

# SAILPLANE & GLIDING

August-September 1976

50p



**WORLD CHAMPION - OPEN CLASS**

**GEORGE LEE of Gt Britain**

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# SAILPLANE & GLIDING

Magazine of the **BRITISH GLIDING ASSOCIATION**



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**Editor:**

Gillian Bryce-Smith, 281 Queen Edith's Way,  
Cambridge, CB1 4NH. Tel Cambridge 47725.

**Consultant Editors:**

Alan E. Slater  
Rika Harwood, 66 Maisemore Gardens,  
Emsworth, Hants, Tel 024-34-4580  
or 8 Prima Rd, London SW9 ONA.  
Tel. 01-735-3921

**Subscriptions:**

Jenny Rolfe. Tel Market Harborough 7084.

**Committee:**

A. W. F. Edwards (Chairman),  
M. Bird, and P. A. Wills

**Advertisement Manager:**

Peggy Miéville, Cheiron Press, 8/10 Parkway,  
London, NW1 7AD. Tel 01-267 1285



World Champion Standard Class Ingo Renner of Australia (centre) with Gunnar Karlsson, Sweden, 2nd (left), and George Burton, Gt Britain, 3rd (right).

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# ...home and dry



... And there we stood, the whole British contingent, dead silent, not looking at each other, because we were all emotionally involved. No doubt most of us had frogs in our throats when the British flag was hoisted and our national anthem played. We hadn't been so proud for a long time!

... And there, far away, temporarily out of our reach, standing on the podium equally proud and happy was George Lee our new World Open Class Champion!

With seven contest days in the Open Class, in a championships which weatherwise left a lot to be desired, we had come out top. Maybe our experience in difficult conditions in the UK helped our pilots, but also on the good days – alas too few in number – George and Bernard flew brilliantly.

## *It was a real cliffhanger*

The last day was a real cliffhanger. We had started the morning in 1st and two 3rd places overall, but the tasks set for the Open and Standard Classes were riskier than those we had already flown. In my opinion, and that of others, the organisers stretched it a bit too far to have sent off 80 or so pilots in very weak conditions, low cloudbase and visibility not more than 3-5km at launch time.

The reason for this was that the officials felt that the ultimate champions had to fight it out in the air, not on the ground, as would have been the case if they had cancelled the final day.

The Standard Class, however, became a “no contest” on

that day, many pilots not getting away at all! Thus Australia's Ingo Renner was sure of his title long before the Open Class duel came to an end. A huge thunderstorm reached Rääskälä in the late afternoon thus putting an effective stop to the World Gliding Championships as the heavens opened and the rain came down.

## *The fields littered with gliders*

... Then the waiting started, and a huge crowd gathered around the landing pin board where we learnt that at least two pilots had flown over 200km – but who they were at that time no one knew. We heard also that a bit farther back the fields were littered with gliders in an area of about 10kms, George Lee's ship being one of them. His closest rival, Ziobro from Poland, was 7km nearer than George – surely the points lead would be just enough!

It was; and after the elation of yesterday, depression today and finally late this evening the good news that George Lee's TP photos were OK, we British relaxed with the knowledge that we had a genuine World Champion amongst us.

Full credit is due to Bernard Fitchett who on the last day was willing to forego his own position and chances in order to help George Lee to achieve the World Champion's title – although, due to the prevailing conditions, the tactic plan for that day did not actually succeed.

The rest of that night was spent in happy oblivion by a

number of the team members, ably directed by a very happy "master of ceremonies", Roger Barrett our Team Manager, who had also achieved what he had set out to do - to bring back a World Champion.

## Outstanding flights by George B

In all our pilots won six days - George Lee 3, Bernard Fitchett 1, George Burton 2. Both George B's daily wins were outstanding flights; one of 731kms in a Cat's Cradle, the other 12km/h faster than the runner-up on another day. His appearance on the Standard Class podium was well deserved.

Ralph Jones, our Standard Class newcomer, did very well indeed taking into account that the Cirrus 75 was outclassed by the PIKs with their much higher wingloading.

The basic organisation at Rääskälä was very good. No doubt the officials had taken great trouble in trying to provide the best they could on an airfield miles from anywhere.

Early difficulties for the organisers arose when they heard that they stood to lose the Government subsidy of FM300.000 when it became known that the South African Team would participate in the World Championships. The Opening Ceremony was consequently held at a low key with no Government Officials present. The outcome is still unknown but it is hoped that the organisers will not forfeit this subsidy!

For accommodation, a container village, "Urepol", had been created among the trees by Rääskälä airfield. This was our home for nearly three weeks. The village was laid out with one main road - Rääskälä Avenue - with other streets, named after previous World Championships sites, leading off them. A super idea, much appreciated.

Despite the obvious mammoth task the organisers must

have had in creating this home from home, they were still faced with accommodation troubles from the first day. It took all the practice week and more to sort out everyone's housing problems.

As for the flying, the practice week offered some superb soaring. All were looking forward to an exciting contest in weather which, when good, can be compared with the best anywhere in the world.

But, like so many previous World Champs, this contest was bedevilled by very difficult weather. The result was that early in the contest when we probably could have flown we didn't, tasks being in my view cancelled too soon; contrariwise when it would on the last day have been better for safety reasons not to fly - we did!

In the beginning there was some aggravation among the participants, due to differences in certified AUW between gliders of the same make and model. There were, however, no official protests made, and though on every flying day check weighing of gliders was carried out no penalties were necessary.

## Fine international sportsmanship

What was really a highlight in the contest was the demonstration of fine international sportsmanship (which no doubt has made our Sport what it is) which occurred when Dick Butler, USA, had broken his fuselage after a groundloop. Designers and manufacturers, even some of them pilots, from Bryan Aircraft, PIK, Rolladen-Schneider, Schempp-Hirth and Schleicher, all came to Dick's aid and worked all night to get him, at that time the leader, back in the air so as to be able to beat him!

R.H.

Full report in next issue.



- Coming home triumphant.

Photo - courtesy of RAF Wattisham.

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# RÄYSKÄLA, FINLAND - JUNE 13-27

## Final Results Open Class

No.	Pilot	Country	Sailplane	16.6		17.6		22.6		23.6		24.6		25.6		26.6		Total Points
				269 1	1000 2	115 3	1000 4	1000 5	1000 6	689 7								
1	26 Lee, G.	Gt. Britain	ASW-17	95(12 =)	1000(1)	21(8 =)	1000(1)	900(6)	1000(1)	578(13 =)	4594							
2	JZ Ziobro, J.	Poland	Jantar 2	264(3)	865(12)	21(8 =)	954(4)	888(9 =)	939(9 =)	604(3 =)	4535							
3	HM Muszczynski, H.	Poland	Jantar 2	256(4)	894(7)	0(30 =)	947(6)	888(9 =)	902(16)	601(6)	4488							
4	XX Halighaus, K.	W. Germany	Nimbus 2	144(10)	984(3)	12(23 =)	862(18)	897(7)	968(4 =)	604(3 =)	4471							
5	DB Butler, R.	USA	Glasflügel 604	178(8)	995(2)	18(13 =)	837(21)	835(22 =)	993(2)	578(13 =)	4434							
6	BD Zegels, B.	Belgium	ASW-17	76(19)	876(13 =)	19(12)	917(9)	971(4)	939(9 =)	578(13 =)	4357							
7	70 Johnson, R.	USA	Jantar 2	191(6)	866(11)	18(13 =)	951(5)	835(22 =)	804(32)	604(3 =)	4269							
8	TT Fehner, H.	Switzerland	Nimbus 2	89(15)	851(15)	20(10 =)	912(10)	847(18)	936(11)	578(13 =)	4233							
9	T7 Ax, G.	Sweden	ASW-17	47(27)	805(16)	84(2)	874(14 =)	823(25)	957(6 =)	574(19 =)	4209							
10	MF Matousek, F.	Czechoslovakia	Nimbus 2	*65(22)	725(31)	53(5)	874(14 =)	888(9 =)	899(18)	689(1)	4193							
11	WN Neubert, W.	W. Germany	ASW-17	35(30)	877(9)	11(24)	943(7)	800(28)	900(17)	581(11 =)	4147							
12	OF Fahrfaellner, O.	Austria	Nimbus 2	50(24)	811(23)	0(30 =)	877(13)	890(8)	872(23)	597(7 =)	4097							
13	AS Schubert, A.	Austria	Nimbus 2	83(17)	816(20 =)	18(13 =)	799(26)	838(19 =)	878(22)	597(7 =)	4029							
14	RR Reparan, D.	Holland	Nimbus 2	85(16)	816(20 =)	0(30 =)	873(16)	697(36)	957(6 =)	578(13 =)	4006							
15	AL Jinks, M.	Australia	Nimbus 2	267(2)	791(25)	63(4)	880(11)	1000(1)	886(21)	73(30)	3960							
16	IB Broes, I.	Denmark	Nimbus 2	47(27)	652(36)	51(28)	765(31)	983(2)	870(24)	635(2)	3955							
17	10 Rogot, F.	France	Nimbus 2	241(5)	888(8)	0(30 =)	955(3)	859(13)	927(12)	81(27)	3951							
18	40 Fitchett, B.	Gt. Britain	ASW-17	68(21)	888(4)	115(1)	985(2)	833(24)	911(14)	54(33)	3949							
19	EY Mount-Biggs	South Africa	Nimbus 2	23(35)	780(28)	0(30 =)	864(17)	747(33)	906(15)	589(9)	3909							
20	K1 Yarral, D.	New Zealand	Nimbus 2	73(20)	*824(19)	6(26)	661(35)	854(15 =)	860(25)	574(19 =)	3852							
21	51 Hahner, I.	Hungary	†Jantar 1	96(11)	775(29)	0(30 =)	816(25)	*818(27)	749(35)	578(13 =)	3832							
22	55 Gavazzi, M.	Italy	Nimbus 2	186(7)	874(10)	20(10 =)	757(32)	967(5)	983(3)	15(36)	3802							
23	88 Kuil, R.	Holland	Nimbus 2	269(1)	719(32)	0(30 =)	846(20)	838(19 =)	955(8)	100(26)	3727							
24	NI Mazalera, A.	France	Nimbus 2	26(34)	692(34)	18(13 =)	819(24)	752(32)	853(27)	504(22)	3664							
25	A8 Goudriaan, K.	South Africa	ASW-17	*20(36)	814(22)	17(21 =)	673(34)	819(26)	678(36)	581(11 =)	3602							
26	45 Pelttersson, A.	Sweden	Nimbus 2	50(24 =)	834(17)	18(13 =)	848(19)	838(19 =)	926(13)	58(31 =)	3572							
27	JH Horma, J.	Finland	ASW-17	52(23)	441(39)	10(25)	879(12)	757(31)	855(26)	570(21)	3564							
28	JC Carpenter, J.	Canada	Nimbus 2	33(31)	854(14)	17(21 =)	822(22)	854(15 =)	848(28)	112(24)	3540							
29	YY Widmer, J.	Brazil	Nimbus 2	95(12 =)	785(26)	18(13 =)	773(30)	983(2)	847(29)	23(35)	3524							
30	17 Bryson, J.	Ireland	Kestrel 22	83(17)	739(30)	5(27)	799(26)	797(29)	826(31)	0(37 =)	3249							
31	JK Webb, D.	Canada	Nimbus 2	14(37)	503(38)	3(28)	922(8)	854(15 =)	892(19)	58(31 =)	3246							
32	VV Vergani, W.	Italy	Nimbus 2	0(39)	*663(35)	0(30 =)	652(36)	857(14)	830(30)	227(23)	3229							
33	IW Pryde, I.	New Zealand	Nimbus 2	161(9)	783(27)	26(6)	252(38)	864(12)	968(4 =)	31(34)	3085							
34	MW Wiltanen, M.	Finland	ASW-17	32(32 =)	803(24)	18(13 =)	795(28)	160(37 =)	635(37)	585(10)	3028							
35	EP Rudenski, J.	USSR	Nimbus 2	91(14)	954(5)	22(7)	821(23)	160(37 =)	891(20)	77(28 =)	3016							
36	BT de Preter, L.	Belgium	†Nimbus 19	50(24 =)	531(37)	18(13 =)	786(29)	742(34)	789(33)	77(28 =)	2993							
37	50 Szentvalgyi, H.	Hungary	†Jantar 1	3(38)	710(33)	0(30 =)	601(37)	*766(30)	762(34)	112(24 =)	2945							
38	OP Patschnik, O.	USSR	LAK-9	*32(32 =)	503(6)	0(30 =)	716(33)	735(35)	-	-	2426							
39	SW Wilson, A.	Australia	ASW-17	37(29)	829(18)	73(3)	-	-	-	-	939							

† 19m Cup; \* Photographic penalty. Tasks Open: Day 1, 199.1km ▲; Day 2, 186km ☞; Day 3, Cat's Cradle; Day 4, 526.6km ▲; Day 5, 480.8km ▲; Day 6, 339km ▲; Day 7, 234.5km ▲.

## Final Results Standard Class

No.	Pilot	Country	Sailplane	16.6		17.6		23.6		24.6		25.6		Total Points
				587 1	1000 2	1000 3	891 4	1000 5	5					
1	PR Renner, I.	Australia	PIK 208c	476(17)	1000(1)	977(4)	780(7 =)	823(2)	4056					
2	P4 Karlsson, G.	Sweden	PIK 208c	564(2)	857(6)	932(11)	891(1)	804(4)	4048					
3	GB Burton, G. E.	Gt. Britain	PIK 208c	495(13)	829(10)	1000(1)	600(22)	1000(1)	3924					
4	HP Pozniak, H.	Poland	Std Jantar	490(15)	795(15)	935(10)	839(2)	743(20 =)	3802					
5	20 Beltz, T.	USA	PIK 208c	497(11)	855(8)	865(25)	808(3)	710(31 =)	3735					
6	B1 Petrocy, G.	Hungary	Std Jantar	506(7)	739(26)	928(12)	780(7 =)	*694(34)	3647					
7	OK Brigliadori, L.	Italy	Cirrus 75	526(4)	595(39)	957(8)	791(5 =)	773(9)	3642					
8	66 Reichmann, H.	West Germany	LS-1F(45)	418(25)	812(13)	975(5)	707(16 =)	728(25)	3640					
9	P1 Oye, S.	Denmark	Cirrus 75	499(9 =)	625(37)	909(15)	780(7 =)	821(3)	3634					
10	78 Stouffs, H.	Belgium	LS-1F(45)	496(12)	656(36)	880(24)	707(16 =)	764(13)	3503					
11	15 Gatolin, M.	Yugoslavia	Std Cirrus	483(16)	716(34)	729(36)	780(7 =)	735(22)	3443					
12	RJ Jones, R.	Gt. Britain	Cirrus 75	420(24)	780(18 =)	974(6)	465(27)	776(8)	3415					
13	1 Hämmerle, A.	Austria	Cirrus 75	181(28)	768(21)	883(23)	753(15)	793(7)	3378					
14	F1 Rantet, J.	France	LS-1F	503(8)	735(28)	773(30)	538(25)	797(5)	3346					
15	KG Cameron, A.	New Zealand	ASW-19	176(29)	766(22)	828(26 =)	773(13 =)	795(6)	3338					
16	FL Lapioux, J.-C.	France	Cirrus 75	150(30 =)	724(32)	906(16 =)	773(13 =)	*733(23)	3286					
17	61 Peter, E.-G.	West Germany	Libelle 203	223(26)	810(14)	991(2)	503(26)	753(16 =)	3280					
18	FK Kepka, F.	Poland	Std Jantar	0(0)	780(18 =)	707(7)	780(7 =)	746(18)	3271					
19	HR Andersson, G.	Sweden	PIK 208c	525(5)	*775(20)	719(3)	243(31)	699(33)	3225					
20	KA Nurminen, R.	Finland	PIK 208c	202(27)	869(4)	758(31)	673(21)	713(29)	3215					
21	SF Rowe, J.	Australia	Hornet	116(35)	840(9)	747(33)	780(7 =)	730(24)	3213					
22	11 Sérensen, O.	Denmark	Std Cirrus	521(6)	727(29)	904(18 =)	451(28)	545(40)	3148					
23	74 Pare, D.	Holland	Cirrus 75	426(21)	856(7)	904(18 =)	215(32)	743(20 =)	3144					
24	AR Riera, J.	Argentina	Hornet	499(9 =)	752(23)	910(14)	194(35 =)	772(10)	3127					
25	76 Bluekens, M.	Belgium	Cirrus 75	69(38 =)	781(17)	884(22)	707(16 =)	669(37)	3110					
26	16 Strukelj, F.	Yugoslavia	Std Cirrus	*52(40 =)	747(25)	638(37)	794(4)	760(14)	2991					
27	HC Timmermans, A.	New Zealand	Std Cirrus	444(19)	788(16)	823(28)	76(43)	754(15)	2885					
28	B2 Monti, R.	Italy	Cirrus 75	150(30 =)	259(45)	906(16 =)	791(5)	766(12)	2872					
29	68 Briegleb, R.	USA	Std Jantar	432(20)	702(35)	803(29)	187(40 =)	691(35)	2815					
30	UK Junqueira, C.	Brazil	PIK 208	493(14)	736(27)	894(21)	31(44)	631(38)	2785					
31	JF Firth, J.	Canada	PIK 208	470(18)	883(2)	896(20)	201(33)	304(43)	2754					
32	JR Kuitinen, M.	Finland	PIK 208c	587(1)	871(3)	737(35)	246(30)	298(44)	2739					
33	V Ylala, T.	Czechoslovakia	PIK 208	52(40 =)	868(5)	916(13)	191(37 =)	710(31)	2737					
34	B7 Musters, C.	Holland	Cirrus 75	*139(34)	818(12)	747(33 =)	191(37 =)	*753(16 =)	2648					
35	25 Rénessod, E.	Norway	LS-1F	90(37)	725(30 =)	294(46)	697(19)	718(27)	2524					
36	GZ Rizzi, R.	Argentina	Std Cirrus	547(3)	259(45 =)	753(32)	187(40 =)	767(11)	2513					
37	60 Szoaodfi, S.	Hungary	Std Jantar	0(0)	722(33)	515(42)	555(23)	717(28)	2509					
38	7 Wüdl, H.	Austria	DG-100	112(36)	538(41)	939(9)	198(34)	711(30)	2498					
39	75 Clifford, R.	South Africa	Std Cirrus	424(22)	748(24)	828(26)	354(29)	46(45 =)	2400					
40	O1 Werneburg, H.	Canada	Std Cirrus	9(42 =)	*454(42)	630(38)	676(20)	576(39)	2345					
41	30 Johannessen, T.	Norway	Std Cirrus	142(33)	725(30 =)	502(45)	194(35)	744(19)	2307					
42	B6 Hedinger, H.	Switzerland	Std Libelle	421(23)	404(43)	533(41)	153(42)	673(36)	2237					
43	TS Innes, D.	Guernsey	PIK 208	9(42 =)	828(11)	538(40)	17(46)	673(36)	2065					
44	PP Schaffhausen, C.	Brazil	PIK 208	9(42 =)	*609(38)	504(44)	191(37 =)	541(41)	1854					
45	M3 Luht, B.	Switzerland	Hornet	69(38 =)	315(44)	514(43)	548(24)	315(42)	1761					
46	C1 Shields, W.	South Africa	Astric C5	150(30 =)	549(40)	575(39)	21(45)	46(45 =)	1341					

\* Photographic penalty. Tasks Standard Class: Day 1, 120.9km ▲; Day 2, 152.6km ☞; Day 3, Cat's Cradle; Day 4, 393.1km ▲; Day 5, 300.3km ▲.

