-nim in the past six hours. As to the North Sea, a weather ship in the same airstream, off the west coast of Norway, reported fully-developed cu-nim (CL 9) at noon.

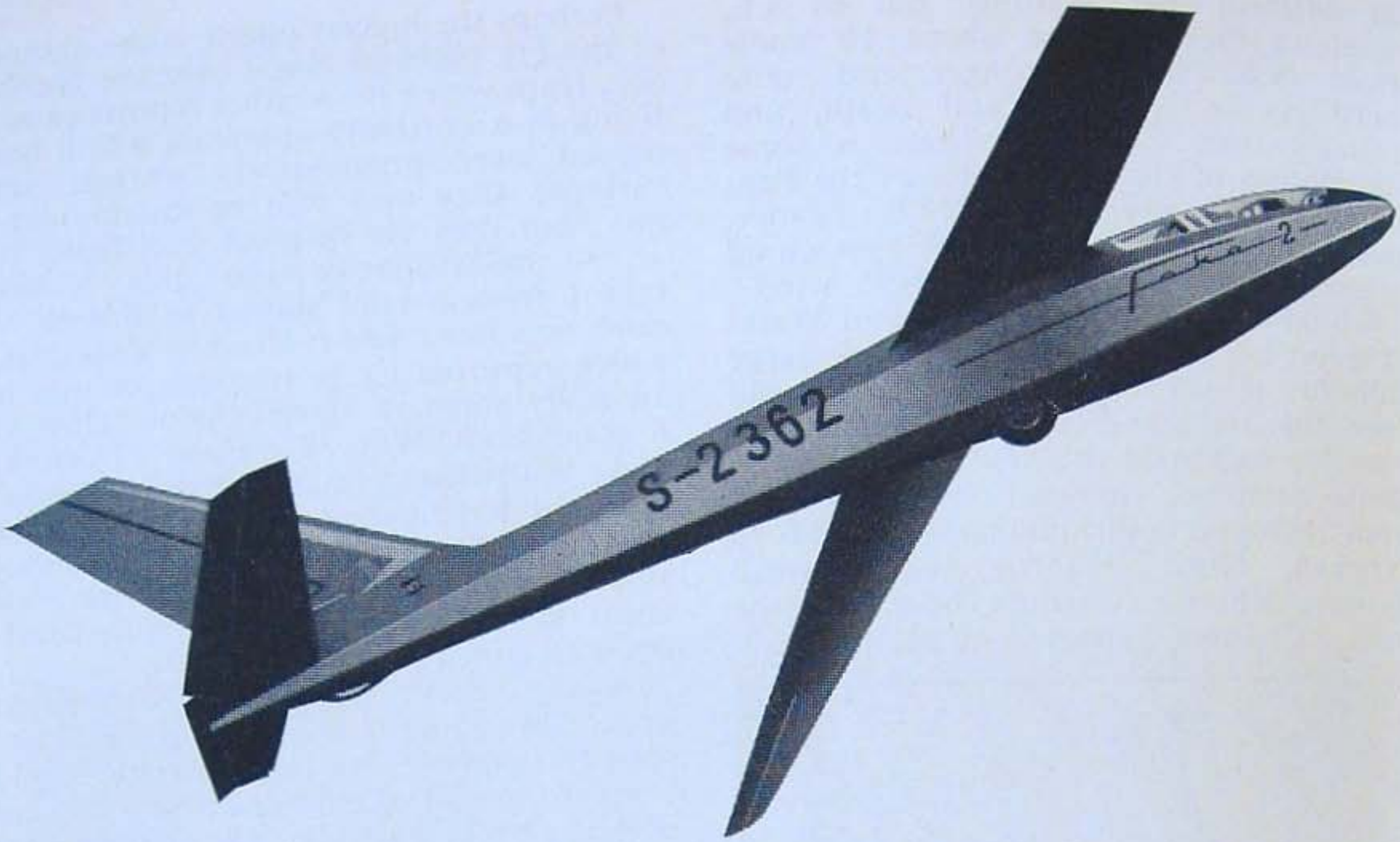
Ascents from Upper Air stations at noon showed an anticyclonic inversion at about 6,000 ft. — which, of course, would limit the height of cumulus tops — except at Hemsby in Norfolk, whose tephigram showed that, at the time of maximum afternoon temperature, cumulus could grow to 9,000 ft., or to 10,000 ft. if the dew-point rose correspondingly. So, with freezing level at only 2,500 ft., cu-nims could be expected. But for them to measure 30 miles across, as the North Sea cloud masses did, one would expect their tops to be a lot higher than 10,000 ft. This could well be, for the North Sea air was outside the anticyclonic circulation and came directly from the Arctic.

B.G.A. News

Cambridge is now P.P.O.

Landing of non-radio aircraft at Marshall's Aerodrome, Cambridge, is now by prior permission only. Visiting gliders are still welcome at Cambridge at the end of cross-country flights, but pilots should seek prior permission by ringing Cambridge 56291, Ext. 8, between 0900 and 1800 hrs. There will normally be no difficulty in obtaining this permission.

Although Cambridge Tower maintains a listening watch on 130.4 Mc/s while gliding is taking place, pilots with radio-equipped gliders should not rely on being able to get permission to land by radio only.



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Polish Pilots Reminisce

Translated from "Skrzydlata Polska" by J. K. PRZEWLOCKI

By Edward Makula



SEVERE winter made it impossible to put in any practice immediately before the World Championships. Most other European pilots were in a similar position and only a few, like the West Germans, could afford to leave for Argentina earlier. Difficulties with getting our equipment through resulted in our practice period at Junin being shortened to three days.

The Championships in general, as well as every task, were full of exciting moments, though I remember three events most vividly. The first one was most dramatic.

After reaching Mercedes, the goal of the first task, I could see that all the landing strip, some 30 metres wide, was blocked by gliders and tugs which had got there earlier. When, in addition, on approaching to land, my air brake 'chute failed to open, there suddenly loomed before my eyes a forest of wings and fuselages which I was passing at great speed. There was not an inch of space anywhere. To spare other gliders I had to sacrifice mine. I do not know what was worse, the sound of the undercarriage breaking up or the feeling of helplessness in the face of cruel fate. Then everything ended well. Our mechanics proved that they have hands of gold, and the organisers declared a day of rest so that other gliders also damaged at Mercedes could be repaired.

In no championship has it ever happened to me to land of my own free will when in strong lift and with lots of height. But I had to do just this during the first 300-km. Triangle (fourth task). A great tropical storm formed on course. I came near it and at 1,400 metres altitude I found lift of 15 m/sec. Entering the cu-nimb without oxygen and with a suspect air brake 'chute would have meant a serious risk of forfeiting the rest of the Championship. A serious assessment of the situation made quick landing imperative, particularly as the storm was passing in the direction of Junin. I landed, but the moment of decision was one of the most heartbreaking ones during the whole of the championships.

As we know, the final result was sealed during the Free Distance task. Immediately after take-off I realised that conditions were weak, and leaving the airfield fraught. The Frenchman, Henry, who was then leading me by a few points, did not survive this trial of nerves, and in the company of several other good pilots went away. I spent nearly an hour over the airfield, all the time knowing that my opponents were gaining valuable distance. I also knew, however, that bad luck and an early landing would put me out of the running for the title. Precisely such a fate befell Henry.

Later during this flight I came across some mixed conditions and over many kilometres had to use weak lift of blue thermals. I found unnerving the part of my flight which took me over the marshy land adjoining the river Parana. As far as one could see in the compass of many tens of kilometres, there was no sign of human life; only water glistened through

large patches of reed. I landed very late, literally a few minutes before darkness fell. With the help of my torch I looked for people.

By Jerzy Popiel

I must admit I had bad nerves before these Championships. On the one hand there was the feeling of responsibility, on the other the big unknown about the opposition, unfamiliar terrain and thermal conditions. In addition I had not flown the Zefir much last year.

My morale improved decidedly during the practice period. Conditions were good and I began feeling very much at home in the Zefir. By now I was sure I would put up a good fight.

The first tasks did not bring me anything exciting. My teamwork with Makula was going well. After our forced landing ahead of the storm which Makula describes earlier, I was placed sixth, and this I did not like at all and decided to intensify my fight. The occasion presented itself almost immediately. The fifth task was again a 300-km. Triangle. Back in Poland I had had several attempts at the 300-km. Triangle record but always without success.

We took off around 11 a.m. Conditions were good. Lift was of the order of 2-3 m/sec. and the cloud base was approximately 1,400 m. We waited a long time "seeing off" our most formidable opponents. Finally, at around 1 p.m., we left.

Half-way through the first leg conditions began to change. One could almost see the base lifting. Makula left me and continued to the right of the course and I flew alone. The average speed of my first leg was 65 k.p.h. This was not too good, and immediately after reporting at the first turning point I decided it was time to speed up as conditions had obviously improved. Pushing the speed up higher and higher I attained average speeds of 112 k.p.h. and 140 k.p.h. over the second and third legs respectively. The average for the whole flight was 95.106 k.p.h. and this unfortunately was not sufficiently better than the existing world record, i.e. the difference was smaller than the minimum laid down by the F.A.I. to constitute a record. After this task I was lying third.

In my opinion the Zefir was the best of production sailplanes in the Open Class. The Zefirs flew into first, second and fifth places. Other sailplanes with better performance than the Zefirs were specials. I mean here the superfine American planes, the Sisu and the HP-11 and the German SB-7. Hossinger declared after the Championships that he had got to like the Zefir very much and intended to attack in it every world record in existence.

Amongst the pilots I should mention, apart from Makula who was on top of the class and in wonderful form which brought him a well deserved success, the Americans Johnson and Schreder, the ever helpful and sportsman par excellence—Hossinger, and finally the young German pilot, Spänig. Spänig flew the not-so-good Zugvogel IV and in his first World Championships did very well. Other pundits deserving a mention were France's Henry and Britain's Williamson.

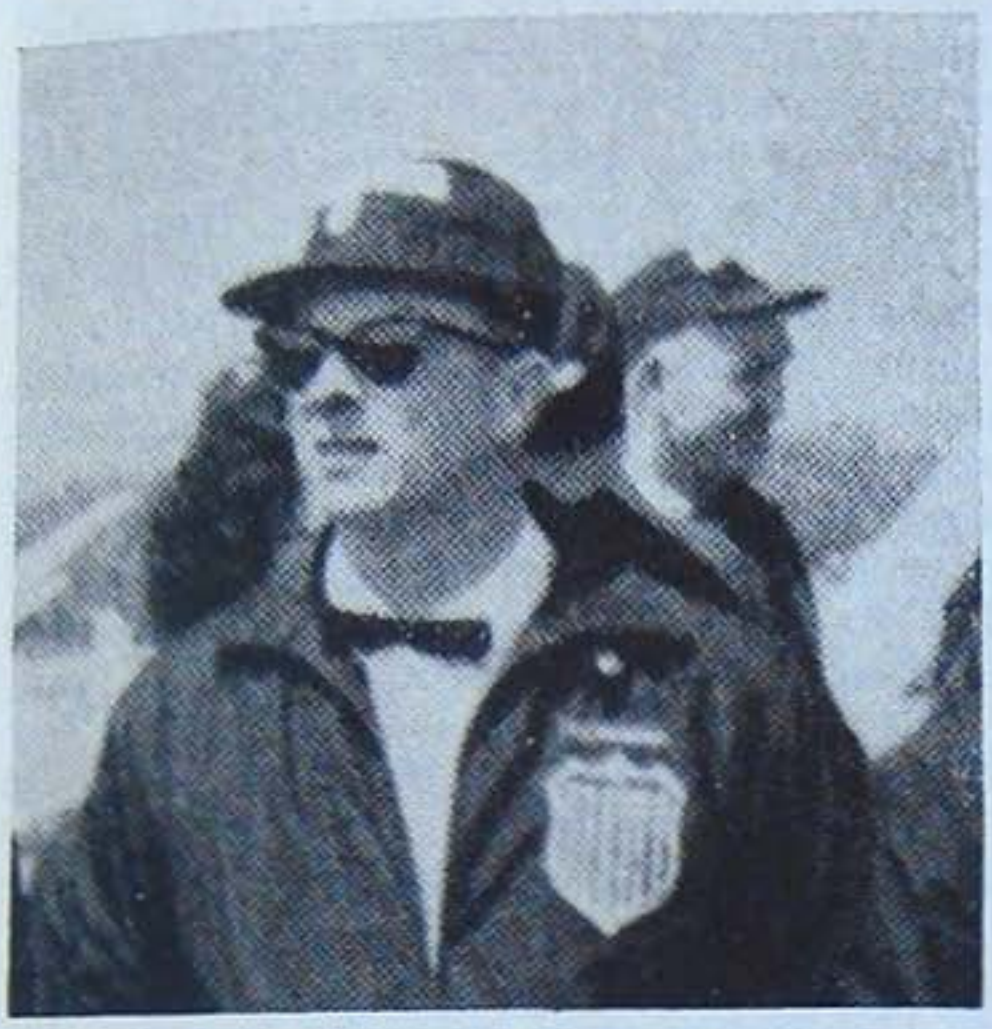


HONOUR FOR M. PECHAUD

M. Pêchaud, C.F.I. of the Gliding Club of La Ferté Alais, has been made a Chevalier de la Légion d'honneur for his service to France—an award which was even more remarkable, as, according to the new code of the Légion, the number of those created this year was limited to about half the normal number.—C.W.

The 1963 International as seen by a Member of the U.S. Team

by R. E. SCHREDER



THE Argentine organizers made a tremendous effort to put on a successful contest and are to be complimented on the following aspects :

1. Enthusiasm and generosity of the people of Junin.
2. Facilities on the Laguna de Gomez airport.
3. Method and presentation of task information.
4. Quantity and quality of tow planes.
5. General organisation.
6. Task selection (except for first day).

The combination of unpaved roads and uncertain telephone facilities made aerial retrieving the only possible method of returning contestants. The complete lack of traffic lights and stop signs, coupled with driving at night without lights and the suicidal style of Argentine driving, only confirmed the wisdom of staying in the air.

Some of our problems were :

1. Insufficient time between briefing and take-off.
2. 10 p.m. dinners.
3. Not enough drinking water.
4. Too much wine.
5. Dysentery.

The scoring system paid handsome dividends for speed, thus favouring our heavier and faster metal ships. Unfortunately, the weather never did quite reach the standards advertised and expected. My HP-11 was fitted with tubes capable of carrying up to 400 lb. of water; however, not a single contest day looked good enough to add any more weight.

Although I was placed third in the final standings, my daily performances were discouragingly average and, without exception, left me with the feeling that I hadn't made the best possible flight. Only the weather or myself were to blame. The HP-11 flew like a thoroughbred. It brought me home from a 3.02 p.m. start on a 300-km. triangle by making 65 miles in a final glide from 7,200 ft.

All of us had unusual experiences. My most exciting was a helicopter tow after my retrieve plane had flipped over in the mud west of Pergamino. A Gaucho on the wing tip, no release on the helicopter, a ground cushion to contend with, a tow rope passing just under the tail rotor and no communication, all combined to make a very exciting take-off. Unfortunately, this innovation ended on the next attempt, half an hour later, when the Sikorsky tucked and crashed while trying to pull the German SB-7 out of another field.

On the open day, my last glide lasted for an hour over the largest swamp I've ever seen. Landing in the mud, water and mosquitoes, near the only road crossing this morass, was the beginning of a two-day Odyssey marked by:

primitive living, eating meat of uncertain origin, drinking muddy water full of life, futile searching for a telephone, being charged by a bull, failure to get any message back to civilization, gauchos, horses and a final blind take-off from a narrow, dusty road.

The most impressive moments of the contest were the midnight serenade, pilot tossing and snake dance, conducted by the Argentine team on the last night at our cottage, and the farewell ride through Junin, when the entire city turned out to say good-bye.

Air Traffic Control and Gliding

The following paper, written by Captain H. C. N. Goodhart, R.N., Chairman of the B.G.A. Airways Committee, has been presented to the Ministry of Aviation and circulated to all official bodies concerned with air traffic control.

IN view of the widespread misinterpretation of CACAC P(62)6 (Civil Aviation Advisory Committee) "A Rational Approach to Air Traffic Control", of which an instance appears to be the B.A.L.P.A. (British Airline Pilots' Association) statement of 12.10.62 (attached as an Appendix to the Minutes of the CACAC meeting of 17.10.62), it is hoped that the following more precise elucidation of the British Gliding Association's Airspace Policy will be helpful.

General

The B.G.A. acknowledges, agrees and accepts that all airspace users should be enabled to use airspace to the greatest extent that does not conflict inequitably with other airspace users.

Risk of collision

The only type of conflict that is relevant, certainly as far as gliders are concerned, is risk of collision; it is therefore clear that any limitations on the freedom to use airspace must be based on a risk of collision.

Since neither equipment nor human beings can be totally reliable, the existence of two moving aeroplanes in airspace, however controlled, must inevitably have a possibility of collision; thus risk of collision must always exist and the question is simply to determine the level at which we should aim.

Fortunately there is already clear guidance on this matter (for cases involving commercial aircraft) in the form of the acceptable risk level used in airworthiness calculations. Such items as the chance of major structural failure due to fatigue, or the possibility of loss of three out of four engines in one flight, or the chance of a sufficient hydraulic failure to render power controls inoperative, are intended to be held to a figure of the order of 1 in 100,000,000 hours of flight. There is therefore a good case for using the same figure for risk of collision.

This being accepted, it is logical that limitations on the freedom to use airspace should be applied only as necessary to bring the risk down to this order. This applies just as much to any increase in limitations as it does to the initial application, i.e., control should never be applied to a greater extent than that necessary to bring the risk down to the required level.

The following list indicates a possible series of degrees of control that might be applied successively, as traffic built up in a particular area, in order to maintain an acceptable safety level.

1. No control. True random risk of collision. (Pilots not required to be able to see out.)
2. "See and be seen" whenever there is sufficient visibility.
3. Use of collision warning devices in commercial aircraft, i.e. seeing in all weather.
4. Ground control by radar tracking.
5. Positive separation by the use of controlled airspace applicable in I.M.C. only.
6. As (5) but applicable in V.M.C. also.

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Seen from the gliding point of view these limitations may impose severe restriction on gliding activity; nevertheless, the British Gliding Association accepts that any or all of these restrictions may be necessary to provide protection for commercial aircraft at the accepted safety level.

The effects of these various controls on gliding are listed in the following paragraphs.

See-and-be-Seen

The British Gliding Association considers that see-and-be-seen is extremely effective in the case of gliders. This is due to

(a) the "fishbowl" visibility from a glider cockpit;
(b) the fact that a pilot is nearly always looking out studying cloud and ground;
(c) the low forward speed;
(d) frequent turning flight;
(e) the low altitudes at which most flights are conducted.

It is not claimed that see-and-be-seen is 100 per cent effective even for gliders; it is simply an extremely effective way of reducing collision risk, and in many cases it alone can raise safety levels to the required figure. The arguments about the inadequacy of see-and-be-seen for high-speed and high-altitude aircraft are well known and probably true, but they do not invalidate the principle as far as gliders are concerned.

Collision Warning Devices

A natural extension of see-and-be-seen is the use of radar and collision computers by commercial aircraft to ensure that they do not place themselves in jeopardy. This principle of control is obviously popular with the British Gliding Association since the only possible effect on gliders might be a requirement to render themselves more radar reflective than at present.

Ground control by radar tracking

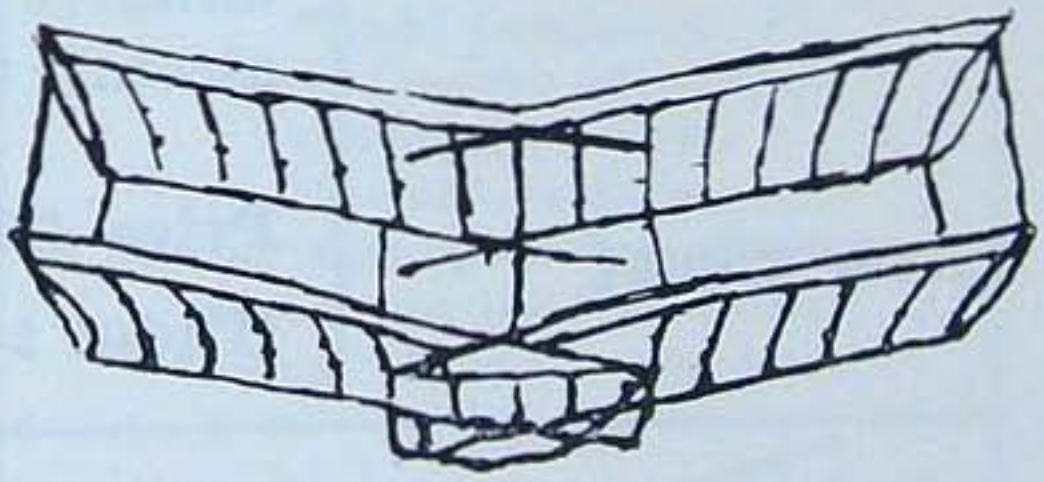
This method of control is onerous to glider pilots in that it involves identification of all echoes. This can only be achieved by the use of two-way radio or the fitting of some automatic equipment (transponder) to the glider. It is nevertheless a system which has enormous advantages for the general control of air traffic, and where such a level of control is shown to be necessary the British Gliding Association accepts that it may be necessary to fit gliders with radios or transponders. Should this be seen to be likely to happen, it is essential that a scheme for the production of adequate lightweight, low power consumption, low-cost equipment be put into operation in time to make suitable equipment available to gliders.

Controlled Airspace

The British Gliding Association accepts that traffic density may rise high enough to necessitate positive control of all entry to and movement in certain volumes of airspace. This should only be done if it can be shown that less restrictive means of control cannot be used to raise the safety level to the required level.

In the light of the above it will be appreciated that the British Gliding Association is certainly not attacking the principle of Air Traffic Control as such, or even, in the main, its current application; what it is asking for is a refinement, in so far as gliders are concerned, of its future application.

If this is agreed, the gliding movement will be able to expand its current operation to the maximum consistent with an acceptable degree of safety. To achieve this it is first necessary to define precisely the safety standard which is acceptable. This is the first step for which we are asking and this surely must be the aim of all air users.



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Comments on Changes in the Code Sportif

by E. DOMMISSE

A FURORE about the changes to the Code Sportif would be out of place except at a meeting where we first know why suggestions are put forward to change any rule, the arguments used to support such suggestions, the counter-arguments and the state of the final vote which enforces the change.

Not knowing any of this, we can only make comments, which is what I propose to do and which I hope others will do also.

SILVER C DISTANCE.—We have much to contend with when compared to any other sport which is governed only by those rules which do not have the force of law. Air Navigation Regulations have of late become more strict and complicated, with a definite bias towards commercial aviation interests to the extent that the private pilot and owner is grumbling that he is being legislated out of the air. The gliding movement is unfortunately subjected to the same complaint. Of late we are hard pressed to keep some air-space in which to fly at all without crossing a forbidden air-corridor or having to keep in touch with A.T.C. by radio or demands that we file a flight plan.

When we make rules for ourselves we should keep this fact in mind, especially if these rules are made by international bodies and imposed on all countries regardless of their circumstances.

The Code Sportif is beautifully complete and simple. The rules therein are traditional except for a few later additions. I suggest that we keep it that way. A clause could be inserted which gives National Aero Clubs the right to raise any of the minimum standards which are set for certificate flights up to Silver C standard. Such a clause leaves us our personal freedom of decision, covers all other contentious standards that exist regarding the A, B and C certificates, or any others that may arise in the future, while changing nothing as regards the ultimate Gold C and Diamond standard.

We would be wise to leave ourselves this freedom.

The various Aero Clubs, Associations or Societies that have power of administration delegated to them under the Air Navigation Regulations would be wise to keep the same remarks in mind when *they* make or administer any rules which govern any aspect of gliding. Contending with rules made by law is a heartbreaking and often futile job. If we wish to survive we should strive for the maximum freedom when making those rules which we make for ourselves.

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gave a great impulse, especially to week-end gliding clubs, was the rule allowing Silver and Gold C distance and Distance Diamonds on an out-and-return or triangle flight. Now, suddenly, we are to have the meritorious out-and-return flight taken away from us again.

Instead of expanding our scope we make rules to restrict ourselves. Worse yet, we agree that we cannot allow an out-and-return flight for the Silver or Gold C as it could be done on ridge-lift, which is too easy.

Gliding is done by using ridge-lift, thermals, wave, thunderclouds and dynamic soaring. We may use any kind of lift for a complete flight or a bit of each kind during any flight. We dare not make any rule which implies a denial of the use of any source of lift.

This attitude of calling things "too easy" can be a dangerous trap which ultimately leads to the following: denial of a C for soaring five minutes on a ridge, denial of Silver C duration on ridge-lift, or of Silver or Gold C distance if done in a straight line on ridge, or the ultimate illogic of denying any flight if any part of it was done on ridge-lift. It also touches other aspects of soaring, namely, Gold or Diamond legs for altitude gained on wave—the kind of thing where we all line up at a suitable school and pass through the test as quickly as possible, all on the same day, first on the two-seater and then solo.

It may be too easy, but the truth is that the flight proves that we have mastered that particular art of soaring. We must be left free to decide for ourselves in each case if the practice is abused, nor dare we make any rules that deny us certificates for any such flights.

Consider the out-and-return World Record flown by Dick Georgeson in New Zealand : would anyone dare to Deny a Distance Diamond for such a flight to him, or to any of those pilots who come after him to do as well or better on ridge, or wave, or thermal? Consider also that it is rarely possible to achieve a Distance Diamond in New Zealand except by means of such an out-and-return flight. By making a rule which denies a Diamond for such a flight we are restricting the scope or possibilities for New Zealand in particular and for all of ourselves in general.

If we make our own rules, let us at least make them to expand our possibilities and not so that there could be any conceivable hardship for anyone. In this respect also—why on earth should we lay down that the included angle on a dog-leg should be greater than 38°?

OVERFLYING THE GOAL.—The day I nominate a record goal flight I shall certainly land when I get to it. I am certainly not going to make myself unhappy by overflying it, thus proving to myself and others that I underestimated the flight when nominating it. The day I overfly it, it shall be *of my own free will* and at my own risk and because I then irrevocably abandon my goal in an honest-to-goodness attempt at a distance record which I judge to be possible and of more value to me. If I fall short of the distance record, the flight has gone for naught, but I want no protection for my bad judgment by any rule which still makes it possible to claim my abandoned goal.

