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April 1962



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SAILPLANE AND GLIDING

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION

Published by the British Gliding Association, 19 Park Lane, London, W.1.
HYDE PARK 3341

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Vol. XIII. No. 2 April 1962 Bi-monthly.

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Cover Photograph.—Mr. A. C. Elworthy of New Zealand took this fine photograph of a Gannet in soaring flight.

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Chairman's Report on 1961

THE highlight of 1961 flying was the National Championships at Lasham, 13th to 22nd May, when 92 sailplanes made this the largest flying meeting ever organised in the world, and flying took place on every one of the 10 consecutive days. The eventual Champion, Sgt. John Williamson, R.A.F., put up a standard which should make him a formidable contender for the next World Championships, which are due to be held in Argentina in 1963. This is significant of the great growth in size and interest in our sport now evident in the Services.

After the dazzling display of the Burns' in South Africa in January 1961, recorded in my last report, only two National Records were broken over the remainder of 1961, both by Mrs. A. Welch, flying in Poland, who put up the Women's Goal Flight Record to 328 miles, and Speed Record over a 500 kms. course to 41.45 m.p.h.

The greatest triumph of 1961 has been the acquisition at last, after over 10 years of struggle and negotiation with the Government, of a long-term lease at Lasham, where over 800 members are now enthusiastically organising the development and building of our first Commonwealth Gliding Centre. There is at least five years' work ahead, and immense problems of finance and planning to solve, but no one has the least doubt that solved they will be. Another club at last to acquire a permanent site, after a plucky and desperate struggle for survival since their ejection in 1959 from Detling, is the Kent Club, who have come finally to rest at a site near Charing.

In fact, one of our major problems in 1962, and the foreseeable future, is to cope with the clamant demands of increasing numbers of folk to join our sport, whilst maintaining a safe and satisfactory standard of self-discipline, and your Association has been working under greater pressure than ever before to continue their work to this end.

And so I come to our never-ending battle to retain sufficient freedom in the air over our country to enable us to survive. After a somewhat bitter battle in the columns of *The Times* initiated by the Guild of Air Pilots and Navigators, the British sense of compromise won, and nearly all air-using interests got together and produced an agreed paper, involving many compromises, which has now been submitted to the Ministry of Aviation. This is the first time in history that any Government has received recommendations of such unanimity, and it is a hopeful augury when large commercial and professional interests can take into their schemes the views of a body of enthusiasts and amateurs such as ours. At last we can feel that the value of our movement to the nation as a whole has been recognised by all other parties interested in the air. It seems a far cry from the days when anyone indulging in motorless flying was regarded as an eccentric verging on the mentally deficient.

But this agreement does not mean that our battle is over. The Ministry have yet to accept it, and to implement it in a sympathetic and sensible manner. We are still kept out of the vast empty air-space sterilised by the Manchester Control Zone; Air Traffic Control equipment is still of the stone-age variety so that collisions can only be avoided in theory by keeping individual aircraft as much as 60 miles apart: the corollary to this is that our air is still "overcrowded" in the official eye if it contains two aircraft 59 miles apart. The implications of this propaganda on the future of our country in the Air Age are grave indeed.

As for the future, apart from the airspace problem, 1962 should be an exciting year. Three new aircraft of the greatest importance will be seen in our skies: the Elliot type 460, a light 15-metre sailplane incorporating many new features, the Slingsby T-49 two-seater advanced Trainer, and the 18-metre Skylark 4. These three aircraft between them cover the whole range of requirements for our movement in the 1960's, and they and their developments can confidently be expected to keep us at our present high international position in the gliding world.

The 1962 National Championships will this year be organised (under the aegis of the Association) by the R.A.F. Gliding and Soaring Association at Aston Down in Gloucestershire from June 2nd-11th, and this is a part of England which is both beautiful and should produce excellent flying conditions.

Useful financial assistance is forthcoming from the Shaw Slingsby Trust and the new S.B.A.C. Fund, but the movement is growing so rapidly that all possible sources will have to be tapped, if all the Britons who want to are to be able to get away in their spare time from the cocoon of the Welfare State and enjoy themselves in the still free air of our country.

Committees, Panels and Officials

During the year the following Committees and Panels were set up under the Chairmen listed below:

Accident Analysis Officer: Air Cdr. G. J. C. Paul.
Airways Committee: D. H. G. Ince.
Gliding Centres Committee: A. L. L. Alexander.
Instructors' Panel: Mrs. Ann Welch.
Technical Committee: F. G. Irving.

Reports from the above committees and panels are published separately.

Articles of Association Committee: J. E. G. Harwood.
C.C.P.R. Representative: W. A. H. Kahn.
Design Panel: B. Jefferson.
Flying Committee: E. J. Furlong.
Magazine Committee: P. A. Wills.
Management Committee: P. A. Wills.
M.C.A. Standing Joint Committee: Representative P. A. Wills.
O.S.T.I.V. Representative: A. H. Yates.
Royal Aero Club Aviation Committee: Representatives P. A. Wills; D. H. G. Ince.
Sites Committee: A. L. L. Alexander.
Technical Design Committee: F. G. Irving.

Finance

The effect of increased wages and salaries and other charges have, as anticipated last year, reflected themselves in the Accounts, but a fortuitous increase in sales and payments for services have resulted in a small surplus. Further reorganisation of the office staff and the now inevitable move from the present headquarters must bring about an increase in expenditure, so that it has become necessary to raise subscriptions and other charges in order to bring more income to meet that situation.

The Flying Committee had the great pleasure of examining and recommending to Council two World Records and nine British National Records (among others) emanating from Ann Burns, Denis Burns and Ann Welch.

Early in the year the new Silver, Gold and Diamond claim form was introduced and seems to be a success, judging by the lack of queries. The usual doubtful and irregular claims were carefully examined and recommendations made to Council as to their acceptance.

The claims for Annual Awards of Cups and Trophies were examined and passed to Council.

Rules for the Pilcher Memorial Trophy presented by Lord Braye were drawn up and recommended to Council.

Owing to the fact that the entry for the 1961 Nationals was over-subscribed for the first time, a new problem was presented. As the time available for acceptance was very short, a method of selection had to be devised and applied in one week-end. From this point of view, it was fortunate that the Swanton Morley Rally was a "wash-out" as it made available the time and manpower to deal with this formidable task. The result was inevitably unpopular with the pilots who were not lucky, but it started a whole bunch of "brain-waves" from which a Rating Scheme was eventually drawn up and accepted by Council.

In order to implement the "Rating Scheme" it was necessary to encourage Qualifying Competitions, the rules for which had to be drawn up.

The Flying Committee keeps its eye on Competitions and Rallies and advises on, and agrees, the rules — it also from time to time re-examines and, if necessary, recommends changes. In this way, the B.G.A. Competition Rules and Regulations are kept right up to date and indeed are recognised and copied by many other nations.

Magazine Committee :—Nearly 30,000 copies of SAILPLANE AND GLIDING are now printed every year, an operation of a size which almost qualifies as Big Business. This is carried out smoothly and efficiently mainly by Dr. Slater and Rika Harwood — another example of what can be done with the aid of enthusiasm for a cause. Subscribers are from over half the countries of the world.

Management Committee :—In November 1961 our hard-working Secretary, Anthea Russell, left us after two-and-a-half years' devoted work, and from over 200 applicants Miss Frances Leighton took over the post. It is crystal clear that the affairs of the Association have grown so much that both staffing and accommodation must be increased, and steps to this end have been taken. The risk of a breakdown of our organisation had become grave, and we have had to take the line that first we must expand it to the necessary extent and then find how to finance the increased expense.

At the time of writing this report investigations are proceeding, but subscription and other rates have not been altered for many years, and in effect our members have been subsidised by many ancillary activities such as the sale of books, haberdashery and so forth.

At our Annual General Meeting, therefore, proposals will be put forward as to how to rectify this state of affairs, for whatever criticisms may be levelled against your Association, all are agreed that its continuance is absolutely vital to our future.

We all thank Anthea for her work, and look forward to Frances carrying on the high traditions of the Secretariat.

Membership

During the year the following Clubs were elected to Associate Membership :

Blackmore Vale Gliding Club.
Essex Gliding Club.
Ouse Gliding Club.
South Wales Gliding Club.

The B.E.A. Silver Wing Gliding Club and the Norfolk Gliding Club have been elected to Full Membership of the British Gliding Association.

Our membership is now (1960 in brackets) :

Full Member Clubs - -	21	(19)
Associate Member Clubs -	28	(26)
Overseas Associate Member Clubs - - - -	3	(4)
Private Group Owner Members - - - -	91	(86)
Individual Associate Members - - - -	38	(42)

Operations

During 1961, the number of Full Member Clubs increased to 21, Associate Member Clubs to 28 and 3 Overseas Associate Member Clubs.

The R.A.F.G.S.A. Clubs increased to 16 and the R.N.G.S.A. increased in membership; and now have 4 active clubs.

Civilian clubs flew a total of 24,564 hours from club sites involving 139,826 launches.

The club aircraft increased in number from 153 in 1960 to 165 in 1961, with an increase in privately owned aircraft from 109 to 124.

The R.A.F.G.S.A. flew 7,215 hours from 54,258 launches, and the results of two of the R.N.G.S.A. clubs showed 292 hours and 3,468 launches.

All these figures show the continued expansion of the gliding movement; and the number of non-flying associate members, 962, the "ancillary help" our clubs receive.

Gliding Certificates were issued as follows (1960 figures in brackets) :

A Endorsements - -	651	(613)
B Endorsements - -	657	(617)
C Endorsements - -	410	(388)
Silver C - - - -	111	(99)
Gold C - - - -	20	(17)
Gold C plus 3 Diamonds	3	(—)

These were made up as follows :

Endorsements	Civilian	Service
A	473	278
B	477	280
C	261	149

O.S.T.I.V. :—The O.S.T.I.V. section of Swiss Aero Review has continued to publish the papers read at the Cologne Congress in 1960 and to print data sheets on the latest sailplanes. The former will be available in bound form as an O.S.T.I.V. Publication and the data sheets will appear as *The World's Sailplanes II*, both early in 1963. This O.S.T.I.V. section is edited by B. S. Shenstone and provides

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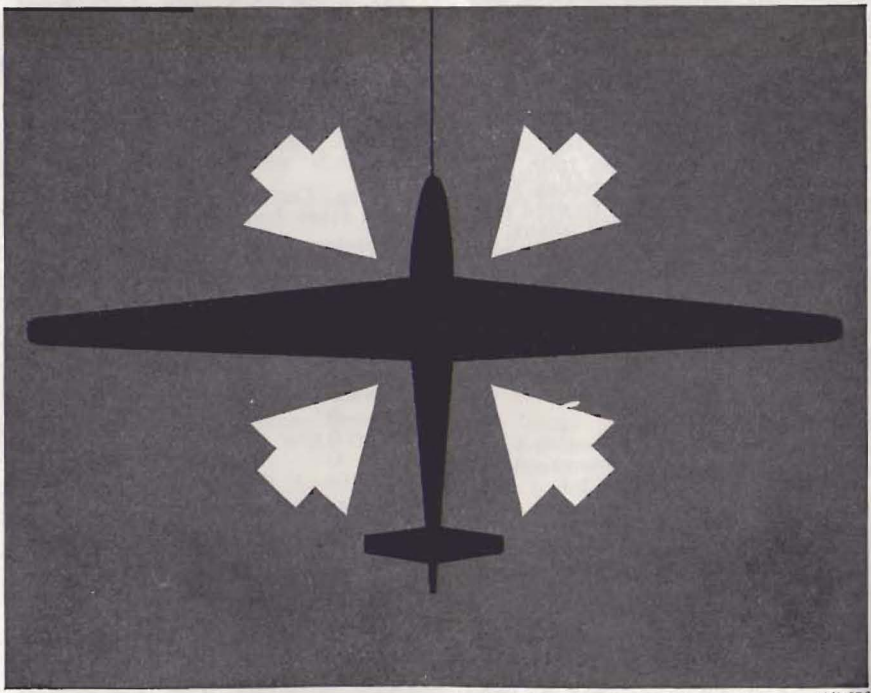
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AP 670

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Associate membership of O.S.T.I.V. costs 28s. a year and members receive the monthly Swiss Aero Review and are kept informed of O.S.T.I.V. publications and congresses.

An O.S.T.I.V. working party on sailplane airworthiness has produced recommended requirements for standard class sailplanes. These are not intended to be mandatory but have helped many countries who have no national requirements.

S.B.A.C. Private Flying Loan Fund

The Fund has been established by the Society of British Aircraft Constructors in association with Shell-Mex and B.P. in replacement of the Kemsley Flying Trust and has already proved a valuable source from which capital requirements of the gliding and flying movements can be met.

Shaw Slingsby Trust

The Trust is now substantially involved with the financing of site development and has in hand at the moment four major projects with a fifth in prospect. The importance of this work cannot be over-emphasised when it is realised that very few clubs have security of tenure of their sites.

Sites Committee :—It is pleasant to be able to record that a new club — Blackmore Vale — is now operating at Henstridge aerodrome, in spite of intensive (because ill-informed) opposition from neighbouring landowners. The effect of such assistance as the Committee was able to offer in indoctrinating the opposition was greatly enhanced by the enthusiasm and initiative of the club itself. At the other end of the scale, Perkins are still looking for a permanent site. Their task is made more difficult by tantalising promises and infuriating backslidings from officialdom, which remains the Committee's greatest headache.

The Committee is most grateful for the encouragement the movement has received from two outside bodies : the R.A.F., who, in addition to affording facilities to a number of clubs without a permanent site, have greatly assisted a new club — the Ouse Club — to get going ; and the management at Crosby on Eden, near Carlisle, who are bidding fair to have a wave-soaring centre in their midst.

As gliding sites cease to be curiosities and become established phenomena, problems of rate assessment and caravan controls are increasing in importance.

P. A. WILLS, *Chairman.*

Sketches from Gliding

AT morn, the nimbo-stratus' morbid grey
And all of metal's cold and wet to touch,
The handle kicks, the engine won't go much
Till cunning juggling starts the noisy day.
In strongly rising cockpit, dry are they,
While drops anonymous relax their clutch
And whip from streamlin'd, glassy cabin hutch
To sodden grass, not far enough away.

The cold front comes : Mont Blanc is in the sky,
Here's silver, muscular against the blue.
There, tiny silhouettes wind tireless, high,
And many towns and shadows make their view.
Now rosy glows the yellow Dragonfly
And ice trails too, yet moon's without this hue.

MICHAEL ERDMAN.

Outstanding Problems of Soaring Flight

By Boris Cijan

THE greatest problems do not arise during exceptional flights under excellent weather conditions which enable high cruising speeds to be achieved, and where nature offers energy on a large scale, so that the flight problems can easily be solved. On such a flight, the barogram shows a high value of what we might call the "soaring factor" (s) which is the ratio between the total time of the flight and the time spent circling in upcurrents. Problems arise rather on those flights where there is a struggle for every foot of height and where thermal sources are uncertain. Such flights, where the soaring factor (s) is low, are a frequent occurrence. The pilot has to contend with an unknown meteorological factor (m), and with an aerodynamic factor (a) which is associated with the machine he happens to be using. Possibly the best solution of a difficult flight of this kind, if there are no special devices for locating thermals, would be to fly in a group or team with two or three sailplanes, giving a better chance of finding the best thermals. Alternatively, sophisticated instruments for improving thermal detection might be developed (as proposed by Paul MacCready, Jnr., in the *Aero Revue Suisse*, July 1961).

Soaring pilots know that the aerodynamic factor of their machines cannot be adapted exactly to a prevailing (m) factor and that they must solve the problems on a particular day with rather primitive thermal detecting devices and, using past experience, achieve the optimum soaring factor. The question is then whether the designer can help if the (m) factor is variable. The trouble is that for every task with differing (m) factors, the (a) factor cannot always be optimum with one sailplane. For example, the "Leichtwindsegler" (light wind soarer) and a heavy "super machine" are designed for the opposite ends of the (m) factor spectrum, and today's compromise sailplanes are not yet "Wundermaschinen" (wonder machines) for the whole range of weather conditions.

Designers have arrived at a compromise (a) factor for the average (m) factors and seem to think that the right compromise can solve the task successfully.

Consider what happens in National and World Championships where the best pilots are flying the best available machines. In some countries the National Championships are flown on one type of sailplane (in Poland, for example, the Mucha Standard, and in Yugoslavia the Weihe, etc.), so that from the scientific point of view the aerodynamic conditions are very nearly the same (the same (a) factor) for all competitors. For the World Championships a "Standard" class has been established which is not a type class but has a span limitation of 15 metres. The (a) factor for the various sailplanes that have been designed to the Standard Class limitations are different. During the last two World Championships, pilots have performed very well in Standard Class machines and seem to have achieved a good (s)

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factor. The lower span probably shows superiority in circling over Open Class machines with a bigger span in some conditions, but we have not been able to analyse the soaring factors in past Championships to give a precise comparison.

In working out the placings in championship flying, the scoring is at present divided into "Open" and "Standard" classes. Each class scores separately and the scores cannot be compared. However, the (s) factors could be compared between classes and should give a valuable insight into the relative merits of the designs. During World Championships, 60 to 70 sailplanes are flying in both classes, and by analysing the barograms and meteorological situations we should obtain comparable soaring factors and arrive at useful conclusions.

An interesting contest is developing between the Standard Class and the super machines in the matter of (a) factor. What is this contest proving? The constructors are usually themselves sailplane pilots or at least understand the problems of sailplane pilots and have acquired a good deal of understanding of the (m) factor for European Championships. Wing loading is certainly an important parameter and should be correlated with the (m) factor. Statistics over several decades have shown that a machine with a wing loading of 22-25 kg/sq.m is well suited to the (m) factor of Championships held within Europe. A Skylark 3 (with 22.5 kg/sq.m.) or a Ka-6 (24 kg/sq.m.) will usually compete successfully in such Championships. The super machines (Meteor 30 kg/sq.m., Zefir 29 kg/sq.m.) have introduced flaps in order to adapt themselves to the (m) factor. If Standard Class machines nowadays fly without flaps and ballast, it is purely due to the specification; flaps are expensive but, on the other hand, water ballast is hardly a financial question. Pilots have contributed greatly to the understanding of soaring problems, but their science has been of the subconscious variety. The question now is, how can scientific analysis of the performance and environment lead to further improvement? Undoubtedly meteorologists should interest themselves in the (a) factor and designers need to know more about the (m) factor.

Perhaps the tasks set during a World



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Championship in Texas, Russia or South America would bring new knowledge about the desirable relationship between (a) and (m) factors, but this could only happen if the competition results are subjected to scientific analysis.

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OSTIV has striven to pass on the results of scientific work in the meteorology and engineering fields to the sailplane designers. During World Championships, an organised co-operation between the Sailplane Commission (CVSM) of the F.A.I. and OSTIV would be likely to yield further valuable understanding and a basis of evaluating the best requirements for Standard Class machines. An analysis of this kind would be the best way of achieving full interchange of experience. The new ideas arising from this work would be sure to contribute much to the furtherance of the sport.

O.S.T.I.V. Papers

THE following papers appeared in the OSTIV Section of the Swiss *Aero Revue*. The descriptions of sailplane types give comprehensive data such as are shown in the OSTIV publication "The World's Sailplanes".

January, 1962

M. REINHARDT AND O. FRANZ (Munich): "Flugzeugmessungen der horizontalen Temperaturstruktur in der unteren Atmosphäre mit einer Feintemperatur-Messeinheit" (Aircraft measurements of the horizontal temperature structure in the lower atmosphere with a sensitive thermometer unit). (In German.) A platinum wire (0.7 mm. diameter) resistance thermometer was hung below the wing of a Do-27 aeroplane near the tip. The recording pen moved 1 cm. for each degree C. Recordings published in the article sometimes include accelerometer records, sometimes not. Among the latter are sets of recordings at 5 metres and several greater heights, one set being taken above a concrete runway, another over grass, another over water. (The run at 5 m. over concrete, for example, shows about 4 temperature oscillations per 100 m. horizontal run, the range of each varying from 0.1 to 0.5 deg. C. A run at 5 to 10 m. over forest shows much less regular temperature fluctuations, and rather more regular accelerometer fluctuations never exceeding plus or minus about 0.5 g). Runs under cumulus clouds and through wave systems are also reproduced.

KOSAVA: Yugoslav two-seater with swept-forward "gull" wings, designed by Milos Ilic and Adrian Kisovec. Span, 19.12 m. (62 ft. 9 in.); aerodynamic twist, 4°; minimum sink, 0.66 m. (2 ft. 2 in.) per sec.; best gliding angle 1 in 33.5.

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Produced in 1953; two were built, one of which came to England for the 1954 World Championships, when its pilots, Bozidar Komac and Zvonimir Rain, won the Two-seater Championship.

LIE-FANG 1: first sailplane designed in China; designed by J. Niespal (Poland) assisted by Tchen-Kuei-Wen and Li-Ti-Tiun, and built at Shen-Yang sailplane factory. Two-seater for dual instruction and cross-country flying; built of wood, including the Chinese light-weight wood "Poton". Span, 15 m.; min. sink, 0.80 m. (2 ft. 7½ in.) per sec. at 62 km/h. (33.5 kt.); sink 1.50 m/sec. at 94 km/h. (50.7 kt.); best gliding angle 1 in 22 at 86 km/h. (46.4 kt.). First flight 10.5.58.

BC-6 KOBAC: Yugoslav two-seater trainer for rough fields, designed by Boris Cijan. Span, 16 m.; stalling speed 54 km/p.h. (29.1 kt.). First flight 18.3.53.

REPORT of first meeting of OSTIV Standard Class Airworthiness Panel in Helsinki, under the chairmanship of B. S. Shenstone (U.K.). The Panel recommended adoption of Flutter Requirements put forward as the result of joint collaboration between the Warsaw Polytechnic and R.A.E., Farnborough.

