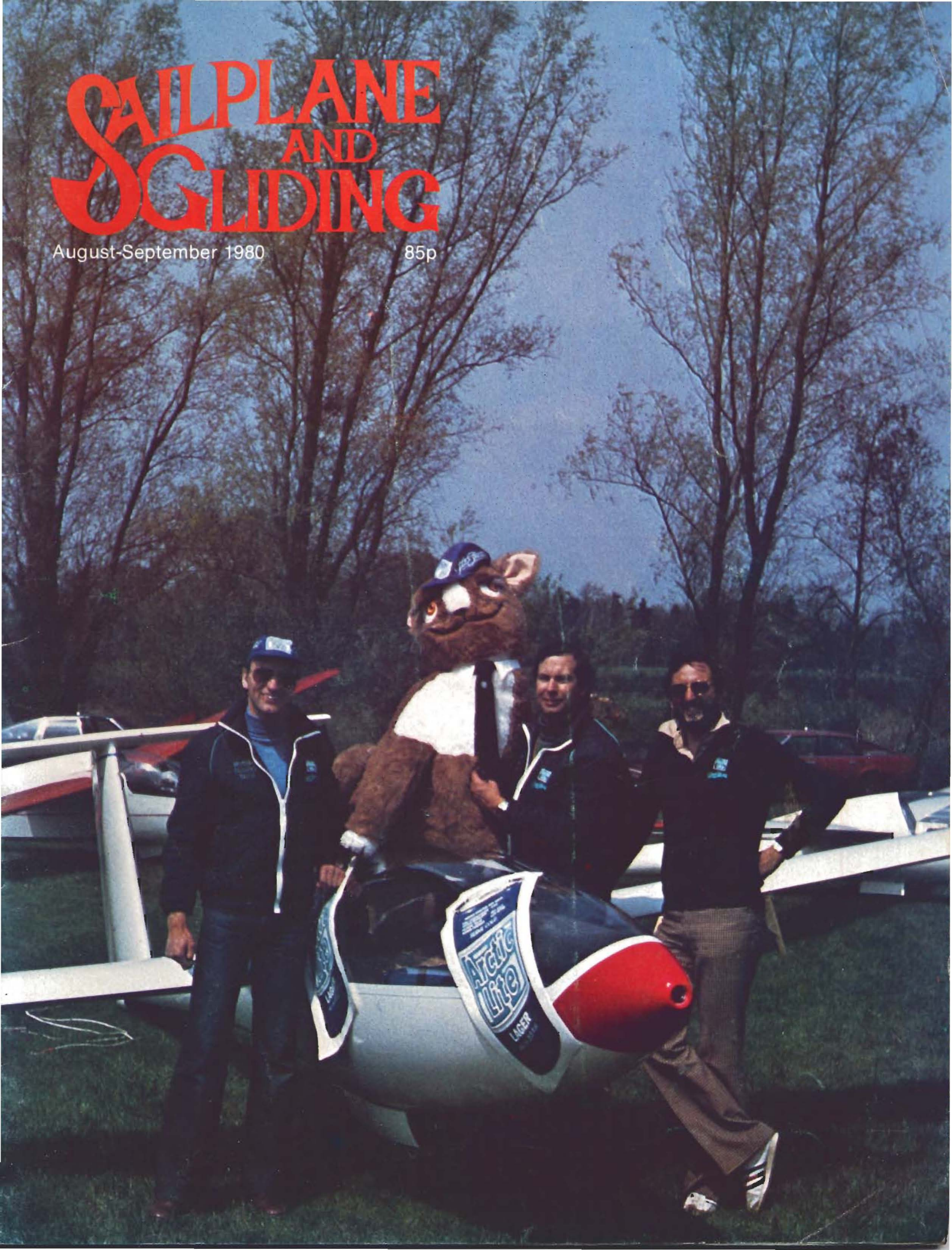
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SAILPLANE & GLIDING

Magazine of the BRITISH GLIDING ASSOCIATION

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Cover: "Kitty" posing in a Vega supported by Mike Pope, British Team Treasurer, with Mike Carlton, British Team Manager, on the right and Andrew Davis, youngest member of the British Team Squad, on the left. The photo was taken at Usk during a Competition Kitty weekend by Kitty Wicks.



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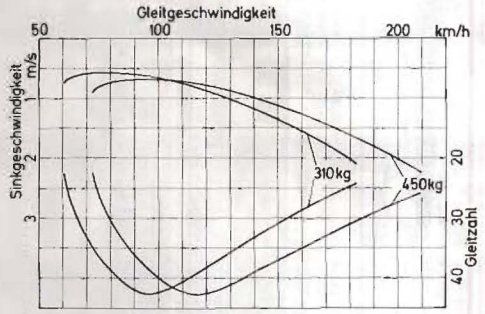
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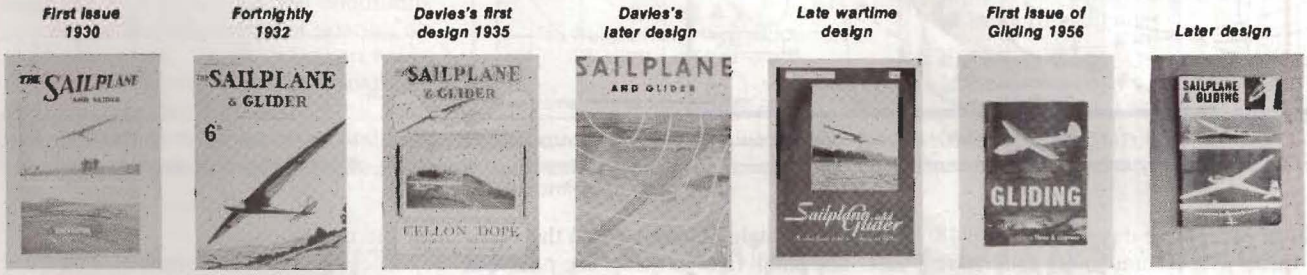
A.E.SLATER

On September 6, 1930, the first issue appeared of a new magazine *The Sailplane and Glider*, consisting of eight pages, 12in × 8½in without separate cover, to be published weekly at 3d per copy, and edited by Thurstan James, assistant editor of *The Aeroplane*, which undertook its publication. He had been the leading instigator of the meeting in December the previous year at which the BGA was provisionally formed.

The magazine remained a weekly at 3d until June 26, 1931, and volume 1 ended with a 6d "souvenir programme issue".

Volume 2 started on July 17 with 12 pages for 6d and continued fortnightly until December 18, but the last three issues were not edited by Thurstan James, whom C. C. Grey could no longer spare from editorial work on *The Aeroplane*, so S&G was "given" by Grey to the BGA, who were not allowed to forget it.

Some of the early covers photographed by Doc Slater



Throughout 1932 it continued as a fortnightly, with an outside cover, under the editorship of Frank Entwistle of the Meteorological Office, who had been official meteorologist at the 1922 Itford contest. I helped him with reports of meetings and foreign news, especially from Germany, with the result that, when he became too busy to carry on, he asked me to take over from the issue of February 3, 1933. Meanwhile he had transferred the editorial office in September 1932 to 43 Chancery Lane, from which his brother and a friend issued a weekly magazine for a Society which wanted to nationalise all land. From October 1933, the BGA being bankrupt, it was published monthly; then in August, 1934, for fear the BGA might be again captured by Gordon England's group, "we" managed to get its ownership transferred to H. O. Davies, a friend of Dudley Hiscox of the London Club, who ran an advertising agency in Victoria Street and was also Secretary of the London Club.

S&G carried on monthly until the war started in September 1939, after which it appeared every two months until the end of 1940, the last issue appearing late because our printers' works went up in flames during the fire-bomb raid on the City of London just after Christmas 1940. Then it ceased publication because I could not carry on.

In 1943 Dudley Hiscox, who was active in the ATC gliding school at Halton, found a retired RAF officer named Vernon Blunt who was willing to buy the magazine from Davies and publish it monthly, which he did from February 1944. When the BGA was revived after the war, he made several vain attempts to get S&G adopted again as its official organ, but without success. So, attempting to prevent the BGA starting its own magazine, he registered every title he could think of which such a magazine could possess, such as "Sailflying" and "The Sailflyer"; but he forgot the simple word "Gliding", so that was the title of a new quarterly magazine produced in April 1950 by "The Sailflying Press", directors Philip Wills, Ann Welch and Jacques Cochemé, an aviation meteorologist who owned an Olympia.

Cochemé edited the first issue (pocket size, 8 × 5½in), full of good things, but then faded out, so I had to take over and it became the BGA official organ. Blunt eventually went out of public circulation for a time and S&G was carried on by his assistant editor, Veronica Platt, wife of an oil magnate. We took the opportunity to get S&G back for the BGA, and succeeded at last in amalgamating the two magazines under the title *Sailplane and Gliding*, to be published every two months starting from October 1955. At first the issues were labelled February, April, June, etc until Rika Harwood, who was in charge of the London Office, got fed up with the sort of fools who would write: "I have had the February and April issues: why haven't I had the March issue?" So now the names of two months always appear on the cover.

S&G was edited by George Locke of the London Club from April 1971 to March 1973, then by the present Editor, Gillian Bryce-Smith, who enlarged it to its present size, 11¼ × 8½in, in February 1974.

WAS IT THE FIRST?

From 1932 S&G described itself on the title page as "The only Journal in the World devoted solely to Motorless Flight"; and from 1944 it carried the words "The First Journal devoted to Soaring and Gliding". Was either of these claims true?

In 1937, at the first World Championships, I took the opportunity to arrange an exchange between several German aviation magazines and S&G. One of them was called *Der Segelflieger* (the Sailflyer) and claimed to have started publication in 1926. This was a shock until 1951, when, after attending a celebration in Munich of the resumption of gliding in Germany, I spent a few days with Wolf Hirth in Stuttgart. In his bedroom-cum-library (mostly library) I found a complete file of *Der Segelflieger*. It did indeed start in 1926, but under a different name: *Der Jungflieger* (the Young Flier). It retained this name until the issue of January 1931, then in February 1931 it changed to *Der Segelflieger* (to give it wider scope, the Editor said). So S&G beat it by five months to the honour of both "first" and "only".

A Met Report on the Lee Waves of April 18

The day that David Benton (Nimbus 2) reached an absolute height of 10 993m with a gain of 10 231m, for which he is claiming the British National gain of height and the UK absolute and gain of height records.

T. A. M. BRADBURY

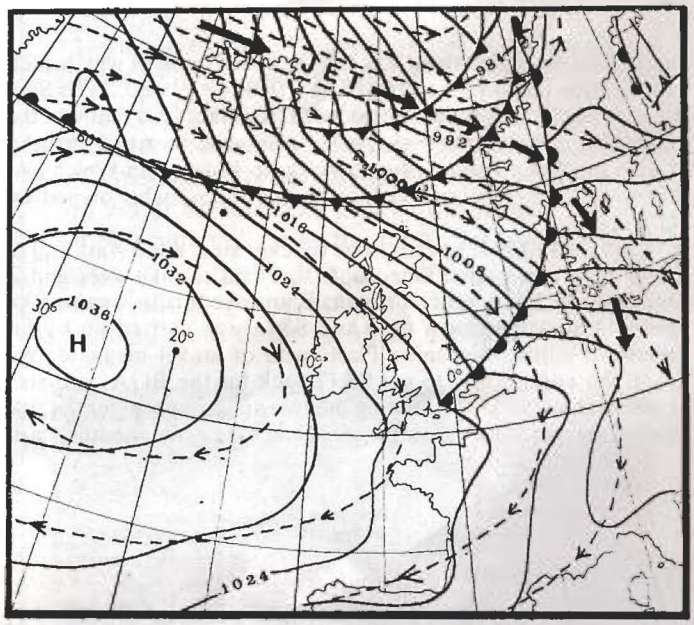


Fig. 1. Chart for 12.00 GMT, April 18, 1980. Pecked lines show airflow at 30 000ft. Heavy arrows mark core of jet stream.

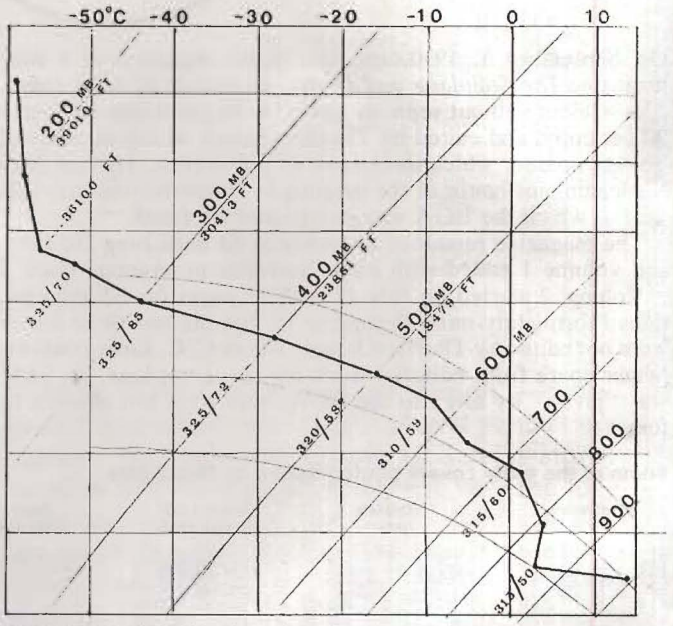


Fig. 2. Interpolated temperatures and winds for 12.00 GMT, April 18, 1980, in region of the climb. Wind direction in degrees (true) and speed in knots.

For three successive days from April 18 to 20 there was an unusually extensive series of lee waves over much of the British Isles. Climbs to Gold C height were possible even over the relatively flat districts of central and Eastern England but the greatest gains of height were made over Scotland where 36 000ft was reached on the 18th and Diamond C heights were again reported on the 20th.

Fig 1 shows the chart for 12.00 GMT on April 18, about an hour and a half before the peak of the record breaking climb. The surface isobars are shown by full lines. Pecked lines show the flow at about 30 000ft. Heavy arrows show the core of a jet stream which reached speeds of about 160kt in the region north of Iceland. The maximum winds reported by radiosonde stations near the Highlands were 315/91kt over Stornoway at 12.00 GMT and 305/106kt there at 18.00 GMT.

Fig 2 shows the probable values of temperature and wind speed in the area of the climb. The figures are obtained by interpolation between the soundings from Stornoway and Leuchars with allowance for surface heating. The diagram is a simplified version of a tephigram showing temperatures as vertical lines and pressure levels as slightly curved lines at an angle of about 45° to the vertical. The small figures below the pressure values show the equivalent heights at higher levels. Horizontal lines denote the dry adiabatic lapse rate while the three curved lines show saturated adiabats.

The temperature profile shows a small inversion in the 5000 to 6000ft layer with very stable air up to the 9000ft level, (just below the 700mb line). There is a sharp change of lapse rate at about 36 100ft which marks the tropopause. Above this level the lower stratospheric air shows the usual marked stability. It is interesting to note that the tropopause (at that time) was almost exactly at the maximum height reached by the glider. Lee waves are known to extend above the tropopause, even to lee of the relatively small mountains of Scotland, but most of the aircraft observations of stratospheric waves have been made over the North American Rockies.

Satellite Data

There were two satellite pictures available during daylight. The first was for about 09.25 GMT, some forty minutes after the time of take-off. The second was overhead at about 15.40 GMT, more than two hours after the end of the climb.

The 09.25 picture showed extensive cloud cover near and to the north-west of Portmoak and bars of wave cloud were visible over a large area. The following wavelengths were found by counting the number of wave bars over a known distance.

a. Downwind of Caithness 16km.

b. Over and downwind of the Grampians 11km.

c. Over north-west England 7km.

There is an empirical formula relating lee wavelength to the mean wind speed in the layer. (Corby 1957). This gives the following approximate values:

Mean wind speed (kt)	Wavelength (km)
20	3.2
30	6.3
40	9.3
50	12.4
60	15.5
70	18.6
80	21.7
90	24.8
100	27.9

The satellite picture received at about 15.40 GMT showed almost total cover of cloud from the Cairngorms northward but downwind of the Central Highlands it had become almost cloudless. There

had been an increase in the wind speed since the morning and the wavelengths were longer.

a. Near Inverness 20km.

b. Over the Grampians 16km.

c. To lee of the Kintyre peninsular 12km

d. Near Donegal Bay 8km.

Comment. North-west winds have often been found to give good conditions for wave soaring from Portmoak. The factors which normally favour lee wave development are:

a. A stable layer not far above the peaks of the upwind mountains. On this occasion the base of the inversion was about 1000ft above the higher peaks and the air was very stable for a depth of 4000ft.

b. Upper winds which increase with height but remain almost constant in direction. In this case the wind speed increased from about 30kt at low levels to about 85kt near 30 000ft; the direction did not vary more than 15° between 5000 and 40 000ft.

Satellite pictures show that well marked lee waves occur over Scotland on many days each year, but conditions are not necessarily good for soaring on every occasion. There were probably four factors which combined to make possible the record climb on April 18.

a. Much effort was spent in finding a particularly good area where the peaks were high and the major ridge line was at right angles to the wind. Since the wave length was gradually changing there may well have been a period when the wavelength fitted the spacing between successive ridges; this could increase the wave amplitude.

b. The height of the stable layer, which was also changing, had reached a level which suited the topography.

c. The upper winds were particularly steady in direction and the increase with height was not too great to prevent flight upwind. The wind speed was clearly close to the limit however because it was found necessary to fly at about 120kt (IAS) and accept height losses of about 10 000ft between each wave. Once established in wave lift the IAS required to maintain zero ground speed when flying into the wind would have been fairly close to the ideal soaring speed. The IAS required probably varied between 44 and 53kt over the height range between ten and thirty thousand feet. At 34 000ft an IAS of 40kt would give a TAS of 70kt, which is just what the wind at that level is estimated to have been.

d. The air was relatively dry above the inversion layer and the only cloud reported did not extend above about 7000ft. Although this cloud covered a large proportion of the soaring area in the morning it dispersed to lee of the Highlands during the afternoon. Most pilots like to see some higher lenticular clouds as wave markers but experience suggests that such clouds do not always mark the best area of lift.

If the air had been moister the approaching cold front might have produced large masses of cloud ahead of it. Apart from any navigational problems such clouds bring considerable risk of rapid icing, which ruins the performance of modern sailplanes.

Reference: Corby, G. A., 1957 Airflow over Mountains: notes for forecasters and pilots. Met. Report No. 18. HM Stationery Office.

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COMPETITION KITTY

MIKE CARLTON

Competition Kitty seems to have taken off more like Concorde than a K-8 and the first three have been a great success.

One of the best features of the Kitty Comps so far has been the tremendous hospitality we have enjoyed at the host clubs, and the keen interest shown by local members in the Team Squad and what makes them tick. Having said that, those of you who have attended the Kitty Comps will know a new meaning of the old quotation "how the mighty are fallen" and realise that our Team Squad are far from invincible in the face of club pilots with that secret weapon called "local knowledge".

Competition for that holiday in Barbados is already intense, and should hot up quite a bit in the coming months. So far this is what we have.

KENT — Kitty is launched

In true British fashion the Saturday was a wash out, the only useful thing to come out of it being the forum held in the clubhouse at which the Team Squad members, Bernard Fitchett and Andrew Davis, answered questions from a number of the club members and expounded their views on the importance of the British Team and its aims and achievements.

Sunday was better, and despite pessimistic forecasts 11 intrepid aviators set forth on a 103km triangle, Darwell Reservoir, West Malling Airfield. Three eventually finished, with Tony Moulang the winner in his ASW-15 with a handicapped speed of 50km/h. This was perhaps the first indication of the importance local knowledge might play in Kitty Comps.

Kent — April 26-27, 1980 103km triangle

Pos	Pilot	Glider	Speed (Dist)	Pts	ASS
1	A. Davis	Nimbus 15c	52.4	685	1.58
2	A. Moulang	ASW-15	50.0	672	1.55
3	M. Kemp	PIK 20B	40.4	621	1.43
4	B. Fitchett	K-8	(27.5)	181	.42
5	C. Whitbread/ C. Bunyan	K-13	(20.8)	137	.32
6	M. Johnson	Std Libelle	(10.7)	70	.16

7 = J. Bowles (Skylark 4); M. Darby (Cirrus); M. Neech (Astir); P. Poole (Dart 17) and C. Weston (Dart 17), O.

ASS winner, A. Moulang 1.55; runner up, M. Kemp 1.43.

USK — Kitty's first foreign adventure

Apart from the enthusiastic welcome we received and the two "super" gliding days which followed, the most remarkable feature of the visit to Usk was the availability of ARCTIC LITE in the local pubs.

The first day saw a 182km triangle, Shobdon, Pershore, with three finishers and Ivor Shattock the Club winner for the day at a handicapped speed of 57.2km/h. The second day gave rise to a 110km triangle, Hay-on-Wye, Hereford, and, lo and behold, Ivor Shattock was again the Club winner, this time with a handicapped speed of 46.8km/h — one of the Team Squad having landed out!

Usk — May 10-11, 1980

			182km triangle		110km triangle			
Pos	Pilot	Glider	Speed (Dist)	Pts	Speed (Dist)	Pts	Total Pts	ASS
1	A. Davis	Nimbus 15c	62.0	983	45.0	1000	1983	1.18
2	I. Shattock	Club Libelle	57.2	952	43.6	989	1941	1.15
3	B. Fitchett	ASW-20F	64.7	1000	(47.6)	385	1385	.82
4	I. Kennedy/ P. Cullen	Pirat	(80.5)	363	(99.7)	807	1170	.69
5	D. Dixon/ I. Edwards	Cobra	(89.3)	403	(60.2)	487	890	.53
6	M. Uphill	K-6E	—		(66.8)	541	541	.32
7	D. Brian	Astir	(9.4)	42	(56.7)	459	501	.30
8	S. Nash	Cobra	(64.1)	289	—		289	.17
9	E. Duffin	Speed Astir	(52.0)	234	—		234	.14
10	P. Grose	K-8	(51.7)	233	—		233	.14
11	R. Greenhalgh	Cirrus	(34.0)	153	—		153	.09
12	B. Edwards/ J. Sorrell	IS-29D	0	0			0	

ASS winner, I. Shattock 1.15.

BOOKER — Kitty's home

The size of the entry almost made this a Regional and the weather proved unusually helpful. The first day's task was a 168.5km quadrilateral, Marlborough, Cheltenham, Blenheim (control photo), and the Club winner was the Kitty scorer ('ullo, 'ullo) Andy Lincoln with a handicapped speed of

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65.9km/h. Not surprisingly, the Team Squad pilots (Brian Spreckley and Alister Kay) proved their supremacy on their own ground, not only on the first day but also on the second day which was won by Pete Marshall with a handicapped speed of 72 km/h over a 137km triangle, Didcot, Silverstone. It probably goes without saying that the significance of the Team Squad is nowhere appreciated better than at Booker where no fewer than nine Team Squad pilots hang their parachutes.

Booker — May 17-18, 1980

			130km O/R		137km triangle			
Pos	Pilot	Glider	H'cap Speed	Pts	H'cap Speed	Pts	Total Pts	ASS
1	B. Spreckley	ASW-20	80.5	742	79.6	792	1534	1.05
2	A. Kay	ASW-20F	68.9	639	75.6	751	1390	.95
3	A. Lincoln	PIK 20B	65.9	613	63.0	623	1236	.85
4	R. Ashurst/ P. Marshall	ASW-20L	48.4	458	72.0	715	1173	.80
5	N. Woodward	ASW-19	51.6	486	67.6	670	1156	.79
6	C. Scarborough	Kestrel 19	48.9	463	63.1	624	1087	.74
7	T. Cockett	Jantar	50.0	472	62.1	613	1085	.74
8	C. Aldis	Std Cirrus	42.9	409	61.3	606	1015	.69
9	T. Wathen	Std Libelle	42.0	401	58.4	575	976	.67
10	B. Chaplin	Std Cirrus	38.0	386	57.9	571	957	.66
11	I. Barlow/ C. Evans	K-6E	41.8	400	54.0	530	930	.64
12	W. Longstaff	Dart 17	39.1	386	53.9	530	916	.63
	R. Clarke	Std Jantar	—		64.1	634		
	A. Fleming	Nimbus	60.8	568	—			
	F. Shepherd	Vega	56.2	527	—			

ASS winner, A. Lincoln .85; runner up, P. Marshall .80.
ASS = average squad score.
Note: Due to lack of landing reports, only the scores of finishers on both days (or those who flew only one day) are shown. There were 25 entries (19 finishers) on Day 1 and 20 entries (13 finishers) on Day 2.