To me the great attraction of a goal flight is exactly this—that you decide, before you start, on the ultimate possibility of the day. It is only too easy to make a new decision towards the end

of the day when your goal is already in sight or out of reach. Any rule which allows a new decision at this stage has no merit and can only degrade the code of our sport.

In view of my personal feelings, it is not logic to me to state that I have achieved my goal when I arrive over it. The goal to me is only achieved if I complete the flight by landing there. Any other argument is merely double-talk.

Woe betide any pupil of mine who overflies his 50-km. goal for Silver C distance. I know very well that he will arrive over it in about an hour and possibly with 4,000 ft. to spare, but the goal has been set to be within his need and capability—he has no excuse to overfly it. If he does and lands after, say, 250 km., then what on earth has he achieved? If he achieves 300 km., we would possibly reconsider, but at least he obtains merely his Silver and Gold C distance in one flight and we need make no change of rule for any eventuality up to this stage where the 50-km. goal has no meaning in any case.

By my own reasoning of giving ourselves more freedom, I would consider allowing the overflying of the Gold C goal in an attempt to achieve the Distance Diamond also, but such a situation occurs so rarely that a new rule is hardly required.

I hope the whole idea is abandoned; it would hurt me too much if some pilot were some day to achieve a World Goal Record plus a World Distance Record added on by overflying. May the pilot be happy! I could only be happy if I correctly assess the day and my own ability before I start, and set my goal correctly at such a distance that I achieve both World Records with no height to spare.

FREE DISTANCE TASKS.—These are for high-days and holidays or when the wind blows with such strength that no other task is possible. I believe that as we grow to achieve greater and faster triangles and out-and return flights we will soon find a great increase in our soaring pleasure. We will also find both at our clubs and during competitions that much more was achieved with far less disorganisation and loss of utilisation. It is inevitable that for this and many other reasons free distance will largely go out of fashion.

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I would rather fly two competition tasks involving closed circuits on two successive days than to miss the second day because the first task was free distance and the second day was spent on retrieve or resting from the fatigue of retrieving.

I would suggest that all gliding clubs organise and encourage triangle and out-and-return flights for week-ends. The results in achievement and enthusiasm to fly will be astonishing.

In this respect most club members would do more if the more experienced pilots would help them to select a task and help them with the mysteries of the formalities.

Success comes when you begin to achieve better speeds and larger tasks. Never turn back too easily, but at the same time learn to judge in time if the flight is possible or not. Never fall down away from base, or else everything becomes disorganised, thus defeating the object of such flights.

TRIANGLE TASKS.—For record purposes the triangle speed tasks were always for 100, 200 and 300-km. distances. The rule has now been changed, the distances for the future being for 100, 300, and 500-km. triangles.

We persist again in making rules which deprive us of scope. It is hard to lose that 200-km. triangle which is so interesting to fly on days that are too good for the short 100-km. task and not good enough for a longer task. It is also very hard to attempt the 500-km. task at all except by pilots in a few lucky countries. It also ties us all down to a limit of 500 km., taking away all incentive to attempt larger triangles.

The acceptance of all triangle tasks in multiples of 100 kilometres would have been a simpler ruling which takes nothing away and yet gives unlimited scope for the future.

More Notes on Batteries

by R. BRETT-KNOWLES

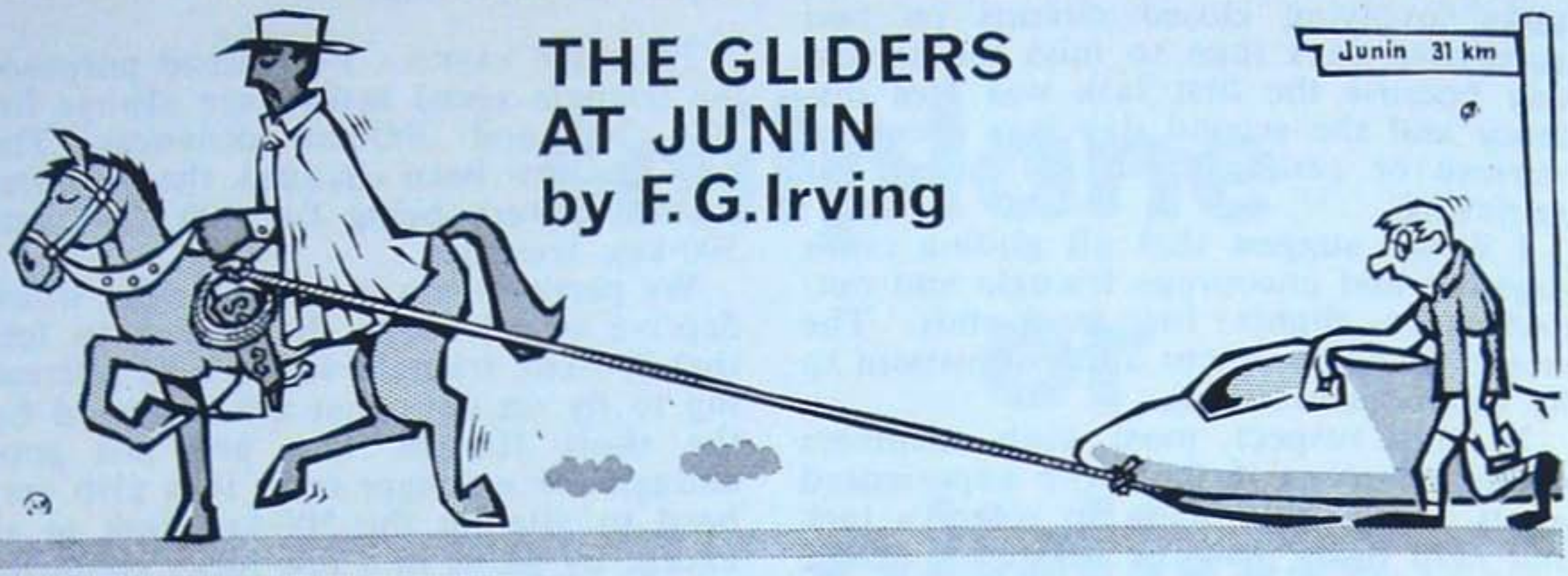
SINCE my last article, it has been brought to my notice that Mallory are producing a new type of primary cell, whose performance and cost are intermediate between their mercury cell and the leclanche cell.

The cells are not yet generally available, and I have not received the samples promised me by the Company, but from their published data the following figures have been deduced. Watt hours per pound will be about 36 and Ampère hours per pound about 30, the terminal voltage being a nominal 1.25. Their discharge is not quite as constant in voltage as the mercury cell, but better than the leclanche. Whether they may be recharged in the same way as the leclanche, I cannot say until the samples arrive, but they are leakproof, and gases generated during attempted recharging may cause embarrassment in the shape of bulged cases. (The text books do say that the leclanche is a primary cell and cannot be recharged, but it is possible by attempting to recharge to get up to four times the amount of energy theoretically available if all the zinc is turned into electricity. Writers of classical text books are invited to comment.)

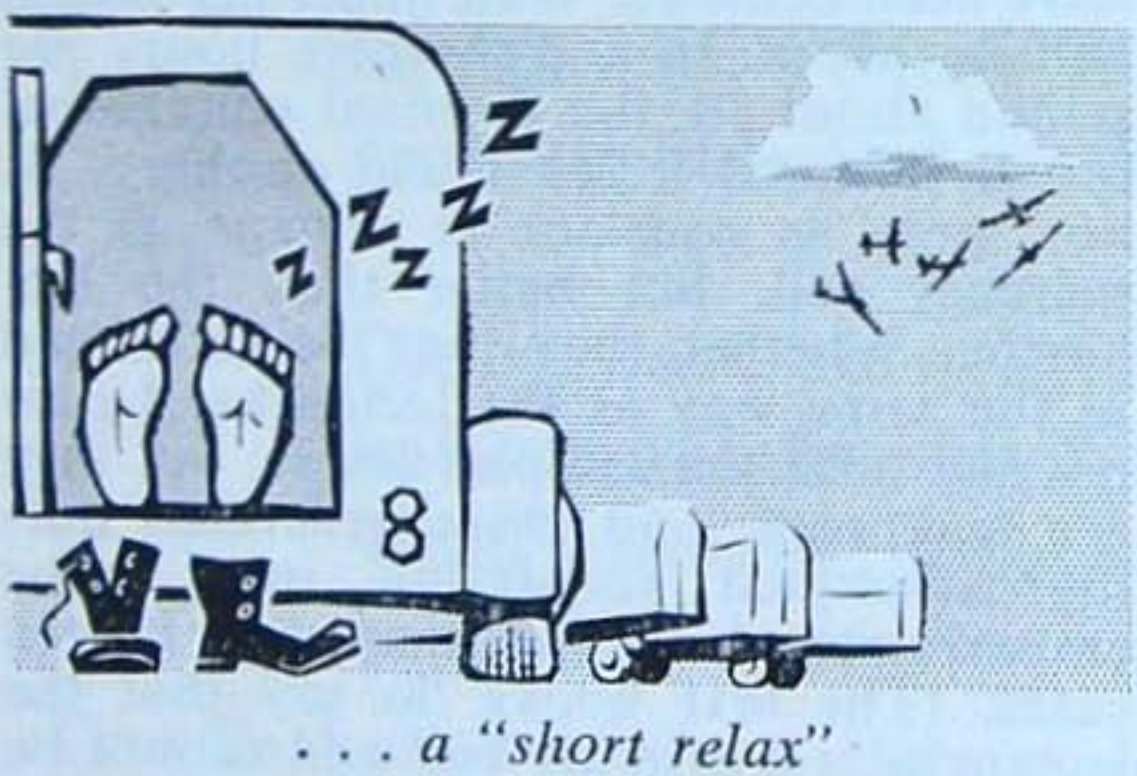


As soon as the samples have arrived, I will report on the feasibility of recharging, and, if it is possible, then we have a cheap and light solution to this power supply problem.

THE GLIDERS AT JUNIN
by F. G. Irving



WORLD Championships are never really the best time for inspecting other people's pretty gliders. Junin was rather worse than usual in this respect, especially for the British team with its limited man-power and its celebrated enthusiasm for keeping gliders in trailers. So, when all the other gliders were around, we (the crew) had pilots breathing down our necks saying wouldn't it be nice if we cleaned the gaucho fingerprints off the leading edge, polished the perspex, made the radio work, and now it was time for briefing so he'd see us at the launch point in half-an-hour. When the dust had settled on everything, and we had time for a "short relax", all the gliders were in



. . . a "short relax"

their rightful element. If the readers of SAILPLANE AND GLIDING, huddled round their fires, visualized their reporters trotting round Junin with notebook and camera in the blistering heat, they were just plain wrong. This account of the gliders is therefore entirely personal, regrettably scrappy, and all the usual disclaimers about not wearing official hats are to be taken as read.

One is usually expected to analyse significant trends. Obviously, gliders are getting flatter to an extent which OSTIV is tending to deplore. If you thought the Foka was the ultimate supine device, you ought to see the Edelweiss or the SB-7. The chap in the Edelweiss is packed in so tightly that the instruments (complete with the personalized 4.5v. battery so beloved by the French) hinge with the cockpit cover, and obviously need a certain amount of organization if the pilot isn't to find his knees swathed in spaghetti. In fact, his legs are tastefully encased in green baize, which must make it pretty stuffy in the fo'c'sle.

The SB-7 gives the impression of being a theoretician's dream-ship. It is very beautifully built, in balsa of graded strength and glass fibre. Its tummy is very close to the ground, and the wing is exceedingly thin, and all with a most elegant finish. Due to its slightly odd wheel arrangement, it was uprooted from the Standard Class, and Kuntz did rather well to achieve 17th place in the Open outfit. Less profile drag is undoubtedly the current trend, but sympathetic as we are to such ideas, we do think that it's sometimes nice to see where you are go-



. . stuffy in the fo'c'sle

ing. This is entirely possible in our old friend the Ka-6, which almost seems to have middle-aged spread compared with the slender newcomers. But it still goes very well indeed, in a rather infuriating



. . . it still goes very well

fashion. Infuriating, because it is not at all apparent why it should be so good: it just is. Huth's mount, incidentally, was distinctly modified compared with the cooking version.

The swept-tail trend was started at St. Yan by the Elfe M and adopted enthusiastically by the Poles. It has now become something of a styling gimmick,



. . . a styling gimmick

despite the mumblings about tail moment-arms, and sometimes looks almost an afterthought, as on the Australian Arrow. Having said that, this ship seemed rather a nice simple glider, doubtless well-suited to powerful weather. In a densely-populated country, the 40 ft. one-piece wing might be awkward for trailering. Talking of swept tails, the Finnish Vasama was a curious device: in most respects, "unexceptionable" is probably the best description. A good point is the rather clever wing joint, which looks like a solution to the problem of joining a very wide spar. Not so clever was the cockpit cover, held on by an interesting assortment of catches, mostly out of reach.

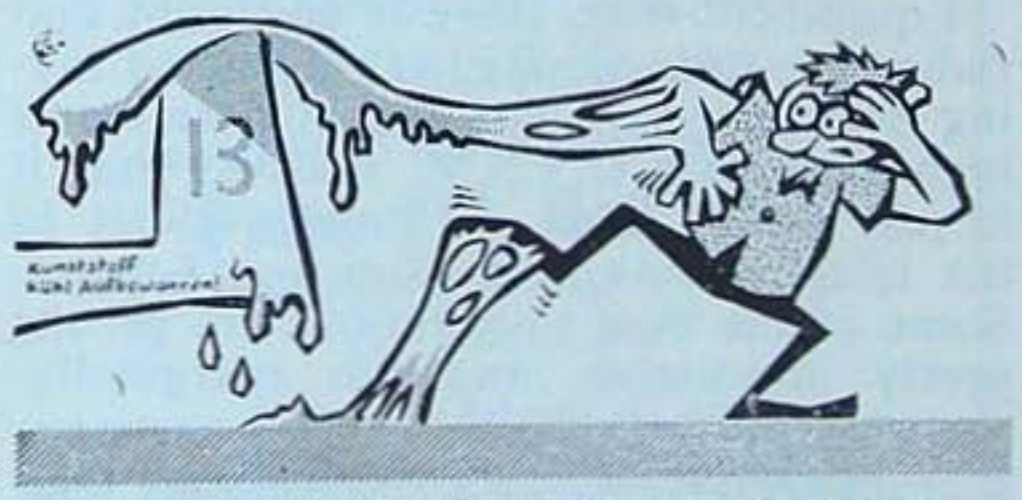
Another Very Significant Trend was represented by the American (North American, as people kept saying) ability to knock up a superb metal glider in no time at all, or more precisely, in 6 months or a year. Presumably they lay in a crate of coke and invite the boys around to



. . . invite the boys around

dolly-up, but even so they are remarkable achievements. Dick Johnson's Sisu was not entirely in the amateur category, but by any standards it was superbly built. Apparently Adastra is still unhappy, dragwise, at low speeds, so Dick left it at home, thus depriving me of the opportunity of making remarks about the timbering. The ability to buy mainspars off the shelf, in the form of dural I-beam, obviously helps the amateur constructor who happens to have a milling machine with a bed thirty feet long, but the whole process shows a degree of initiative which we might well emulate in the U.K.

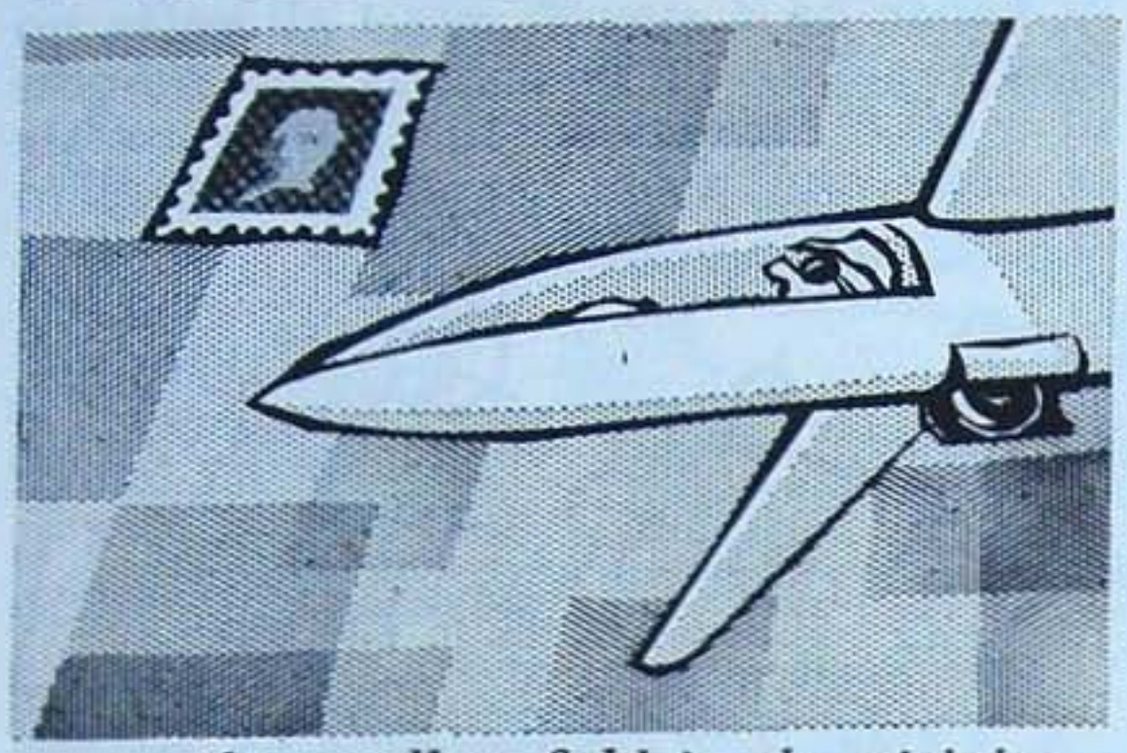
The climate was pretty hard on many machines. Our Skylarks had their little



. . . pretty hard on many machines

troubles with the finish, but we were not alone. Even one of the North Americans developed chordwise cracks in the filler on the wings, and the Zefirs eventually looked distinctly "starved-horse" around their relatively light leading edges. The Zefirs also had an alarming tendency to fail to deploy their tail parachutes. When

the fields come in one-kilometre and half-kilometre sizes, this is perhaps not too important, but Junin airfield happened to be the smallest field in the vicinity. It



. . . the smallest field in the vicinity

became fairly commonplace to see a Zefir hurtling across the landing area with most of the drag-making apparatus out and down except for the one really vital bit, while the pilot indulged in frantic olde-worlde manœuvres such as fish-tailing.

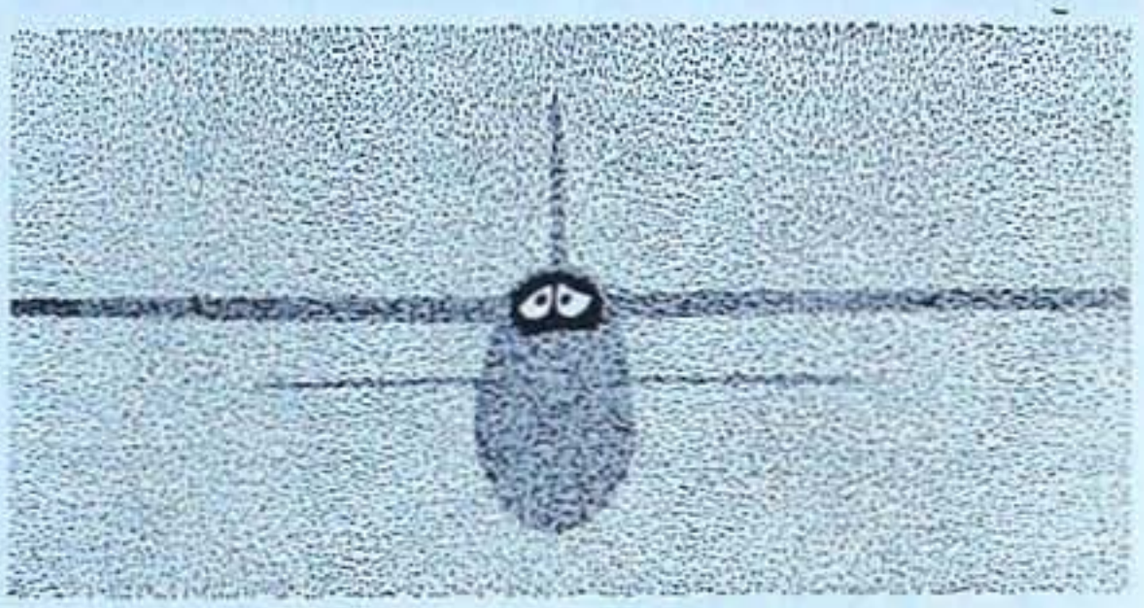
Another feature of Junin was that aero-tow retrieving largely eliminated rigging and de-rigging, except by the conservative *Inglesi*. Most crews picketed their machines down for the night and left them to the armadillos, spiders and dust. So the usual spectacle of a Ruritanian gentleman trying to tighten a metric nut and bolt with an American spanner and a Mole wrench was generally absent. Come to think, we had quite a struggle with English spanners on an American carburettor.

Equipment-wise, there is no doubt that radios are here to stay, as we started saying over ten years ago. It therefore seems high time that C.V.S.M. realised that it is just as far from a 15-metre glider to the telephone as it is from an 18-metre. Some of the base installations are getting pretty impressive, and our marginally-stable 50 ft. mast was entirely outclassed by devices with Russian writing all over them which wound up and down and obviously dealt with so much energy that it was surprising that the aerials didn't emit a red glow, or St. Elmo's fire, as appropriate. Also, we must make a firm resolve: that before future World Championships we assemble in one place all our radio, aerials, cables and such-like. We assemble it in the right order, and then cause trimmers to be twiddled by a learned gentleman until the Hertzian waves actually succeed in getting out of the wires.



. . . pretty impressive

Finally, the performance put up by the heavy ships in the Open Class came as quite a surprise. Not only did they do well on good days, but also on "English"



. . . "English" days

days they survived. Sheer weight is not the whole story, of course. Clean shapes are just as important, and it is difficult to divorce the two effects in machines like the Zefir. It is just possible that, even in England, a bit more wing-loading and a bit less profile drag would be a good idea — but we may have to re-learn how to soar.

CIRCULAR WING GLIDER

DISCOPLAN II, a glider with a circular wing of 5 metres diameter, has been test flown by Vladimir Ivanov, a glider expert, according to Soviet Information Service, which states that it took off "almost without any run-up." It benefited from ground effect and at 1½ to 2 metres height was automatically stable. It does not spin.

There is some doubt whether the machine is a genuine glider, as it is stated to have "taxied" to the runway.

Skylark 3 Incident at Junin

IN his account of the 1963 World Gliding Championships in the April issue, Dr. Slater gave a characteristically accurate account of the occurrence at Junin on February 23rd. Briefly, as Breunissen, of the Dutch team, was flying his Skylark 3 over the start-line, the starboard wing broke off downwards. The pilot descended by parachute with only slight superficial cuts. Since there has been a certain amount of speculation about the cause of the wing failure, it seems worth while considering it in more detail.

It seems very likely that the pilot was flying too fast. At the time, there was no conclusive evidence that this was so, but there were various indications which, taken together, give a coherent picture of over-speeding :

(i) The dial of the airspeed indicator was recovered from the wreckage. The maximum figure at the end of the scale was 200 k.p.h. This is equal to 108 knots, the never-exceed speed for B.G.A.-certificated Skylark 3's. Since this aircraft originally had a Ministry of Aviation C. of A., it is probable that its never-exceed speed was 118 knots. (The difference between the two figures is a consequence of administrative history, not of structural differences.) The maximum indication was therefore either just equal to, or less than, the never-exceed speed. It is not known whether the instrument had an internal stop which prevented the pointer going past 200 k.p.h. If it had, the speed could have been more than 200 k.p.h. although the A.S.I. would only indicate this figure.

The pilot said that he was going at 200 k.p.h.

(ii) Two independent witnesses, one of them Mr. Manting, the Dutch Team Manager, were watching the machine before it broke up, and both remarked that the downwards deflection of the wing-tips seemed much greater than usual at the never-exceed speed.

The wreckage of the aircraft was put in its trailer immediately after the accident, and examination was difficult. It was possible to observe that the starboard outer wing pin was correctly inserted, the aileron balance weights were firmly attached and the spar had failed in downwards bending. Naturally, it was impossible to check the tension of the aileron control cables, but there is no reason to doubt Mr. Manting's assertion that the machine was well maintained and properly adjusted.

In order to obtain a C. of A. in this country, gliders are generally test-flown at speeds up to 95% of the Design Dive Speed and the placarded never-exceed is then 90% of the Design Dive Speed. (The requirements are worded rather differently, but this is their usual effect.) It follows that the Skylark 3 was tested at 114 knots I.A.S. for B.G.A. certification and 124 knots I.A.S. for M. of A. certification, in both cases without difficulty.