February, 1962

J. BOJANOWSKI (Warsaw): "Die Ergebnisse von Flatter-Flugversuchen an Segelflugzeugen" (Results of flutter trials with sailplanes). (In German.) These were undertaken because of present tendencies towards greater aspect ratios and thinner and lighter wings, especially in the Standard Class.

ES-52 KOOKABURRA: Australian two-seater designed by Edmund Schneider (chief designer of the Grunau Baby). The original model first flew in 1952, but the latest version, Mk. IV, of 11.7 m. span (38 ft. 4½ in.), is described.

ES-52B LONG-WING KOOKABURRA: for instruction to Silver C level, including aerobatics and cloud flying. Span 14.86 m. (48 ft. 9 in.).

ES-56 NYMPH: Australian single-seater with one-piece wing, span 11.9 m. (39 ft. 5 in.). Empty weight 149 kg. (328 lb.); all-up weight 241 kg. (531 lb.); wing loading 23.8 kg/sq.m. (4.87 lb/sq.ft.). Stalling speed 58 km/h. (31.3 kt.); minimum sink 0.81 m. (2 ft. 8 in.) per sec. at 69 km/h. (37.2 kt.); best gliding angle 1 in 25 at 84 km/h. (45.3 kt.). First flew, Dec. 1955. Four made.

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South African Nationals 1962

by E. Dommisse

THIS is a long and exciting story which is perhaps best begun by giving a list of the final placings and the names of the 24 pilots who competed:

FINAL RESULTS: OPEN CLASS

Place	Pilots	Sailplane	Open Class Points	Championships Points	Championships Placing
1.	R. Spanig	Zugvogel	934	(German)	
2.	H. Böttcher	Austria	925	(German)	
3.	P. Beatty	BJ-2	914	953	1
4.	E. (Tim) Biggs	Ka-6	869	899	2
5.	G. Lloyd (team)	Skylark 3B	808	872	3
6.	E. Leemann (team)	Skylark 3B	801	845	4
7.	E. (Boet) Dommisse	Skylark 3B	774	839	5
8.	D. Schmitt	Ka-6	735	(German)	
9.	B. Stevens	Austria	656	679	6
10.	C. Alderman (team)	Ka-6	543	555	8
11.	M. Williams (team)	Ka-6	514	565	7
12.	J. Saunders	Skylark 2	386	(Rhodesian)	
13.	G. Clarry	Ka-2	241	(Retired)	

FINAL RESULTS: LIMITED CLASS

Place	Pilots	Sailplane	Points
1.	H. Heiriss (Team Trophy Winners)	Ka-7	1,000
2.	B. Möhrig (Team Trophy Winners)	Ka-7	914
3.	C. Hide (Team with Davidson)	Olympia	795
4.	H. Pager (team)	Swallow	752
5.	L. de Muelenaere (team)	Swallow	712
6.	G. J. Arnott	Swallow	657
7.	A. Davidson (Team with Hide)	Olympia	617
8.	B. Cole (Team with Jeffries)	S-18	531
9.	E. Pearson (team)	Lo-100	510
10.	W. Martins (team)	Lo-100	447
11.	A. Jeffries (Team with Cole)	S-18	427

We have no Standard Class competitions, but the less experienced pilots, generally regardless of what type of machine they fly, as well as those who fly machines of less performance with two or more pilots sharing a machine, fly in the Limited Class. Unless the task is obviously beyond the scope of their machines, they fly the same task as the Open Class.

The German Aero Club sent three pilots to compete. Their national champion, Rolf Spanig, Dieter Schmitt and Hans Böttcher, with Erich König as team manager. Anne and Denis Burns had planned to come, but had to cancel their trip at the last minute. This was a great pity, as I feel sure that Anne would have improved her world records had she flown in the competitions on the Olympia 419 which they intended to bring with them.

Our own hopes were centred on Pat Beatty with his BJ-2 sailplane, which was designed by Fritz Joel and built by Pat; but only towards the end did Pat begin to show what he was capable of.

We had nine glorious flights at Kimberley with an average distance of 352 km. per flight. Six new German National records were flown, two possible world records for the 500 and 400 km. triangle flights—if recognised—and Denis Burns's out-and-return world record we took back for ourselves. As for Diamonds, we flew so many that I cannot bother to count them.

We had only one practice day before the meeting started, during which we all went round a 200-km. triangle, and most

of our visitors continued flying around until sundown, cruising around for miles in all directions to familiarise themselves with the terrain. It was a great pleasure to listen to their comments over the radio and to find that they were suitably impressed with the desolate-looking terrain and with the steady 5 to 7-metre-per-second readings on the variometers. Hans Böttcher's radio comments to his wife, as he circled up at 5 m/sec. shortly after release on his first flight, in company with three vultures, was a highlight of this incredulous pilot's excitement.

December 28th, 1961

The first task was a 200-km. triangle —from Kimberley to Koetsrus and Content railway siding (verified distance 203.56 km.).

Rolf Spanig landed first with the fastest time of 2 hrs. 17 min. 10 sec., to set a new German National record of 87.53 km/hr. He was closely followed by Brian Stevens, Hans, Pat and Tim Biggs, all with speeds over 80 km/hr. Then came the stragglers like myself and the rest with speeds in the seventies. Even the limited class all finished the task.

Before going to Kimberley I had frightened myself by drawing out various 400 and 500 km. triangles. These things look quite impossible on the map. However, one should mark them out and keep looking until you get used to the idea. No one would listen to my suggestions for these tasks on the first days at Kimberley, and I was going around being very bolshie with the task-setters for wasting such a good day as the 28th on a task which we completed in such short order.

December 29th

We were all very much shaken at briefing the next morning when our able organiser and chief task-setter, John Firmin, announced a 500-km. triangle. It was almost too much for me too. Yesterday had been the day for it, not this horribly hot cloudless day with a fair east wind. After all the shouting and hot words had died down, we listened to the met. report, which was very good, but which none of us quite believed.

At 11.30 there was almost no wind and the first machines were on their way to Maquassie with the first Cu. popping in the sky.

I had seen only a glimpse of two Austrias and Rolf's white Zugvogel away ahead of me on the first leg. Rolf had started after me, so I did not feel too good even when I reached Maquassie, 230 km. away, in 2½ hrs. While taking turn-point photos behind this point, Pat also came in with me. For a while we flew together in radio contact before he ran away from me completely. This second leg was very slow with agonisingly rough and broken thermals forming broken cloud above. Then the sky changed and the wind died completely while long, very flat Cu. formed and hung motionless, with very strong lift under each and every one right up to the base at 13,000 ft. above ground. Round the second turning-point at Brandfort rail station I went at 13,000 ft., all set for a fast run home. Lo and behold, over Soutpan, behind Dealesville and 80 miles to go, who should be darting in mad searching circles far, far below me but Hans and Rolf! Plenty of cloud shadow here with clouds on the way home to the west, blocking the sun, myself sitting pretty at cloud-

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Pat Beatty, the new Champion, receives the Pidsley Trophy from Mrs. Hugo, Mayoress of Kimberley.

base and those two speed merchants down there in trouble! The next cloud ahead gave no lift, nor the next, and in panic I turned away south to get away from the cloud shadow and into the sun. Here I found less strong lift but worked my way slowly along to where I could glide safely home from 30 miles out. Switching on the radio to call, I was filled with dismay to hear the air cluttered with Deutsche babble from Hans and Rolf saying that they were on their final glides about 10 miles out. Felt a bit sick when I looked and saw how much the sky had changed for the better directly on their track. Going in, I heard Pat calling that he was coming in from Dealesville in company with Eddi Leeman. "Now what on earth could have happened to Pat?" I thought, as I went in to claim at least a South African record.

Hans Böttcher had been first in with a time of 5 hrs. 51 min. 16 sec., giving a speed of 90.88 km/hr. over the distance of 556 km. C.V.S.M. please note that a 600-km. triangle task has hereby also been proved possible! Hans has a claim for establishing this world record if it is accepted under the new rules, and Rolf, who was next, gets his third Diamond. I followed Rolf in, then came Pat and Eddi. The rest fell by the wayside after covering distances between 486 down to 366 kms.

The limited class flew a 300-km. triangle on this day, but only one pilot completed the task.

December 30th

The third task was announced as being an out-and-return to establish a new world record. There was not a murmur from anyone, and in gentlemanly fashion we discussed a suitable turn point. We decided on Koekemoer, to the north a little way east of Klerksdorp, rather than south over very bad country to Richmond. No one completed the task because of large storms which soon blocked the way.

Hans covered 488 km., with Rolf at 405 km., while most of the others got round the turn point to do well over 300 km.

We were all a bit used up by now, so we rested an extra day after celebrating the New Year, except a few pilots who used these days to fly some Gold C Diamonds for goal on out-and-return flights.

January 2nd, 1962

A goal race to Bethlehem of 354 km. was set.

We could hardly do anything else. Free distance would have taken us too far away, wasting a day or two, besides being too expensive. Distance along a set track crosswind would have had the same effect, while into wind to the west leads to the desert.

Being the author of this present account I could now tell a long, sad story of my troubles on this goal race and how I fell by the wayside to go really down and out. But I won't.

Six pilots reached the goal to be timed and welcomed by the Mayor of Bethlehem. Rolf was first again in 3 hrs. 51 min., followed by Tim, Hans, Eddi, Pat and Dieter.

January 4th

Fifth task. Speed round a 300-km. triangle (verified distance 309.47 km.) with turn points at Dealesville and Christiana.

Nearly all of us completed the task with Rolf again the winner with a speed of 90.79 km/hr., which sets a new German National record. Next was Hans, then Geoff Lloyd with a speed of 85.26 km/hr. (which could be a new South African record if a previous flight of 94 km/hr. done by Pat is not homologated); then Tim, followed by Pat and the rest of us.

January 6th

Sixth task. Out and return to the town square of Richmond. Distance about 600 km. No one blinked an eye at John Firmin when he announced the task. We all set off trying not to show that we felt we were really a bit crazy.

Across and beyond the Orange River there was no more cloud. A fair cross-wind was blowing from the west. The blue thermals down south were rough and very strong. So were the downs, and one had to fly as fast as possible. Those white spots before my eyes way ahead were Austrias and Zugvogels, and was all I ever saw as I laboured and sweated in the empty sky.

I was over the turn point at 4 p.m. There was Eddi and two Ka-6's far below, while a white speck before my eyes was going back high and fast. Half-way back Eddi was again far ahead of me at cloud base. How could it possibly have happened? I had left him far below me at the turning point. At 6 p.m. I was back near the Orange River within reach of the first clouds and with 80 miles to go, feeling tired and despondent, not believing that I could get back with the thermals dying out, when I ran into 5 metres up nice and steady for a climb of 12,000 ft. into the blue sky. Well, well, I thought, if this is how my lovely sky feels about it I will get back after all.

Forty miles to go and a slow climb under a good cloud. Rolf comes in below me. Ho, I think, this will fix you. Eddi comes in very far below. Ha, I think, caught you again properly this time. Eddi goes off to a cloud ahead. Ho, I think, I can beat you at that game very easily, and go off high and fast after him. I switch on the radio and the air is filled with excited crackling of Englisher und Deutscher babble. Hans is calling that he is falling down. Ho, I think, I'll be in first and claim this possible world record, and very cunningly call the field in Afrikaans, only to get a prompt reply in English saying that Pat and Brian are long since in.

Ah well, it was a nice feeling while it lasted! I settle down to get enough height to go in and pip Eddi and Rolf. Hans calls anxiously to ask if I can report his position; he has landed 7 miles short. I settle down for that last glide while Eddi struggles vainly below. How I hate these last final slide-rule glides. My nerves can't stand it; it never looks as if you will ever make it. Your heart sinks with every tremble of down and beats painfully with every flicker of up. I much prefer a rubber slide rule which can be adjusted with the airbrakes to a nicety as you come in too high and too fast. Rolf comes gliding past above me. Ah well, again! I landed a few minutes after Rolf and had a slightly faster time than Tim, who also landed

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ahead of me. Eddi was 3 miles short. Had it not been a close competition scramble at the last, Hans (who had a tussle with Tim at the end) and Eddi would both have been in.

The hero of the day was Pat, who landed about 1½ hours before the rest of us with an average speed of 88.9 km/hr. This flight really proved the superiority of his BJ-2. The designer, Fritz Joel, had been walking the airfield for hours chewing grass and such like things. He nearly took off when Pat called shortly before 6 p.m. saying that he was coming in on his final glide. A hundred eyes scanned the sky to the south and a long, dreadful silence followed. Finally Pat called again to say that there was a slight technical dingus and he was circling again for height. Another long silence with all eyes to the south and Pat comes in high and fast from the N.W. Got a bit lost at the end he did, and overflew Kimberley to the west with his eyes glued to the smoke and glitter of rooftops of a factory far to the north while Kimberley lay in deep cloud shadow.

Five of us got back. First Pat. Then Brian Stevens, followed by Rolf, who thus puts up a new German record. Then Tim and myself. Dieter landed after 540 km. to complete his third Diamond for distance.

Had we only known about the 400-mile effort in New Zealand! We could and would have nominated Victoria West as the turning point and at least Pat and Brian, on their performance, would have made this 420-mile flight. Ah well, a man always has to have something to live for, so no matter.

January 8th

Seventh task — out-and-return to Douglas, 202 km. There was a strong west wind against us and a huge overcast across the track which threatened rain.

Tim did a magnificent flight to complete the flight in 2 hrs. 18 min. He has an incredible barograph trace showing an almost straight and level flight at low altitude. The air carried well, he says, and it just went that way. Hans had much the same experience for a time of 2½ hrs. Rolf waited and the overcast disappeared, so he had a fairly easy flight of 2 hrs. 44 min. The rest of us all took an hour longer and a great number fell down. Competition-wise this was probably the most interesting flight of the meeting.

Speaking of barographs: I had the pleasure of comparing most of them. Tim generally goes along with a long wavy line with only occasional sharp climbs. Generally speaking, he flies slowly in lift without circling. But there is not one single other one of us who can do the same. The secret of Rolf's success is a barograph trace with sharp, clear, big saw-teeth, high along the top edge of the trace all the way. I do not remember more than one or two low points on his whole collection of traces or a single point which indicates the fumble of a missed thermal. He goes off after the start straight up to between 3,000 and 4,000 metres and stays there. On his flight to Bethlehem he had four successive saw-teeth up to 5,000 m. and down to 3,000 m. (which was cloudbase), followed by a short little scratchy bit between 2,000 and 3,000 m. which we all had near the end. Looking at the barograph, I only wonder why he took so long to reach the goal!

January 9th

Eighth task—110-km. triangle with turn points at Jacobsdal and Perdeburg.

A magnificent day on which we expected the world speed record to fall to Pat. Perhaps it would have come off if we had observers with radio at the turning points, something that could cut nearly 10 minutes off the time. But as on all other flights, we had to use a camera. Our organisation simply did not have the means to send observers to any turn points during the meeting. Pat did, however, win the day with a speed

Price Increase

We regret to announce that as the result of rises in wages and the cost of materials in Germany the prices of all "Winter" instruments are increased.

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of 102 km/hr. This is not even as good as his South African record of 106.07 km/hr.

Pat was now definitely flying better than he did at the start of the meeting.

Rolf put up a new German record for this task with a speed of 93 km/hr. All of us, including the limited class, went round. Most of us went round twice.

January 10th

Ninth task—441-km. triangle with turn points at Hoopstad town hall and Tempe (Bloemfontein airfield) control tower.

Yesterday the met. forecast for today had not been too good. We had been inclined to call it a day, and most of us went on the razzamataz last night. Tonight would be the Mayor's big party and prizegiving, so please, John, don't start any nonsense for today! John stood very near the door of the briefing room and announced the 400-km. triangle race. An incredulous hush followed. Then it slowly dawned on all of us that this deadly hot, windless day was really the day of days. We did not even have any particular hurry. No sense in going too early. Let it cook up nice and strong before we go out for a quick whizz round.

This was Pat's day again. He left nearly last and showed us all a clean pair of heels in turn, outclimbing and outgliding us all. His time was 4 hrs. 18 min. 58 sec. for a speed of 102.42 km. per hour, for a possible world record claim. Rolf was next with 4 hrs. 43 min. 42 sec. and a speed of 93.49 km/hr. for a possible German record.

The 10th of January was a great day and a wonderful finale to our meeting. The limited class had all gone sweetly round a 100-km. triangle, which we gave them to make sure the little blighters would not spoil our fun by landing out. Nine out of ten Open Class machines were round the 400-km. triangle long before sundown, all except Saunders in the Skylark 2. As the sun set we gave him up and started on the first beer, when a great shout went up and Saunders came sailing in high, tiptoeing gently along against the dark sky.



The Mayoress of Kimberley with the five pilots to finish the Richmond out-and-return race: L to R, Brian Stevens, E. (Tim) Morratt-Biggs, Rolf Spanig, Pat Beatty, Boet Dommisse.

Airways Committee Report

MEMBERS of the Committee: D. H. G. Ince (Chairman), J. N. Cochrane, C. A. P. Ellis, B. A. G. Meads, P. Minton, O. W. Neumark.

1. AIRWAYS

(a) Revised Lower Limits

The trial Airways lower limits introduced in mid 1960 will probably become permanent, although this has not happened at the time of writing and the experiment continues.

(b) Permanent I.F.R.

Although Permanent I.F.R. became mandatory on all U.K. Airways during the year under review, the dispensation to gliders was re-stated at the same time.

(c) Amber 25

The "Summer schedules only" Airway from Manchester to the Channel Islands was not introduced during 1961, but it will almost certainly come in during the Spring of 1962. The new alignment — west of ADR 160 — will be a long-awaited and most essential relief to the Midland Gliding Club.

(d) Green 2, White 7

Changes in the stub length and base levels of Green 2 east from Manchester were advised early in 1961 and details were included in a B.G.A. circular. The recent introduction of White 7, along the South Coast, has also been advised by B.G.A. circular.

2. SPECIAL RULES ZONES

During 1961 Special Rules Zones have been created around the Airports at Southend, Lydd and Cardiff. Details have been advised by B.G.A. circular. In the case of Lydd the rules apply in all weather conditions; Southend and Cardiff in IMC only.

3. SCOTTISH TMA AND EDINBURGH CONTROL ZONE

A slightly modified Scottish Terminal Area and an entirely new Edinburgh Control Zone were introduced in the late Summer. This effectively created a complete barrier of Controlled Airspace across S.W. Scotland and the Scottish Lowlands. Although there is no permanent IFR within it, our representations to the Ministry of Aviation brought no reductions in the size and vertical extent of this vast and sparsely populated airspace.

Details were advised by B.G.A. circular.

4. LONDON TMA AND LONDON (HEATHROW) CONTROL ZONE

Permanent IFR in the London (Heathrow) Control Zone was forecast in last year's report; it was introduced early in 1961 and advised by B.G.A. circular.

Details have also been circulated of the eastwards extension of the London TMA, the raising of the TMA base over part of its Northern Area and the re-alignment of Amber 2, including the deletion of the triangle of free Airspace between Wing and Halton to the west of Dunstable. Strong representations have been made over this increase in the lateral dimensions of the Amber 25 stub without any attempt to delete its seemingly vacant lower levels.

5. THE FUTURE

By the time this report appears in print it is probable that a Special Rules Zone will have been created — largely under Green 1 — around the R.A.F. Transport Command base at Lyneham.

In the more distant future there is a possible westward extension of the London TMA and a threat of wider Airways. Against this continuing sombre background of events, which

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Key to initials.—A.D.R.=Advisory Route; A.T.C.=Air Traffic Control; B.G.A.=British Gliding Association; I.F.R.=Instrument Flight Rules; I.M.C.=Instrument Meteorological Conditions; T.M.A.=Terminal Area; V.F.R.=Visual Flight Rules; V.M.C.=Visual Meterological Conditions.

could so easily spell the doom of our movement, are two faint gleams of light: first, the Joint Air Users paper mentioned in the Chairman's report; secondly, the growing awareness that a suitably equipped Air Traffic Control System — given the additional capability of tracking gliders in flight — could ease our endlessly growing restrictions without prejudice to the safety of other air users.

However, that day has yet to come, and more than ever it is up to each one of us to protect our position as far as is humanly possible.

D. H. G. INCE,
Chairman, Airways Committee.

Technical Committee Report

MEMBERS of the Committee: F. G. Irving (Chairman), J. B. B. Johnston, J. D. Jones, J. Leach, H. U. Midwood, K. R. Obee, R. C. Stafford Allen, C. O. Vernon, B. E. Warner, L. Welch.

Advisors to the Committee: Sgt. J. S. Williamson (Radio), M. J. Neale (Motor Transport).

Terms of Reference

To advise the Council on Technical matters, in particular to supervise the Airworthiness scheme.

1. Supervision of the issue of Airworthiness Certificates.
2. Supervision of the approval of Inspectors.
3. Consideration of all Technical problems.

Work of the Committee

During 1961, six meetings of the Committee were held. 275 Certificates of Airworthiness have been issued (260 in 1960) of which 67 were initial applications (62 in 1960). 44 renewals involved "Ten Plus" inspections, 4 new Senior Inspectors and 8 new Inspectors were approved. 17 Senior Inspectors, 57 Inspectors and five firms renewed their approvals. In many cases, the Examiners (R. C. Stafford Allen, assisted by B. E. Warner) visited applicants to assess them on their own sites.

As noted in last year's Report, the "Ten Plus" system is undoubtedly beneficial, and most Senior Inspectors are most conscientious in their work. There has been some tendency for certain inspectors and operators to attempt to postpone such comprehensive inspections on various excuses, thus causing considerable difficulty both to the Committee and the Staff. If there is any doubt about the need for a "Ten Plus" inspection, the owners should refer to the Committee before putting the work in hand.

A Ka 6 has received certification in the Normal Category, and another foreign aircraft is under consideration. Once again, it is apposite to refer members intending to import foreign gliders to the article published in SAILPLANE AND GLIDING for October 1960.

One Experimental Certificate of Airworthiness has been issued.