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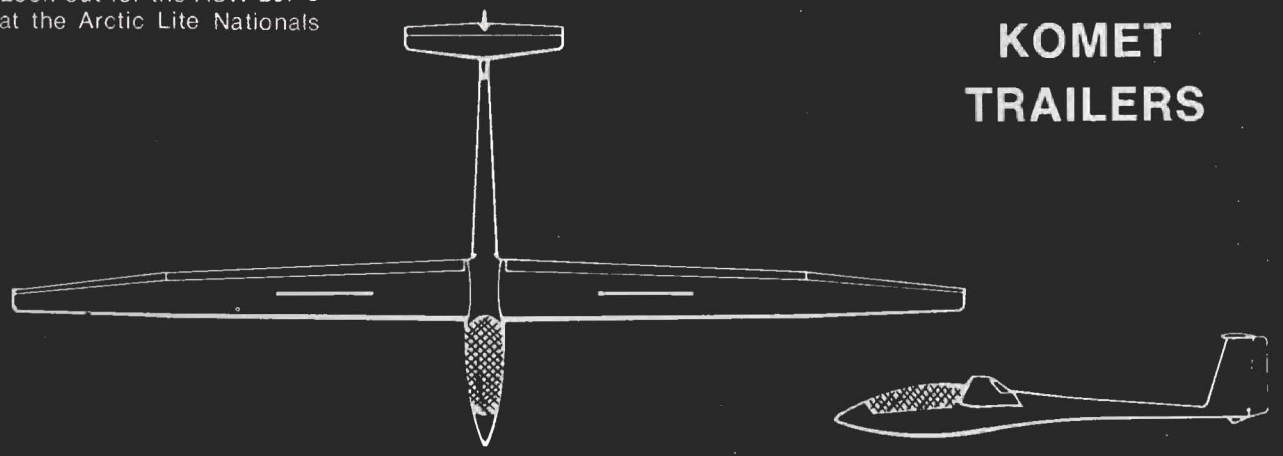
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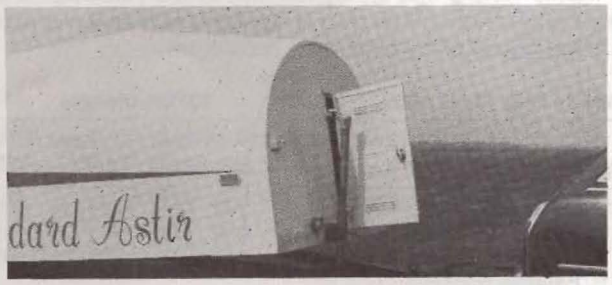


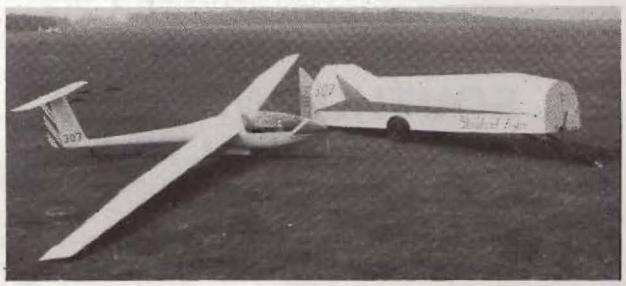
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"SPIKE"

"There's always another way to do it" I said to our Squadron Engineer, who is also technical member for the gliding club here at Yeovilton. The subject under discussion was the RN & RM GSA's latest fleet addition — a PIK-20D, and the installation of an electrical system of professional quality to match the rest of the panel installation.

Apart from finding a suitable main battery, the knotty old problem of dry batteries for the mini PZL T-&-S and where to put them was causing a bit of head scratching, to say nothing of the price of dry batteries these days. The thought of a corroding old bell battery loafing inside the panel amongst all those lovely new instruments, held in by a chunk of bungey and a tatty bit of "electric string", just didn't seem right. We knocked the problem back and forth for a while and came up with the following requirements:

a. The system must be simple to use.
b. Any changing of batteries/fuses etc should be possible without dismantling the instrument pod.
c. Charging facilities should be built in, to minimise bits and pieces which could get left behind.
d. In flight warning of battery failure.
e. Power on indicator for T-&-S.

Main Power Supply

The most suitable battery available was a pair of small 12v lead-acid batteries connected in parallel giving an 8amphour capacity. A mains charger was built into the battery box to fulfil one of the above requirements and for two further reasons. First, by siting the mains input in an inaccesible position it is necessary even for an unthinking person to remove the assembly from the airframe before charging. (Believe me, people do it and sulphuric acid vapour and gliders do not mix.) Secondly the charger itself is designed to charge the cells at the correct current thus preventing damage by cooking the battery on the 25amp charger at Fred Bloggs garage down the road.

A master fuse and circuit breaker then separate the battery from the main power cable which, *via* a plug and socket, runs forward to the base of the instrument pod. Here together with press to transmit and microphone cables, it is connected through an 8 pin socket to the panel. Thus the instrument pod in its entirety can be quickly removed for servicing by disconnecting the usual pressure instrument connector, aerial lead and a single electrical connector.

Once inside the pod the 12v power is distributed *via* panel fuseholders accessible from outside, to the radio, horizon and electric vario. A further lead is run to an auxiliary power unit described below.

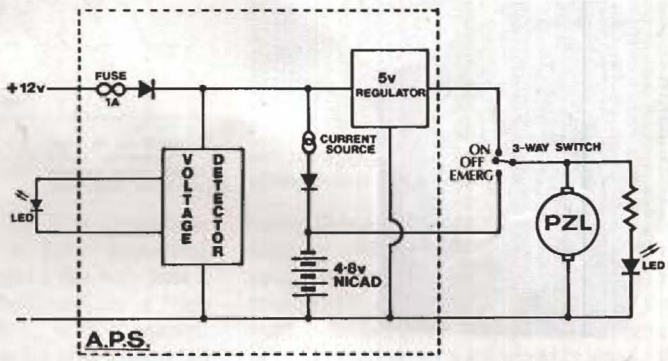
Auxiliary Power Supplies

After I had disappeared into the workshop for a couple of evenings and consumed a few feet of solder and several square inches of printed circuit board, a small auxiliary power supply (APS) was developed, powered from the main 12v supply and providing the following facilities:

1. 5v supply for mini PZL T-&-S.
2. Automatic charging for a NICAD emergency T-&-S battery.
3. Main battery voltage sensor and low voltage warning.

The 5v primary T-&-S supply uses an integrated circuit voltage regulator. These units are simple, reliable and almost indestructible. However they are prone sometimes to RF instability so some filtering was required to prevent noise on the radio. This supply was then taken to the instrument through a two way-centre off switch.

BLOCK DIAGRAM: AUXILIARY POWER SUPPLY FOR PZL T-&-S



The snag with this system is that the T-&-S is no longer independent of the main supply and if the main battery fails the T-&-S will also have lost its power, therefore a separate emergency supply is required. A small rechargeable 4.8v NICAD is fitted to the APS for this purpose. This battery is automatically trickle charged whenever main battery power is present, thus there is no requirement to open up the panel to replace it and no flat batteries to be discovered at the flight line after the glider has been rigged in a hurry. It is capable of running the mini PZL for at least four hours and is connected to the emergency side of the T-&-S switch.

The voltage sensor and battery warning circuit incorporated in the APS has already been successfully used in one of our gliders for a season. It gives warning on the instrument panel of a failing main battery by lighting a red light Light Emitting Diode (LED). This warning operates if the main battery voltage falls below a preset value. If the horizon inverter (the main power consumer) is switched off at this stage there should be sufficient power to operate radio and T-&-S long enough to complete a task. However if the warning is ignored when the horizon is running the main battery will soon expire, possibly leaving you in a cloud with no electrics at all, and that is why the emergency NICAD is fitted.

Advantages of the System

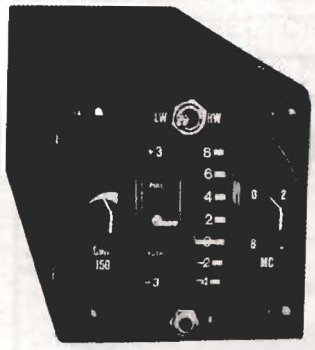
The main advantage of the system described is a tidy and easily operated installation which requires minimum maintenance to keep the aircraft operational. The extra cost of a small NICAD and dedicated power supply for the T-&-S is a small price to pay for the contribution to Flight Safety and one's own peace of mind.

Disadvantages

Because the emergency battery is always live, even when the main battery master switch is off, it would be possible unwittingly to leave the T-&-S running unnoticed, completely exhausting the NICAD. To guard against this a small green LED was added which illuminates beside the T-&-S whenever it is running. This also provides a good in-flight confidence check as the instrument cannot normally be heard running.

The only other apparent disadvantage is the cost of the APS (about £10) however this is offset by the price of dry batteries over a couple of seasons. I say apparent disadvantage because when we are talking in terms of a sailplane with a value in five figures, what is a tenner? It is also good insurance against possible corrosion damage behind the panel when a dry battery dies and oozes its contents amongst expensive instruments.

CAMBRIDGE



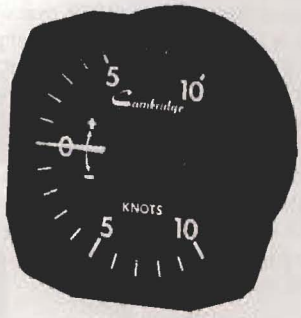
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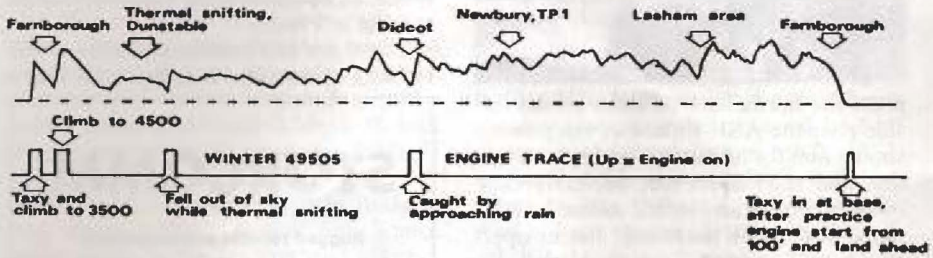
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Soaring Without Tears is Here

IAN STRACHAN



I took-off in a 15 metre flapped glider just after 9 o'clock as the cu were popping, arrived in the Dunstable area by 10 o'clock, and commenced "thermal snifting" in weak thermals before the 15 Metre Nationals launch. It was a day of large showers, and one in the Thames valley brought down many Nationals pilots on the first leg to Newbury. Despite taking-off some 100km from Dunstable, and being caught by one of the showers. I was able to soar for over six hours that day and land back at base without a retrieve. A dream? A line-shoot? Not with the PIK 20E high performance motor glider.

I count myself as a purist, not for the conventions of traditional gliding but for maximising my **soaring.** Do you wish to land in a field and then see the thermals boil up nicely while you wait for a retrieve, as many Nationals pilots did on that day? Do you wish to be tied to the launch point queue when you want to be away to attempt some challenging soaring flight? The Motor PIK gives one this freedom, and more besides, such as an unparalleled opportunity for wave exploration, and the ability to deploy and operate from sites away from one's home base without derigging or trailering.

I have been a convinced high performance motor glider (HPMG) enthusiast since reading Andy Gough's 1968 article on the K-12, at which time the potential of combining a modern lightweight engine with a high performance sailplane dawned on me. In 1969 I had the pleasure of a soaring flight round a Nationals task in a K-14 (27bhp Hirth engine, feathering propeller). On that day virtually all the Nationals pilots landed out on the first leg (showers again) and only a couple of pilots, plus myself in the motor glider, completed the task. I had used a small amount of engine time to reach a ridge, on which I sat until the showers passed. Although the flight could not count as a pure gliding achievement due to the use of engine, I had many hours real soaring while others were digging flints out of their soggy wheelbays.

I then joined an SF-27M syndicate. This machine had a fully retracting engine and really showed the way that a HPMG should be designed, as a high performance glider first, with a retracting engine built in later so as to ensure all the proper sailplane features as a first priority. But with manual engine start, and only moderate performance by current standards, the SF-27M was simply a marker which pointed the way for a manufacturer with flair and initiative to follow. Even so, I was able to fly the SF-27 in four Nationals, exercise the rules for integrating HPMGs in contests, and practise contest launching and retrieves from goal airfields by use of engine. In one Nationals the machine was never derigged, which I count as an advantage, although devotees of the traditional hard labour of gliding may not.

Missed opportunity

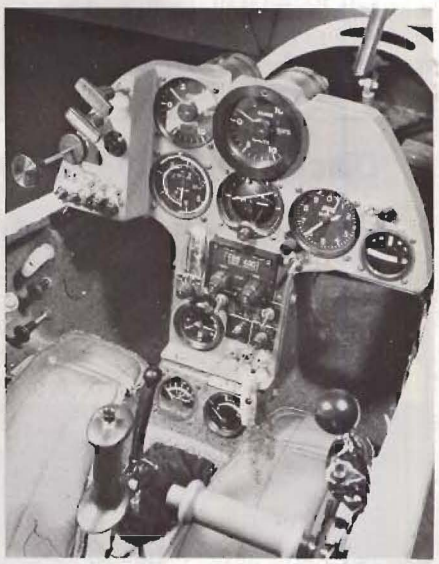
But what was always required was a higher performance machine. It was most disappointing when the Motor Nimbus production was stopped after only a handful had been made. And Slingsbys had a design for a Motor Kestrel which was to fly in the Waikerie World Championships in a Motor Glider Class. But when CIVV cancelled the HPMG class, Slings cancelled the Motor Kestrel. An opportunity missed, and not only for engineering development but, I believe, for commercial profit too. I have always thought that the first manufacturer to produce a really viable HPMG, with the emphasis on High Performance, would sweep up a large world market. The PIK 20E is such a machine, and it fulfils almost all the criteria for the HPMG that I suggested in an article in 1972.

It is a thoroughly orthodox full-span flapped 15 metre sailplane, with fully retracting engine and propeller, it has reliable electric starting and an engine climb performance in excess of 6kt. I had the opportunity to fly the prototype PIK 20E at Lasham in 1978, and have



Ian photographed by Mike Bird at the 15 Metre Arctic Lite Nationals.

been flying a production glider since January 1980. I recommend it unreservedly to anyone who wants high performance 15 metre soaring without the inconveniences of conventional operation. Its engineering standard is good, its design is ingenious and well thought out, its soaring performance is typical of other 15 metre ships, and its vices are few. The extra cost of the motor (a PIK 20E costs about the same as an unmotorised Nimbus) can be absorbed by having a larger syndicate, made possible by better utilisation of the machine compared to ordinary gliders.



The photograph shows that the cockpit is conventional except for a few extra engine switches (left of the ASI) and gauges (below radio), and the engine retract quadrant on the right hand side. The lever with the knob on the end opens and closes the engine doors, which are on the fuselage top side behind the wings. When the doors are open, a propeller brake is applied to stop the prop rotating, and using the prop brake and a cockpit mirror, the prop can be stopped vertical. The handle under the lever is for winding the engine up or down and needs 15 turns for full travel. My major criticism of the PIK is that 15

turns is about ten turns too many for erecting the engine (the SF-27 used only 3½ turns), but this should not put off potential buyers because, to be fair, the 15 turns require very little force and are very straightforward. Average height loss over seven engine retractions in early flights was only 225ft (300ft worst, 120ft best).

A programme was flown at Farnborough to establish the lowest height from which successful re-start and climb could be made. An approach was made, gear and flap down and using airbrakes, to a simulated field, and at the test height the airbrakes were retracted, engine doors opened and engine wound out and started. The ignition and fuel pump were switched on beforehand. Tests were started at 500ft (twice), 300, 250, 200 (twice), 150 (four times) and finally 100ft (four times).

It must be emphasised that these were flown in carefully controlled conditions with good tarmac underneath in the event of error or failure to start. But they do show the potential of the machine in starting from low altitude on the approach to a large field. I fitted a second starter button to the engine door handle (see photo) which was a significant improvement, enabling the start sequence to be completed with the right hand without needing to change hands to



press the normal start button on the left side near the ASI. Future developments should aim for an automatic engine erection and start sequence, perfectly easy by using either an electric motor or hydraulic strut, with automatic starter operation when erected.

Take-off performance is good, with typical ground rolls of 500ft in light winds and about 100 metres with full flap for minimum run. Rate of climb without waterballast was measured at 696ft/min over the first 1000ft. Taxying is *via* a steerable tailwheel and hidden wheels in the slightly downturned wingtips, and is adequate without being as precise as in normal light aircraft. When the wind is over 12kt, turning the tail against wind pressure is difficult when taxying crosswind but if the awkward headings can be anticipated, the glider can be swung rapidly through them without loss of taxying ability. At a gliding site this should present no problem, but at an airfield with tarmac taxyways and ATC, extended taxying on some headings in strong winds would not be possible. This can be improved by different tailwheel and spring assembly which is being investigated for David Innes' machine which he operates from Guernsey to go soaring in France.

There are two cautionary notes about HPMG operations. It is essential that a

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field is picked before attempting an engine restart in the air and, if below 1000ft, the undercarriage must be lowered before the engine doors are opened. If the engine does not start, or the pilot makes an error of switching, the glider can then be landed safely in the selected field. This procedure should be practised regularly so that an approach with the extra drag of the extended engine can be safely flown (glide angle is about 16 with engine out, about the same as a T-21). If the engine does not start, under no circumstances try and wind it in (unless, say above 1500ft). It will only cause more panic in the cockpit and make a major misjudgment of the field landing more likely.

The ROTAX engine in the PIK has re-started easily on all occasions, except once when I was practising restarts and had the engine neither hot nor cold but at an awkward intermediate temperature. It was easy to open the brakes and land ahead when this happened, but you need a larger than normal field (say 2000ft long) to do this from heights below 500ft agl, and retain the option of an easy landing straight ahead if the engine does not start. From higher altitudes a normal field will do, lowering the gear and commencing the restart procedure from the end of the downwind leg, as a high finals turn is commenced. I cannot recommend too strongly that HPMG pilots practise this regularly so that they are not caught out away from base, and until practise is gained, do not try and restart below 600ft agl.

The other cautionary tale is about taking-off from fields. If one is unfortunate enough to land in a field, there is every temptation to take-off again. If the field has a good firm surface this is perfectly safe, but long grass, soft ground, or uphill slope will easily double or treble the take-off run with possibly disastrous results, particularly if trees, wires or houses are on the overshoot. The moral is to pace out the field to check for adequate length, and set an acceleration check, below which the take-off will be abandoned. At least 30kt IAS after 12sec is a suitable minimum acceleration figure for the PIK, but once again pilots should regularly measure their normal take-off distances and accelerations (on the ASI) so that these can be used for comparison when in less orthodox circumstances. And it's not unstick distance that's critical, it's the distance to climbing clear of possible trees etc on the overshoot.

Within Requirements

And what about noise. At full power the PIK produced a peak of 63.5dBA under ICAO/CAA certification conditions during overflights from two different machines at 300m height. The "A" weighting in "dBA" is intended to compensate for the reduced acuity of the human ear at low and high frequencies, and is used for light aircraft, traffic and industrial noise. The certification requirement is 68dBA or less at *cruise* power. Since an addition of only 3dB *doubles* sound power, it can be seen that the PIK is generously within the requirements. On static tests on the ground at full power, the PIK produced 3.1dBA less than the Lasham Rallye 180 tug. But the higher pitched harmonics or "tones" of a two-stroke engine and high revving prop can be distinguished above lower pitched but higher noise levels. This is supposed to be allowed for in the "A" weighting but as human reactions to noise are subjective, is difficult to measure scientifically. What one can say is that the PIK has a similar noise output to tugs, but at least it should clear quickly into a thermal and not repeat the noise process at regular intervals as tugs do.

Finally, I would mention the barograph trace for the Dunstable thermal snifting flight described earlier. Transit from Farnborough to Dunstable before it was thermic was achieved by the "climb and glide" method. One climb to 3500ft short of Green 1 and another to 4500ft past the airway were all that was necessary to glide to Dunstable. Running the engine all the time during a transit flight is incredibly wasteful and the climb/glide method is far better, allowing one also to exploit any lift found during the glides. I carry a standard pack of a sleeping bag, toothbrush etc so that overnight stays at friendly clubs may be made before returning to base at the end of a weekend, and the still air range by climb-and-glide is probably about 400km with no lift to help. The thermal part of the Dunstable flight speaks for itself, and although the flight was not in any way a notable achievement, it did give me more real soaring that day than many a Nationals pilot who was sitting in a field, and at a cost of only two gallons of fuel. That is what the HPMG is all about — more SOARING — let us recognise their potential and let us have more of them! How about a 17 metre Motor Vega?

References from S&G, "The K-12", 1968, p43; "The Proof of the Pudding," 1970, p129; (letter), 1970, p415; "Flying the Clockwork Mouse," 1971, p461; "Manufacturers Awake," 1972, p323 and "Nationals without Tears," 1973, p368. In addition, RAE letter reports "Noise Measurements on Light Aircraft," Feb 5, 1980 and "Flight Tests – PIK 20E". Feb 21, 1980, which are available from the author or the BGA office.



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CONSUMER REPORT:

Fluorescent Paint by Spectra

FRANK IRVING

It has been recognised for some years that the conspicuity of white gliders is improved by applying patches of bright colour (red or "flame") to their extremities. Such treatment is compulsory in Germany, strongly recommended here, and a necessity for entry to British Championships.

Whereas plain colours simply reflect the appropriate parts of the spectrum of white light, fluorescent paints absorb light over an appreciable range of frequencies and emit it in a narrower bandwidth, thus enhancing the brilliance. So, when Spectra announced their fluorescent paints in aerosol cans for DIY application, the BGA Technical Committee thought that they could well be suitable for applying conspicuity markings to sailplanes. Messrs Spectra were kind enough to supply cans of their red and green paint, together with white undercoat, for trial purposes.

The machines given the treatment were a certain Std Libelle, 466, and a PIK 20B, No. 20. The Libelle already had some "flame" markings on the rudder, wingtips and below the nose. Additional red markings were applied above the front fuselage, in the form of two panels about 70cm long, tapering in width from 12cm to 30cm. Since the markings were to be applied over white gel coat, there seemed little point in using the white undercoat, so the red paint was sprayed directly on to the gel coat after cleaning it and applying suitable masking. Conditions for application were not entirely ideal: the "Brown Elephant" at Lasham forms a commodious workshop but the chill in December tends to permeate the bones. The paint didn't seem particularly worried by the temperature, apart from the considerable drying time.

Several coats — about four — were required to achieve solid uniform coverage, and the end-product fairly seared the eyeballs. However, there was one very tedious problem: the nozzles of the aerosol cans kept clogging. The "pigment" (in inverted commas because it isn't a straightforward colouration) seems to be fairly coarse and, indeed, the final product feels fairly rough to the touch. The spray nozzles seemed to be somewhat too fine and it was only possible to finish the job in a reasonable length of time by borrowing nozzles from other cans.

Excellent final finish

On 466, the edges of the spraying were rubbed down a little and the whole areas were smoothed with wet-and-dry, but leaving a matt surface. This treatment did not seem to affect the appearance of the paint. A smooth transparent top-coat is available: this was not applied to 466, which flew last season with matt panels. On 20, the wingtips and rudder were finished with the green fluorescent paint by John Hulme, who also applied transparent top coat. He achieved an excellent final finish.

So much for the mechanics of application. Did the paint work? Obviously, quantitative tests are very difficult to organise, so we didn't try. But it was quite clear that 466's nose was a very conspicuous object. At a distance of, say 200m, it was markedly more startling than anything else in sight. I myself did not have the opportunity to observe it in the air from another glider but the evidence of others is that it was highly conspicuous. The green on 20 does not form anything like such a contrast against the usual background. It looks elegant and decorative at close quarters but is by no means as conspicuous as was the red on 466.

At the end of last season, I removed the Spectra paint from 466 with cellulose thinners: it had faded slightly and I wanted to see whether it had affected the gel coat. It had had a slight effect, a faint stain in the white beneath, which seemed to come off with the application of rubbing compound. It would have been laborious to rub-down the complete area so it was re-sprayed with "flame" cellulose, being rather more in the house style.

To summarise:

1. Spectra red fluorescent aerosol paint is very conspicuous. As a marking on white gliders, it is significantly more conspicuous than plain red or flame. Spectra green seems to be much less conspicuous than red for this particular purpose.
2. Application is straightforward except for the tendency of the spray nozzles to clog. A supply of spare nozzles and some cleaning facilities are essential.
3. Careful rubbing-down and the application of Spectra transparent top-coat are necessary to achieve a good gloss finish.
4. After a year, the red paint had faded but only slightly. It had left a slight stain in the gel coat beneath.

The white undercoat, fluorescent paint and clear top-coat are manufactured by Spectra Automotive and Engineering Ltd, Treloggan Industrial Estate, Newquay, Cornwall, and are available at most good motorists' DIY shops.

Mr. W. R. Dell, Marketing Manager of Spectra, *comments: We naturally much regret the fact that you had a sample tin from our initial production run and some of these proved to be faulty. The problem was the clogging of the spray tip (precisely that which Mr. Irving experienced). As soon as this was discovered the problem was researched and a replacement spray button of a different type was substituted. Our in-house filled stock was immediately converted and all subsequent production runs have incorporated this new spray button. Clogging is now no longer a problem.*

In order to absorb the maximum light the surface must, by definition, be matt and this naturally provides maximum fluorescence. The surface of the paint can be protected with a coat of Spectra Clear Lacquer but will reduce the effect albeit a small amount (touching up scratches or abrasions is of course a lengthy process when Clear Lacquer has been used).

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BOOK REVIEWS

Kill Devil Hill by Harry B. Combs with Martin Caidin published by Secker and Warburg at £7.95. **First Flight** by John Evangelist Walsh published by George Allen and Unwin Ltd at £5.50.

There are three puzzles about the success of the Wright brothers which induce one to read book after book about their story in the hope of finding a solution. Why did nobody else in the world's population come anywhere near to achieving their success at the time they did? Why did it take four years of gliding trials before they felt confident enough to put in a motor? And why did it take another five years before their success became generally known in the world and before anyone else came near to emulating them?

The two books, though covering the same aviation story, differ much in style and emphasis. That of Harry Combs starts with the author standing with Neil Armstrong, the first man on the moon, on the spot where the world's first aeroplane flight ended, and gazing up towards the spot where it began. This sentimental approach to events colours the whole book, but does not spoil it, as he is well versed in the technical side of the story. Every aviation history book states that news of Lilienthal's fatal accident first roused the interest of the Wright brothers in aviation, but only Combs reveals that when it arrived Orville was in bed recovering from typhoid; Wilbur brought the news to Orville's bedside and they discussed aviation for hours.