# Spring weather and record breaking gliding flights

T. A. M. BRADBURY

For many years soaring pilots have observed that the north or north-east winds of spring and early summer often provide exceptionally good conditions for cross-country flights. This is true for much of northern Europe as well as Britain. In some years the latter half of April and the last weeks in May appear to bring a number of outstanding soaring days. Here are some recent April examples:

1971 April 28. 500km triangle record.  
1972 April 25. 1460.8km distance record (from Lübeck).  
1974 April 16. 1238.1km goal flight (W. Germany).  
1976 April 24. 300km goal records.  
April 28. 750km triangle.

These conditions were recognised many years ago as the following example shows:

1938 April 30. 336km downwind flight from Heston.

All these flights were made in air masses which had come from regions north of the Arctic Circle and the air was still very cold when it reached Europe or the British Isles. Certain features of the weather situation were common to each occasion.

**Surface charts.** The dominant feature of these outstanding soaring days was an anticyclone centred north-west of the area of the flights and no depression within about 500 miles of the routes. The trajectory of the air over the preceding day or two showed that the air had come from a region north of the Arctic Circle and (in most cases) passed over Scandinavia. Air which has had a long sea track is liable to be too moist for really good soaring but air which has come across the mountains of Scandinavia is likely to remain relatively dry aloft when it reaches England.

**Upper level charts.** The air flow at upper levels generally showed a similar pattern to the surface charts except that the centres of high and low values were displaced to the west of the corresponding surface features. A particularly useful chart for gliding forecasts is the 850mb chart. This represents the air flow at about 5000ft. When the temperature pattern is drawn for this level the region of strongest thermals is often found to be marked by a tongue of colder air.

**Upper Air Soundings.** The soundings from the best soaring areas usually showed the following features:

1. Cold air which needed little heating from below to become unstable. This allows thermals to develop very early in the morning.
2. Relatively dry air. This indicates a high condensation level and a likelihood of only small amounts of cloud.
3. An inversion or stable layer above 5000-8000ft which limits the size of cumulus clouds.

## Examples from April 1976.

Fig 1 shows the surface chart for 12.00 GMT on Saturday, April 24, 1976, when 300km goal flight records were broken. The boundary of the major cloud areas has been outlined. The term "OPEN" means that cloud cover was less than 20%. The region downwind of Scandinavia was classed as open on satellite analyses and even where there was a front over Scandinavia the associated cloud was only a narrow band.

The best soaring conditions occurred near the centre line of this open area. Over the south-east of England, where the isobars showed slight cyclonic curvature, there was exces-

sive cumulus development which spoilt soaring conditions. Elsewhere the cumulus remained well broken and formed long streets parallel to the wind. The wind was too strong for very long closed circuit flights to be made, but favoured downwind goal flights. At midday the winds at 850mb (approx 5000ft) were measured by radar tracking of sounding balloons and reported as:-

Fig 1. Surface chart for 12.00GMT April 24, 1976. The boundaries of major cloud areas are shaded. Open areas contain less than 20% cover of cloud.

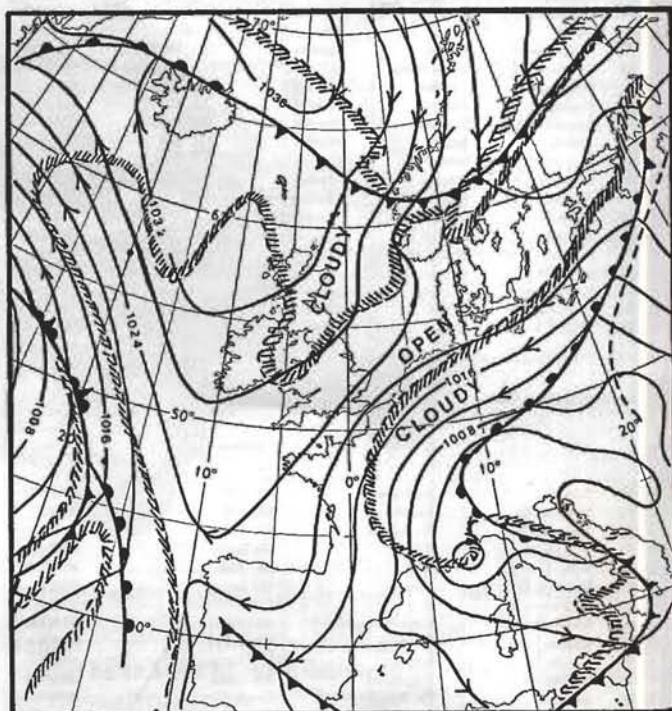
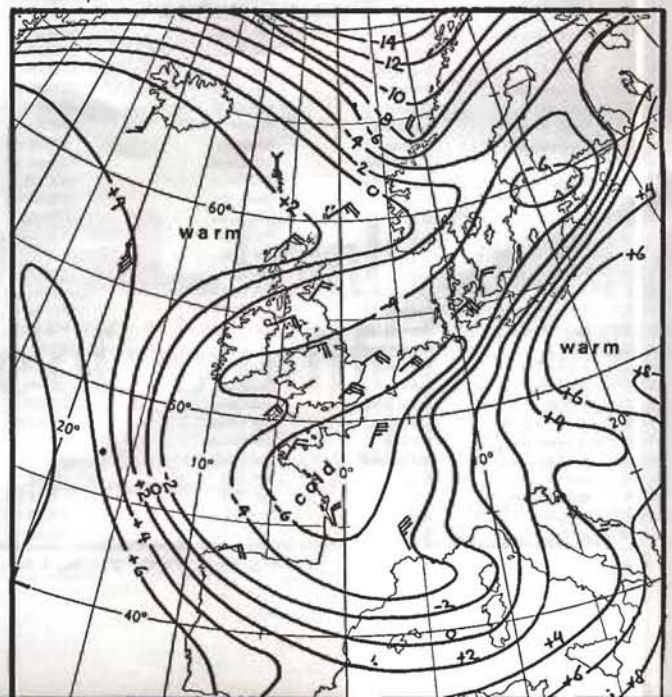


Fig 2. Temperature of 850mb (approx 5000ft) at 12.00GMT April 24, 1976. Isotherms are in degrees Celsius. Reported winds are shown by arrows. Each full feather represents 10kt.





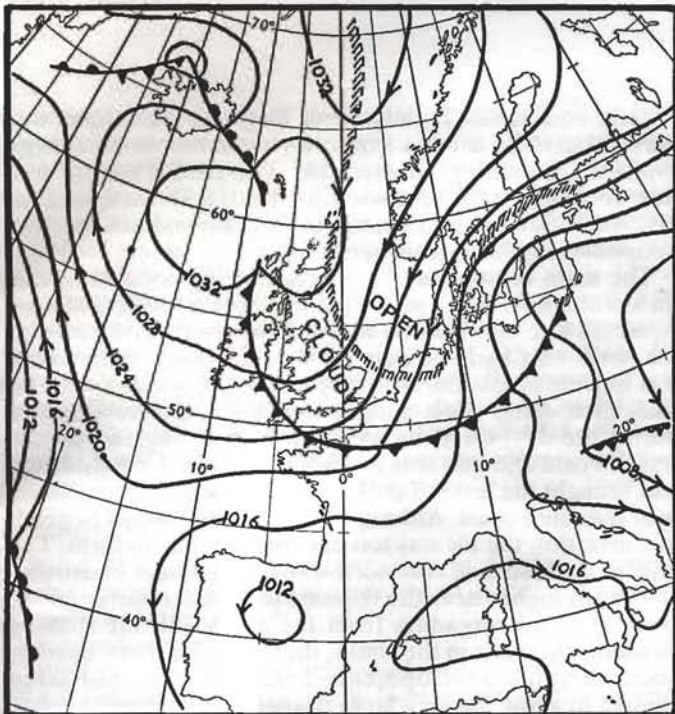


Fig 3. Surface chart for 12.00GMT April 27, 1976. The boundary between the cloudy and open areas over the North Sea is marked by a broken line with shading on the cloudy side.

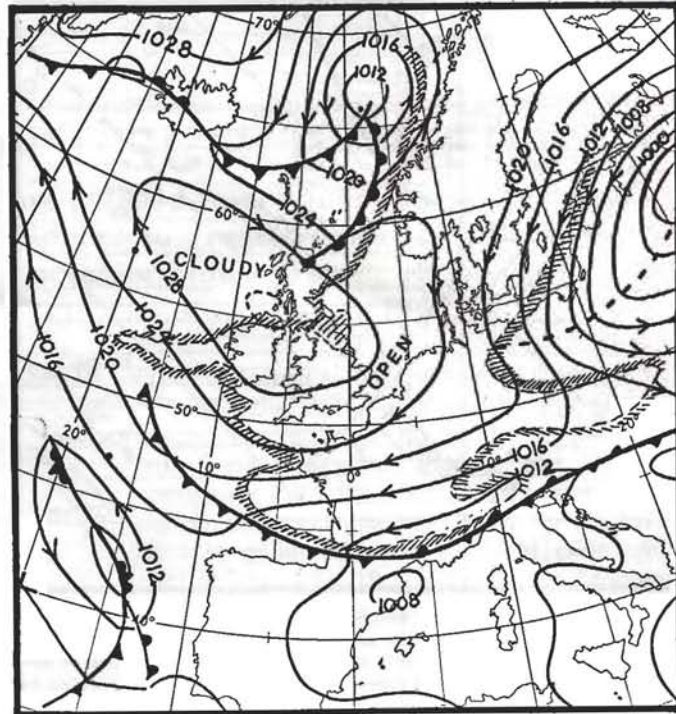


Fig 4. Surface chart for 12.00GMT April 28, 1976. The shaded lines indicate the edge of major cloud areas.

Hemsby (near Great Yarmouth)	050 degrees 27kt
Crawley (Sussex)	035 degrees 29kt
Camborne (Cornwall)	040 degrees 19kt
Aughton (Liverpool)	065 degrees 24kt

Fig 2 shows the temperature field at this level. England lay on the northern side of a tongue of cold air which extended from south-west Finland to France. Even colder air can be seen near the north-west coast of Norway.

**A Lee Wave Interlude.** When the wind direction remains almost constant with height, wave flow is often possible above the shallow convective layer. The lower portion of the wave pattern may in fact reach down below the tops of cumulus. On April 25, when most of England and Wales had extensive cloud cover, conditions in the north became clearer and a wave cross-country was made from Walney Island to the Isle of Man. Casswell's formula (1) suggests that the maximum amplitude of waves to lee of the Lake District would have been at 5000 to 6000ft with up currents of about 7kt and a wavelength of 3 to 4nm.

Fig 3 shows the 12.00GMT chart for Tuesday, April 27, 1976, the day preceding the 750km triangle flight. There was a strong north-easterly flow across the North Sea from Scandinavia. The cloud clearance to lee of Norway had spread almost as far as the English coast. The air over England was already very cold and unstable and as the sheet of stratocumulus lifted some cumulus sheets appeared.

Fig 4 shows the 12.00GMT chart for Wednesday, April 28, 1976. By this time the cloud clearance had extended across the whole of England and Wales except for a patch over northern England, and soaring conditions were almost perfect over a large area. The chart differs from that for April 24 in that the centre of high pressure was nearer the country and the winds had become much higher. The reported winds for 12.00GMT for the 850mb (5000ft) level were:-

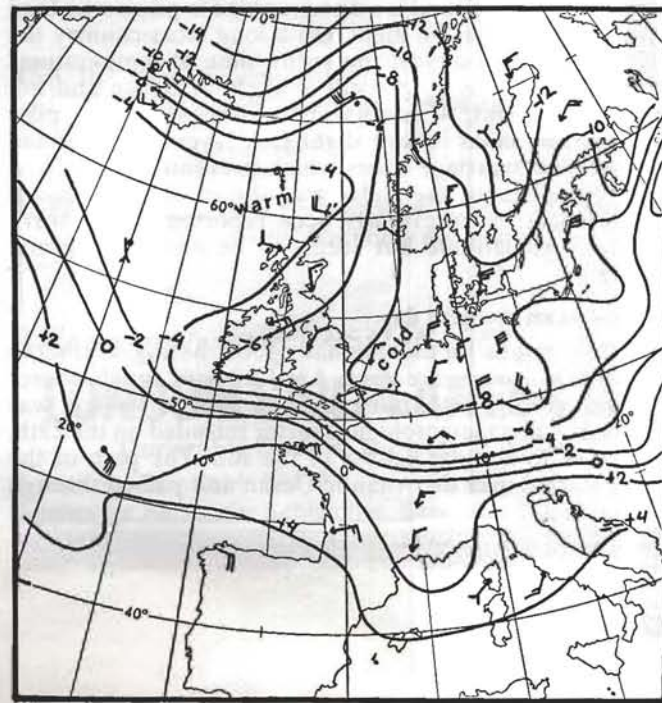
Hemsby 015 degrees 13kt	Camborne 085 degrees 19kt
Crawley 065 degrees 14kt	Aughton 030 degrees 7kt

This strength of wind was still sufficient for the development of some cumulus streets but these were less marked than on April 24.

Fig 5 shows the temperature field at 850mb at the same time. There was a tongue of very cold air extending from East Anglia across Wales to Southern Ireland. Since this cold air was also relatively dry it marked the region of very good soaring weather. The tongue of warmer air north of Scotland was associated with the warm sector of a depression which was centred some 400 miles NNE of the Shetlands. Similar warm sectors appeared on the charts for April 28, 1971 (when the depression was centred near the Shetlands) and on April 25, 1972. When such warm sectors move eastwards they cut off the supply of cold air from the north-east and put an end to really good soaring conditions.

Fig 6 shows the upper air sounding from Hemsby on the night before the 750km flight in 1976, compared with the sounding from Schleswig in North Germany on the night before the distance record was set up. Both soundings show very similar air masses in the lower levels. The chief difference is that at Hemsby the inversion was only just above 4000ft while at Schleswig the stable layer

Fig 5. Temperatures at 850mb (approx 5000ft) at 12.00GMT April 28, 1976. Isotherms are in degrees Celsius.



(1) Casswell, S. A., 1966. "A Simplified Calculation of Maximum Velocities in Mountain Lee Waves," *Met Magazine*, London 95 p68-80.

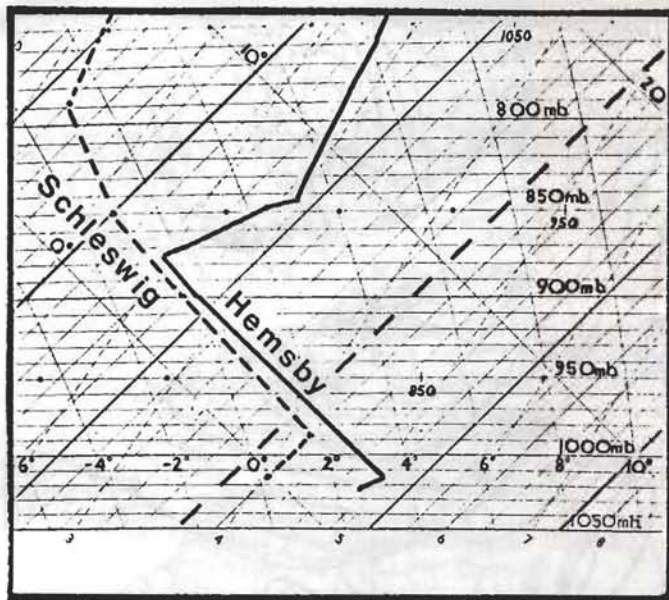


Fig 6. Comparison between the sounding made at Hemsby (near Gt Yarmouth) 23.00GMT on April 27, 1976, and the sounding made at Schleswig (North Germany) at 23.00GMT on April 24, 1972. Both soundings were made in air masses in which soaring records were broken and show conditions before any surface heating had begun.

was nearly 7000ft asl. The inversion over England lifted during the day to about 5500ft asl during the afternoon. Both soundings show only a very shallow stable layer near the surface, indicating that very little surface heating was needed to set off thermals which could rise to 4000ft or more early in the morning.

Cumulus formed very early in the morning and fortunately the base of the cloud was not far below the base of the inversion. This resulted in shallow cumulus which did not spread out to form the almost continuous layer which often occurs when the air is moister and the cloudbase lower. When the air is very dry there is a risk that the shallow cumuli which form beneath the inversion early in the morning may disperse entirely during the day. Dispersal of cumulus during the warmer period of the day is more likely when the level of the inversion descends. On this occasion the level of the inversion rose about 1500ft between dawn and mid-afternoon and the shallow cumulus persisted over all except the extreme north-west part of the triangle.

Upper air soundings made at about midday at Cardington and Crawley both show that the lapse rate became super adiabatic from the surface up to about 1000ft. This usually indicates strong thermals and also strong sink.

The low freezing level is a disadvantage to pilots who load waterballast before the flight. On a long cross-country the glider may spend almost the entire time at temperatures well below freezing; the result is likely to be ice and not water in the tanks. A new hazard was reported by a pilot whose ballast tanks leaked slightly. A layer of ice formed over the undercarriage doors which prevented them from being opened until the glider was almost on the ground. This problem had previously been reported after a wave flight at high altitude but seems to be new for thermal soaring.

#### Conditions on the next day.

It is uncommon for exceptionally good soaring weather to occur on two successive days. April 29 gave much poorer weather than the 28th, but even so a flight of 600km was achieved. A non meteorological factor intruded on the 29th. There was an annular eclipse of the sun. The path of the eclipse started over the Atlantic Ocean and passed through

Algeria and across Turkey. Over England the eclipse was partial, but it did cause a temporary reduction in the energy available for setting off thermals. The partial eclipse was due to begin at Greenwich at 10.01BST and end at 12.29BST. Several pilots noticed that thermal activity was disappointing during this period.