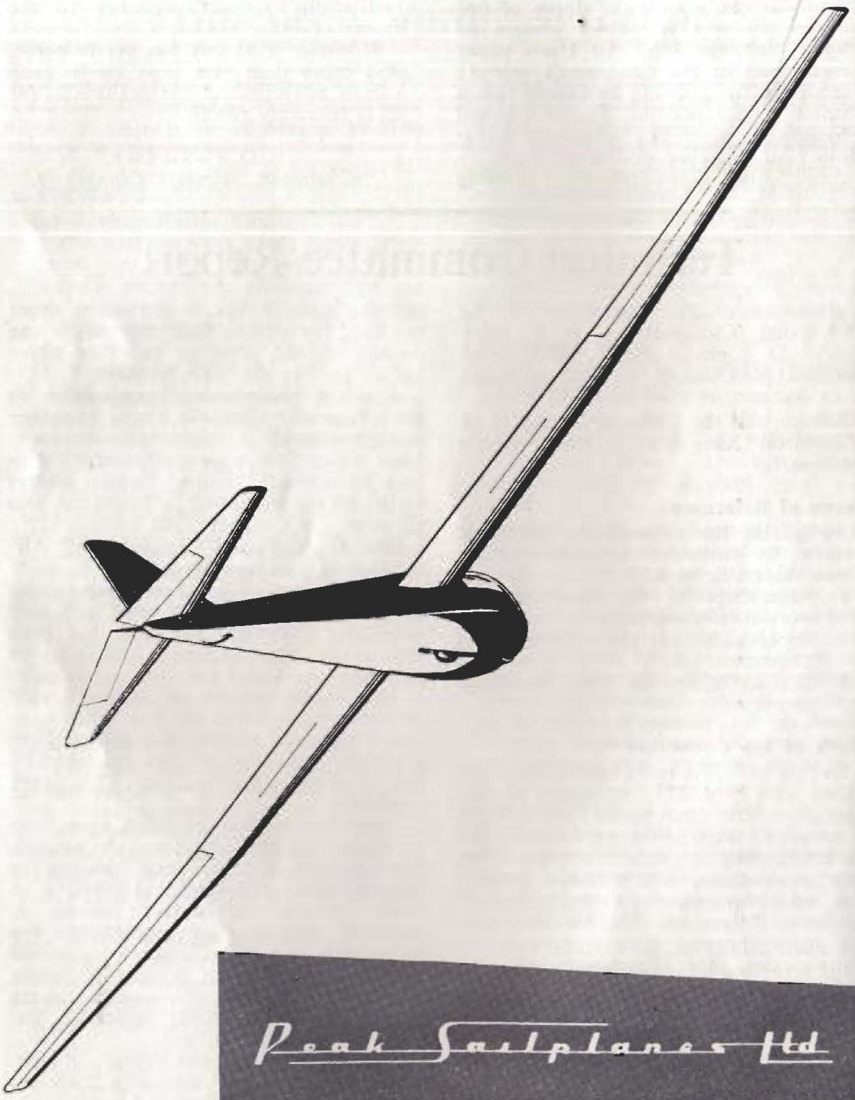
The Fatigue life of wooden glider structures has been investigated with very satisfactory findings. A report has been sent to the manufacturers and is to be submitted to O.S.T.I.V. for publication.

The investigations of rolling manoeuvres mentioned in the last report have now progressed to the point of analysing enormous quantities of data produced by No. 3 Flight Test Group. This work continues.

Numerous matters of detail have been considered by the Committee. At present, investigations are in hand relating to oxygen masks and electrical bonding. A steady trickle of defect reports is received, and we are grateful to the individuals and manufacturers concerned for giving them such prompt attention. The sub-division of routine work amongst the Committee members has proved very satisfactory.

As the above statistics imply, the technical work of the Association increases steadily, both in volume and complexity, imposing a corresponding burden on the office staff, inspectors and manufacturers. We are most grateful to all of them.

F. G. IRVING, *Chairman.*



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Accidents Analysis for 1961

TABLE ONE is the catalogue of accidents reported in 1961. "Accidents reported" is the phrase purposely used, because not all clubs report as scrupulously as their obligation to obey B.G.A. Operational Regulations indicates that they should.

TABLE TWO is a five-year analysis of costs. The eleven-year count, which was included in the 1960 analysis, has not been repeated this year, but can be referred to in *Sailplane and Gliding* for April 1961.

The figures are disappointing. More flying has been done, but the cost of accidents per hour flying is still much too high. Despite representations in favour of measuring by number of launches, the assessment by hours flying is preferred: first because this is the best measure of flying-achieved, whereas launches measures only the effort to achieve it, and secondly because "flying hours" is the conventional unit used in making comparisons.

TABLE ONE reveals clearly where the money has gone, and shows that the Approach and Landing phases continue to provide the most fruitful causes of trouble. Surprisingly, a large proportion of the accidents occurred on pilots' home airfields: these are an indication that the pilots involved are either flying aircraft too advanced for their abilities, or that they had not yet been instructed adequately to the point of mastering approach and landing techniques. Lack of adequate further instruction after solo may have contributed to a good many of these accidents.

One new heading is introduced, namely "Weather". The reports speak for themselves, and it will be noted that four of the five accidents under this heading occurred at the same club within the space of only eight days.

Finally, although there is an encouraging increase in the number of B.G.A. categorised instructors (figures are as at 31st December 1961), it is clear that this increase has not yet had time to take effect, nor is it anything like adequate to cope with the even greater increase in flying members of clubs. The Instructor/Pilot ratio is still far too low, and there is nothing in this year's analysis to invalidate the important conclusions recorded in 1960, namely that: **the most urgent and essential step towards accident prevention is more instructors of better quality.**

What is now necessary goes far beyond the testing and examining scheme hitherto discussed. Future instructors must get systematic instruction on how to instruct and there must be incentive to obtain the qualification.

Arrangements should be made without delay to increase the numbers of B.G.A. Categorised Instructors up to whatever is necessary to train and to supervise the expanding gliding movement.

G. J. C. PAUL,
Accidents Analysis Officer.

Note: FOR TABLE ONE SEE NEXT THREE PAGES

TABLE 2.—COSTS OF ACCIDENTS

	1957	1958	1959	1960	1961
Hours flown in year*	17,996	17,798	22,937	19,136	24,564
Total number of B.G.A. Categorised Instructors	97	96	85	98	146
Flying membership of Clubs	—	3,147	3,408	3,366	4,123
Annual cost of accidents	£6,987	£9,634	£8,332	£9,999	£12,007
Cost of accident per flying hour	7s. 9½d.	10s. 9½d.	7s. 3d.	10s. 5½d.	9s. 9¼d.
* Excludes Service clubs and A.T.C.					

TABLE ONE.—Summary of Accidents Reported During 1961

B.G.A. No. 1961	Type of Accident	Type of Glider	Qualification of Pilot	Cost in £	Notes
TAKE-OFF					
7	Take-off	Olympia	Over 5 hrs.	30	Dropped wing, swung and fouled tyre on edge of take-off path.
26	Ditto	T.21	Instructor	200	Dropped wing, swung, and wing tip caught up in long grass on edge of take-off path.
20	Cable break	Olympia	Over 5 hrs.	800	Pilot unable to cope with cable break.
30	Winch failure	Olympia	Over 5 hrs.	650	Pilot unable to cope with slow launch; continued despite lack of power, and stalled.
32	Ditto	T.31	Instructor	350	Ditto.
74	Ditto	Olympia	Over 5 hrs.	100	Ditto.
59	Ditto	T.21	Instructor	Nil	Winch failed when T.21 had risen 10 feet. Aircraft over-rode cable, but parachute rose over nose of T.21 and the launching cable passed round pilots' heads. Had the winch regained power at this point, the result could have been fatal. Fortunately it did not. (Passed to Tech. Ctte., 22nd Sept. 61, whose comments are awaited.)
57	Ditto	Olympia	Silver C	20	Severe snatch on cable thumped tail of Olympia on ground, breaking rear fuselage.
47	During climb	Kite 2	Over 5 hrs.	375	Pilot pulled into so steep a climb that the Kite stalled at 200 ft. and spun in.
54	Aero-Tow	Olympia	Over 5 hrs.	10	Pilot unable to keep position on tow, cast-off, and damaged Oly during subsequent landing.
56	Ditto	T.21	Instructor	7	Pupil's efforts to keep glider low, resulted in broken skid.
17	Take-off	Weihe	Over 5 hrs.	15	Early release of detachable wheel u/c damaged fuselage.
IN FLIGHT					
39	Spun-in	Condor	Over 5 hrs.	500	Pilot lost control in free flight, and spun in. Pilot killed, passenger severely injured.
24	Unauthorized manoeuvres	Skylark 3F	Silver C	1,500	Failure due to over-stressing by rolling manoeuvres outside the limits of the C. of A. Pilot killed.
ON APPROACH					
35	Low approach	Skylark 3B	Over 5 hrs.	650	Pilot collided with a tree on approach to land. on home airfield.
73	Ditto	Tutor	Under 5 hrs.	250	Inexperienced pilot lost control and flew into the ground. Ditto.
18	Low turns	Kite 1	Over 5 hrs.	150	Wing tip hit ground during final turn.
19	Stalled approach	Eagle	Instructor	400	Stalled on the approach, claimed that rain on wings produced unexpected loss of lift. Ditto.
29	Ditto	Tutor	Under 5 hrs.	80	Stalled on approach. Ditto.
37	Ditto	T.21	Instructor	500	Ditto. Ditto.
63	Ditto	Tutor	Under 5 hrs.	150	Ditto. Ditto.
1	Undershoot	Cadet	Under 5 hrs.	10	First flight on Cadet; trained on Prefect. Ditto.

3	Ditto	Skylark 2	Over 5 hrs.	25	Hit cables on airfield boundary.	Ditto.
10	Ditto	T.21	Instructor	150	Instructor allowed pupil to drift too far downwind.	Ditto.
27	Ditto	Cadet	Over 5 hrs.	15	Plain undershoot.	Ditto.
34	Ditto	T.21	Instructor	2	Ditto.	Ditto.
42	Ditto	Olympia	Over 5 hrs.	350	Undershot and hit stone wall.	on cross-country field landing.

LANDING

22	Landing	Skylark 3F	Gold C	5	Rough ground.	Ditto. Ditto.
44	Ditto	Sky	Silver C	25	Ditto.	Ditto. Ditto.
52	Ditto	Prefect	Over 5 hrs.	100	Ridge and furrow surface used for landing.	Ditto. Ditto.
50	Ditto	Tutor	Under 5 hrs.	2	Landed across slope and wing tip touched; causing swing	on home airfield.
2	Hit obstruction on landing	Swallow	Silver C	2	Collided with sheep	on local landing ground on ridge soaring expedition.
4	Ditto	Cadet	Under 5 hrs.	10	Hit remains of old brickwork.	on home airfield.
25	Ditto	Olympia	Over 5 hrs.	225	Got lost and landed on obstructed runway.	away landing on airfield.
31	Ditto	Olympia	Over 5 hrs.	10	Hit remains of old wall.	on home airfield.
49	Ditto	Olympia	Over 5 hrs.	10	Hangar flight. Wing tip fouled standing corn.	Ditto.
67	Ditto	Olympia	Gold C	25	Landed on airfield in use for "karting", hit course-marker.	away landing on airfield.
68	Ditto	Tutor	Under 5 hrs.	50	Hit wire fence, being unable to regain airfield.	field landing.
15	Heavy landing	Skylark 2	Over 5 hrs.	5		on home airfield.
36	Ditto	Skylark 2	Over 5 hrs.	10		Cross-country. field landing.
40	Ditto	Kite 2A	Over 5 hrs.	25	Landing up steep slope	Ditto. Ditto.
46	Ditto	T.31	Under 5 hrs.	1	First solo.	home airfield.
53	Ditto	Skylark 2	Over 5 hrs.	60		Cross-country. field landing.
61	Ditto	Tutor	Under 5 hrs.	60	Third solo flight.	home airfield.
65	Ditto	Prefect	Under 5 hrs.	5		Ditto.
70	Ditto	Eon Baby	Over 5 hrs.	10		Ditto.
16	Landing with drift	Gull 3	Over 5 hrs.	25	Landed across wind, but with ridge and furrow.	field landing.
55	Ditto	Kite 1	Over 5 hrs.	5		on home airfield.
23	Landing in standing corn	Skylark 3F	Gold C	20		field landing.
8	Instructional landing	T.21	Instructor	5	Instructor did not correct in time.	home airfield.
58	Ditto	T.21	Ditto	20	Out-of-practice instructor in left-hand seat failed to co-ordinate stick and spoilers.	Ditto.

WEATHER

11	Unsuitable weather	Prefect	Over 5 hrs.	100	Inexperienced pilot launched from ridge in unfavourable weather, and subsequently failed to see recall signal. Sucked into heavy cloud; emerged out of control and lost. Landed in field and damaged aircraft.
12	Ditto	Prefect	Ditto	650	Similar experience by another pilot on same day, same place. Pilot fractured both legs in landing which he cannot remember.
13	Ditto	Olympia	Ditto	25	Similar to 11/61 and 12/61, and also on same day, same place.
14	Ditto	Olympia	Ditto	400	Similar to 11/61, 12/61 and 13/61, and at same place, but eight days later.
45	Lightning strike	Skylark 3	Silver C	50	Two strikes in Cu-Nimb at 15,000 feet.

ON THE GROUND					
6	Carelessness on the ground	Olympia	Not available	5	Canopy of parked aircraft damaged by ground crew.
43	Ditto	T.21	Ditto	2	Pupil fell on to windshield.
48	Ditto	T.21	Ditto	2	Aircraft slipped off ground handling trolley
51	Ditto	Olympia	Ditto	5	De-rigging team damaged wing.
60	Ditto	T.21	Ditto	10	Pupil ran tractor into aircraft.
5	Wind took charge	Olympia	Ditto	200	Aircraft not properly secured.
21	Ditto	Grunau Baby	Over 5 hrs.	300	Pilot left aircraft after landing and before ground crew arrived. Strong wind then overturned it.
41	Ditto	T.21	Instructor	400	Having landed short of runway, Instructor and pupil got out of aircraft before ground crew arrived. Strong wind then overturned it.
64	Ditto	T.21	Not available	500	Inexperienced ground crew, not properly supervized, allowed T.21 to blow away whilst they were moving it.
TECHNICAL					
62	Faulty Rigging	Eagle	Silver C	600	After launch, pilot found himself without aileron control. Subsequent inspection showed that pip pins in aileron circuit had not been properly inserted when aircraft was previously rigged.
9	Canopy	Skylark 2	Over 5 hrs.	50	Canopy came off in flight.
33	Ditto	Skylark 2	Silver C	50	Ditto.
66	Ditto	Skylark 2	Over 5 hrs.	50	Ditto.
38	Ditto	Bocian	Instructor	600	Rear canopy came off in flight, damaging tailplane. Crew baled out.
70	Accidents reported costing altogether			£12,007	Note : 28, 69, 71 and 72 are blank numbers.

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WRITE FOR FULL PARTICULARS

Greek Instructor Dons Shirt

By Mick Jensen

This extract from an account of a European tour is reproduced by permission from the Kansas Soaring Association Newsletter.

IN Athens, Greece, things began to look up for this old glider guider. The Greek Air Force has a schedule that closed the field at 12.00 noon—so, upon nosing around, I discovered that each afternoon at 2.00 the Royal Aero Club of Greece rolled out their sailplane and winch and sport-flying began. At this point I lost all interest in the Acropolis and the beach abounding in bikinis.

On one flight the club instructor had entered the sailplane with his shirt off. We had good luck, and at 6,000 feet he decided to put it on. To do so he had to release his shoulder straps, seat belt and parachute, then slide the hatch back to give him room. After his struggle with the slip-over garment had progressed fairly well, I lost interest and focused my attention on the large mountain directly ahead, and was shortly surprised by what I thought was the instructor taking the stick away from me. What had happened was that his knee had pushed the elevator trim-pull forward so abruptly that it seemed to me the



Cartoon by John Stanley

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instructor had pushed the stick forward and pulled it slightly back again. Because he had explained the aerobatic capabilities of the ship and we had good altitude, I reasoned that he was going to do a loop. With the instructor with his shirt over his head and in a semi-standing position, chute off, and belt loose, the sailplane was trimmed full nose-down and I let go of the stick. I waited and waited and grew uneasy as the speed approached the red line. Finally, just as the paint began to peel off the leading edges, the instructor got his shirt on, noticed that his homeland was approaching at an alarming rate, and in no uncertain and easily comprehended voice requested that the position of the aircraft be altered to avoid possible deformation of same.

Afterwards it all afforded quite a chuckle, for it was a rather funny as well as precarious situation.



IN the last year attendance at the Club each Wednesday has remained at a high level and every effort is made to provide interesting films, lectures and debates. It is worth making a special note of the following: Wednesday, 4th April, we shall be showing the flying film that is the epic of the 1930's, "Hell's Angels," starring Ben Lyon and Jean Harlow. On 9th May, famous aviation cartoonist Chris Wren comes along to give us a light-hearted illustrated talk on aviation round the world. The full diary appears opposite.

The Club's series of Instructional Lectures on Monday evenings have again been a tremendous success. Group membership is now offered to certain organisations connected with the Club and aviation generally and the following have been accepted as members:—

Aircraft Recognition Society, Air Historical Society, Fleet Air Arm Association, Island Cruising Club and the Women's Junior Air Corps.

The Club is holding a "Welcome the Soaring Season" Party on Friday, 6th April; this should be a lively evening when a warm welcome will be extended to all members and friends, so do come and join us.

Artists, now is the time to put pen or brush to paper; please note the date fixed for the fifth exhibition and competition of aviation paintings and drawings to be held from 14th-27th November. We hope this popular annual event will be even better supported than last year. Any further details may be had from Mrs. Bonham, 14, Little Brownings, London, S.E.23. Tel. FORest Hill 9390. C.T.

Diary of Lectures and Film Shows
Wednesday evenings at 8 p.m.

Mar. 28. Films: The Navy in the South Pacific and New Guinea.
April 4. "Hell's Angels" (see above).
„ 11. U.S. Film, the Atomic Bombing of Hiroshima.
„ 18. Film Show organised by courtesy of the United Arab Airlines.
„ 25. U.S. Film, The Berlin Airlift.
May 2. "Wroundabout Aviation" by Chris Wren.
„ 9. B.P. Films, The History of Motor Racing, 1902-1929.
„ 16. Easter Rallies.
„ 23. Debate: "The future of British Gliding lies in Private Ownership". Proposed by M. Bird, opposed by W. Kahn.

FIELD STUDY COURSE

AS for several years past, a Field Study Course on "Weather and Flight", designed to be of special interest to glider pilots, is again being held at the Preston Montfort Field Centre near Shrewsbury. A description of such a course, written by a participant, Dr. John Elliott, was published in our December 1958 issue, p. 350.

This year's course is to be held from September 15th to 22nd, and will be under the direction of Mr. D. Pedgley, who was formerly at the Meteorological Office Training School and is at the moment at El Adem Meteorological Office. The charge for the course will be £9 15s. Particulars can be obtained from the Department of Extra-Mural Studies, University of Birmingham, Edgbaston, Birmingham 15.

Instructors' Panel Report

MEMBERS of the Panel 1961 : Mrs. A. Welch (Chairman), G. Collins, D. Darbishire, T. Davidson, D. Goddard, K. Machin, P. Minton, R. Neaves, D. Piggott, A. Pratt, B. Thomas, J. Williamson.

To encourage new instructors to obtain training, the B.G.A. made available during the year a sum of £700 for candidates who successfully passed approved training courses. Seven such courses were run at four different volunteer clubs to a syllabus laid down by the Panel.

Candidates were divided into those likely to obtain a Category at the end of the course, and those who had little or no instructing experience. Of the pilots who attended courses 23 passed, the clubs who had sent them receiving £20 subsidy.

This scheme was intended to be an interim and temporary measure until the new Slingsby T-49 becomes available in the Spring of 1962. The Instructors' Panel has great hopes and plans for the first production T-49, which has been generously donated to the B.G.A. by the courtesy of W. D. & H. O. Wills. This aircraft will be administered by the Panel, and will spend much of its life travelling round the country, visiting as many clubs as possible. In each area it will be in charge of the Examiner there, who will use it for category tests and instructor training, and, in addition, in providing opportunities for cross-country soaring and more advanced flying for those instructors who do not otherwise have them. The Panel feels that it is particularly important to provide soaring experience with the T-49 in order to broaden the outlook of the instructor so that, in turn, his training of future soaring pilots will be more effective.

During 1961 many category tests were carried out, which resulted in 48 additional qualified instructors. The total is now 146. After January 1962 all new C.F.I.'s will have to conform to the new higher standards which have been introduced in stages during the last year. On renewing their categories all existing C.F.I.'s will automatically receive the C.F.I. endorsement if their qualifications comply.

1961 was not an unsatisfactory year, considering the numbers of new clubs which have started. A great deal, however, still needs to be done to enable these clubs to continue to have a sufficient number of trained and qualified instructors who can effectively teach their pupils to use the excellent performance aircraft now becoming so widely available.

ANN WELCH,
Chairman, Instructors' Panel.

The Lemoigne Device

by Walter Neumark

THE Lemoigne Device is something entirely new and gave tremendous enjoyment to the 29 different persons, ranging from experienced sailplane and power pilots to aeronautically inexperienced wives and children, who flew it at Lasham during the week-end of 17th and 18th February, 1962.

It might be called a soft-winged indestructible inherently stable glider or a safe man-carrying kite, because although it is reminiscent of a parachute, it cannot be used as such for escape from an aircraft. Monsieur Lemoigne, an old test pilot, has taken a parachute and, by introducing scoops and slots, has produced an entirely soft aerodynamic lifting device which can be auto or winch launched as a glider. This represents an epoch-making advance over Seehase's man-carrying kite parachute of 1919 and my own version of Seehase's device in which my wife made an ascent at Dunstable in 1953. These consisted of a conventional parachute with a rigid frame and two sets of rigging lines, one set to the pilot, the other to the winch or towing vehicle or ship. As witnesses might recall, Ariane never got very high before the rigid structure collapsed.