A favourite son

During the previous eight years from the age of 18 to 26, Wilbur had been rather aloof from his brothers and sisters and spent much time with his mother, whose favourite son he was; this period started with a bad facial injury from a hockey stick. The author frequently puts his thoughts into the minds of other people, but this does not spoil his story, which is reasonably complete.

John Walsh's outlook is very different. He is a "fan" of Wilbur, and states at the outset that Orville, who outlived Wilbur for so long, used this period to foster the impression that he had an equal share in the ideas which led to their success, and the author deliberately wrote his book to redress the balance. He, like no other historian, gives a long account of Wilbur's childhood, with much documentation, and his story of Wibur's subsequent life is very full. He gives an account, omitted elsewhere, of how, when Wilbur first came to Europe, Orville had sent the dismantled aircraft, neatly packed into a crate, to Le Havre, where the French customs pulled everything out and then, in trying to stuff it back, did an amount of damage which took Wilbur a fortnight to repair. But he is wrong in stating that Wilbur, on his first European flight at Le Mans, took off at the first attempt: a plausible account states that he made so many false starts that the crowd began to mock his instructions to his launching assistant, until at last they were about to echo "trois" when he suddenly became airborne.

An interesting sidelight on Wilbur's mentality, given by Walsh, is a story that once, when he was trundling the aircraft back to the starting point, he noticed a man taking a photograph; he went up to the man and actually persuaded him to hand over his undeveloped negative.

The four years' delay in putting in the motor seems to have been due to control problems, especially that when the warping-wing lateral control was put on, the downgoing trailing edge caused the glider to turn the other way. But the five years' delay in worldwide publicity seems to have been spent in patent legislation concerning the combination of lateral with directional control, and attempts to sell the design to governments, first American and then French.

One cause of lack of public impact by news of mechanical flight must have been that nobody had any idea of what such a machine should look like. When, on my school's newspaper desk, I saw a short report that the Wright machine had flown 24 miles, my idea of a flying machine was an illustration to H. G. Wells's novel "The War in the Air", then being serialised, which showed the invention of a man named Butteridge to consist of three fans rotating on horizontal axes, with no provision for preventing the upgoing side cancelling out the effect of the downgoing side.

Alfred Weyl, who came to England as a refugee in 1934 and set up a glider factory in Dunstable, said that in his father's day Lilienthal's activities were widely heard of in Germany but, his father said, Lilienthal was regarded as some sort of acrobat rather than as an aviation pioneer.

When Wilbur sent to a newspaper an account of the brothers' experiments and early flying activities, the editor returned it with the comment: "If all this was true, it would have been in all the newspapers by now".

A. E. SLATER

Fit To Fly, A Medical Handbook for Pilots, compiled by the BALPA Medical Study Group, 80 pages, published by Granada Publishing at £2.25.

This splendidly readable little book will be welcomed by those seeking sound advice offered in plain language. Good reasons are given for adopting a positive approach to health and physical fitness. In pointing the way, the authors achieve the necessary simplicity by sticking closely to the common ground.

Although written primarily for airline pilots, many sections of the book will be of interest to the gliding fraternity. The two chapters on Aviation Physiology contain all the important facts in remarkably succinct form. There is discussion of stress, much concern with backache and cautionary advice on drugs and alcohol. Even the sections on Tropical Medicine and time-zone problems could soon prove relevant as 55:1 becomes reality . . .

DAVID EVANS

British Airports by Alan J. Wright, published by Ian Allan Ltd at £1.25. This neat little guide by Alan J. Wright has recently been published. Apart from all the relevant material vital to aviation watchers, with an impressive coverage of the 43 larger airports together with maps, there is an extra section giving the location and use of some of the smaller airfields, many of which are used by gliding clubs. I can imagine this attractively presented book appealing to a wide readership.

GILLIAN BRYCE-SMITH

Winch and Auto-Tow Equipment compiled by R. B. Stratton, published by the BGA and available from them at 90p including p&p. Dick has produced a handbook subtitled: "Some disconnected jottings and unconfirmed random thoughts". It is just that, but anyone wanting to know the state of the art of building winches etc can obtain useful information on where to find out about winch technology — although Dick himself has as an introduction "Blacksmithery is more cost-effective than technology".

There is an interesting section on "Goon-Proofing Criteria" as applied to winches, although I suspect he is being too optimistic to imagine it is possible to make a completely club-member-proof winch — or any other piece of launching equipment for that matter. The tug aircraft is the nearest we get to it, primarily because it is not available for every club member to get his hands/feet on it!

Every club technical officer should certainly get a copy of this handbook, particularly if a new winch is in his club's thoughts.

B. H. BRYCE-SMITH

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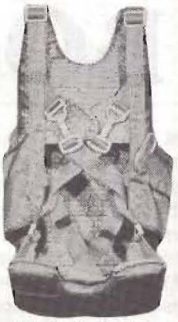
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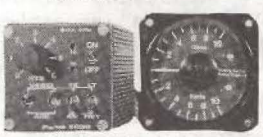
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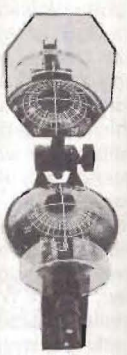
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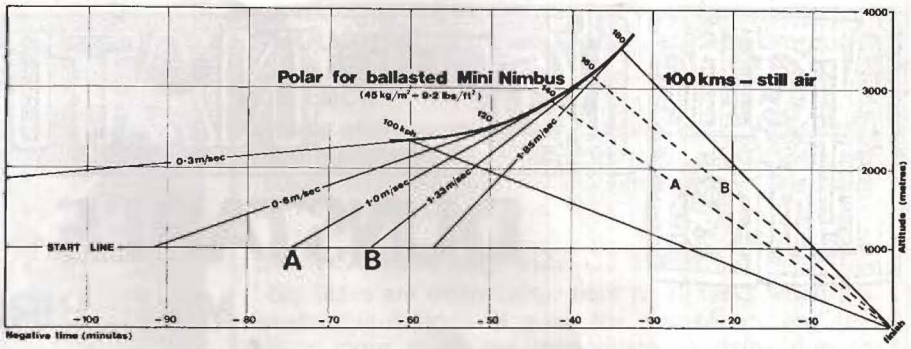
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A NEW POLAR FOR SPEED RECORDS



BRENNIG JAMES

Now that gliders with L/Ds of 60 are on the drawing board and may go into production, although I for one don't know who can afford to buy them, perhaps it is time for a new look at the speed to fly problem.

If you have an L/D of 60 and cross the line at about 270kt you can get round without a climb at all. Since you have a free gift of about 5500ft, does this affect the relation between speed to fly and thermal strength? If you divide this height into the time of flight is it equivalent to a boost to your rate of climb? This problem can be easily solved by redrawing the glider's polar giving negative time versus height.

We assume that the task will be completed so there is no need to plot distance since this is not a variable. We also assume that the task will be completed at time zero since this gives a nicer diagram. We therefore draw the polar to show how much earlier one must start if the thermals are weak; the result is shown above.

We also simplify by assuming still air, no corners and one thermal which is entered immediately after crossing the start line. Note that the climb is continued until it strikes the tangent of the polar whereupon the glide is commenced. From the curve it is obvious that if the line is crossed high or low, the relation between rate of climb and height at commencement of the final glide is unaffected. It can also be seen that as the lift gets stronger the proportion of time spent climbing is reduced, so that the glide speed of the glider becomes a more important factor.

Give waterballast a second thought

Somewhere between speed for the best glide and speed for min sink, the time spent climbing equals the time spent sinking, so average speed comes out at half the glide speed, say about 25kt. This may seem very slow, but it is surprising how often in competitions tasks are performed at this kind of speed, so think twice before you fill with too much waterballast.

The polar is derived from the usual L/D curve which plots downward velocity against horizontal velocity at different speeds. Using this curve we simply find out how long it will take to fly 100km at a particular speed and how much height will be required to do it.

Suppose pilots A and B decide to fly round a 100km triangle in still air and agree to finish at exactly the same time. Immediately after crossing the line there is a thermal which goes up 10km at a steady speed so all they have to do is climb until they have enough height to get round. A can only climb at 1m/sec so he starts at −75min, that is 75min before the time when he intends to finish. He stays with the thermal to 2800m then sets off at 140km/h. B can climb at 1.33m/sec so he starts later at −65min, climbs to 3200m then sets off at 160km/h. They both finish at the same time. It is apparent that this polar is a better way of expressing a sailplane's performance in practical terms than the usual one. ■

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15 metre NATIONALS

DUNSTABLE MAY 24 - JUNE 2

MIKE BIRD





Briefing on the first day.

"An Interesting Contest"

The figures speak for themselves (no they don't! What do you think I asked you to write a report for? ED). Oh all right — but they certainly tell a story. Even if you had been out of the country during the seven contest days of the 15 Metre Nationals you would be able to guess the conditions from the number of finishers (6, 2, 4, 1, 33, 2 and 39) and from the median speeds on each day (49, 49, 52, 32, 77, 65 and 73km/h). The average speed of the day winners was only 60km/h or 32kt; this suggests *average* thermal strengths of 1½ to 2kt, considerably less than the Standard British Thermal of 2½kt although one has to allow for the massive diversions from course that most pilots made on the difficult days. The fact that on the first day 20 pilots failed to cover even half the course (the following days 42, 23, 12, 6, 33 and 4) suggests one thing: the typical British summer in all its cyclonic cussedness. Interesting weather in the sense of the old Chinese curse "May you live in interesting times."

The week before the Nationals there were some magnificent conditions — 8000ft cloudbases and records broken. On Monday, May 20, Dave Watt (ASW-20) and Chris Rollings (PIK 20D) achieved 100km/h (a UK record) and 98km/h round 300km, Chris just pipping Dave with handicap for the lead in the Arctic Lite £500 contest for the fastest 300km triangle in 1980. (There is still plenty of time to top that if the thermals ever return!) Hopes were buoyant for 1976-style conditions in the Championships, but those were the last gasps of a high pressure system that gave way to the traditional depressions chasing each other across the Atlantic, laden with moisture.

Met man Peter Baylis did an amazingly good job in the worst possible type of weather for gliding forecasts, which are critical as to precise amounts of cloud cover. Cloud amounts are only easy to predict in anticyclones. As Wally Wallington said in 1964, when the Nationals were nearly washed out after an unbroken series of fine weather contests from 1955 to 1963, "It's a lot more difficult when you've got weather!" We certainly had weather this time. Satellites and computers help, but so does a glider pilot's nose.

Photographs and drawings also by Mike Bird

Day 1, May 25: 185.3km triangle, Towcester, Bourton on the Water.

Forecast: Stable north-westerly airstream, weak thermals. Cirrus came in from NW about one hour earlier than expected.

The start was a late one as conditions only slowly improved. The six finishers all started within a very narrow ten-minute timeband, from 14.52 (Chris Rollings) to 15.02 (Rocky Stone the day winner). All 15 who started after 15.02 failed to make it round. Timing is critical in cyclonic conditions and the organisers and the pilots soon became expert at choosing not merely the right hour but the right minute to get the show on the road.

The non-finishers were distributed pretty evenly over the course — which is by way of saying that conditions were more or less equally vile all the way round.

Bernard Fitchett took a big lone gamble — and lost. "I thought it was going to be a pure distance day, so I left early to maximise time in the air and go the furthest. I was first into the second turning point. It was becoming grotty at Enstone about ten miles short of the turning point: I went in high (4700ft asl), decided to reject weak one knot lift — because I was approaching an upwind turning point — until I rounded the turning point at 2500ft. Found nothing. Landed. It was an all or nothing risk."

Having assured the visiting publicans, brewers and club-owners — who were visiting their first gliding contest by courtesy of Allied Breweries and the London Gliding Club — that the winners would probably be back not long after five o'clock, I was somewhat embarrassed when the leaders sauntered back at around half-past six to seven, *ie* opening time, so the admiring audience I had hoped to assemble for the spectacular mass finish had evaporated. However I did win £2 from my partner betting that less than half the field could finish. It's an ill wind that . . .



Harvey Allen, National Brands Director of Allied Breweries (UK) Ltd presenting the Arctic Lite trophy to Brian Spreckley, the Champion.

And there was no ceremonial watering of the heads of the Dunstable Downs picnickers as Rocky and his pursuers went over. There was only one day, much later in the week, when the conditions merited such a gesture.

Day 1; Leading Results — 1. Rocky Stone (Mini Nimbus), 54.89km/h, 564pts; 2. Peter Sheard (Mini Nimbus), 52.85km/h, 559pts; 3. Chris Rollings (PIK 20D), 49.82km/h, 553pts.

Day 2, May 26: 281.1km triangle, St Neots, Andover.
Forecast: A low over the North Irish Sea; unstable south-westerly airstream, 5/8 cirrus, 6/8 cu and strato-cu locally 8/8. Thermals 2-4kt. The actual weather was much as forecast, though weaker than was hoped.

The universal motto this day was "get away from Dunstable as soon as possible." Crawling towards the startline at 2000ft, John Cardiff called "Gate" some seconds before the line was officially open (quite legitimate since it is *startline* time not the *gate* time that is announced in advance by Rika and there can be a minute's difference between "Gate" and "Line" at low speeds) and stole away with the pack not far behind. Twenty pilots left in the first ten minutes.

Down the difficult, into-wind second leg, the customary vast divergences from track sorted out the smart (or lucky) from the rest. After Bedford, John Cardiff turned north to Bletchley; Bernard Fitchett and others turned south and landed soon after.

After climbing from 800ft to 5000 in rain at Bletchley, Cardiff found the weather improving steadily. Nine knots at Goring took him to the base of a cloud street that bore him happily to the second TP. To the west, he said "the sky looked fantastic". Sadly John's barograph only showed a partial trace and he was penalised 20 points to trail Andy Davis by three points for the day. Only these two finished and only 11 others passed the 100km mark; the winner, Davis, was rewarded with a mere 278 points for his pains.

Fitchett again: "I left early, but after yesterday I decided to let about a dozen start before me, crossing at 12.09. No problems till returning from the Bedford turning point — just murk. Down at 700ft asl, joined a gaggle a bit lower than the others, who included Richard Aldous. They got away. I didn't contact. It was patchy, cyclonic weather with big gaps. No, I don't feel less happy in 15 metres than in a big ship — but you need an Open ship to cross some of those gaps."

Day 2: Leading Results — 1. Andy Davis (Nimbus 15c), 45.28km/h, 287pts; 2. John Cardiff (ASW-20), 51.91km/h, 270pts; 3. Brian Spreckley (ASW-20), 186.10km, 170pts.

THOUGHTS OF "JJ" (John Jeffries)

ON LUCK

"Pilots often complain about 'flukey' days. What interests me is that the people who get all the luck on 'flukey' days are normally the same people. The ones who use tactics to survive."

ON WEATHER AND SIZE OF TASK

"Big tasks are often better than small tasks when the weather is difficult. It gives the task-setters and the pilots more room for manoeuvre. A delay due to weather while on a tiny triangle can make a disastrous difference to a pilot's score; on a big task these problems have a less serious effect."

ON TIMING

"I believe the secret of successful task-setting is to get the pilots away as soon as it is possible to soar safely, even if base is only 1800ft or so."

ON THIS YEAR'S TASKS

"The fact that no uncompleted task has been set proves that they were all feasible."

Day 3, May 27: 348.4km quadrilateral, Chievely (nr Newbury), Stoke Dry Reservoir, Ely Cathedral.
Forecast: a complex low pressure system over the UK. Light SW winds. Unstable. Isolated showers.

An early start was made on this task; two thirds of the field were away by 11.30, though Fitchett, doubtless twice shy after being twice bitten, was a late starter at 11.42. Cardiff "went mad at the beginning." He flew straight, only taking good lift and over did it!! Down to 1000ft, he dumped water to climb at 1-2kt under a sky full of rain and clamp. The cautious starters could be seen safe at cloudbase.

Cloud climbs and huge diversions from track were the general pattern. Diversions in clouds going back on track for scores of miles! On the second leg Cardiff backtracked about 15 to 20 miles because of dead air ahead and climbed away from 500ft at Oxford. Then good climbs to 8000 to 9000ft brought him to the second TP.

At Ely Cardiff followed Justin Wills into cloud. His horizon had packed up and above 5000ft the total energy was useless because of water and ice: so he was centring with the aid of turn and slip and cockpit static for the vario. Nevertheless he felt very happy cloud flying throughout the whole contest. He overtook Justin, who obligingly side-stepped out of cloud, let John pass and then went back in.

Bernard Fitchett, Dave Watt and John Cardiff met at Bedford only 30km from home. Bernie's previous experiences left him cautious, but Watt and Cardiff pressed through the rain to arrive seconds apart, Watt a few yards ahead, but the day was Cardiff's. Brian Spreckley was the last to arrive, seconds after Fitchett, but steady flying has secured him a 213 points lead over Cardiff.

Day 3: Leading Results — 1. John Cardiff (ASW-20), 53.17km/h, 666pts; 2. Dave Watt (ASW-20fl), 52.85km/h, 665pts; 3. Bernard Fitchett (ASW-20fl), 51.58km/h, 663pts.

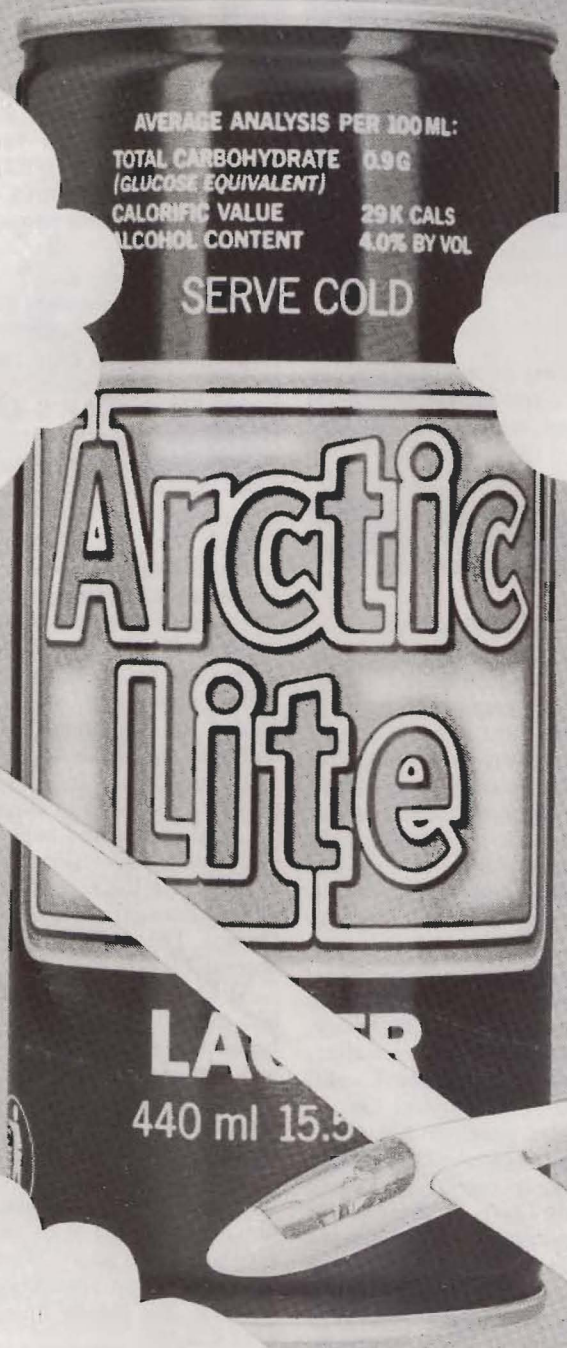
Day 4, May 28: 166km triangle, Bedford, Newmarket.
Forecast: Weak cold front clearing by 17.00hrs. Westerly wind. Unstable, moist air. Moderate to heavy showers and locally 8/8 cumulus and strato-cu. Some strong thermals.

This was the day the task-setters could proudly say was feas-

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LOVE, HONOUR AND RETRIEVE

Tim Newport-Peace's clear and penetrating public address carried an almost continual refrain from Barbara (headmistress of what must be an uncommonly well-behaved school) Dean's "Crew of No. X to control, Crew of No. Y to control . . . "

Some pilots must have run up staggering petrol bills, the great majority landing out at least five times. Just think: it costs you a Pound for every 10km the glider lands away from the site.

My sums: Petrol at £1.33 a gallon, so £1 buys .75 gallon. At 20mpg (with trailer and crew) that is 15 miles or 25km. For every 10km by air the return journey by road is at least 25km because roads never lead straight to your pilot.

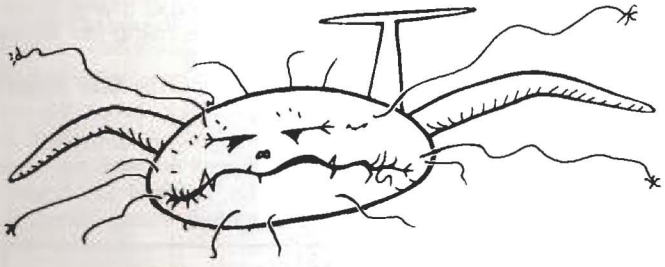
Add about the same again for wear and tear on engine, tyres etc, etc, and retrieving becomes the sport of the rich.

ible because one man made it back — at 31.8km/h, or 17kt, a sort of Kite 1 speed. John Cardiff and two members of The Squad, Alistair Kay and Tim Macfadyen, fell to the ground short of 40km and so scored ducks. The worst patch was on the last leg, 44km from home, around Royston where eight pilots landed within 1½km.

The somewhat dazed winner, Mike Jefferyes, decided that the winners on previous days "had been those who came up with the most imaginative detour from the track. So instead of going east on the second leg I went north to Grafham Water and St Neots and when I should have been coming south-west from Newmarket, first of all I went west to Cambridge and then headed south virtually towards Stansted. That got me home. Quite straightforward, really."

Cardiff just said "I was half asleep that day." Was it — the BUG?

Day 4: Leading Results — 1. Mike Jefferyes (DG-200), 31.80km/h, 666pts; 2.=Dennis Campbell (ASW-20), 142.93km, 532pts; 2.=Bernard Fitchett (ASW-20fl), 142.93km, 532pts; 3. Ralph Jones (Mini Nimbus), 138.05km, 506pts.



THE DUNSTABLE BUG

THE BUG. As if the weather wasn't sufficiently interesting, a plague of sickness, diarrhoea and actual physical collapse now swept through pilots, crews and organisers, picking victims apparently at random. This introduced an element of chance into the contest which no piloting skills could overcome. Jack Woodford had to miss one of the best days and other pilots cut short their flights and landed. Bernie Fitchett was hit by it. Director Mike Carlton had publicly to warn pilots against any excess of press-on spirit. "Collapsing at 4000ft is inadvisable", he suggested.

So far as I know those of us who drank lots of Arctic Lite, whether in the pursuit of news or to seal good relations with the brewery trade, the press and local dignitaries, were unaffected. What this says about the therapeutic and prophylactic powers of the brew I don't know, but I just put it on record. Unfortunately it isn't a remedy that can be recommended for pilots before take-off.



Alan Smith, Marketing Manager of Allied Breweries and Alvin Bailer, also of Allied.

Day 5, May 29: triangle with alternative TPs, 227.7km to 238km, Cheltenham or Dowdeswell Reservoir, South Marston.

Forecast: Showers, high cumulus 10 000ft plus, locally 7/8, lift occasionally strong, 6kt plus. The 140kt jetstream from NW causing problems. Severe icing.

An actual race! Somewhat unexpected, in fact. The fear of a total washout prompted the cautious task. At a second briefing, Peter Baylis was more cheerful, and rightly so. Afterwards, Brian Spreckley, the day winner, described "a fantastic run along the edge of a rain belt with six other gliders at 100kt. It was a very nice change."

Cardiff, still in the doldrums, did a slow 57km/h but his climb away from 100ft above ground produced one of the more entertaining barograph traces of the contest.

Day 5: Leading Results — 1. Brian Spreckley (ASW-20), 84.9km/h, 1000pts; 2. Chris Garton (Mini Nimbus), 83.34km/h, 989pts; 3.=Bernard Fitchett (ASW-20fl), 82.89km/h, 983pts; 3.=Nick Hackett (LS-3), 82.83km/h, 983pts.

Day 6, May 30: 450.5km triangle, Frome, Ludlow.

Forecast: Isolated moderate showers and 5/8 cumulus, locally 7/8. Strong thermals. Forecast to be the day of days.

The biggest task of the contest met with mixed feelings from pilots — before, during and after. A line running across the Bristol Channel 12km *west* of Nympsfield looked fraught with sea breeze problems, but as JJ pointed out "the task wasn't a race *along* a line but a race *around* two turning points: it is a test of the pilots how they solve the problem, maybe by going miles off the line." In practice Chris Garton didn't divert here but ate his lunch philosophically during the long glide across to cumulus on the northern shore, there being nothing much else to do at the time. After years of Open Class gliding, Chris had been caught out often enough in a small ship to study his John Willy calculator carefully before starting across the water to the promising skies ahead.

It wasn't the Bristol Channel that brought people down but water in a different form. Altogether the air was moister than had been hoped and big rainstorms around the first TP downed 16 pilots.



Alan Yates, Chairman of the BGA Technical Committee.



Big and Little Hands — John was the Chief Marshall.



Terry McMullin, tug pilot.

THERE'S STILL NO SUBSTITUTE FOR IT!

There is no doubt the standard of pilotage and the performance of today's 15 metre ships are both amazing. Triangles have been completed on days when 20 years ago "scrub" would have been announced — or at best, a mass downwind drift. But the British weather time and again puts a premium on the long, slow glide to a far distant patch of watery sunshine. The max glide angle may not matter on the continent, but it does here. In short, there is still no substitute for span. (The fact that the writer flies a Nimbus should be ignored. ED.)