One possibility is that the pilot was flying at 200 k.p.h. *and* met a down-gust strong enough to break the aircraft. It was a day of quite strong thermals, and this possibility cannot be entirely dismissed,

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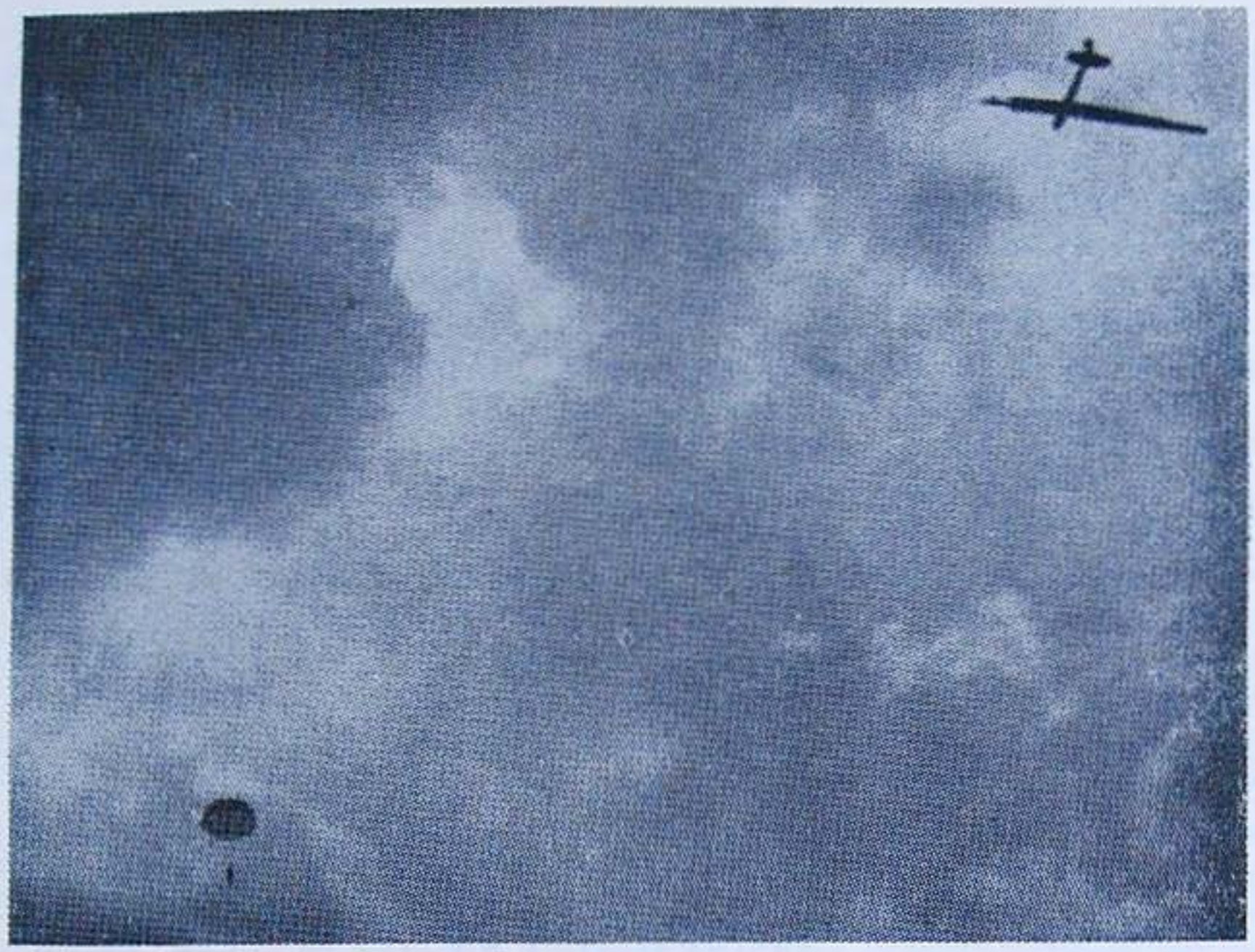
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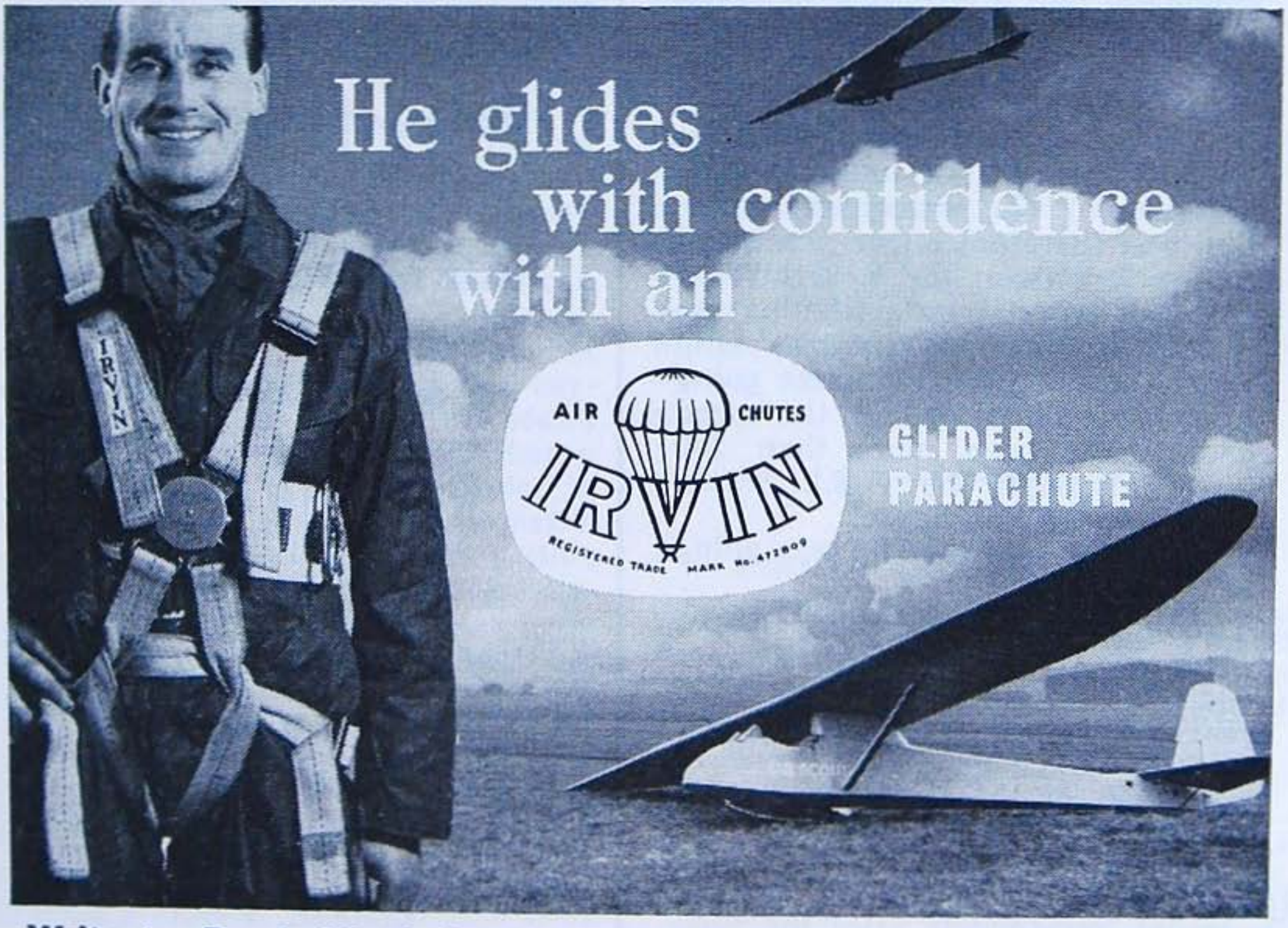
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As his broken Skylark hurries to earth, Arie Breunissen descends by parachute at a more leisurely pace.

although the observations mentioned above suggest that excessive speed was more likely to have been the primary cause.

In any case, it is folly to have an air-speed indicator whose maximum indication is less than or equal to the never-exceed speed. Some instruments in this country have a maximum reading of only 100 knots and are therefore only suitable for training machines or older soaring types with low never-exceed speeds. The 130 knot type is suitable for most current gliders, but is becoming marginal for the



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Skylark 4, with a never-exceed speed of 123 knots I.A.S. It is also possible that the internal stop in the mechanism may prevent the needle reaching the 130-knot graduation.

At the moment, the first three observations below only have the status of advice from me, but the appropriate authorities are taking thought.

The advice is :

1. The A.S.I. in any glider should have a maximum indication somewhat in excess of the never-exceed speed. Ideally, its maximum reading should correspond with at least the Design Dive Speed, but it is impracticable to require this at present.
2. The A.S.I. should be calibrated at each C. of A. overhaul. The corollary to this is that Inspectors and Ground Engineers should possess a suitable manometer. For the benefit of those who do not, it is hoped to publish instructions for making one in the near future.
3. Whilst carrying out the calibration, it should be ascertained that the maximum deflection of the needle is not less than the maximum scale reading. If it is, the manufacturer should be consulted.
4 In accordance with the conditions stated in the C. of A., the speed limitations placard must be displayed in the cockpit in such a position that it is clearly visible to the pilot — preferably next to the A.S.I.

F. G. IRVING.

Long Mynd Easter Rally

THIS year's Midland Club Rally started with a bang: on GOOD FRIDAY, APRIL 12TH, a stiff west wind and a magnificent cumulus sky took 12 of the 18 competitors right across England to the East Coast; everyone got away, and no-one went less than 90 miles, which was nearly half-way there. Ten different clubs were represented.

Nine pilots reached Great Yarmouth, 193.7 miles, but Ron Rutherford made the longest distance, just 1.3 miles further, to the sports ground of Lowestoft Boys' Grammar School, where he noticed on the approach that a couple of tennis courts had been added since he last landed there. But this did not win him the 1,000 points, because the Olympias had 20 per cent bonus and three of them went nearly as far.

Also reaching the East Coast other than at Great Yarmouth were Richards (Kent Club) at Palling, 12 miles north, and Caveen (Midland), well south at Walton-on-Naze in Essex.

Of the Great Yarmouth pilots, Goddard (Army) was not only first to arrive but took only 3 hrs. 25 mins., thus equalling (to one decimal point) the present U.K. 300-km. speed record of 57.4 m.p.h. set up by Aylett Moore many years ago. Goddard's speed works out at 57.366 m.p.h.

The sky had not looked particularly promising in the morning, and most pilots were not launched till around noon (B.S.T.) and got away during the next hour. Major Evans left the site at 12.25

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and reached Great Yarmouth at 4.30 p.m., finding the 20 miles before Norwich to be the only sticky area; and as this was not a race but a Free Distance task, he waited for it to improve. Many thermals, he said, had cores going up at 5 knots. Cloud base was at 6,000 ft. a.s.l., rising to 6,300 later but dropping to 5,800 near the sea. Alec Baynes hung around at the end in the hope that Gold C altitude might be feasible, but 8,000 ft.-plus was the ceiling.

In East Anglia both Richie Pick and Stephen Wills noticed that soaring conditions were better to the south, and kept well away from The Wash. Pick found the wind at the coast had dropped to only 5 knots, which put his "final glide" calculation out, but neither he nor anyone else fell short for that reason. Wills noticed a sea breeze set in at 7 p.m., well after everyone had landed.

All those who reached Great Yarmouth had given it as their goal and were making their first 300-km. flights. Riddell and Tweedy, on landing at Swanton Morley, could not convince the participants at the Regional Contest there that they had given it as their goal.

Total distance for the day was 3,116 miles.

SATURDAY, APRIL 13TH.—The weather type was showers and bright intervals but it was nearly all showers with few bright intervals. A race to Camphill was set, but had to be cancelled.

SUNDAY, APRIL 14TH.—Rain.

MONDAY, APRIL 15TH.—Eight people set off on the task—Distance along a Line through Rearsby (Leicester)—under a not very promising cloudy sky, and all landed short of the minimum distance to score, 20 miles. The Olympia 419 was put down beside a farm at the end of an apparently convenient track more than a mile long. But the farm had no telephone and the track was mostly 18 inches deep in mud. The farmer obligingly lent his tractor to pull the fuselage along its surface like a boat, and the wings were manhandled over fields and hedges for an estimated 2,000 yards. The 419 got back to the Mynd at 3 a.m. Stephen Wills broke his machine badly at the foot of the Wrekin through catching a wing-tip in a tree, and was found in hospital to have injured his spine.

TUESDAY, APRIL 11TH.—The task was repeated, but a lot of vaguely cumuliform cloud provided too weak lift to tempt anyone away. So the Rally closed with three winners. Several pilots agreed if the first contest had been a race to Great Yarmouth, they would have tried to go a lot faster—but that many would then have come down before getting there.

The Table below gives results for the only contest day; all those shown as flying 193.7 miles went to Great Yarmouth. Also included are the names of pilots who flew on other days, so the Table gives a full list of competitors.

A.E.S.

Friday, April 12th

Place	*Pilot*	*Sailplane*	*No.*	*H'cap.*	*Miles*	*Pts.*	*Other pilots entered*	*Club*
1=	R. Griffiths	Olympia 2	172	20%	193.7	1000		London
1=	H. V. Midwood	Olympia 2	201	20%	193.7	1000		Derby & Lancs
1=	D. H. Stubbings	Olympia 2	134	20%	193.7	1000		Moonrakers
4.	G. Richards	Olympia 2	122	20%	190	978		Kent
5.	A. R. Caveen	Olympia 2	106	20%	182.2	935	F. Clay, K. Rylands	Midland
6.	R. Rutherford	Skylark 2	41	10%	195	921	M. Randle, R. B. Swift	Midland
7.	B. B. C. Watson	Sky	46	10%	193.7	915		Surrey
8=	A. H. Baynes	Skylark 3B	37	0	193.7	830	K. W. Blake, J. B. Jefferson	Derby & Lancs
8=	J. Evans	Olympia 419	72	0	193.7	830	E. G. Shephard	Army
8=	J. Goddard	Skylark 3F	52	0	193.7	830	S. Morison	Army
8=	R. C. Pick	Skylark 4	98	0	193.7	830	D. Hill	Yorkshire
8=	S. F. E. Wills	Skylark 3B	67	0	193.7	830		Midland
13.	J. Tweedy	Sky	71	10%	162	756	B. Thomas	Derby & Lancs
14.	R. Cousins	Olympia 2	227	20%	141	710	M. Wilson	Kent
15.	J. C. Riddell	Skylark 3F	95	0	162	687		Yorkshire
16.	P. Nethercot	Skylark 3B	200	0	151.2	637		Devon & Somerset
17.	K. R. Mansell	Eagle	E	10%	93	414	B. R. Wright	Midland
18.	J. Tarr	Skylark 3F	45	0	96.2	391	J. Bower	Doncaster

. . . and at Swanton Morley

THE forecast on Good Friday was not quite as good in the Norfolk area as it was for those who started from the Long Mynd.

An extra handicap of being so near the east coast, and the wind being a stiff westerly, did not make the task selection an easy one. However, a race across wind to Martlesham Heath 48 miles away was set, which meant that the lesser performance gliders would have quite a struggle to make it; in fact none of them except a Skylark 2 made the goal.

Those pilots who started early made the fastest times, and 13 out of 25 pilots reached Martlesham Heath with times varying from 59 min. to 2 hr. 21 min. Philip Wills, who was one of the late starters, needed his three launches before he finally got away. Peter Scott was 1st, Alf Warminger 2nd and Charles Green 3rd. They all came back with the same story that the weather was far better than promised, and Peter Scott commented that the cross wind did not seem to be as much as the forecast 20 knots.

SATURDAY, APRIL 13TH.—Task: A triangular race to Beccles aerodrome near the east coast, then west to Eye aerodrome and back to Swanton Morley. Total distance approx. 80 miles.

This proved to be an impossible task, as the weather deteriorated and the winds increased. Philip Wills was the only pilot to go beyond 2X, which was 40 miles for the day. The only other pilots to pass the first turning point were Peter Scott, Alf Warminger and George Collins.

As the weather got steadily worse and the hopes of this being a Contest vanished, it was decided on Wednesday to close the Meeting so that pilots who wished to leave could do so. Despite the weather, most people enjoyed themselves, and some interesting debates on all sorts of subjects were held. It is a great pity that the Organisers, who again put in a tremendous lot of work beforehand, were so frustrated.

R.H.

Friday, April 12th

Place	*Pilot*	*Sailplane*	*No.*	*Pts*
1.	P. Scott	O.419	10	1000
2.	A. Warminger	O.419	44	936
3.	C. Green	S.3	18	873
4.	H. Gregg	S.3	70	839
5.	H. Dimock	S.4	228	829
6.	M. Smith	S.4	240	810
7.	H. Mettam	S.3	65	775
8.	E. Stark	S.3	190	736
9.	M. Gee	S.3	20	672
10.	D. Crabb	S.2	178	671
11.	D. Snodgrass	S.4	189	651
12.	P. Wills	S.4	1	617
13.	G. Collins	S.3	103	571
14.	K. Moseley	O.2	308	326
15=	M. Aspinal	O.2	154	204
15=	C. Ross	O.2	87	204
17.	E. Cunningham	O.2	194	81
	W. Wills	O.460	54	0
	A. Goodfellow	O.2	138	0
	F. Reilly	O.2	115	0
		O.2	156	0
	N. Brett	S.4	165	0
	G. Smoker	S.4	169	0
	R. Brigden	S.3	68	0

O=Olympia. S=Skylark.
Handicaps: S.2, 10%; O.2, 20%

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. . . and at Bicester

THE Easter meeting of the R.A.F. Gliding and Soaring Association at Bicester ran from 6th to 15th April. The aims of the meeting were to improve the National Ratings of our middle-order pilots and to give the team as a whole a chance to get to top fettle for the forthcoming Nationals. The weather foiled the first aim by allowing only two days' contest flying, but at least the second aim was achieved.

In the strong E.N.E. winds and weak, rough thermals of April 7th, three pilots completed the 52-mile race to Upavon. The race was won, on handicap, by Pete Kevan in an Olympia 2 at 33.4 m.p.h., although Andy Gough in the 419 had done 42 m.p.h. The distance marks were high, giving Kevan a big advantage there. The other finisher was Joe Croshaw, at 31.4 m.p.h. Five others landed short, whilst several were not yet in a "go" condition and did not fly.

Five days later we managed another task, this time a 136-mile triangle via Lasham and Upavon. The day, Good Friday, will be long remembered for its 6,000-ft. cloud base, really strong thermals, and clear-cut cloud streets. In the fresh westerly winds Ron Dunn turned in a good 34.7 m.p.h. for the fastest flight. Again a 15-metre aircraft, the Ka-6 this time, allowed its pilot the vital bonus to take top score. Max Bacon was second fastest at 32.7 m.p.h. Pete Hanneman, in Eagle, two-up, did the second leg, 33 miles into wind, in 45 minutes flat. His delight didn't last long. Leaving the cloud street that had brought him from Lasham, he landed after trying to cross to the next.

Seven pilots completed the race, including Gough and Croshaw, who thus consolidated their positions and finished first and second overall. Ed Meddings in an Olympia 2 landed one field short, after six hours in the air.

The remaining days of Easter passed in mists and strong winds, and showed yet again that the early season is not really much good for contest flying.

J.S.W.

Final Results

		7.4	*12.4*	*Total*
1.	A. Gough	910	838	1748
2.	J. Croshaw	820	818	1638
3.	M. Bacon	450	1000	1450
4.	P. Dawson	444	885	1329
5.	P. Kevan	1000	—	1000
6.	R. Dunn	0	958	958
7.	D. Cretney	—	958	953
8.	L. Bayley	—	851	851
9.	E. Meddings	283	532	815
10.	D. Innes and Alty	328	383	711
11.	D. Austin	0	484	484
12.	P. Hanneman	—	306	306
13.	G. Coatesworth	239	—	239
14.	A. Pickles	0	144	144

0=did not score; —=did not fly

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DUE to the tremendous demand, the scarcity of certain back issues, and the extra work and administration involved, we reluctantly announce that the price of all back issues (except the current year) is now 4s. per copy, plus 4d. postage. Please send your orders clearly indicating which copies are required, together with your remittance, to Sailplane and Gliding, Artillery Mansions, 75 Victoria Street, London, S.W.1.

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1961,	Vol. 12.	Nos. 1, 2, 3, 4, 5, 6.
1962,	Vol. 13.	Nos. 1, 2, 3, 4, 5, 6.

World Champs Addendum

FINALISED figures for the last two contest days at the World Gliding Championships, which were not available when we left Argentina, have now arrived. Below are the *leading* figures for each day, the last task being a race to Venado Tuerto and back, total 128.3 km. (159.4 miles). Total points for the whole competition, and placings for each day, were given in our April issue, pp. 120-1. There were 25 competitors in the Open Class and 38 in the Standard Class.

Feb. 20th : Free Distance

Open Class

Pilot	*Sailplane*	*Km.*
Makula	Zefir	717.5
Johnson	Sisu	711.5
Webb	Skylark 4	638.0
Schreder	HP-11	614.0
Baeke	Skylark 3	607.0
Tandefelt	Vasama	509.5
Ortner	Skylark 4	506.5
Goodhart	Skylark 4	499.0
Jensen	Lo-150	480.0
Pronzati	Eolo	473.5
Popiel	Zefir	446.0
Bar	Skylark 3	412.5
Saunders	Sky 34	400.0
Nietlispach	Sky 34	399.0
Williamson	Skylark 4	392.0

Ten shorter flights, of which five did not score.

Distances in miles: Makula 445.8, Johnson 442.1, Webb 396.4, Goodhart 310.1, Williamson 243.6.

Standard Class

Pilot	*Sailplane*	*Km.*
Juez	Ka-6	560.0
Pessotti	Ka-6	557.0
Lacheny	Edelweiss	546.0
Pieczewsky	Foka	546.0
Hächler	Ka-6	545.0
Fredriksson	Foka	544.0
Brigliadori	Uribel	542.0
Labar	Edelweiss	540.0
Horma	Vasama	537.5
Reid	Ka-6	530.5
Huth	Ka-6	520.0
Vergani	M-100-S	509.0
Ara	Ka-6	502.5
Berreta	Foka	501.0
D-Drummond	Olympia 460	488.5

Distances in miles: Juez 348.0, Pessotti 346.1, Lacheny 339.3, Huth 323.1, Deane-Drummond 303.5. Remaining 23 pilots went distances from 299.1 to 22.4 miles.

It will be noticed that, though the five longest distances were flown by Open Class pilots, the next 11 longest were by Standard Class pilots.

Feb. 23rd : Goal and Return

Open Class

Pilot	*Sailplane*	*km./h.*
Hossinger	Zefir	86.901
Goodhart	Skylark 4	83.116
Popiel	Zefir	82.796
Johnson	Sisu	81.281
Makula	Zefir	81.166
Spänig	Zugvogel 3	79.075
Ritzi	Skylark 3F	76.909
Henry	Breguet 901	76.660
Williamson	Skylark 4	73.331

Other speeds: 72.702 to 59.918 km./h. Five failed to complete the course and one broke his sailplane over the starting line.

Speeds in miles per hour: Hossinger 53.998, Goodhart 51.646, Williamson 45.566.

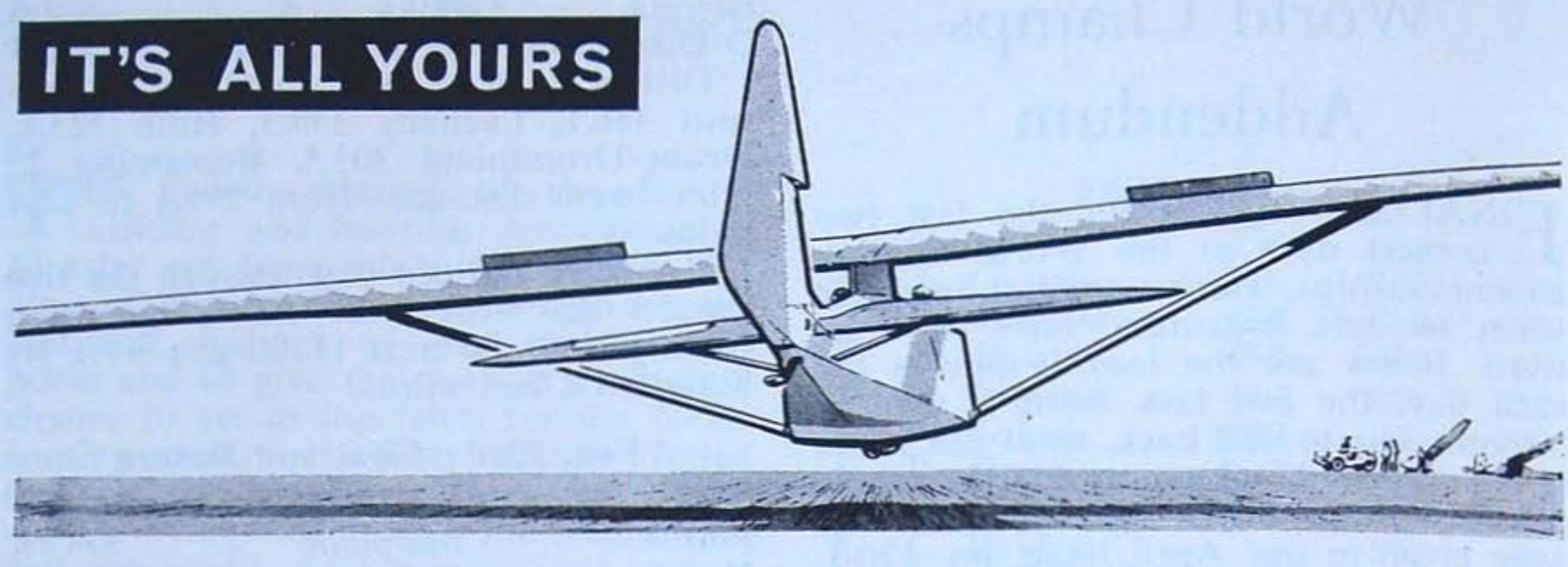
Standard Class

Pilot	*Sailplane*	*km./h.*
Fritz	St. Austria	83.567
Huth	Ka-6	77.679
Berreta	Foka	74.167
Cartigny	Foka	73.676
Labar	Edelweiss	72.542
Yeates	Ka-6	72.355
Lacheny	Edelweiss	70.775
Pieczewski	Foka	70.462
Harrold	Ka-6	67.070
Witanen	Vasama	67.011
Brigliadori	Uribel	64.395
Horma	Vasama	64.021
Sejstrup	Ka-6	63.972
Johannessen	Ka-6	63.804
Juez	Ka-6	63.240
Rodling	Ka-6	63.150
Munch	Ka-6	62.623
Ara	Ka-6	62.390
D-Drummond	Oly.460	62.327
Braes	Ka-6	62.285

Other speeds: 62.134 to 51.600 km./h. Ten failed to complete the course.

Speeds in m.p.h.: Fritz 51.925, Huth 48.268, Yeates 44.959, Harrold 41.675, Deane-Drummond 38.728.

IT'S ALL YOURS



ONE of the subjects discussed at the Annual Instructors' Conference was accident publicity. It was felt that more could be learnt about avoiding recurrence from detailed information than from simple statistical surveys. This, however, required that clubs or pilots should be willing to offer up their misfortune to the public gaze, sometimes a hard thing to do.

It is not proposed to turn this column into a happy hunting ground for the morbid, but occasionally to examine some occurrence from which lessons can be learnt. The following is one of these. It is about a remarkable accident, in that this is the only occasion that it has happened in something like a million launches, but it could easily happen again.

PILOT(S): Instructor, 36, excellent health, 137 hours P1, currently flying. Pupil, excellent health, 120 flights total, currently flying.

AIRCRAFT: T-21B. Current C. of A. Totally wrecked.

LAUNCH: Winch, level ground, driver experienced.

WEATHER: Wind 18 knots; 8/8 stratus, 200 ft.; visibility 10 n.m.

STATEMENT BY PILOT

The launch began quite normally and we became airborne. However, there was insufficient speed to safely initiate a climb.

I signalled for more speed but there was no response; in fact, the speed dropped still further and we began to overtake the cable.

I decided to abandon the launch, released the cable and proceeded to a landing straight ahead.