As to the purpose of it all, Seehase wanted to have a safe means for rapidly hoisting an observer to some 500 ft. behind a U-boat; I wanted a means for rapidly putting a military observer up



Walter Neumark on the first ascent at Lasham on 17th February.

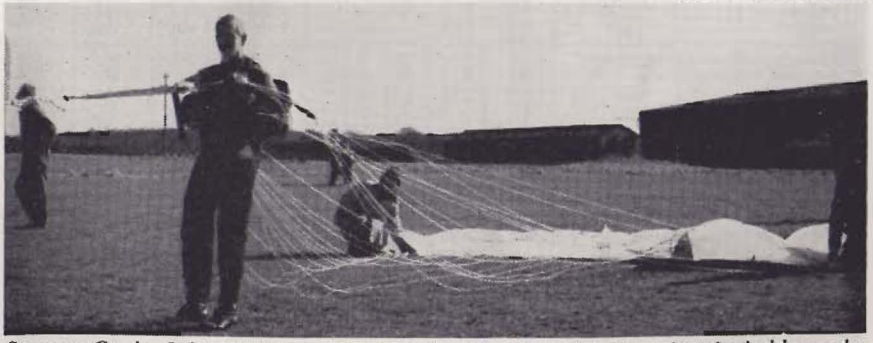
and down over land. Lemoigne has applied it to parachute training by easy stages from the ground upwards, while Michael Borrow, of Underwater & Marine Equipment Ltd., the U.K. importer of the Lemoigne device, will use it to enable his divers to view the sea bottom before submerging.

Although Air Vice-Marshal D. C. T. Bennett had very kindly permitted us to carry out the first trials in privacy at Blackbushe, the extensive drainage repair work limited the freedom of our towing car and we transferred to Lasham, where we were also very kindly received. There, on 17th February 1962, we first flew it with a water bag in a wind velocity of 14-18 m.p.h. measured at 6 ft. above the ground, and subsequently I tried a series of low hops on a short 120-ft. nylon line attached to Mallet's Landrover. It was a delightful experience, somewhat reminiscent of balloon-hopping.

After lunch we increased the line to 200 ft. and, with the Landrover stationary, I sat at about 150 ft. for some six minutes with an airspeed of about 20-22 m.p.h.

After some careful manoeuvring, the Landrover managed to make enough headway into the wind to give room for a downwind dash, thus allowing me to descend. We then tied a haul-down line to the harness, but did not really have to use it for Michael and Aimy Borrow, Nick Goodhart, Frank Irving, Derek Piggott, Rika Harwood and others, who flew while the wind slowly dropped. I did try a free parachute descent, as opposed to a gentle glider landing with cable tension, and was rather surprised by the relatively slow rate of descent.

On the Sunday morning the wind was only 4-8 m.p.h., and most people had to run for some 15-20 yards, while Wally Kahn averaged 45 yards or so before take-off. As in ab initio solo Dagling training, the Landrover driver had very good control over rate-of-climb, altitude and rate-of-descent of the kite. The youngest to try was 11-year-old Sarah Rawlins, who, like everyone else, greatly enjoyed the experience.



Surgeon-Cmds. John Rawlins about to take off. Note the two wing-tip holders who allow the 'chute to inflate before running.

Club Statistics for 1961

Gliding Club	Aircraft Club owned 2S	Sec	HP	PO	CO	UC	Launches On Club site	By Club gliders	Hours On Club site	By Club gliders
ABERDEEN	2	1	1	1	—	1	3,057	2,911	204	183
AVRO	1	1	2	—	—	—	963	976	70	74
B.E.A. SILVER WING	2	1	1	2	—	1	2,075	2,039	240	211
BLACKMORE VALE	1	1	—	—	—	1	1,718	1,712	96	96
BLACKPOOL & FYLDE	1	2	1	—	—	—	1,337	1,337	—	—
BRISTOL	2	—	4	7	1	2	9,048	7,890	1,972	1,302
CAMBRIDGE UNIVERSITY	1	—	2	1	2	—	3,935	4,690	942	1,336
*COLLEGE OF AERONAUTICS	1	1	1	—	—	1	271	271	17	17
CORNISH	2	3	1	4	—	—	7,013	6,709	736	607
COVENTRY	2	3	1	4	—	—	7,180	6,894	985	857
DEVON & SOMERSET	2	2	1	—	3	—	6,277	5,911	1,151	839
DERBYSHIRE & LANCASHIRE	3	4	2	7	4	1	5,681	4,903	1,439	738
*DONCASTER & DISTRICT	1	1	—	2	—	1	4,434	4,317	289	270
DUMFRIES & DISTRICT	1	—	—	1	—	1	389	380	30	29
*EAST MIDLANDS (LEICESTER)	1	—	—	—	—	—	1,183	1,173	86	83
ESSEX					n.a.					
GLASGOW & WEST SCOTLAND	1	1	—	—	—	—	88	88	8	8
HALIFAX	1	1	—	2	—	—	290	233	25	17
HANDLEY PAGE	1	1	1	—	—	—	712	730	70	73
KENT & ROYAL ENGINEERS	2	1	1	1	—	—	2,137	2,044	—	—
LASHAM CENTRE							24,064	20,978	4,400	3,800
ARMY	2	—	4	5	—	4				
AIR SCOUTS	1	—	—	—	—	—				
CROWN AGENTS	—	—	1	—	—	—				
IMPERIAL COLLEGE	—	1	1	1	1	1				
LASHAM SOCIETY	1	—	—	20	—	—				
LEIGHTON PARK SCHOOL	1	—	—	—	—	—				
SURREY	—	—	6	—	—	—				
POLISH AIR FORCE	—	—	1	—	1	1				
UNIVERSITY COLLEGE G.C.										
*LAKES	1	2	—	—	1	—	1,064	1,657	162	159
LONDON	3	5	5	24	—	1	11,305	10,337	3,277	2,362
MIDLAND	3	2	4	3	—	1	11,200	9,741	3,067	2,106
NEWCASTLE	1	1	1	4	—	—	1,390	1,320	276	209
*NORFOLK	1	1	1	3	—	—	3,907	3,653	366	306
*NORFOLK & NORWICH	1	—	1	2	—	—	410	297	175	90
NORTHAMPTON	1	2	2	—	—	—	2,481	2,392	345	323
OUSE GLIDING CLUB	1	—	—	—	—	—	204	204	14	14
OXFORD	1	1	2	4	—	—	3,438	2,983	710	491
PERKINS	1	1	1	—	—	—	2,400	2,400	196	196
ROYAL AIRCRAFT ESTABLISHMENT	—	1	1	3	1	—	894	1,288	186	165
SCOTTISH GLIDING UNION	2	2	3	3	—	—	4,612	4,463	846	664
SHORTS	1	1	1	—	—	—	64	64	18	18
SOUTHDOWN	1	1	2	1	—	—	2,915	3,306	321	437
SOUTH WALES	1	2	—	—	—	—	558	558	47	47
SWANSEA	1	1	—	—	—	—	1,740	1,740	124	124
*SWINDON	1	—	—	—	—	1	1,357	1,298	96	89
WEST WALES	1	1	—	—	—	—	3,252	3,252	286	286
YORKSHIRE	1	2	2	4	1	—	4,783	4,540	1,292	1,024
TOTAL CIVILIAN	56	51	58	85	39	18	139,826	131,679	24,564	19,650
ROYAL AIR FORCE										
BANNERDOWN	2	3	1	—	—	—	3,792	3,700	381	368
CHILTERNS	2	3	1	—	—	1	3,560	3,560	442	459
* CLEVELANDS	1	2	2	—	—	2	2,924	2,924	382	382
EAST ANGLIAN	2	2	2	—	—	—	6,159	6,159	898	898

Club Statistics for 1961 (continued)

Flying days		Cross-country miles		Courses		Certificates					Membership		
Total	soaring	From site	By club gliders	No.	Pupils	A	B	C	(Legs in brackets) Silver	Gold	Flying	Non-flying	Potential
103	12	—	33	7	49	12	12	6	1 (4)	—	52	—	100
57	10	—	45	—	—	3	3	—	—	—	85	6	120
75	39	251	18	1	13	9	9	7	1 (2)	—	71	—	100
67	12	—	—	—	—	19	19	—	— (1)	—	69	21	150
67	—	—	—	—	—	3	3	—	—	—	37	200	50
212	113	3800	9,000	23	170	—	—	—	—	—	236	41	250
207	129	2548	3,027	6	59	13	13	12	11(36)	1 (3)	250	1	250
13	2	—	—	—	—	—	—	—	—	—	—	—	—
201	76	308	—	24	181	16	15	18	— (5)	—	103	30	200
134	65	1,038	869	—	—	29	29	15	3(20)	1 (1)	150	10	180
213	150	800	700	8	66	21	21	10	1(10)	—	120	—	150
114	65	7,494	513	9	72	22	22	22	1 (7)	—	193	109	302
21	20	192	42	1	28	29	28	5	—	—	104	46	125
32	6	—	—	—	—	5	5	3	— (1)	—	42	30	50
36	12	—	—	—	—	4	4	—	—	—	57	22	100
7	2	—	—	—	—	—	—	—	—	—	36	—	60
25	10	—	—	—	—	3	3	4	—	—	47	26	100
36	11	180	300	—	—	2	2	1	— (3)	—	24	—	35
44	8	40	35	—	—	2	3	3	1 (2)	—	82	9	150
321	167	—	—	24	90	65	62	46	15(46)	9(19)	680	150	1,000
62	44	—	50	4	44	3	3	3	—	—	46	21	100
261	198	4,481	2,500	12	119	25	26	19	14(37)	— (1)	305	31	500
215	159	1,138	318	20	328	32	32	45	3(45)	— (1)	140	56	250
73	36	124	—	—	—	5	5	7	2 (8)	—	63	—	100
110	30	390	33	—	—	30	30	12	—(10)	—	80	8	120
50	19	411	—	—	—	9	9	5	1 (5)	—	162	39	210
95	38	310	245	—	—	14	14	2	2 (8)	—	85	—	150
—	—	—	—	—	—	—	—	—	—	—	—	—	—
101	57	678	79	—	—	2	2	5	3(16)	—(1)	83	2	90
82	29	300	300	—	—	5	5	3	— (8)	—	31	—	—
58	25	95	51	c.t.	—	—	—	—	—(1)	—	70	—	100
182	115	206	158	14	132	5	6	6	2(10)	—(1)	120	25	150
13	6	—	—	—	—	—	—	—	—	—	10	—	25
93	23	—	652	3	30	5	5	6	3 (8)	—	130	20	200
33	16	—	—	—	—	—	—	1	—	—	50	9	130
84	12	—	—	1	20	19	18	—	—	—	50	—	100
62	—	—	—	—	—	9	9	1	—	—	60	12	75
98	32	9	9	—	—	—	—	— (1)	—	—	63	1	150
172	104	344	238	11	102	10	10	10	1(10)	1 (1)	136	37	200
3,829	1,852	25,137	19,215	168	1,503	430	427	277(1)	65(303)	12(28)	4,123	962	6,122
97	42	300	287	—	—	17	17	10	1 (1)	— (1)	79	—	150
122	38	79	767	c.t.	—	21	21	11	1 (5)	—	115	11	130
94	35	450	450	c.t.	—	13	13	9	— (3)	—	88	7	130
165	98	1,095	1,095	—	—	23	22	19	1(11)	1 (3)	75	1	100

Club Statistics for 1961 (continued)

Gliding Club	Aircraft Club owned 2S	Sec	HP	PO	CO	UC	Launches On Club site	By Club gliders	Hours On Club site	By Club gliders
East Midland	2	2	1	—	1	—	6,272	6,272	641	641
East Yorkshire	2	2	1	—	—	—	2,359	2,359	286	286
Fenland	1	3	1	—	—	—	2,260	2,260	304	410
* Four Counties	1	2	1	—	—	—	2,262	2,275	239	244
Halton					n.a.					
* Home Counties	2	2	—	—	—	—	1,911	1,911	126	126
Moonrakers	2	2	3	—	—	—	5,890	5,975	842	1,012
Red Hand	1	1	1	—	—	—	274	274	20	20
Suffolk	2	2	1	—	—	—	2,100	2,100	221	221
Wessex	2	3	3	—	—	—	8,018	8,018	1,476	1,476
White Rose	2	3	1	—	1	—	1,427	1,473	117	117
Windrushers	2	2	5	1	—	—	5,050	5,069	840	886
Royal Naval G.S.A.										
Portsmouth	1	1	1	—	3	3	2,733	2,614	240	218
Heron	—	1	—	1	—	1	735	727	52	51
Service Total	27	36	25	2	5	7	57,726	57,670	7,507	7,815
Service and Civilian Total	83	87	83	111	20	15	197,552	189,349	32,071	27,465
Air Training Corps	162	12	—	—	—	—	128,335	128,335	n.k.	n.k.

* Notes: Figures for 1961 not received by closing date. 1960 figures shown for purposes of analysis total and comparison with 1960 total.

COMING EVENTS

Ending 29th March: R.A.F. Wave Project, Carlisle Airport.

6th-9th April: Spring Competition at Lasham.

14th-28th April: R.A.F.G.S.A. Easter Gliding Contests, R.A.F., Bicester.

19th-24th April: Easter Competition, Norfolk & Norwich Aero Club (Gliding Section).

20th-24th April: Easter Competition, Midland Gliding Club.

23rd-27th April: Members' Week, Cornish Gliding (& Flying) Club. Visitors from other clubs welcome.

5th-6th May: Competition, East Midlands G.C. (Leicester).

25th May-1st June: R.A.F. Practice Week, Aston Down, Glos.

2nd-11th June: National Championships, R.A.F. Individual & Inter-Command Champs., and Inter-Service Champs., Aston Down.

11th-15th June: Members' Week at Cornish Gliding (and Flying) Club (as above).

28th July-6th August: Northern Gliding Competitions at Derbyshire and Lancashire G.C.

6th-10th August: Members' Week at Cornish Gliding (and Flying) Club (as above).

15th-16th September: Field Study Course in Meteorology, Scottish Gliding Union.

14th-27th November: 5th Annual Painting and Drawing Exhibition, Kronfeld Club.

OVERSEAS

19th May-2nd June: Dutch National Championships, Terlet.

26th May-3rd June: Swiss National Championships, Grenchen.

21st-24th June: Motorized Sailplane Rally, Leutkirch, Germany.

24th July-3rd August: United States National Championships, El Mirage, California.

Club Statistics for 1961 (continued)

Flying days		Cross-country miles		Courses		Certificates (Legs in brackets)					Membership		
Total	soaring	From site	By club gliders	No.	Pupils	A	B	C	Silver	Gold	Flying	Non-flying	Potential
210	96	150	150	—	—	31	31	16	2(10)	— (3)	68	—	80
88	30	18	18	c.t.	—	4	4	3	— (5)	—	42	2	50
128	60	348	798	—	—	9	9	6	1(11)	1 (3)	119	—	150
79	—	205	205	—	—	6	6	11	4 (8)	— (1)	70	—	120
81	29	—	—	—	—	9	9	2	— (1)	—	38	—	50
137	69	1,800	3,622	—	—	21	21	13	5(14)	— (2)	74	—	100
23	1	—	—	—	—	4	4	—	—	—	30	—	75
75	30	300	300	—	—	12	12	4	1 (4)	1 (2)	65	—	100
—	—	—	2,977	c.t.	40	29	29	23	2(21)	— (1)	97	—	150
75	19	127	1,971	c.t.	—	12	12	2	— (3)	2 (2)	52	—	200
142	45	2,024	3,350	—	—	16	16	12	7(18)	— (1)	160	—	220
110	23	300	—	—	—	9	7	2	—	1 (1)	60	—	70
39	7	—	—	c.t.	15	6	6	—	—	—	27	1	50
1,665	622	7,196	15,990	—	55	2,614	2,611	194	25(115)	6(20)	1,259	22	1,925
5,494	2,474	32,333	35,205	168	1,558	3,044	3,038	471	90(418)	18(48)	5,382	984	8,047
n.k.	n.k.	n.k.	n.k.	c.t.	n.k.	2,372	2,372	51	n.k.	n.k.	n.k.	n.k.	n.k.

Key to aircraft categories: *2S* = two seater; *Sec.* = secondary; *HP* = high performance; *CO* = club-operated; *PO* = privately-owned; *UC* = under-construction. n.k. = not known; n.a. = not available; c.t. = continuous training.

B.G.A. News

Annual Awards for 1961

DE HAVILLAND CUP for greatest Gain of Height: No Award.

MANIO CUP for best Goal Flight: to A. L. L. Alexander for flight of 217 miles from Lasham to St. Just on 17th May.

WAKEFIELD TROPHY for the longest Distance: to J. S. Williamson for flight of 317 miles from Upavon to Ayton on 4th August.

VOLK CUP for best Out-and-Return: No Award.

FRANK FOSTER TROPHY: to A. J. Stone for fastest speed round 100-km. triangle, 47.05 m.p.h., on 20th June.

PILCHER TROPHY for longest Goal Flight finishing at Stanford Hall: to P. Minton for flight of 85 miles from Lasham to Stanford Hall on 13th July. Lord Braye has informed the B.G.A., with regret, that no flights are to take place to Stanford Hall until further notice.

SEAGER CUP for the best performance in a two-seater: to G. MacA. Bacon and A. Eldridge for Gain of Height of 15,300 ft. at Carlisle on 14th February.

DOUGLAS TROPHY for club putting forward 3 flights by 3 different pilots in club gliders aggregating largest total cross-country miles: to R.A.F. Moonrakers Gliding Club, total 632 miles (J. S. Williamson 317 miles, E. E. Reeves 197 miles, M. Thomas 118 miles).

CALIFORNIA IN ENGLAND TROPHY for the Longest Distance by a woman pilot: to Anne Burns for flight from Lasham to Portreath on 16th May.

GLIDING SITES CORRECTION

In the February issue, p. 35, last two columns: BRISTOL, Days operating, week-ends, summer daily, winter by arrangement; Slopes N. and W.

CAMBRIDGE, Days operating, week-ends and most weekdays; Slopes, none.

Theory of Flight for Glider Pilots

STAFFORD ALLEN

While there are several excellent books dealing with the theory of flight from the standpoint of aeroplanes, there is a need for a simple account of the subject explained on the basis of non-powered flight. Much that is of minor importance when dealing with aeroplanes is of vital significance when dealing with sailplanes, and a great deal of aeroplane theory is totally irrelevant when applied to gliding.

R. C. Stafford Allen is well-known as a gliding instructor, as a successful competitor in the British National Competitions and as Manager of the London Gliding Club. He has drawn upon his great experience to produce a book which simply and concisely enables the student glider pilot to acquire the necessary theoretical knowledge to support his practical training.

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Gliding Certificates

IN the February issue (p. 21) Denis Corrick, whose Diamond for Goal Flight is listed, should have been described as of the Bristol Gliding Club, not Surrey.

DIAMOND FOR ALTITUDE

No.	*Name*	*Association*	*Date*
3/29	J. V. Inglesby	R.A.F. Gliding & Soaring Association.	11.12.61

DIAMONDS FOR GOAL FLIGHT

No.	*Name*	*Club or Association*	*Date*
2/99	G. A. Coatesworth	R.A.F. Gliding & Soaring Association.	16.5.61
2/100	P. Goldney	Army Gliding Club.	2.8.61

GOLD C CERTIFICATE

No.	*Name*	*Club*	*Completed*
95	P. Goldney	Army Gliding Club.	2.8.61

SILVER C CERTIFICATE

No.	*Name*	*Club*	*Completed*
1105	T. I. Quinn Hall	Bristol Gliding Club.	4.7.61

C CERTIFICATES

Name	*Gliding Club or School*	*Name*	*Gliding Club or School*	*Name*	*Gliding Club or School*
T. D. Neilson	Phoenix	H. Elder	Scottish	A. R. Marshall	London
J. C. W. Marshall	Moonraker	Mrs. R. A. Elder	Scottish	J. W. W. Noake	632 G.S.
F. J. Cox	Chilterns	E. C. Beal	Yorkshire	G. H. Crawshaw	Yorkshire
R. H. Catten	Sonthdown	F. Rowley	Doncaster	D. H. Millett	Lakes
J. McLauchlan	Scottish	J. R. Wanamaker	Devon & Somerset		



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Is a 1,000-mile Cross-Country Possible?

By Harner Selvidge
Meteorology Research, Inc.

Mr. Selvidge, who is immediate Past President of the Soaring Society of America, replies to a suggestion of ours that 1,000 km. might be covered downwind of the Bishop Wave in a jet stream, or by waiting over a slope at night, or by Robert Kronfeld's early proposal to continue a cold-front flight through the night under a full moon which would show up the frontal clouds.

I FEEL that it is very likely that the world's distance record will exceed 1,000 kms. within the next four or five months. This estimate is based on knowledge of some record attempts of this sort which are scheduled for the south-western United States during the present Spring. Such a flight would be strictly on thermals and without waves.

While it may seem a little premature in view of the fact that no one has flown 1,000 kms., frankly most of the conjecture and discussions among the advanced soaring pilots of this country revolves around schemes for going more than 1,000 *miles*. I think it is likely that this will be done in the United States within the next five or six years. The most likely way would be to get a start in a first-class wave at Bishop and running downwind to the east or south-east as Dr. Kuettner did. It is my opinion that on two or three days of every year a condition of 1,000 miles of almost continuous wave occurs across the Rocky Mountains in the western United States, and it will not be too long before someone takes advantage of this. Unhappily one of the problems is that there are no sailplanes or tow planes permanently located at Bishop, so 95% of the Bishop waves occur without any soaring in them whatever.

There has been some talk in this country also of flying on thermals during the day and sitting on a ridge over night. Various pilots, including my associate Dr. MacCready, have laid out various courses which would bring them to a suitable mountain bowl or ridge at dusk, but the problem of having a strong enough evening wind on a day when there are very good thermals appears to be a very difficult one.