Interesting, by the way, that after the best brains in glider aerodynamics and structures have wrestled for years with the problem of achieving maximum performance at anything like a realistic price, what they came up with is not more gadgets, complex flappery or variable geometry, but more span, *viz* the ASW-22, Nimbus 23 and LS-5.

Give for those who Gave

WINGS APPEAL

During September



However Chris Garton noted a reference to moist air by the forecaster and "left as early as possible, expecting trouble." Those behind ran into curtains of rain, sink and dead air at the first turn. Peter Baylis thought that "wave could have been mucking up the system by giving additional lift to the air, causing it to go soggy." Anyway, it was the only day on which there was any significant complaint about errors in forecasting or over optimism in task-setting. The consensus was that in the tough conditions prevailing across the contest as a whole every available thermal from the Severn to the Wash was used. No opportunity to soar was missed and that I believe is a more important objective than striving vainly to eliminate chance or "unfairness" — whatever that may be.

Day 6: Leading Results — 1. Chris Garton (Mini Nimbus), 69.13km/h, 1000pts; 2. Brian Spreckley (ASW-20), 60.92km/h, 991pts; 3. John Cardiff (ASW-20), 393km, 873pts.

Day 7, June 1: 186.3km triangle. Northleach, Banbury.
Forecast: An occluded front over East Anglia giving showers in the morning. However pressure was rising fast with a band of clear air moving in from the west.

The day was slow to build, and about half the field flopped back for relights under a miserable grey sky. When the sky improved, this became the latest-starting-task of the contest: 29 pilots crossed the line after 15.00hrs, though not with any great speed or aggression. But "westward ho; the land was bright" and conditions improved almost to classic racing standard,

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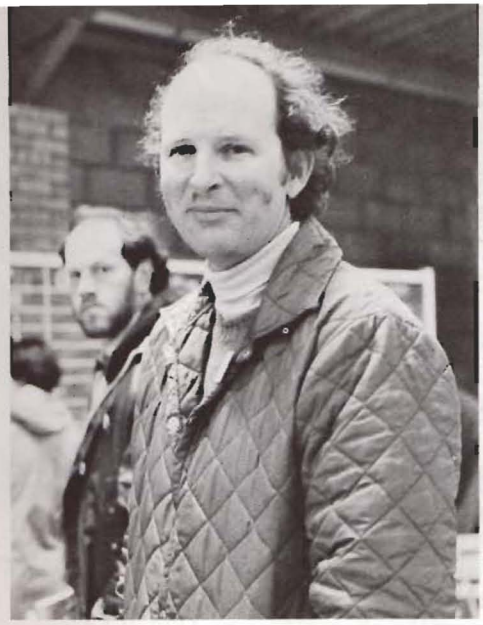


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Simon Redman who finished in 21st place.



Dick Stratton, BGA Chief Technical Officer.



Peter Stafford-Allen, who came 14th.

though with speeds well short of the 100km/h attained in the practice week. This was chiefly due to the occasionally long distances between thermals which reduced cruising speeds below the theoretical optimum, and to somewhat variable thermal strengths. Pilots who had dropped their water over Dunstable in order to struggle away felt the lack of it as conditions improved.

Fitchett had come into his own after two bad first days, but those early failures would probably have needed five 1000 point racing days to overcome.

Bernard's placings of:

19 31 3 =2 =3 10 1

Chris Garton's placings:

11 21 19 14 2 1 2

both show big improvement after shaky starts. However Brian Spreckley's positions:

4 3 4 5 1 2 33

bear out the old rule that he who stays in the first five each day will usually win. The last score looks like a glitch, but even the slowest finishers that day (Lloyd Forsey in an unflapped ASW-15) got 441 points, so Brian was right to take no risks. Only an outlanding could have robbed him of the lead, since he had 652 more points than Garton at the end of Day 6.



Dilys Yates, a gliding instructor in the USA, and John Cardiff who was 7th.

Day 7: Leading Results — 1. Bernard Fitchett (ASW-20fl), 93.48km/h, 1000pts; 2. Chris Garton (Mini Nimbus), 92.74km/h, 984pts; 3. Ralph Jones (Mini Nimbus), 88.16km/h, 917pts.

"COMPUTER — fast, accurate, stupid MAN — slow, erratic, brilliant"

Source anonymous

I mentioned computers as an aid to Met forecasting. They are also a great help in task-setting and in scoring. Warren Kay's telephone directory of alternative tasks is a master work, yielding 2250 triangles and out and returns from 150 turning points. Not all of them are practical — some going smack over the Bullring in Birmingham and others over Heathrow — but time calculating distances is completely eliminated, so practical alternative tasks can be quickly assessed. Even quadrilaterals can be easily calculated using the great print-out as the base. Circuits qualifying for badges and records are noted automatically.

This run was produced as a joint effort (*ie* two separate sets of task books) for the Booker and Dunstable sites, but can equally be done for any other site in the southern half of England. The programme will do the same job, working with the same 150 turning points, requiring only the co-ordinates of the site in question.

For scoring, Dave Brown brought a Pet with him to the control room, *ie* a self contained computer for the home or small office. This produced not only each day's results in record time but after the contest generated the final totals, as displayed with this report, in an hour or so. Four years ago I did the last mentioned job at Euroglide by hand, with a helper; it took days and there were still errors in it after painstaking cross-checking. With a computer, if the organisers change a pilot's score because of a penalty or error in time or landing location, the whole day's scores and cumulative position can be revised instantly.

Scorers used to be owls, subsisting on coffee and never getting to bed before 7.30am. Now they can rejoin the human race. No doubt there are ancient retired scorers who will say "but it was fun, I tell you!" just as some of us pretend that all-night retrieving was a delicious treat. Well it wasn't.



A



B



C

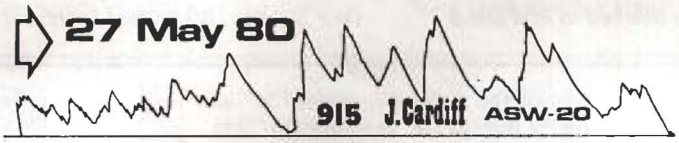


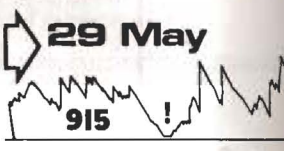
F

G



COVERING OUR TRACES





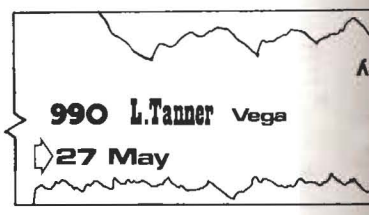
True to the old Chinese curse, the *least* interesting barograph traces were Brian Spreckley's. The Champion never seemed to get low, except on the relatively rare occasions when he got sunk, of course. Boring, boring.

(But what's he doing fixing his traces with *ladies'* hairspray? In my little study I practically keeled over from the scent of a thousand boudoirs. Try a *man's* brew next time, Brian.)

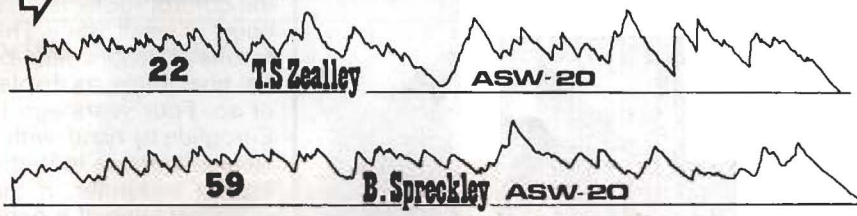
John Cardiff's flights are a horse of a different feather, as they say. He uses dope (on his traces, I mean) and they are clean, odour free and a pleasure to inspect — whenever he bothers to wind the barograph up, that is. His traces are full of what the romantic poets call *sturm und drang*, and look like the result of a slight excess of press-on spirit. ("Nonsense!" I can hear JJ snort "you can't have too much press-on spirit, mutter, mutter, etc.")

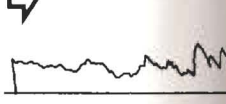
The Chairman of the BGA had proudly put on public record — at my request, I should add — his heroic battle around, or not quite around. the big 430km triangle. Again, this shows that the winners don't have nearly so much fun as the also-rans. They do however save a pile of money on petrol which helps to make up for their less interesting flights.

Lemmy Tanner has lovely trac
Scotland (maybe Scots by descen
twice, so you'll have to stand on y
turn the magazine round to read
Days 3 and 4.



Bird's Barograph Awards: out
received, assessed by the one-ma
rative power, drama, neatness of
aesthetic qualities (including sme
Cardiff first prize — but then would
to produce a trace on his most
Zealley and Tanner tied, with old S
to fly like Cardiff, Brian and you'll
your little grandchildren with in y





H

I







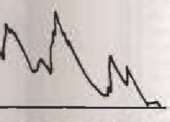


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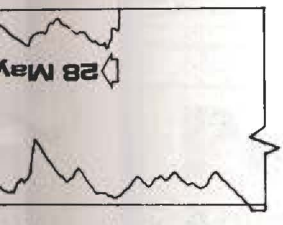


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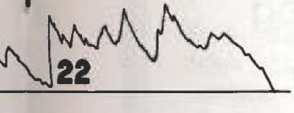
A. *Gordon Camp who was 40th;* **B.** *Tom Zealley, Chairman of the BGA and placed 15th, with his wife June;* **C.** *Lloyd Forsey, in 30th position, examining his TP photos;* **D.** *Some of The Squad;* **E.** *Humphry Dimock, the veteran competitor;* **F.** *Lemmy Tanner, placed 8th;* **G.** *Rika Harwood, who ran the startline;* **H.** *Ted Lysakowski, placed 9th;* **I.** *Warren Kay and Natalie Trench;* **J.** *John Williamson, National Coach who came 22nd;* **K.** *Richard Aldous who was 17th; and* **L.** *Barry Rolfe, Administrator and Secretary of the BGA.*



ces, too. Being based in
nt, too?) he uses each foil
your head, or if you're lazy,
his very neat accounts of



t of several sets of traces
an jury on the basis of nar-
f presentation and general
ell) I would have awarded
ld disqualify him for failing
exciting day. That leaves
Spreckers nowhere. Learn
ll have a logbook to amaze
years to come.





J

K

THE SQUAD: How did they fare?

The centre spread of the June issue of S&G displays a villainous crew, obviously collated from police mug books. They are The Squad and should be avoided, either in the air or around the poker table. How did the potential British Team Members who took part at Dunstable make out?

1. Spreckley 2. Garton 3. Fitchett 4. Davis 6. Wills 9. Lysakowski 11. Watt 12. Stone 18. Rollings 23. Hackett 26. Macfadyen.

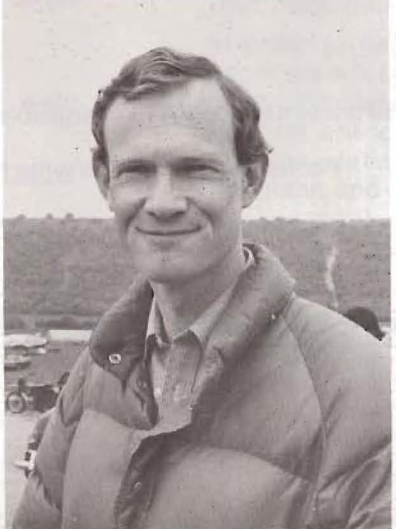
Good performances therefore by unseeded Ralph Jones (5), John Cardiff (7), both ex Team Members, and Lemmy Tanner (8). Apart from noting that the top four in the Championships are in the Squad, I won't expatiate on the significance of this table — if indeed it has any — since I am averse to being waylaid in dark alleys . . .

The member of The Squad who undoubtedly learned the most was the (non-flying) Team Manager, Mike Carlton, who had not formerly run a contest. The idea, as far as I can gather, was that being a gamekeeper for a week would help him to become a better poacher during the World Champs. Since the organisation coped splendidly, the 45 pilots probably don't mind having been used as guinea-pigs in furthering Mike's education. Now he will know exactly how to be a thorn in the side of (or how to make friends and influence) the organisers of the Weltmeisterschaften in 1981.

L









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FINAL RESULTS

Fin. Pos	Pilot	Comp. No.	Glider	DAY 1 25.9 185.3km ▲ Towcester, Bourton-on-the-Water			DAY 2 26.9 281.1km ▲ St. Neots, Andover			DAY 3 27.5 348.4km ■ Chievely, Stoke Dry Res, Ely Cathedral			DAY 4 28.5 166.8km ▲ Bedford, Newmarket			DAY 5 29.5 238km ▲ Cheltenham or Dowdeswell Res, South Marston			DAY 6 30.5 430.5km ▲ Frome, Ludlow			DAY 7 1.6 190.7km ▲ Northleach, Banbury			Tot. Pts.
				Speed (Dist.)	Pos.	Pts	Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	Speed (Dist.)	Pos.	Pts.	
1	Spreckley, B. T.	59	ASW-20	48.21	4	550	(186.10)	3	170	49.66	4	660	(137.43)	5	503	84.09	1	1000	60.92	2	991	62.25	33	542	4416
2	Garton, C.	620	Mini Nimbus	(144.93)	11	367	(81.20)	21	48	(232.08)	19	387	(123.43)	14	431	83.34	2	989	69.13	1	1000	92.74	2	984	4206
3	Fitchett, B.	119	ASW-20FL	(117.43)	19	271	(66.83)	36	31	51.58	3	663	(142.93)	- 2	532	82.89	- 3	983	(251.10)	10	522	93.84	1	1000	4002
4	Davis, A. J.	80	Nimbus 15C	(124.05)	- 15	294	45.28	1	287	(176.28)	21	279	(95.55)	26	287	80.28	8	949	(385.63)	4	855	82.93	8	841	3792
5	Jones, R.	DXQ	Mini Nimbus	(156.43)	8	407	(72.95)	- 32	38	(304.78)	- 10	534	(138.05)	4	506	71.74	22	834	(193.73)	16	380	88.16	3	917	3616
6	Wills, T. J.	304	Glasflugel 304	(147.05)	10	374	(74.58)	- 26	40	(320.65)	5	566	(123.55)	13	432	81.68	7	967	(227.60)	17	- 364	80.27	11	803	3546
7	Cardiff, J. D.	915	ASW-20	(105.93)	- 20	231	51.91	2	*270	53.17	1	666	(37.48)	- 39	0	56.96	32	637	(393.00)	3	873	76.50	15	748	3425
8	Tanner, L. E. N.	990	Vega	46.40	5	546	(81.83)	- 16	49	(286.78)	- 13	498	(124.80)	8	438	61.25	28	694	(205.60)	14	410	72.61	20	692	3327
9	Lysakowski, E. R.	354	Mosquito B	(161.55)	7	425	(114.08)	- 7	86	(61.28)	32	43	(89.10)	- 29	254	78.96	13	931	(280.50)	7	595	86.02	5	886	3220
10	Wells, M. D.	321	Mosquito	(134.30)	14	330	(74.20)	- 26	40	(297.65)	12	520	(111.93)	23	372	80.19	10	947	(147.60)	38	- 166	76.25	16	745	3120
11	Watt, D. S.	EEV	ASW-20FL	(144.68)	12	336	(106.83)	- 10	78	52.85	2	665	(124.05)	- 9	434	(196.13)	37	346	(206.98)	- 12	413	77.07	14	756	3058
12	Stone, A. J.	287	Mini Nimbus	54.89	1	564	(33.98)	- 41	0	(250.08)	17	424	(89.10)	- 29	254	78.14	16	920	(141.60)	- 25	251	64.73	31	578	2991
13	Kay, A. E.	949	ASW-20 FL	(105.93)	- 20	231	(77.33)	23	44	(315.40)	6	555	(34.10)	- 39	0	79.20	12	934	(206.98)	- 12	413	73.49	19	705	2882
14	Stafford-Allen, P. R.	333	PIK 20 20D	(95.98)	- 22	196	(78.20)	22	45	(59.78)	34	40	(124.05)	- 9	434	62.98	27	717	(260.60)	9	546	87.09	4	902	2880
15	Zealley, T. S.	22	ASW-20	(77.10)	32	130	(74.98)	- 26	40	(86.53)	- 26	94	(123.30)	15	430	78.40	15	923	(349.00)	5	764	58.70	35	490	2871
16	Campell, D. R.	170	ASW-20	(37.50)	- 44	0	(64.33)	37	28	(304.90)	10	534	(142.93)	- 2	532	74.26	20	868	(118.60)	18	269	66.99	25	610	2841
17	Aldous, R. F.	270	Mini Nimbus	45.70	6	545	(107.33)	- 10	78	(63.53)	30	47	(134.55)	6	488	74.04	21	865	(143.10)	- 23	255	63.51	32	560	2838
18	Rollings, C. C.	537	PIK 20D	49.82	3	553	(104.95)	13	76	(286.78)	- 13	498	(79.98)	- 34	207	57.93	31	650	(85.10)	41	112	74.85	17	724	2820
19	Metcalfe, G. D.	ECP	LS-3A	(59.48)	- 37	68	(106.45)	12	77	(286.65)	15	497	(128.93)	7	459	82.68	5	981	(82.23)	43	*84	68.61	24	634	2800
20	Ellis, J. J.	197	ASW-20F	(59.48)	- 37	68	(81.83)	- 16	49	(212.70)	20	348	(113.43)	- 19	379	42.76	33	447	(294.50)	6	630	83.29	7	847	2768
21	Redman, S. J.	56	LS-3	(124.05)	- 15	294	(74.20)	- 26	40	(147.53)	24	217	(114.43)	18	384	77.45	17	911	(143.10)	- 23	255	66.56	- 27	604	2705
22	Williamson, J. S.	890	Vega	(137.18)	13	340	(75.08)	25	41	(53.15)	- 38	27	(117.18)	17	399	79.89	11	943	(85.73)	40	113	82.34	10	833	2696
23	Hackett, N. G. G.	X7	LS-3	(91.60)	- 26	180	(115.95)	5	89	(52.78)	- 42	26	(109.43)	24	359	82.83	- 3	983	(147.60)	- 19	266	71.05	23	669	2572
24	Glossop, J. D. J.	688	PIK 20D	(46.85)	41	24	(69.70)	34	35	(61.90)	31	44	(124.05)	- 9	434	76.40	18	897	(141.60)	- 25	251	79.97	12	798	2483
25	Farmer, A. T.	227	Nimbus 15	(153.05)	9	395	(13.23)	- 41	0	(53.40)	- 38	27	(86.48)	- 31	240	78.78	14	929	(143.60)	22	256	58.07	36	481	2328
26	Maciadyen, T. E.	EEE	LS-3A	(32.50)	- 44	0	(77.08)	24	43	(157.15)	23	236	(39.85)	- 39	0	67.29	26	775	(266.60)	8	561	73.61	18	706	2321
27	Lusted, E. J. F.	50	LS-3	(84.60)	31	156	(67.33)	35	32	(44.28)	45	9	(113.43)	- 19	379	82.39	6	977	(82.23)	42	104	65.38	30	587	2244
28	Hood, L. S.	52	Mini Nimbus C	(63.35)	36	82	(113.83)	- 7	86	(314.03)	7	553	(41.98)	38	10	60.90	29	690	(124.35)	- 31	209	66.53	- 27	604	2234
29	Sheard, P. G.	286	Mini Nimbus	52.85	2	559	(113.50)	- 7	86	(286.03)	16	496	(000.00)	- 39	0	(194.70)	38	343	(117.98)	33	193	61.07	34	525	2202
30	Forsey, L. K.	787	ASW-15B	(91.60)	- 26	180	(13.23)	- 41	0	(311.53)	8	548	(79.98)	- 34	207	(155.70)	39	257	(247.60)	11	514	55.27	39	441	2147
31	Cockburn, D.	87	ASW-20	(121.80)	17	286	(73.58)	- 30	39	(96.65)	25	114	(120.93)	16	418	(104.90)	40	144	(128.35)	30	219	85.42	6	877	2097
32	Gough, A. W.	27	ASW-20	(73.60)	- 33	117	(81.83)	- 16	49	(305.65)	9	536	(81.35)	33	214	(101.30)	41	136	(107.48)	37	167	82.65	9	837	2056
33	Pope, M. H. B.	46	Vega	(56.60)	40	58	(73.33)	- 30	39	(54.03)	37	28	(91.18)	- 27	264	68.91	25	797	(109.73)	36	172	72.16	21	686	2044
34	Sandford, R. A.	242	PIK 20B	(91.60)	- 26	180	(41.60)	- 38	2	(71.03)	28	63	(29.08)	- 39	0	74.64	19	873	(134.98)	28	235	65.96	29	595	1948
35	Jefferyes, M. B.	656	DG-200	(73.35)	- 33	117	(72.45)	- 32	38	(58.53)	35	37	31.80	1	666	(198.83)	- 34	352	(129.60)	29	222	55.88	38	449	1881
36	Watson, A. J.	704	Mosquito	(91.60)	- 26	180	(89.45)	15	58	(86.53)	- 26	94	(124.05)	- 9	434	70.87	23	823	(124.35)	- 31	209	(78.78)	40	82	1880
37	Cook, P. G.	EBF	Mini Nimbus C	(95.98)	- 22	196	(81.83)	- 16	49	(53.28)	- 38	27	(98.43)	25	302	(84.68)	43	99	(204.73)	15	408	71.35	22	674	1775
38	Blackmore, R. H. T.	49	DG-200	(69.60)	35	103	(118.95)	4	92	(52.78)	- 42	26	(18.45)	- 39	0	59.06	30	665	(147.60)	- 19	266	56.55	37	459	1661
39	Purdie, P. G. H.	134	Nimbus	(93.48)	25	187	(26.60)	- 41	0	(56.90)	36	34	(113.43)	- 19	379	80.23	9	948	DNF	- 44	0	DNF	- 42	0	1548
40	Camp, G. W. G.	24	ASW-20	(95.10)	24	193	(92.95)	14	62	(63.90)	29	48	(72.60)	- 36	168	(61.03)	44	47	(143.85)	21	257	77.71	13	766	1541
41	Hancock, A.	545	Mosquito B	(41.35)	43	5	(81.83)	- 16	49	(61.03)	33	42	(91.18)	- 27	264	(88.03)	42	107	(112.85)	- 34	180	66.59	26	605	1252
42	St. Pierre, A. G. H.	EDM	DG-200	(119.55)	18	278	(41.60)	- 38	2	(238.33)	18	400	(29.08)	- 39	0	(198.83)	- 34	352	(112.85)	- 34	180	DNF	- 42	0	1212
43	Dimock, H. R.	HD	Mosquito	(43.73)	42	13	(13.23)	- 41	0	(46.40)	44	13	(72.60)	- 36	168	69.89	24	810	(94.10)	39	134	DNF	- 42	0	1138
44	Burton, A. J.	148	Vega	(87.48)	30	166	(115.59)	6	88	(172.65)	22	268	(86.48)	- 31	240	DNF	45	0	(138.85)	27	245	DNF	- 42	0	1007
45	Woodford, J. M.	481	ASW-15B	(59.23)	39	67	(41.60)	- 38	2	(53.40)	- 38	27	(113.43)	- 19	379	(197.25)	36	349	DNF	- 44	0	(68.65)	41	61	885

* = 20pt penalty (barograph failure); + = 100pt penalty (airway infringement); DNF = did not fly

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In order to help you to put pen to paper we will be conducting a draw of all completed questionnaires — the first one out of the hat to win £25; the winner will be published in Sailplane and Gliding.

Please note that you can now telephone us on the same number as before but now during normal office hours.

BGA AND GENERAL NEWS

SILVER C TOGETHERNESS



Jane and Stephen photographed by L. R. Merritt.

We are always hearing about "pairs flying" these days but a Southdown GC couple have given this term a new slant. Jane and Stephen Turner, computer operators in their early thirties, gained every leg of their Silver Cs on the same day, purely by chance.

Stephen started it all last autumn by doing his five hours while Jane flew her distance. Early this season they reversed the order and on April 19 achieved Silver heights in their syndicate Astir. The distance legs were in the club K-6E. Now, we suppose, they will be making a joint attack on their Gold Cs!

NATIONAL LADDER

Ten clubs are represented so far this year on the National Ladder. A. A. Maitland of Hereford GC heads the Open Ladder with A. Brierley, Midland GC, at the top of the Club Ladder.

Open Ladder

Leading pilot	*Club*	*Pts*	*Flts*
1 A. A. Maitland	Hereford	3758	4
2 P. King	Hereford	3173	4
3 D. Hodsman	Bristol and Glos	3114	4
4 B. Bateson	Southdown	2857	2

Club Ladder

Leading pilot	*Club*	*Pts*	*Flts*
1 A. Brierley	Midland	1281	4
2 R. Pentecost	Surrey & Hants	1201	1
3 C. Paterson	RAE (Farnborough)	1155	2
4 K. Payne	Midland	820	1

"ULTRA LIGHT" GLIDERS

At the request of the Executive Committee John Holland is investigating the level of interest amongst BGA members in the new field of "ultra light" gliders, *ie* aircraft which are more than hang gliders but not as large as the conventional modern glider.

Would you please contact John Holland at "Dimmelsdale", Chalford, Stroud, Glos, or through the BGA office, if any of these ultra lights are owned by or being built by any members in your club or area.