At the point of touch-down the aircraft again began to accelerate; I checked the release but to no effect, and realised the cable had fouled some part of the structure.

I attempted to keep the aircraft on the ground, but in spite of my efforts it again became airborne.

The glider refused to answer to the controls, climbed steeply and a few seconds later struck the ground nose down a little over the vertical.

STATEMENT BY WINCH DRIVER

I was driving the winch, there was a strong wind blowing, and I was using third gear. This was the second launch of the day, the first one being satisfactory.

The cable was tightened and the "all out" was given. On applying full throttle the engine misfired. The T-21B left the ground and indicated the need for more speed. The winch failed to respond, I closed the throttle. The glider touched down. The signal lamp was still showing "all out".

I opened the throttle again, the engine developed power and the T-21B left the ground. As the attitude of the aircraft became unnaturally steep, I closed the throttle, put the brake on and switched off the engine. The aircraft during this time had climbed steeply to about 50 feet presenting the underside in plan form. The port wing dropped. The aircraft rotated clockwise through 180° and struck the ground starboard tip first, nose and then collapsed on to its back.

No stop signal was seen.

STATEMENT BY SIGNALLER

I was operating the signal lamp throughout the launch, which commenced normally, and the glider became

airborne; power from the winch did not appear to increase and the glider remained in level flight for approximately 200 yards at a height of four feet to six feet. The glider then sank to the ground. I concluded that the pilot had abandoned the launch, and released the cable. To the best of my belief I indicated the position to the winch by a Stop signal.

At almost the same moment the glider reared into the air, turning over to the left, coming to rest upside down in the direction of take-off. At no time during the launch did it occur to me that the cable parachute had fouled the tail skid of the glider.

COMMENT BY C.F.I.

The pilot of the aircraft decided to abandon an abortive launch and released the cable.

The winch driver continued to attempt a launch. A new cable parachute of strong cord and canvas had been fitted to the cable before the previous launch. The parachute was dry and filled with air easily.

The aircraft landed in the direct line of the parachute which caught up with the aircraft at the precise moment of touchdown. The parachute enveloped the tail skid.

The aircraft accelerated sharply and the pilot was unable to prevent a climb developing, although he initially was able to pick up a dropping wing.

The power from the winch being applied so far aft caused the aircraft to develop an abnormal angle of attack as well as angle of climb. Presumably the remnants of aileron and/or rudder control initiated rapid rotation from what was an induced high speed stall.

The aircraft spun about the horizontal axis to port completing a rapid wing-over. Estimates on the maximum height of the lower wing-tip from the ground vary from 30 feet to 60 feet.

The starboard tip moving forward hit the ground, subsequently the nose dug in and shattered the fuselage all forward of and above the bulkhead to which the hook is attached, followed by the whole leading edge.

The occupants extricated themselves from the inverted wreckage.

The cable and parachute complete with hole torn by the skid were no further than 50 yards from the wreckage.

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No single factor appears to me to be sufficient to be called prime.

I therefore list such causes as may be thought contributory:

1. Possible winch-driver error of judgment;
2. Possible failure by signaller;
3. Pilot error in landing on line of parachute;
4. Vulnerable tail skid design;
5. Initial winch failure;
6. Unsuitability of this type of cable parachute.

This honest and straightforward report lists a number of causes for this very near disaster. Going through these, I feel that first of all, No. 5, winch failure, should be disregarded. Obviously our winch engines should be as good as possible (often they are not) and should be regarded as doing the same job as an aero-engine, but their occasional failure should not lead to an accident.

No. 4 (vulnerable tail skid design) and No. 6 (unsuitability of parachute):— Gliders launched by cables with parachutes on them are a constant source of near misses and minor confusions, and obviously the glider should be as free from projections as possible, and the cable parachute should be attached to the cable at least 18 feet away from the linked rings. There is probably not much which can be done about the actual design of the parachute since they have to be cheap and strong. However, neither of these two points had any real bearing on this particular case, since the glider was well ahead of the end of the cable when the launch was re-started, and if the parachute had not picked up the tailskid it could easily have caught on some other part of the tail.

Point No. 3 suggests possible pilot error in landing on the line of parachute; whereas it is obviously desirable to run off the line if possible, I do not think that this should ever be regarded as a pilot error in this type of accident. Firstly, more accidents would be caused if pupils were expected to turn away from cable lines as well as deal with the winch failure which put them there, and secondly, in any cross wind, it is not possible for even an experienced pilot to know exactly where the cable line will be, particularly if the winch or car driver is slow in stopping a thrashing cable.

This leaves us with No. 2, possible failure by signaller, and No. 1, possible error of judgment by the winch driver. From the report, it seems that the signaller may have made an error in his signalling; but whether he did or not, it must be accepted that *once the glider has become airborne,* the winch driver has all his attention on it, and is fairly unlikely to see a Stop signal even if it is given. I think therefore that in this case, whether the signaller gave Stop or not, he was not the cause of the accident, although thought might be given to the idea of some foolproof audio stop signal, provided the many difficulties inherent in such a device could be satisfactorily overcome.

So one is finally left with the winch driver. He was undoubtedly the cause of this accident, since, having closed the throttle, he re-started the launch without receiving appropriate signals. Having said this, it is, of course, terribly easy to do just what this driver did, and I have no doubt that other winch drivers have done a similar thing and got away with it. The temptation, having overcome

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some misfiring or rough running of the engine, to then just get on with the launch is considerable. This is probably a greater temptation in an experienced winch driver who knows that he can get the glider off smoothly almost by feel alone, than with a beginner who is still concentrating like mad on the far end of the field, to try to *see* the effect of his take-up.

In conclusion, although the risk of recurrence of this accident can be slightly reduced by trying to improve on the suggested contributory causes Nos. 2-6, it can be prevented only if a winch or car driver who, for any reason, loses power in the early part of the launch, closes the throttle fully and TERMINATES THE LAUNCH, regardless of any delay or inconvenience this may cause. He should not launch again until he receives the take-up-slack signal, and there is a runner on the wing tip.

ANN WELCH.

* * *

THE CAPSTAN

THE B.G.A. Capstan has been accepted to fly in the Nationals *hors concours*. The purpose is to give soaring and contest experience to instructors who otherwise cannot get the opportunity of doing this sort of flying. The four applicants who have been selected for the Instructors' Team are G. Grant, Northamptonshire G.C.; K. Moseley, East Midlands (Leicester) G.C.; G. I. Lewis, R.A.E. G.C.; S. Fursman, B.E.A. G.C.

The entry will be in charge of John Everitt, the National Coach, and Roger Neaves, Panel Examiner, who will fly with the four during the championships, and provide further air and ground instruction in soaring technique in between contest flying.

The Capstan has also been entered for the Northern Regionals from July 27th to August 5th. Applications for four places should be sent to the B.G.A. office by May 31st. Instructors wanting to go must be recommended by their C.F.I.; priority will be given to those with Categories and to those from clubs in N.W. England and Scotland, who cannot get cross-country soaring experiences due to shortage of facilities. A.W.

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Summary of 1962 Accidents and Incidents

This Summary replaces the Analysis published in the April issue which was incorrect

Total Number : 115; Estimated Cost : £12,477
Injuries : 1 death, 2 serious injuries, 2 other injuries

Number	*Type*	*Cost (£)*
12	"Blow-overs" or like	2,853
4	Two-seater with Instructor flying (serious)	1,200
11	Two-seater with Instructor flying (others)	266
5	Instructors flying solo	984
7	Instructors in charge	1,880
6	Canopies blown off	160
1	Take-off	300
3	Launch (failure)	345
11	Approach	980
6	Landings	225
11	Cross-country landings	2,470
11	Assorted	515
1	Act of God	150
26	Minor	149
115		£12,477

Above Accidents in More Detail

OPERATING IN TOO STRONG WIND

Number	*Cost (£)*
15	3,411

INSTRUCTORS IN CHARGE

Number	*Type*	*Cost (£)*
8	"Blow-overs"	2,680
15	Two-seater Instructor flying	1,466
5	Solo, Instructor flying	984
7	Instructor in charge on ground ...	1,880
35		£7,010

ASSORTED (included in the above)

Type	*Cost (£)*
Pencil jammed controls	0
Cable dropped on tug	0
Glider towed into landing path ...	60
Over-anxiety to contact wave ...	50
Tow-rope attached in error	45
Aero-tow rope broke	30
Spare cable fouled	200
Near miss "Varsity"	0
Ground crew fell into tail	20
Detachable wheels failed	10
Attempted side-slip	100

MINOR

Cost less than £20 with no lesson to be learnt

Number	*Cost (£)*
26	149

This is not 100 per cent accurate either in number, cost or information owing to the great difficulty in getting the full facts in some cases. However, it gives a reasonably correct overall picture from which many lessons may be learnt.

1. Blow-overs are inexcusable and must be eliminated.
2. The problem of finding and training enough good Instructors is brought to the front once more.
3. Expensive landings on cross-country flights wants serious consideration.
4. There are a number of incidents which must be carefully studied, many of which might have been much more serious.

Only care, more care, and *much* more care can bring accidents down to where they ought to be.

E. J. FURLONG

Glider Radio and the Law

A summary of what the regulations are and how to comply with them.

A STATION LICENCE is required for both glider and car. Obtainable from: G.P.O., Radio Services Dept., Headquarters Building, St. Martins-le-Grand, E.C.1. Glider: Form K2005—fee £1 p.a. Car: Forms BR.1 and BR.2—fee £3 p.a.

OPERATOR'S LICENCE not required when using the B.G.A. frequency of 130.4 mc./s. It *is* necessary for other frequencies. Pamphlet "CAP 90, Flight Radio Operators Licences", price 2s. 6d. from H.M.S.O., P.O. Box 569, London S.E.1, tells you how to get one.

TYPE APPROVAL has to be granted by the Air Registration Board. They use M.o.A. specification MOA4561. The transmitter power is limited to 5 watts. The frequency tolerance of existing transmitters and those installed before Jan. 1st 1964 must be not worse than plus or minus 0.01%. Transmitters installed after this date must have a frequency tolerance not worse than plus or minus 0.005%, and after Jan. 1st 1966 this tolerance will apply to all VHF transmitters.

J. S. WILLIAMSON,
B.G.A. Radio Co-ordinator.

Thoughts about the World Gliding Championships

Junin, Argentina, February 10th — 25th

by Ann Welch

BACK once more in the damp cold North, Argentina is remembered easily for its sun and warmth. And not only the temperature, F. or C., as you wish, but for the tremendous warmth of welcome, and the hospitality, that was given to all foreigners. The British Team was one of many which was "adopted" wholesale by the family in whose week-end house we lived. It would be difficult, I think, to imagine the opposite—some English family adopting, say, 13 Patagonians, with virtually no word of language between them, and giving them barbecues, presents, and help for three weeks.

It was, of course, the sun, the warmth, and the relaxed attitude to life that flourishes in a civilised climate, that made the Championships at Junin both enjoyable and memorable. There were times, of course, when it made them, certainly to us Northerners, infuriating too. In retrospect, the chaos which often seemed just around the corner, was traceable to two things. Perhaps they are national characteristics — the mañana theory, and some inborn sense that enables communication as we know it to become unnecessary. Practically all the difficulties that the teams had were due to either (a) things not being ready, or insufficient advance notice being given, and (b) the inability to understand the need for giving adequate and clear information to competitors; this applied not only to task and operational matters, but to clarification of the rules, and retrieve arrangements. This added up, as a result, to some lack of faith in the organisation, and a feeling among competitors that they must add to or increase their own arrangements in case official ones broke down. The F.A.V.A.V. arrangements were probably never in any real danger of this, but it should be accepted that the impression was sometimes difficult to escape.

On the credit side the launching was excellent. It soon settled down to a rate which, at the worst, took 25 minutes to get off 60 gliders. This by any standards is very good, and I think would be difficult to achieve here. There is no doubt that the Argentinians understand flying, and use aeroplanes with a competence and panache that makes much of our own aviation look like an old folk's knitting party. The retrieving, too, was excellent in terms of the operation itself; 65 aeroplanes went out along the route,



Photo by A. E. Slater

found the gliders, and, navigational fumbles nothwithstanding, brought them back even if it meant the tug pilots, who were not intimidated by any difficulty, flying themselves to a standstill. The only real problem with the retrieving was again the communications one. Junin control gave the impression to the competitors of not really knowing what was happening out in the pampas, and some-

times the first that anyone knew about a retrieve was the arrival of the glider overhead, even after dark.

Air retrieving was, of course, the only practical method to use; the thought of 60 trailers ploughing along the dirt roads in a standing dust plume, and then all 60 coming to a squelching muddy halt with every thunderstorm, is fascinating.

Task setting, tied up as it is with meteorological facilities, is always easier in generally good weather. But in such conditions there may be a tendency to regard good thermals as the norm, and when the inevitable poorer day comes along, to set either no task, or one which is not flexible enough to allow pilots to make the best use of it. This poses a problem for World Championships. Do we want to fly only in strong conditions, disregarding poorer days, with all that this entails in directionally forcing glider performance; or do we want to use all practicable soaring days, on the basis that the greater number of contest days the more representative will be the results? I feel that there is a case for saying that apart from necessary rest days, and those on which the forecast gives no expectation of lift, a task should be set. Sometimes the task will not come off, but is this any worse than the opposite of sitting on the ground on a perfectly soarable day? In Argentina we had one such day, and one day on which, although a large number of pilots had been soaring for over two hours, their distances were not great enough to class it as a contest. This poses another question. Did the day fail because the task chosen prevented "at least two pilots flying a marking distance of 100 kms", or because C.V.S.M. had decided that this qualification was the minimum acceptable? In terms of time in the air, and effort and skill, it was clearly an acceptable contest day. Had the task been Distance Along a Line instead of Out-and-Return, or had C.V.S.M. said instead that, say, 20 per cent of the competitors should do 75 kms, almost a higher qualification, then it would have been a contest day, and a good one.

We knew before we went that our compromise gliders, built to be effective in a broad range of conditions, would be at a disadvantage if the weather was very good. But a study of the "hot ships" overall performance showed that with their high-speed capability they could often disregard poor areas altogether and beat us because we had to waste time using the weak lift. In strong conditions they could go ahead so much faster that this more than made up for any loss of points on their less successful days. For example, Makula and Popiel did not take their Zefirs into a cu-nb and as a result flew only half the best distance on one day, but won the Championships. Henry lost a whole day's points and still came 6th.

Radio was needed at Junin less than expected, but ours took a disproportionate time to get serviceable. We were not, however, the only team with radio problems. A moderately priced transistorised several-channel set, which can be regarded as a tough piece of domestic equipment, and just used, is badly wanted.

In conclusion, one looks back on a Championships which was a remarkable mixture. There was the fantastically friendly welcome of the people of Junin, and the unique sight of the "World's" washing muddled together. There was the willingness of everyone in the organisation to help at all times, and the impossibility of cashing travellers' cheques for days on end. There was the wonderful sunshine, the international accord between teams, excellent ideas like the launching layout, the co-operation of Merlo, and especially the courage of a relatively small and dispersed gliding movement in taking on the monumental job of running a complex World event. Although it sometimes had its moments, the 1963 Champs were full of character and vigour, and will be hard to match.

ZONES OF SILENCE

Herr Spuhler, Swiss Minister for Air, told the Swiss Parliament on March 7th that he plans to set up "silent zones" in the Alps, which would be "free of the noise from aircraft engines", according to *The Times* Geneva Correspondent.

1963 B.G.A. Ball



A BIG hand to all who helped to organise the gliding Ball when over 300 people danced to the music of Bill Saville's orchestra in the Kensington Palace Hotel on March 9th.

At the end of an excellent Dinner Philip Wills introduced the Rt. Hon. Lord Brabazon of Tara who proposed a toast to the return of the British Team from the Argentine. He then kindly pre-



Above : Lord Brabazon hands the Frank Foster Trophy to the joint winners, Nicholas Goodhart and Philip Wills.
Below : Alfred Warminger receives one of the three trophies due to him, while John Furlong reads out the citations.



sented the Annual Awards. Frank Irving thanked Lord Brabazon, and told one or two most amusing anecdotes about the team's trip.

Among those present from afar we noticed parties from the Cornish, Derbyshire and Lancashire, Cambridge, York-



shire, Essex, Nimbus (Germany), Scottish Gliding Union, Norfolk and Norwich, Ouse, Doncaster, Wessex, East Anglia and Chilterns gliding clubs, besides the usual crowd from the clubs around London.

At midnight a surprise cabaret act was performed by Beryl and Bobo Trampoline antics. This went down really well with the assembled company several of whom took a turn.

I think all are agreed that the Ball is better after the A.G.M. rather than before and next year we hope to organise a similar function in the new buildings of Imperial College on Saturday, March 14th, where we hope we will be able to accommodate a few extra for Dinner.

This year all the Dinner tickets were sold out ten days before the Ball.

"Julia".



Top left : George Collins of the Cornish Club, which won the Robert Perfect Trophy, and Mrs. Collins. Above : Paul Minton and Mrs. Minton, formerly Lorna Procter. Left : Mrs. Anne Burns with the California in England Trophy.

The Pilots Look Back on Argentina

By JOHN WILLIAMSON

IT was reassuring to find that Argentinian thermals worked in the same way as those at home. It was simply that everything was a few points bigger, and stronger. The poor days were very like our poor days ; the like of the good ones is seldom seen in England.

The 300-km. triangle day, February 19th, for instance, was very like the last day of the Aston Down Nationals except that everything was twice as much. At first convection was limited to a modest 3,500 ft., rising slowly towards the forecast 5,000 limit. Then, quite suddenly, there seemed to be another type of convection altogether, and another cloud base level that soon rose to over 9,000 ft., with the cumulus thin and flat like white table mats scattered conveniently across the clear blue sky. Each cumulus topped a fountain of 4-knot thermal, in which were hidden 8-9 kt. cores.

I'm afraid I sadly misjudged this day. On the forecast it had seemed wise to make an early start, English style, and I made what I could of the "as-forecast" thermals. Twice I got bogged down and had an urge to start again ; first by going back fifteen miles ; then by landing at the alternate launching airfield, twenty miles out. From there, and only from there, I could have been towed back to the original release zone. Twice a better thermal came along to convince me that I was doing all right after all. By the time the magnificence of the day became obvious I was already 30 miles out, having spent an hour and a half getting there. From such a bad start I could do no better than average 43 m.p.h., even though I averaged 58 m.p.h. over the second and last legs. A respectable speed for a Skylark 4 might have been 50 m.p.h., including the first into-wind leg. It was a hot-ship day *par excellence* and we were treated to the sight, on the glides, of Zefirs and the like simply getting smaller and smaller ahead, *and* higher above the horizon, as we bored on at 90 knots. Popiel did a magnificent 60 m.p.h. trip that cut my points to 488 for the day.

Away landings had their problems. My own difficulties included a very rough piece of armadillo colony. I had just been towed out of the field next door when, at 30 ft., the tow-rope fell off the tug and left me with no choice but to turn and land downwind in this huge field. Too late I realised that the surface



Some of the British team with, on the right, Warren Spence from New Zealand, who gave them much help.

Photo by E. J. Furlong

was horribly pitted and scarred and that I would be very lucky not to get bent. I managed to heave the Skylark over one last ridge and clattered down the far side. A mound of baked earth, excavated laboriously by one of the wretched animals, crunched into the skid and I was certain that the glider must be broken. I am sure that any other type flying in the Championships would have been wrecked. As it was, the keel was cracked, but it never got any worse, so we left it alone.

After the Free Distance flight I spent two nights in a small-town hospital and was invited to watch a hernia operation immediately before dinner! I declined, but accepted the willing help of most of the populace in moving the Skylark 2½ miles to a better field. This tricky operation was achieved by towing the tip-less glider smack through the centre of the town and then down the main road. The Chief of Police rode on the truck, holding the wing tips, and blowing his whistle when any traffic came along.

My other out-landing was at an estancia, owned by an anglophile who habitually had scones and jam for tea. Ignorance of the local custom of never approaching an estancia except along the road almost had me chased off as a hobo as I squelched across his lawn, rain-draggled, wearing a plastic mac.

I had arrived there, only 1 km. from the second turning point of a 300-km. triangle, by gliding from 20,00 ft. through 45 miles of dead cu-nim. It snowed, hailed or rained every inch of the way. Soon after leaving the lift, pressing into the heart of the great storm, an immense flash of lightning, many-tongued, threw a sizzling net across my path. It was probably several hundred yards ahead, but the brilliance of the flash and the clarity of its pattern was hardly modified at all by the dense clouds. It didn't happen again, and soon I was able to report, somewhat breathlessly, that I was still O.K., and pressing off due west. The navigation was a triumph of co-operation . . . and of luck, to be fair. Dave Cretney, a professional in these matters, quickly plotted my position from the hasty messages transmitted during the descent. Apart from a glimpse at 8,000 ft., I first saw the ground again at 4,000 ft. Unable to see ahead, I picked out various landmarks through the side panels, getting drenched the while. Map-reading, usually very easy in Argentina because of the lack of confusing detail, became almost impossible for the same reason, now that visibility was cut to about 20% in extent, and about 3 miles in range. The details that were visible, however, all indicated that, unseen ahead, my turning-point was getting closer. It should be an estancia of considerable size. One loomed up when I was at only 300 ft., so I turned in to land in a field adjoining the garden. Had I made the extra distance I would have shared first place for the day with Henry of France.

Although we had sometimes discussed the possibility, Nick and I only found ourselves pairs-flying on one day, and we found it remarkably efficient. On the Free Distance day we both left rather late after a second launch, having been compelled to land after the first one. My Boardmanship was a little too much for the Organization and they made me wait until all the half-dozen second starters decided to go. They admitted later that they were wrong in doing this, but it

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Squadron Leader John Barwell is a test pilot stationed at Boscombe Down. A fighter specialist, his most exciting experience to date was flying this new P 1127, the revolutionary, vertical take-off and landing aircraft. Recently he visited California and Florida to test-fly fighters of the U.S. Air Force. He joined on a short service commission, but has since been selected for a permanent commission.

The Royal Air Force

delayed my take-off until 12.30. The small bunch of stragglers, which included Nick, forged on down wind, struggled together when we had to, climbed more rapidly when someone found a better bit and generally made good progress. Gradually the gaggle thinned out until there were only four of us left to probe for thermals under the clear blue sky.

At this point my transmission to the radio car coincided with Nick's. I quickly called him and suggested that we should stick together and pairs-fly. He boosted my morale by replying that he would try to keep up and the game was on. Without further radio contact we settled at once into a routine. From any given thermal the upper glider would press off as soon as he felt that the lift was weakening, and the lower, usually not more than 100 ft. or so below, would follow at once, 200 yards or so to one side. As we flew into the next thermal we would each turn so as to cover the area as effectively as possible. This was a nerve-racking moment for the front man, as he swung round and looked anxiously to see whether his partner had in fact followed. The elation on seeing the other Skylark just behind was terrific. Nick is not very keen on continuous use of the radio, as anyone who has crewed for him will testify, and in any case his receiver was not working very well, so our co-operation was achieved in radio silence.

In the next two hours we used thirteen thermals together, including some poorish ones from 1,500 ft. over a badly swamped area that finally disposed of our two followers. The soaring layer steadily deepened until at last we reached the cumulus that had been in sight to the north for some time. There was now more reason for one to decide that the other may have taken the wrong direction, but still the lower glider followed faithfully the lead of the other. At last the system went bust. In the thirteenth thermal Nick was above and seemed to be climbing away. My bit wasn't too good, so I broke the rule and left first. Nick followed soon after but watched me dropping down ahead of him, as he took a track behind and to the right, a track that took him through reduced sink. Under the next cloud I looked in vain for him, and for the lift, until I saw him, 1,500 ft. above and circling. It was a blow to realise that now I was on my own ; I had not realised just how comforting and helpful Nick's presence had been.

My last thermal, ten minutes later, took me from 2,500 ft. back up to the high spot for the day, 6,000 ft. From there I flew under successive clouds with no result, slowing down from optimum cruise speed by ten knots for each useless cumulus, until soon I was reaching out at max. glide for the farthest point downwind. This turned out to be 390 km. from Junin, in an area that had had five inches of rain two days before. It seemed that at five o'clock the sun simply hadn't the power to drag thermals from the bogged fields. Nick was more fortunate and went on to 500 km.

* * *

By TONY DEANE-DRUMMOND

BEFORE we went to the Argentine the rules and marking system were circulated and it was clear that great efforts had been made to increase the marks differential which were awarded for speed and distance. For example, somebody completing a race in twice the time of the winner, scored no marks at all, and in the case of distance, no marks were scored for flights of less than one fifth of the longest distance in the class concerned. As I pointed out before we went, this would be perfectly satisfactory if uniform soaring conditions were to be experienced by all pilots, but would not allow for exceptional conditions met *en route,* such as thunderstorms or very large clamped areas. In fact, as we were to find out, the marking system accentuated the luck factor, rather than reducing it, and I doubt if it has many compensating advantages.