Some of us also believe that Kronfeld's idea is a very good one and offers excellent possibilities of making a 1,000-mile flight. I was discussing this possibility just two weeks ago with a group of meteorologists attending a national conference on weather radar at Kansas City, Missouri. Radar observations of cold fronts, and in particular the squall lines which precede them, gives considerable promise that a 1,000-mile flight would be feasible. I am not too familiar with cold-front processes in Europe, but in the middle western part of the United States it is my belief that they frequently keep a regular enough form to permit the pilot to fly for fifteen or twenty hours. Of course this would take a fast type performance sailplane; but no matter what mechanism you use to attain 1,000 miles, it will have to be a very good one.

I have watched on radar the development of some of these intense squall lines ahead of cold fronts in mid-western United States and believe they offer very excellent possibilities for long-distance flights. While at the Kansas City meeting I watched one develop until its total length was approximately 600 miles. It seemed very likely that a pilot who chose his take-off time properly could have readily flown that entire distance with very little lost time circling.

On a further re-reading of my letter above, I have the feeling that I have not stressed enough the importance of very exact timing (as well as luck) in making extremely long flights on either cold fronts or squall lines. The flight along the cold front would most likely involve a smaller amount of circling but with lesser lift, while the squall-line path would involve literally hopping from thunderstorm to thunderstorm. In either case, I suspect that in the mid-western United States the best conditions would require that a flight be started during the daylight hours but would continue for three or four hours after sunset in order to make the maximum use of the strong convective situations which have developed during the afternoon and which continue on into the night.



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Orographic Clouds over the Matterhorn

by G. J. Jefferson

Reproduced from "Weather" by permission of the Royal Meteorological Society.

AT the time of these photographs an anticyclone centred over France extended well into the Atlantic and east into Central Europe, while there was a depression centred over southern Italy giving cyclonic isobars as far as the Alps (see photos on next two pages).

At 500 mb. there was (at 0 hrs. G.M.T. 2nd March, 1961) a ridge whose axis extended from northern France across the North Sea to south-west Norway. Flow on the eastern side of this was N'ly and extended across the Alps.

Soundings for Stuttgart, Milan and Payerne at 12 hrs. G.M.T. show approximately northerly flow from 650 mb. (approx. 12,000 ft.) up to the tropopause. The clouds depicted in the photographs were seen to form in a northerly wind.

At the start there was one large wave cloud which remained stationary well above and a little to the south of the Matterhorn for an hour or so. The Payerne 12 hrs. G.M.T. ascent showed conditions suitable for standing waves at about 15,000-16,000 ft.—an increase of wind with height and a stable layer surmounting, and surmounted by, less stable layers.

Later, as moister air evidently arrived, other lower orographic clouds of a more fragmentary kind formed and were seen to move up and over the peak in the windstream while the original wave cloud appeared to become less stable. Some of these lower clouds had a lace-like appearance (Photos 1 and 2), while others a little later were of a claw-like form (Photos 3 and 4). These appeared to be at about the height of the top of the Matterhorn (14,000 ft.) and at times the actual peak was just covered.

A little later, cloud amounts increased generally to about 6/8 at 12,000 ft. for an hour or two, followed by a further clearance.



Photo 1, at 13.32 G.M.T. High wave clouds beyond and above the Matterhorn, and lower lace-like clouds at about the level of its summit.



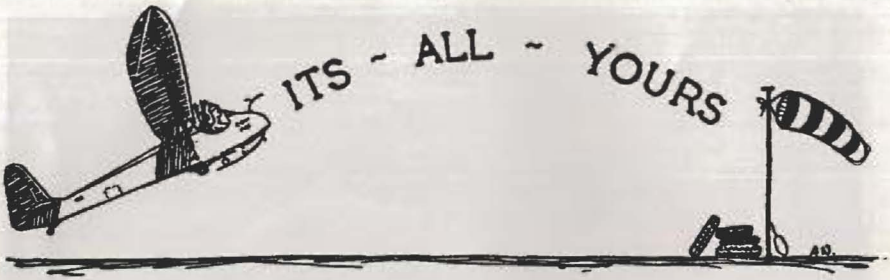
Photo 2, at 13.33 G.M.T. The lower bits of cloud have moved to the left, but the big wave cloud is more or less stationary.



Photo 3, at 13.34-5 G.M.T. The big wave cloud has extended upwind and denser lower fragments are forming just upwind of the peak.



Photo 4, at 13.35-6 G.M.T. In Mr. C. J. Jefferson's last photograph, the lower clouds forming in the upcurrent take on strange shapes as they increase.
(Courtesy of "Weather")

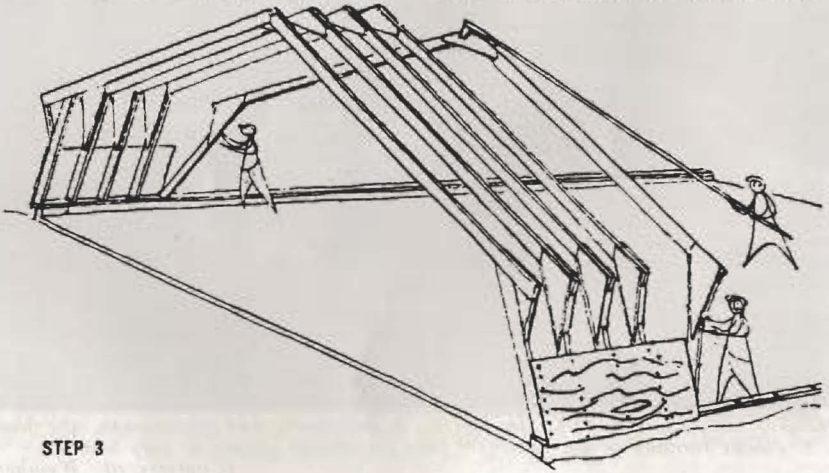


CLUBHOUSES AGAIN

ALTHOUGH this section is for and about instructors, I have no compunction in producing another article on club buildings. The continued drain of members from clubs because their wives, very sensibly, will not put up with spending week-ends with children in damp and uncivilised surroundings, or becoming gliding widows, is bad enough. The loss of valuable instructors for the same reason can be disastrous to a small club. This is not to say that any of these people are soft or lack enthusiasm. If a club has reasonable security of tenure and has not got a sensible clubhouse it is being plain stupid, because the clubhouse can be made to pay, as well as attract and retain members.

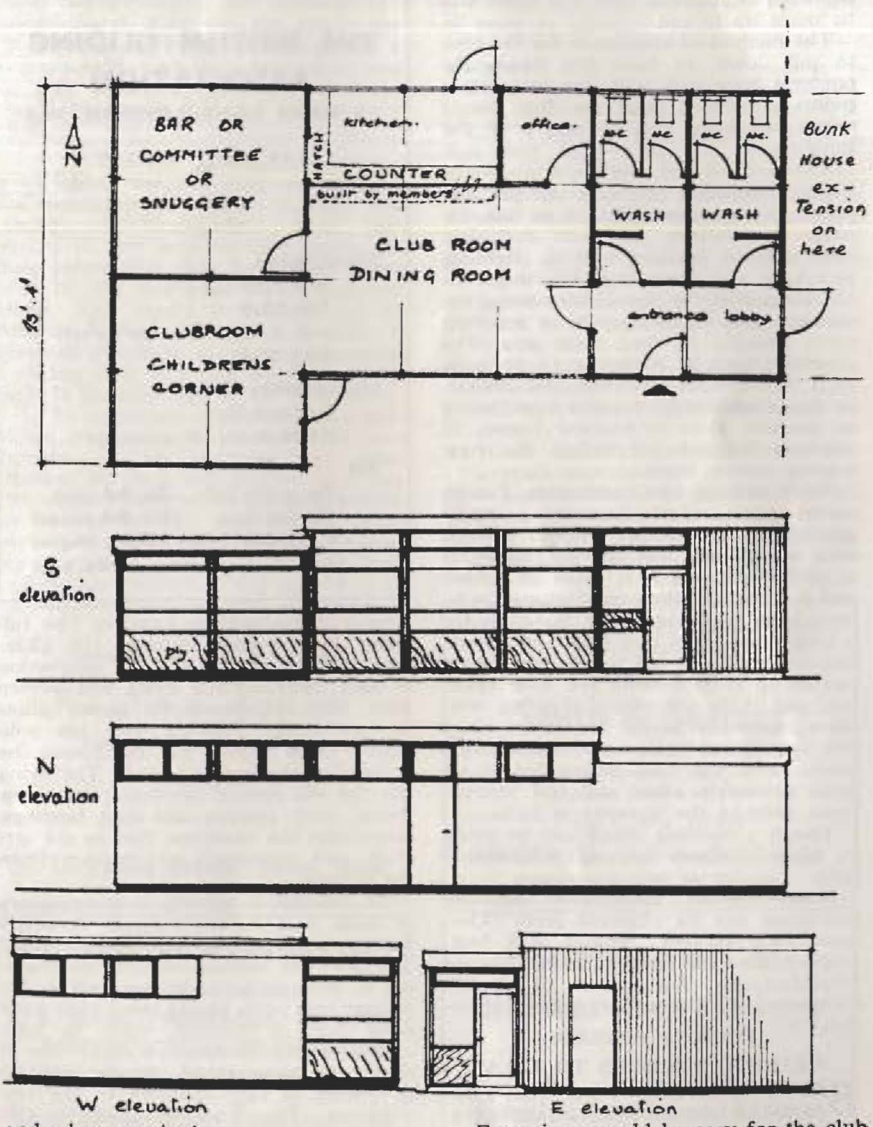
Unfortunately the resistance to a good clubhouse is not always financial. There are the "We come here to fly and not sit in a bar" brigade, and there are those who "Suppose it might be a good idea, and we can probably get an old hut cheap". The latter are almost worse than those who do not want a clubhouse at all, because they will ultimately break the hearts of the members they expect to run the dump.

I feel so strongly about this matter that I have even got around to doing something. I drew out a small clubhouse, and sent it to a well-known firm of proven pre-fabricated buildings, and asked them for a quote. The layout of the main section is intended to be both attractive, and as flexible in its use as possible. In addition, a second (bunkhouse) stage can be added with the minimum of modification—even the door into it exists in Stage 1. The dotted lines show where extensions can be put, if



STEP 3

PROPOSED CLUBHOUSE FOR GLIDING CLUB



and when required.

These buildings can be regarded as permanent fixtures, although in the event of disaster overtaking the club's lease they could be moved.

Extensions would be easy for the club to organise for themselves as the buildings are made up from the full height panels 6 ft. 4 in. across. It is necessary merely to select from a large illustrated

list what is required, and the walls will be made up to suit.

The method of erection is for the club to put down, or have put down, the concrete base raft with the attachment points embedded, and the firm themselves will bring the bits and erect the building.

The cost of the clubhouse shown is £1.332, including delivery within 200 miles and erection. This does not include foundations, or floor surfacing. Nor does it include heating, lighting, plumbing and decorating, but these are all things that the Specialists among the members can do themselves, or get done more cheaply in their own way. The essential thing is to get a really well-built shell erected efficiently and quickly, so that members have every opportunity to exercise their undoubted talents in finishing the job off before the next soaring season starts.

While delving into clubhouses, I came across some information on a really practical Do-it-yourself hangar, which does not require any special equipment or skill. Although it is made of timber and fir plywood, the manufacturers, who have been producing these materials for a long time, claim that with appropriate finishing they will last indefinitely. Spans can be up to 54 ft. with full door opening, and there are plastic sheeting windows under the eaves. The fir plywood and galvanised nails can be bought easily, and the free instruction book gives extremely clear and full instructions, even to the quantity of nails.

This is a building which can be made by club members without professional help.

Note.—Further information on the clubhouse can be obtained from "Derwent," Vic Hallam, Langley Mill, Nottingham, and on hangars from Plywood Manufacturers Association of British Columbia, 3, Grosvenor Square, London, W.1.

GLIDING VISITORS TO U.S.A.

BRIAN MASTERS writes from California, where he is now instructing. He says that anyone thinking of gliding in the States has to obtain an American Student Pilot's Licence, and pass a short written test on civil air regulations. This, however, can be done in advance at the American Embassy in London. The full glider pilot licence requires 100 glider flights (including one hour of instruction in stall recovery) and flying and written tests. This is reduced for power pilots to two hours' training and ten solo flights. Once a pilot has his licence, he is free to take up his friends. The flying test for the licence involves turns, slow flying, steep circling and spot landings. Sometimes the examiner flies in the aircraft, and sometimes he observes from the ground.

To instruct in gliding it is necessary to hold a U.S. Commercial Aviator's licence or a commercial glider rating. The pilot can instruct without any teaching in instructing, or a test; and in the former case little gliding need have been done. Such a situation would be both expensive and undesirable here, but it should be remembered that the practice of gliding is very different in the two countries. There are no clubs, as we know them, in the States, and most gliding is done from airfields, and often by people who are aeroplane pilots first.

The Schweizer Aircraft Corporation has produced a manual intended for

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power pilots converting to gliders. It is clear, comprehensive, and thorough in a rule-of-thumb way, but the advice that "It is better to land near a highway in a small field than in a large field with no way to get the trailers" etc., etc., would be heady stuff for some of our pilots!

BLOWN TRAILERS

DURING the last year no less than twelve trailers, some of them containing valuable gliders, have been parked or left with so little regard for their safety that they have been blown over by the first gale which happened along. This really is a sign of the Affluent Society. How is it possible to persuade people to support or encourage a gliding club, if £2,000 worth of equipment is, literally, cast to the four winds?

To be constructive: trailers have been blown over even in places which were thought to be sheltered, or when attached by their ball hitches to a peg. Can some aerodynamicist please provide an answer to the problem of safely parking and picketing trailers? *Alleviating postscript:* at least one of these trailers was chained to the ground at all four corners. After the gale the chassis remained still chained down but bare of body or glider.

Tailpiece

On a recent visit to the West Wales Club on the occasion of their first annual dinner, I was delighted to find that they had really got down to a proper study of all the regulations affecting gliding. The following sample shows that their members are learning fast.

Q. What do you look for when inspecting a glider?
A. Loose change under the seat.
Q. Why is a parachute fitted to the launch wire?
A. So I know which end to fasten to the tow car.
Q. When do visual flight rules cease to apply?
A. When the white control tower disappears completely.
Q. Whose is the final decision on all flying matters?
A. The C.F.I. is always told what the majority of us have decided.

ANN WELCH.

— V. G. —

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Wave Safari, 1961-62

THE evening of Sunday, 31st December, 1961, saw a group of half a dozen dedicated individuals stoking the Midland Clubhouse fire high in an attempt to keep out the biting cold. The three roads to the Mynd top were blocked with snow, and remained so until the end of the week. This at least kept us fit, because the return from any excursion to the outside world involved a climb up Asterton Hill.

We didn't miss too much, for after four non-soarable days, the first flights of any interest were on the Friday afternoon. A small wave was encountered off the north end of the ridge, 3,800 ft. a.s.l. being reached by Graham Pratt and 3,500 by Jack Minshall, Tony Cribb and Chris Hely-Hutchinson. The following day saw low cloud, but Sunday, 7th January, provided continuous ridge-soaring with possible weak wave help to 3,300 ft. a.s.l.

What will we remember of this season's Safari — shovelling snow, the forays to Shrewsbury for baths and Chop Suey, the Jeep that slid down the face of the Mynd(!), the 75-knot wind one day that was positively terrifying; or just the comradeship that exists wherever gliding people gather to practise their favourite sport? Perhaps the latter, for if we didn't achieve great flights, we certainly enjoyed ourselves.

I.W.S.

AIR TEST ON KA-6

LATEST in the series of Air Test articles in *Air Pictorial* is one on the Ka-6, the Standard Class machine which won the OSTIV Prize at the 1958 World Championships. The article, which will be of special interest to glider pilots, deals with its history, construction, design, controls and rigging before giving the remainder of its space to the test pilot's experiences in flight and his opinions on its handling qualities.

The article appears in the March issue of *Air Pictorial*, which costs 1s. 6d., or can be obtained by post for 1s. 9d. inland, 2s. overseas, or 30 cents in U.S.A. or Canada, from Magazines and Publications Ltd., Rolls House, Breams Buildings, London, E.C.4.

Northern Gliding Competitions 1962

DERBYSHIRE & Lancashire Gliding Club will be holding the Northern Gliding Competitions again this year from Sunday, 29th July, to Monday, 6th August, inclusive. Entries will be limited to a maximum of 25 gliders. For entry forms and further details, please apply to the Competition Secretary, J. P. Mackenzie, 46, Ballbrook Court, Wilmslow Road, Didsbury, Manchester 20. This competition will be held under the B.G.A. Competition Rules modified to suit local conditions, and will be an official Qualifying Competition. The closing date for entries is Sunday, 17th June, and the entry fee per aircraft is £5.

Pilot Rating for National Championships

(*See* SAILPLANE & GLIDING, *Dec.*, 1961, *p.* 352; *Feb.*, 1962, *p.* 22.)

Corrections have been made to the rating list as shown below; in some cases this means that pilots already on the list have moved one, two or three places as the case may be.

60	Corrick, D. W.	BEH 279
61	Jeffries, J. R.	AE 278
66	Jeffrey, C. A. P.	BDK 269
97	Shepard, F. W. L.	BG 200
102	Fisher, G. F.	G 190
134	Strachan, I.	G 106
141	Jerzycki, E.	G 91

The total number of pilots on the rating list is now 150.

CAYLEY, NOT CALEY

IN the article on Sir George Cayley's gliders by C. H. Gibbs-Smith, published in our February issue on pages 3-6, his name was misspelt in the title, which should read: CAYLEY'S MAN-CARRYING GLIDERS—A NEW DISCOVERY.

PILCHER TROPHY

LORD BRAYE has informed the British Gliding Association with regret that no further flights may be made to Stanford Hall for the present.

Motorized Grunau

By Air Commodore H. Probyn, R.A.F. (Retd.)

After building a Grunau Baby at Nyeri, Kenya, with the help of a Kikuyu carpenter and a labourer, Air Cmdre. Probyn (who started gliding some 30 years ago), added a motor for the dual purpose of launching himself for soaring flights and using the machine as an ultra-light aeroplane for getting about. So we asked him what proportion of his total flying time he spent in soaring.

THERMALS are frequent and strong in East Africa and a modern sailplane could be flown 500 miles in daylight here. The problem is retrieving the plane! In Europe wireless communication is maintained between the pilot and his crew following him in a car, so facilitating his retrieve.

Gliding is a fascinating pastime, but I found it hard work at 6,000 ft. above sea level. A high-powered car for launching or a winch, a trailer and a trained crew are required. The ideal is an aerotow, but out here it has not been possible.

I found this launching and retrieving hard work at 6,000 ft., particularly on a two-way landing strip with light and variable winds, so decided to fit an engine.

I first tried a well-known motor-cycle engine, developing 30 h.p. at 6,000 revs. These high revs. necessitated the airscrew, a pusher, being geared down, and a chain and sprockets were used. Possibly due to the home-made propeller, vibration broke three sets of engine bearers, so I fitted the Volkswagen engine from my car.

With the home-made propeller it gave 1,350 revs. and flew from a Nyeri airstrip, but could climb no higher than 10 ft. I then purchased a Volkswagen engine from a crashed car and fitted a propeller designed for the Volkswagen engine as fitted to the Turbulent light aircraft.

I have now flown it 130 *hours* and use it mostly for viewing game and getting into the air. I frequently soar and gain height with the engine throttled right back, but do not switch off, as I could not start it again. I have flown four hours on just over five gallons of petrol.

The engine is fixed on the top centre section and is not retractable, so presents considerable resistance. The penetration is poor in the Grunau and the engine makes it much worse, of course, but the thermals here are many, frequent and strong.

The crab to gliding here is the terrain; scrub, bush, forest, mountains, few and poor roads and poor communications; so one must stick to roads and tracks. I have flown to the coast and back (700 miles) over the week-end. In rough hot weather, over desert and mountain, flying is hard work and of course slow, and one cannot carry much with six gallons of petrol on board.

With such small horse-power (26), at high altitude (aerodromes 6,000-8,000 ft.) one must use thermals to counteract the down-draughts.

Incidentally, I have not found hill lift much use; the parts facing into the prevailing wind are generally narrow. One might do something on the east side of



Lake Rudolf if the glider held together. From early June 1960 to end of May 1961 I flew the Volks. 90 hours. One frustration I found when gliding was a reverse wind at 500 ft. frequently, making a good car-towed launch difficult. I now get off under my own power, 300 yds. in still air—6,000 ft. a.s.l. on a two-wheeled undercart, no springs, making live very much less strenuous; no crew, of course.

BJ-2: A remarkable South African Sailplane

SEVEN years ago Pat Beattie began building his BJ-2 as a development of his 60-ft. span BJ-1 of 1946. The second machine has a span of only 50 ft., but the reduced span must be more than offset by aerodynamic improvements. In the recent South African National Championships, Beattie went round a 400 km. triangle at 102.28 km/h. average (63.55 m.p.h.), the full distance being 442.07 km.; this should be a world's record when the F.A.I. Gliding Commission recognises speeds round 400 km. and 500 km. triangles, as it is expected to do shortly. Earlier, he had set up a National record for the 200 km. triangle, doing 65 miles in 58 minutes.

The most conspicuous feature of the BJ-2 is the Fowler flaps, which are divided into two parts on each side. When extended they enlarge the wing area by nearly 20%. They can be lowered to a maximum of 30°. Their loads are taken up partly by the main spar and partly by the torsion box in front of it.

The laminar-flow wing is in three parts. The centre section, of 9.17 m. span (30 ft. 1 in.), has the profile NACA 653 418. The plywood covering is preformed in a press, and the ribs are 7 cm. (2¾ in.) apart. The outer wing portions have NACA 2 410 and are set at 5° dihedral. The wood-covered ailerons are hinged on the upper side and are worked by push-rods; their range is 25° upwards and 17½° downwards.