BGA ACCIDENT SUMMARY — Compiled by ARTHUR DOUGHTY, Chairman of the BGA Safety Panel

No	Glider Type	BGA No.	Damage	Date Time	Place	Pilot/Crew Age	Pilot/Crew Injury	Pilot/Crew P/Hrs.	SUMMARY
26	K-8B	2262	M	23.02.80 14.30	Portmoak	25	N	4	Pilot briefed for circuit and hangar flight was launched into base of low cloud at 500-600ft. On breaking cloud he decided there was insufficient height for circuit and continued to approach with full airbrake. Ground looped to avoid running into fence at upwind end of field.
27	Carmam JP 15/36	2485	M	30.03.80 ?	Lasham	68	M	1176	Canopy blew off while on aerotow at 600ft.
28	Kestrel 19	1790	W/O	06.04.80 15.00	Pulverbatch Shropshire	34	N	1100	Late field selection and failed to observe single strand wire fence until 300ft on approach. Went for previously discarded alternate field with trees on approach. Raised flap "in the hope that the text-book sink really wouldn't happen" to clear trees. It did and glider collided with trees.
29	Mini Nimbus	2539	M	24.03.80 16.15	Shobdon	48	N	306	Undercarriage collapsed on landing when port leg fractured. Leg manufactured of GRP and a mod issued by the manufacturer was received by the agent the day after the incident.
30	DG-200	2482	S	19.04.80 15.30	Follions Farm, Northumberland	29	M	325	Selected field at 1200ft but failed to observe single strand electric fence until on approach over a wood. Altered course to left for alternate field with airspeed eroding, entered incipient spin and hit ground travelling sideways.
31	Nimbus 2B	1958	W/O	14.07.79 15.05	Stewkley, Nr Bletchley	41	M	480	Approach into field with trees on downwind boundary with tail 'chute deployed. Realised he was undershooting and attempted to jettison 'chute but failed to operate jettison lever correctly. High drag from 'chute eroded speed, pilot dived and collided with base of trees.
32	Cobra 15	1886	S	06.04.80 13.00	Clungunford	34	N	571	Attempted field landing into small field with power lines on approach. Sideslip used to assist approach and failed to round out correctly.
33	SF-25A Falke	G-BECF	M ?	01.03.80	Carlton Bank	?	N	?	See summary, in the last issue, p 133, following No. 22.
34	Skylark 4	1123	M	07.04.80 ?	Broad Forstal Farm, Nr Marden, Kent	33	N	72	Cramped circuit and high approach into field. Touched down halfway into field, struck edge of trench not seen on approach and ground looped when approaching upwind boundary.
35	Skylark 4	1045	S	05.05.80 14.05	Ringmer	24	N	103	Launch failed when glider was at a "moderate angle of climb" about 10ft from ground. Pilot released but had insufficient airspeed to effect a proper recovery and landed heavily in a stalled condition.
36	Skylark 2B	747	M	27.04.80 18.00	Strubby	40	M	14	Briefed to fly to the hangar and land on wide perimeter track. After touch down on perimeter track turned towards hangar and did not stop before colliding with a concrete post which fractured main spar 7ft from wingtip.
37	Olympia 2B	1055	M	04.05.80 13.40	North Hill	61	N	42	Heavy landing after arriving just inside boundary of hilltop site clipping gorse bushes just before touch down on rough ground. Poorly planned circuit with low base leg in downdraught in lee of hill and stretched final approach.
38	Olympia 463	1217	S	11.05.80 14.18	Lane Farm, Llandellograban, Builth Wells, Powis	46	N	23	On unlocking airbrakes in preparation for a field landing the pilot heard a loud crack. The glider rolled to the right and despite full application of left aileron it continued to roll until it was inverted in which attitude it dived to the ground.
39	Piper PA 18	G-????	M	11.05.80 15.24	Ringmer	61	N	980 Pwr	Taxying back to launch point along edge of field after landing. Was approximately 45° downwind when wheels got into a rut. Applied power and up elevator to clear rut but a gust of wind under the elevator tipped aircraft forward onto nose.
40	Nimbus 2	2137	S	04.05.80 17.00	Snitterfield Village Nr Stratford upon Avon	27	N	306	Pilot thought he was too high on approach to field, opened airbrakes and then closed them when he thought he was on correct glide path. Glider continued to sink and undershot selected field, touching down 30 yards short of downwind hedge and then rolled into it.
41	K-7	1664	M	03.05.80 19.20	Farnborough	20	N	3	Weak link broke at 1100ft. Pilot lowered nose and released cable parachute and shock rope. The shock rope of nylon and parachute cords fouled the L/E of the tailplane and the weak link fitting punctured and became embedded in the ply skin. A high rate of descent was experienced followed by a normal landing. Subsequent investigation revealed nylon rope had 30% extension factor when stressed to half breaking strain. Considered that stored energy catapulted 'chute and shock rope over tailplane. Pre-stretched polyester rope now in use with 8% elongation factor at nominal breaking strain of 3000lb.

42	Bocian 1E	2013	S	11.05.80 17.23	Husbands Bosworth P2	34 29	N N	200 Nil Air Exp	Pilot claims attention was distracted by another glider ahead which ground looped on landing and he allowed airspeed to decay to 50kt with airbrake. Closed airbrakes and lowered nose but undershot touching down in crop of adjacent field and through down-wind boundary of airfield. Air experience flight.
43	Dart 17R	1337	M	04.04.80 15.35	Long Mynd	35	N	362	Crosswind landing in light wind giving relatively high ground speed. Undercarriage collapsed when glider ran over a small pot hole on a part of the field not normally used for landings.
44	Vega	2507	S	26.04.80 17.00	Forden	45	N	315	Late decision to land into a field 177 paces across diagonal with telephone wires across field at half way point. 90 crosswind approach with excess speed. Bounced on touchdown twice before running into the boundary fence.
45	K-8B T-21B	— —	S S	05.04.80 11.03	Wattisham	? ?	N N	4 450	K-8B thermalling at about 800ft over airfield was joined by the T-21B which was being flown solo. A collision occurred whereby both gliders sustained damage and both landed safely on the airfield. RAFGSA accident reported to BGA for information.
46	Std Cirrus	1706	M	07.04.80 14.30	Tophouse Farm, Kilworth, Leicestershire	49	N	280	Selected large field of young corn 2-3in high but unknown to pilot the surface was dry and very soft. After ground run of 20 yards glider sank to axle and continued to skid on nose until wheel came to ground compressed by tractor wheel. Glider stopped suddenly causing damage to wing locating pin bearings.

M=minor; N=nil; S=serious and W/O=write-off.

TECHNICAL NEWS

Blanik Safe-Life. The BGA Technical Committee have approved an interim life extension from 15 000 to 18 000 flights, pending a further review when strain gauge results become available from the Australian Department of Transport.

Motor Gliders (and tugs). Certificated for three years. On the Light Aircraft Maintenance Schedule (LAMS) the C of A only remains valid if maintenance is repeated at 50hrs, 100hrs and "annually" as spelt out in the LAMS for "private" category operators — please read page 6/3 and 6/4 of the schedule. Proforma maintenance schedules are available from the BGA office.

Tug Flight Manuals. Amended towing weights. Tug owner/operators are reminded to apply to the CAA (Airworthiness Division), Brabazon House, Redhill, Surrey RH1 1SN, for the latest amendment to their Flight Manuals, authorising increased weights, dual towing etc. Ref TNS 3/80, para 3.6. Any queries arising on the amendments should be referred to the CAA.

R. S. Stratton, *BGA Chief Technical Officer.*

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GLIDING CERTIFICATES

ALL THREE DIAMONDS

No.	Name	Club	1980
104	C. J. Blackwell	Southdown	7.4

DIAMOND GOAL

No.	Name	Club	1980
2/948	P. S. Roberts	London	20.1
2/949	D. E. Elkin	Surrey & Hants	8.4
2/950	M. Saunders	612 GS	8.1

DIAMOND HEIGHT

No.	Name	Club	1980
3/440	R. B. Christey	London	16.9.79
3/441	D. A. White	Deeside	1.3
3/442	E. Richards	Essex & Suffolk	7.4
3/443	J. M. Luke	SGU	7.4
3/444	D. Connaway	Southdown	8.4
3/445	C. J. Blackwell	Southdown	7.4
3/446	R. B. Witter	Wrekin	20.4
3/447	R. L. Fox	Wolds	18.4
3/448	J. Durman	Wolds	18.4
3/449	P. King	Herefordshire	8.3
3/450	T. J. Bradbury	Bristol & Glos	18.4
3/451	R. D. Jackson	Surrey & Hants	7.4
3/452	D. E. Elkin	Surrey & Hants	7.4
3/453	P. Purdy	Black Forest (USA)	9.3

GOLD C COMPLETE

No.	Name	Club	1980
747	P. R. Pentecost	Surrey & Hants	25.3
748	G. Beniston	Four Counties	19.4
749	G. O. Day	Norfolk	8.4
750	T. S. Zealley	London	8.3
751	D. E. Elkin	Surrey & Hants	8.4
752	G. D. Morris	Bristol & Glos	19.4
753	C. J. Batty	Cotswold	18.4

GOLD C HEIGHT

Name	Club	1980
C. G. Starkey	Imperial College	30.1.79
P. R. Pentecost	Surrey & Hants	25.3
F. L. Whiteley	Essex & Suffolk	20.10
C. M. Davey	Four Counties	25.3
R. Rodger	Dumfries	8.4
M. K. Rogerson	SGU	7.4
G. Beniston	Four Counties	19.4
G. O. Day	Norfolk	8.4
W. F. Woodward	Norfolk	7.4
J. P. Galloway	SGU	8.4
D. Connaway	Southdown	8.4
I. J. Carruthers	Dumfries	18.4
D. L. Woolf	Midland	19.4
G. Goody	624 GS	9.4
R. T. Vinson	Midland	19.4
R. Murray	Phoenix	2.4
C. Reeves	Wolds	18.4
T. S. Zealley	London	8.3
G. Johnson	Wolds	18.4
D. E. Elkin	Surrey & Hants	8.4
P. G. Myers	Blackpool & Fylde	20.4
V. J. Spencer	Trent Valley	19.4
J. Durman	Wolds	18.4
A. F. Hall	Essex & Suffolk	9.4
G. D. Morris	Bristol & Glos	19.4
Y. Salem	SGU	20.4
M. D. Allan	Midland	19.4
C. J. Alldis	Midland	19.4
T. A. Harrison	Blackpool & Fylde	20.4
C. J. Batty	Cotswold	18.4
R. Boyd	Blackpool & Fylde	20.4
M. A. J. Everett	Two Rivers	2.4
P. Purdy	Black Forest (USA)	9.3
I. Godfret	Surrey & Hants	13.3

GOLD C DISTANCE

Name	Club	1980
P. S. Roberts	London	20.1
M. J. Seseman	Kent	1.3
M. Saunders	612 GS	8.1

SILVER C

No.	Name	Club	1980
5476	N. P. Ridd	Kestrel	22.3
5477	A. B. Wood	Buckminster	22.3
5478	C. G. Starkey	Imperial College	5.1
5479	R. Lovell-Butt	Bicester	3.4
5480	C. A. Knight	Cornish	22.3
5481	J. C. Morrice	Fulmar	30.3
5482	K. Chatburn	Doncaster	6.4
5483	P. Clarkson	Four Counties	3.4
5484	K. Heinrich	Norfolk	5.4
5485	K. C. Henderson	Surrey & Hants	4.4
5486	G. J. Moore	London	3.4
5487	B. S. Carpenter	Bicester	4.4
5488	A. R. Joyce	Culdrose	5.4
5489	J. D. Norman	East Midlands	3.4
5490	S. P. Fiddes	RAE	5.4
5491	J. P. Hill	Surrey & Hants	7.4
5492	D. C. Inwood	Cranwell	6.4
5493	A. C. Clarke	S. Yorks & Notts	4.4
5494	R. W. Knight	Surrey & Hants	7.4
5495	P. J. Woodman	Bannerdown	4.4
5496	F. L. Whiteley	Essex & Suffolk	20.10.78
5497	C. Chapman	Imperial College	22.3
5498	J. Day	Ouse	3.4
5499	G. A. Barber	Phoenix	30.3
5500	I. D. Timms	Heron	5.4
5501	D. Loucks	Enstone	7.4
5502	D. H. Martin	Derby & Lancs	7.4
5503	K. W. Brigden	Portsmouth Naval	7.4
5504	R. Pirie	Surrey & Hants	4.4
5505	R. Puritz	London	4.4
5506	I. K. Pilling	Cornish	29.3
5507	J. C. Johnson	East Sussex	5.4
5508	J. Duncan	Phoenix	29.3
5509	J. W. Ballance	Essex & Suffolk	5.4
5510	G. R. Lane	London	4.4

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5514	R. N. Dall	East Sussex	5.4
5515	G. Goody	624 GS	2.4
5516	W. H. Creighton	Kestrel	4.4
5517	P. J. Kite	RAE	19.4
5518	M. G. Thick	London	4.4
5519	T. Flude	East Sussex	5.4
5520	D. P. Ballard	Phoenix	29.3
5521	E. Brooks	Peterboro' & Spalding	13.4
5522	N. G. Charlton	Surrey & Hants	21.4
5523	Catherine Buchanan	Southdown	21.4
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5530	R. P. Everett	Essex & Suffolk	8.4
5531	B. Thompson	Clevelands	21.4
5532	P. Wainright	Southdown	8.4
5533	T. D. Grant	Trent Valley	5.5
5534	Janet Garnett	Cambridge Univ	4.5
5535	J. H. Shearer	SGU	3.5
5536	S. M. Turner	Southdown	19.4
5537	Jane Turner	Southdown	19.4
5538	E. M. Roberts	Hambletons	5.5
5539	D. T. Staff	Northumbria	7.4
5540	D. S. Jones	Cornish	22.3
5541	V. J. Spencer	Trent Valley	19.4
5542	R. J. Woodmans	Surrey & Hants	21.4

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"Racing at Newbury" — Inter-Service Regionals May 5-15, Greenham Common

GORDON CAMP

Enigmatically carved into the rolling Berkshire downs lies the vast flat wasteland of Greenham Common, its normally idle 10 000ft runway contrasting sharply with the serenity of Newbury racecourse next door. The small band of Americans who work there are very friendly people, but their airfield is an awesome place which seemed a most unlikely venue for a sporting event.

However, this deserted NATO fortress sprang to life on May 5 as caravans and trailers arrived for the 1980 Inter-Service Regionals. For nearly two weeks Greenham Common was to be home for over 200 people, safely protected from the outside world by the secret combination of the padlock on the north gate.

This year's contest, comprising 76 gliders divided into four Classes, represented the largest BGA Regional ever held and the biggest gliding competition of any kind in Britain since the last of Ann Welch's 80-glider Nationals at Lasham in 1967.

Easy final glides

Certainly the airfield proved large enough to cope. Indeed competitors were simply briefed to grid each day in the middle, and depending on the wind direction we would launch to the left or right! By the same token though, some of the final glides lost their traditional excitement as pilots were often crossing the airfield boundary with another mile still to go before the finish line! And Newbury racecourse claimed only one victim brought down at the last hurdle.

Although still very much an Inter-Service Competition in spirit, there were 14 civilian entrants on the race-card, including local race-horse owner Ralph Jones from the Lambourn stables, his neighbouring blacksmith Angus Fleming, and the long arm of Newbury law and order, John Young, all riding Nimbus 2, the Open Class favourite at 48 to 1. However, at the last post Bunny Hale (RN) just pipped Ken Hartley (RAF) in a photo finish (5pts in 5000!) to win the Open Class.

Ben Benoist rode his heavy white stallion exceptionally well to win the Standard Class hurdles, and it was pleasing to see two lady jockies amongst the high placings in this Class.

The Sport Class handicap stakes were convincingly won by a Dart ridden by apprentice Trevor Gorely and trained orginally by Nick Goodhart, whilst Chris Terry, a jet jockey by profession, made his debut by winning the Club Class steeplechase (no, Olney Church was not a TP this year).

Competitors will remember for a long time the hard into wind slogs on the second legs of most of Ralph Dixon's fine tasks; crews will remember some joyous sunbathing, with one ear cocked on Denis Ballinger's finish line: whilst spectators will recall the thrill of some of the finishers, such as Pam Newall's achievement as the sole Standard Class pilot to get back one day, or Peter Harmer's win one day in a Pirat despite the strong wind.

And I will never forget the hard work by the various officials who made my job as Director so easy. The competition suffered no significant operational, administrative or airspace problems and I hope that Greenham Common will come alive again next year, when perhaps even the National Championships could be "Racing at Newbury".

Open Class

No.	Pilot	Sailplane H'cap	Day 1 6.5 200km ■	Day 2 8.5 150km ▲	Day 3 9.5 278km ■	Day 4 10.5 310km ▲	Day 5 11.5 177km ▲	Day 6 13.5 146km ⇌	Day 7 14.5 205km ▲	Day 8 15.5 150km ▲	Total Points
1	Hale, R. J.	106 PIK 20b	448	54	842	740	989	762	910	385	5130
2	Hartley, K.	108 ASW-20	588	30	797	679	921	842	927	341	5125
3	Fleming, A. M.	118 Nimbus 2	443	22	566	1000	965	674	840	295	4805
4	Taylor, J. J. T.	108 ASW-20	540	27	792	1000	500	561	979	179	4578
5	Feakes, R.	116 ASW-17	410	47	561	987	819	610	902	47	4383
6	Jones, R.	118 Nimbus 2c	405	38	1000	701	61	730	842	295	4072
7	Young, J. R.	118 Nimbus 2	403	61	718	977	838	645	254	0	3896
8	Saundby, R.P. (P1) Johnson, R. (P2)	104 Janus	493	11	503	593	652	729	437	244	3662
9	Cook, P. Hancock, A.	108 Nimbus 15	510 —	45 —	733 —	396 —	379 —	— 586	— 1000	— 0	3649
10	Clemo, R. W.	114 Kestrel 19	0	40	367	616	1000	593	993	18	3627
11	Jarvis, H. R.	108 Nimbus 15	495	77	764	699	637	624	215	54	3565
12	Bishop, J. M.	108 Nimbus 15	438	5	343	679	455	558	855	104	3437
13	Kiely, K.	102 ASW-19	525	65	780	572	504	501	419	28	3394
14	Heames, C. V.	108 Mosquito	0	45	649	564	512	627	933	42	3372
15	Warren, R. W.	106 PIK 20b	493	34	597	571	57	638	369	25	2784
16	Buckner, K. R.	108 ASW-20	438	45	587	494	311	639	142	23	2679
17	Ward, T. J.	108 DG-200	343	9	569	423	387	647	120	23	2521
18	Cooke, J. N. C.	108 Vega	0	5	564	350	337	504	204	23	1987
19	Marriott, S. H.	118 Nimbus 2c	340	0	0	75	519	526	299	0	1759
20	Dimock, H. R.	108 Mosquito	383	9	460	479	95	110	198	0	1734

Standard Class

No.	Pilot	Sailplane H'cap	Day 1 6.5 173km ▲	Day 2 8.5 150km ▲	Day 3 9.5 278km ■	Day 4 10.5 310km ▲	Day 5 11.5 177km ▲	Day 6 13.5 129km ⇌	Day 7 14.5 205km ▲	Day 8 15.5 115km ▲	Total Points
1	Benoist, J. D. (P1)	96 Twin Astir	460	13	993	912	470	878	771	457	4954
2	Clarke, M. A.	100 Std Cirrus	468	5	984	882	495	794	642	465	4735
3	Mitchell, K.	99 Astir	300	47	939	854	418	752	511	582	4403
4	Newall, Pam	100 Std Cirrus	345	11	644	615	268	583	1000	392	3858
5	Gaunt, D.	99 Astir	463	6	709	873	238	819	621	122	3851
6	Charlett-Green, Mary	100 Std Cirrus	423	23	714	871	458	325	541	465	3820
7	Armstrong, T. G.	96 Cobra	453	13	715	740	298	728	495	312	3754
8	Fearon, W.	97 Astir	93	30	795	798	368	566	511	409	3570
9	Britton, D. B.	99 Astir	410	9	780	781	465	0	725	369	3539
10	Dennis, S. C.	99 Astir	375	0	882	747	398	751	364	13	3531
11	Tapson, B.	97 Astir	325	0	755	1000	60	378	522	332	3372
12	Jeffries, J. R. Rollings, C. C.	95 K-21	460 —	38 —	1000 —	779 —	390 —	— 671	DNF DNF	DNF DNF	3338
13	Stephenson, E. K.	96 Std Libelle	428	6	575	790	240	546	682	65	3332
14	Tootell, W.	97 Astir	273	0	732	805	270	542	669	0	3291
15	Steiner, P. H.	99 Astir	368	7	683	839	0	648	615	0	3160
16	Davis, M. J.	99 Astir	480	6	643	637	223	348	581	0	2918
17	Hardy, M. F.	99 Astir	335	6	949	455	253	306	583	0	2887
18	Rowney, P. J.	99 Astir	363	6	597	418	223	264	222	465	2558
19	Dempster, W.	99 Astir	323	6	670	305	240	716	0	159	2419
20	Harkins, A. O.	100 Std Cirrus	440	6	611	723	495	DNF	DNF	DNF	2275
21	Brown, R.	99 Astir	43	6	597	459	223	490	281	0	2099
22	Sharpe, G. J.	99 Astir	405	9	98	552	88	294	340	0	1786
23	Law, M. J.	99 Astir	0	0	241	569	223	306	318	0	1657

Sport Class

No.	Pilot	Sailplane H'cap	Day 1 6.5 100km ⇌	Day 2 9.5 172km ⇌	Day 3 10.5 205km ▲	Day 4 11.5 117km ▲	Day 5 13.5 117km ▲	Day 6 24.5 125km ⇌	Total Points
1	Gorely, T.D.	94 Dart 17R	515	870	853	325	962	886	4411
2	Dean, M.J.	86 Skylark 4	319	839	578	250	955	326	3267
3	Bolton, P.	84 K-6CR	210	980	358	273	447	779	3047
4	Harmer, P.M.	82 Pirat	0	889	340	275	1000	530	3034
5	Paterson, C.A.	86 Skylark 4	0	918	725	255	363	705	2966
6	Dransfield, J.R.	94 Dart 17R	246	731	478	285	980	32	2752
7	Richardson, J.L. Miller, A.S.	86 K-18	— 372	707 —	725 —	255 —	376 —	180 —	2615
8	Marriott, J.P.	86 K-18	238	675	725	220	376	345	2579
9	Eagles T.W.	86 K-18	263	442	633	255	341	538	2472
10	Kosak, J.G.	82 Pirat	171	716	593	210	515	228	2435
11	Archer, R.E.	84 K-6CR	0	530	953	263	355	307	2408
12	Reed, I.B.	86 Skylark 4	210	513	400	283	725	239	2370
13	Hewitt, I.N.	94 Club Libelle	137	586	300	250	417	212	1902
14	Pilch, G.A.	82 Pirat	87	490	405	195	439	217	1833
15	Alney, D.B.	88 Dart 15	120	559	520	175	344	69	1787
16	Murphy, N.L.	90 K-6E	0	674	400	283	240	135	1732
17	Forsyth, G.S. Healey, G.	86 K-18	— 185	559 —	220 —	210 —	350 —	0 —	1504
18	Martin, G.	82 Pirat	39	415	428	195	210	135	1422
19	Mahon, M.C.	86 K-18	0	562	335	78	330	61	1366
20	Reid, A.W.	86 K-18	115	616	305	198	104	0	1338
21	Bass, I.G.	94 Dart 17R	0	485	DNF	180	248	212	1125
22	Saunders, J.K.	86 K-18	36	574	220	50	60	178	1118
23	Smith, A.P.	90 K-6E	0	61	360	265	98	175	959

Club Class

No.	Pilot	Sailplane H'cap	Day 1 6.5 90km ▲	Day 2 9.5 93km ▲	Day 3 10.5 93km ▲	Day 4 13.5 146km goal race	Day 5 14.5 63km ▲	Total Points
1	Terry, C.J.	78 K-8	8	929	490	808	683	2918
2	Jackson, R.	78 K-8	17	789	355	602	829	2592
3	Lawrence, S.N.	78 K-8	0	935	148	663	801	2547
4	Alexander, J.M.	78 K-8	0	755	265	672	740	2432
5	Bailey, P.R.	78 K-8	6	879	268	448	402	2003
6	Lancaster, D.S.	78 K-8	3	737	300	0	728	1768
7	Spiller, R.W.	78 K-8	0	513	318	0	291	1122
8	McQuigg, C.J.	78 K-8	11	403	0	23	211	648
9	Toal, M.P.	78 K-8	6	DNF	DNF	DNF	DNF	6

DNF=did not fly

OVERSEAS NEWS

Please send news and exchange copies of journals to the Overseas Editor: A. E. Slater, 7 Highworth Avenue, Cambridge, CB4 2BQ, England.

GERMAN NATIONALS

With all tasks over 200km and some over 500km, the German Nationals with 96 entries (Open Class, 19, 15m Class 33 and Standard Class 44) resulted in nine contest days. They were held at Aalen, Elchingen near Stuttgart from May 17 to June 1.

Klaus Holighaus in his carbon-fibre Nimbus 24m had a convincing win in the Open Class followed by Sigi Baumgartl and Manfred Dick both flying Nimbus 2.

The Ventus (small fuselage) was flown to victory by Bruno Gantenbrink in the 15m Class after Ernst Gernod Peter failed to complete the task on one day. He came second, and Gerhard Waibel third, both in ASW-20s.

According to Hans-Werner Grosse the Standard Class was the most interesting Class this time. It was won by Hans Glöckl in a modified LS-3. Second in a modified ASW-19 was Stich and Schreiber in a Std Cirrus came third. The new LS-4 performed well and finished 6th. The SB-12, the latest model of Akaflieg Braunschweig, although placed 12th performed and handled extremely well. The wing profile used for this machine and the modification to the ASW-19 were both developed by Dipl Ing Horstmann.

GLIDING AN OLYMPIC SPORT?

During the 1936 Olympics in Berlin, intensive propaganda was made in Germany to try to get soaring flight included as an Olympic sport on the next occasion, which was to have been Finland. To draw the attention of those taking part, a goal flight from Berlin to Kiel was made by Louis Rotter, Hungary's first Silver C pilot, in his home-built and designed Nemere sailplane. During it he became the first to use the dolphin technique, decades before anyone else (see S&G, December 1976, p272 and full illustrated account in S&G, December 1936).