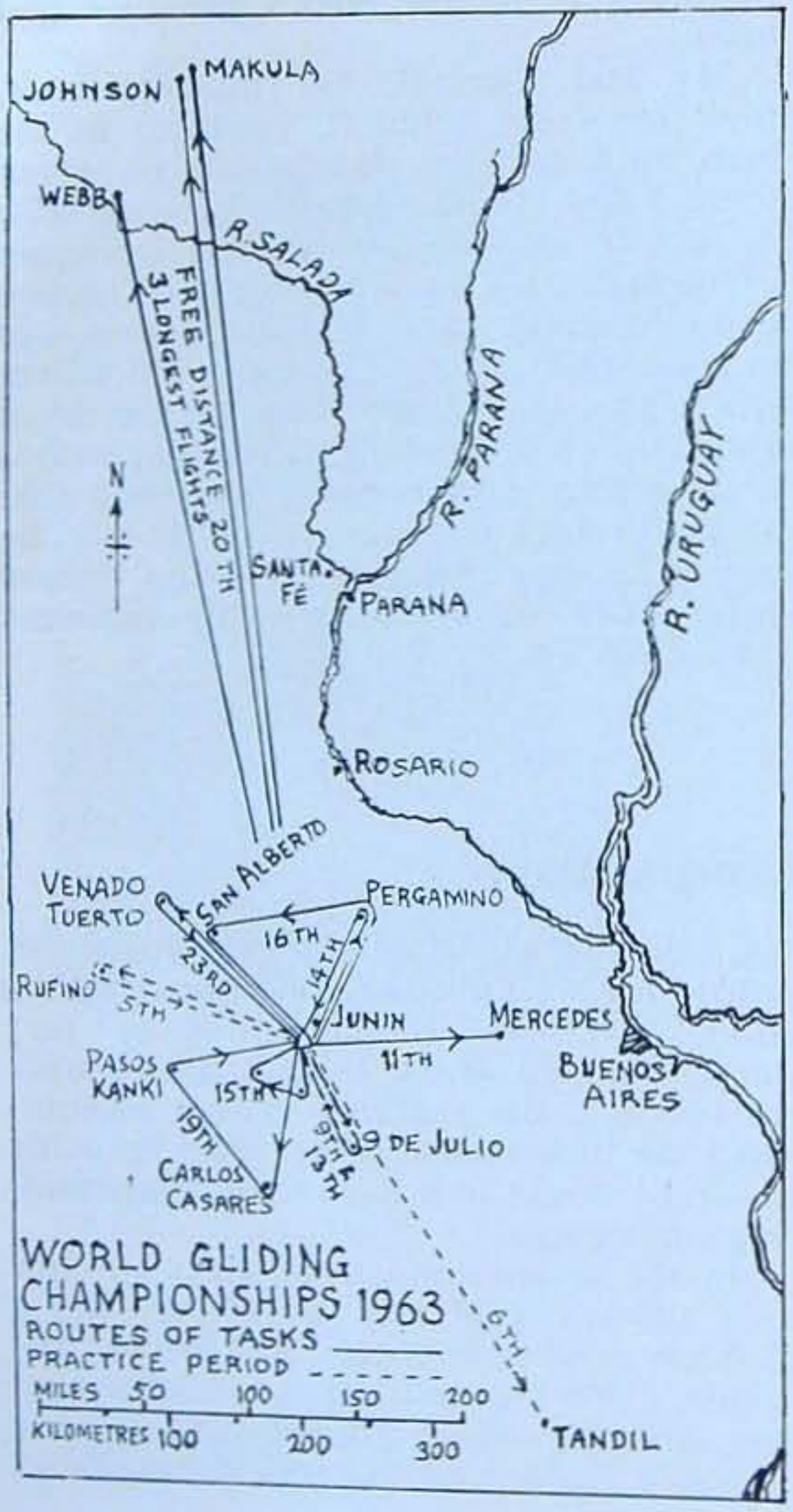
In the seven competition days we flew one 140-km. goal race, a 160-km. and a 240-km. out-and-return, a 100-km. triangle, a 300-km. triangle, an aborted 300-km. triangle which turned out to be a distance flight, and the free distance. As

the Standard Class always flew the same tasks as the Open, a direct comparison was possible, and on most days the 460 returned times or distances which were between the two Skylark 4's. I think there were many pilots who were astonished by the obviously excellent performance of the 460, in spite of its somewhat crude-looking fuselage.

The 300-km. triangle day produced the best thermals. It was wonderful to find myself going up at a steady 8-10 knots to a cloudbase of thin, short-lived cumulus at about 10,000 feet. Unfortunately both Nick and myself were delayed at least half to three quarters of an hour by a very large clamp half way along the first leg. As we both took exactly 5 hours, compared with the winner's $3\frac{1}{2}$, we did not score many marks that day. We both flew round the triangle together, after a chance meeting just past the first turning-point.



A gaucho ready to give Tony D-D a helping hand.
Photo by E. J. Furlong



The free distance day was one of very weak thermals by any standard, which initially had an absolute ceiling of 4,000 feet, although many pilots abandoned the weakening thermals after climbing to 3,000 feet or so. I left Junin about mid-day, in company with about a dozen others, including Makula and three or four of the fastest gliders. Even in these weak conditions the fast gliders gradually crept ahead, although they were only about half a thermal in front after 150 miles. We then reached thin cumulus with a base of about 6,000 feet, and it was the last I saw of Makula and Co. In the end, I covered about 495 km., whilst Nick reached the next village down the railway line. We had not seen each other the whole flight.

The night I spent at San Guillermo is a story in itself. The five-kilometre walk along the dead straight cart tracks which saw-toothed their way to the village; the screaming match of "O-la", "O-la" by the girl on the one telephone (which had to be relayed twice down the line to reach the operator at Junin); the rather fly-blown and cockroach-ridden estaminet where we stayed the night together with Pronzati, of Italy; the jovial and good-natured cook who cut off large chunks of beef from the usual "asada", or barbecue-type grill, to keep our plates topped

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up with almost uneatably tough steak; the flying cockroaches which zoomed round our heads as we munched at our table on the level-earth, open-air courtyard. And finally, tipping out my shoes in the morning to see 20 cockroaches come out of one and a mere 12 out of the other. (*Pace* Philip Wills!)

A kind man driving a 37-year-old Chevrolet took me back to the glider, to find that the cows had nibbled the tail — I was assured the night before that the field would remain empty all night — and finally to bring in my aeroplane by the heliograph loaned by Walter Newmark to start the long tow home to Junin, where I landed in the dark by runway lights, half an hour after sundown.

The stories we accumulated went on for ever, but everywhere we met astonishingly kind gauchos or their apprentices, who were always ready to help and if necessary to share their meals with us. It was a never-to-be-forgotten experience which gave me an insight into a wonderful country, which few non-gliding Englishmen have ever seen, and a chance to meet some of the kindest and most generous people in the world.

The final results placed me 15th. I was beaten by 7 Ka-6's, but I beat 15 others. Others ahead of me were the lovely French Edelweiss, two Finnish Vasamas, two Austrias, a Foka and the Italian Uribel. In my turn, I beat three Fokas, an Edelweiss, the Prue Standard, the Italian M-100, the Dutch Sagitta, the Australian Arrow; besides the 15 Ka-6's already mentioned. Another 250 points would have put me at 6th; which, of course, is what all the others are saying. And none of this would have been possible without the help and moral support given by Gerry Burgess and Warren Spence — a big-hearted, silent New Zealander who turned up unexpectedly and asked for a job. What wonderful experiences we all had!

* * *

By NICHOLAS GOODHART

THE other two pilots have given a good idea of what flying in Argentina was like, so instead of recounting similar stories I will try and answer the question that many will be asking as to why we did not do better.

Tony Deane-Drummond has pointed out that the marking system was severe. In the case of speed marks, the ratio of marks to speed was the same as we use in the U.K. for speeds near to the winner, but fell off at this rate continuously as opposed to our square law rate. In the U.K. a glider which averaged 30% slower than the winner would get 49% marks, whereas in Argentina he only got 40%, and on the good days it was quite clear that we could not hope to average anything like the speeds of the hot machines.

It has always been our opinion, up to this time, that in the average championship there are quite enough bad days on which the hot ships will be flying round the outside of the thermals and we shall be going up the middle to much greater advantage; this, we have thought ,would outweigh their straight-flight performance advantage. This did not seem to be the



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case in Argentina, and I can only suggest that this was due to the fact that even on the poor days the thermals were quite large and thus machines with larger turning circles were still able to stay up. This was well demonstrated on the free distance day, when conditions were



Scoring boards are always of interest.
Photo by A. E. Slater

extremely slow and difficult at the start and many of the fastest machines were creeping away just as, and even more, successfully than the slower machines.

In searching for a further explanation of the relative performance, I have come up with another possibility, which is, admittedly, only a theory but may also have some significance. It is reasonable to assume that the average distance between thermals on any particular day is dependent on the depth of the convection layer, and if this is so, then the chance of reaching the next thermal from the top of the previous one will depend largely on the glide ratio flown between thermals. In Argentina, due to the high thermal strength, on some days we had to fly extremely fast between thermals in order to achieve a decent cross-country speed. This meant that our glide ratio between thermals was very low, perhaps no better that the best glide ratio of a Tutor. Due to this poor glide ratio between thermals, the chance of failing to contact the next one and having to scrape to stay up is unusually high, and therefore, either one must fly too slowly between thermals and make a slow speed, or else risk the chance



All sorts of cars were used for towing out.
Photo by A. E. Slater

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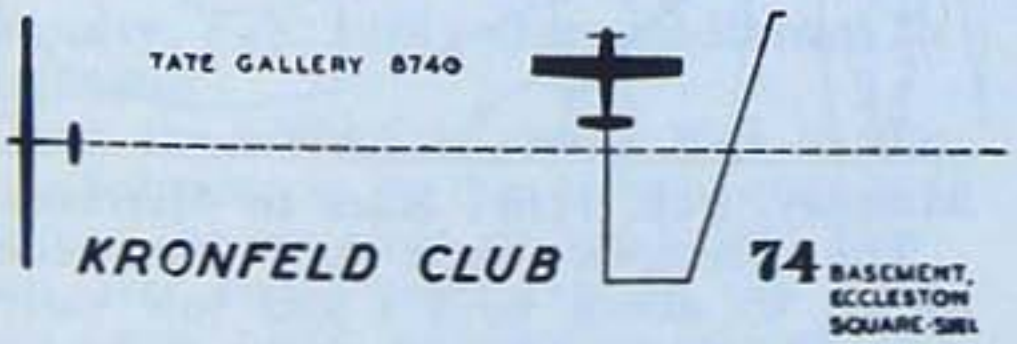
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of having to scrape for the next one. This is what happened to me and to Tony D.-D. on the 300-km. triangle day.

If this argument is sound, it puts the slower machines at a very much greater disadvantage on strong thermal days than they would be, solely due to their lower theoretical cross-country speed. I am therefore led to the conclusion that what we need is a considerably higher glide ratio at greater speed, sacrificing as necessary the low-speed performance.

So far I have discussed only the relative glider performances and the marking system. The other things one has to have are luck and the ability to take maximum advantage of the weather; there was a time when there were not many, even in World Championships, who could not be relied on to make a mistake now and again, and one's problem was not to make a mistake oneself.

On the subject of luck, for once I found myself slightly let down. On the day of the unfinished 300-km. triangle when John Willie got into the thunderstorm and was thus able to complete the second leg, I was just 10 minutes too late at the first turning-point to get into the same storm. This cost me 675 points and was, I consider, due to an entirely unnecessary element of luck introduced by setting a triangle task on a cu-nim. day. If that day is left out of the scoring, my position would have been 5th, which is the position I would have been satisfied to reach with the performance of the Skylark 4.



A FURTHER Special General Meeting of members was held on March 13th to discuss the club's future premises having regard to the Notice to Quit. The Chairman told members that the new Landlords of No. 74 had offered to sell the club an 88-year lease of the premises plus the boiler room; also the R.A.F. Reserves Club in South Street had offered block membership facilities at £1 per head per member. It was pointed out that whichever scheme was considered the club subscription rate would have to be increased.

The majority of those present agreed that they would prefer to stay at No. 74, provided satisfactory financial arrangements could be worked out by the Committee.

The Committee has since been busy trying to obtain a loan of the required amount and preparing a budget. Plans for the repair and redecoration of the premises have also been drawn up by an architect.

STOP PRESS.—We have just heard that although the Royal Aero Club and the Shaw Slingsby Trust are very sympathetic towards our course, they are unable to help us with finance.

A Special General Meeting is therefore to be held at 8.30 p.m. on Wednesday, 22nd May, at the Club to discuss our next move.

This will be a very important meeting at which the fate of the Club must be decided, and we hope that as many of our supporters as possible will be present or will write and let us have their views.

Y.C.B.

May	15.	"Aspects of Modern Air Survey" by John Saffery, with films.
,,	22.	Repeat showing of Films "Wings of Nations in Switzerland" and "Alpine Gliding in Switzerland".
,,	29.	Films: "Alaskan Air Fortress" and "Duel in the Sky".
June	5.	National Championships, miscellaneous.
,,	12.	Talk on "Air Lingus" Irish International Airlines by R. Bate.
,,	19.	Design of future Sailplanes by Godfrey Lee.
,,	26.	Talks by winners of League 1 and 2.
July	3.	World Championships by Frank Irving.
,,	10.	Aircraft Accidents Investigation Branch. Talk by G. W. Acock.
,,	17.	Films: "Salute to Flight", Canadian Film Library.
,,	24.	Aircraft Recognition Society. Talk by E. G. A. Wilton.

Championship Weather in Argentina

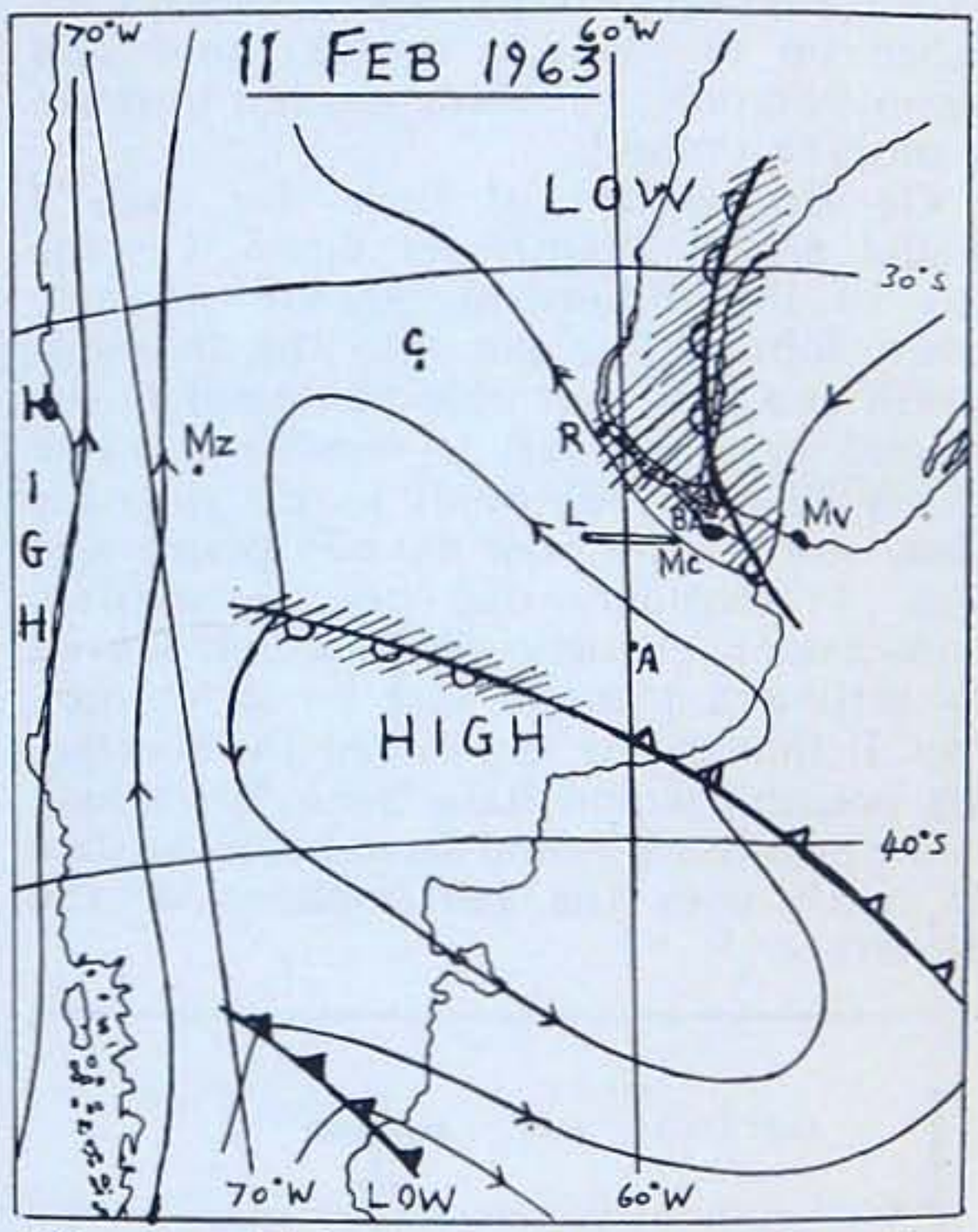
by C. E. WALLINGTON

FEBRUARY weather in most of Argentina is not a product of depressions or fronts of the type experienced in the British Isles. The main summer-time weather changes in the Central Provinces are caused by the movement and development of zones or belts of convergence. These belts have some frontal characteristics in that they often separate warm moist air from colder and drier airstreams, but the "activity" of the belts depends on the convergence of the air towards them; if airflows converge towards a belt then the air in the belt rises and produces rain, showers or thunderstorms from widespread convection cloud. The low level winds often differ in direction radically from those at medium or high levels and the convergence zones do not always move with the winds at any particular level. In fact, although the chances of good gliding weather in February at Junin are much better than they are here in Britain in any summer month, the problem of predicting the details 24 hours ahead is just as difficult.

Here is a weather diary for the contest days in the World Championships there. The accompanying sketches show isobars drawn at 3 mb. intervals and convergence zones marked as thick lines with appropriate symbols if they show some warm or cold frontal symptoms. The shaded areas represent areas of thundery rain. Arrows marked on the isobars show the direction of the "geostrophic" winds, but actual winds north of about 35°S are often quite different from the "geostrophic" flow.

A selection of places are indicated by the following letters :—

BA. — Buenos Aires, Mv. — Montevideo, L. — Laguna de Gomez (site of championships, near Junin), R. — Rosario, C. — Cordoba, Mz. — Mendoza, A. — Azul, P. — Pergamino, 9. — 9th July, Mc. Mercedes, V. — Venado Tuerto.



Monday, Feb. 11th : Race to Mercedes

The previous night had been cool (down to about 65°F.) and low early-morning stratus formed in the moist air. It did not break up until 11 a.m. local time, but with the afternoon temperature getting up to 89°F. there were plenty of thermals for all. As the air was moist, the cloud base was only 3,000 ft., and the tops were limited to about 7,500 ft. To the east, thunderstorms in a convergence belt (shown as a warm front on the map) were moving very slowly west, but they did not reach Mercedes during the day.

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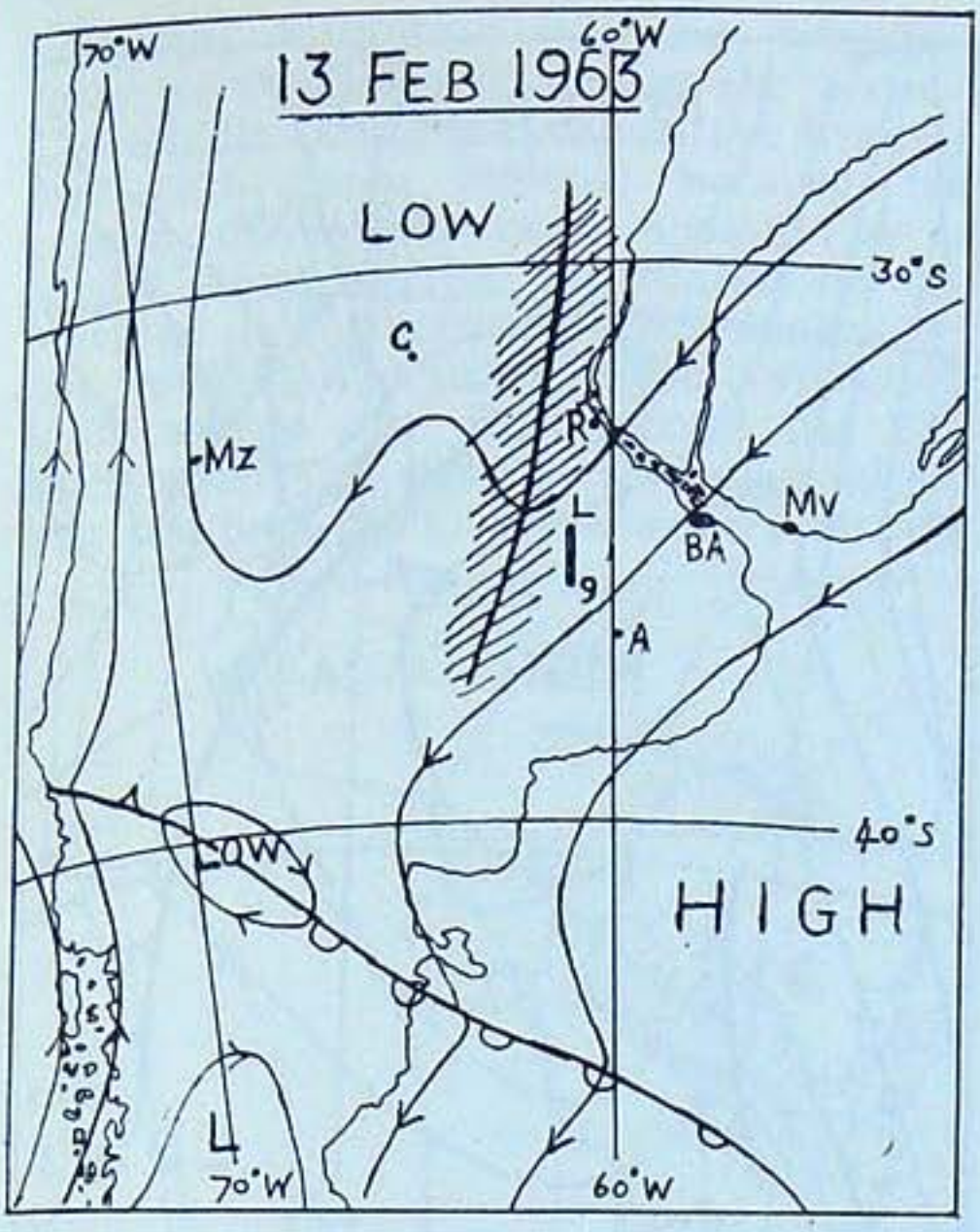
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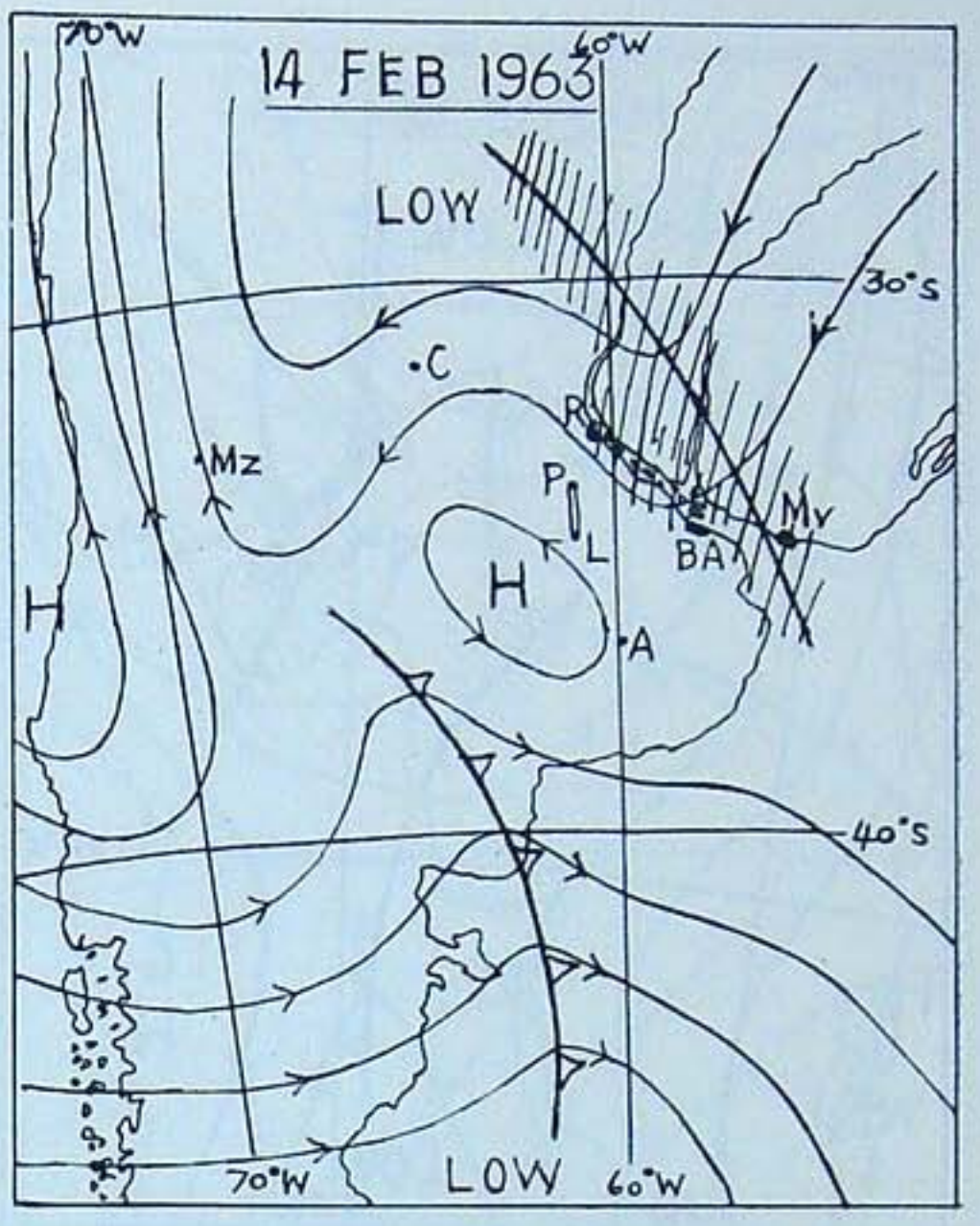
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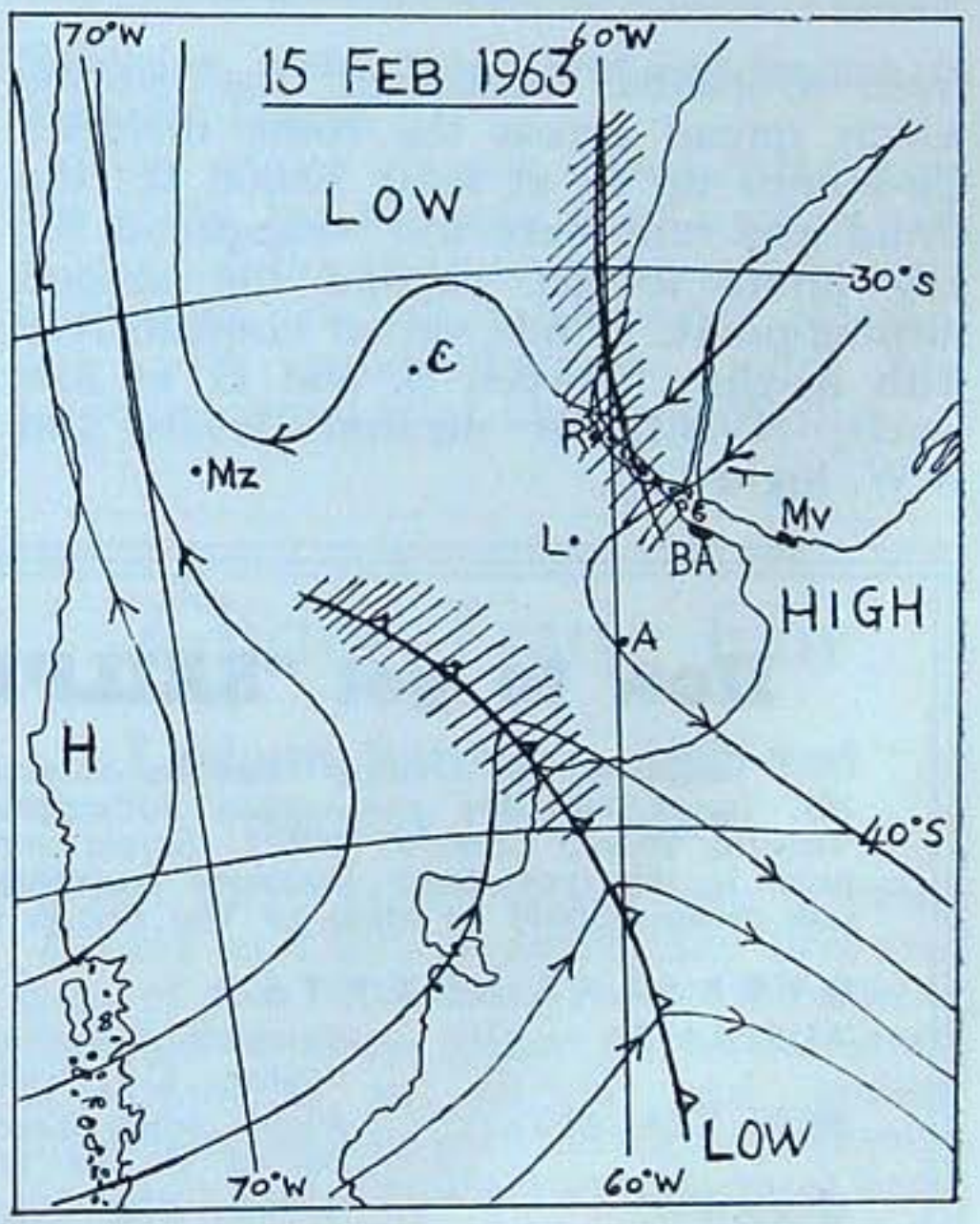
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Wednesday, Feb. 13th : Out-and-Return to 9th of July

The convergence belt which had moved westwards across the province of Buenos Aires was now just west of Junin, but was beginning to move slowly back towards the east. Coming from the tropics, the airstream affecting Junin was very hot and moist. Although there were enough thermals to reach the 9th of July with a tailwind, the return trip was almost impossible in the rain that spread across the route.