The upper section of the monococque fuselage can be removed to inspect the control mechanism or to facilitate repairs. Its nose is of fibreglass and the cockpit is 2 ft. wide, with a perspex canopy. The skid and wheel are retractable. Air brakes on the side of the fuselage were tried out, but are now replaced by two braking parachutes, tucked in on either side of the tail.

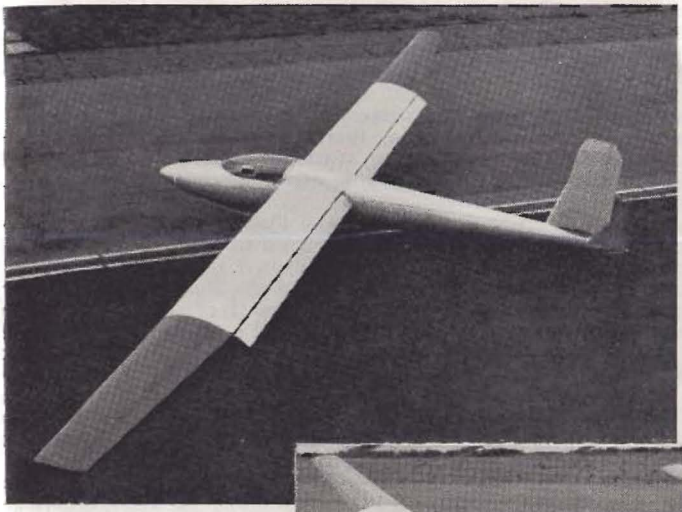
The tail surfaces are all of plywood. The elevator range is 30° to to 20° down and the rudder range 30° to either side.

The major designing work was, according to *Flug Revue*, done by W. A. T. Johl, who lives in Swakopmund in South-West Africa (where a very active gliding club was founded in the 1930's), but the machine was built at Johannesburg, 900 miles away.

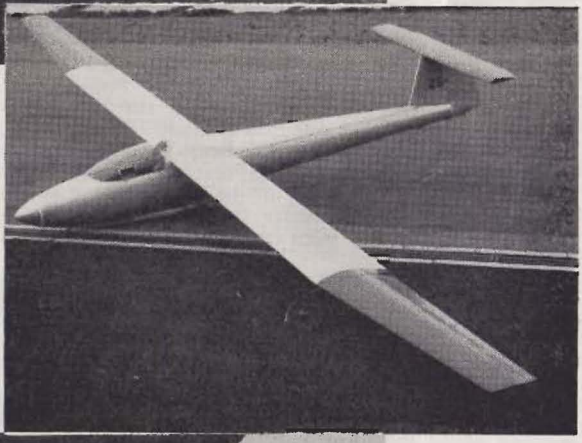
Dimensions and Performance

Span, 50 ft. (15.24 m.).
Length, 20 ft. 1 in. (7.03 m.).
Empty weight, 644 lb. (292 kg.).
All-up weight, 838 lb. (380 kg.).
With Fowler flaps in:
aspect ratio, 19.7;
wing area, 126.5 sq. ft. (11.75 sq. m.);
wing loading, 6.62 lb/sq. ft. (32.3 kg/sq. m.).
With Fowler flaps out:
aspect ratio, 16.5;
wing area, 151 sq. ft. (14.05 sq. m.);
wing loading, 5.53 lb/sq. ft. (27.0 kg/sq. m.).
Best gliding angle, 1 in 36 at 59 kt. (110 km/h.).
Minimum sink, 2 ft. 4 in. (0.7 m.) per sec. at 44 kt. (82 km/h.).
Sink at other speeds:
0.97 m/s. at 66 kt. (122 km/h.).
1.34 m/s. at 78 kt. (144 km/h.).
1.86 m/s. at 88½ kt. (164 km/h.).
Minimum speeds:
Flaps in, 36 kt. (66 km/h.).
Flaps out 10°, 33 kt. (61 km/h.).
Flaps out 20°, 31 kt. (57 km/h.).
Flaps out 30°, 29 kt. (53 km/h.).
Maximum permitted speeds:
Calm, flaps in, 127 kt. (236 km/h.).
Calm, flaps 30°, 85 kt. (158 km/h.).
Gusty, flaps in, 85 kt. (158 km/h.).
Gusty, flaps 30°, 58 kt. (107 km/h.).
Maximum aero-tow speed, 54 kt. (100 km/h.).

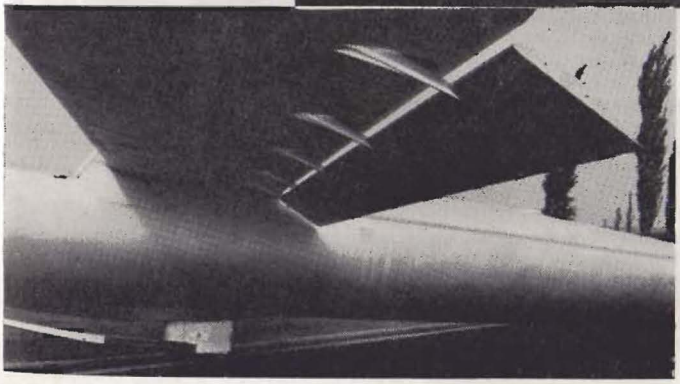
The above data are given in *Flug Revue*, but Mr. Dommisse, writing two months later, gives the span as 15 m., wing loading 7 lb/sq. ft., and minimum sink 2 ft. 3 in. per sec. at 33 knots.



BJ-2 with flaps extended.



BJ-2: a view showing the fuselage shape and raised tailplane.



BJ-2 : showing Fowler flaps extended 20°

Correspondence

PILOT RATING FOR NATIONAL CHAMPIONSHIPS (I)

Dear Sir,

I am reluctant to write again on the subject of Pilot Selection for National Championships on account of the great pains that the B.G.A. Flying Committee have evidently taken over their new Pilot Rating scheme. I hope I may be regarded as an opposition in the parliamentary sense, whose useful function it is to oppose. But this time I will try to be constructive.

The present scheme of selection by scoring for a "ladder" in Regional Competitions, though much better than a ballot, seems designed to preserve the National Championships for rich private owners with long holidays. I foresee a merry band of individuals touring the country amassing points which allow them to enter Nationals and amass more points. The chief requirement for success is a large number of competition flights from which to choose one's six best days, and I believe this to be unfair on young pilots trying to enter the Nationals for the first time, on pilots with inferior aircraft, on the majority of club pilots, on those who are forced to miss a major competition through natural causes such as having prangs or babies, and, as I have inferred above, especially on the poorer brethren who have short annual holidays. Furthermore, in a year or two the rush to get marks at Regionals will be so great that we will have to restrict entry to them as well!

I suggest for consideration an alternative "ladder" for which marks may be obtained from any good flight, in or out of a competition. At the Cambridge University Gliding Club, John Pringle's "President's Ladder" has been operating successfully in this way for some time, and its rules would be a good basis for a B.G.A. Ladder. Further refinements could be introduced in the form of better aircraft handicaps, and perhaps even handicaps for sites. Selection for Nationals would then be by choosing each pilot's six best flights, and proceeding as before. As on the C.U.G.C. Ladder, scores should be halved at the end of each year, rather than cut by about one-tenth as under the present scheme. A further qualification might reasonably be that the pilot must have flown in at least one competition, to get the hang of things.

This scheme seems to me to minimise the defects outlined above, and has the further merit of encouraging good flights outside competitions (which was indeed Pringle's original objective at Cambridge).

University of Pavia, Italy. ANTHONY EDWARDS.

Mr. JOHN FURLONG, Chairman of the B.G.A. Flying Committee, writes:— Mr. Anthony Edwards's criticism is welcomed as it ventilates various objections I have received about the "Rating System". Quite naturally most people examine it from their own point of view as to how it affects them personally. However, let us start at the beginning. What are the Nationals for? Well, the name implies that the prime factor is to find a National Champion. Now, if this is not so, then we must quickly find another name. If it *is* so, then the fact that some fortunate people have more money or more time or both which helps them up the ladder cannot be a valid reason for "handicapping" them for the benefit of the less fortunate. At this point I would like to remind Mr. Edwards, and all those who think they should be getting "bonuses" for lack of time or money, that the two top men on the Rating List are not in any sense affluent or overburdened with free time.

Take heart; we may not be so dim after all—we have already thought of or heard of most of the "wangles" which could be organised to defeat our object. We have deliberately ignored flights other than those performed under competition conditions, for the fairly obvious reason that we want to be able to assess a pilot's ability when he is tied down by conditions and the strains of having other competitors around him. The scheme is provisional and should be given a chance. In any case we can't alter it now for 1962, but everybody, including the Flying Com-

mittee, will be watching it and tearing it to bits so that it will be better for 1963—and so on until it becomes perfect, by which time all members of the Flying Committee will have been waylaid and put to death by torture.

In the meantime here is a variation on which I would like to hear comment. The scheme as it stands allows for bad days to be ignored, but it does not provide for discounting (a) exceptionally good days, (b) bad task-setting (favouring the pilots), or (c) deliberate "cookery" (*and* I've been threatened with it). The modification suggested is as follows :—

If 40% of pilots score 80% or more, the day should be further devalued to 90%
If 50% " " " " " " 80%
If 60% " " " " " " 70%
If 70% " " " " " " 60%
If 80% " " " " " " 50%

This would mean, for instance, that on the day in the last Nationals when 82% of the pilots went to Cornwall and scored over 89% marks, that day would be devalued to 50%.

PILOT RATING FOR NATIONAL CHAMPIONSHIPS (II)

Dear Sir,

In the article on the above subject in the December issue of SAILPLANE AND GLIDING, correspondence with Mr. E. J. Furlong is invited, but this letter is addressed to you in the hopes that the comments may have a more general interest, and a copy is being sent to Mr. Furlong in order that he can have the opportunity of a reply.

I can appreciate that no system can possibly be beyond criticism, and do not wish it thought that the difficulties faced by the committee are not understood, but hope that the criticisms following, which are intended to be constructive, are accepted in the spirit in which they are made.

The Rating is being based on the best six daily results obtained by each pilot over a fairly long period. In this period, some pilots may have compiled up to, say, 24 competition scores, while others of equal ability may only have compiled six scores or even less. It is quite obvious that the former have a very much better chance of having six good days than the latter, and consequently the Rating system greatly favours those who compete most often, and in some cases could virtually ignore the relative abilities of the pilots.

For example, from six scoring days, Pilot A gains marks of 100, 80, 60, 40, 20 and 0, giving an average of 50 marks, and a rating, at 100% of each, of 300. A more regular competitor, Pilot B, gains the same average score with, say, four scores each of 100, 80, 60, 40, 20 and 0, and no one would say that he had a better record than Pilot A, yet his Pilot Rating would be 560. This should dispose of the inference that the Pilot Rating List bears more than a coincidental resemblance to a pilot ability list, which is surely the object of the exercise. In order to do so, every competition day must be considered, and an average of the marks obtained. The relative strength of the competitions can be compensated for by percentage valuations, and provision for this has already been made.

The second point concerns the effect of the present situation outlined above on the Qualifying Competitions. As shown, to obtain a high Rating it is advantageous to compete as often as possible, so that in due course all eligible competitions will become the "closed-shop" of the pundits, who have the time and—dare I say it—the money to travel to all possible competitions and thereby increase their chances of a high Rating. This would inevitably be encouraged by the organising clubs, who wou'd wish to attract the top names to their competitions—and who could criticise them for this?

To be fair, all approved competitions would have to be bound to accept those entrants who have the least number of Rating scores to their names.

The life blood of any sport is competition, and instead of limiting this we must produce a system which will encourage pilots who have never competed before to come forward and show their worth. The incentive of "a shot at the

Nationals" is now removed, and those with limited holidays and limited purses will be very determined indeed—and probably single—if they can ever hope to reach the status required.

Cannot some encouragement be given by sponsoring a novices' competition each year for those with limited or no experience of competitive flying, and permit, say, the top four in each year to gain automatic entry to the following Nationals? Could it not also be possible to form a pool of competition-class sailplanes for the use of those who cannot otherwise gain the opportunity to compete even in qualifying tourneys? I feel that a combination of these ideas would gain overwhelming support if the administrative and financial difficulties could be overcome.

Let the club which is willing and able to run such a competition come forward and obtain B.G.A. approval to encourage new blood into competitive gliding, and, who knows, we may encourage a future breed of champions to replace the experts of today, who are doing so much to uphold the prestige of gliding in this country.

If this letter creates further discussion I shall be satisfied. If it helps to create better ideas I shall be pleased. If it creates improvements to the present system and opportunities for the future I shall be delighted. If it is printed I shall be amazed.

Dumfries & District Gliding Club. A. C. BOYCE.

OXYGEN EQUIPMENT IN SAILPLANES

From Messrs. Normalair Ltd.

Dear Sir,

It was with interest that we read the article in the February issue by Flt./Lieut. R. P. Saundby. Although we were in general agreement with the contents and feel that the article was opportune in that it came at a time when high altitude records appear to be uppermost in the minds of sailplane enthusiasts, there were one or two omissions which we feel should be pointed out.

Flt./Lieut. Saundby referred to two basic systems only, in that he mentioned the continuous flow economiser system and the pressure breathing demand system. One system which we feel would have been worth mentioning would have been the continuous flow pressure breathing system which was used in the R.A.F. shortly after the war and before the demand system came into general use. This system is simple in operation and has the same advantages as the demand system in that flight at altitudes up to 44,000 ft. can be tolerated for periods of up to 30 min. Short-term protection is also provided up to 50,000 ft., although at these limiting altitudes the duration of protection is only approximately 10 seconds. This latter point highlights one important factor which Flt./Lieut. Saundby omitted to stress in his article, this being that the protection afforded by any system short of a full pressure suit is strictly limited in duration once an altitude of above 40,000 ft. is achieved.

In modern military aircraft it is usual to pressurise the cabin to a maximum altitude of about 25,000 ft. This takes care of the possibility of "bends" arising, and also avoids the necessity for the use of elaborate pressure protection clothing. In aircraft flying at altitudes much in excess of 40,000 ft. it is nowadays common to use demand oxygen systems as Flt./Lieut. Saundby suggests, but the protection provided by these systems after a decompression is measured in minutes only, and aircrew are instructed in these circumstances to descend as rapidly as possible. It is only by wearing elaborate pressure clothing that altitudes much in excess of 40,000 ft. can be sustained after a depressurization, and the type of clothing commonly worn by Air Forces at the present time would, we feel, be unsatisfactory for use in the very confined space of a sailplane, and would certainly add extra weight to the aircraft.

Summarising, therefore, it is considered that the use of even pressure breathing demand systems of the type which our company is supplying for all the modern aircraft at present flying in the R.A.F. may not necessarily be suitable for use in sailplanes attempting high altitude records unless the period above 40,000 ft. is very short.

We also noted that Flt./Lieut. Saundby omitted to mention the simple continuous flow equipment which we have sold extensively to sailplane enthusiasts. This apparatus provides a choice of five oxygen flows to the user, these being one, two, three, five and ten litres per minute respectively. Flows up to 5 litres per minute are provided in order to cater for flight to altitudes of about 35,000 ft., but we provide the additional setting of 10 litres per minute to cater for emergencies such as stiffening of the economiser bag or accidental flight above 35,000 ft.

Flt./Lieut. Saundby's remarks regarding the use of the "Type L" mask are also fully supported by us although, as he has pointed out, the use of an R.A.F. economiser will result in some weight penalty. This is why we feel the pressure breathing waistcoat, which acts as an economiser, might be very worth consideration. Although the "Type L" mask is not designed for use at less than −5°C., one appoach which has been taken in the past is to have two masks available during a flight, one being in use and the other stored in a warm place to thaw out after it has become frozen up. Such a procedure undoubtedly offers certain hazards, and care must be taken to ensure that the mask is not removed from the face for more than a few seconds during the change-over.

One final point which was mentioned in Flt./Lieut. Saundby's article, and which we feel cannot be over-stressed, is the desirability of the record attempter to be fit and fully conversant with the apparatus he is using. In particular, the use of pressure breathing equipment requires special training, otherwise the user may encounter the effects of hyperventilation so aptly dealt with by Flt./Lieut. D. M. Holliday in the article which followed that written by Flt./Lieut. R. P. Saundby.

Westland Aircraft Ltd., Yeovil.

W. D. SANDERS,
Publicity Officer, Normalair.

WHAT IS O.S.T.I.V.?

Dear Sir,

The "Guide" to O.S.T.I.V. papers published during the past few years in the *Swiss Aero Revue* was doubtless of interest to the minority of your readers who are technical experts in gliding, but the ordinary glider pilot is still left in some doubt as to the purpose and scope of this body.

What is the constitution of O.S.T.I.V.? Who manages its affairs? How is it financed? Would the ordinary glider pilot benefit either the organisation or himself by becoming an Associate Member? If so, what is the cost? Answers to these questions would serve to enlighten many persons who might be interested if more information were available.

GODFREY HARWOOD.

WHAT O.S.T.I.V. IS

We have shown the foregoing letter to the signatories of the following communication, who have kindly replied to Mr. Harwood's questions.

Dear Sir,

If it were not for OSTIV there would be no international organisation in the world to deal with scientific and technical problems connected with the sport of gliding. Without an active technical and scientific activity on a broad basis, which can only be achieved by some sort of international effort, improvements and developments in sailplane design and knowledge of the conditions to be met would be slowed down. In such ways OSTIV serves the sport of gliding in a unique manner. It is not too much to say that if OSTIV did not exist, someone would have to invent it. OSTIV does not duplicate the designer's work or interfere with the Aero Clubs, the B.G.A. or the F.A.I., but it has been of use to the C.V.S.M. (Gliding Commission of the F.A.I.), particularly in connection with the Standard Class.

OSTIV is no stranger to GLIDING. In its third issue, Autumn 1950, it was mentioned, and reports on its activity have appeared from time to time. The constitution of OSTIV was worked out during the Orebro Championships in 1950. It was created to fill the gap left by the demise of the pre-war ISTUS, and is an independent organisation working within the framework of the F.A.I. and is organised as

follows:—

OSTIV is run by a Board of seven members elected by delegates of the member countries. This Board is elected on the occasion of the World Championships. The Secretariat is at present in Holland, because the President, Mr. de Lange, is a Dutchman. His address is: N.L.M. Atoomgebouw, at Schiphol Airport.

There are two main fields of endeavour, the Meteorological and the Technical. At present the chairmen of these activities are both in the U.S.A.—Dr. Kuettner (Met.) and Lieut.-Colonel Sweet (Technical). These sections are to some extent subdivided into specialisms, and their jobs are to co-ordinate international efforts in their respective spheres and get the information to the membership. The main means of doing this is the Congress which is held during each World Championship. Many scientific and technical papers are read at these Congresses, in English, German or French, and thereafter are printed in *Swiss Aero Revue*, and later collected into a series of "OSTIV Publications". There have been five of these to date. Other papers and articles of technical interest are also published in *Aero Revue*, and also data for the second volume of "The World's Sailplanes". In addition, reports of OSTIV Board meetings and other OSTIV activities are printed.

All this work and other activities such as present work on Standard Class Airworthiness Requirements and Data Sheets are done by entirely unpaid people, who do it either for the love of it or because they think it needs to be done. This primitive arrangement does limit the amount of service that OSTIV can offer.

But there are non-staff costs, and they are covered by the subscriptions (£18 a year) of the member Aero Clubs (B.G.A. in the United Kingdom). There is practically no contribution to OSTIV costs by the individual membership of 28s. This is the same price as the Swiss pay for the *Aero Revue* and nothing like the 34s. that any foreigner, other than an OSTIV member, would have to pay. For this measly sum of 28s., the individual member gets the *Swiss Aero Revue* and OSTIV Publications at cost.

Anyone wanting to become an Individual Member should send the money to OSTIV, London Gliding Club, 22, Half Moon Street, London, W.1.

BORIS CIJAN, Board Member, OSTIV
ALAN YATES, Board Member, OSTIV
B. S. SHENSTONE, OSTIV Editor

SCOTLAND WAVE FUND

Dear Sir,

As Chief Flying Instructor of the Dumfries and District Gliding Club, I feel that I must seek one of two actions from Miss Betsy Woodward, following her article in the February issue of SAILPLANE AND GLIDING. This is that either the title "Scotland Wave" be amended to "Northern Scotland Wave" or "Highland Wave", or that her worthy scheme be extended to include all of Scotland, and not just that part outwith 100 kilometres from the Sassenach border.

In support of the latter, I would like to confirm that the Southern Uplands frequently produce waves, at present largely unexplored, particularly noticeable in winds with a northerly component, and I cannot see that they have been unduly Anglicised due to their proximity to the Border.

A successful Gold C wave flight, though not immediately imminent from Dumfries and District, is not outwith the bounds of probability in due course, and in the hope that Miss Woodward might treat our request with a degree of seriousness, a bottle of Scotch, purchased in its native land, is being obtained. If our appeal is successful, it will be auctioned at our annual "ceilidh" and the proceeds forwarded to her cause, but if it is rejected I fear that in our misery it may be sacrificed to a more personal need.

Dumfries. A. C. BOYCE.

BETSY WOODWARD replies: Until I read the last sentence of Mr. Boyce's letter I thought that perhaps I might be the recipient of Scotland's most famous export. But alas, no, it is to be either auctioned or consumed on the spot.

I am glad to hear that the southern uplands frequently produce waves and

trust that applicants for the fund have every intention of exploring and utilising them on their way south. I was frankly worried that, unless a "100-km. north of Border" limit was included, the "Highlanders" would try to change the name to "Lowland Fund". The present rules at least help to assure that waves over both parts of the country will be explored.

BOOK REVIEW

Theory of Flight for Glider Pilots by STAFFORD ALLEN. Published by Oliver & Boyd, London. Price 12s. 6d.