Louis Rotter, now aged 79, writes that he last flew seven years ago in a Grunau Baby: but is now partially paralysed in the right arm and leg but can still go for walks, and is working hard, preparing a thesis for a conference and writing for technical journals. His son flies at the Midland GC.

SOVIET NEWS

Those who attended the 1965 World Gliding Championships at South Cerney will remember the Soviet Team and their gliders, some of which got damaged. Since that time, almost nothing has been heard of them and we have asked for news. Vladimir Chuvikov flew in the 1968 World Championships in Poland and later participated unsuccessfully in a contest in East Germany. Michael Verietennikov took part as one of the Soviet Ground Crew during the 1968 World Gliding Championships. At last a letter has answered some of our questions.

On their return to Russia from the British World Championships in 1965, all four pilots "became tired of the team training and transferred to better, more comfortable, positions in the power flying sections of their aero clubs. Oleg Suslov transferred immediately after his return from England and is still flying aeroplanes, Iozas Yarushevichus is flying for Aeroflot and Misha Vierietennikov ran an aero club in the Ukraine. He worked very hard and made his aero club one of the best in the Republic. However, he has now had to give up flying for medical reasons."

This is a cruel fate for a pilot who once held Soviet gliding records.

"Volodya Chuvikov", the letter continues "was also power flying. However, he had a terrible motor cycle accident. While lying beneath the machine, petrol escaped which set his clothes on fire. He was found on the road badly burnt, but still alive. In spite of all efforts to save him, he died fully conscious.

"Vasily Shcherbakov received support to start a gliding museum in the Crimea, the cradle of Russian Gliding. However, for some reason, this only consists of a room, in which items of gliding history are displayed on stands. It is not yet a museum. It is only a good start.

"Margareta Ratsenskaya, who used to attend the annual FAI meeting in Paris, has retired but still spends some time in the Aero Club, organising gliding, the official observers and the hang gliding departments."

OBITUARY

Free Flight reports the death of John Agnew, holder of Canadian glider pilot's licence No 1 and a founder of the Montreal Soaring Club.

A.E.S.

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Col Ted Shepherd presenting a picture of Martin Hardy in his Astir at 16 000ft over Aboyne last October to General Sir John Archer on retiring as President of the Army Gliding Association. Howard Jarvis, CFI of Wyvern, is on the left with Andy Harkins far right. Photo: Peter Griffiths.

CLUB NEWS

Copy and photographs for the October-November issue of S&G should be sent to the Editor, 281 Queen Edith's Way, Cambridge CB1 4NH, to arrive not later than August 12 and for the December-January issue to arrive not later than October 14.

June 10, 1980 **GILLIAN BRYCE-SMITH**

BATH & WILTS (Keevil Airfield)

We have not heard any more about Keevil Aerodrome being sold, so we are still hoping nothing will come of it. In the meantime we had two very successful soaring weeks at Easter and Whitsun.

We are very pleased that Andrew Davis came fourth in the 15 Metre Nationals. Bob Bromwich and Andrew will be competing in the Open Class Nationals in August and Steve Parker the Western Regionals. We were hosts to five pilots who landed at Keevil during the Nationals.

John Horrill flew his Delphin for his distance to complete Silver C. Steve Parker climbed to 11 000ft in wave over Trowbridge on April 19 and Dave Parker went to 10 800ft. The following day Mervyn Pocock went to 10 000ft. John Catley, Alf Becket and Mike Cox have gone solo and Bob Burgess, John Catley and Kate Hargreaves have completed their Bronze C.

We had an interesting talk on cross-country flying by John Williamson, National Coach, at the beginning of the soaring season. The club dinner was on May 2.

J.L.

BLACKPOOL & FYLDE

Sunday, April 20, was a memorable day for some members. Clearly defined wave clouds were directly overhead early in the morning, the wind at ground level was NW but more northerly at height, making the hill soarable most of the day. Members made use of hill and thermal lift to reach the wave at about 2000ft agl, the wave remaining directly overhead most of the day. Cloudbase was 4000 reaching 9000ft and lift varied from 2-4k early in the day to 10k later.

A 900ft winch launch was sufficient to enable ten members to reach the wave. Messrs Gordon and Crossley flew to 7500ft, Tom Gornall stopped at 9000ft as he had a cold; David Masterson 10 000ft; Terry Harrison 12 000ft; Paul Myers, Peter Philpott, Bob Boyde and Gill Haslam all bettered 13 000ft and Roy Greason, not intending to lose the height trophy he holds, reached 15 000ft. Gold heights were claimed by Messrs Boyde, Myers and Harrison.

Days such as this prove the wisdom of all the people who were originally involved in acquiring Lower Coch Hill Farm, as a gliding site. Observation by the writer, living at Lancaster over the past 4½yrs, suggests that wave conditions are evident in almost half the days of the year, and in wind directions from NW through N to SW.

To prove that we have every kind of lift available, Bob Ingham gained his first leg, soaring a sea breeze front at Easter. Wave returned again, this time from a SE wind, giving Tom Gorrall Gold height, and last Saturday brought us 7000ft thermals.

J.T.

BRISTOL & GLOUCESTERSHIRE (Nympsfield)

Our task week at the end of May was a moderate success but the weather was rather unkind. Several members saw Cirrus 272 spin in near the club after the pilot, John Patchett, baled out. The incident is being investigated by the relevant authorities. John had already made a parachute jump previously during a weekend course.

Our Super Cub engine is nearing completion and our tug fleet should soon be back to strength. After many years of excellent service, our Terrier has gone to a new home.

R.A.R.

BUCKMINSTER (Saltby Airfield)

Saltby is now operating full time for the summer months and running holiday courses for the first time.

We have given evidence at the Vale of Belvoir Inquiry and are now awaiting their verdict on whether or not the proposed mining at Saltby will take place, despite our having a lease until 2002.

Meanwhile we are assuming this is all a long way in the future and concentrating on hosting the East Midlands Regionals from July 5-13, to be opened by the Duke of Rutland and directed by Brian Spreckley and Mike Carlton. We are also competing in the Inter Club League and encouraging more cross-country flying generally. Two syndicate K-6CRs were sold off site and replaced by more modern gliders. We now have over 16 syndicate gliders.

Peter Wright, flying his home built Falcon featured in the April issue of S&G, recently reached 15 000ft in wave over the site but he had forgotten his barograph.

Our club was founded by five people one of whom has been our Technical Officer, Safety Officer, CFI and almost everything else besides. He is now a National Coach and we would all like to congratulate Brian Spreckley on winning the Nationals.

The Citabria, a replacement for the Auster, is a great improvement, as is the new pulley for our reverse-tow system.

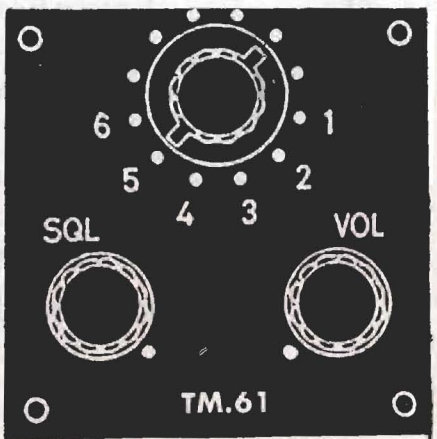
Frank Cox has become CFI, taking over from Mick Webster, who incidentally recently gained his Gold distance. Our congratulations to John Hickson and Pete Brooks on going solo and to Jeff Roberts on Silver distance.

L.E.M.

CAMBRIDGE UNIVERSITY (Cambridge and Duxford)

We have a new CFI in Steve Longland who took over from Joe Whelan. Steve has been an important part of the club for some years and we wish him every luck.

Our task week was much appreciated and despite inconsistent weather, there were six flying days with much outlanding practice thrown in. We welcomed visitors from several clubs and Nick Gaunt from Yorkshire, who



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flew in spectacular fashion, was the overall winner in his DG-100 with the Baker brothers upholding local honour by finishing runners up in their big Cirrus.

P.E.B.

COVENTRY (Husbands Bosworth)

We have our first single-seater motor glider on site — Mike Aspley's PIK 20E. With the advent of Graham Smith's BG-135, there are two 13.5m gliders flying around to confuse everyone, especially when field landings are reported from the air!

Our first task week coincided with the Nationals. On one of the days Chris Thomas and Harry Middleton (T-21) and John Endall (K-8) landed at Dunstable just as the competitors were taking-off. During this week Trevor Brigden (K-8), John Endall and Chris Rodwell all gained Silver distance, Trevor completing his Silver C.

An instructors' course was also held during the task weel and we now welcome Rosemary Broughton as our second lady instructor.

Quite a large party are planning to visit Sutton Bank, complete with suitable machines, for the International Vintage Rally from July 26 to August 3. This event will be immediately followed by our second task week.

B.R.

DEESIDE (Aboyne Airfield)

This year has so far been excellent with launch rates and total hours well up on previous years.

The superb weather over the last two months has been a great encouragement with pilots reporting 6 to 8kt thermals under 9500ft cloudbase on several occasions, and good wave conditions also showing up. Recent south-easterly winds, associated with high pressure and clear skies, have been soared to more than 15 000ft. With only two or three aircraft airborne per day midweek on average, the summer wave potential of the site is still largely unexplored.

We have a healthy increase in membership and several new privately owned machines. Lemmy Tanner, our Chairman, is showing us the way with his high placing in the 15 Metre Nationals, and a nucleus of potential competition pilots is building up with a welcome increase in cross-country flying. Lemmy and Bruce Cooper are looking closely at the current British records, several of which they feel could be bettered in good wave weather.

We now have planning permission for our clubhouse and work should start shortly. However we still need money and anyone wishing to purchase life membership to support the project will be welcomed.

Our task week is the first week in August. Any visiting pilots will be welcome to join in.

J.R.B.

DERBY & LANCS (Camphill)

We were grateful for the very informative talk given by Brian Spreckley, National Coach, on the eve of our open week. At the AGM Eric Boyle stepped down as CFI and was elected Vice-President in acknowledgement of his unstinting service to the club over many years. He is succeeded by John Humpherson.

This column shouldn't look too like a smug company chairman's report, but our courses are fully booked, flying hours are well up and weekends see the circuit pleasantly crowded with two K-13s, two K-7s and two K-8s. Congratulations to Jim Moran and John Birch on going solo.

S.G.

DEVON & SOMERSET (North Hill)

We welcome one of our most regular cross-country pilots, Julian Hine, as an assistant instructor.

Tony Stockwell (K-6CR) pioneered the Silver rush with a downwind to Davidstow for his distance, and achieved his height with a climb to 7000ft. John Brown (B4), Derry Reaney (K-8) and Dave Millmore (Pirat) have all achieved Silver height, Derry to complete his Silver. John went on to complete his distance during task week and Dave his five hours. Several Bronze pilots just missed Silver distance during task week. Richard Carter and Colin Watt have gone solo.

Expeditions to Husbands Bosworth and the Long Mynd in mid-May were socially successful, but very strong winds seriously restricted flying. Our first task week, with only two flying days possible, has just finished.

I.D.K.

OBITUARY

Peter Cooper

Peter Cooper died on June 7 in a gliding accident. His name will not be remembered as one of the great names of British gliding, but to us at North Hill he was a shining example of what it was all about.

I remember his first solo and his first soaring flight; from that moment he was fired with enthusiasm that never waned during 14yrs with us. Whatever project the club undertook he was involved in. He had that ability to pass on to his pupils and friends his dedication to gliding. His last flight was to check the soaring conditions for others. In the clubroom or on the field he will be sadly missed and our deepest sympathy goes to his wife Kitty and family.

D. J. Minson, Chairman

DONCASTER & DISTRICT (Doncaster Airfield)

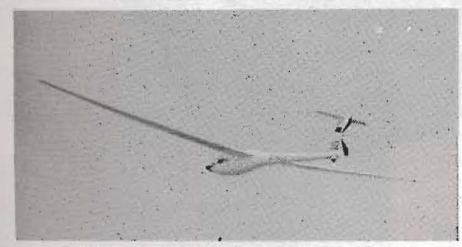
The first meeting of the Northern League weekend competitions were at Doncaster with the Wold, Trent and Yorkshire GCs taking us on. Trent Valley were the winners. We did better at the second competition at the Wolds GC, winning overall thanks mainly to Ray Hufton winning the Novice Class and Martin White the Intermediate Class. We are now one point behind the League leaders — Trent Valley.

We have had excellent weather this season with a 9200ft cloudbase one Sunday morning and virtually every weekend since February has had a soaring day in it.

There have been many good flights including a Diamond goal for Jack Sharples and a Silver height and duration for Paul Hetherington and Keith MacBride. The Ouse GC have now left us and are flying again at Ruffield Airfield.

E.T.R.

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DORSET (Tarrant Rushton)

Earlier in the year Harry Wolf, in his new Vega, reached 8500ft in wave over the field, for a club record.

Much activity in the hangar has resulted in our Auster having a new "skin", the winch tractor a new engine and a fully serviceable club fleet. Our thanks to the usual hard core of helpers.

Frank Turner has retired after many years hard work as our Treasurer. An expedition to the Dutch Flevo Club is being led by Dennis Neal after the Dutch members' successful stay at Dorset last year.

J.R.C.

DUBLIN (Baldonnel)

We've come through a difficult two-year period which culminated in our being out of action for five months from September 1979. Since February last however we have been the happy owners of a new 180hp Super Cub delivered from Colorado, which is now hard at work clocking up the launches to help pay the bank its money back.

There have been other changes and developments. In 1979, we completed a 5000sq ft hangar at Gowran Grange, a grass airfield some 15 miles south-west of our traditional site on the military base at Baldonnel. Our fleet is now housed at Gowran and we hope in the future to be able to do more and more non-weekend flying there. There has been a steady increase in the private fleet, and we have at last "gone glass" with the successive arrivals of a Phoebus C, Astir CS and Kestrel 19, all ex Germany. We're looking forward to seeing how these fare in the next Nationals against the Ulster GC's Pik, DG-100 and ASW-20. The Nationals are to be held at Nenagh, Co Tipperary between July 5-20. (We were happy to welcome a visiting Dart syndicate from Coventry GC to last year's abbreviated competition).

The cross-country season has produced about 500km up to the end of May, mostly notched up by the Phoebus. Our tasks are, as always, on a very much smaller scale than in the UK. We're still waiting for our first home-grown Golds and Diamonds — with all that expensive GRP around, maybe this is the year!

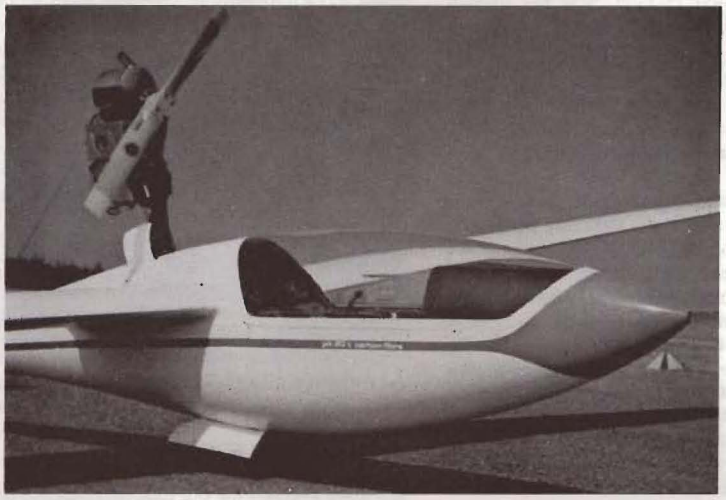
T.A.W.

DUNKESWELL (Dunkeswell Airfield)

1980 is showing every promise of being a superb season at Dunkeswell with soaring every weekend since Easter, including several cross-country flights. On April 20 our T-53 contacted wave and climbed to 6600ft, paving the way for Tony Eastelow (Foka 4) who carried on up to 11 800ft, this being our new club maximum height record.

We have bought a new retrieve vehicle to replace our well loved but antiquated pick-up van and are discussing the viability of building either a winch or reverse pulley system.

Members visiting Portmoak for the first time this May were impressed with the site and the hospitality shown them by the staff and members of the SGU. Due to easterlies throughout the week they returned without



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any notable flying achievements, but are already planning a further visit for next year.

Congratulations to our new solo pilots Ann Jewell, Hilary Perry, Ian Davidson and Allan Vincent. Ian Mitchell, Les Baskwill and Mark Spedding have gained Bronze legs. Jane Butland, Ann Jewell and Val Carter have their certificates. Richard Harris has his Bronze C and Silver height and Ron Perry has just completed his PPL.

We are all looking forward to our summer barbecue in June.

V.C.

EAST SUSSEX (Ringmer)

Success! After many months of lobbying, campaigning, writing endless letters to a seemingly endless number of development sub-committee members, parish councillors, planning officers and members of the press and attending numerous council, parish and site meetings, we have now regained our aerotowing permission. We managed to reach a compromise on the use of the tug, the main points of which were permission to aerotow on weekdays and Saturdays between 9.30am and 6.00pm, and on Sundays between 11am and 4pm, with no aerotowing on a Sunday preceding a Bank Holiday.

Our sincerest thanks to those members of the club, and of the public, who devoted their time and energy to the successful conclusion of our fight.

Success again in the form of our open day, on May 26. Over 2000 people were attracted by our aerobatic displays, model aircraft flying, hot air balloon (somewhat deflated), stalls and sideshows. Congratulations to Jackie Manley on her superb organisation and to Vivian Nopper for her splendid publicising of the event. Thanks also to all those members who worked so hard to make this a day to be remembered, especially the "Hot Dog King", Tony Kerwin-Nye.

A.N.

ENSTONE EAGLES (Enstone Airfield)



Paul photographed with his father on the day of his solo flight. He has been gliding since six-years-old and is now flying his father's Olympia.

This year's task week, at Easter was very successful. The northerly winds enabled four pilots to gain their five hours on the nearby Edge Hill. Several soaring and cross-country flights were also enjoyed. N. Rose soloed after only one week of gliding and J. Procter and C. Skinner also soloed recently, but the most noteworthy is that of Paul Dewhurst who was sent solo by his father Ron on his 16th birthday.

Congratulations to P. Blackburn, D. Johnson and J. Ashman for Silver heights and to Dave Wilson who, from a motor tow, attained a height of 11 200ft in wave over Blenheim Palace.

S.G.

ESSEX (North Weald)

We have clocked up nearly 4000 cross-country kilometres already this season.

We were guests at Husbands Bosworth for the first heat of the Four Clubs' Competition which turned out to be an interesting weekend. Despite strong winds, two tasks for each Class were managed. We thank the Coventry Club for their kind hospitality and look forward to other heats in the near future.

We are planning open days for June 14-15 when we hope to top our best daily launch rate and cement good relations with the public.

Congratulations to Mike Jefferyes who, in his first Nationals, was the only pilot to complete the task on Day 4.

S.C.

ESSEX & SUFFOLK (Hadleigh)

During Easter week the club had one of its most successful expeditions ever when 12 pilots took five aircraft to Portmoak. They flew a total of 195hrs with a Diamond height for Eric Richards (Vega), Gold heights for Pete Wilby and Alan Hall (Pirat) and durations by Viv Haley, Ann Winterbottom, John Balance, Neville Bleach, Dave Gilder and Paul Rice. Our thanks for the SGU for their hospitality and friendliness.

A few weeks later Viv Haley in the club K-6 and Steele Haughton (K-7) flew to Duxford for Silver distance, Viv completing Silver C.

We have just finished our club task week during which we had some good soaring and a completed Silver by Jonathon Abbess and Silver distance by Les Marshall. Tristram L. Jones completed his Silver with a duration and John Gilbert completed his Bronze C. Congratulations to them all and to Dave Smith for going solo.

S&G readers please note that even though our airfield is at Whatfield on the chart it is called Hadleigh (three miles south of RAF Wattisham), so if you feel like flying somewhere different we would be very glad to see you.

R.R.H.

HEREFORD (Shobdon)

We have a fine crop of Bronze Cs and Silver legs with a completed Silver C by John France. Liz Lloyd converted to the syndicate K-6CR.

There have been some exceptional wave flights. On April 12 Roger Harlow and Philip King (Mini Nimbi 849 and 530) found wave to 12 000ft and visited the Black Mountains, Brecon and Pontypool. Charles Boucher took 530 to 14 000ft on April 19 after a launchless day of howling northerly crosswinds. On April 20 Anthony Maitland (530) and Mike Costin (Nimbus 2) found wave to around 15 000ft. Mike visited Aberystwyth and landed on his way back to HB while Anthony did a 250km triangle.

On May 20 Philip King (530) climbed to 22 000ft. The next day Anthony Maitland climbed 530 to 17 500ft and was joined by Don Towson, Reg Mayo and Oliver Cowley. Reg completed his Gold C with Gold height and gained a Diamond.

May 17 saw Anthony Maitland (530) and Roger Harlow (849) taking the Mini Nimbi round a 306km triangle north of Whitchurch and west of Llandovery, a remarkable route over exciting rough country. This was Anthony's 26th flight of more than 300km completed in 3hrs 33min, but a first for Roger in a time of 5hrs 40 min, giving him his second UK Diamond in three months.

The Lakes GC came for ten days in late May and although not special weather Peter Renshaw clocked up nearly 30hrs. Liz and Adrian Lloyd organised a beer and skittles party for their last evening.

On June 1 Philip King returned from the IBM Competition in Holland with the Mini Nimbus and Denis Johnston (crew), having had a fine time and placed second. Philip gulped down a cheese roll and then shot round a 250km triangle.

R.P.

KENT (Challock)

Mike Kemp and Tony Moulang have already achieved 300kms round the Whittlesey milk run with good attempts by Terry Bramfitt and Tim Gardiner. Mike Kemp also won the League One division of our task week, just beating his co-organiser, John Hoye, into second place; John variously flying a PIK 20B, K-13 and T-21. League Two honours went to Dennis Wright, our new professional instructor, who recently completed his Silver C and gained his full rating. The "team" prize went to the PIK 20B (988) flown by John Hoye and Mike Kemp.

Doug Berry achieved his duration on a scratchy day closely followed by Silver height, Tony Goodman and Martin Cooper completed Silver Cs with height gains and there was also a Silver height for Caroline Bunyan. Finally there was a rare Silver distance (including height) for Chris Ireland (Swallow).

D.H.

LASHAM GLIDING SOCIETY (Lasham Airfield)

By the time you read this our new Super Falke should be in service, which will please our pupils needing navigation, field selection and field landing instruction. Our K-13s continue to give good service and we are planning to add a Janus to the fleet for advance training. Our advanced courses run by Ken Stewart are a great success, with a number of first cross-countries and Silver legs completed.

We seem to have fewer beginners this year, which means that those we do have, are getting trained more quickly.

W.J.D.

LONDON (Dunstable)

Apologies are due to Louise Coates for lending her a faulty barograph for her Silver height

attempt; but after all it does seem to be the season for this sort of thing as Andrew Humphries's distance claim was thwarted for a similar reason.

We have been more successful in the Inter-Club League, however, with our one point lead at Husbands Bosworth being consolidated by wins in all three Classes at Saltby.

Back at Dunstable we have a brand new Super Cub, making three of the type in all. This was available in time to assist in launching the very large number of rather small gliders present for the 15M Nationals. Our new facilities *ie* the tug hangar for briefings and the 5-star catering contributed significantly in making a more civilised competition.

F.K.

MARCHINGTON (Marchington)

The club has now been informed by the Ministry of Defence that our site will be auctioned this autumn so we are busy raising the cash necessary for its acquisition which will enable us to develop and expand. Advice from anybody experienced in raising large sums would be most welcome.

Meanwhile, work continues on the strip and we now have over 1000m of runway running approximately east-west. By the time this is published, the winch should be operating and the grass well established on the strip.

There was a good turn out for the AGM and the CFI, Ray Steward, was elected Chairman with Neil Morgan as Secretary and Malcolm Johnstone as Treasurer.

A new syndicate has formed with a very smart Eagle, which proved to be no problem for our Auster, and they are having a great deal of fun with this machine.

S.D.B.

MIDLAND (Long Mynd)

April 19 was a day to remember. Soon after breakfast, the first K-13 to be launched was noticed at about 10 000ft and climbing rapidly in clear air. The ensuing rush to launch into this wave, which remained unmarked by any lenticulars throughout the day, brought us nine claimed Gold C heights, plus good climbs by two-seater and other pilots. Charles Wingfield achieved Diamond height and undoubtedly there would have been more had other aircraft been prepared with oxygen.

The wave was easily contacted throughout the morning from the winch, but became more elusive during the afternoon. Chris Alldis thus deserved special mention. Having rapidly climbed above Gold height he landed to let his partner do likewise, only to find his barograph had failed. His second climb took most of the afternoon and no small measure of adrenalin to achieve.

A party of eight German pilots from Wesel flew over in two light aircraft and a Motor Falke with a view to forming a twinning arrangement between us and their gliding club. They enjoyed good soaring and were most entertained by their introduction to aerobatics and cloud flying, which is normally prohibited to them. Now there are plans for a return visit next year, possibly combining it with a visit to Paderborn.

A group with six aircraft has just returned from the Cambridge University GC's task week at Duxford — not too triumphant but having greatly enjoyed our flying. Our thanks to the club for their welcome.

Malcolm Lewis, Tony Jones, Geoff Rowson and J. Baker have recently soloed and Dave Baily, Nick Tyler and "Mac" MacArthur have completed their Silver Cs.

Finally, our congratulations to ex Mynd member David Benton on his record ascent.

J.S.