Thursday, Feb. 14th : Out-and-Return to Pergamino

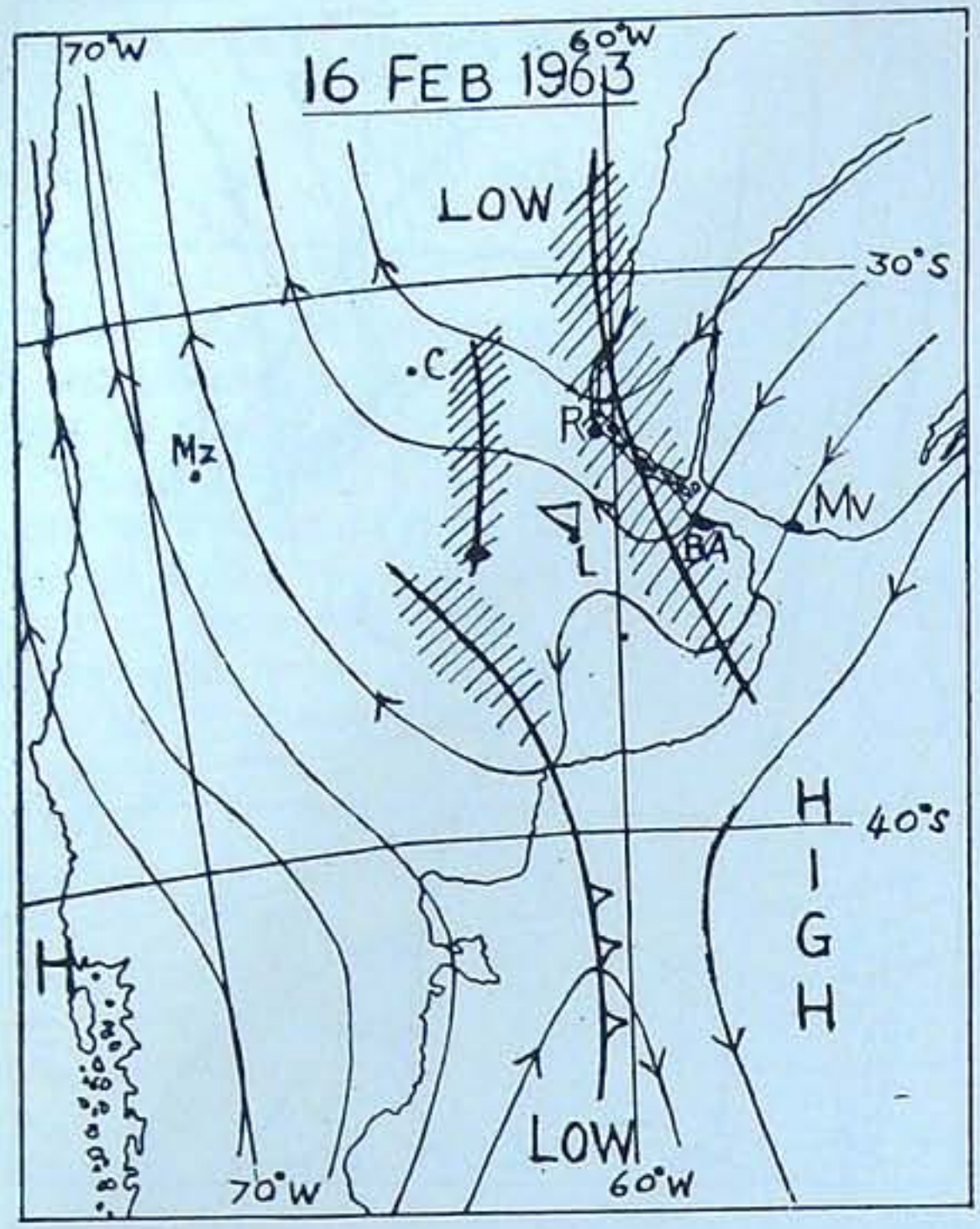
Now the belt of rain was well to the east. Subsidence in the anticyclone had warmed the air aloft so much that thermals over Junin were entirely dry thermals, but good convection cloud developed on the northern half of the route. Winds were S.E. 10-15 knots up to 4,000 ft. and westerly above 7,000 ft.

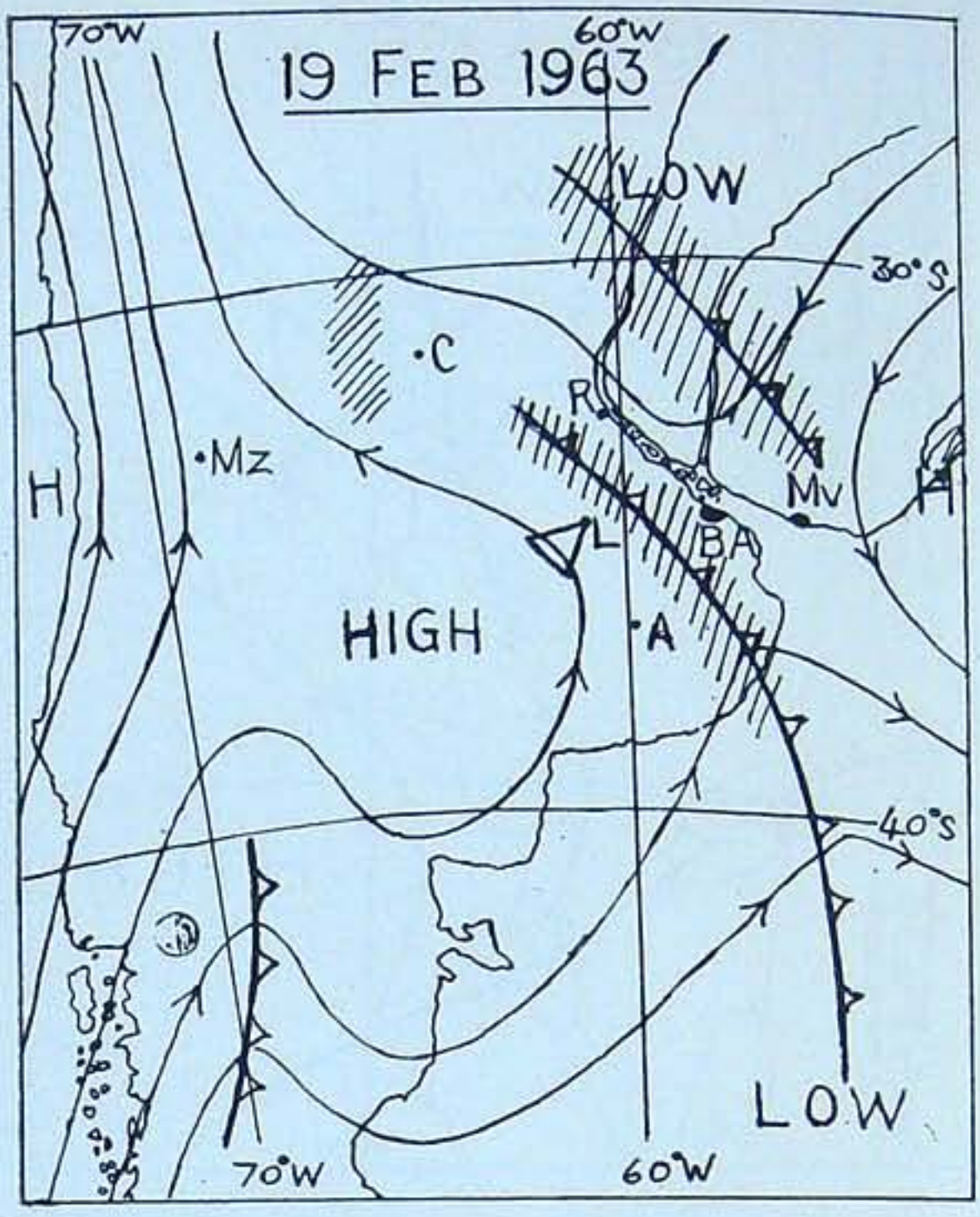
Friday, Feb. 15th : 100-km. Triangle

The anticyclone with its subsidence had now disappeared and general thermal soaring conditions were excellent. The winds were fairly light at most flying levels and cumulus cloud base rose to 9,000 ft.

Saturday, Feb. 16th : 300-km. Triangle

The rain belt to the east had moved a little towards Junin and another convergence zone in the south was also approaching as it developed, but the bigger threat came from a shorter belt of rain and thunderstorms which approached from the mountain range extending south





from Cordoba. Although the storms which spread across the route included Cu-Nimbs up to at least 30,000 ft., the cloud and rain were too widespread for any pilots to get beyond the second turning-point. Winds varied considerably with height; between S. and E. at low levels, N.-N.E. at medium levels and N.W. higher up.

Sunday and Monday, Feb. 17th and 18th

Interval for battle between the converging convergence zones and a downpour of thundery rain on the Sunday.

Tuesday, Feb. 19th : 300-km. Triangle

The battle of the convergence zones having been won by the zone from south, we were now in cooler and drier air from

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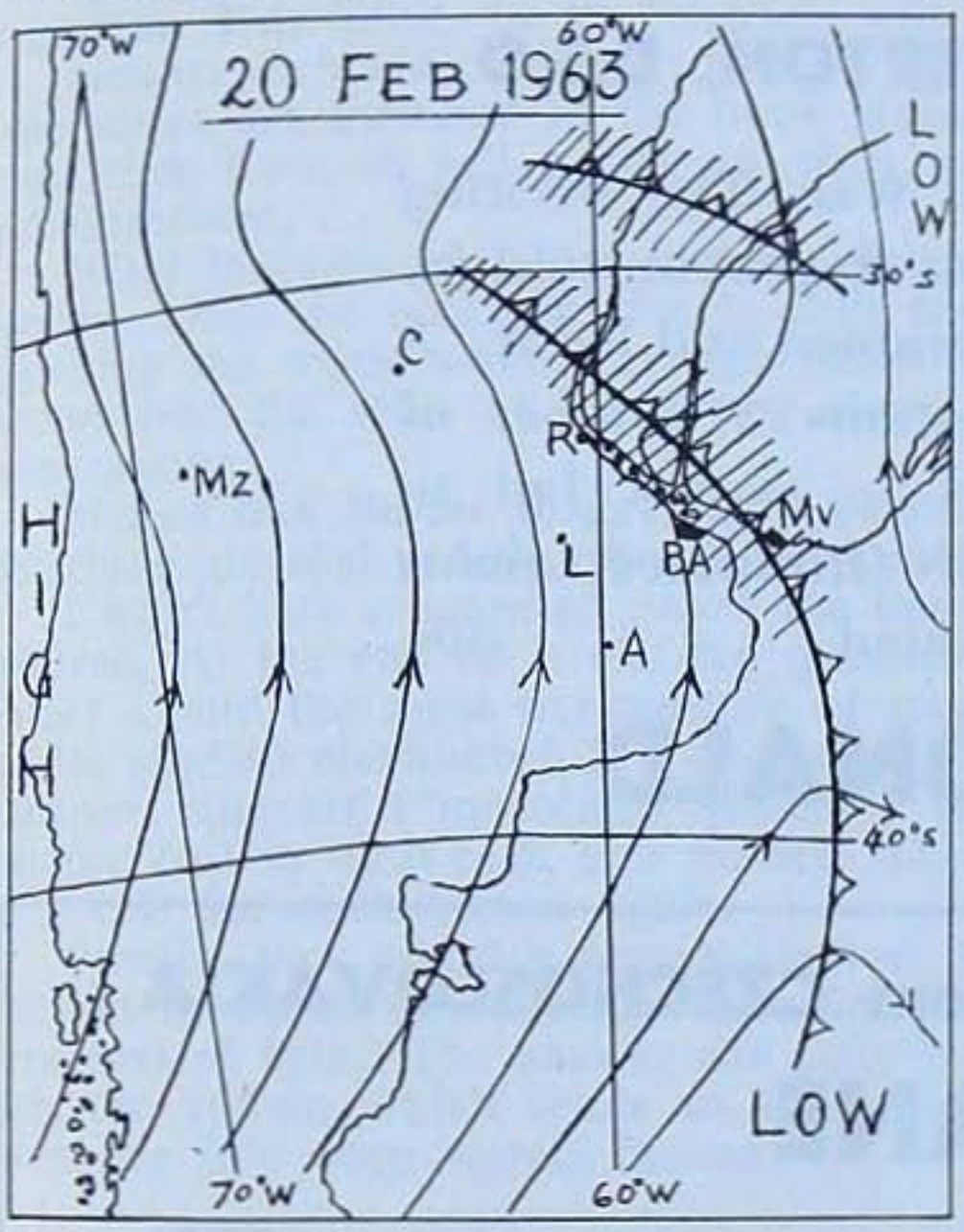
"Sailplane and Gliding" can be obtained in the U.K. at all Gliding Clubs, or send 20s. (post free) for an Annual Subscription to: The British Gliding Association, 75 Victoria Street, London, S.W.1. Single copies and most back issues are also available, price 3s. 4d. (post free). Enquiries regarding bulk orders of 12 or more copies, at wholesale prices, should be made to The British Gliding Association.

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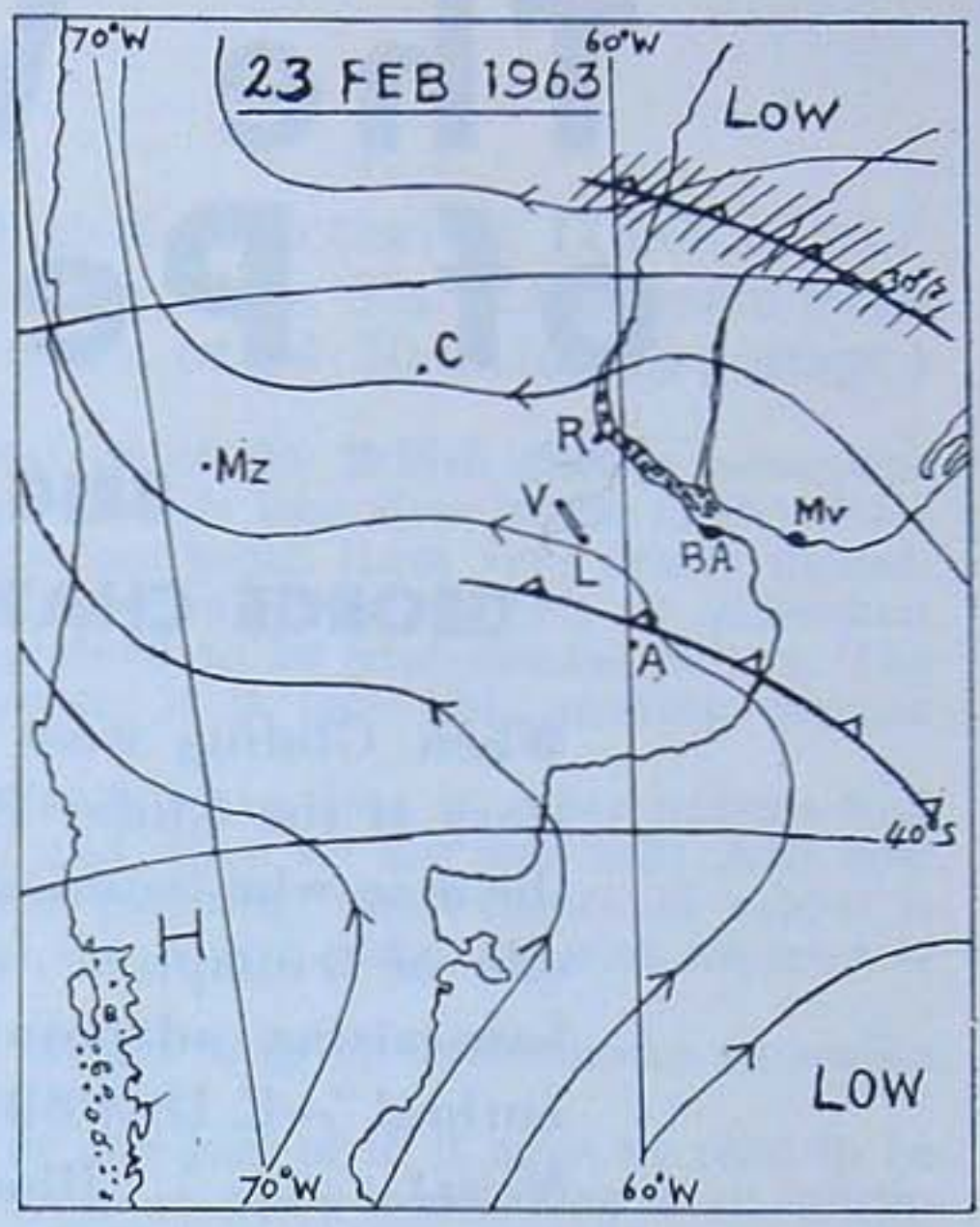
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temperate latitudes; morning temperatures were again down into the sixties. The middle of the first leg of the triangle was particularly difficult because the ground there had been soaked by a locally intense period of rainfall on the previous day. Thermals were weak over this wet area and some of the convection cloud spread out. But beyond the bad patch, thermals up to cumulus cloud base at about 9,000 ft. were very strong.



Wednesday, Feb. 20th : Free Distance

With the southerly airstream spreading over the whole of Argentina the obvious direction to fly was as close to north as the terrain would allow. From reports of the Championships it may appear that thermals started surprisingly late, but we should remember that Argentina is on Summer Time, and that although the surface air temperature there may be high by our standards, the temperature of the air aloft is also high, so convection does not always start early in the day. On this free distance day a few pilots were too optimistic in their assessment of the rate at which the thermal soaring conditions would develop. To the north and northwest soaring conditions were good except over swamps and some areas which had just been subjected to heavy storms. A tail wind of 20-25 knots helped pilots on their way.



Saturday, Feb. 23rd : Out-and-Return to Venado Tuerto

Even cooler air was approaching from the south, but the cold front coming with it was too far away to cause any weather difficulties. It was a generally pleasant day with good thermals under fair weather cumulus at about 6,000 ft.

Glider Trade Fair

Lasham, Saturday, 25th and Sunday, 26th May

THE Third Glider Trade Fair is being held at Lasham during the first two days of the Nationals. This exhibition is intended to show glider pilots the latest developments in gliders and gliding equipment and to provide an opportunity for pilots and manufacturers to meet each other.

This year the Trade Fair is being held in the Briefing Tent, and among the exhibitors will be manufacturers of gliders, radio, parachutes, batteries and other components.

The outdoor Static Park will display some of the latest British and Continental gliders and light aeroplanes.

The Wings of Pegasus

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BOOK REVIEW

The Wings of Pegasus, by BRIGADIER GEORGE CHATTERTON, D.S.O. (RTD.). Published by Macdonald & Co. Ltd., London. Price 30s. (Obtainable from British Gliding Association: postage 1s. extra, or $4:50 including postage.)

EVERY one of the surviving pre-war enthusiasts of the British gliding movement will have lost, or maintained, one or more friends who flew in the Glider Pilot Regiment. This book, by its founder, will therefore touch them very dearly indeed.

Neither Brigadier Chatterton nor the many men whose reports of individual experiences are included in the book would pretend to be professional writers. The story they have to tell needs no such expertise; it is incredibly moving without embellishment.

What fantastic gallantry can we Britons (and, let us face it, other nations too) display, when the occasion clearly calls for it and when we are well led! And how appalling the waste when, through incompetent planning, this treasure of valour is thrown into the scale at the wrong time, and the wrong place, or with inadequate preparation!

Names like Buster Briggs and Lawrence Wright crop up which make us realise that these are real people, people we know or knew.

I won't here attempt to précis the book, or any part of it, it must be read to be believed. At the end of it all, big questions loom in one's mind. Was it all worthwhile? Could the same expenditure of men, money and spirit have produced better results applied elsewhere? My own view has always been that large lightly-powered transport aircraft ("motorised gliders") would have produced better results at a cheaper cost in both men and money. The point is academic, since there will never be a call for such forces again.

Finally, how could a people such as this have been brought to the humiliating position in which our country now finds itself? Surely we are still intrinsically the same sort of folk? The answer can only be with our leaders, or more fundamentally with the system which leads to their election. On closing this book, one's mind takes one into deep waters indeed.

P.A.W.

Segelflug Weltmeisterschaften, 1960. Published by DEUTSCHER AERO CLUB, 6 Frankfurt am Main, Bockenheimer Landstr. 19. Price D M 3.

THIS well-illustrated booklet makes a good memento of the World Gliding Championships held at Butzweiler, near Cologne. The photographs are numerous and excellent. The text is, of course, in German. Seff Kunz, head of the organisation, writes an introduction, then Günter Kämpf gives a day-by-day account of the whole meeting. Heinz Huth writes on high-performance soaring, Walter Carthaus on planning and organisation, Heinz Arnim on flight control, Joseph Dabrock on the Press, and finally Helene Huth gives a bright account of her adventures in retrieving her husband. "Pirat" Gehriger's speech at the opening ceremony is given verbatim; one of his remarks was: "I am told that before me there stand representatives of 24 nations. My dear friends, I see before me only one nation, the race of dedicated soaring pilots. the only nation that lives in heaven."

A.E.S.

What goes up must come down — The polythene screen which was erected in Salisbury Cathedral as part of an experiment to overcome down-draughts in the choir is to be removed next week.—*The Times*

CORRESPONDENCE

DEFINITION OF WORLD CHAMPION

Dear Sir,

Once again we read in the press of *the* World Gliding Champion, Makula, and find that this refers to the champion of the smaller of the two Classes taking part in the Championships; there being only incidental reference in small paragraphs towards the end of articles (apparently written by well-informed members of the gliding fraternity) to the Standard Class Champion and to the fact that he, Huth, has done it yet again.

A more suitable title for articles on the Championships would have been: "GERMAN PILOT WORLD GLIDING CHAMPION THIRD TIME IN SUCCESSION".

In order to emphasise the man (or woman) as distinct from the "machine", I suggest that there should be *one* World Championships and that these should be alternately Restricted Class and Unrestricted Class, thereby allowing designers and manufacturers four or five years, between successive championships of the same Class, in which to develop new sailplanes.

While on the subject of emphasising the skill of the pilot, how about replacing the present Two-seat Records (which prove little, except that one pilot is usually better than two) by Restricted (at present, Standard) Class Records?

Quai de New York, Paris. TONY GOODHART

B.G.A. ANNUAL TROPHIES

Dear Sir,

Once again this year we have the absurd situation whereby some of the B.G.A. Annual Trophies are not presented because of lack of applications for the particular "pot". It is interesting to note that the altitude merchants seem consistently shy, whereas the speed and distance pundits rarely miss a trick. Could this have some Freudian significance?

Surely the situation is quite easily remedied, for during a given year the British Gliding Association must collect documentation on many good flights, not only as certificate applications but also as rating scores in National and Regional Contests. I therefore suggest that the flying committee be empowered to present the trophy in question to the pilot who achieves the best performance among those whose documentation has been approved for the given year. Anyone else bettering this performance would only have himself (or herself) to blame if they did not apply in the present manner for award of the trophy.

Fenland Gliding Club. IAN STRACHAN

Mr. E. J. FURLONG, Chairman of the B.G.A. Flying Committee, writes:—"Mr. Strachan's idea sounds fine on paper, but he overlooks the fact that the B.G.A. gets *no* 'heights' registered during the year in any competitions unless they are claimed to be records (or badges)—in which case the 'pot' follows automatically.

"No! I'm sorry to say there seems to be no remedy but 'do it yourself'. If anyone does a decent climb and has the necessary documentation, all they need do is to send a postcard giving details. This will be filed, and at the end of the year, if it has not been bettered, they will be asked to forward full proof of the flight. Isn't this simple enough?"

THE COMRADESHIP OF GLIDER PILOTS

Dear Sir,

I am glad to see that there has been further correspondence on this matter. When I wrote my last letter I was unaware that the topic was already being discussed. The letter was written in a moment of anguish because, realising the problem, I thought that developments at the time were making matters worse.