BEFORE going to Dunstable as Manager of the London Gliding Club in 1956, Ray Stafford Allen was a leading light in the Oxford Club, where his pupils derived much benefit from a set of notes on the elementary principles of flying gliders, which he circulated among them. From these notes the present book has grown, and the number of pupils to benefit should now grow exceedingly. He starts off by making the point that, whereas the would-be motorist can learn something by watching cars on a road, nobody can see the aerial road along which aircraft fly. The physics of air, the laws of motion and elementary aerodynamics occupy the first four chapters, and then comes a long one on "control and stability", followed by one on stalling and spinning. Then, after an explanation of the different types of glider, comes a long and excellent chapter on instruments used in gliders, with thorough descriptions of how they work. After this are two final chapters on "pitfalls" (wind gradient, turbulence, ice and frost) and "some abnormal conditions of flight" (all forms of launching, and aerobatics). At the end comes a series of questions, some for each chapter; and as the answers are not given, if you don't know them you will have to read the chapter again. A.E.S.

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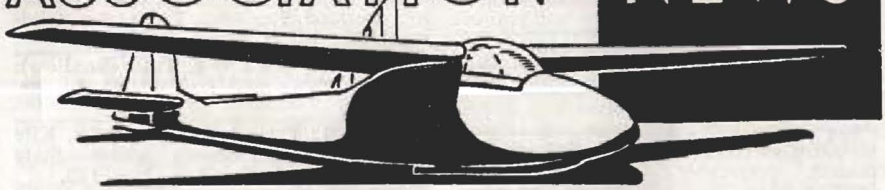
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CLUB AND ASSOCIATION NEWS



OH! I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings,
Sunward I've climbed and joined the tumbling mirth
Of sun-split clouds—and done a hundred things
You have not dreamed of—wheeled and soared and swung
High in the sunlit silence.

JOHN GILLESPIE MAGEE
(With acknowledgments to Bannerdown News Letter).

YES, the shortest day has long since gone and Spring is really here. Has any artist an idea for a new heading for this section? If so, please send it in.

For the first time in this issue we welcome the new Club at Aden.

Press date for the June issue is early because of the Nationals. So please send your copy typed double spaced on foolscap to reach me at 14, Little Brownings, London, S.E.23, first post 4th April.

YVONNE BONHAM,
Club and Association News Editor.

ABERDEEN

COMPARATIVELY little flying has been done over the past month or two, but the first launches for 1962 were completed amid the remnants of snow and sheet ice.

Members of a new syndicate performed a more or less non-stop trailer exercise, which included a call at Slingsby's while on their way down to Newbury. The object of this marathon was to take delivery of their new Olympia 2B. Although positively green with envy, the rest of us wish them every success in the coming season.

The most outstanding feature for general release is that we now have at our disposal a "Tiger Moth" belonging to our member John Campbell, and we would take this opportunity of thanking him for this kind gesture.

The advent of the "Tiger" opens up new possibilities, and we have hopes of being able to contact the "Grampian Lee Wave" conditions, which abound in this area in the prevailing W.-S.W. winds, as well as having a go at a few ridges, both locally and a few miles inland.

Our congratulations go to John Milne on getting his Inspector's Category.

Summer courses are again planned for the seventh successive year, in July, August and September, the most distant applicant this year, so far, being from Aden.

F.C.M.

BLACKMORE VALE

THIS is a rather chaotic time for us, as we are involved in C's of A, and are also negotiating for a permanent site. We shall be collecting our new Swallow shortly, and we have a group of solo pilots eagerly waiting to fly her.

Several enthusiasts have made the journey to Henstridge during the bad weather, and some flying has taken place most week-ends. A new tow-car has appeared, thanks to the efforts of the engineers, and although some anti-gliding types have been stealing parts from it, our winch is now operating well.

Several more pilots have flown solo, including our first solo by a member of the "weaker" sex, Judy Haslam. An Olympia Syndicate has appeared, and another couple of syndicates are hunting for bargains. G.B.W.

BLACKPOOL AND FYLDE

WITH the exception of first solos by Peter Selley and Alan Howard during November, we have very little to report on the flying side. Martin Cocker and Tony Hewitt are, however, expected to solo at the first opportunity.

What little flying we have had these last two months has been carried out at our "home" site. We are hoping to resume flying from our Samlesbury Airfield site towards the middle of March when our new, and additional, trailer should be completed. It would be remiss to omit mention of our appreciation to Tony Kemsley and John Gibson for undertaking this task.

Hangarage being unavailable at Samlesbury we will, nevertheless, be a com-

[illegible] on 15th December. The electric guitar band being in the capable hands of John Scarlett, one of our Steward's many sons. We are grateful to Stephanie Hanson and Arthur Hayfield and their helpers for the excellent organisation.

J.S.A.

BRISTOL

THE early weeks of the year proved to be singularly unexciting with several long periods of complete clamp when even the rooks were walking. Nevertheless a certain amount of flying has been done and we are now awaiting the Spring nor' westerlies, which have not been evident at usable times, although Geoff McBroom got his five hours in the Olympia on 13th January



Bristol chairman Denis Corrick giving a few words of advice to Lucy Barlow (now Mrs. Chubb). Left, Doug Jones; right, Tony Pentelow.



The bright spot in the flying news is Peter Scott's third Diamond, which he obtained in South Africa, and for which we offer our congratulations.

On the social side, two pairs of members have been launched, dual, but we don't know who is P.1! They are Ted and Lucy (née Barlow) Chubb, and Tony and Pat (formerly Mrs. Parry-Jones) Morgan, whose nuptial feasts took place in February. Also congratulations to Tony and Liz Saint on the birth of a daughter.

Canteen arrangements have recently been revised and lots of nutritious food is now being dispensed by the young ladies of the Club, although they say they are going on strike after March. Other forms of catering are being actively investigated.

For course instructor this year we have Pete Etheridge, who has given up his steady employment for the joys of the good open-air life and the Rose & Crown, and who will be ably guided by Pete Collier. A.L.S.

CAMBRIDGE

THERE are very few pilots who have had a thermal soaring flight in mid-winter at Cambridge. Peter O'Donald joined the ranks of these few when he kept the Eagle airborne for 1 hr. 18 min. on 27th January.

Another pilot who refused to be beaten by winter frustration is John Brenner. He organised a small party of Skylark pilots who took this aircraft to the Long Mynd and logged 31 hours' hill soaring on six week-ends. The group included David Braham as instructor and Philip Mordaunt, who flew his five hours early in January.

During its second year with the Club, the Tiger Moth provided 535 aerotows, almost the same number as in the previous year. The Moth is most efficiently managed by Bryce Smith, our Chief Tug Pilot, who has gradually built up a force of 16 qualified towing pilots.

The plans for this year include the usual fortnight of intensive aviation after the end of Lent Term, two camps at the Long Mynd, and at least five elementary gliding courses at Cambridge.

G.S.N.

CORNISH

TONY LAPHAM, flying the Swallow, picked the last thermal of 1961 off the ridge on 31st December, but the T-21 had to land later that day to get the snow brushed off its wings. This is the only interference we have had from cold weather this winter. Warm fronts have been the villains of the piece, as often as not coinciding with week-ends.

The Swallow pilots have had the bigger share of any fun the winter winds have offered, because these winds have often been too boisterous for the two-seaters and Tutors. January 13th was a good day, when ridge lift went up to 1,500 ft. and clouds boosted this to 2,500 ft. at times.

Pip Phillips has taken up power flying again and has been cruising round the coast in the Tiger, looking at this winter's crop of shipwrecks before adding his name to the tug pilots' list this Spring.

The usual winter ground chores are nearly complete, only one C. of A. remaining to be done. The gliders look spick and ready for the good things to come.

Ron Brewer has made some excellent trollies for gliders and Tiger which save both muscle power and Tiger fuel.

Plans are being made to give cross-country pilots more opportunities and bring more pilots up to cross-country standard. The Club is negotiating to obtain the use of a large field some six miles from the aerodrome and further from our old enemy, the sea breeze.

In a part of the world where good landing grounds are scarce, this would make a safe haven for early cross-countries starting from Perranporth, and we hope to get more thermal flying by launching out of it. J.E.K.

COVENTRY

SINCE the last bulletin there has been little activity, comparatively speaking. Rain, low cloud and poor visibility have all contributed to reduce flying opportunities. However, the recent one-day engineering strike provided an extra flying day. So far this year we have only had one first soloist, Walter Bowers.

As usual in the early months of the year the workshop is filled with aircraft undergoing C. of A. overhauls, both Club and private machines forming an orderly queue for the space.

At the time of writing the "10 year test" on a T-21 has just been finished, and the Club Olympia, which is having both overhaul and repair, should soon emerge. The transport side has also been busy whenever a space large enough to squeeze a vehicle in has appeared amid the aircraft in the workshop.

On our future programme there is the A.G.M. on 2nd March, and we propose to hold our annual fortnight's camp (14th-28th July) away from our normal base; the Swindon Club have provisionally offered to accommodate us. In the more immediate future we are trying to start Thursday afternoon flying at Bagington as an experiment.

C.D.D.-J.

DERBYSHIRE AND LANCS.

THE Club's intention to buy land for an aerotowing strip at the bottom of the hill has run into difficulties with the Planning Board.

Objections have been raised by local residents, partly on the grounds of the noise of powered aircraft but chiefly that aero-towing activities would attract large numbers of the general public, who, it seems, would lay waste to the countryside.

To lay the bogey of noise, a demonstration of aerotowing was arranged at Darley Moor aerodrome for the benefit of the Board and the objectors to the scheme. Press comment was that the aeroplane made less noise than the heavy transport on the main road past the aerodrome.

On Saturday, 27th January, Mrs. Mercer, who is leaving after many years as stewardess at the Club, was presented with a memento. Mrs. Mercer and the late Mr. Mercer played a tremendous part in making Camphill the comfortable and happy place that it is. We are very sorry to see her go. On the same day a presentation was made to Eddie Kenworthy, who is leaving after many years as our ground engineer.

We have since welcomed Mr. and Mrs. A. Allcroft as steward and stewardess. The aircraft maintenance will now be carried out by Messrs. Smith and Seviour of Hazel Grove.

Winter flying has been very sparse. Trailers parked out in the high winds have been getting airborne almost as often as gliders. A new syndicate is being formed to fly an Olympia, the old Kinder Scout which lived at Camphill many years ago, and now makes a welcome return.

F.D.W.

DEVON AND SOMERSET

THE year has started well here in the West Country, with three thermic days in the first two weeks of February. On two of these days we were visiting a promising site on Haldon, just S.W. of Exeter, and on the first occasion some thermal and hill soaring was possible.

The second trip was interesting and the Swallow reached 5,000 ft. over Torquay and was able to fly upwind to Exeter.

We are looking into the possibility of using the Haldon site in addition to Dunkeswell, with the added attraction of wave flying in the lee of Dartmoor!

For the first time we are employing an instructor to run our Summer Courses, and we wish him every success. Throughout the summer certain weeks are being reserved for Club flying, so we hope more Club members will be able to do mid-week flying.

A Regional Competition is to be held at Dunkeswell from 28th July to 6th August inclusive. Launching will all be by aerotow, and we hope to be able to accept up to 30 entries. Already preparations are in hand, and B.G.A. will be publishing full details in this magazine.

P.E.B.

DONCASTER

THREE further items of progress to report: we have added an Olympia to our fleet, draught beer is now on sale in the clubhouse, and a compressor has been built very cheaply for the workshops. So frothing tankards in hand we await the soaring season, confident that

our well-sprayed aircraft have their tyres properly inflated.

Flying opened well this year with two members gaining their C's. We're not quite sure what they got it in, but when Fred Rowley had done 20 minutes Bob Fishwick got a thermal off the argument.

Some members have found the winter long and have not given gliding the single-minded concentration it deserves. Congratulations to John Stirk and Pat Willert, Peter Grime and Honer Appleyard and Johnnie Johnson and Dora Gallear on their engagements. We're now run out of eligible lady members.

M.C.U.

EAST MIDLANDS (Leicester)

WITH the end of the soaring season our hard core of enthusiasts have continued to fly every week-end, enlivened occasionally by aero-towing from visiting aircraft.

The last soaring day of the year was, however, the 22nd December, and 1961 finished with a year's total of 4,029 launches. Meanwhile, the Transport Committee are hard at work on building our second winch.

Auster Aircraft Limited have kindly allowed us to hold a competition on Saturday and Sunday, 5th and 6th May, 1962.

This is too short to be recognised as a Qualifying Competition, but nevertheless we feel that there should be sufficient interest from pilots wishing to gain competition experience. Launching will be by aero-tow, and further details will be circulated in due course.

C.R.S.

ESSEX

FLYING during the first two months of the new year has gone along smoothly, and our launch rate, although expectedly, lower, up to the average level.

Provisional dates have now been fixed for the completion of the second drum on the winch, which, in turn, means that a higher performance solo-machine can now be purchased in time for the soaring season.

Our proposed expansion programme for 1962 will therefore be set into motion, and consequently an increase in our flying membership to 150 members will ensue. Our successful Red and Blue Flight Plan system will carry on during the year.

No. 614 Gliding School (R.A.F.) moved to North Weald at the beginning of February, with their fleet of T-21's, T-31's and Prefects, and will now be sharing the airfield with us. We look forward to a happy relationship with them during our stay together.

M.G.R.

KENT

WE have had mixed weather during the past two months, but flying has been possible most week-ends. John Wilkinson and Alan Middleton both soloed in the T-31 in January.

On 11th February, short thermal flights were made in the T-21 and Skylark around mid-day, a reminder to pilots that the soaring seasen should start in earnest before long.

Our C.F.I., Roy Hubble (to whom we take off our hats, of course), has started an extensive programme of instructor training. Prospective instructors are now to be seen in the left-hand seat of the T-21, their brows furrowed in anxious concentration. They are given priority for four consecutive launches with a senior instructor at the start of the day's flying.

The main social event this winter was a party held at West Malling on 13th January. This was the first one to be organised for the Club by our new Social Secretary, Joanna Dannatt, and was a tremendous success.

Abut 80 members turned up in spite of the bitterly cold weather. The evening started with the showing of two gliding films, followed by a short talk by the Chairman, Hugh Gardiner, about the Club's new site at Charing.

P.B.

LASHAM

THE last two months have brought the usual assortment of winter weather, including storms, blizzards, frost, snow, fog and rain. However, we did have the satisfaction of operating off the snow on the day London Airport was grounded, and our beautiful reconditioned hangar protects gliders and trailers.

Thermals made an unexpected appearance on 14th January, and on 5th February the Skylark reached 4,000 ft. On 11th February soaring was possible, and

John Stanley did an hour and a half in No. 68.

Results for last year show that in nearly every respect it was our best year so far. Launches totalled 25,314, and hours 6,570. Including the Nationals, 60,300 cross-country miles were covered, 15 pilots completed their Silver C's, and 9 their Gold C's.

Preparations are in hand to make 1962 an even more successful season by means of improved launching facilities and better organisation.

A new 160 h.p. tow car has been imported from the States to replace the old one, which has now done 170,000 miles, and we hope we have finally eliminated all teething troubles on the Clayton winch. Frank Horridge is meanwhile preparing a fourth Tugmaster to add to the aero-towing fleet.

On the organisation side, John Everitt is heading an anti-fumble campaign, and training up a team of winch drivers, tow-car drivers, duty pilots and M/T. organisers to ensure that we use our facilities to the best advantage. Training, also, will be reorganised, and flying under supervision will be continued to a further stage. J.N.C.

LONDON

DUNSTABLE is rolling up its sleeves in preparation for the coming summer. January was a record month for soaring, with westerly winds blowing almost every week-end; the first thermals have started popping and a brand new privately-owned Ka-6 has just arrived. Even the garage roof is on!

Private owners toil in the Ottley, pausing only to shake their fists at those enjoying the first of the year's thermals in Club aircraft, while our own cuckoo, in the shape of Geoff Nixon's Alfa-Romeo, has appeared once again, heralding the arrival of warmer weather.

After many years as our manager, Ray Stafford-Allen has most unfortunately decided to leave us, but we hope that his many skills and perpetual good cheer will not be entirely lost. We wish Peggy Stafford-Allen a complete and speedy recovery.

By the time this appears in print the Annual Dinner and Dance will have receded into gastronomic history, but the Old Sugar Loaf, Dunstable, will undoubtedly have been the scene of yet another excellent do.

Luton Airport sits menacingly on our doorstep, but the base of the airway over the club has been raised from 3,000 ft. to 3,500 ft. a.s.l., so we are still uncertain about the effects Luton will have on our operations. Meanwhile, with a new winch under construction and the possibility of a more powerful tug becoming available, we have a greater number than ever before of members who attend regularly and who are all mad keen to soar. Hence the ever-increasing ranks of private owners, which has reached an all-time high. More and more members are turning to closed circuit flying, so we look forward to some impressive flights this season. D.J.R.

MIDLAND

ON 16th January at a new venue, Berrow Court, we held our Annual Dance, at which the trophies were presented for 1961. The Siam Trophy (for the longest flight from the Mynd) was won by Stewart Waller, of Cambridge; the Maxam Trophy (for outstanding effort by a Club member) by David Benton, and the Neill Trophy (for the best ab initio) by Henry Maslowski. The height and out and return trophies were not awarded owing to lack of suitable performances.

The A.D.R. was due to go on St. Valentine's Day and an airway due to come into being one month later. The eastern edge of this airway being some seven or eight miles west of the Mynd.

Some of the talk regarding syndicates has come to fruition, and Ric Prestwich and syndicate have bought a Skylark 3.

So far this year we have experienced a good run of westerly winds, with bungy launches exceeding winch launches. It is with optimism that we look forward to the coming season, which, with cloud flying and the Tugmaster, should have wider and further horizons than in the past. K.R.M.

NEWCASTLE

OUR principal occupation at present is arranging for the erection of a hangar at Carlton, which it is hoped will be in use this Spring—no more rigging every day!

The next stage will be the building of permanent clubhouse and workshop

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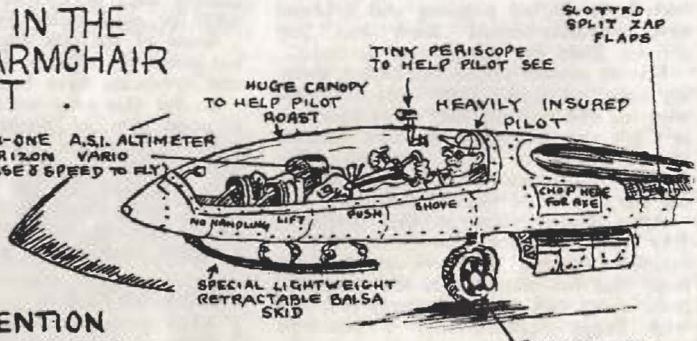


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Drawing by Mike Bird.

JUST RIG 'N' FLY!

accommodation round the hangar to supplement and eventually replace our present temporary buildings.

We are running members' courses from 14th-23rd April (Easter), 2nd-10th June (Whitsun), and 28th July-12th August, and any private owners from other clubs interested in trying a new hill site with considerable wave possibilities will be welcome during these periods (or of course any week-end).

R.C.S.

OXFORD

IT is perhaps a little late to review 1961, but the details behind our "vital statistics" for the year are of interest in so far as they reflect the success of the Club's policy.

With almost exactly the same number of operational days, we made some 600 launches fewer, for the loss caused by the mid-season unserviceability of our Olympia was increased by the fact that only 50% of the days were even remotely soarable, a reduction of 30% compared with 1960.

There were several record days, and the average flight duration for the Club was increased to 9.8 minutes and for solo Club aircraft to 12.9. Privately owned aircraft averaged 39 minutes, the Skylark 169 Syndicate achieving 60 minutes and the Gull 3 47.

No. 63, our "Task" aircraft, averaged 20 minutes per flight.

Our scheme for the operation of this aircraft was most successful, for in 42 days' operation it did 95 hours' flying, scoring four 5-hour Silver Durations and a Silver Triangle.

It was our aim to take some of the frustration out of gliding by enabling the ordinary Club member to fly high-performance aircraft more frequently and at minimum cost. A measure of our success is an annual turnover in membership of about 10%.

There is a growing feeling in the gliding movement that those who enjoy the best their clubs have to offer must give a personal service to their Club which is at least commensurate, and praiseworthy effort was certainly being made by a number of Skylark pilots when Francis Leighton (B.G.A. Secretary) visited Weston on the Green recently.

From a poor start 1962 is getting under way. Chris Thompkins is the first to solo this year, and Peter Pratelli has already taken the Olympia up to 2,700 ft. in 19 minutes.

The instrumentation and cockpit layout in both Club Skylarks is being standardised, and a new syndicate hopes to introduce a "Mucha Standard" into our fleet without delay, but otherwise we remain unchanged.

A.S.

SCOTTISH

WE have had a rare experience in Scottish Gliding Union flying records, in that five C flights were obtained over one week-end in mid-January. The intrepid Tutor pilots were Ann and Hugh Elder, John McLauchlan, Gordon Downs and Peter Stanley.

Later in the month George Innes completed a first solo, showing that our weather has not been as bad as "Met" reports indicate.

In parallel with the efforts of the Tutor pilots, considerable activity has been noted in the workshop, where both Olympias have undergone minor and major inspections. On the completion of the major inspection of one Olympia a visit by a group of Doncaster pilots resulted in this aircraft going South (by road).

As a result of this reduction in the Club fleet a replacement aircraft is being sought, and, in addition, an order for an Olympia 460 has been placed.

A seasonal decline in visitors has been noted, although meteorological interests have been well represented by Betsy Woodward and C. E. Wallington. Our only flying visitors for this period were a group from the Cambridge Club, who spent the New Year with the Club.

W.A.S.

SOUTHDOWN

CHRISTMAS at the Club is generally mild and wet, but this time, for the first time on record, we had a good steady north-easterly wind which gave some interesting hill soaring to a small group of enthusiasts who stayed over the holiday.

Jim Lee, who had twice previously tried for his five hours but had been brought down by sickness, managed it successfully on this occasion, notwithstanding internal turbulence and rough conditions.

February saw the return of our T-21, after receiving damage when it got in

the path of the hurricane "Debbie" during the autumn. It really does look very attractive in its new vivid colour scheme of red fuselage and white wings.