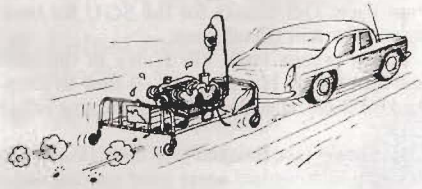
NORFOLK (Tibenham)

Our ex-GPO workshop is now installed at Tibenham, thanks largely to the enterprise and leadership of Ron Brown and Mike Bean. We are now looking for tools to equip it.

Easter produced some fine soaring for those who visited Portmoak with Gold height for some, but most of us stayed in Norfolk and had the satisfaction of taking part in another successful open day at Robin Combe's fish farm.

Our CFI, Roy Woodhouse, held an extremely useful seminar on field landings, followed a few weeks later by a stimulating lecture on cross-country flying by our President, Alfie Warminger. So inspiring was this that within a week or two Pete Walsh (Mosquito) did a 300km goal flight to Yeovilton, and Karl Heimrich finished his Silver C by going to Duxford, intentionally taking over five hours.

The May task week started anticyclonic and non-soarable, but some useful non-flying jobs were done, Leon Early taking a sick



Condor engine some hundred miles to be repaired, and Alan Currell among others doing some clubhouse painting. The weather improved later in the week and some of the best flights were by John Ayers (Astir) who got away from 900ft to do a 240km and by Charles Owles (Dart 17) who flew 280km.

Ron Brown and Kenny Goodrun flew Silver distance to Duxford, with a height gain for Ron (Vega) and a duration for Kenny (K-18) at the same time.

M.L.

NORTHUMBRIA (Currock Hill)

The weather has been quite good recently with quite strong thermals, although cloudbase has been too low to make the best use of them. There have been four expeditions to Portmoak this year, and apart from the first one the flying has been poor.

Graham McAndrew completed his Silver C with a distance flight from Portmoak, and Harry Mallender got his five hours. Alastair Scott got a Bronze leg on his first flight in the Swallow and Bob Nicholl has just gone solo. Congratulations to John Greenwell and Lyn Greenwood on becoming BGA inspectors.

Both K-7s have now been recovered as part of their C of A and are flying again.

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A major event is the official opening of the new clubhouse on June 28, by the Rt Hon Geoffrey Rippon QC MP who was so helpful during our airspace problems with Newcastle Airport. We are getting a good influx of new members at the moment, which is most encouraging.

J.W.

OUSE (Rufforth Airfield)

The club is now back at Rufforth after an absence of 2½yrs. Although only here on a temporary basis at present, our thanks to our hard working Committee and to Barry Lumb for all their efforts connected with the airfield. The local villagers supported our return and as a thank you we offered those interested free air experience flights. On our two open evenings 66 villagers took advantage of the offer.

The weather has been reasonably kind since our return. Mark Shuttleworth managed his five hours with Steve Lee and John Taylor getting Silver heights. Congratulations also to Pam Bottomer on going solo.

S.R.L.

OXFORD (RAF Weston-on-the-Green)

On Sunday, June 1, there was a near miss between an unidentified glider and three parachutes above the centre of the DZ. While it is true that the see-and-be-seen rules operate successfully at other sites, our parachuting neighbours here at Weston become extremely agitated at this sort of incident.

Consider some of the conditions under which we now operate: the upwind quadrant from the airfield boundary to a radius of five miles and at least 9000ft high is now out of bounds, and we are not allowed to launch while their aircraft are taxiing or while there are parachutes descending no matter how far away they are. With both the Islander and the Cessna flying on some days this causes considerable delays, especially when they drop their loads one at a time.

In addition we had to equip our launch point radio with 133.65Mhz for communication with "them" and we must leave it on that channel all day thus rendering it useless for communication with gliders. They even asked us to install 133.65Mhz in all our gliders but we are resisting this for obvious reasons.

We therefore make no apology for asking cross-country pilots once again to avoid our DZ by a mile or so. On a good day like June 1 it will make little difference to your flight. Draw a parachute symbol on your half-million map to remind yourself, since the CAA have once again got it wrong. Weston-on-the-Green is a busy parachuting airfield and the gliding operations here, both RAF and ourselves, have had to take second place for some time.

These problems have no doubt contributed to our declining membership this year. Apart from the loss of revenue which itself is becoming serious, there are good soarable days when half the club fleet stay in the hangar simply because there are not enough pairs of hands around to handle them on the ground. Is there anyone out there still keen to fly?

P.H.

PETERBOROUGH & SPALDING (Crowland Airfield)

The new Social Sub-Committee is planning a number of events to which other clubs are welcome. For details, please ring Martin Clark at Market Deeping 346346, We are restarting our club magazine and can accept small ads to sell such things as 'chutes and barographs at a nominal fee. Again, inquiries to Martin Clark.

The Spring Bank Holiday flying week produced several Bronze Cs and more Silver C legs have been attempted, again due to the help from Ron Ward and Derek Thorpe with their Rallye tug.

A.E.G.

RATTLESDEN (Rattlesden Airfield)

April and May have proved excellent months for us with the K-8 proving its worth many times over. Congratulations to Dave King for the second leg of his Bronze, Colin Poole for his first Bronze leg and possible Silver height and Bob White who flew both legs of his Bronze and a possible Silver height on consecutive days. The T-21 has had its share of soaring flights one of which gained Charles Portway his first Bronze leg even though he was only after his B. Congratulations also to Ted Spurge and Dave Johnstone on going solo.

Our membership drive is progressing well with ten *ab-initios* having swelled our ranks since April. Our thanks to our most recent members, Rob Smith and Mike Arnold, who descended upon our site with so much equipment and enthusiasm that the framework of our long awaited hangar was welded, bolted and erected in the space of two days.

R.W.

SCOTTISH GLIDING UNION (Portmoak)

We regret that our CFI, Andrew Wood, will be leaving in August to take up an appointment in Minneapolis. The Board wish to record their appreciation and gratitude for his hard work and dedication over the last two years and wish him all the best in the future.

While Dave Benton's record breaking flight isn't exactly hot news, it is worthwhile recording our pleasure that it was from Portmoak.

The doubting Thomases who expressed scepticism about the new winches were confounded when a number of photographs showing the system in various stages of construction appeared recently on the notice board. We now learn that the retrieve winch will be here in the next fortnight.

After considerable discussion, a trial agreement is being reached with the hang gliding fraternity. We hope that this will lead to a more controlled situation on the hill. The AGM is in late June.

R.H.

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SOUTHDOWN (Storrington)

It was an excellent start to the soaring season with marvellous weather, particularly during early May. Dave Connaway achieved Diamond height at Portmoak on April 4. Then on May 19 during our task week three rushed around a 300km triangle, giving a Gold C complete and Diamond to Les Merritt. On the same day Brian Bateson and Steve Turner took the K-13 on a 202km task, a new club two-seater achievement, but with 8kt thermals and 7500ft cloudbase it was a day to be remembered. The task week was quite successful with tasks completed on five days.

Our Silver C completions this year have set an all time record with ten qualifying over a five-week period.

Our "new" K-7 is well liked and generally preferred to our previous one. Preparations are now well in hand for our 50th anniversary dinner at the end of June.

We have two new full Cat instructors with Les Merritt and Jim Tucker (II) passing their examinations. We also have a new CFI in Keith (The Teeth) Mitchell and a new deputy in "Tiny" Don Irving, both of whom are enthusiastically adding their considerable experience and weight to these challenging positions.

B.A.B.

SOUTH WALES (Usk)

After a rather wet and muddy start we have had abundant wave, ridge and thermal conditions resulting in a crop of Bronze Cs — Glyn Ford, John Millard, Steve Reed and Graham Baily. Steve and Graham also achieved their five hours. Silver distances went to Mark Howell, Keith Beggin, Gerald Waldock, and Lyn Everritt and Silver height to Mark, Graham, Gerald and Liz Duffin. Strong waves boosted John Sorrell and Ian Edwards to Gold height. Well done everybody.

The latest member to the club fleet, a K-8, is proving very popular and has been used for many Bronze and Silver badges. We also have an A40 retrieve car supplied by Lyn Everritt.

We were pleased to welcome members of the British Team squad on May 10 for Competition Kitty and even more pleased when Ivor Shattock won the weekend. During the barbecue arranged for Kitty, Norman Evans was rewarded for all his many years' service to the club, including his time as Chairman.

Lecture/natter nights during the winter were well attended and our thanks to those who worked to make them a success. Evening flying is now underway as a replacement. Hopefully we will soon be on mains water.

P.A.C.

STAFFORDSHIRE (Morridge)

We started flying passengers mid-week during May. This helps junior instructors to gain experience, gives us good publicity and PR, attracts new members, increases utilisation of club equipment and raises additional money for club improvements.

On Whit Monday, Peter Joules converted to the K-8. Our club course week which followed Whit was a great success. The 20 members who attended flew a total of 30hrs during 158 flights and raised £275 in flying fees. Perfect unstable north-westerly winds prevailed and Keith Ward and David Thorpe managed Bronze C legs, Joe Sharples and John Davies went solo and Philip Barnshaw went cross-country to Ashbourne.

We are taking part in the Staffordshire Moorlands District Council Sports Week from June 8-15. Council members will be visiting the site, we will arrange air experience flights and will provide a display for a stand at their exhibition.

In line with a number of other clubs, we will be running a dawn to dusk flying weekend on June 21-22 with a barbeque on the Saturday evening.

P.F.

SURREY & HANTS (Lasham Airfield)

The good start to the season has crumbled a bit with lots of blue sky or 8/8 strato-cumulus spoiling soaring prospects much of the time. However one or two days have produced excellent results, notably May 9. Four club gliders gave their pilots 300km goals to Devizes and Northampton. Andy Ginever and Lionel Sole in Astirs, John Davies (Mosquito) and John Bell (Kestrel) made May 9 the most cross-country Diamond grabbing that's ever been done in our club gliders in one day.

Ken Stewart, deputy CFI, completed his 300km and Julian West his 508km distance, the first 500km badge flight this year. Alan Purnell of course did a 600km triangle to Usk and Lincoln as he did on April 21 to beyond Doncaster! Roy Pentecost turned back on that April day just short of 500km.

May 19 was also excellent with cumulus base to 8000ft in places but an approaching front resulted in some very long retrieves, George Metcalfe nearly making it back rounding Sherborne and Shrewsbury. April 19 brought wave to Lasham with 12 000ft available with patience, easily contacted from thermals all over the local cross-country area.

The advanced courses have produced such an intense interest in Silver C flights that we are considering changing trailer tyres that are wearing out rather than rotting in the sun. Club gliders had flown 10 400km from a site total of 32 000km by May 31. A little more reliable thermal activity will turn a good season into a super one.

C.L.

SWINDON (South Marston)

Soaring started in February and by the end of May we had achieved far more cross-country kilometres than the same period last year. Phil Gaisford leads the ladder with Norman Parry second, Norman having had a remarkable wave climb of 12 000ft earlier in the season. Cross-country pilots have had to pass a written test on air law and navigation, set by CFI, John Baxter, before being let off the leash.

The Blanik, which replaced the T-49, isn't yet as popular as the K-13 but spends a lot of time in the hands of Steve Nash and others giving passenger flights. The Astir and

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Skylark 4 have joined the K-8 but the Skylark needs a new trailer before it can fulfil its proper cross-country role.

Local real ale has replaced the fizz served in the clubhouse and in addition Angie Higgs and the girls now provide food most weekends.

John Chapman has gone solo and Bob Locke completed his Bronze C. We have a passenger flying weekend on June 21-22, a task week starting June 28 and a Competition Kitty weekend on July 19-21, with the annual barbecue arranged for July 19.

J.M.B.

ULSTER (Bellarena)

The start of this, our 50th anniversary season, was considerably delayed by a lengthy refurbishing of our tug. The only club member able to raise a smile during the long grounding, when we missed some delightful spring weather, was our Chairman, Gordon Mackie, who was able to flout his independence of such things as tugs with his new PIK-20E, which logged our first flying of the year.

Despite his self-launching abilities, however, Gordon wheeled on to the site in May a twin-drum he has generously built to give us a useful stand-by for fresh westerly, ridge wind, days.

Other pilots kept their hands in by flying with the Dublin Club or on abortive wave forays to Aboyne, where Bob Rodwell flew the Deeside Club's K-6E for a Grampian TV programme to be networked nationwide in July. Later, Alan Sands took the PIK-20D Diamond hunting in Germany.

Both SHK syndicates have moved up market, the McKelvie/Wallace/Weston trio beginning the season with very intensive use of their new Yugoslav-built DG-100 Elan, which Laurence McKelvie took to more than 11 000ft on its first flight from our site; while Messrs Craig, Farrell and Snow towed home from Schleicher a new ASW-20. As I write, two members are about to depart for Bavaria to bring back yet another K-6CR.

Almost unbelievably, we still have not sorted out the problems with Building Control *(sic)* which have so far prevented us making any move towards erecting the hangar for which we obtained planning permission in February 1979. If the entire nation suffered the kind of bureaucracy we have encountered, we'd all still be living in caves.

R.R.R.

VINTAGE NEWS

The Vintage Glider Club held its annual dinner on May 25 at Lewes when cups were awarded to Ken Fripp for his restoration of a Hutter H 17A and to Derek Godfrey for almost completing a 300km triangle in his 1943 Weihe. He managed 274km.

This season good flights have been made by 16 year-old Andrew Humphreys (Grunau Baby) and Geoff Moore (Mu 13D-3) for Silver distance. Geoff has now completed his Silver C on vintage gliders and Andrew aims to do the same in the Grunau.

There are 60 entries for the Eighth International Vintage Rally at Sutton Bank from July 26-August 3, but because of limited facilities and airspace over the site, the entry has to be restricted to 50.

An informal vintage meeting is being held at Lasham during the week before the rally for foreign members wishing to spend two weeks in England and for those who couldn't be accepted for the International Rally. The organiser is Colin Street of "Badger Lodge", Redlands Lane, Ewshott, Farnham, Surrey GU10 5AS.

C.W.

WELLAND SOARING GROUP (Careby)

We had an early and enthusiastic start to the season and have several new members. Dave Gittens and Ray Hall gained their Bronze Cs and Ernie Clayton successfully completed the instructors' course at Husbands Bosworth in June.

Our grateful thanks to Horace Bryant for his years as Group Treasurer. His job has been taken by Phil West.

R.J.H.

WOLDS (Pocklington)

The club expedition to Portmoak in April was a great success with five Diamond and six Gold height claims and several Silver and Bronze legs. Chris Reeves and Brian McFadden completed their Silver Cs. We now hope to have an expedition to a wave site each year.

Our first task week was held recently and won by Eddie Room and John Durman in the Cobra. A battle between Bob Fox and Bill Young and crews in the two K-7s ended with only 9km between them, all good practice for Bill who will be taking a K-7 to Competition Enterprise again this year.

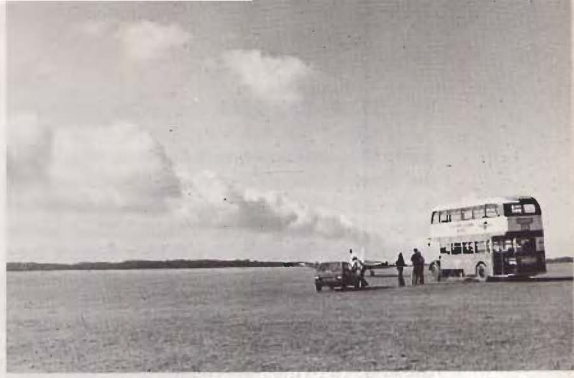
The Northern League weekend at Pocklington was a disappointment weatherwise and we hope Competition Kitty has better luck.

The evening visits are again going well, and with another task week in July and several Pocklington gliders entering the Northern and Eastern Regionals it looks like being a busy summer.

H.N.

WYCOMBE AIR PARK (Booker)

Although not quite up to 1976 standard, this year continues apace here with achievements like Dave Watt's Diploma distance and 300km record claim and the lead Chris Rollings has on the trail to the Arctic Lite 300km cash prize. On the other hand, our PIK 20 has been written-off in a landing accident; we are hoping to replace it with an ASW-20 but that won't put the accident record straight.



Booker on a good day — not a glider in sight! Photo: Ed White.

All the tug pilots have been getting checked out in the loaned Wilga; this aircraft really increases the launch rate which is especially helpful on the evening courses when we have already had many first solos and a few Bronze Cs. Our K-21 is proving very popular, both for basic training and cross-country work.

The Thames Valley Club, which looks after the non-British Airways people, has recently become a registered company.

E.W.

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SERVICE NEWS

ANGLIA (RAF Wattisham)

After a disastrous start to the season with a mid air collision between the T-21 and K-8 which caused only minor damage and no casualties, things have now started to pick up with a completed Silver C by "Piggy" Hammond and 500kms by Jack "Elmer" Webb and "Mouse" Ackroyd. "Mouse" unfortunately missed his claim by the 1% rule.

Our fleet has been increased by the arrival of a K-4 and "Mouse's" Torva Sprite. Hopefully our Blanik will be here very soon.

We welcome our new Chairman, Mike Parkin, who takes over from Dick Morris. As a farewell gesture we decorated the bar and held a party, but as we forgot to tell Dick he was the only one who didn't come.

S.P.

BANNERDOWN (RAFGSA)

Congratulations to all Bannerdown members on their performances in the Inter-Service Regionals but especially to Tony Clarke, our CFI, on coming second in the Standard Class.

Bronze legs have recently been completed by Keith Woodcock, Andy Stenton, Derek Finley, Sue Williams and Willie McIvor. Paul Breslin and Mel Dawson have their A certificates.

Welcome to Mick Topham who has joined us recently while on a course nearby. By the time this is in print our new bus winch will be operating, giving us even better launches.

E.A.C.H.

BICESTER (RAFGSA)

Early May saw a strong Bicester contingent at the Inter-Service Regionals. The 14 aircraft with 15 pilots flew a total of over 12 000km during the competition and achieved some good results. Ken Hartley led the Open Class for some days and finally finished a very close second; Pam Newall won a day in the Standard and finished 4th followed by Dave Caunt, 5th; Dino Dean and Paul Bolton came 2nd and 3rd in the Sports and Mick Alexander 4th in the Club.



Lucy Caunt, who went solo on her 16th birthday.

The good conditions have encouraged many others to do some cross-country flying and Mike Osborne completed a 307km Diamond goal flight. Members and visitors have collectively claimed seven durations, three Silver heights and three Silver distances. Congratulations to Mick Alford, John Edwards and Angie Watt who completed their Silver Cs and to Derek Durling for height and duration. We also have several new solo pilots including Lucy Caunt who joined the select band of those flying solo on a 16th birthday and rapidly converted to the K-8. Perhaps it will not be too many years before she has designs on father's Kestrel, one of two new syndicate aircraft arriving during May. The other is a DG-100 replacing the Oly 419.

J.W.

CRANWELL (RAFGSA)

Congratulations to Chris Terry who won the Club Class in the Inter-Service Regionals. Chris wasn't allowed to enter last year as he had too little experience!

Our Chairman, Grp Capt Whittingham, has gone solo and progressed to the K-8, as well as Angie Tapson, our CFI's wife. We have achieved a crop of Bronze Cs and Silver legs, many in gliders from our vintage fleet to which has been added a syndicate Eagle.

When our CFI took over he set an annual target of 5000 launches and 2500km. These targets have already been achieved. Our new tug has completed 60hrs towing and is a great asset, Ken Dodd, John Harrison and Dave Almey are back with instructor ratings and Dave is now a senior inspector. His accurate and professional workmanship is much appreciated. Three new assistant Cats have joined us and we have helped out the RAFGSA by exporting three of our full Cats, Mike Throssel, Martin Durham and Paul Steinal.

The Gull IV is flying again after being recovered and repainted and to the horror of this syndicate member has sprouted a pink nose!

G.A.B.

EAST MIDLAND (RAF Wittering)

The comings and goings of club members have been too numerous to mention individually, but the vagaries of Service life do mean that we have a constant crop of pupils. Among the recent achievements are first solos for Bob O'Hara and Lyn Parker, a Bronze C for Paul McLean and duration flights for John Norman and Steve Carter to complete their Silver Cs. Congratulations also to Steve and Mick Topham on successfully completing an instructors' course.

Club members have also been introduced, or in some cases re-introduced, to the joys of flying a K-4, as it is temporarily our only two-seater. We lost the SF-26 at Easter as it was re-allocated to Preseli GC. Our best wishes go with it.

I.M.G.

FENLAND (RAF Marham)

The bus chassis conversion to a winch is progressing under the control of Brian Mack, who has also found time to modify another of the tractors.

Neil McCarry, Dave Smith, Andy Hill and Geoff Short have gone solo, and there has been a crop of Bronze and Silver legs. Tony Povey and Ken Reeves have completed their Silver Cs. In the Inter-Service Regionals, Stu Lawrence came third in the Club Class and Ben Benoist won the Standard Class in the Twin Astir.

Instructors continue to be posted. Latest to go is Phil Morgan and we also say goodbye to Chris Jacobs.

M.J.M.

FOUR COUNTIES (RAF Syerston)

Congratulations to Trev Gorely for winning the Inter-Services Regionals' Sport Class and to John Taylor, Dickie Feakes, Roger Clemo, John Marriott and Ginge Fearon on being highly placed.

A good wave day produced a site record of 14 400ft by Chey Chin and gave Ben Beniston his Gold C with a Gold height. Notable cross-countries include a 300km for Hamish Brown, a 270km for Chey Chin and a 280km for Tim Bralesford.

The Whit soaring week was a disaster, the bright spot being Harry Orme's Tandem Falke, which members made full use of, and a Sport Vega which members flew and enjoyed. Hopefully we will have better weather for our August task week.

New aircraft on site are an ASW-20, ASW-19, K-6E and Nimbus 2. Finally we say hello to our new Chairman and full Cat, John Delafield.

G.P.S.

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FULMAR (RAF Kinloss)

We welcome "Griff" Griffiths from Anglia, Chris Jacobs from Fenland and Oscar Constable back after a tour in Germany.

The sea breeze has been kind to us, allowing more soaring than normal for late spring. We congratulate Pete Stratton, Mark Bonthron and Al Thomson on completing Silver Cs by flying their distances, the latter two from Bicester.

Congratulations also to Ron Jackson for coming second in the Club Class at the Inter-Service Regionals, Dave Stewart for his first Bronze leg and Ian Campbell and Carl Surgey for going solo.

It is with regret that we announce the departure of Pip Barley for Binbrook. We thank him for the work he has done over the past few years, including his clubhouse entertainment.

C.J.

KESTREL (RAF Odiham)

The fine spring weather has seen an increase in our flying achievements and our *ab-initio* membership. Solo standard has been reached by Pete Stone, "Slim" Whiteman, Wendy Shortly and Ian Booth. New Bronze C pilots are Ray Farrell, Trevor Stacey, Derek Anderson, Terry Egglington and Dave East. Mike St Jean has started on the Silver trail, whilst Warwick Creighton, Nigel Ridd and Dave Lancaster have completed theirs. First Gold of the season goes to Andy Ginever who completed a 300km triangle.

Unfortunately we have lost four of our "older" members, all instructors, Paul Mulhern is posted to Coningsby, Mike Pobjoy a little further afield to Australia, having joined the Australian Army, Don Carey has "turned professional" and moved to Bickmarsh whilst Pete Andrews is posted to Aberdeen, *sans* Grunau.

P.W.A.

PORTSMOUTH NAVAL (Lee-on-Solent)

The Easter course task week proved to be a resounding success with most of the *ab-initio* pilots going solo and the more advanced gaining Bronze and Silver legs. The task pilots clocked up an impressive number of cross-country kilometres and successful field landings. Our thanks to the generous help given by club members. It was rounded off with a very well attended social evening.

Our new tug is proving its worth and with the Astir is justifying our investment in new

equipment. Work on the Astir trailer is progressing well.

There have been a few more Committee changes with Mike Draper replacing John Limb as Treasurer and Pete Sharp relieving Simon Owens as Secretary. "Nobby" Clarke has also left the Committee. Our thanks to John, Simon and "Nobby" for all their efforts.

There have been many achievements since Easter and our congratulations to those who have gone solo, flown cross-country and gained Bronze and Silver legs.

Finally on a humorous note, an excited passenger on a local train reported having seen a dead pilot lying beside his crashed aircraft near the railway track. On investigation it turned out to be Colin Barnes enjoying the sunshine whilst waiting for a retrieve.

H.C.

PRESELI (RAF Brawdy)

Our fleet has now grown to a K-4, K-7, SF-26 and an L Spatz. The gliding conditions also improved and a number of notable flights were made. These included a 50km plus *via* Milford Haven and St Davids by deputy CFI, "Polly" Parrott, in the L Spatz, several flying visits to the West Wales GC by CFI, Grant Guest, and Steve Burnell in the SF-26 and a site height record of 6000ft by Grant.

Pilot training has progressed well with first solos by Ben Bennett and Pete Kearney who also gained Bronze legs later in the month. Other Bronze legs were by Barry Holding (2) and Lew Tyler. For good measure the OC Ops, Dennis Willison, also went solo muttering something about a Lightning on Friday and a K-4 on Sunday.

J.K.S.

TWO RIVERS (RAF Laarbruch)

Rob McCarthy, Paul Jackson, Tim Allen and Chris Lansley have gone solo, Colin Hale and Phil Shambrook have their Silver Cs, Andy. Powell has Silver height, Sarah Bailey and Jayne Lee their Silver distance and Vince Mallon completed a 300km for Gold distance and Diamond goal.

We took part in the RAFGSA expedition to Sisteron in March/April and had some exhilarating flying. Trev Buckley and Pete Burns gained Silver height and duration on the Gâche and Pete climbed to 14 300ft amsl for Gold height which was also gained by Martin Everett.