As I see it, our clubs are liable to become too large owing to the difficulty of

founding new sites. Therefore, their members may find themselves losing the ability to notice visitors in the scramble to look after themselves. I believe that, in our own interests, every effort should be made to solve the problem.

Visitors whom I met last year all said that they had been told to visit Lasham as Lasham had the best facilities to offer in Britain. It also happens that Lasham is the most crowded gliding site in the country. It is nevertheless able to offer advanced flying to some of its members on a larger scale, I believe, than any other club can.

I suggest that one way to alleviate the problem is that highly trained members from the larger clubs could offer their experience to the smaller clubs so that the standards and facilities in the smaller clubs might be improved (I have been trying to do this myself). Visitors might then be able to go to the smaller clubs, where I am sure they would be received well, and they could also have the flying they hope for.

Another of our great problems, I think, is that our best pilots have nearly all had to become private owners (to have got as far as they have). Furthermore, our hard-working C.F.I.s have not had the chance to learn advanced cross-country flying because of being tied to their work. Therefore pilots with Gold C's and Diamonds are often treated with suspicion in the smaller clubs where even the best pilots have not had the chance to get as far. Could I ask whether it is more difficult to find a new club or to find someone to be its C.F.I., of the same quality as Derek Piggott or M. Pêchaud of La Ferté Alais?

It is only fair to mention that in France and Germany the problem is not quite so acute. At La Ferté Alais, there were sufficiently few members to be handled by an efficient central organisation. The problem of too many members did, however, begin to arise at week-ends. In Germany, there is a large number of small clubs working as independent units. Thus, it seems that gliding clubs in both countries are able to look after visitors extremely well.

I think that our problem can be solved by experienced glider pilots turning to the smaller clubs, and by even trying to found new ones. Only in this way can the pressure be taken off the larger clubs, and then not only their own members but also visitors will have a better time. I hope that there will be more correspondence.

Henley-on-Thames. C. WILLS

A "BRONZE C"?

Dear Sir,

With the introduction of the new distance requirement, the Silver C will be brought more into line with the higher awards. However, the gap between the C and Silver C has become even greater. For example, for C a duration flight of five minutes is required; for the Silver C the duration is 5 hours. Because of this large gap, a pilot who has just gained his C certificate will have to fly for some two to three years on average before he can look forward to attempting flights for the next award, as inevitably some considerable time is required to acquire the skill necessary to cope with long-distance cross-country flights.

In order to provide an incentive during this period, we suggest that an intermediate award—a "Bronze C"—might be adopted to give the novice soaring pilot a more immediate goal at which to aim. Possibly the requirements might be:

(a) A duration flight of two hours. This time will bridge the gap between the C and Silver C requirements, while still demanding a fair amount of skill.

(b) A distance flight of 50 km. This is the old Silver C requirement and will supply a link with the higher awards.

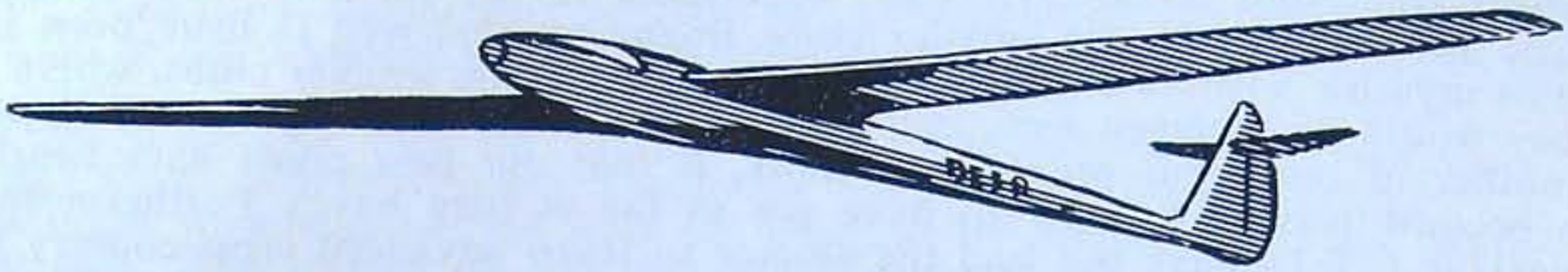
(c) A simple examination on navigation. This will help pilots considerably when they progress to the higher awards, especially when on triangular flights, and will ensure a uniform minimum standard. A gain-of-height requirement is not practical, as any gain less than that of the Silver C will probably already have been achieved in gaining the C.

In brief, the advantages of this intermediate award are:

(a) Incentive after gaining the C.

(b) Steadier rise of standards from award to award.

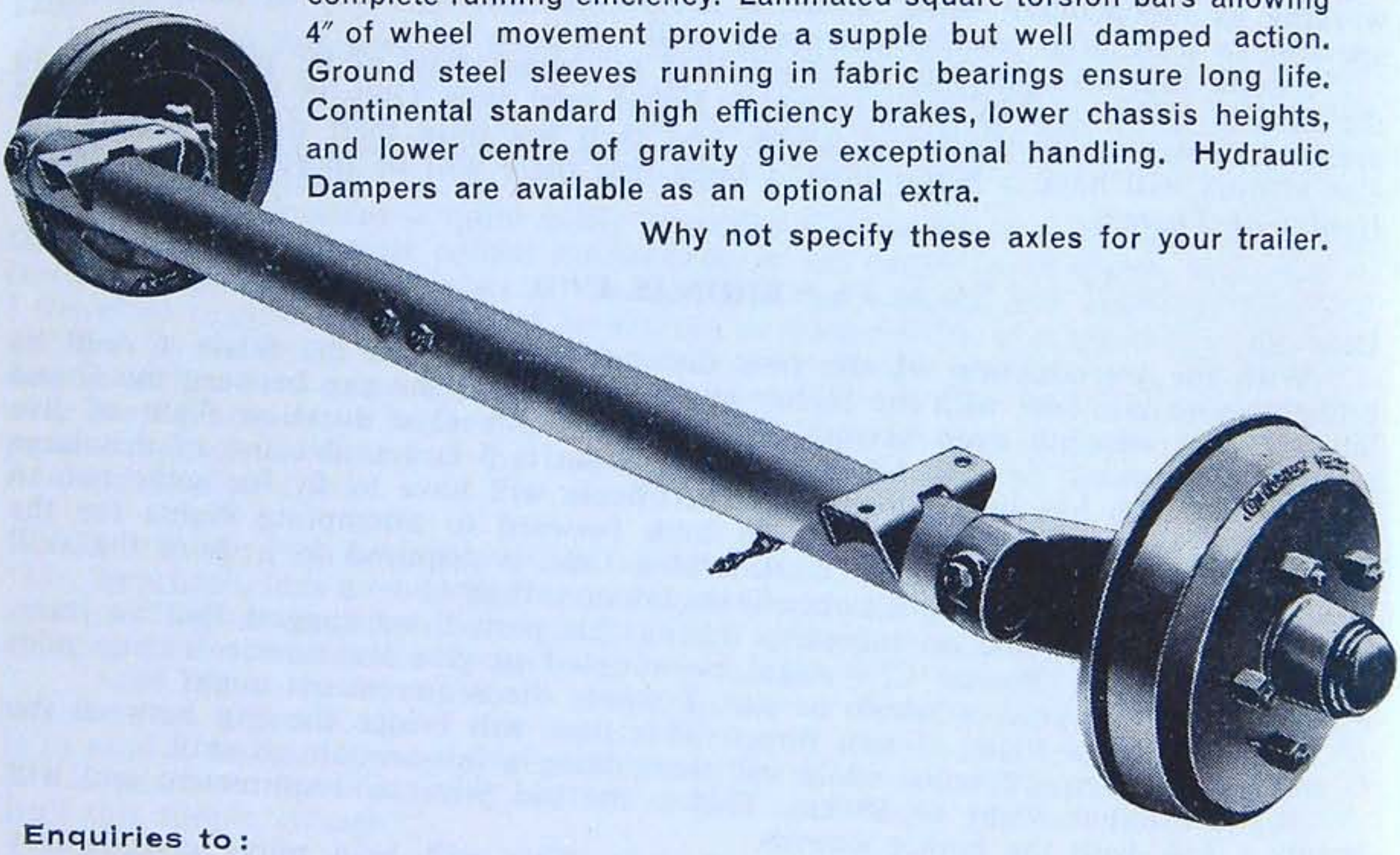
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(c) Uniform minimum standard of navigation.

As this new requirement comes into effect on January 1st, 1964, the pilots most likely to be affected by this gap will be those who have recently gone solo, or are about to do so, and it would be interesting to hear their views.

Leamington Spa. W. J. L. CORSER, G. F. STILGOE

[In the 1930's an intermediate qualification between the C and Silver C was in vogue in Germany and Austria; it was called the "Official C" for short, or "amtliche Segelfliegerprüfung" in full. For it, the pupils had to have done a total of half-an-hour's soaring, and to pass an oral examination of such severity that Fritz Stamer, head of the Wasserkuppe school, wrote a 48-page textbook for the benefit of candidates preparing for the exam. Till they had passed this, pilots were not allowed to fly outside the boundaries of their gliding site.—ED.]

A DISAPPOINTED VISITOR

Dear Sir,

"The type generally not found in the U.S.A." expresses regret that the simple wish to become airborne, expressed in a letter couched in terms one had hoped were mildly amusing, has led to mildly corrosive responses. He encloses $5 (U.S.) as a contribution to the World Championships Fund, hoping that this will be a first step toward the achievement of grace, aware, however, that this cannot be purchased.

New Hampshire. MACKENZIE HUME

STOCHASTICER AND STOCHASTICER SAID ALICE

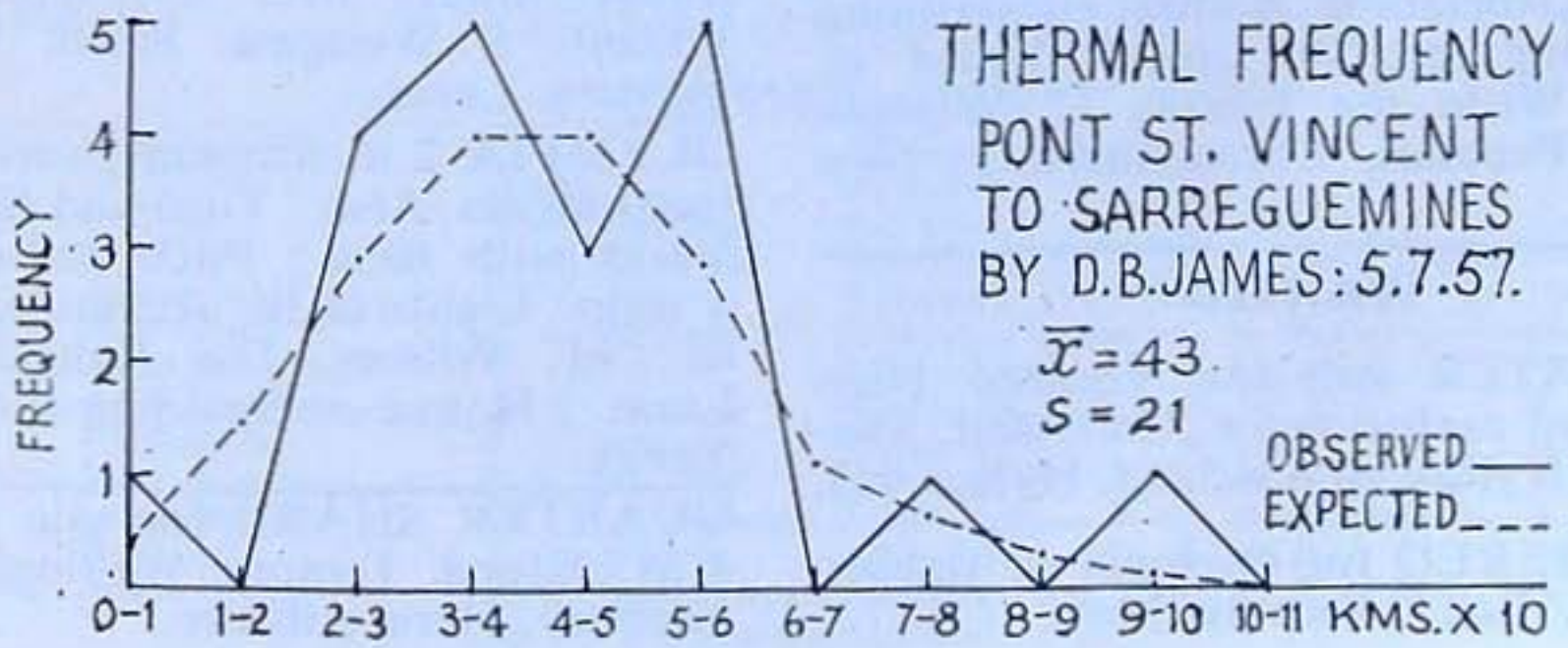
Dear Sir,

Assuming that thermal interception by a glider is a purely random occurrence, if a lot of gliders take off from point X the relation between their numbers and their distance from X should give a Poisson-type distribution given by the formula

$$e^{-\mu}\left(1, \mu, \frac{\mu^2}{2!}, \frac{\mu^3}{3!} \ldots \frac{\mu j}{j!} \ldots\right)$$

Conditions where this situation should hold true would occur when the task set is distance (either free or along a line), when conditions are poor and with either very bad visibility or no clouds, when there is no coast line or hazard to be negotiated, and when there is no flying in gaggles. As the last condition is difficult to fulfil, some sort of correction based on, say, gaggles of four for the first 25 per cent and gaggles of two for the next 25 per cent might be used, but the number of sailplanes involved must be large before it is worth doing. The best example I can find is a task set on 5.7.57, in France, being a race from Pont St. Vincent to Sarreguemines which is shown on the graph together with the curve of the expected theoretical frequency. There seems to be a fairly good fit between the theoretical and observed figures, though looking at the results of other tasks one can see this is exceptional, since the conditions demanded for this sort of result are only rarely attained.

Marlow, Bucks. D. BRENNIG JAMES



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"AUSTRALIAN GLIDING"—monthly journal of the Gliding Federation of Australia. Editor, Peter Killmier. Subscription 30 shillings Australian, 24 shillings Sterling or 3.50 dollars U.S. and Canada. Write for free sample copy, "Australian Gliding", Box 1650M, G.P.O., Adelaide.

"THE GLIDING KIWI" — Illustrated quarterly journal of the New Zealand Gliding Association. Annual subscription 8/- sterling or $1 United States or Canada. Write the Editor, 12 Winston Avenue, Papanui, Christchurch 5, New Zealand.

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GLIDING CERTIFICATES

DIAMONDS FOR ALTITUDE

No.	*Name*	*Club*	*Date*
3/32	H. V. Howitt	Lasham Gliding Society	21.12.62
3/33	D. M. Bryce	R.A.F. Geilenkirchen	5.11.62

DIAMOND FOR GOAL FLIGHT

		Club	*Date*
2/135	J. Everitt	London Gliding Club	30.8.59

GOLD C DISTANCE LEG

Name	*Club*	*Date*
J. Everitt	London Gliding Club	30.8.59

GOLD C HEIGHT LEGS

Name	*Club*	*Date*
H. V. Howitt	Lasham Gliding Society	17.12.62
D. M. Bryce	R.A.F. Geilenkirchen	5.11.62
K. C. Morgan	R.A.F. Laarbruch	8.11.62

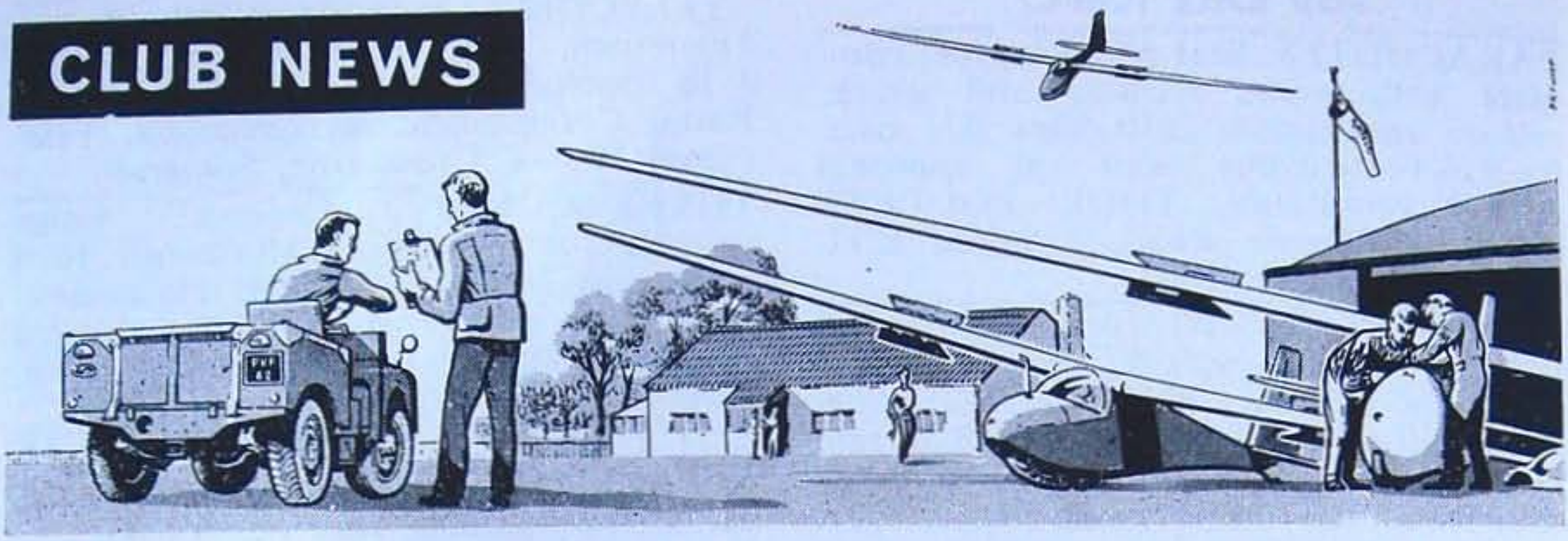
SILVER C CERTIFICATES

No.	*Name*	*Club*	*Completed*
1249	J. E. Duthie	Scottish Gliding Union	9.12.62
1250	J. W. Hayes	Doncaster & District Gliding Club	4.8.62
1251	J. Hopkins	Midland Gliding Club	3.7.62

C CERTIFICATES

Name	*Gliding Club or School*
K. D. Orford	Suffolk
K. A. Hudson	625 G.S.
R. J. Nichol	Aberdeen
J. C. Taggart	Red Hand
L. S. Ash	Aden Services
R. Hyam	Aden Services
F. J. Doidge	Crusaders
A. E. Stenhouse	RAF Kirton-in-Lindsey
A. E. Gee	Fenland
A. T. Williams	South Wales
R. L. Gordon	Aberdeen
C. E. D. Park	Dumfries
A. T. Letts	London
J. A. Adams	Oxford
P. Llovd	Newcastle
K. B. Walker	Newcastle
J. V. Willcox	London
J. S. Hinchliff	631 G.S.
D. F. G. Grogan	Laarbruch
A. E. Stokes	Midland
A. C. Wordsworth	Handley Pag
M. D. Fitzpatrick	Midland
G. Pearson	Dumfries
J. I. Ridley (Miss)	Phoenix
B. P. Mee	Phoenix
C. J. Ridley	Phoenix
E. M. Andrew	Dorset
G. M. Hill	Red Hand
A. Park	Ouse
P. M. Walker	Aden Services
G. R. Horner	Wessex
A. R. Rais	Perak
E. A. Robertson	Windrushers

CLUB NEWS



WELL, now that soaring is in full swing and the Nationals about to begin, we wish all competitors the best of luck and look forward to reading in the August News how those left at home have fared.

The last date for news to reach me for inclusion in the August issue is Wednesday, June 12th, at 14 Little Brownings, London, S.E.23. Please remember copy should be typed double-spaced on foolscap. (The August issue, like the present one, is being published early.)

YVONNE BONHAM,
Club News Editor.

BLACKPOOL & FYLDE

SPRING is here at last and with it the longer days and, we hope, warmer and less inclement weather. All being well this general improvement should entice the less keen members out of their igloos and away from T.V. and their fire-sides.

Whenever flying was possible during the sub-arctic weather, we carried out circuits and bumps, with the result that Malcolm Eaves and Jane Murdoch have progressed noticably towards their first solos. This stage will, no doubt, have been reached long before the Club News appears in print.

We have not been idle during the unflyable weather. Thanks to the affiliation of the English Electric Flying Club, we have enjoyed many excellent and instructive film shows at the Clubhouse, the most recent events being a talk by "Johnny" Squier of Lightning ejection fame, supported by films on safety equipment including the ejector seat, Mae West and dinghy. Three weeks ago Wing Commander "Jimmy" Dell, Chief Experimental Test Pilot of English Electric Aviation, gave a talk on high-speed flying with particular reference to flying the Lightning. His films were "Mach 2" and "Test Pilot". The latter by kind permission of the Rank Organisation.

We shall be returning to our summer site at Samlesbury Airfield, between Preston and Blackburn, in about two weeks and we have every hope of recording many C's and Silver C legs in the next issue.

J. S. A.

BRISTOL

THE club came to life again at the end of February after our enforced hibernation and the intensity of flying has gradually built up since then. The R.A.F.G.S.A. held a camp during March and achieved a fair amount of flying in their two weeks' stay.

The A.G.M. held on March 30th brought a large number of members to Nympsfield, although it was unfortunate that neither the President nor any of the Vice-Presidents was able to attend. The meeting was conducted by the Chairman, Denis Corrick, who reported a reasonable year, but not quite as good as 1961, due mainly to winch fumbles and the weather. However Treasurer

Alan Smith was able to report a small profit. Various schemes were afoot for a water supply, a new bunkhouse and better tracks on the field.

To improve the launching position, Brian Mumford had constructed a new member-proof winch, and had commenced a very special cable retrieve vehicle.

Officers elected for 1963 were: Chairman—D. Corrick, Vice-Chairman—J. D. Jones, Treasurer—S. A. Smith, Secretary —M. Ford, Committee—K. Brown, G. Fisher, H. Grimes, E. Holmes, R. Jefferies, J. Stuart-Menteth and A. Sutcliffe. Maurice Ford has been persuaded to take over as Secretary from Tom Parkes who has done an excellent job for some years.

Private groups are busily changing aeroplanes. "Rhubarb and Custard" syndicate have swapped their Skylark 2 for a gleaming new Skylark 4 in the same colour scheme. Tony Gaze is replacing his Ka-6 with a Standard Austria and Denis Corrick has formed a syndicate to operate another Austria. Interesting new shapes in the local skies!

Congratulations to Pete Etheridge and Josie Glasse on their engagement. Pete is continuing as course instructor this year and Josie has taken over the running of the clubhouse. Congratulations also to Tony and Liz Saint on the production of a son.

A. L. S.

CAMBRIDGE

THE Club's Annual Dinner was again held in a College Hall on February 16th. Among the highlights of the Dinner was the presentation of the Club's 100th Silver C to Roger Holland by the holder of the Club's first Silver C, John Simpson.

Among the trophies presented was the Brunt Trophy, which is for competition among the members in stat. pup. of the university gliding clubs of this country and is awarded for the greatest climb of the year. It was again won for Cambridge, this time by Ian Wilson with a climb of over 9,000 ft.

The reason why this trophy keeps being won by Cambridge with almost tedious monotony may well lie in the superior weather of East Anglia, although an explanation which is more provocative to the other two competing clubs cannot be ruled out.

During the winter months there was virtually no flying at Marshall's, the Club's home site. At the beginning of March, the urge to aviate became irrepressible and two aircraft, the Swallow and the Tiger Moth, were transferred to Tibenham, 45 miles away, where we enjoyed the hospitality of the Norfolk Gliding Club for several weekends. Flying at Marshall's at last started up again in the middle of March, and soon after we logged our first hours of thermal soaring.

This winter's frustration certainly got the Committee thinking. Somehow we have to remain triumphant over the weather's attempts at cutting our income. Various measures have been taken, among them a subtly revised scale of flying charges, a tighter system of elementary instruction, a revived winch-drivers' rota, a more economical retrieving system, a Subscription Secretary to remind members that there are fees to pay, and improved aero-towing facilities on weekdays during the summer months. The last-mentioned item will be of interest to private owners who wish to pay us a visit.

G. S. N.

CORNISH

GEORGE Collins has retired as C.F.I., it is hoped that this will be for one season only, as George is undoubtedly our most experienced and talented pilot. There is no doubt that he has richly earned a rest from the many and onerous duties he has undertaken in his six years of office since the Club's foundation. The C.F.I.'s flying duties have been, we

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think, the least heavy of his burdens and the award of the Perfect Trophy to the Club shows but a small measure of the success he has achieved.

Pip Phillips, who was deputy C.F.I. and is the only holder of an all-Cornish Silver C, has now taken over as acting C.F.I. He has our full confidence and we wish him a happy and successful season.

Jim Wingett took up the post of full-time instructor at the end of March and is already making his mark showing the more "ridge bound" of us that thermals go higher than mere ridge lift.

Jim will be in charge of this year's courses and as he is also a tug pilot this should increase cross-country flying chances sixfold as aero-tows have normally been available on Sundays in the past. It is also hoped that having Jim will stimulate weekday winter flying. Needless to say he is very welcome.

March 30th was a day when Perranporth seemed the ideal gliding site, banishing harsh thoughts of the past winter. The sun was warm, the fields a new green, the Atlantic white horses drifted in from the north-west and the Club fleet soared above it all.

Thermals were popping off the cliffs and lording it at the top of the "stack", looking down on more refined machinery, John Turner sat out his five hours in the Tutor. Well done, John.

J. E. K.

COVENTRY

AT the Annual General Meeting held recently there were two changes in the officers of the Club. Stan Clarke retired from the post of Tugmaster, but will continue to tow for us, and his place is taken by Don Swann. The new Transport officer is Doug Findon, his predecessor, Doug Sadler, will be continuing on the transport side as his principal assistant. We can only say that the Club is almost entirely dependent on these two officials for continued operation. In the past we have been well looked after. Good luck to the new men.

Now that the ice age appears to be receding, flying seems to be nearer to the old tempo. Soaring is with us once more, and the first quarter gave us our first C's of the year, Fred Ruhl and Tom Bateman, the first local flights over the hour, and the first cross-country, this last by Ken Owen in a private Skylark 2 from Coventry to Edgehill.