The main reason for the poorer soaring conditions was meteorological; Fig 7 shows the situation at 12.00GMT on April 29. The chart shows that the supply of cold air from the north-east had been cut off by a frontal system which was moving across the North Sea from the north-west. The associated cloud sheet spread slowly south over England during the day. Over the southern half of England the air was still cold and unstable in the lower levels but subsidence had brought the level of the inversion down to about 3000ft near the south coast. Although thermals developed beneath this inversion the air was too dry for cumulus to form. The level of the inversion rose northwards and, rather unusually, was much higher near the frontal cloud sheet. Between the sheet of cloud spreading from the north and the shallow cloudless thermals in the south, there was a narrow band of good cumulus development. This zone was not large enough to allow the very large triangles to be flown.

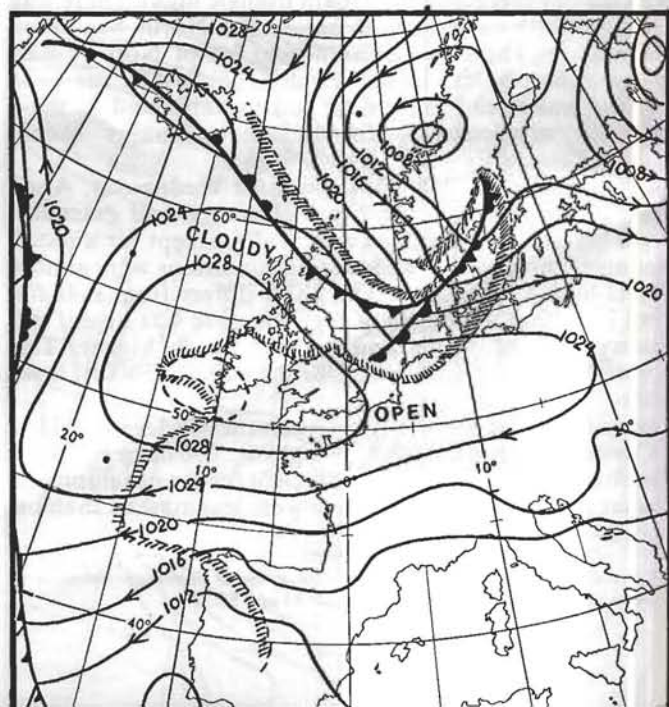
#### Frequency of Similar Weather in England.

The list of dates at the beginning of this article may suggest that on or about April 28 should be marked in every soaring pilot's engagement calendar. Unfortunately the British climate is not so consistent and suitable north-easterly days do not occur at this time every year. Lamb (2) has listed the circulation pattern for every day from 1868 to 1967 and this does show certain seasonal trends. For example westerly winds are most frequent in December and January. They decrease during February and reach a low point in mid-May.

Northerly winds are most frequent in mid-May. Easterly winds show a rather flat maximum from March to May, and then decrease in frequency very quickly in June. Anticyclonic weather is most frequent in late May and early June; the frequency peaks again in mid-September.

Although the precise type of north-easterly weather which produces outstanding soaring is not listed by Lamb, one can see that such days are most likely between March and May. In March these days are too short and the air

Fig 7. Surface chart for 12.00GMT on April 29, 1976. The shaded line indicates the boundary of major cloud areas.



(2) Lamb, H. H., 1972: "British Isles Weather Types and a Register of the Daily Sequence of Circulation Patterns 1868-1967," Geophysics Memorandum, London 16, No. 116. 1972.

often too cold for record flights but April and May can provide some exceptional days. These days are not, however, very common. The type of circulation which is likely to produce the ideal day is one with an anticyclonic north or north-easterly flow, or when conditions can be described as anticyclonic after a day with a north or north-east flow.

An examination of the last ten days of April showed that there were 142 days over a period of 103 years when record breaking conditions might have existed. There were of course no upper air records to indicate the moisture or depth of instability over most of these days. Even so there is statistical evidence to suggest the latter half of April and also the latter half of May may be two periods to watch for the development of record breaking days.

#### Summary.

Some of the best soaring weather in England occurs during spring or early summer when a north-easterly airflow covers the country.

The indicators are:

1. High pressure near or to the north of Scotland.
2. An airflow which has come from north of the Arctic Circle and travelled across Scandinavia on its way to England.
3. The strongest thermals are likely when the coldest air at the 5000ft level lies over or just south-east of England.
4. A north-easterly airflow may last for many days but the best day is likely to occur when the anticyclone moves towards the area. This often coincides with a warm sector moving towards Norway from the direction of Iceland.
5. The spread of warm air from the west across Norway or into the North Sea cuts off the supply of cold air from the north-east. Once this occurs it usually marks the end of good soaring weather within 24 hours.

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# OVER THE SEA TO JURBY

Extracts from a recorded interview by DENNIS CAREY in which GIL SCURRAH of the Lakes GC describes how he made gliding history in his Club Libelle on Sunday, April 25, by being the first glider pilot to fly to the Isle of Man. It was also the longest sea crossing by a sailplane from the British mainland.

*Tell me Gil - it's not true - is it, that you were trying to smuggle explosives into Northern Ireland?*

Not exactly - although it might just be possible! I think the CID man must have thought my portable oxygen bottle looked rather sinister!

*What ever made you do it? All that water and not even a rubber dinghy.*

I suppose it's rather like climbing Everest, you know the Island is there and you see it practically every time you fly from Walney - someone had to do it sooner or later. We had recently bought an inflatable life jacket for the aircraft - so the possibility of ditching wasn't too worrying. The weather was right and I thought I might get a Gold height as well.

*It was certainly a splendid day. Anticyclonic, north-easterly wind about 15kt and excellent visibility - certainly over the mountains. This is always a good situation for wave in the Lake District.*

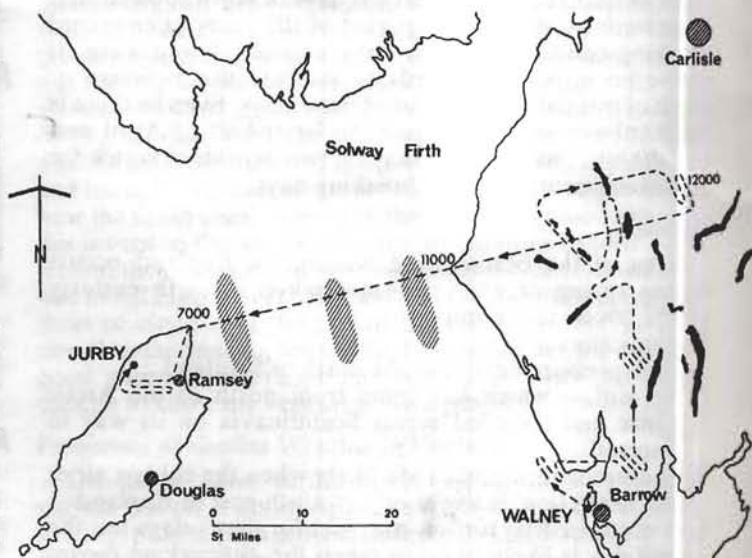
Yes. I released over the sea in the lee of Black Combe and found wave out to sea just as Eric Kendal had suggested before take-off. I went straight up to 9000ft.

(Gil recalled how he explored various wave clouds over the Lakes before deciding to press on to the Carlisle area.)

*You must have been right in the junction of the two airways then?*

I thought you would ask me about that! Yes they certainly make life difficult in wave conditions - particularly that new one, Amber 25 isn't it? Why they have to slap it right over the site - and just at the weekends - God only knows! I was cruising just below them over Bassenthwaite when I saw this big cloud to the east of Skiddaw. I went over to investigate and started to climb. At this point (on the trace) I was at 12000ft north of Ullswater, and looked back over the whole of Cumbria in sunshine - the most beautiful view, it looked fantastic. It was then that I first thought of the Isle of Man. I had a more serious think about it as I looked at my maps and did some calculations.

I could see from the map that I was on a line through St Bees Head and the Point of Ayre, with Crummock Water about halfway to the coast. From Crummock to St Bees was about one-third of the sea crossing. I thought I would lose about 5000ft on the crossing and 9000 or 10000ft at the coast was a safe height to start from. I would check my position, flight time and height loss from Crummock to St Bees and if everything worked out I would press on. So I crossed the airway and arrived over Crummock with very little height loss at 12000ft, going downwind of course. From Crummock to St Bees took ten minutes and I lost 900ft, passing through another wave on the way and arriving at the coast at 14.00hrs. I reckoned that if 1000ft and ten minutes would get me to St Bees, it would take 30 minutes and 3000ft to the Point of Ayre. I was at 11000ft in two down at St Bees, but I



couldn't see the Isle of Man at the Point. There were little wave clouds spaced out equally over the sea at about 5000ft, with little shadows underneath and the sun shining on a dull hazy bit of water. It did look terrific!

*But at St Bees Head you couldn't actually see the Island?*

Couldn't see the Island at all - it was rather murky was this bit - but I set my course 6° or 10° south of west which, allowing for the slight crosswind, should have taken me to Ramsey. Everything looked good and I left St Bees at 14.00 to fly out to the first little wave about two or three miles offshore.

*But you didn't actually commit yourself at this point?*

I marked my map and it was there I said to myself "I'm excited Gilbert!" - and measured my pulse rate at 120. At 14.10 I was down to 9500 in two down, I could still get back but was pushing on. All I could see was across the Solway Firth very hazily to Kirkudbrightshire - nothing else. Then I ran into four down, knowing that I had to put the nose down and make it go faster - looking at nothing but water! Common sense takes over, you know that everything is right so far, but the four down becomes six down - you know it must go up again but you must wait - with it pointing at the sea and nothing in sight. Then two down, back to 40kt and 1½ up.

*That would be the second wave across about one-third - say ten or 12 miles offshore?*

Then about halfway I saw this hazy yellow line and then a cloud cap over the mountains. I could pinpoint my position and as I got closer the yellow line turned into the northern coastline of the Island. I saw a bright spot and knew it must be the lighthouse - and that was it. So I just kept flying on to the Point of Ayre. Then I came to the third wave and turned through 90° for a short distance in reduced sink just to check

that I was still travelling directly across the wave system. I did this at each one across. It was just plain sailing from then on and I said to myself "ya-hoo" - or something like that - "you've done it Gilbert!" I still feel like that - it makes all the hairs on the back of my head stand up!

*I guess your pulse rate had come down by then!*

I forgot all about that. When I got to the lighthouse I was down to 7000ft and called up the club - because my last message said that I was probably going out of radio contact.

*So you had this bit in the middle where you were flying blind, more or less, in fairly strong sink? But you must have built up a fairly high level of confidence by the second wave - about one-third of the way across?*

Yes, there was just this bit of sunlight in the middle. It was rather like going solo for the first time when the instructor gets out. I had exactly the same feeling - you're on your own Gilbert - you're committed. But I had this knowledge of the history of the air that I'd flown through and my assessment of what could be in front of me in relation to it, which gave me the confidence to press on. I crossed the coast at 14.30hrs and asked for an aerotow from Andreas Airfield. It was Ron Hawkes who came on and said "Come off it Gil - where are you - what are you playing at?" - or something like that. Anyway I flew around the countryside, soaring the northern slopes of Snaefell and then I found another wave lying more EW across the north of the Island. I landed at 14.55 on Jurby airfield. The sea crossing was actually 30 miles.

*So you landed after 25 minutes local soaring - and that must have been the first gliding ever performed on the Isle of Man? \*(see footnote). Then what happened?*

This little lad called Ivor turned up. He helped me park the aircraft and I went off to find the police, get a meal and make various phone calls. Roger the Bull decided that an aerotow was just possible, and would come over in the Super Cub. That's when the trouble really started. Apparently I had landed on government property, and rather more seriously, I had unintentionally contravened the Prevention of Terrorism (Northern Ireland) Act. In order to get the tug in and me with the glider out, it was necessary to get a special clearance, and authority from the Chief Constables of Cumbria - who was playing golf, and of the Isle of Man; from the CID on both sides; the ATC on both sides; and also from the Governor-General or someone. I didn't know anything of all this palaver at the time. It was Bob Foot, I learned, who sorted all this out behind the scenes, before Roger could take-off. When I got back to the airfield a CID man had turned up from Douglas and another policeman, and various other people. The tug was

on its way by this time and everyone was very helpful - joining in the spirit of the thing. I had a policeman on the wing tip - holding his hat on with one hand.

We crossed the coast at Cranstal at 19.33 and headed for St Bees flying at 75 against a brisk headwind. The waves were still there marked by light and dark bands of haze - we reached 6000ft in the lift descending to 5000ft in the sink. I stuck to the tug like glue so as not to get out of position, embarrass Roger, and risk a rope break - but I would probably have reached the Island OK as I had only lost 4000ft coming over. I felt a little apprehensive as the Island disappeared from view with nothing but haze in front. But it was Roger who had the bigger problem if anything went wrong. He took a lot on in bringing me back, and actually had some magneto trouble he told me afterwards, about halfway across.

*What happened after you landed?*

Everyone seemed just a little bit too helpful and willing to put the glider away and there wasn't a great deal of conversation - it was all rather subdued. Then Pete Redshaw said "Haven't you heard all the story - hasn't Roger told you? We've got the CID here." There was the CFI and this tall stranger with a notebook licking his pencil, with a rather serious looking smile on his face. I had transgressed terribly some of the rules which he lived by. "At this stage" he said "you probably don't realise the seriousness of the situation. This is a private airfield and the law states, paragraph such and such of sub section so and so, that no light aircraft shall be flown from an unregistered airfield and land at another unregistered airfield in the scheduled territories of Northern Ireland, Southern Ireland, and the Isle of Man, the Channel Isles etc and you have landed a light aircraft on the Isle of Man . . ." I really didn't know anything about this Prevention of Terrorism Act at all - and had just seized the opportunity that was presented to me - but ignorance of the law is no defence.

*After he threatened to shut down the airfield and put you in clink - then what?*

He told me very nicely that I had done wrong, in such a manner that it sank in and didn't offend me at all. I'm genuinely sorry if I inconvenienced anybody - particularly the CID man who was dragged out of his garden and the other chap who was taken off his golf course. I didn't want to upset anyone and felt very sorry for the CFI whom I had put in an invidious position. He had to carry me as part of the load of running the club - like people who do daft things like stepping on a wing or pranging a glider. I haven't done any of those things which I think are much worse. But people look at these things in different ways.

*Well I suppose it all depends on what you believe gliding is really all about?*

I think it is about actually flying and using the aeroplane and the air. You tend to get bogged down by too many rules and regulations these days.

*Most people would go along with that.*

Anyway the poor CFI didn't quite know whether to congratulate me and shake my hand or tell me "what the hell have you done that for". He was very nice, he just said - after listening to the CID man telling me off - don't do it again.

*In fact there was a meteorological expedition to the Isle of Man in the mid-1950's in search of wave. It was led by Dick Scorer and Frank Ludlam and the party, made up of a number of gliding enthusiasts, took an Olympia, the Lasham Tiger Moth and borrowed a T-21b. Frank Irving recalls that the weather was poor but they did do some gliding on the Island.*



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# COMPETITION ENTERPRISE 1976

North Hill, June 5-13

PHILIP WILLS

The third Enterprise, as the first two, produced its own distinctive flavour. It was the week of Long Distances, culminating in the Nearly but not Quite.

Entry climbed from 21 last year to 30, about the maximum which can be adequately handled. It encompassed the spectrum from Nimbus/Calif to Guy Ballard's gallant Tutor.

The Editor tells me she is tight for space, so I must condense as much as I can, but it was another unforgettable week.

Day 1 John Fielden set a pilot selected out-and-return - no pre-declaration, but a photograph of a locatable TP and back. Justin Wills won, to Malmesbury and back. Sea breezes from both coasts helped everyone on the last leg.

Day 2 (Sunday) a lousy day, late start, triangle set - no one completed it, but it was won by Arthur Robinson in a Bocian from the new club at Weston-super-Mare. This was splendid - probably Arthur's first competition win after instructing in the ATC for about the last 100 years.

Day 3 was exciting. In very light anticyclonic south-westerly winds, a race to Sutton Bank (400km record waiting to be established) or O/R Lasham or, for the less ambitious, O/R Compton Abbas.

---

## **"At least the record is now established"**

---

Justin and Ken Wilkinson got to Sutton Bank, Justin beating Ken by two minutes! They didn't go very fast, for it was a lousy day, but at least the record is now established at 72km/h. Tony Maitland also arrived, but even elastic Enterprise couldn't score him, for he had landed at Nympsfield on the way, and taken another launch from them.

Day 4 was a pilot selected dog-leg flight to Weston-super-Mare, or Inkpen, turning point to be photographed. An additional task was a 500km goal flight, but those who attempted it were disappointed. The weather didn't believe Mike Garrod, and those who set off to the far north didn't exceed 400km. Ken Wilkinson, smarting from his two minutes lack on day 3, tried to go to Sutton Bank again, but there was a muddle about his release point (which was critical from North Hill) and he had to give up and attempt the other task.

The Tutor scored 842pts by doing a dog-leg flight of 85km to Weston-super-Mare. Guy Ballard wonders if this is the longest cross-country for Tutors? The Bocian trailer, driving along M6, was startled to be passed by him on his final glide in. At no other meeting could one hope to see a 1947 Tutor being aerotowed for a competition flight by a Tiger Moth built in 1934! Tony Smallwood's Gull leapt to fame by winning the day with 910pts. He dog-legged to Weston, saw the Tutor approaching to land, realised he must do better, so re-dog-legged to Inkpen.

Wednesday was mackerel day. Some pilots and crews needed it, having driven two days and nights consecutively. Our particular party caught (and subsequently ate) 17 mackerel at Beer. One caught by Mike Pope was seized by

a seagull. Mike then winch launched gull and fish, but the gull won.

Now, Editor, I simply can't be brief about Thursday - it was a day to be ever remembered. The front which had clamped us the day before unexpectedly ran east, and cleared the air to France. Mike Garrod showed us a map giving westerly winds to Dover, then backing north-west to help one across the Channel, and for ever onwards. After three years - The Day! Free distance, or an O/R to Lasham, was set.