In spite of the appalling weather that we have had on the south coast during the past few months the launching rate is improving, mainly due to the fact that we have acquired a Jeep in place of one of the old tractors for cable retrieving.

On our present site the Jeep is as near an ideal vehicle, with its four-wheel drive, as we are likely to find. Unlike the Fordson, we are never short of members to drive it (the tractor was rather like taking one's turn on a massage vibrator).

With a cable-retrieving winch under construction we hope that we shall very soon have a cable waiting for an aircraft, instead of the other way round.

During the wet weather quite a lot of energy has been put into repairing and modifying the Olympia trailer and in construcing a new multi-purpose open trailer designed by Geoff, our transport officer. Plans are also in hand for buying some new aircraft instruments, including it is rumoured, an electric vario and oxygen.

We were sorry to say goodbye to Maureen Wilson, who has left for the States to get married, but wish her all the very best for the future, and rather envy her flying Schweizers and Sisus.

P.W.

SURREY

THE first, and most important, item of news is that Sidney Swallow has regretfully decided to resign as Chairman of the Club. For personal reasons he now finds that he is unable to give the time and attention to the Club's affairs that he feels they really deserve. Sidney will remain a member of the Committee, so the Club will continue to benefit from his wisdom and experience.

Everyone at Lasham knows what a tremendously good job Sidney has done in the years he served the Club, and the results are there for all to see in the magnificent fleet of soaring aircraft, an expanding membership and a vastly increased total of hours flown and cross-country miles covered.

Sidney's place as Chairman has been taken by Pat Garnett, whose place as Secretary has been taken by Tony Barker. Peter Hoskin is Treasurer.

Winter activities in the form of trailer fettling, glider valeting and plumbing—interspersed with the new craze for twiddle football which Wally Kahn has introduced to Lasham—proceed apace, and it has been possible to send two small but keen expeditions to the Long Mynd, where the weather was not as kind as it might have been.

Our heartiest congratulations are due to Toon Ghose, who — on a winter course at St. Auban — completed his Silver C and gained a Diamond for height. This achievement makes him the gain of height record holder for his own country, India, to which, we are very pleased to hear, he does not intend to return until he has completed another season's winch driving at Lasham.

A.W.B.

SWINDON

SOUTH MARSTON is a hive of activity these days with a wave of enthusiasm for work off the field. (Some people have to be persuaded to fly!)

Taking shape in the workshop, under the guiding hand of Stan Perry, is "The Monster"— a two-drum winch powered by an A.E.C. 7.7 litre diesel engine. On completion this will be mounted on a diesel lorry. Blast-off should be some time in May.

Flyingwise, we are grateful to tug friends Howard Greenaway and Harvey Britton for their visits, enabling many members to "pass out" on aero-tows. Incidentally, we expect to have a resident tug shortly.

Visitors are always welcome, especially on "At Home" day, Saturday 9th June.

M.B.H.

SOUTH WALES

AT present we can only operate on Sundays through lack of instructors, but are planning to remedy this by the beginning of the summer.

This year, two Sundays have been soarable: 14th January, when we logged just over two hours, and 11th February, when 12 launches returned 3 hrs. 7 min.

The first three launches were circuits, but from then on the ridge maintained the T-31 at 900 ft. with trips to 1,500 ft. under cloud. Each flight had to be terminated by Ivor Shattock for the benefit

of those waiting.

A few new pupils had their first introduction to soaring, but some were very disappointed when, eventually, greatly increased wind and heavy rain stopped flying before their turn came round.

D.E.F.

WEST WALES

SINCE our last appearance in these pages, much has happened. At the end of our first year's operations we have logged 3,250 launches, which is well up on our initial estimates.

In anticipation of things to come we have arranged the purchase of Philip Wills' victorious Sky, and a Skylark 3 from Frank Irving's syndicate. There is also a power group in the Club who will be providing aero-tows in the near future.

Our first Annual Dinner was held on 3rd February, and we were very pleased to welcome as our guests Mr. and Mrs. Basil Meads, Mrs. Ann Welch and Mr. and Mrs. David Carrow, also our friends from the Swansea club.

YORKSHIRE

SUTTON BANK is now able to go ahead and build the new clubhouse. The Shaw Slingsby Trust have agreed to lend adequate funds for us to build the new premises that have been needed for many years. We hope to have the building complete by the middle of the summer.

The tantalising picture of Pennine Waves just out of our reach has had a lasting effect on our C.F.I., Chris Riddell, who has formed a syndicate to buy a Tiger Moth and tow out of Sutton and neighbouring airfields. Henry Doktor has improved the surface of the landing ground, and it is hoped that it will be a great deal smoother for aero-towing when it dries out.

A new winch is under construction. It is based on a diesel bus chassis, and will double our launching capacity this year. We now have six Club aircraft and four private aircraft. We shall be needing these four winch wires and a tug next summer.

The Club dance was held in The Crown, Borobridge, on 24th November. Michael Hoares' organisation was excellent and the event raised £100 to the Club building fund.

The first cross-country of the season was made by Joe Provins in his 3F on 21st January, when he rose to 5,000 ft. in a Cu. Nimb. to land at Kirbymoorside. Also on the flying side, Smallwood is promoted to the Skylark 2, while Wise and Allerton are upgraded to fly the Swallow. C. W. Hill and J. Dodgson have gone solo.

J.C.R.

Service News

ARMY (Lasham)

ONCE more the Army Club organised its traditional post-Christmas week's camp at the Long Mynd. This year, the absence on duty of Ted Stark, organiser and inspiration of last year's wave safari, coincided with the absence of the Good Witch of the West Wind!

This desertion left our 1962 Mynd venture at the mercy of a coven of Bad Witches whose efforts, with snow, ice and fog, only let up on two days of the first bitter week of January.

The Army Skylark 2, already at the Mynd, was joined by another from the Cambridge Club, whilst our Skylark 3 remained snowbound in Church Stretton until the last day of the safari, when the Asterton hill became passable.

The Thursday brought the first marginal hill-soaring, but some ill-defined wave conditions in the afternoon raised morale and gave the Cambridge aircraft 2,600 ft. It was not until the Sunday, however, that good conditions returned again and everyone had a chance of some well-earned soaring.

Of all the afflictions that beset the expedition, the greatest fell upon two of our visitors, who were not only forced to leave their hired Olympia trailer-bound in Church Stretton for the whole week, but also lost their jeep over the side of the Asterton hill, where it had been stranded overnight with a seized engine.

Our thanks are due to the Midland Club for their hospitality and for loaning their Landrover for the return of the Olympia to its owner.

T.G.W.P.

BANNERDOWN

THE last two months have seen the nadir of our aerial activity, for which celebration and precipitation must share the blame. Nevertheless, it was certainly a pleasure to see a number of new members after Christmas. These are obviously wise and wily birds who will be ready to soar with the swallows, and we congratulate Major O'Hagan, the first with his A and B.

In the last week of January we employed a new launching procedure, copied from the Cornish G.C., and find that our launches are the smoothest and best ever.

Lack of V.M.C., however, has been no deterrent to our hard core; the Olympia has been majored and the T-31 refurbished. Towcars have been stripped, reconditioned, rewired and repainted. A structure which started life as a police box will soon become a mobile flight office with all mod. con. including, we hope, an anemometer.

Courses for instructors are being arranged, and generally enthusiasm is bubbling nicely. At the time of going to press we have not heard Vince Griffiths' comments on the collection of the T-21 from Yorkshire when a wheel came off the trailer.

At the last committee meeting thanks and good wishes were offered to Keith O'Brien, who is posted away to drive Argosies. A real welcome is extended to Steve W-F as our new Deputy C.F.I.

P.H.

EAST ANGLIAN (Duxford)

OUR news has been falling behind over the past few months, and this write-up is intended to bring us more or less up to date.

The Bicester Trophy came our way, and very proud we are of it. The John Hall Trophy, for keenness and progress in gliding, was presented jointly to Jim Morris and Al Whiffen, who had hogged over 90 hours each in one year.

January saw very little flying due to adverse weather conditions and winch condition. The winches, however, are flogging away again with new engines and new pay-on gear built up by Pete Dawson.

John Glossop, Smudge Smith and Dick Austin have all converted to the Olympia, and Al Cummings, our youngest member, has converted to the Eon Baby.

The week-end of 10th/11th February saw the first soaring of the year, with Chris Morris getting 15 minutes in the Olympia; even the Dragmaster (T-31) gained 200 ft. The wind, however, put a stop to the lift, but served to increase the launch height, and establish a new Club record of 2,800 ft., put up by Jim Morris in the Baby.

Newest members are Mrs. McConnochie and Trav Spurling, who is just about as keen as they come.

New additions to the Committee are: Officer i/c Gliding—Flt./Lieut. Maddock; Clubhouse Member—Jock Frame; Treasurer—Jo Symmonds; and Hangar Supervisor—Paddy Hogg.

A.H.W.

EAST YORKSHIRE (Driffield)

WINTER weather has not offered much excitement or soaring, but dual launches and hours are climbing steadily. The newly majored Tutor is flying again, looking and handling like a new aircraft.

Group Captain Frogley was presented with a memento prior to his departure. Group Captain Pugh is our new Chairman, and he and his son Peter have already been airborne.

M./Sig. Bailey and Capt. Ott had a go at the Wave Project at Crosby-on-Eden but were unable to contact any of those 20,000 ft. Diamond-makers. Flt./Lieut. Bridson has joined the roster of Club pilots, a very welcome addition.

Spring plans are being made to go all out on cross-countries, with the Chipmunk being the key to escaping from that depressing phenomenon referred to as "sea effect". Here's to a busy new season.

W.E.C.

FENLAND (Swanton Morley)

WE look forward to our first full season at Swanton and hope for good soaring from this site, which seems more thermic than our previous one. Winter overhauls have seen the demise of our Fordson tractor, the making of an open trailer for the Gull 1, and much expensive work on the Grunau which we had from Germany last year and have not yet flown.

Of late we have been using the retrieve winch principle and have down-graded our non-standard side-drum winch to

retrieve duties. Standard launching cable used on the retrieve side seems to make only a little difference to launch height, and a fast launch rate results if cables are kept in good condition.

At Easter we hope to participate in the G.S.A. contest, and help with the Swanton rally too. The Carlisle Wave Project has seen Pete Kevan, Ivor Orrey, Jim Lawn and Terry Donegan, and Jim and Fred Clack have become instructors. Ian Strachan has taken over from Gordon Rondel as C.F.I., as Gordon is expecting a posting shortly.

At the moment we are very short of qualified members on the technical side, especially as we have lost the services of John Thomson on posting to Odiham. John was an exceptionally valuable Club member, and we wish him all the best in his new posting. I.W.S.

HOME COUNTIES (R.A.F. Hornchurch)

BY the time this is in print we expect to have changed our "Home". We will have to leave Hornchurch shortly, and at the moment we are in the process of finding another site, probably south of the Thames.

As gliding seems to thrive on frustrations, we hope that the move will not seriously hinder our plans for the coming cross-country season. We have quite a number of budding Silver C'ists waiting for the first good bit of Cu.

Flying goes on as usual, and on duff days we are trying to complete all majors and general tidying-up before we go. G.H.M.

MOONRAKERS (Upavon)

SINCE our last letter, written in August, we have turned to the Wiltshire hills for our soaring, and found them and the local farmers most obliging.

By keeping the soaring fleet of T-21, Grunau Baby and two Olympias transportable, we can leave Upavon and be airborne at a hill within 90 minutes, whenever the wind blows from any direction but east or south-east.

Granted we sometimes have our fill of muddy lanes and soaked clothes, but most of our pilots have pushed up their hours and had experience of many different fields to land in.

We can bungey from Inkpen, Huish and Westbury, and have launching fields also at Lavington and Roundway. The hills form the north and south boundaries of the Pewsey Vale and include the northern escarpment of Salisbury Plain.

When the wind is southerly the gliders are winched from Upavon on to Huish, seven miles to the north. The record launch obtained in these conditions is 3,100 ft., but usually 1,500 ft. is enough.

This winter's batch of Silver Durations includes Harry Jones, George Ross and Cyril Wride, whilst several others have flown to Huish.

Plenty of hill soaring has made the winter go pretty quickly, and we look forward to the new season's thermals. The only thing missing is wave soaring, and Wally Wallington, who has recently joined the Club, tells us that even this is possible. J.S.W.

NIMBUS

WE do not have much to report from Nimbus this issue as flying has been severely curtailed since Christmas due to the weather. However, major inspections and repairs are proceeding apace in Norman Wilkinson's workshop. Our much-maligned Volkswagen combi is also now in excellent condition after an engine overhaul by Wilf Pickles.

What flying we have done has been mostly tuition with visiting enthusiasts. We hope that after they have been shown the light by Nimbus they will continue the good work in the U.K.

We have also been giving what assistance we could to a group in a nearby town who are hoping to form their own Club. They have bought our old Gövier two-seater and are rebuilding it.

C.G.T.

RED HAND (Ballykelly)

FIRST solos, wave soaring and new aircraft have all contributed to the progress made at Ballykelly. A+B certificates have been gained by J/T Whittaker, S.A.C.s McNabb, Smith and Snell, and our new Secretary, Flt./Sgt. George Iley.

Since our last news the Olympia has arrived, and was promptly soared by J/T Colin Wray, one of our instructors, in wave on its first day's outing. The fact that Colin has never flown in wave

before, and he contacted it from an auto-tow launch, bids well for the future. Wave formations are frequently seen overhead the airfield and have been estimated at 15,000 ft.

A Tutor also arrived at the same time as the Olympia and has since been refurbished and resprayed by Dave Ellis. As all will tell who inadvisedly commented on Dave's aptitude with a spray gun, it is finished in blue and white!

The arrival of new aircraft has been a boost to membership, and we now have members from the other Services in the area. Plans to link up with the Ulster Gliding Club are also in hand, and it is hoped to really tape the slopes of nearby "Ben Twitch" to good effect.

Up to now the Club has been experiencing accommodation troubles, but has at last settled into a section of its own. All aircraft have been "bulled" and the Olympia fitted with oxygen and full instrument panel. We have to thank Cpl. "Spider" Webb for much of this side of affairs. J.T.P.

WESSEX (Andover)

A NEW season is nearly upon us and we hope that 1962 will be even better than 1961. We were pleased with the final totals for last year, which were over 8,000 launches and 1,326 hours flown. The cross-countries amounted to 2,726 miles.

In the last few months the following have achieved their A and B certificates: Messrs. White, Foster, Curtis and Overall. Also, six members have progressed on to the Olympia.

In January we held a pleasant social evening, during which we bade farewell to our Technical Member, Bill Harrop. Flt./Lieut. Humphries has taken over as Technical Member.

Some of the members have been working hard on the M/T side, and now we are expecting a diesel winch, which we hope will be easier and help reduce our operating costs. J.L.

WINDRUSHERS (Bicester)

WEATHER conditions have severely restricted activities during the December/January period, but the recently formed centre has got off to a good start. The first instructors' course produced 100% C categories, and the first ab initio course also produced creditable results, eight out of the ten candidates gaining A and B certificates.

Despite cold and blustery conditions we still get sufficient support to keep flying each week-end, and some of the more ambitious types are already casting eager glances skywards as soon as the sun pokes his bleary head through the clouds. If these looks are anything to go by we should have a record season ahead.

We have recently said "Farewell" to our Club Secretary, Dave Parry, who is now in Germany; "Doc" Saundby is now Club Secretary, with Ken Poole as Centre Secretary. H.G.

Overseas News

ADEN

GLIDERS will soon be soaring over Aden for the first time. A Swallow single-seater and a T-31 dual trainer have been delivered to the recently formed Aden Services Gliding and Soaring Club, and three gliders have been ordered following a £3,000 grant from the Nuffield Trust.

The Club will use the airfield at Sheikh Otham, an Arab township near Aden, and the gliders will be launched by the auto-tow method. Several second-hand vehicles have been acquired for this purpose.

Chairman of the new Club is Squadron Leader T. Smith, of Aberdeen. Membership is open to those serving in the three Services, their families, and a proportion of civilians. President of the Club is Air Marshal Sir Charles Elworthy, Commander-in-Chief, Middle East Command. The club is affiliating to the R.A.F. Gliding and Soaring Association. A.E.S.

CANADA

SOARING weather was poor in 1961, but "when it was good it was very, very good". Eight Canadian records were broken. Five Diamonds and three Gold Badges were issued. The new records, all by flights starting in Canada, are listed below.

Single-Place.

Free Distance: C. Yeates, 332 miles. SGS 1-23H.

Distance to Goal: C. Yeates, 332 miles. SGS 1-23H.
Speed, 200-km. Triangle: J. Audette, 45.1 m.p.h. SGS 1-23G.
Absolute Altitude: J. Audette, 30,630 ft. SGS 1-23G.
Gain of Altitude: J. Audette, 23,884 ft. SGS 1-23G.

Multi-Place.

Goal and Return: R. Shirley and Passenger, 106 miles. LK-10A.
Absolute Altitude: K. Weiss and Passenger. 18,800 ft. Bergfalke.
Gain of Altitude: K. Weiss and Passenger, 12,900 ft. Bergfalke.

The altitude flights were all made from Cook Field, Pincher Creek, Alberta, in the lee wave from the Livingstone Range of the Rockies. This site has now become well known for its wave activity, which is remarkably reliable at certain times of the year. Another advantage there is that the aero-tow need not be extremely high.

The other records were also set in the west except for Charlie Yeates' flight from Brantford, Ontario, to Marion, Indiana. D.K.

CYPRUS

ALTHOUGH we have not appeared in print for some time, we have still continued to show the flag in Cyprus. With the end of 1961 we have had a chance to review our year's accomplishments, and find a total of over 2,500 launches and 10 members who have soloed in our T-31B, plus two C certificates.

Despite our 7 in. of rain in December we still managed to fly on both Christmas and Boxing Day as well as eight other days. During December we again had a visit from Ted Stark of the Army Gliding Club, and many new members joined us, including Flt./Lieut. John Hay from R.A.F. Duxford and Simon Marriott of the Army Gliding Club.

The long-awaited Pfeifer winch has now arrived, and together with a Wild winch is now giving excellent launches with no trouble at all. A few teething troubles were experienced with the piano-wire and we have still not found a successful knot to last more than 20 launches on a tarmac surface. If anyone knows a sure way to knot piano-wire we would be very pleased to hear about it.

During December a very successful Christmas Party was held in Limassol, and early in March we had a farewell party for our C.F.I. cum Officer i/c cum Chairman, Flt./Lieut. Roy Salmon, who is shortly leaving us for the sunny shores of England. Along with Chief Tech. Bill Owens, Roy Salmon has carried on his shoulders all the worries of a budding gliding club over the past two years. He has watched it grow from a vintage glider and auto-towing with nylon rope to a flourishing Club with four gliders and two winches.

We would like to express our appreciation to Roy and his wife Julie, not to mention the children, for all the enjoyment they have given the chaps at Akrotiri, both on the flying and the refreshment side, and we wish them all the best at their new posting.

G.L.K.

FRANCE

ON 11th December, at Issoire, Denise Trouillard and Suzanne Suchet beat the world's feminine two-seater records for absolute altitude with 8,630 m. (28,313 ft.) and for gain of height with 7,350 m. (24,114 ft.). The existing records were set up on 5th December in Poland over the Sudeten Mountains by Lidia Paziowa and Elzbieta Gradecko with 8,300 m. absolute (27,231 ft.) and 7,240 m. gain (23,753 ft.). Previous records were held in France.

HOLLAND

THE expeditions to the French wave-centre Issoire were very successful. Nearly everybody who went down south came back with either Gold or Diamond height.

First of all, Terlet instructor Jos Krols reached 8,000 m. after a gain of height of 7,400 m., setting up two new Dutch records. The next day Will Burgstede (on Sagitta) and Hans Groeneveld reached Diamond height; Heynen and Jan Franken got Gold C heights on the same day.

On 30th December they were followed by Dick Hinlopen. One day later was a top day, with four Gold C heights—Frans Luxemboug, Carel Reisch, B. Weerdmeester and Jan Michielsen—and one Diamond, Frans Brackel. We now have 26 Gold C's.

The first cross-country flight (in thermals of course, by lack of hills in our country) was about 50 km. from Mal-

den, near Nijmegen, to Venlo, on 28th January, by John van Melzen on a Ka-6.

J.TH.v.E.

U.S.A.

THE calendar year of 1961 saw the heaviest traffic ever in FAI soaring badge activity. Summarising for the year, there were 30 Diamonds earned, one Diamond badge completed (No. 17), 53 Gold C legs earned, six Gold C's completed (the last was No. 107), 285 Silver C legs earned, 90 Silver C's completed (the last was No. 550), and 387 C badges issued (the last was No. 2,557).

The 1962 National Championships will be held at El Mirage Field in Southern California from 24th July to 2nd August. Because dry thermals in this area occasionally exceed 15,000 ft. and cumulus cloud bases over the mountains sometimes attain 20,000 ft., all competing sailplanes must be equipped with oxygen. For the first time in a number of years, gyro instruments will not be prohibited for those pilots and sailplanes that are legally qualified to use them.

As a matter of formality, the Directors of the Soaring Society of America have voted to send a U.S. soaring team to the 1963 World Championships in Argentina. The pilots for the team will be selected by the top competition pilots seeding each other shortly after the 1962 Nationals are over. The National Champion will not have an automatic position on the team this time.

Brian Masters has taken a new position as CFI for West Texas Soaring, a commercial soaring school at Odessa, Texas. He plans to run two glider instructor courses during 1962, something that has been sorely needed in this country.

There has been increasing interest in this country in making serious attempts to break Dick Johnson's long-standing world distance record of 535.169 miles (861.272 km.), and perhaps be the first to join the "1000 Kilometer Club" (1,000 km. is 621.4 miles). Dick Schreder has been soliciting a number of the top pilots on how best to do this. These pilots' comments will be published in *Soaring* magazine as a series titled "Going for Distance".

L.M.L.

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