The launch rate will be taking a bit of a knock. A con-rod on the winch wondered what the outside world looked like and satisfied its curiosity by emerging from the side of the block. This has given Doug Findon his first crisis since he took the job of looking after the transport. However he started immediately and we have the loan of a Wild winch which should tide us over this repair. We have joined the "diesel winch made from a bus" school of thought and progress reports indicate that we may soon have one in service; this would strengthen the weakest link in the Club and is eagerly awaited.

C. D. D.-J.

DERBYSHIRE & LANCASHIRE

FLYING recommenced at the beginning of March, just as soon as we were able to dig our way into the hangar.

On March 24th Charles Day in the Prefect and Charles Christianson in the Eon 460 both completed their five hours on the ridge in a rough S.W. wind. The following Sunday saw the first solo of the year — Arthur Cole.

At the A.G.M. on March 30th, the Chairman, Peter Mackenzie, welcomed back Basil Meads who has now completely recovered from his recent illness. Basil is President of the Club, and also a co-opted committee member.

In his report Peter paid tribute to the work of Richard Hare and Paul Cass in the transport section, where the annual launch rate continues to increase.

Carrow's Law — "In any gliding organisation where the equipment is maintained largely by voluntary effort, only one of anything will work" — has ceased to apply at Camphill.

The Northern Gliding Competitions may, by arrangement with our landlord, be held in future in certain years.

Having a full-time steward again and a new bar our profits are on the up and up.

J. M. N.

DONCASTER

NOW that the site no longer resembles an Arctic waste, activities are once more back to normal. The beginning of the soaring season this year was heralded by the Club's lightweight pilot, Brian Fisher, who soared the Club 2B for 45 min. at the end of January, and again for 30 min. at the end of March. This surely makes the more portly among us consider the possibility of a slimming course in order to work those elusive, marginal convection conditions.

The most notable flight to date was that of our worthy Chairman, Jack Tarr, who, not satisfied with a climb to 13,500 ft., also went to the East Coast and nearly back; he was only just beaten by the head wind on the return trip, and had to drop his 3F in at Kirton Lindsey, just short of Doncaster. Well done, Jack.

In the workshops our one and only two-seater, the T-31, lies in a pool of coagulated glue after undergoing a major operation to its fuselage, and the C. of A. However, we hope to have it airborne after only three lost weekends, and the cry for a second two-seater reaches an even greater crescendo.

It has been suggested that the final film of our Saturday night Clubhouse Film Shows was chosen especially for our workshop fanatics after their carving up of the T-31, namely "Doctor in the House". The proposed vote of thanks to John Hayes for the organisation of these shows was seconded and carried unanimously.

Finally, congratulations to Peter Grime and Honor Appleyard who faced the Vicar on March 23rd.

B. H. F.

DORSET

WE have not appeared in print for a couple of issues, having been snowbound, frozen out and flooded out, in common with most other clubs. The weather having now improved the stalwarts who have been looking at the snow and turning over the Tiger engine every week are renewing their acquaintances with the T.V. and fireside addicts, who are turning up now in ever increasing numbers. No flying has been possible through January and February but March saw our aircraft flying again and the last Sunday in March brought a good crop of thermals and two C's were gained. Congratulations to Norman Ayres and Ken Phipps.

The weather has slowed our programme on C's of A. and we still have two aircraft to go away.

Plans are afoot for the erection of a clubhouse and work is being done on the winch and the Land Rover; also a scheme to prevent the local light-fingered gentry helping themselves to our Tiger fuel.

I must sympathise with the Bristol Club on their loss to us of Jim Tudgey who has to be thawed out of the Tiger cockpit every week although, as some wit remarked, he hasn't yet grasped the fact that on aero-tow he has to fly the Tiger just below the horizon.

Thanks are also due to Keith Hooper and Martin Candy for the use of their Land Rovers while ours has been having an overhaul.

We are looking forward to receiving some visitors from other clubs this summer and to a lot of cross-countries by our own members, too.

G. B. W.

DUMFRIES & DISTRICT

OWING to the winter weather and the extensive servicing and C's of A. now in progress there has not been as much flying during the first few months of 1963 as we would have liked.

The A.G.M. was held in February in the new Club Room (not yet completed) and some re-organisation of committees was made but it remains to be seen whether the reorganisation will result in any greater efficiency.

Our C.F.I. is now Ian Steele and Bob Robinson has been re-elected Chairman.

The Annual Dance was a great success as usual and Charlie Park was presented with the Club cup for the best progress in the year.

The Jumble Sale — a regular fund raiser — was successful and we still have enough left to start another one.

Campbell Boyce gave us our first cross-country from Dumfries in the Skylark and although he didn't get his Silver C we got in some valuable retrieve practice — particularly as we forgot the key of the trailer!

G. J. K.

KENT

LIKE everyone else we have been suffering from the appalling weather this winter. The party fixed for January 26th had to be put off because of a blizzard, and was finally held on February 16th. We are very grateful to Joanna Dannatt, our Social Secretary, for the organisation of this event which was very much enjoyed by all who braved the elements to reach West Malling.

During the two months when flying was impossible we have been able to press on with C's of A., and these should all be finished before long. Much work has also been done on the two-drum diesel winch, which is nearing completion. Those most closely involved in this project are Ron Cousins, Ken Brissenden and Don Connolly. The trailer-building programme is now in full swing, and four new trailers should soon be taking the road.

March has produced quite reasonable weather, and we have been able to fly most Saturdays and Sundays, although there have been no outstanding flights so far. At last the thermals seem to have started, so we hope to be able to report some cross-countries in the next notes.

Three aircraft from West Malling are taking part in the Easter Competitions, the two syndicate Olympias are going to the Long Mynd, to be flown by Glyn Richards, Mike Wilson and Ron Cousins, while Denis and Gordon Crabb are to fly the Club Skylark at Swanton Morley.

P. B.

LAKES

DEALING with events in chronological order, St. Valentine's Day was celebrated with a Fancy Dress dance at Wharton Grange. Two charming scarecrows covering the persons of Rosalie Allen and Peggy Huck deservedly won first prize, and we hope they were thus rewarded for some of their hard work in organising the whole affair. The entry of one gentleman in furs and a hunting trophy was greeted with gusts of mirth, but presumably the pace was too hot, for by the end of the evening it was noticed that "the uniform he wore was nothing much before, and rather less than half o' that be-hind". Nevertheless, the judges insist that his prize was awarded in the "most amusing" category and not for a portrayal of Gunga Din.

The next weekend was something to be remembered for Ernie Dodd, Gerry Wilson and Howard Woods became the first Lakes-trained pilots to qualify for passenger carrying, they have since been joined by David Millet. We also have to extend our congratulations to Eric Dixon who earned the distinction of making his first solo from Walney on February 17th.

In spite of the winter it is perhaps surprising that, since the beginning of December, there have been only two weekends on which flying did not take place. Credit must go to the instructors who contrived to overcome whatever difficulties the weather put in their way to arrive at Walney before the mob, and to the Barrow Boys who have worked like Trojans on Saturdays and at other times for the benefit of the club. It is invidious to single out individuals but the members must be deeply appreciative of the effort and sacrifices made for their benefit.

The winter has not been unsuccessful from the point of view of training. The T-21 pupils have been given a whale of a time. With the rustle of spring thoughts will be turning from circuits and bumps to serious soaring, and the "duals" will be able to repay these considerations by launching and tending the Olympia pilots. We are looking forward to our return to Tebay and preparing to entertain our visitors for the six courses it is intended to run during the summer. Plans for improvement at Tebay include connection to the public electricity supply and the laying down of runways, but at the time of writing the most urgent task is repair of the hangar roof.

The club's congratulations to Jack and Audrey Paley on the birth of their son, Andrew.

F. G. R.

LONDON

THE return of spring with the occasional March thermals has brought several new machines out of their cocoons. Nothing looked quite so

smooth, however, as the porcelain-white Standard Austria which makes the British gliders all look very staid. Baron Beck and his colleagues are praying for "Der Tag" and glide ratios of 84 : 1 are bandied about in rash moments.

On March 30th John Williamson gave a highly successful talk on final glide charts, speed-to-fly theory and all aspects of high punditry, which resulted in a sudden sprouting of circular slide-rules in every cockpit. As the advertisement says, we should be able to tell in 1963 when the pilots are daring to use a Willy-calculater.

June 23rd will be an Open Day, when we hope many members of the public will come to enjoy aerobatics, glider and power, skydiving, joyrides, balloon races and closed-circuit racing by soaring pilots.

We welcome to the club Mike Denham Till, who has joined as a resident instructor and Don Gerrard, who has returned to his old club as a full-time winch driver.

M. B.

MIDLAND

NO M.G.C. news appeared in the last edition; not that there was much to report except that because of the snow no flying took place on the Mynd between the 22nd December and the middle of March. It is hoped that good soaring weather and early morning enthusiasm can make up for the bad start to the year.

Planning permission for the new bunkhouses has been obtained and before long we hope to be in occupation. The plans are for a building parallel with and connected to the South side of the Clubhouse and indicate a standard of comfort hitherto undreamed of on the Mynd. The buildings sub-committee should be congratulated on a considerable achievement.

During June we shall be welcoming Cambridge on one of their regular visits. Whilst they are with us, John Everitt will be on the Mynd for nine days from the 15th June with the Capstan and an instructors' course will be held.

Our second Skylark 2, old number 41, acquired at the beginning of the year, is proving its worth since part of the membership "bulge" seems to have reached this level.

K. R. M.

NEWCASTLE

THE inclement weather prevented any serious flying at Carlton until early April and we shall be hard pressed to beat last year's flying record. During the "off" season considerable brainwork and midnight oil produced plans of a grand new clubhouse, workshop, etc. to be built in stages, replacing the building lost in the disastrous fire last September. When these notes appear in print, stage one should be nearing completion.

An informal slide show was held in March at "The Blackwell Ox" — our local — and was very well attended. This meeting had been postponed from an earlier date when drifting snow threatened to close every road back to civilisation. At this same meeting Adam Dodds was presented with our new "Runciman Trophy", generously donated by our president Viscount Runciman. This striking piece of silverware has been much admired and several members have sworn that Adam shall not keep it very long.

The new Weihe syndicate have been getting accustomed to 18 metres of aircraft, and another group are refurbishing a Kranich. Private owners are preparing for those big summer thermals, and both club single seaters have been away for C's of A. (The Oly. had to be carried over half a mile through the snowdrifts to a waiting trailer!) Our ground equipment has been kept in trim, and two new club trailers are being built in readiness for the members courses in the summer. All we need now is an unlimited supply of good flying weather, particularly at weekends.

B. W. B.

NORTHAMPTONSHIRE

NO flying was possible at Podington this year until 2nd March. However, since then flying has taken place every weekend.

We are hoping for a much greater launch rate this year and with this object in view a second winch was purchased in March. This is only a one-drum winch but it is hoped to provide this with another drum in the very near future.

Derek Wilcox has taken over the responsibility of looking after our aircraft and is now learning all he can about aircraft construction under the supervision of Ray Stafford Allen, with a view to becoming categorised in the very near future.

A very successful Dance was held in February, organised by Eddie Clarke.

The club A.G.M. is to be held very shortly when the plans for the club's forthcoming year will be hotly debated but we hope in the end approved.

The Capstan will be visiting Podington from 29th June to 8th July for an instructors' course.

R. N. W. K.

NORTHUMBRIA
(Hedley-on-the-Hill)

FLYING continued all through the winter in spite of blocked roads and deep drifts, stopping only when the winch lorry was marooned in the wrong place for the prevailing winds.

Immediately after this hold up our first three "new" members successfully went solo in the T-31; and on the 23rd/24th March some longer flights were achieved in promising wave conditions in both the Kite 1 and the two-seater.

Following the replacement between weekends of the winch gearbox work was started on the foundations for a pre-fabricated clubhouse which has been given to the club by six members. There is now the possibility of security of tenure of the present site at Hedley, and even of an extended field; but the urgent need is for the hangar to save the valuable time lost in rigging and derigging.

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A sizeable contingent will be going to Portmoak in mid-May to sample the facilities of the Scottish Gliding Union.

R. C. G.

OUSE

WITH the long awaited arrival of spring, members have returned to gliding with renewed enthusiasm, and we are hoping for some really good days' gliding this summer.

The arrival of the G.S.A. Club from Driffield has given many of our members some good ideas for the further development of our club and the two clubs are operating side by side very happily and with benefit to each. Our canteen in particular is proving a great pleasure to the Driffield club and we are delighted at the increase in canteen profits. We would also like to compliment Joan Morcom and her assistants for the wonderful meals she provides at infinitesimal cost to us.

P. A. C.

PERKINS

WE are pressing on with training now that the snow and ice have cleared from Westwood. Stan Hickson and Denis Baldwin have completed the C's of A. on the Olympia, T-21 and Eon Baby, and we now have a privately owned Skylark 3. We are expecting to be given a month's notice to leave the airfield when building starts sometime in June and July, but have found no alternative site yet.

C. C. D.

SOUTHDOWN

THE Club A.G.M. was held at the end of March this year and was well attended by members. George Constable, our CFI, reported that the number of flying hours was up over last year despite the bad summer and a reduced number of launches.

The Club cups were awarded to Ray Marshal for the best distance and most meritorious flight and to Ron Walker, our deputy CFI, for the best height. The meeting was enlivened by our President John Furlong, relating some of the more hilarious aspects of the Argentine Championships from which he had recently returned.

The disappearance of the snow from the site was closely followed by the ploughing of the Bostal Hill field and our return to the old field adjacent to the hangar. This means that it will be considerably easier to start flying each day and we hope that the launching rate will increase appreciably.

We have under construction a retrieving winch which is nearing completion. Some of the first flights from our hangar field were interrupted by the curious incident of a stranger who came along and insisted on standing on the cable prior to a launch.

As a replacement for Olympia 164 we have on order a Swallow referred to by George, so rumour has it, as a hot ship! Also expected soon is a private syndicate aircraft.

P. W.

SURREY

ONE of the snags of being a contributor in these, or any other, columns is the fact that copy has to be in so long before publication that it is difficult to envisage what the atmosphere will be when the piece finally appears. The last edition of SAILPLANE AND GLIDING contained no contribution from Surrey Club because, frankly, there was nothing happening in the snowy wilderness of Lasham to write about but when the edition appeared soaring had already begun and the winter had been forgotten; well, more or less!

Following our policy of trying to keep our fleet as up-to-date as possible, we have now acquired Brennig James's Skylark 3 (although we hardly dare mention this in view of correspondence that has appeared elsewhere on the subject of flying 3's at Lasham). This increases our fleet as we have not yet got rid of any other aircraft and should make it possible for us to release at least one glider for the weekend competitions that are being held at Lasham this year as well, we hope, as allowing some of our members to enter Regional competitions with a view to eventual participation in the Nationals.

Because of the weather, it was not possible to hold any of our usual winter safaris this year but we hope to make up for this by sending an expedition to another site later in the summer.

A. W. B.

SWINDON

THE Annual Dinner-Dance took place on Friday 29th March at the Kings Arms Hotel and was attended by ninety members and guests. Dr. J. J. Hayward proposed the toast to the club and John Gosling responded. At a later stage the absent Chairman's voice interrupted proceedings to wish us well and to explain that he was in Munich on business. This was evident from the lubricated voices and beer garden music!

The evening continued until the band finally admitted defeat at 1.0 a.m. to a floor full of twisters intent on dislocating something!

We have already felt the benefit of John Everitt and the Capstan, and hope to win more pearls from this "Super Instructor" during his stay.

M. B. H.

WEST WALES

WE have regrettably little news for the past two months, flying weather having been almost non-existent. Things are brightening up though and Rhoda Partridge showed the way with 1 hour 39 minutes thermalling in the Sky on 31st March.

There was a highly successful Dinner-Dance in March, after a five week postponement. Arrangements were in the able hands of Jimmy Grey and the guests included the Mayor and Mayoress of Haverfordwest, and Ken and Marion Hamilton from the Lasham Gliding Centre.

Preparations are now in full swing for an Open Day on Easter Monday, one of the features being aerobatics by Club-trained pilots. A syndicate has already bought a Lemoigne parachute and expect delivery any day now.

Still no Clubhouse at the time of writing — but watch this space!

H. J.

YORKSHIRE

THE snow cleared from Sutton Bank in the middle of March, and flying was only possible in the latter part of the month. However, on the 24th March, Roy Wilson took the club Skylark 2 to 6,000 ft. in wave and the T-21 aircraft

were soaring at 3,000 ft. in the same conditions.

The Eagle is now with us and we have also been fortunate in obtaining a further T-21, which will be in use this summer. It was aerotowed into Sutton Bank in fine style from its previous location.

This year, as second Instructor, we welcome P. K. Ghose (Toon) who is spending the Soaring Season with us to help Henry Doktor on courses and in other club activities.

The new clubhouse is now in use, although we still have to erect a new bar, but the place is pleasantly warm, thanks to the small bore central heating system that we have had installed from funds raised by the Barbecue in November last year.

In addition this year we are improving the surface of our landing ground and a bulldozer has been used to fill in and level where necessary. Henry Doktor has also been conspicuous on the tractor towing harrows. A programme of seeding and liming is underway, and we hope this year to have substantially reduced the dust hazard which has been a feature at Sutton Bank for too long.

Among recent visitors to the site was Hans Nietlispach the Swiss champion who had recently returned from the Argentine World Championships. Hans Nietlispach and his friends flew over from Switzerland in an executive aircraft in just over four hours and called at the site after visiting Slingsby Sailplanes.

J. C. R.

SERVICE NEWS

EAST MIDLANDS (Swinderby)

THE club's only highlight in an otherwise gloomy February was when Barry Pickers, a keen member of two years standing, reached the age of sixteen and was allowed his first solo. Barry had over 140 launches to his credit and, needless to say, the flight went off without a hitch.

Full advantage was taken of the return of the fine weather in March, and days with over a hundred launches were not uncommon — despite a fair share of those irritating little hitches which seem to beset gliding.



Ian Hamilton, C.F.I. (left), with a fellow instructor.

In the latter half of March the post of CFI changed hands, George Cole having been forced to resign because of family commitments. The new "boss", Ian Hamilton, is an instructor at the R.A.F. flying school at Syerston — which shows that some people just can't have enough!

The club's Skylark 3F has arrived, and is now working for its living. We are looking forward to some exciting flights with it when the season really gets going.

A. W. P.

FENLAND (Swanton Morley)

THE multitude of wings, tailplanes and fuselages scattered about the hangar are now back together again, C's of A. are signed up and flying has started in earnest. Last year all Club flying records were broken so we have an even higher target now.

Roger Hodgson has done great work on the winches and the Ferguson diesel tractor we acquired last year is more than paying its way. We now have a T-31 to help on the instructing side and there are murmurings of a Skylark 4 at the other end of the scale for our Pundits.

S.A.C. Holland has the honour of

being the first solo of the year. Congratulations! We welcome Ken Fitzroy, who has been spoilt in Californian thermals the last couple of years (Quote: You have to scrape around but this Crossfell Audio is the best thing since . . . : unquote) and Stew Mead likewise from Germany.

We are losing our conscientious and enthusiastic Treasurer, Ivor Orrey, who is off to Singapore shortly. He has done a wonderful and unenviable task and we will miss his cheerful personality on the field. Pete Kevan is back and has therefore been joed for the Treasurership. Ian Strachan turned up again recently so we have thought up a list of duties for him also. Incidentally Ian got engaged during his escape but we understand his fiancée has a driving licence so he's not all that simple this lad!

The Olympia is earning its keep again and is already entered for three contests, being flown mostly by up and coming aspirants. Despite the Rating System three club members will be participating in the Nationals this year, for whom we wish the best of thermals.

P. D. K.

PORTSMOUTH NAVAL

THE A.G.M. was held on 19th March with our new chairman, Martin Seth-Smith in the chair. There was a good attendance of about thirty members.

The committee for the coming season was elected and will consist of John Barbeary, John Limb, Keith Morton, Alan Williams and Peter Wilson.

The Goodhart Trophy for 1962, was awarded to Jim Gunter, our CFI, for all the hard work he put into the club last year.

The T-21 is undergoing an extensive inspection, on a do-it-yourself basis, under the guidance of Reg Hillsdon, our Air Engineer. (Incidentally Reg is building a boat (!) in the club workshop.) It is hoped to have the T-21 airborne in about four weeks. Those under training are, no doubt, looking forward to the day.

During the latter part of April, Jim Gunter hopes to take a party to the Long Mynd with the Skylark and the Olympia.

L. D. V.

RED HAND (Ballykelly)

BALLYKELLY having thawed out we are beginning to get some enthusiastic new members out on the airfield. We have instituted a publicity drive including tannoy broadcasts and as a result have even attracted some members from nearby H.M.S. Sea Eagle.

Dave Ellis started the soaring season off in February by dodging around cloud for an hour in the Skylark. Next time he will replace the batteries!

In helping to make the Olympia pay its way, we are pleased to congratulate "Spider" Webb on completing his Silver C with 5 hours on nearby "Ben Twitch". His return 5 miles upwind was especially welcome since we had no trailer on the field that day. To make sure he was observed throughout, Dave Ellis followed him over in the Skylark and had a look from about five hundred feet plus.

Mike Rossiter is anxiously awaiting the completion of the Major on the Tutor for his first solo, and Grenville Hill has now converted to the Olympia.

Our trailer is well on the way and already Dave Ellis is planning universal internal supports to accommodate any of the fleet.

The trailer will be a useful asset to us in many ways since, unfortunately, we have incurred quite a few equipment debts. However, we are effectively planning our economy, partially by a slight increase in flying fees but also by an increase in social amenities. With the new clubroom and bar in full swing, we expect to raise our heads again this year.

We wish every success to, and hope to co-operate with, the combined Ulster and Shorts Gliding Clubs at their new site at Long Kesh this year.

G. M. H.

WINDRUSHERS (Bicester)

SINCE our last report the snow has melted and the airfield has been very slowly drying out. During the last few weekends there have been a good many launches which have accomplished much valuable training and revision but little soaring has come our way.

During April a party went to Nympsfield hoping to do some ridge soaring, as so often happens on a visit to a ridge site the wind usually blows from the wrong direction. However, we did have

one day with very good ridge lift probably reinforced by wave from the Black Mountains and so all gained experience flying on a ridge. The visit to Nympsfield was a very useful experience for those trained on a flat site, and some salutory lessons were learned.

Our thanks go to those of the Bristol Gliding Club who not only made our visit possible but helped us in every manner to flv from their magnificent site.

R. P. S.

OVERSEAS NEWS



L. to R.: M. Lambty, Philip and Kitty Wills, J. Khubehandi and Hanna Reitsch, photographed on February 28th at Accra, Ghana, where Hanna is engaged in forming a Ghanian National Gliding School at the request of President Nkrumah.

EAST AFRICA (Nakuru, Kenya)

SINCE our last news-letter, I am pleased to report that Keith Preston, has completed his Silver C. He rounded off this achievement by arriving over his objective, with 8,800 ft. under his wheel, which height he used up rather well, by performing some rather unusual aerobatics. In fact, some of the locals, swear that he did a rather nice victory roll. Incidentally, this is only the second Silver C recorded in East Africa. The first, was achieved by Tony Stocken, our ex-C.F.I., and active founder member.

Collin Elliott, has just got his Silver duration, with a flight of 5 hours 25 minutes, the second longest in Kenya. He only wants his distance now to be the third Silver C here.

Cross-countries are not easily come by here, as landing spots are few and far between, and one does not relish the thought of sharing the Grunau cockpit, with a lion, or some other Ab-initio, four legged, U/T pilot.

Our present C.F.I. David Du-Boulay, returned to the U.K. in April, and stepping into his shoes, is our old friend John Ryde, who has just been married. (May all their troubles be little glider pilots.) Our best wishes go out to John and Janet.

Finally, a last word about Keith Preston, a staunch supporter of Gliding in Kenya for the past 3 years, he now leaves us for home.

C. R. E.

SOUTH AFRICA

THE World Championships in the Argentine clashed badly with our own soaring season. We wanted to take Pat Beatty's BJ-2, but decided that it would do ourselves more good if we could fly it here and achieve some world records. As it turned out, we had a

season of shocking weather and achieved almost nothing. In the event we are therefore doubly disappointed.

Anne and Denis Burns had the worst of it. We had a very bad season — worst rains for 32 years in the whole Kimberley area during December and January; worst drought for 60 years of recorded met. data in February (we have all heard this kind of thing before!)

The only record-breaking day was January 4th, 1963. Bobby Clifford and Anne set out on a 500 km. triangle record attempt. Pat Beatty on BJ-2 and I on an Austria Standard set out on an out-and-return attempt. Pat's turn point was 225 miles away, mine a bit closer at 205 miles.

Between 5 and 6 p.m. we were all back about 30 miles from Kimberley. Here we were blocked by a local storm. Bobby on a Ka-6 was the only one to complete the task; he was in the area about 45 minutes before us. The storm spoiled his chances of achieving a really good speed, however. Anne made a valiant attempt to by-pass the storm, but was forced down at a point past Kimberley but to the south. Pat and I struggled until dark, but got no nearer than we were two hours previously.

Bobby's speed was 69 km/hr. He can now apparently claim a world record. The strange position now arises that the F.A.I. will not accept record claims for 500 km. triangles for any flights done before the 1st January, 1963. This means that Hans Böttcher's speed of 90 km/hr. for this record goes for naught. It also means that my own national record of 82 km/hr. is faster than Bobby's world record! We must also remember that the 500 km. triangle was an approved task for Diamond distance before it became an approved task for a world record. Something is badly wrong here and we all, including Bobby, feel that Böttcher's record should be accepted. We hope that this matter will be sorted out.

Heini von Michaelis and Herby Obenhofer did some wave-flying in the Cape, starting from the wave over Table Mountain; they both attained Diamond altitude. Heini explored the wave further along the Cape mountains, doing cross-countries up to 169 miles. This was in November 1962.

On rather a poor day Heini set off from Kimberley on an attempt at the world out-and-return record. He fell down after exceeding 500 kms. With Bobby's 500 km. triangle flight we now have 5 pilots with their three Diamonds completed; Pat and Brian Stevens only require their Altitude Diamonds and we will have 7. Three others still have to do distance only.

At Kimberley five further pilots completed their Gold C's with Diamonds for goal. All these flights were done either as out-and-return or triangles.

Brian Cole has put in a claim for a British two-seater 300 km. triangle flight which he completed at Kimberley (on an Eagle), while Anne improved the 100 km. triangle speed. It broke our hearts that the weather was not that little bit better for Anne to achieve a world record on this task. As it was, she made many attempts but was consistently a few minutes short. Thermals were simply not strong enough and cloud base too low. Pat lent her the BJ-2 and Anne flew it in great style with shining eyes.

E. D.

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