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## **"We are setting a cross-Channel task"**

---

John Fielden rang West Drayton control, and said casually: "North Hill Gliding Club here. We are setting a cross-Channel task, and I would like to clear up to seven gliders *en route* on a line to Stuttgart - operating levels 3/7000ft." "Thank you," said West Drayton casually, and rang off. Ten minutes later they phoned back, a little more surprised, and said "Thank you, what is their route?" John said - to Brighton, then along to Dungeness, and across, "if weather permits"

To finish this part of the story first, John phoned the next day, and asked if they had kept a watch and how it had gone. They said they had, and everyone had kept very much to the forecast route. So hooray!

At 10.30 the Calif, Mike Carlton and Bill Scull, took off, followed closely by Justin. Ken Wilkinson, Tony Maitland and Mike Pope followed. To cut a long story short, they all got to East Kent, but the weather hadn't looked at our briefing chart, and the wind was still south of west, so it wasn't possible to get across, though just on to reach the beach at Gris Nez, which everyone thought sensibly would be more trouble than it was worth. So most people photographed Canterbury or Manston and started back to reduce retrieve times (also marks). Ken and Tony landed at Redhill, Mike at Challock and Justin at Guildford. But the Calif played it differently.

From a reasonable height over Ashford, it set its nose crosswind to France: Mike and Bill's stories diverge here, but according to Mike, about eight miles out to sea, with England receding much faster than France seemed to be approaching, the height 3000ft. Bill turned to Mike and said, uneasily, "I can't swim". Mike thereupon turned for home, and landed near Dover, in a reasonably large field.

Mike phoned Challock for an aero-retrieve, and in due course it arrived. It wasn't a very powerful aeroplane, and the Calif is a very large glider, so they shortened the tow-rope, abandoned Bill, and tried to take-off. As soon as he left the ground, Mike found the tow-rope was so short that he couldn't see the tug, so he released and carried on prayerfully ahead into the next, smaller, field. The tug went back to the original one.

Mike then got a lift back to field A, to find the tug pilot had proceeded by a different route, to field B. Mike returned, to find the tug pilot had done the same. This happened a third time, whereupon they found that from a

properly selected corner of each field they could see each other, so arranged actually to meet half-way.

After this, they left the Calif in its field, all returned to Challock, and at 18.30hrs their unfortunate crew at North Hill was phoned to proceed to Dover to collect the aircraft. They arrived at 01.30hrs to find the field padlocked. The story goes on from here a long way, but sufficient to say they got the Calif back to North Hill at 21.30hrs the next evening.

Meantime, on the less dramatic task, Tony Smallwood's Gull got to Lasham and back to Salisbury for 384pts (the Gull having now covered 500kms in three days flying!) and Dave Reilly in his Skylark 4 got back as far as Dunkeswell to get his 300km Gold C distance.

This day showed conclusively that the flight from North Hill to the Continent is definitely on, and probably fairly frequently during the year.

This proved the last contest day, though on the Friday a few gliders aerotowed to the cliffs at Branscombe, and had some remarkable soaring as far as Lyme Regis and back. Ken Wilkinson and others found a most peculiar wave out to sea, upwind of the cliffs, giving 2000ft lift along the coast. The trick was that, although there was hill lift up to 1000ft above the cliffs, there was actual sink at cliff-top height, as Maurice Clarke found to his horror. For on descending to the level of the cliff east of Seaton, he found himself swept down to a hopeless landing on the rocky beach below. He found a short stretch of pebbles, with one lonely figure plodding along it ahead, his back to the oncoming glider. The width of the level part of the beach was less than 15 metres, but Maurice scrunched onto it and stopped instantly, his wing tip dropping into the waves. The tide was coming in. The startled man ahead, believing himself miles from any other human being, turned round. Another interesting retrieve followed.

One other vignette. Kitty Cooper, in the midst of the evening phone rush in Control, got a call from John Cadman. "John here, No. 91" - "Pilot or crew?" - "Pilot" - "Have you landed yet?" - "I think so."

I wish I could thank everyone at North Hill by name. The whole thing is run by club members, with no outside help at all. What a wonderful crowd they are!

The leading results: 1 Justin Wills (Std Libelle), 2582pts; 2 Dave Reilly (Skylark 4), 1866pts; 3 Tony Crease (Dart 17R), 1816pts.

The prizewinners were: Enterprise trophy and first prize, Justin Wills; special award for top wooden ship (presented by Bill Longstaff) and the prize for the highest placed Devon and Somerset Club pilot, Dave Reilly; Blunt Nails prize, Tony Smallwood (Gull 1); top two-seater prize, Terry Jones and Roger Warren (Blanik); special merit award for enterprise, Ken Wilkinson (Kestrel 19) and for perseverance, Tony Maitland (Diamant 18).

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Illustrations by Platypus

Articles by Platypus have entertained readers of this magazine for some years. Now Mrs. Platypus gives a full, frank unexpurgated account of Life with Platypus and offers some

## ADVICE TO THOSE ABOUT TO MARRY GLIDING ENTHUSIASTS-

# DON'T!

When Platypus proposed, he made his priorities perfectly plain.

"We could get married at the end of May" he suggested at breakfast one morning (all the best proposals take place at breakfast) "because that's when the Nationals are on. One of my syndicate partners will be flying the Kestrel so I shouldn't be able to glide for a week anyway and could take you on honeymoon."

Arrived at the Registrar, Platypus patted his pockets, found the 2p he keeps for retrieve phone calls, and not much else. Like Royalty, Platypus rarely carries cash; and while I don't usually mind too much being his purse-bearer, I felt it unseemly for a bride to ferret in her handbag. So I waited demurely while Platypus asked the Registrar (a Mr Peacock) if he would accept Barclaycard or a cheque. Mr Peacock, with a guffaw, declined; and Platypus was just contemplating a whip-round among the witnesses when he came upon the fivers he keeps for retrieve dinners and the situation was saved.

Our honeymoon, on which Platypus pointed out several gliding sites into which I declined to be inveigled, ended up at the Nationals which by an amazing co-incidence lay directly on our homeward path.

I knew that the first flush of romance had really worn off by an incident some six weeks later, however. I accompanied my new husband to a competition in France - the first gliding competition with which I had ever been involved.

On the first day, on the launch point, French tug pilots were whipping the gliders into the air with ferocious speed and efficiency. I was standing dreamily by the trailing edge of the wing, watching the glider piloted by Platypus being attached to the tow rope, when I noticed all about me had scattered and were bellowing urgently. I drifted off and it was explained to me severely that I could have been decapitated by the tail plane.

Recounting the incident to my bridegroom in bed that night I was touched when he sat up in alarm.

"You must *never ever* do that again," he said. "You could have *severely* damaged the tail plane."

All this was some years in the past. Now as a gliding wife of some years' experience who has been blooded by a retrieve which earned Platypus a trophy for the worst retrieve of the year (why did *Platypus* collect the trophy, I ask myself? Why not the crew? Anyway it was a gliding club ashtray and he doesn't smoke) I feel qualified to pass on some words of advice to those about to marry gliding enthusiasts.

First, unless you have to, don't.

(I didn't have to. I just loved Platypus.)

If you do, you will have to accept that gliding is going to come first with your husband. For instance, your sex life will to some extent depend on the weather.

"You wouldn't *DARE* write that" said Platypus in bed this morning.

I would and I will.

### Gliders as phallic symbols

On weekend mornings, Platypus springs from bed and tweaks open the curtains. If the sun is shining, I know I've got to get my clothes on fast if I want to accompany him to the club. If on the other hand he returns to bed, I know it's a poor gliding day. . . .

"I think gliding is a substitute for sex" I once remarked, when considering the Freudian aspects of the sport - the phallic symbolism of high-performance gliders, thrusting into thermals and wagging their wings in uncoupling rituals with tow planes.

"Nonsense, sex is a substitute for gliding," said Platypus briskly, and there are times when I think he wasn't joking.

The second thing you have to decide is whether you intend to be a gliding widow or a gliding wife. You can either opt for widowhood, waving him off to the club each weekend and taking up golf - or a lover; or you can accompany him to the club and take the consequences.

If you opt for the second alternative, and you don't terribly care for hard work and being shouted at, the line to take is that one simply could never aspire to be a second Kitty Wills or Beryl Stephenson, and it would be sheer



presumption to try. Regrettably, one simply isn't of the calibre required to drive a trailer 400 miles through the night, nor has one the physique to throw together a Kestrel 19 with effortless ease and good grace. I do occasionally hold Platypus's wing tip (though dropping it from time to time ensures that it is only occasionally) and last season I did retrieve him from the field next to the club. Of course, you will have to cultivate some alternative skills instead - provide syndicate noshes willingly, feed crews, map-read intelligently, listen wholeheartedly and generally offer moral if not physical support.

The most endearing thing about Platypus is his absent-mindedness. At a very early stage, his friends warned me that I should have to watch him like a hawk to make sure that he didn't get airborne while still in possession of the car keys. I also try to prevent him from taking-off while he is sitting on his maps, and try to find the things he loses - keys, maps, sunglasses, tools, shoes - last week it was the inspection panel.

By a man's friends you shall know him, they say, and Platypus's friends are a particularly Stout Bunch (speaking purely metaphorically). Not many people would endure conditions rather worse than trenches in World War I to retrieve him in a snow storm, nor de-rig in pitch dark in a field knee deep in cow pats, nor drive 200 miles in the wrong direction and 200 miles back again (French villages have similar sounding names) and still remain on speaking terms with the instigator of all this suffering. Platypus's friends, however, do all this and more. For my part, I have learned to understand their jokes. At the beginning, when they reported picking up Platypus on the radio at 500ft over Evesham (when in fact they had not heard from him at all) they were puzzled by my phlegmatic calm. It was however ignorance rather than a humourless *sang froid*; I just didn't know how low 500ft was. Now I giggle politely and hope it is a joke again.

I have learned a lot of things since taking up with Platypus. I have learned, for instance, never to go on a retrieve in a mini skirt - apart from the difficulty of climbing barbed wire fences, the horse flies near some Continental gliding sites are vicious and ungentlemanly. So I always arm myself when going anywhere near a gliding site with trousers, Wellies, sunglasses, fur coat, sun hat, food, knitting, reading matter, money, a corkscrew and a complete change of clothes (see note on cow dung retrieve). Thus prepared for any weather and all eventualities I can await Platypus's return in as much comfort as possible.

I have learned that Platypus is generally sweet-tempered and tolerant. Two things, however, drive him into a frenzy. One is when I do something wrong when towing the glider to the launch point, and the rope snaps.



"We can't go on meeting like this."

The other thing which can prove greatly disturbing to the serenity of my home life is a letter from Kirbymoorside bringing tidings of another mandatory mod. Four letter words echo around the house and we have a bad half hour before Platypus regains an even keel.

Putting into effect the mandatory mod, of course, takes its toll of Platypus's time and temper as well. As does trailer painting/maintaining. Fortunately the weather is nearly always too wet or too dry. If it's pouring clearly he can't be fettling, and if it's fine he's flying.

#### More expensive than a mistress

One thing you *don't* have to worry about if you marry a gliding enthusiast (well, not much, anyway) is the Other Woman. His glider is his mistress, and takes up so much of his time, energy - and money - that he hasn't really any to spare for anyone else. *You* have the advantage of knowing the enemy intimately and being able literally to take her apart any time you choose. The ultimate sanction, of course, is that you can leave her stranded if he takes-off with her and doesn't return to you - you can refuse to retrieve him if he's paying her too much attention - but he'll never abandon her for you, so if you want to see your husband regularly you'd better just accept her. You don't have to overdo it, of course; Platypus often invites me to join him in rubbing her down or touching her up, but I don't consider this to be my scene at all. I do have to lend my hairdryer to dry out the water in her wings and my hairspray for her barograph (not to mention bits of my carpet to pad her trailer more comfortably) but that's as far as it goes.

I've just had a thought. How about an "AUNTIE" Platypus column in S&G, with advice to worried gliding brides, etc?

"My husband is spending longer and longer at the club, and keeps mentioning Libelle in his sleep. Should I worry?" - Only if he lands out in her.

"My boyfriend spends hours in his trailer with a girl he says is a member of his syndicate. He says they're weather-proofing it. Could this be true?" - Probably.

How about it, Editor? (*We've got enough problems without inviting any from readers.* - ED.)

Anyway with all said and done, life with Platypus is never dull, and I wouldn't have it any different for the world.

He has viewed the prospect of this article with some trepidation, and at one time I offered to suppress it.

"Not at all," he said generously. "As a matter of fact, I think I'm quite flattered at the thought of you being a kind of Boswell to me. I'll give you a Johnsonian quote if you like," he offered.

So as I pinched the title from Dr Johnson, I'll pinch the last line, too.

"When a man is tired of gliding," says Platypus, "he is tired of life."



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BRENNIG JAMES writes about his frustrating expedition to the Himalayas this spring when, having got his SF-23 motor glider on site, he was refused permission to fulfill an ambition of 15 years to soar over the 26504ft high Annapurna mountain. The ultimate aim was to have been a soaring flight over Everest.

## THE MOST USELESS JOURNEY IN THE WORLD

In medieval times the younger generation amused themselves by knocking each other off the backs of horses until the Pope suggested they should go on a crusade. Now that I'm back from the Holy Land at least I know the way, although I haven't killed any Saracens.

The best gliding in Europe is in the French Alps, so the Himalayas should be even better. Reconnaissance on foot in October-November '74 established that in the high mountain valleys there were days of relative calm with excellent visibility. There were two regimes of convective lift; conventional thermals forming cu at 14000ft,  $\frac{1}{8}$  at 13.00hrs,  $\frac{2}{8}$  at 14.00,  $\frac{3}{8}$  at 15.00 and  $\frac{4}{8}$  at 16.00, and thermals which slid up the sun beaten mountain face, forming cumulus near the summit.

"Anomalous cumulus" was seen sitting on the summit of Everest and well clear of Lhotse at 28000ft plus. If the wind gets up conditions can be very good or very dangerous, depending on where you are. The essential for a successful expedition is to have a lot of time so that you can pick your day with care and scamper smartly back to base if anything looks a bit dodgy. Secondly, your base should be in a plain, clear of the mountains but near enough so that you can get home without having to find another thermal on the way.

Pokhara seems to be the very best in Nepal with the Annapurna wall 40 miles long and 22-26000ft high 30 miles to the north. There is a 5000ft grass strip at 2900ft altitude and a large town nearby. A lake near the field makes navigation that bit easier.

The difficult part is to get the gear to Pokhara. By sea to Calcutta is out, because there is a big queue of boats outside the port and a high risk of damage inside it. Bombay ditto. The overland route to Katmandu has now been going for several years and is practicable for ex-Army lorries and smaller char-a-bancs. In the event we got to Pokhara without damage, but scraped the rear trailer a bit on the last 15 miles into Katmandu, which is 100 miles on after Pokhara.

The journey took four months as the drivers were held up for two months by the Customs in Iran and two weeks in India. There is no difficulty in obtaining reliable drivers for both the outward and return journeys, as there is a fair traffic of hitch-hikers who prefer to drive themselves in a comfortable saloon car than travel in someone else's lorry. An auxiliary powered glider is essential as the cost of a tow aircraft is very high (£5000) and high octane petrol is not available in Nepal, so you would have to supply your own. Furthermore, there are very few places where a landing is survivable by the pilot except the airfields and the river beds. So the ability to motor back home might be life saving.

Ideally you always want to operate in or above the upper third of the valleys as the air currents down below can be vicious and unpredictable, so operation from the airstrip on the valley side is to be avoided. There are airstrips at about 40 miles intervals in Nepal, but the only airfield with hangars is Katmandu. This is not a good place to start from as it is enclosed by 9000ft hills and the fair amount of commercial traffic might raise some doubts with Nepalese authorities.

The foothills are enormous piles of sand held together by rhododendron roots and are so friable that frequent landslides block roads or carry paddy fields to the valley floor. Paddy fields, incidentally, are shallow ponds with a floor of mud and a solid rim of earth. The largest I saw was 50 yards square but many are two or three feet wide and climb up the hillside like staircases.

The second problem is to lay on oxygen. We had three filled 750 litre cylinders plus six recharging cylinders, each of which would give six good fills, so we had enough oxygen for about 100 hours of flying. If this ran out, or failed, we were told we could use the oxygen trolley at Katmandu airfield. However, in the event this was empty so it was as well that our supplies were satisfactory.

The oxygen cylinder was under my knees and the petrol behind my head. I felt this was a reasonable risk as any prang that put the oxygen in the petrol or the petrol in the oxygen would have squashed me flat in the process, so the subsequent explosion would have been of purely academic interest.

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*The happiest time,  
cut off from constant hassle.*

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Due to the delay in getting to Nepal, the C of A had expired. However, David Kent, who had attached himself to the expedition as a freelance journalist, among his other achievements, proved himself of sterling worth by doing the C of A in a hangar on Katmandu airfield. And possibly this week spent repairing the trailer and servicing the aircraft was the happiest time we had since we worked long hours and were cut off from constant hassle with officials. David had arrived four weeks before in Nepal and after a lot of argument got the trailer from Customs on the border to Customs at Katmandu. We never did clear Customs into Nepal, the argument being that "as you have not got permission to fly there is no point."

After two weeks he met the Prime Minister, Dr. Giri, at a cocktail party who gave the expedition his assent, but five weeks later when we left this had not percolated down to the level of the officials we had to deal with.

The whole situation abounded in Catch 22. We couldn't fly without VHF telecommunications yet the importation of radio transmitters was forbidden to India and Nepal: they were like dynamite! I thought the Narco 12A would get stolen from the cockpit so I took it in my personal luggage and had kittens every time I went through Customs.

On arrival at Katmandu I was asked if I had a transistor and I said yes, showing the com set. The official looked at it suspiciously but didn't ask if it was a transmitter, so I didn't tell him, and he merely wrote Narco 12A in my passport and waved me through.

Even though we never cleared Customs into Nepal, we

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*Ingo Renner, winner of the World Championships 1976, Standard Class  
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had to clear Customs to get out. But before we could get permission to do this, we had to go to the Ministry of Foreign Affairs to get permission to leave a country we had never properly entered. At an earlier stage when I suggested that we had better pack up and go home as there was no prospect of flying, I was told this was impossible because the Prime Minister had given permission! Catch 22 strikes again.

Anyway we did leave and I hope the PM wasn't too upset. By now we were worn out, depressed and debilitated by a tropical illness which the locals take in their stride. By great tact and perseverance we might have got in some flying, but a few days flying might have been lethal as we could not pick our days and might have been obliged to do too much too soon. Certainly by then we were completely drained of the required fighting spirit. I felt we had endured sufficient humiliation by now without any compensating gains, and to put up with any more might be setting a precedent for any other expeditions.