Prior to the BFG Gliding Comps at Detmold, Mike Lee and Vince Mallon had useful experience at Asperden flying in their Comps. At the Detmold Comps, TRGC led the way yet again with Bryan Harvey narrowly beating Mick Lee in the Open Class and Jerry Neild winning the Club Class, plus the award for the best RAFG pilot.

Finally, a sad farewell to Leigh and Marilyn Hood and we wish them all the best in the UK. We owe a lot to Leigh for his patient coaching.

J.R.N.

WREKIN (RAF Cosford)

Our thanks to our retiring CFI, Dave Cottle, for all his hard work and guidance over the years. We welcome Shag Haggar as our new boss. Mick Davis received the AOC's commendation for landing our Astir in one piece when the ailerons jammed in flight, thus enabling us to determine the cause.

Bic Smith has completed his Bronze and Les Cadogan and Rhod Evans their Silver Cs. Dave Wakefield was the second solo pilot of the year and Al Stacey made a dramatic conversion to our Astir. We are looking forward to our longest day on June 21 (and the party afterwards) and hope to crack 200 launches.

We were deeply shocked to hear of the deaths of Gina Nowland and Colin Moore. Our condolences go to their families.

J.L.R.

WYVERN (RAF Upavon)

The perseverance of our winter gliding members has paid off. Our congratulations go to Sue Hawkins and Steve Best on going solo; Steve almost gained his first Bronze leg on his second solo flight. Steve Moss (our schizophrenic hang glider freak) has achieved his first half hour while Angie Pears has gained both. Adrian Matyear, Colin Arch and John Hawkins gained their Bronze Cs, the latter two moving on quickly to gain Silver Cs. Adrian, Barry Perks and Ray Hornbuckle have all flown 50km, with Phil Wood getting Silver height.

Our membership stands at about 110 with a recent influx of very welcome *ab-initio* pilots. We now have a retrieve wagon and a double-decker limousine for our airfield control, mobile lecture/briefing room, restaurant and rest room. Thanks to Colin Arch the bus has its own internal LAWN-Launch Audio Warning Noise. A further retrieve wagon is on its way!

The most obvious effects of the AGM in early February are the slight increase in launch fees to 50p, the appearance of myriad multi-coloured charts from our new Secretary, Sue Hawkins, and a face lift for the clubhouse thanks to Merve and Pat, Pete and Helga Cook and our new entertainments member Arthur Pears.

Goon of the month award had a few candidates; Ray Hornbuckle for his Netheravon landing, John Hawkins for his 15min duration flight to Huish or even Brian Hemstock for his crochet work with the cables during a retrieve. The winner was Colin Hornbuckle who landed after 4hrs 50min on his duration believing he had flown an extra hour.

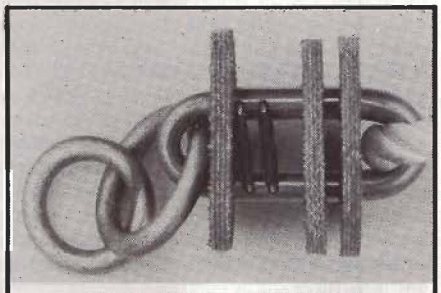
After six months on the ground under the ever watchful eye of Gerry Sturgess, our aircraft member, our second K-13 (472) has returned in pristine condition. In even more sparkling condition is Gerry and Ken Mackley's rebuilt K-6E (one from two).

J.H.

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GLIDERS THAT GO "CLONK" IN FLIGHT

Dear Editor,

At the last BGA Technical Committee some concern was expressed that several persons appear to have abandoned otherwise airworthy gliders, the most recent one, with fatal consequences! Whereas we cannot hope to understand all the factors that may have initiated these decisions, it may be worth mentioning that disturbing influences may be generated by:

a. **Involuntary undercarriage** lowering.

b. **"Buzz"** from flaps and flying control components.

c. **Severe vibration** from speed-brake caps, which may be amplified like machine-gun fire if part of a metal airframe.

d. **"Clonks", creaks and groans** from the natural responses of the various components of the airframe in relationship to one another.

None of these "distractions" necessarily render the glider untenable and, therefore, should be assessed in non-airworthiness terms before leaping overboard! To avoid any possibility of initiating classic control or structural flutter of catastrophic capability, only aeronautically illiterate fools will exceed the type certificated limitations.

R. B. STRATTON, *BGA Chief Technical Officer.*

IS FLYING WORTHWHILE?

Dear Editor,

Although I was in agreement with Bob Rodwell's expression of concern over the failure of quality assurance procedures at Slingsby's sub-contractors, I feel that he has asked the wrong question. (See the last issue, "Those Vega Wings", p96.) Since I can purchase a car, motorcycle, boat, caving ladder and climbing rope without legal certification of their suitability, why must an aircraft be treated differently? Perhaps it is not aircraft, but that human activity called "flying" that attracts such unique legislation, since we are all well aware that these restrictions extend to *aviation* fuel and *airspace* but not to other fuels or spaces.

The questions we need to ask, therefore, are "Why does flying need special regulations?" and "Is it worthwhile?"

If the answers to these questions justify special procedures isn't it likely that similar treatment would be appropriate to the other products that I have mentioned? (It's more likely that we should arrive at some typically silly compromise — no C of A until your glider is three years old!)

CHARLES ELLIS, **Ilford, Essex.**

(See the April issue, p96 for Bob Rodwell's letter and Roger Bull's reply.)

AEROTOW ROPES

Dear Editor,

Is there any way of getting the BGA Executive Committee to go on a mountaineering course with weak links in the safety ropes?

TED WARNER, **Cambridge.**

GLIDER INSURANCE

Dear Editor,

I read Mr. B. G. Jervis's article in the last issue on glider insurance (p120) with great interest. We are all concerned about the rapidly rising rate of glider insurance. In spite of the grim accident rate for 1979 which merited two articles in that issue, I suspect that the majority of glider owners never have accidents.

In the motor insurance industry it seems that there has been a marked tendency in recent years to increase the no claims bonus and to load premiums for high risk cases.

Fifteen per cent no claims bonus appears to be the maximum obtainable on glider insurance, yet I have 66% on my car. Mr. Jervis does not deal with no claims bonuses in his article — perhaps he would care to comment on the reasons why they are not being increased for glider insurance? It does rather seem to be a case where the sins of the few are penalising the many.

SHEILA CORBETT, **Leigh-on-Sea, Essex.**

Mr. Jervis replies: Sheila Corbett has raised a point which few people outside insurance grasp. Claims are paid by insurers from their nett premiums, *ie*, the premiums remaining after all returns and deductions have been made and these, of course, include No Claims Bonuses. (NCBs). Therefore, if NCBs were to go up, then premiums would also go up so as to leave insurers with the same nett premiums out of which to pay claims.

Gross Premium	*Nett Premium*
£200 NCB 15%	£170
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If, during the period when bonuses were being increased, premium rates were also increased, the effect of both increases on the premiums would be dramatic, because aviation bonuses are not operated in the same way as they are in motor insurance.

The aviation bonus is paid as a return on last year's premium, and NOT as a deduction from this year's premium. High bonuses have only two effects, one is to act as a hidden policy excess, and the other is to help to maintain continuity between the insured and the insurer. In addition, it is my experience that most insured look for a low first cost, *ie*, they select the policy with the lowest initial premium. They do not work out which quotation will prove ultimately to be the most economical. I would also like to mention that most of my policies have NCBs amounting to 20 or 25%.

Finally, let me assure Sheila Corbett that, so far as I am concerned, those insureds who have claims face considerably larger premium increases at renewal than those who do not make any claim.

CONSIDERATION IN THERMALS

Dear Editor,

I wholeheartedly endorse Charles Ellis's plea for more consideration in thermals (see "Manners in Thermals" letter in the last issue, p150), but, like Bill Scull, doubt whether more rules will help — especially one which seeks to pin blame after the event.

Recently I was enjoying a thermal at Didcot during a solitary cross-country. There were others in the thermal well above and well below me. All were circling to the left. Suddenly as many as 8-10 gliders entered the thermal at my height and turned the other way in circles which overlapped mine. I had to take evasive action to avoid what would have been more than one collision and had little choice but to reverse my circle, as did the pair originally below me when they later caught up this ill-mannered gaggle.

From their competition numbers and voices I recognised several seasoned competition pilots and instructors, in what turned out to be Competition Kitty. Didn't they see any of us or don't they bother about the one recognised rule of behaviour in thermals? Is this the sort of "lesson" they were passing on to the next generation of pilots?

I am afraid that Bill Scull is being a little complacent in taking comfort from the fact that there have been only a small number of collisions. Anybody familiar with the details of any of them knows just how close the escapes from death have been. I cannot help feeling that attitudes to this question would be rather different if these lives had not been spared so providentially.

JANE RANDLE, **Cassington, Oxford.**

FIELD LANDINGS

Dear Editor,

The timely articles in the last issue on field landings by John Morris (p115) and John Williamson (p117) emphasise Size, Slope and Surface but nowhere is there any mention of Wind. Except in mountainous country, this is normally the dominant consideration. Its omission from the check-list confirms my impression that the experienced glider pilot is instinctively aware of the wind direction throughout the flight. Selecting a field with adequate into-wind dimensions therefore comes naturally to him. On the other hand, the not so experienced pilot may be well advised to ask himself positively if he really knows where the wind is, particularly if there are cu-nims or sea breeze effects about.

Another vital check is for obstructions on the approach or in the field. In this respect, power lines can be the macabre joker in the pack. They may be difficult to see through sunglasses if the light is poor so it's "sunglasses off" for me prior to landing out.

Where sloping fields are concerned, the gradients of interest to airline pilots are hardly relevant to the glide approach brigade but appreciable downslopes are assuredly to be avoided like the plague. With a gentle upslope, perhaps the main thing to remember is the need for a little extra speed on the approach — carefully monitored, of course — because of the greater angular round-out required.

Whatever happened to sideslipping? Perhaps the pot-pitot has something to do with its near demise. The apparent reduction in airspeed as the slip develops is clearly very worrying to some, particularly if they've recently absorbed the essential modern doctrine of speed-control. In consequence, the art of maintaining a controlled sideslip may never be learned and an exceedingly useful approach control aid remains unacquired. Even a little "sideways flying", with trivial bank, markedly increases the sink rate of a slippery glider. Perhaps a training technique can be developed to increase competence and confidence in this invaluable manoeuvre.
DAVID EVANS, **Cambridge.**

John Williamson replies: David Evans is quite right in that wind strength and direction will modify the effective size and shape of a prospective field and are dominant factors in making a choice. The article referred to was not intended to be a full and definitive guide to field landings. It was more a catalogue of errors made last year and, interestingly, a wrong assessment of wind did not contribute. I particularly like the point he makes about sunglasses and heartily endorse it.

SPORT VEGA PERFORMANCE

Dear Editor,

I am interested to see that the designers of the Sport Vega confidently estimate the best glide as over 38:1 (see S&G, June, p112). Schleicher claim 38.5:1 for the ASW-19 and 36:1 for the fixed wheel ASW-19 Club, so Slingsby's have obviously made a breakthrough. Could Roger Bull tell us what it is?

I hear that a comparison was made from a high tow between the Sport Vega and an Astir Jeans, and that they were closely similar. Was there something wrong with the Vega that day?

The Sport Vega is clearly a very nice glider, entirely suitable for the job it is sold to do; we have one on order at Lasham for Surrey & Hants. I am prepared to believe 35:1.
BILL DEAN, **Midhurst, Sussex.**

Roger Bull, Sales Manager, Aircraft Division, of Slingsby Engineering Ltd, replies: The breakthrough seems to me to lie not only in the design of the Sport Vega, but also in simple arithmetic. The figures quoted in Bill Dean's letter show a difference between retractable and fixed gear versions of the ASW-19 of 2½ glide angle points. Similarly the Sport Vega is a fixed gear version of the Vega — (the presence or absence of flaps is immaterial to this discussion since best glide angle is achieved at or near neutral flap setting). Since the Vega has a best glide angle of 41 (at the Sport Vega's wing loading), a similar deduction of 2½ glide angle points for a fixed wheel gives a glide angle of 38:5. I hasten to add that the above is **not** the way we calculated the performance in the first place. I suppose, however, it is really no good trying to argue these matters logically, since it is quite obvious that the real fault Bill finds with the Sport Vega is that the native tongue of its manufacturers is English and not German!

BRAKES AND HOOKS

Dear Editor,

Readers of Derek Piggott's article about the Sport Vega and who have not yet experienced the pleasures of properly designed trailing edge brakes would be delighted by their combination of powerful speed limiting, smooth drag modulation with exceptionally precise control of glide path angle and speed, significant reduction in roundout and touchdown speeds, and completely safe operation near the ground. It is good to give credit where it is due, and so I am sure Derek will not mind my pointing out that Sport Vega is a long way from being the first glider to have such brakes free from rapid sink or stall out when opened near the ground in the hold off — as he has forgotten that he flew the first glider to possess all these desirable characteristics ten years ago. This was the BG-100 prototype, followed by the BG-135 production version. Its designers still take pride in having been first to show how it should be done.

Derek also refers to the commonly held belief that lack of a nose aerotow hook may give unsatisfactory towing. During the last war, theoretical research into tow hook location for troop carrying gliders showed that the optimum place is below and a little forward of the C of G. In other words, the hook location on Sport Vega and a great many other gliders is correct. A nose hook introduces an unstable yawing oscillation mode, though it is not very severe and is probably lost within the general mayhem of an aerotow launch. The only advantages of a nose hook are to help to keep the glider straight while on the ground and to reduce the rope snatch pitch up problem, and neither need be necessary on a modern sporting glider.
JOHN GIBSON, **Lytham St. Annes, Lancs.**

COMPETITION AND FIELD LANDINGS

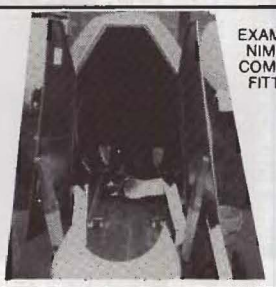
Dear Editor,

The earliest gliding competitions were held when gliders were little better than aerial toboggans, and pilots would compete to see who could climb the highest, and who could stay airborne the longest. It was not long before improved machines rendered these two skills somewhat meaningless, and the competition progressed to discovering who could fly the furthest distance from the competition site. The technique in this case was to climb in thermals whilst drifting straight downwind as long as possible — and if the pilot was adventurous and skilled, perhaps a course a few degrees either side of this could be achieved. The limited capabilities of the gliders of that time suited this style of event, since they were light, slow flying and landed easily in small fields.

The realisation that we were outgrowing the "distance" concept dawned with the advent of the Skylark 3, which had an embarrassing habit of reaching the coast on free distance contest days, and it became apparent that in suitable weather these new "laminar flow" machines were actually capable of making useful progress upwind. There was now the prospect of closed circuit flying, giving both competitors and retrieve crews the chance of a reasonable night's sleep, and the reliability of the retrieve equipment and the stamina of their crews would no longer play quite so crucial a role in the competitions.

Today our gliders are far superior in performance to Skylarks (and much more expensive). How often do I hear this kind of remark in the club bar: "I started up the second leg of the course, but the weather clamped down, *so I came home.*" Thanks to today's technology, this is what we can often do — or failing that, we can divert to a friendly gliding club or small aerodrome,

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rather than land in a field. This seems the sensible thing to do, but it is not encouraged in competition flying.

It is a common experience for the competition pilot to have to decide whether to land at a nice little airstrip/gliding site a few hundred feet below, or to press on into the unknown for a few more distance marks. For a farmer living near a gliding club, there is no excitement in having a glider land on his property, and even if no damage has been done and he is kindly disposed towards the trespasser, you can be sure that he would rather the landing had been made elsewhere.

For the pilot too, the novelty of landing in fields wears off very quickly. For me, they consist roughly of 20% anxiety and 80% boredom. The relief from anxiety of not having encountered some hidden hazard in the strange landing field changes rapidly to boredom — which lasts until the retrieve crew becomes overdue, when anxiety takes over again — this time about their safety.

Today's gliding competitions consist mainly of races round prescribed courses, and if the task has been reasonably tailored to the weather, then those who don't complete the course collect very few marks. However, the "distance" concept in the scoring system obliges these non-finishers to stretch their glide angles and nerves to land in fields chosen from altitudes as low as they dare. This, to my mind is rather like entering brand new Rolls-Royces in a Motor Cross competition.

Why should this be necessary? Is gliding out to the very last field some kind of test of courage to be rewarded? I don't think it should be, but since our scoring system encourages this practice, then it must follow that we are encouraging increased danger to expensive gliders, everyone's insurance premiums and our relations with the farmers.

In an attempt to steer us away from these dangerous and obsolete "distance" inducements, I would like to make some proposals, and perhaps get some reaction to them:

Proposal 1. On a race day, every competitor who flies beyond 2X but fails to complete the course gets the same score. (Under this ruling, the inducement to finish the course would still exist, but not to stretch his glide.)

Proposal 2. (If Proposal 1 is too sweeping). Divide the course into sections, the dividing lines between these sections being marked by approved safe landing areas. For example, if there are four gliding clubs spaced roughly along the course, these would divide the total distance into five sections, each section worth a proportion of the total distance mark. Landing at any of the clubs would credit the pilot with having landed in the section beyond it. (This would mean that a pilot finding himself committed to land, say, just beyond one of the aforementioned clubs can turn back and land there without losing distance marks.)

Proposal 3. A distance points *bonus* to be given to pilots who land at designated safe areas (or if preferred, a penalty inflicted on those who don't). (This could be a rather complicated system if one wishes to take wind strength and glider performance rating into account, but a simple rule could be say, 15km bonus for Open Class, 13 for 15 Metre and 10km bonus for Standard Class.)

Field landings will never be completely eliminated, but a scoring system incorporating one of the above proposals could reduce the number of them considerably. Let us bring our thinking in competition gliding up to date with our equipment.

MIKE FAIRMAN, **Welwyn Garden City, Herts.**

THOSE WERE THE DAYS

Dear Editor,

Ron Riley was pampered! (see February issue, p16). I don't think ground slides had been invented when I started with the Imperial College Club at Dunstable in 1933 because it was "stick in the middle" from the first launch. I was strapped onto this big white bird (Dagling) and then with sudden bumping and a wild rushing followed Icarus 20ft up into the sky. What ecstasy! I frankly disbelieved bystanders who said that I had been up all of 5 or 6ft.

Perhaps *because* of the absence of ground slides, instructors were wont to carry some bent nails in their pockets. These were useful as weak links to connect to the top of the king-post the wires holding up the wings. In an impact landing the nails sheared and the wingtips fell onto the ground. New nails were then inserted and with an inspection and a good shake of the wings, flying was resumed with minimal delay!

LAWRENCE ROBERTSON, **Southampton.**

MORE ON GLIDING IN THE USA

Dear Editor,

Following on from Steve Bicknell's letter in the April issue, p97 about gliding in Texas, it was partly the success of his trip and partly frustration with British weather (two consecutive poor summers and miserable winters) that made me go to Florida for a fortnight last month. I went to the Sebring Soaring Centre, run by Derek Johnson who used to be CFI of Three Counties Aero Club at Blackbushe and a member at Lasham. Every day was soarable with several of the days being as good as the best of the summer days we have here — in the ten days I flew, I totalled 38hrs and could easily have done a lot more.

A word of warning about the American gliding scene — most of the clubs are commercially run and I understand that many are ultra-conservative in their approach, using machines which by European standards are woefully out of date. I landed at one such club in a K-6CR and the people there were amazed at such a sleek machine! Also, it seems that many of the clubs do not allow cross-countries, so before going to any American club it is advisable to make sure what gliders they

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have and what they will and will not allow you to do. Fortunately Derek Johnson is very cross-country minded and encourages people to take his PIK 20b cross-country as soon as they are able to.

As for Florida itself, the gliding season runs from September to April — from May to August conditions get too good with over-convection and massive cu-nims. April is the best month apparently, but all the other months from September onwards are good or very good. For a winter holiday with virtually as much soaring as you could want, Florida must be hard to beat, particularly at the present time with the pound strong relative to the dollar.

V. J. CHAMBERS, **Reigate, Surrey.**

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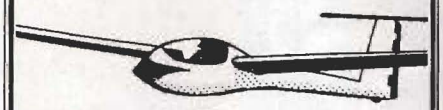
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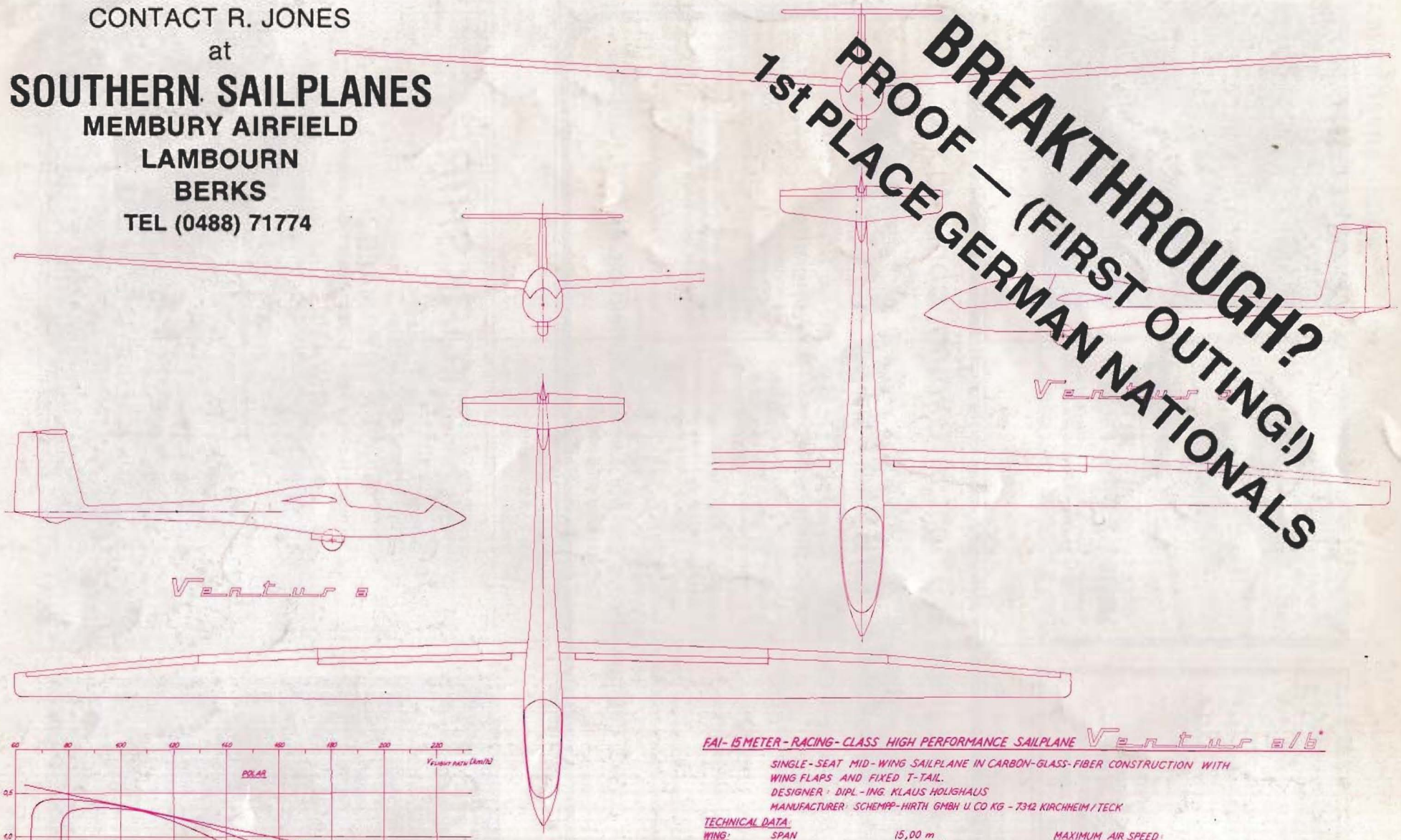
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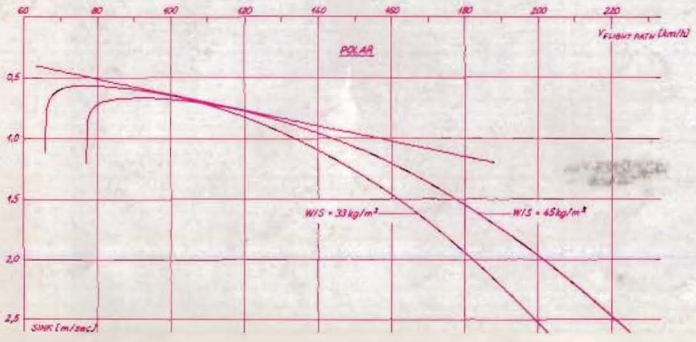
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TECHNICAL DATA:

WING:	SPAN	15,00 m		
	AREA	9,51 m²		
	ASPECT RATIO	23,70		
FUSELAGE:	LENGTH	6,35 m	(6,56 m)	
	WIDTH	0,54 m	(0,62 m)	
	HEIGHT	0,75 m	(0,83 m)	
WEIGHTS:	EMPTY WEIGHT	215 kg	(220 kg)	
	MAX. PAYLOAD	115 kg	(120 kg)	
	MAX. WEIGHT	430 kg		

MAXIMUM AIR SPEED:			
AT ALL WEATHER CONDITIONS		250	km/h
WING LOADING:		30-45	kg/m²
MAX. WATER BALLAST:		150	kg
PERFORMANCE:	AT W/S	33/45	kg/m²
STALL SPEED		65/81	km/h
MINIMUM SINK		0,57/0,66	m/s
MAX. L/D		43,5/44	

* DIFFERENT TECHNICAL DATA FOR "Ventus b" IN ( )