In the planning stage the critical factor seemed to be oxygen, but in practice it was the obtuse nature of Eastern bureaucratic psychology.

Customs generally are a law unto themselves and letters to the commercial and military attachés of the Embassies in London usually go unanswered and, in fact, officials deny having received them. Customs will not deal with any problem until it turns up at their post and then they will make you wait until they consult higher authority. In India, on the way out, there was a two week delay while they sorted out the correct procedure with, you've guessed it, another two week delay on the way home.

Once through the outer zone of bureaucrats, one got in touch with the pilots and ground staff who were all very friendly and enthusiastic, some being RAF trained. When I came to pay hangarage it was 25p a day, so there were some compensations. The first week was spent getting the car serviceable, the second doing the C of A and the third and last week with more futile hassle. There was some talk of a minor guerilla war in the region near where we wanted to fly with six helicopters shot down and 500 troops lost. However, I felt this would have been an acceptable risk bearing in mind all the trouble we had taken to get there.

It is more than likely we just didn't go about things the right way. Decisions in the Orient are arrived at after a long process of courtship. You call in at the office and chat up the

official every week for about six months and at the end of it casually ask whether a gliding expedition would be on. If he says no you're scuppered because there is a great loss of face in changing a decision. Furthermore, there was 250% duty on cars after they had been in the country for six months, which we hadn't been told about in advance.

We had done a C of A in Katmandu, so we had gained a moral victory of sorts. If others want to take up the torch of progress, good luck to them.

There are still several other ways of going about it. First, the Indians manufacture winches and gliders at New Delhi and it should be fairly cheap to get these to the Himalayas. Secondly, there are the Himalayas in India, Pakistan, Kashmir and Afghanistan, not to mention China which you can try. Thirdly, fit a two-seater motor glider with an auxiliary tank and fly it out. Surprisingly this has been done before - someone has flown out a Scheibe two-seater to Australia; not the Falke, the previous model.

Finance is pretty crippling. There is virtually no sponsorship and the sums to be earned by filming, writing and photography offer a very poor return. We were lucky to stay within £4000 because air fares and numerous extras have since gone up.

I think the game is worth the candle. Gliding has only existed as a sport for about 40 years and I hope that flying 500km triangles is not the end of the line. My great joy is getting to a great height, but in the clear air there is nothing remarkable except the altimeter reading. Climbing up a really big mountain would be a really satisfying achievement. The Himalayas are hardly likely to disappear overnight, so perhaps in a few years circumstances will be more propitious and we can try again.

The more civilised the country the fewer restrictions you encounter, since authorities presumably can rely more on the self-discipline of the individual. Remember the UK is one of the last countries where you can fly in cloud. You aren't allowed to do it in countries like Australia, the US, Germany and France. In many countries you can't photograph from a glider and in many you daren't even ask!

*Trip for reconnaissance and to gain permission for the expedition, October-November, 1974, cost £500.*

*Departed August 4, 1975 and reached Nepal on December 2, 1975. Cost of journey about £1500. Trip for "flying", March, 1976, £500.*

*Return journey, March 20 to May 13, 1976, cost about £600 and included seven new tyres, fees for Customs escort in India, new exhaust and Channel crossing.*

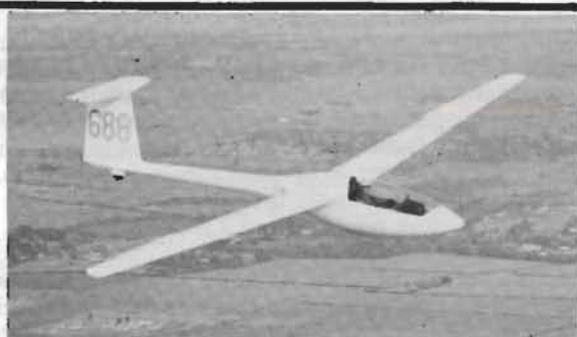
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# Amid the vultures and the kites

BOB RODWELL reports on the vigorous gliding movement in India and the Government-funded research and development which sustains it

Brennig James' fruitless expedition to Nepal in the spring (see p161) was the first designed to explore the soaring potential of the stupendous Himalayas - a brave intention foiled by bureaucracy. After this experience, it seems certain that India offers the only channel through which gliding pilots may, ultimately, soar amid the rafters of the world. For while there is no gliding whatsoever established in the remote kingdom of Nepal, India boasts a lively Government-sponsored gliding movement of which little is known in the west but which now features among the outdoor pursuits being actively marketed by India's tourist offices overseas.

While flying to many corners of this vast absorbing country on an aircraft demonstration tour in March, I was able to take out half a day to talk to leaders of the movement, to see state-funded glider design and development at first hand - and twice to sink dismally to earth a few minutes after take-off for miserable windless winch launches to only 700ft at the Delhi Gliding Club's Safdarjung Airport site on what was an unseasonably dead, grey, overcast day.

There are at present 13 civil gliding clubs throughout India and those of special interest to visiting pilots are likely to be Delhi, Agra, Jaipur, Kanpur, Pilani and Poona - the latter of dyspeptic colonel fame, where all of India's gliding instructors are trained and where the fleet is more than 20 gliders strong. None of these, unfortunately, opens up the potential of the Himalayan or Karakoram ranges yet but a transport flight to Leh, nearly 11000ft up in the Karakoram from Srinagar in Kashmir, was marked by juicy lenticulars all the way. A number of Indian instructors were introduced to mountain soaring in Europe by Hanna Reitsch in the 1960s and it seems only a matter of time before gliding becomes available in at least the militarily less sensitive reaches of India's northern mountain wall. What the existing clubs *do* offer is access to stonking thermals, in which 10kt is commonplace and 20kt or more by no means rare.

Additionally, there are a further 45 IAF-sponsored gliding centres training members of the National Cadet Corps. Many of these are at seats of learning, including women's colleges, and both the centres and the clubs are equipped with Indian-built gliders and winches on loan from the Government. With state subsidies paid to the civil clubs on a per-launch basis, the pilot pays only four rupees (24p), with visiting pilots paying a little more.

To fly solo, foreign pilots must have clearance from the Director-General of Civil Aviation in New Delhi which, given evidence of appropriate experience, can be arranged by post in about two weeks. Since the present DGCA, Mr. S. Ramamrithram, himself designed the earlier models in India's range of eight indigenous glider types, gliding and glider pilots have a friend in high places and visiting pilots need fear no difficulties on the bureaucratic front.

With minor regional variations - this *is* a sub-continent - flying is virtually uninterrupted from September through to June. The hot months of May and June are the best for Diamond mining when, incidentally, the thought of cool breezes aloft must be a tempting prospect from the oven on the ground. Some flying is even done during the monsoon

season in July and August, though flooding tends to make airfield conditions difficult. Prevailing winds are westerly and north-westerly and from Delhi, a thriving club with about 200 active members located in the middle of this vast land, a 1500km "downwind dash" to Calcutta will be a possibility when sufficiently fast equipment comes on the scene.

Aerotowing is rarely used in India on grounds of expense, but thermals down to winch height are generally available from about 10am and convection continues vigorously to about 6pm. During our let-down on arrival at Delhi we passed through really active cu, the base of which was at 13900ft - and it wasn't even noon. Cloud flying is rarely necessary and instrumentation in even high-performance types tends to be very sparse, with the old Cosim usually the only vario.

Though thermals are often "blue" they are invariably clearly marked in another way - by vast flocks of soaring kites, vultures and other birds. On one of my short Delhi flights, as I vainly tried to climb away from a soggy launch at about 500ft, I was circling at the bottom of a column of literally hundreds of kites using whatever little lift there was.

Despite its educational value, recognised by the Government in its patronage, gliding is not permitted to make any drain on India's slim foreign exchange reserves. The entire movement is based, therefore, upon locally produced equipment in which indigenous materials are used almost exclusively. There is only a handful of imported gliders - K-7s and K-13s - presented by Germany after the Hanna Reitsch visit in 1959/60, while the Delhi GC has a venerable T-21B in which the CFI, Mr. R. K. Wason, alone has made more than 27000 flights.

Because of the emphasis placed on the use of local materials, all Indian gliders have been of wood-and-fabric construction, but now that glass-fibre cloth and epoxy resins are being made in India the DGCA's Technical Centre at Safdarjung, New Delhi, has started experimenting with GRP structures.

Equipped with spacious workshops, skilled carpenters and fitters, in addition to its research and design teams, the Technical Centre is the powerhouse of Indian gliding, where sailplanes are designed and pre-production models built before the drawings are freely made available to companies able to produce them in quantity. Since the Centre is responsible for all civil airworthiness engineering and operational safety in India, all certification of aircraft, engines and components, for R&D and the evaluation of new aircraft types, its interest in gliders is essentially three pronged.

*The Standard Class Kartik 2, of which a small series has been built, has set a number of Indian National records and won the first Indian National Championships.*



Through the design and development of gliders, its own young specialists are brought face-to-face, inexpensively, with the problems of design, airworthiness and type approval and its collective expertise is developed while the civil and military gliding movements are provided with what they need. The gliders themselves have served as vehicles for the development of indigenous aeronautical materials - wood and fabric, dopes, thinners and paints, steel and light alloys. Himalayan and Kashmiri spruce (marginally heavier but stronger than the Canadian variety), silver fir and ash, all of aeronautical quality, abound together with white cedar from which aero ply is made. Local covering fabrics are cotton based.

The glider programme, begun in 1950 by Mr. Ramamirtham, is now headed by the current director of R&D, Dr. K. B. Ganesan, with whom any interview is likely to be interrupted as he works out an instant solution to some problem presented by a worker from the shops.

The current project in the design office, destined to fly next year, is a high-performance tandem two-seater, desig-

nated the TC-71, about which Dr. Ganesan is reluctant to give details at present. Still basically of wood and fabric, it will probably incorporate some use of GRP but full-scale adoption of glass-fibre construction will not be made until a later type.

So far, competition flying in India has been very limited, with a two-year hiatus following the first National Championships in 1973. There are plans for a National meet this year at Poona, a site which offers excellent slope soaring along the Western Ghats apart from strong thermal lift. But the signs are that the high costs of motoring in India, the sheer distances involved - not to mention the anarchic traffic on the nation's roads - are combining to favour Regional Competitions rather than large-scale National meets at this stage in the movement's growth. For while gliding over the fascinating and richly varied land is an alluring prospect - who could resist looking down at the Taj Mahal at Agra or Jaipur's pink palaces with a soaring eagle's eye? - the retrieve is likely to offer even more adventure than a long cross-country flight.

## THE WOODSPRING WINCH

CLIVE PEPPER

When the Woodspring Club was formed it was decided that for the sake of economy we should build our own winch and several were examined so that basic principles could be established. We found that most components were fairly easy to get from breakers of earthmoving or heavy goods equipment.

Four main design parameters were decided on:

- 1 We were to build a twin drum winch.
- 2 The power unit was to be a diesel engine of 5-6 litres capacity, coupled to either a fluid flywheel or torque converter.
- 3 Narrow drums would be used to eliminate the necessity for scroll gear.
- 4 A safe and weather-proof cab was to be included as part of the original construction.

We obtained a Leyland 400 Power Plus six cylinder diesel engine of 6.5 litres capacity, complete with industrial torque converter, and a four wheel trailer of approximately 12ft x 7ft platform area. Having got the engine, it was now possible to decide on the approximate gear reduction required, bearing in mind that for narrow drum operation a drum diameter of between 2ft 6in and 3ft 6in would be needed.

### Secondhand rear axle

The next problem was to support the drums, provide independent drive to each drum, independent braking and achieve the necessary gear reduction. This was accomplished by using a secondhand commercial rear axle. The differential bevel wheels were welded up so that both half shafts would rotate together, regardless of the load on either one. The crown wheel and pinion part of the axle provided the required gear reduction. Set bolts, which originally retained the two half shafts in the axle, were replaced by studs and provision was made to move the half shafts in and out of the axle sufficiently to engage or disengage drive to either drum.

Cable drums were welded onto two old wheel centres and thus the axle ends provided both drum support and braking without modification.



Max engine speed	2200rpm	Axle reduction	4.7:1
Hence drum speed	470rpm	Cable speed	74ft/sec or 45kts (approx) with 3ft diameter drum hub
Drum details:			
Hub diameter	36in	Outside diameter	45in
Width (between flanges)	5in	Cable capacity (4mm-7x7mm stranded)	1400m (min)

As can be seen from the photograph, the final layout resolved itself, *ie* working forward from the rear of the winch we have engine, torque converter, prop-shaft, axle and drums, cab and finally roller boxes.

The cab was constructed from 6mm mild steel plate for the area round the windows, with 50x50x8mm angle iron, suitably clad for the rest of the structure. Glazing was done for us on site using safety glass.

Roller boxes and guillotines, constructed as a unit, are bolted onto the main frame and situated immediately in front and to either side of the cab. Cables pass through the roller boxes, along guide chutes on either side of the cab and onto the drums.

For construction of such a winch, gas cutting, arc welding, portable grinding and drilling must be available on site, with reasonable access to turning and other machining facilities.

Should any other club be interested in a similar project, more details can be obtained from the Woodspring GC.

### Winch Thermals Correction

In the article "Winch Thermals Save Fuel" (S&G June, p107), the third line from the end should read "hot air from inside the heater", not "heater".

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# The 76 NATIONALS

*at Lasham*



Mike Cowburn wrote the words – Jasper Partington, Rob Johnson, & Harry Kerr of *The Times* took the pictures

The Nationals were held at Lasham from Saturday, May 22, to Monday, May 31, 1976.

#### **The site**

Lasham, south of Basingstoke in Hampshire, is surrounded by excellent soaring country. Tasks are usually set to the west and north. Due to airfield maintenance at Upper Heyford, the F111s of the USAF have moved to nearby Greenham Common for the summer. This has made cross-country flying more difficult. However, the USAF are our friends and have made every effort to minimise the disturbance.

#### **The entry**

The Open Class comprised 15 Kestrel 19s, five Nimbus 2s, two Jantar 19s, one Diamant 18, two ASW-17s, and one Calif A-21. Most of the Kestrel 19s had the big rudder, and one, Mike Randle's, had the John Delafield turned down wing tip extension to 20m. Of the five Nimbus 2s, two were standard and the rest had big rudders.

Ted Lysakowski's was extended to 21m span, and Anne Burns' to 22m. John Delafield's was the most exotic with a span extended to 21m with turned-down tips, wing fillets and a super sealing job.

The Standard Class comprised 13 Cirri, ten Std Libelles, three PIK 20s, and one DG-100. The Sport Class had a Skylark 4, a Dart 17R, three K-6Es, a Pirat and an Open Cirrus. Most of the Standard ships carried water.

#### **The Equipment**

Anne Burns had the only "speed-to-fly director" to be seen. Most pilots had a PZL or Winter mechanical variometer, often with a John Williamson "Dolphin" Netto. These were backed by an electrical vario which was usually a Burton, Ball, Crossfell, Cook or Cambridge. Deviants were the "Booker Mafia" who used a Cook electric for scratching and a Cambridge electric as back-up with or without a Netto. Almost everyone had Brunswick tubes mounted on the fin. Pye Bantams were still the favourite radio but the growing contingent of TM6 users spoke highly of them.





1		6	8
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3	5	7	

The Champions. John Delafield (1) won the Open Class, Simon Redman (2) took the Standard Class, and John Cardiff (3) the Sport Class.

British team pilots Ralph Jones (4) and George Lee (5) flew the Nationals as a warm-up for the World Champs in Finland.

Tim Newport-Peace (6), communications chief for the Champs and supplier of electronic PA wizardry to the nobility and gentry.

"Good start" — electric Rika Harwood (7) presided over the start and finish lines assisted by Hewlett Packard's start line timer and printer.

BGA President Philip Wills (8) chats to Frank Irving, Vice-Chairman of Lasham, who organised the Champs prior to Day 1.

Competition Director Martin Seth-Smith (9), and Met man Norman Ellis (10), on parade at briefing.

The Competition was opened by Eric Carlsson of SAAB Motor Company which has assisted the British Team in the World Championships. Eric Carlsson, a brilliant rally driver, was once known as "Eric on the roof" after a prolonged period of inverted flying in cars.

### Saturday, May 22 – Day 1 Open Class

A high pressure system from the continent with a very high dew point produced layer cloud with a low base. Wind was 240°/270°, 8 to 15kt.

A common task was set for Open and Standard/Sport Classes, Lasham/Devizes Castle/Didcot Station, 180km Δ. As the wind freshened and the grot increased, it was decided to send only the Open Class. At about 2pm the big birds sadly departed west into a Celtic twilight of weak thermals and 2500ft cloudbase.

The day became one of distance with the outlanding concentrations at Thruxton and the first TP.

Open Class – Day 1, 1 John Delafield (Nimbus 2) and George Lee (ASW-17), 2 Ted Lysakowski (Nimbus 2) and Dave Lilburn (Kestrel 19), 3 Mike Randle (Kestrel 20). For this display of courage, skill and determination John Delafield got 115pts.

### Sunday, May 23 – Day 2 Open Class, Day 1 Standard/Sport Class

Forecast – high pressure area (1024) with 2 to 4kt blue thermals. Nil to  $\frac{3}{8}$  cu. Wind SE 10 to 15kt.

Tasks – Open Class, an out-and-return to Leicester Forest East 320km; Standard/Sport Class, a 319km triangle, Bath Racecourse/Stratford Theatre. A wide band of high cirrus appeared and covered the area of the second TP for the Standard/Sport Class, and the top half of the track for the Open Class. Lift became weak to non-existent, the entire competition landed out.

For the Standard/Sport Class the first leg to Bath was reasonable to good. The second leg became progressively more difficult, and outlandings were concentrated in the Stratford area with a few down the third leg. Andrew Davis, Cirrus 680, clearly a name to watch, flew furthest for 1000pts. British team-man Ralph Jones, or Romeo Juliet as we now call him, was third. Derek Piggott, famous Lasham CFI, won the Sport Class in a Pirat. In a what? A Pirat.

The grot began to close in on the Open Class at Bicester, but 3000ft was still possible. From Rugby to Leicester it got worse and lower. Mike Randle scratched round the turning point and reached Leamington to take a well-deserved first place in his 20m Kestrel.

Open Class – Day 2, 1 Mike Randle (Kestrel 20), 2 Mike Bird (Kestrel 19), 3 Gordon Camp (Kestrel 19). Standard Class – Day 1, 1 Andrew Davis (Std Cirrus), 2 Rocky Stone (Std Cirrus), 3 Ralph Jones (Cirrus 75). Sport Class – Day 1, 1 Derek Piggott (Pirat), 2 Chris Rollings (K-6E), 3 Andrew Davis (Std Cirrus).

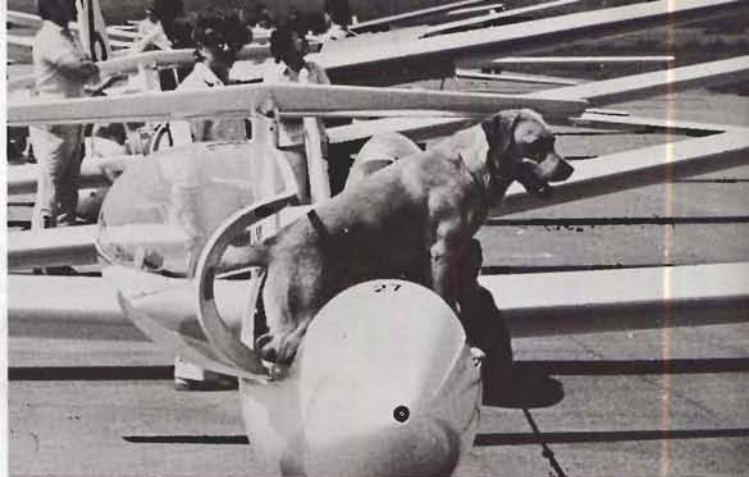
### Monday, May 24 – Day 3 Open Class, Day 2 Standard/Sport Class

Forecast – weather dominated by a Scandinavian high (1024),  $\frac{2}{8}$  to  $\frac{3}{8}$  cu, 5000ft base, and 2 to 4kt thermals. Wind S/E, 8 to 15kts. Traces of alto-cirrus at 10000ft and  $\frac{6}{8}$  to  $\frac{7}{8}$  cirrus at 20000ft.

Tasks – Open Class, a 250km triangle, Pangbourne Station/Cirencester Park/Banbury Cross. The extra kink in the triangle was to avoid the heavy traffic at Greenham Common. Standard/Sport Class, a 180km triangle, Devizes Castle/Didcot Station.

The day was never as good as the forecast. The Open Class met the clag at Chipping Camden and it covered an area of the track round to Benson. At Banbury the conditions were so bad that the task setter fell down. John Delafield was a handsome Open Class winner arriving back at Lasham at 81.5km/h. He stayed at cloudbase, dolphining until he reached the clag, through which he tip-toed.

The Standard/Sport Class had better weather with less high cover. The Standard Class was won by Simon Redman, who started late and caught up everyone on the second leg. He fell back on the



His master's cockpit.

final leg but finished at 85.7km/h. Second man home in the Standard Class led the Sport Class on handicap and it was John Cardiff in his Std Libelle at 84.9km/h.

Open Class – Day 3, 1 John Delafield (Nimbus 2), 2 George Lee (ASW-17), 3 John Glossop (Kestrel 19). Standard Class – Day 2, 1 Simon Redman (Std Cirrus), 2 John Cardiff (Std Libelle), 3 Ron Sandford (PIK 20). Sport Class – Day 2, 1 John Cardiff (Std Libelle), 2 Simon Redman (Std Cirrus), 3 Tony Burton (Std Libelle).

### Tuesday, May 25 – Day 4 Open Class, Day 3 Standard/Sport Class

Forecast – a cold front clearing Lasham about 11am, giving good visibility. Cloudbase 3000 to 3500ft with  $\frac{4}{8}$  cu. Thermals 4 to 8kt, wind N/W, 10 to 20kt.

Tasks – Open Class, a 210km triangle, Bradford-on-Avon Station/Gillingham Station. Standard/Sport Class, an out-and-return to Sherborne Castle, 214km.

The wind became more westerly than northerly and brought the cold air from the Bridgwater Bowl on to the second leg of the Open Class task. This caused eight outlandings at TP one and eight outlandings at TP two and nearly downed the task setter again. The successes of the day were heroic.

John Delafield was in great form and caught George Lee in the grot after a good first leg. After a struggle he managed to turn Gillingham with enough height to reach the ridge near Compton Abbas which worked and took him to Salisbury. A thermal from the ridge and he was up into better conditions again and home. Mike Garrod was seen by retrieve crews at 8pm ridge soaring his way from Gillingham to Salisbury.

The Standard/Sport Class fared better with only sea air to contend with beyond Salisbury. Steve White, an early starter, won the day with a flight that involved dolphining to Salisbury and thermal soaring the sea air to Sherborne. On the return he was down onto the ridge at Compton Abbas but thermalled away.

The longest story of the day involved Chris Rollings who fell to earth five miles from Lasham at 8.45pm.

Open Class – Day 4, 1 John Delafield (Nimbus 2), 2 Chris Garton (Kestrel 19), 3 George Lee (ASW-17). Standard Class – Day 3, 1 Steve White (PIK 20), 2 John Cardiff (Std Libelle), 3 Ralph Jones (Cirrus 75). Sport Class – Day 3, 1 John Cardiff (Std Libelle), 2 Richard Aldous (Std Libelle), 3 Ralph Jones (Cirrus 75).

### Wednesday, May 26 – Day 5 Open Class, Day 4 Standard/Sport Class

Forecast – good visibility, wind 280°/300° 12 to 18kt, thermals 4 to 8kt but weaker if the clouds spread out. Cloudbase 4000ft.

Task – all Classes, a 172km triangle, Blakehill Farm airfield/Didcot.

This proved to be a genuine race in good conditions with better than forecast weather. Brian Spreckley left early and avoided the goggles which can influence thinking in the air. Taking only the best

thermals and dolphining whenever possible, he returned with a speed of 89.74km/h to win the Open Class.

Ron Sandford was one of the last to launch and was worried about the high cover. When he found the day was a strong one, he restarted and ran up a cloud street to Inkpen. After that it was strong thermals and dolphining round both turning points and back to win the Standard Class at 76.6km/h. Whilst all this science was going on, Chris Rollings in his K-6E was going down the first leg with cloud climbs. He arrived low at Blakehill Farm, took a photograph, and thermalled off to Didcot. Another climb at Didcot and the Sport Class had been won with a genuine handmade flight at 79.2km/h.

Open Class - Day 5, 1 Brian Spreckley (Kestrel 19), 2 Ted Lysakowski (Nimbus 2), 3 Chris Garton (Kestrel 19). Standard Class - Day 4, 1 Ron Sandford (PIK 20), 2 Andrew Davis (Std Cirrus), 3 Simon Redman (Std Cirrus). Sport Class - Day 4, 1 Chris Rollings (K-6E), 2 Andrew Davis (Std Cirrus), 3 Derek Piggott (Pirat) and Dave Watt (Std Libelle).

John Delafield was now a strong overall leader in the Open Class. Ron Sandford led the Standard Class and Derek Piggott led the Sport Class in the Pirat.

#### Thursday, May 27 - Day 6 Open Class, Day 5 Standard/Sport Class

Forecast - area of high pressure (1020) to the south of the country,  $\frac{7}{8}$  to  $\frac{9}{8}$  patchy cirrus at high level,  $\frac{6}{8}$  cu giving 4 to 6kt lift at 3500ft cloudbase. Wind NW to NE going round to SW later, 5 to 10kt.

Common Task - a 352km triangle, Ledbury town-centre/M1-A504 intersection (Northampton).

On the first leg cloudbase was about 3000ft with 3 to 4kt thermals. There were similar conditions on the second leg to Edgehill. There the grot thickened and stayed until Bicester on the third leg, where the weather perked up again.

Seven Open Class ships completed the task together with nine Standard/Sport ships. The second turning point downed 13 Open Class and 13 Standard/Sport pilots.

A feature of the day was the huge number of flies collected on the leading edges. John Cardiff had to take a top up on final glide to offset the decrease in performance. Brian Spreckley, Dave Lilburn, and Dave Roberts, all Open Class, made it to Basingstoke and without flies might have got in.

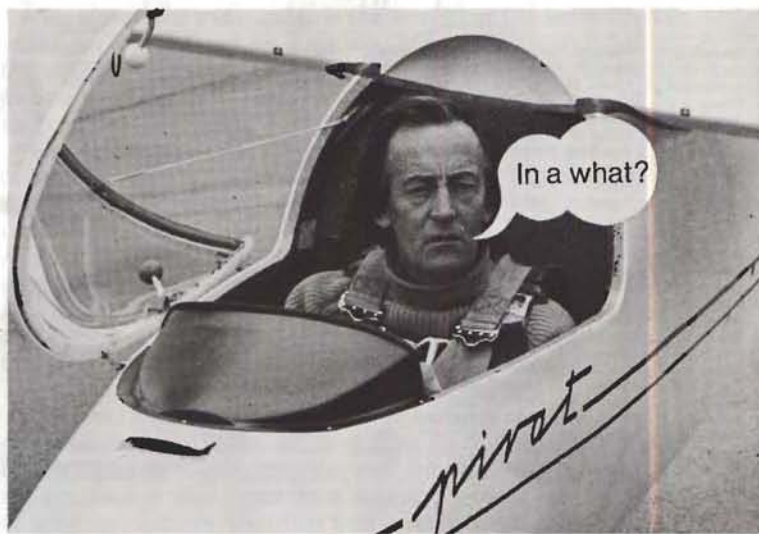
Open Class - Day 6, 1 George Lee (ASW-17), 2 John Delafield (Nimbus 2), 3 John Glossop (Kestrel 19). Standard Class - Day 5, 1 John Cardiff (Std Libelle), 2 Rocky Stone (Std Cirrus), 3 Dave Watt (Std Libelle). Sport Class - Day 5, 1 John Cardiff (Std Libelle), 2 Rocky Stone (Std Cirrus), 3 Chris Rollings (K-6E).

#### Friday, May 28 - Day 7 Open Class, Day 6 Standard/Sport Class

Forecast - continental high pressure system with  $\frac{7}{8}$  to  $\frac{8}{8}$  cirrus at 20000ft, and  $\frac{7}{8}$  alto cu at about 10000ft,  $\frac{2}{8}$  to  $\frac{3}{8}$  cu with 4kt thermals. Wind E/SE, 5 to 10kt.

Tasks - Open Class, a 147km triangle, Didcot Station/M4-A435 interchange. Standard/Sport Class, a 150km triangle, Didcot Station/A345 road-rail bridge at Pewsey.

Chris Lovell, task setter, launches to taste his own medicine.



What started out as a very doubtful forecast improved rapidly as a window formed in the upper cloud. The day boomed with 6 to 8kt, a 5000ft cloudbase and the race was on. John Delafield, the Open Class leader, had a wheel failure on take-off, could not retract it, and landed. The Nimbus was airborne at 3.30pm and with great composure he made the eighth fastest time after the best of the day was gone. He retained the overall lead. George Lee flashed round the task to win the Open Class at 107km/h. Ralph Jones took only five thermals to win the Standard/Sport Class with a sizzling 92km/h.

Open Class - Day 7, 1 George Lee (ASW-17), 2 Chris Garton (Kestrel 19), 3 Brian Spreckley (Kestrel 19). Standard Class - Day 6, 1 Ralph Jones (Cirrus 75), 2 John Cardiff (Std Libelle), 3 Simon Redman (Std Cirrus). Sport Class - Day 6, 1 Ralph Jones (Cirrus 75), 2 John Cardiff (Std Libelle), 3 Rex Pilcher (Std Libelle).

#### Monday, May 31

After two non-flying days an attempt was made to fly in poor conditions. The Open Class was scrubbed on the grid and the Standard Class was launched into a rainy sky. It was not a contest day.

John Delafield was an excellent Open Class winner and held off the strong challenge of George Lee by 100pts, in spite of his difficulties on Friday. George Lee flew better each day as he got to know the ASW-17 he was to fly in Finland. They won two days each.

Simon Redman was Standard Class winner and second in the Sport Class. There can be little wrong with a contest which brings the best pilots to the top of the list. The contest was ably directed by Martin Seth-Smith. Chris Lovell was a successful and courageous task setter and flew them all in his favourite Phoebus.





# Instability of T Tail Gliders

HUMPHRY DIMOCK

The three T tail gliders which I have owned, the Diamant, Kestrel 17 and Nimbus, have all suffered from the same problem of instability in pitch. It is impossible to take the hand off the control column to refold a map, to concentrate on navigational calculations, to reload a camera, or to perform other personal occupations in the cockpit, without having the aircraft rear up like a young horse suddenly, or else go into a dive.

Experiments have been carried out in the Nimbus for over a year by adding weights in the nose but with only marginal improvement. Now, however, I think that I have come up with the reason, and after more experiments, a suggestion for the solution to the malaise.

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The reason for the trouble is the weight of the vertical rod in the fin is balanced by a spring. When the aircraft hits a thermal or just turbulence the spring gives way to the extra  $g$ , thus causing the tailplane to raise the nose which gives more  $g$  and the control column moves smartly backwards.

The first experiment was to fix a restraint on the top of the control column in the form of a loose cup attached by a non-stretch string to the instrument panel. The loose cup could be flicked off by a finger, or held on with the hand. According to the length of the string, varying only three sixteenths of an inch, the aircraft was stable between plus and minus 5kt at various selected speeds. An interesting occurrence noticed here was that the nose attitude, and therefore the speed, could be adjusted by using the flap. This is mentioned as a matter of interest only.

The next experiment was to try to balance out the weight of the vertical rod in the fin by adding small flat streamlined lead weights to the trailing edge of the all-flying tail. From my knowledge and experience as a test pilot from the days of long ago I knew that this was a hazardous thing to do. Eventually as much as one pound was added, and at this weight the aircraft was reasonably as stable as with stick fixed in the first experiment. However I was nervous of increasing the speed above 70kt in case of elevator flutter.

The remedy, therefore, is for the system to be re-designed so that the vertical rod is balanced out by a mass instead of a spring, using either two rods on rocker arms, or two rocker arms connected by cable (similar to the aileron rockers in Skylark gliders). Obviously a major modification would be required on existing T tail gliders, probably beyond the justification of the expense involved, but my hope is that manufacturers will do their own experiments to prove the above and incorporate it in all future aircraft.

As in many other simple solutions, I end with a thought "Why did not somebody think of it before?"

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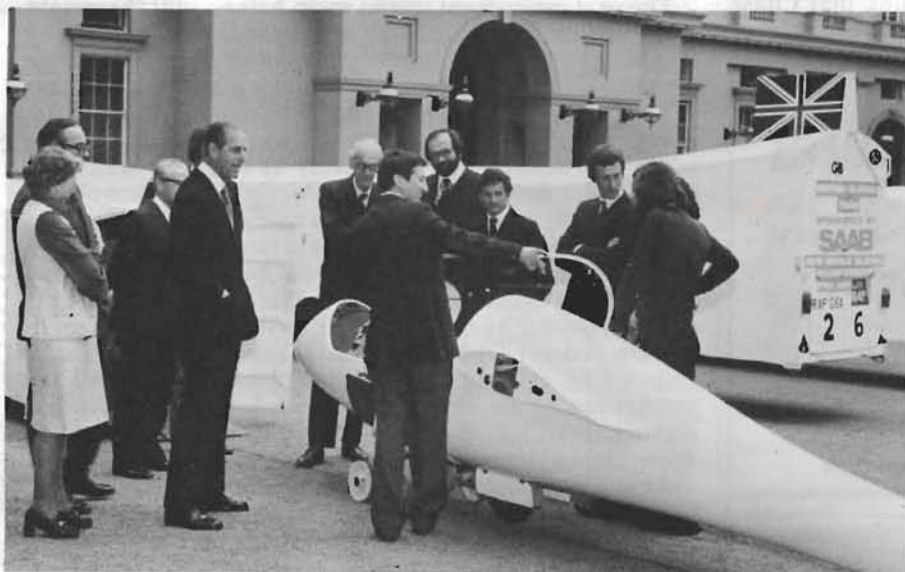
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# BGA

# & general news



The Patron of the BGA, HRH The Duke of Edinburgh, receives members of the British team at Buckingham Palace just before they left for Finland.

## MEETING OF EUROPEAN COACHES

Bill Scull, Senior National Coach, was the Chairman of a Conference of European National Coaches, held at Arnborg, Denmark, from April 2-4. The main items discussed were instructional standards and the development of gliding, with particular emphasis on the new generation gliders (high-performance, two-seaters and the Unrestricted Class) and their place in training and clubs.

Summing up, Bill made the point that UK statistics show a pilot is most likely to have an accident in his GRP glider (especially Open Class) at approximately 30hrs experience in type, but with only 12 to 18 landings. So it was vital to ensure that there is enough landing practice.

## CONSPICUITY OF GLIDERS

The BGA Executive Committee strongly recommends that all glider owners, both club and private, should take steps to render their gliders visually conspicuous, in pursuit of the "see and be seen" principle.

Detailed considerations are as follows:

1. **General.** Gliders are probably least conspicuous in bright but hazy conditions, when presented endways-on to the observer, and when the colour is white, cream, grey, aluminium, light green, light blue, or something similar. They are rendered more conspicuous by applying bright colours such as orange or flame, if possible in the form of fluorescent ("Dayglo") paints or plastic film. The regions available for such treatment are often limited by structural or aero-dynamic considerations but, fortunately, those listed in paragraph 3 opposite are effective visually. The colours mentioned above seem to be more effective than red, particularly when the red is of a darkish shade. Blue or green are least effective and are not recommended.

## 30000FT CLIMB AT SUTTON BANK

Alan Kenworthy, deputy CFI of the Yorkshire GC, gained 29500ft (30450ft asl) in wave on Monday, June 14, to establish a new club record. Flying a DG-100, he thermalled off the ridge and contacted wave at 2300ft over Sutton Bank.

The weather conditions were: ground level wind 260/25kts,  $\frac{1}{2}$  strato cu, base 2300ft, tops 5000ft asl and freezing level at 8000ft asl. Alan found 4-6kt wave lift while jumping upwind into the Pennine system where, at 14.40hrs, the climb started with short bursts of 11kt lift.

The climb from 11500ft took approximately 65min and was in clear air with no cloud at this stage to define the wave pattern. The lift was consistent and reduced from 6kt up to 19000ft to 4kt up to 24000ft. A steady 3kt was maintained to 27000 and at 30000ft the lift had reduced to  $\frac{1}{2}$ kt. There was light icing on the inside of

the canopy at 21000ft and ice virtually covered the canopy by the time the descent started.

On the previous Saturday, June 12, several club pilots had good wave climbs with at least three gains of height in the 20000-23000ft range.

## THREE CLASSES FOR FUTURE WORLD CHAMPS

From 1978 onwards World Gliding Championships will comprise three Classes, Open, 15m and 15m Restricted. The BGA Executive Committee has approved a recommendation from the Flying Committee that from January 1, 1977, there will be a National Champion in each of these Classes and a National Sport Class Champion. The Sport Class will be a handicapped list on a similar basis to that of 1976.

More detailed news of Nationals Structure for 1977 will be announced in due course.

L. Tanner

Chairman, Flying Committee



**2. Wooden Gliders.** There is no significant structural (*ie* temperature) limitation on the use of coloured finishes. Many wooden gliders are already very conspicuous and require no further treatment. However, there are also an appreciable number whose finish is almost entirely white, cream or some other neutral colour: it is recommended that as a minimum, bright colours should be applied as for glass-fibre gliders (paragraph 3 below). The coloured regions on wooden gliders can, of course, be much more extensive, subject only to aesthetics and the need to avoid, so far as possible, paint edges which could upset the boundary layer.

**3. Glass-Fibre Gliders.** Glass-fibre gliders are normally supplied with a white-pigmented gel coat and identification marks in a pale colour. The reason for the white pigmentation is that the resin used for the main structure becomes appreciably weakened at temperatures easily attained by coloured surfaces directly exposed to the sun's rays. Colour should only be applied to lightly-stressed parts of the glider, or in regions unlikely to be exposed to the direct rays of the sun for appreciable periods. For example, it would be quite unacceptable to apply a band of colour to the upper surface halfway along a wing.

It is obviously difficult to describe a scheme which is applicable to all types of gliders and, in any case, owners will doubtless wish some freedom to personalise their machines. A general guide to the location of the coloured regions is as follows:

- Wing and ailerons. Within 500mm of the tips, upper and lower surfaces. Nowhere else.
- Fuselage. Around the front 250mm of the nose and under the nose and cockpit area. Nowhere aft of the wing leading-edge.
- Fin (T-tail). Nowhere.
- Fin (Conventional tail). Top 250mm.
- Rudder. Top 250mm. Bottom end below operating mechanism only.
- Tailplane and elevator. Nowhere.

The above dimensions are not intended to be exact but the advice of the Technical Committee should be sought if an owner wishes to colour significantly greater areas or different locations.

Aircraft cellulose finish seems to be quite satisfactory provided that the gel-coat is thoroughly cleaned before application. If other finishes are used, care should be taken to ensure that they are compatible with the gel-coat.

**4. Metal Gliders.** Any metal aircraft with a "natural" finish can often be remarkably inconspicuous and a few "cheat lines" in a dark colour offer little improvement. The considerations are similar to those given in paragraph 2: extensive areas of brilliant colour are recommended.

**5. Stroboscopic Lights.** An obvious aid to conspicuity is the strobe light. Examples of the small portable type have been examined on behalf of the Technical Committee and were found to be quite useless in bright daylight. It is hoped to carry out further investigations but it seems likely that the weight of the batteries for a really effective installation may be excessive.

F. G. Irving

### NATIONAL LADDERS SHORTER

The last National Ladders' list was a bit shorter than usual for the time of year but included some very high scoring individual flight entries.

Private Ladder			
Leading pilot	Club	Pts	Fits
1 L. E. Beer	Thames Valley	3389	4
2 M. P. Garrod	London	2729	4
3 D. Roberts	Cotswold	2246	4
4 J. C. Cordiff	London	2227	1
Club Ladder			
Leading pilot	Club	Pts	Fits
1 C. C. Rollings	Airways	3267	1
2 C. Lovell	Surrey & Hants	1185	2
3 R. Henderson	Deeside	1080	1
4 P. Loewenstein	Surrey & Hants	1026	1

### NOW "SUPERMUNK"



The RAFGSA Centre at Bicester has been granted a special category C of A by the CAA for the installation of a Lycoming 180hp 0-360-AIA engine in a Mk 22 Chipmunk, G-AOSU. This aircraft was demobbed by the RAF in 1957 and flew as a civilian club aircraft to the end of its initial fatigue life of 10000 fatigue hours (4600 flying hours).

Dick Stratton, BGA Technical Officer, spotted the incomplete airframe at Land's End Aerodrome, St Just. The aircraft, now fitted with the Lycoming engine and new 12v electrical system, is 100lbs lighter than the standard aircraft, weighing 1357lbs empty. The fatigue life has been extended to 22000hrs through modifications.

The certificated rate of climb of "Supermunk" is better than 1200ft/min corrected to ISA, compared with 750ft/min from the standard Mk 22. It is now used as a tug at Bicester.

Dick completed and documented the design submission and flight testing and the engineering work was by a volunteer team from the RAFGSA and the USAF base at Upper Heyford.

This is the only major modification to the Chipmunk since it entered RAF service in 1952. In 1975, the CAA issued type certificates to Concorde and the Short SD-3-30. In 1976 "Supermunk" may be the only new British type to be certificated!

### WORLD CHAMPIONSHIPS' FUND

The BGA acknowledges contributions to the 1976 World Championships' Fund, received from April 24 to June 8, from the following:

Airways GC	D. Kilcoyne
Anon	R. Large
Bath & Wilts GC	P. Lutley
Canon P. Bourne	C. Marren
G. Brindle	S. H. C. Marriott
L. Brock	J. J. McMullen
P. Brock	N. Nicholls
B. Brown	Ouse GC
M. Bruce	M. Parkes
S. H. Carrie	M. R. Phillips
Chilterns GC	R. F. Pollard
L. & V. Cordes	P. Pozerskis
Cyril	RAE GC
Deeside GC	E. Rice
Devon & Somerset GC	M. Rice
Dunkeswell GC	R. Roberts
P. Dunmore	A. & J. Rose
H. Egglestone	D. H. Scarfe
Essex & Suffolk GC	AVM B. G. T. Stanbridge
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S. G. Falla	W. A. Urwin
D. Goulding	E. J. C. Vann
M. Harrison	J. H. Welsh
C. Harvey	Wolds GC
Inkpen GC	F. Wright
H. Karney	Yorkshire GC

TOTAL CONTRIBUTIONS TO DATE £2,471.67

### UNDERGRADUATES - A NEW COMPETITION

The Royal Aeronautical Society is organising an undergraduate project competition with an annual prize of £200 to foster knowledge in the arts, science and engineering, mechanical engineering and human physiology studying at undergraduate level at universities, polytechnics and other colleges in the UK.

For further information contact: The Secretary, The Man-Powered Aircraft Group Committee, Royal Aeronautical Society, 4 Hamilton Place London W1V 0BQ.

## GLIDING CERTIFICATES

### ALL THREE DIAMONDS

No.	Name	Club	1976
58	H. Cook	Thames Valley	4.4
59	R. W. A. Miller	Norwich	28.4
60	D. W. Evans	Cambridge Univ	28.4
61	H. F. Brown	Four Counties	24.4
62	C. J. Woodier	Cairngorm	23.5
63	F. G. Wilson	Chilterns	26.4

### DIAMOND DISTANCE

No.	Name	Club	1976
1/108	R. W. A. Miller	Norwich	28.4
1/109	D. W. Evans	Cambridge Univ	28.4
1/110	H. F. Brown	Four Counties	24.4
1/111	T. D. Gorely	Four Counties	24.4
1/112	J. Mitchell	Eagle	24.5

### DIAMOND GOAL

No.	Name	Club	1976
2/676	D. C. Kerridge	Surrey & Hants	28.4
2/677	K. C. Baker	Inkpen	29.4
2/678	R. P. Beck	Clevalands	28.4
2/679	M. Elsom	Four Counties	28.4
2/680	C. Gildea	Humber	28.4
2/681	W. F. Maidment	Surrey & Hants	29.4
2/682	T. J. Bradbury	Bristol & Glos	28.4
2/683	D. B. Eastell	Southdown	28.4
2/684	Pam Davies	Kestrel	27.5

### DIAMOND HEIGHT

No.	Name	Club	1976
3/271	H. Cook	Thames Valley	4.4
3/272	J. J. T. Taylor	Clevalands	29.3
3/273	J. R. Greenwell	Northumbria	29.3
3/274	F. Hopkins	Deeside	17.4
3/275	C. J. Woodier	Cairngorm	23.5
3/276	F. G. Wilson	Chilterns	26.4

### GOLD C COMPLETE

No.	Name	Club	1976
527	M. Lee	Essex & Suffolk	20.3
528	D. C. Kerridge	Surrey & Hants	28.4
529	R. P. Beck	Clevalands	28.4
530	M. Elsom	Four Counties	28.4
531	C. Gildea	Humber	28.4
532	T. J. Bradbury	Bristol & Glos	28.4
533	D. B. Eastell	Southdown	28.4

### GOLD C HEIGHT

Name	Club	1976
F. Quigley	Bannerdown	1.3
I. McNeill	SGU	10.3
M. Lee	Essex & Suffolk	20.3
B. D. Curtis	Bristol & Glos	27.3
J. Findlay	Bristol & Glos	6.4
J. Worth	Coventry	28.3
S. E. Evans	Oxford	17.4
D. A. White	Deeside	13.6.75
D. C. Kerridge	Surrey & Hants	28.4
K. C. Baker	Inkpen	29.4
F. Hopkins	Deeside	17.4
J. H. Munneley	Thames Valley	1.5
L. M. Peters	Bristol & Glos	27.5
J. G. Bell	Surrey & Hants	7.5
G. G. Beal	Borders	22.2

### GOLD C DISTANCE

Name	Club	1976
R. P. Beck	Clevalands	28.4
M. Elsom	Four Counties	28.4
C. Gildea	Humber	28.4
W. F. Maidment	Surrey & Hants	29.4
T. J. Bradbury	Bristol & Glos	28.4
D. B. Eastell	Southdown	28.4
Pam Davies	Kestrel	27.5

### SILVER C

No.	Name	Club	1976
4300	D. K. Millar	Kant	31.3
4301	N. Spencer	Doncaster	24.4
4302	H. Leadbooter	Two Rivers	13.3
4303	W. J. C. Needham	Bath & Wilts	24.4
4304	G. W. Cunningham	Four Counties	24.4
4305	B. W. Price	Clevalands	24.4
4306	D. G. Chaplin	Yorkshire	21.4
4307	M. K. Dring	Lincoln	24.4
4308	D. Sahym	Enstone	24.4
4309	C. Brock	Kestrel	24.4
4310	B. A. Bateson	Southdown	25.4
4311	E. M. Lewis	Essex & Suffolk	20.4
4312	K. Richards	South Wales	24.4
4313	F. Quigley	Bannerdown	1.3
4314	E. W. Room	Wolds	11.4
4315	C. J. Parker	Heron	24.4
4316	R. S. Maxwell Fendt	Inkpen	27.4
4317	D. J. Saunders	Surrey & Hants	29.4
4318	A. J. L. Archer	Culdrose	23.4
4319	Linda Walton	Thames Valley	28.4
4320	P. F. Williams	Culdrose	28.4
4321	B. L. Cooper	Deeside	20.4
4322	R. A. Lowndes	Dorset	24.4
4323	R. W. Fawcett	London	28.4
4324	J. Ayers	Norfolk	28.4
4325	M. Whittingham	Inkpen	29.4
4326	B. Taylor	Lincolnshire	25.5.75
4327	J. H. Wainright	Southdown	25.4
4328	W. L. Gordon	Heron	18.4
4329	J. L. Richardson	Wrekin	22.4
4330	R. B. Brock	Bicester	28.4

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4334	Kathleen Gildea	Humber	2.5
4335	J. Tharnton	Bath & Wilts	24.4
4336	T. Jones	Brüggen	1.5
4337	D. B. Powell	Surrey & Hants	13.5
4338	V. Pritchard	CGS	11.5
4339	M. J. Wells	RAE	13.5
4340	A. J. Gell	Essex	14.5
4341	G. D. A. Rignall	Yorkshire	13.5
4342	M. Peckham	Losham	18.4
4343	S. E. Burnell	Wrekin	24.4
4344	D. C. Malkinson	Phoenix	6.5
4345	M. J. Davis	Two Rivers	1.5
4346	C. D. Rogers	Derby & Lincs	13.5
4347	S. L. Cassidy	Essex	16.5
4348	J. A. Marshall	Borders	13.5
4349	J. W. Turnbull	Anglia	16.5
4350	A. W. Wooff	Yorkshire	21.5
4351	J. G. Cherrill	Surrey & Hants	23.5
4352	R. P. Elvey	London	21.5
4353	J. A. Joint	Bannerdown	26.5
4354	A. J. Munro	Heron	23.5
4355	N. Francis	Avon	21.5
4356	Marion McCoy	Eagle	16.5
4357	B. J. Edwards	South Wales	23.5

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# 1976 INTER-SERVICE REGIONALS

"C.F."

RAF Henlow, April 28-May 8

Dick Feakes and team ran an excellent competition during one week of good weather and one of bad. Dave Cockburn won the Open Class, Jerry Odell and Pete Charnell the Sport Class and Trevor Allsopp the Club Class, which is not BGA rated.

On the 28th Gordon Camp set the Open Class a 308km triangle, Evesham, Cottesmore, the Sport Class a 204km triangle, Kinton, Market Harborough and the Club Class a 138km out-and-return, Husbands Bosworth. Next day the Sport Class tried Evesham, Cottesmore, but none finished. A 500km task for the Open Class was reduced to a 250km out-and-return to the M5/M50 junction. The Club Class flew Kinton, Market Harborough with Stu MacLean finishing at 19.15hrs.

On Friday the triangles were: Open Class, 138km, Six Mile Bottom, Towcester; Sport Class, 121km, Duxford, Olney; Club Class, 105km, Caxton Gibbet, Newport Pagnell. Dave Shadrach's field landing put his Skylark's nose into a river, with fortunately no damage other than wet feet.

## Leaders fell to earth

A warm front was approaching on Saturday. The Open Class set out on a 209km triangle, Bicester, Six Mile Bottom, and the three leaders fell to earth in the first 40km! Pete Cole was the only one to finish but John Cooke, just short, had all three photographs of Bicester fogged. The Sport Class raced to Swanton Morley via Stowmarket and the Club task was cancelled.

On the 4th Bob Lyndon set the Open Class a 232km triangle, M1/M6 junction - Honeybourne, but again only one finished. No one completed the Sport Class 201km triangle, M1/A45 junction, Moreton in the Marsh, and it was a no contest day for the Club Class, set an out-and-return to Haddenham.

After three days sunbathing, on the 8th Alan Diver made his own tephigram, and although poor visibility cancelled the Club task, the Sport Class flew out-and-returns to either the M1/A45 junction (107km) or Pitsford Reservoir (101km). The Open Class flew out-and-returns with the alternative of Husbands Bosworth

(138km) or the M1/M428 junction (137km), and Dave Cockburn made sure of victory by again being the only one to finish.

The cup awarded to the RAF Regionals Champion and the trophy for the Inter-Service Regionals Champion were both won by Flt Lt

D. Cockburn, a Canberra pilot from RAF Wyton. The Inter-Service team trophy, computed from the best three scores, was won by the RAF and the RAF Inter-Command results, computed in the same way, meant Strike Command gained the trophy for the leading team.

## FINAL RESULTS (HANDICAPPED) Open Class

No.	Pilot	Sailplane H'cap	28.4	29.4	30.4	1.5	4.5	8.5	Tot pts
			1	2	3	4	5	6	
1	Cockburn, D.	116 Kestrel 19	1000	1000	984	0	433	282	3699
2	Cole, P. G.	100 Std Cirrus	848	854	809*	403*	245	130	3289
3	Taylor, N.	96 Std Libelle	855	908	828*	90	268	281	3230
4	Hogg, A. J.	100 Std Cirrus	974	905	961	18	245	107	3210
5	Lidbury, D.	100 Astir CS	856	924	900*	0	397	100	3177
6	Mulholland, S.	114 Kestrel 19	928	780	765*	292	59	56	2880
7	Beck, R. J.	100 Std Cirrus	847	829	881	81	0	0	2638
8	Arnold, A. V.	100 Std Cirrus	627	836	559*	327*	149	106	2604
9	Jury, A. J.	96 Std Libelle	921	293	917*	0	50	121	2302
10	Manson, J.	100 Std Cirrus	943	885	91	80	0	0	1999
11	Gildea, C.	96 Cobra 15	840	826	197	0	35	0	1898
12	Marrriott, S. H. C.	118 Nimbus 2	583	721*	551*	0	0	0	1855
13	Elsom, M.	116 Kestrel 19	623	641	180	0	85	0	1529
14	Cooke, J.	96 Std Libelle	224	56	666	124*	0	24	1094
15	Fisher, J.	96 Cobra 15	91	149	69*	0	0	0	309

## Sport Class

No.	Pilot	Sailplane H'cap	28.4	29.4	30.4	1.5	4.5	8.5	Tot pts
			1	2	3	4	5	6	
1	Odell, J.	84 K-6CR	-	1000	843	941	-	-	-
	Charnell, P.		951	-	-	-	319	484	4538
2	Heames, C.	90 K-6E	731	879	913	815*	216	857	4411
3	Best, E.	86 Skylark 4	937	999	229	765	317	884	4131
4	Hoy, S.	94 IS-29D	1000	850	828*	888	249	153	3968
5	Walsh, T.	84 Skylark 3	822*	885	812	851	210	227	3907
6	Shadrach, D.	86 Skylark 4	937	884	234	597*	263*	917	3832
7	Butler, D.	90 K-6E	826	832	845	916	45	313	3777
8	Staines, R.	92 Pilatus B-4	692	705*	600	853	0	863	3713
9	Wood, D.	88 K-18	860	869	907	741*	90	223	3690
10	Webb, M.	88 K-18	448*	721	705	753	80	822	3529
11	Dean, M.	88 Olympia 419	413*	808	774	821	251	401	3468
12	Hytt, A. R.	86 Skylark 4	449*	878	371	812	0	883	3393
13	Purvis, M.	90 K-6E	725	332	765	751	0	813	3386
14	Davies, D.	94 IS-29D	-	-	-	-	74	225	-
	Kitchener, Y.		748	674*	806	759	-	-	3386
15	Pobjoy, M.	90 K-6E	605	531	755	725*	583	87	3286
16	Rea, R.	92 Pilatus B-4	592*	758	204	926	0	466	2946
17	Wright, E.	88 K-18	743	862	220	715	447*	0	2987
18	White, D. P.	94 Club Libelle	728	785	426	691	247	0	2877
19	Osborn, M.	92 Pilatus B-4	723	98	204	1000	92	401	2518
20	Goddard, P.	90 K-6E	367	742	212	258	197	426	2202
21	Bugden, J.	90 K-6E	688	789	212	483	0	0	2172
22	Parkes, M.	84 K-6CR	19	467	698	497	0	249	1930
23	Edmonds, E.	94 Club Libelle	728	25	348	194	156	0	1451
24	Dash, D.	92 Pilatus B-4	186	58	204	303	157	179	966

## Club Class

No.	Pilot	Sailplane H'cap	28.4	29.4	30.4	6.5	Tot pts
			1	2	3	4	
1	Allsopp, T.	78 K-8	939	883	885	309	3016
2	Smith, E.	78 K-8	828	873	858	397	2956
3	Hancock, A.	78 K-8	1000	973	673	256	2902
4	Penswick, R.	78 K-8	631	950	244	308	2133
5	Bolton, P.	78 K-8	587	389	790	309	2075
6	MacLean, A.	78 K-8	642	329	809	249	2029
7	Matthews, G.	78 K-8	548	652	241	266	1707
8	House, I.	78 K-8	458	626	338	269	1691
9	Roberts, R.	78 K-8	766	403	387	0	1556
10	Stevenson, H.	78 SF-26	901	223	4	191	1319
11	Hunt, R.	78 K-8	472	218	87	323	1100
12	Bond, R.	78 K-8	542	230	4	129	815
13	Stockwell, J.	78 K-8	58	89	30	269	446

\*Signifies penalty.

# overseas

## news

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

### FROM 1000KM TO 1000 MILE

The 1000 mile barrier has now been broken in the USA. Karl Striedieck, an air national guard pilot, is claiming the world record goal and return for a flight of 1004 miles (1616km) on May 19 from Lock Haven, Pennsylvania, to Tennessee. The current holder is W. C. Holbrook, USA, with a flight of 1260.44km on May 5, 1973, in a Libelle 301.

This is Karl's sixth bid for this world record - the claim replaces one he made jointly with Roy McMaster for a flight of 807 miles on March 17 - and is the third time he has exceeded 1000km.

He took-off in his ASW-17 with waterballast at 6am and found strong winds with very turbulent conditions on the ridges, landing back at 7pm having averaged 123.89km/h.

The first 1000km was also flown in the USA when A. H. Parker (Sisu 1A) covered 1041.5km in a straight distance on July 31, 1964.

### ANOTHER 1000KM FOR SIGI

Sigi Baumgartl of W. Germany flew 1060km of his 1263km declared goal from Tarmstedt, W. Germany, on April 29 in an ASW-17. But he had trouble with the waterballast. The outlet had frozen over and the water only dribbled out so that he carried an ice "sausage" of one metre by one inch thick. This is his second flight of more than 1000km.

### SWISS NATIONALS

Herbert Frehner (Nimbus 2), who again won the Open Class in the Swiss Nationals, set a new record for Switzerland during the Competitions with an 817km out-and-return. The Nationals were held at Birrfeld airfield from May 8 and Alfred Schulthess (Std Cirrus) came first in the Standard Class.

Entries were high, 40 in the Standard Class and 15 in the Open, and there were a number of 500km flights.

### FICTION BECOMES FACT

In Wolf Hirth's only novel, "Hans wird Flieger", published 1935 by Loewes Verlag of Stuttgart, a Sperber pilot looks down on two thugs attacking and robbing a man, obviously unaware of the silent watcher above. He lands back at his club and the police are soon on their way to the rescue.

This year the Scottish Gliding Union relates that, "Ansgar Sambale, instructor at Portmoak, was soaring over Scotlandwell when he noticed men in the grounds of an isolated house he knew to be unoccupied. He quickly returned to the airfield and phoned the police who found three men in the house." The inevitable sequel took place at Perth Sheriff Court.

A.E.S.

### CONTROLS IN AUSTRIA

Ten turning points in the Austrian frontier zone may once again be used, but subject to conditions: the pilot must telephone beforehand his estimated approximate time of arrival and must approach and leave in specified directions. At Innsbruck also, gliding in the neighbourhood of the airfield is restricted but not impossible; pilots must keep tuned in to the Airport Control. - *Flugsportzeitung*.

### BELGIUM & SWITZERLAND

Returns from the 20 out of 28 clubs which sent in returns give 11905hrs flying compared with 10231 the previous year.

In Switzerland 59253hrs were flown compared with 58038 the previous year. - *Aviasport*.

### CANADA ASSOCIATION'S FUNDS

Membership subscription to the Canadian Soaring Association has been \$15 a year, which was nearly all swal-

lowed up in subscriptions to *Soaring* and the Canadian journal *Free Flight*, which now wears a new face. At this year's AGM a motion to increase the subscription was defeated, so the inclusion of *Soaring* had to be dropped. A proposed increase to help the World Championships team was also defeated, on the ground that delegates had not consulted their clubs; but funds have been raised by voluntary subscription.

T. R. Beasley was elected President and Al Schreiter Vice-President.

Leading Canadian records are: free distance 724km by H. M. Cook; height gain 8320m and absolute altitude 12450m, both by W. H. Chmela.

### RHODESIAN NATIONALS

The Central African Soaring Association invite pilots to compete in the Rhodesian Nationals at the Salisbury Gliding Club, Salisbury, from October 11-22. For further information contact: The Contest Director, Central African Soaring Association, PO Box 390, Salisbury, Rhodesia.

### Correction

Ross Macintyre says he "bows his head in shame". In his report on the New Zealand Nationals S&G April, p81, he gave the Standard Class results as 1 Rory Gordon, 2 Alan Cameron. It should have read: 1 Alan Cameron, 3653pts, 2 Rory Gordon, 3633pts.

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# your letters

## "OVERCONVECTION"

Dear Editor,

It is not unusual, as a harassed Met man, to be asked on a day with cumulus-filled skies if the clouds will "overconvect". Apart from a guarded answer (I don't usually carry a plotted tephigram around in my pocket every day) I often rile my questioner by pointing out that cumulus does not "overconvect", but cannot evaporate quickly enough to permit new cumulus to form.

I've been thinking, somewhat unsuccessfully, for a suitable non-meteorological word which adequately describes the process. Words such as "blanketing", "stratifying" come to mind, but don't seem to really fit the bill. How about some suggestions from the gliding fraternity? It's time "overconvection" was laid to rest!

Wokingham, Berks.

M. P. GARROD

## BRONZE C RADIO CHECKS?

Dear Editor,

In the June issue of S&G, p132, M. R. Carlton suggests extending the Bronze C paper to include a simple paper and test on the use of radio in gliders, and there is the BGA proposal for a cloud flying frequency, p126.

As sports become more sophisticated and the tendency to compete against other people rather than the natural elements grows, more and more peripheral subjects are allowed to become increasingly important at an earlier stage.

Please keep BGA and FAI certificates for flying ability, even if it is only to obviate the danger, be it only a psychological one, of prejudicing the tester in favour of a pilot whose ability with radio is so far advanced that one might feel he could gain his Bronze or Silver on that alone.

A DEAF PILOT

## FURTHER CONFUSION LIKELY

Dear Editor,

Whilst I am in general agreement with the comments made by M. R. Carlton regarding the use of radio by glider pilots, I feel that one or two of the specific suggestions he makes merit further comment.

The introduction of the new gliding frequency (130.1MHz) has already resulted in some degree of confusion and difficulty, particularly for pilots and clubs with single channel radio equipment, most of whom will by now have re-crystallised their equipment to 130.1MHz, the current "general purpose" frequency. To revert to 130.4 for general use would, I feel, result in further confusion, which would be a pity as after the initial teething problems, our current frequency allocations appear to be working well.

I agree unreservedly with Mr Carlton's comments regarding the need for a more disciplined approach to the use of radio (apparent to anyone listening in on a summer

soaring day), and I consider his suggestion of a basic radio procedure test incorporated into the Bronze C requirement to be a good one.

The idea of a "privileged" frequency on which one could expect proper procedure to be followed is, however, less of a good idea. Surely it would be far better to train pilots to use radio correctly at all times, regardless of which frequency they happen to be using?

Reading, Berks.

A. B. MILES

## "NO COMMENT" IS SAFEST!

Dear Editor,

At a local gliding site recently a K-4 two-seater glider was allowed to drift too far down wind from a 1200ft winch launch and made a heavy landing in a ploughed field in the turbulent wake of some tall trees. One pilot was slightly hurt and the nose of the glider was slightly damaged.

Very ordinary, you say, but then you are not all journalists looking for scoop news. Never let the facts spoil a good story, said Randolph Hearst.

The local press got hold of this and revealed real talent in news reporting. "The pilot of the glider which crash-landed," it started, "was treated in hospital but not detained. At about 12000ft," (to show this is not a misprint I repeat 12000ft), "the craft came out of a thermo-glide into" (wait for it) "a vacuum. The cockpit was smashed . . . the offside was loosened from the main supports of the body."

The reporter arrived just as the retrieve crew were de-rigging the starboard wing. The irony of this is that the paper's managing director has a son with a Silver C and a Kestrel.

Never, never talk to the press!

Kirkby-in-Ashfield, Notts

FRANK EATON

*Correction: In Don Webber's letter in the June issue, p132, "Look Before You Leap" there was an unwanted "was" in the line which starts "Even before teaching the mechanics of cable break recovery . . ."*

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## RELEASING FROM AEROTOWS

Dear Editor,

There is a great deal of muddled thinking about safe procedures for releasing from aerotows. Many countries have strict rules; in the USA the glider always turns right and the tow-plane to the left, whereas in some other countries it is the opposite. All this is quite unnecessary. There is no collision risk if the glider pulls up and to one side. Within seconds the towing aircraft is well clear of the glider. (See June issue p132).

The hazards, when they occur, are solely due to poor airmanship and over exuberance on the part of the tug pilot. If he pulls up into a wing-over or stall turn immediately after the glider has released, he may well be a danger to any glider in the vicinity, as well as to the one he has just launched.

In many towing aircraft the pilot is quite unable to be certain that the air above and behind him is clear. Unless this can be done, it should be a firm rule that the tow plane *never pulls up* after the glider has released. The pilot should first check that the glider has released and turned away, and then he should reduce power and go into descent, turning as required. This eliminates any possible collision hazard.

There are various advantages in not having a strict rule for the turn off direction. If the combination is climbing in the vicinity of other gliders already circling in lift, it should conform by circling in the same direction. In this case it is much more satisfactory for the glider to release and pull up, tightening his turn, instead of turning the other way out of the lift and having to come back to find it again.

A good tug pilot can place a glider in a thermal in this way and greatly reduce the cost of launching by enabling the glider pilot to release at much lower heights. In fact, it is only during contest launching where there are large numbers of tugs and gliders in the dropping zone that a set procedure contributes significantly to safety, and then this is only because other gliders nearby can predict what the releasing glider will do.

Normally any pull up and turn by the glider will ensure that the glider tug is a long way clear, so why should we make a rule for the glider pilot? We do, however, need guide lines for the tug pilot and these should include a note on the dangers of pulling up after the glider has released. A downward breakaway should be the standard drill.

Similarly, the glider pilot should be taught to release, see the rope go and *then* to pull up into a turn. The glider can easily fly into the rope end if the nose of the glider is lowered when the

rope is released, or if the tug pilot pulls up into a stall turn at this moment.

Let us have no more talk of new rules, just better briefings for the tug and glider pilots and an understanding of the dangers of enjoying yourself in the tug at that *moment critique*.

Stop press. We had a near miss during the Nationals week when a visiting Chipmunk pulled up into a stall turn just after the glider had released. Only a very tight pull round by the glider prevented a really close shave!

Lasham

DEREK PIGGOTT

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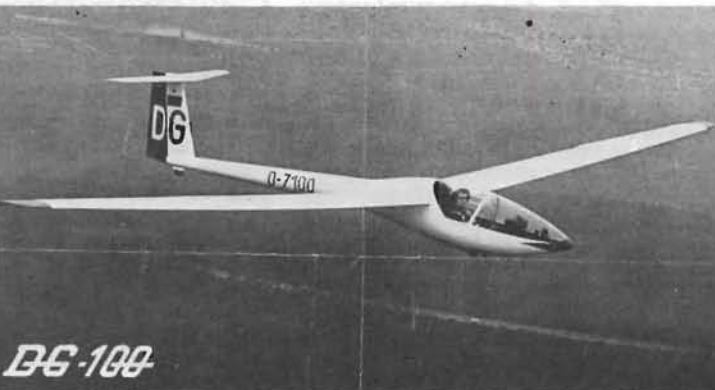
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# Club News

John Hunt, Chairman of the Herefordshire Club, shaking hands with the Queen during her visit to Shobdon with HRH Prince Philip. Photo: P. G. Bartlett.



Copy and photographs for the October-November issue should be sent to the Editor, S&G, 281 Queen Edith's Way, Cambridge CB1 4NH, tel Cambridge 47725, to arrive not later than August 11 and for the December-January issue to arrive not later than October 12.

June 14

GILLIAN BRYCE-SMITH

## BLACKPOOL & FYLDE

Our first open day on May 31 had ideal weather conditions for hill soaring, aerobatics by Jane Murdoch in a Chipmunk, demonstrations by local radio model groups and an excellent performance by the Black Knights parachute team. Great credit for the smooth running goes to the organisers, Harry Hargreaves and his assistant, Gil Haslam, and to the members who helped. Profits will go for the renovation of the clubhouse buildings.

The first four months of 1976 have produced 60% more launches and 100% more hours than this period last year, due partly to drier weather and also to the re-organisation of site boundaries. This has doubled the width of the narrow NW end of the main run and greatly reduced launch bottlenecks due to gliders landing.

A notable "new" shape in our skies is the 17-year-old Breguet Fauvette, operated by the club since 1968 but absent for 2½ years after the type was grounded for faulty structural joints. Its owner, John Gibson, redesigned the 14 fuselage and tail joints and unearthed the wing modifications designed by a French home-build group. After a frustrating delay in getting the repairs completed, when it was beaten into the air by two other Fauvettes, its new syndicate owners are rediscovering its delightful handling qualities and awesome airbrakes.

Also notable is its colour, brilliant yellow and white with black cheat lines, chosen by part-owner and CFI, Derrick Sandford, to set a good example in our local controversy about air-to-air visibility.

J.C.G.

## CAMBRIDGE UNIVERSITY

On April 29 David Evans flew that elusive 500km triangle for his third Diamond. Pat Harris (Kestrel 19) is claiming Diamond goal for a flight on the same day.

Our three weeks intensive flying at Duxford began on May 24. Eric Graham and Bob Crowe flew Silver C distances, Harry and Andrew Boal, Chris Clark and Edward Long gained their duration, Andrew also collecting his Silver height, and Mark Mitchell completed his Silver C on the last day with a five hours.

On June 9 a record cloudbase of 10000ft was recorded over Cambridge.

S.N.L.

## COVENTRY

The Spring Bank Holiday Traction Engine Rally was a great success with over 22000 visitors. There was a constant display of gliding, parachuting and hot air ballooning and more than 80 visitors had air experience flights in the club gliders. The overworked "few" can now have a few weeks rest before the club task week at the end of July.

A DG-100 and Std Jantar are now flying at HB and will be closely watched and compared by the club pundits during the task week.

C.T.

## DEVON & SOMERSET

As I write, we are just beginning Competition Enterprise - and what a super collection of gliders, everything from a Tutor to a Nimbus.

We have had some good soaring flights recently and Julian Hine attempted a 300km out-and-return to Lasham, landing just 25km short. We are now looking forward to our task week on June 28.

Congratulations to Louise Norton, M. Jeans and M. Heath who have recently gone solo, and to D. Williams, P. Trotter and A. Blackburn who have gained Bronze C.

J.R.H.

## DORSET

A resolution was passed at the May AGM to re-establish a permanent method of wire launching to augment aerotowing. Our new Chairman is Ken Phipps, Geoff Warwick is CFI and we have an enthusiastic band of new committee members. Grateful thanks to those retiring and good luck to the new.

Trophies were presented as follows: best achievement in a club glider, Robin May; cross-country flying, Harry Wolfe (Oly 2B); most promising *ab-initio*, Gary Looker; gain of height, Peter White; best all-round achievement, Ian Liddell and best all-round endeavour was shared by Mike Bellfield and Bob Trotter.

We achieved 354 launches during the task week in early June, which was successfully rounded off by a buffet party at the clubhouse, although the week's weather was disappointing.

Mike Sharps and Richard have gone solo and Mike also has his Silver height. Bob Buckett and

Don Rickman have completed their Bronze C, Peter Domoney his Silver height and Richard Lowndes completed Silver C. Harry Wolfe and Joe Linee both obtained Gold height.

We shall soon have the facilities of our syndicate Motor Falke for training purposes, and work has now started to refurbish the T-21 which will give us a fleet of three single-seaters and three trainers.

S.L. and R.O.

## DONCASTER & DISTRICT

Our launch equipment is so overworked we have been looking for a mate for the Super Cub. We tried the Scheibe Sperling (used extensively for aerotowing in Germany) and were so impressed we have placed an order for the model with the larger engine and fitted with flaps, the latter feature being more suitable on our rough field.

We seek to maintain good relations with the town of Doncaster (our field is 1nm from the centre) so, in addition to evening flying courses for the public on three nights a week, we are holding a joint open day with the Doncaster Aero Club. We hope to entertain the Mayor and civic dignitaries, together with our friends from RAF Finningley Flying Wing, Air Traffic Control and the Met Office.

We have a good crop of new solo pilots including Peter Armstrong, Derek Aspinall, Terry Tindall, Alan Rawlings, Martin White and Walter Wilding. Special honours go to Paul Wheat who went solo on his 16th birthday. There have also been numerous Bronze and

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Silver legs. John Stirk, CFI, took the first of the members' courses and had all the two-seater boys solo by the last two days.

We welcome the Hamill family and their Oly 2b. Peter Woodcock with his Skylark I (yes, Skylark II) and Lt Cdr W. Thorp and R. W. Collins who have bought the club's M-100s.

David Hessey found his turning point photographs had failed on an out-and-return to Towcester, so he repeated the task the following week in his Kestrel. Finally, we are pleased to have Edna Sharples and Ron Wood back on the field after their stay in hospital.

P.Y.

## DUNKESWELL

Our CFI, Dave Bindon, celebrated his birthday by making a spectacularly impressive contribution to the Dunkeswell Air Display from a 300ft cloudbase, and was afterwards treated to a surprise champagne party in Ann Pitt's caravan.

Social functions have included another successful dance in the clubhouse.

Our first course in May produced a first solo for Tom Gray and the spring thermals have provided a well deserved Bronze leg for Mike Bird. Dave Parker and Steve James have now completed their Bronzes in time, we hope, for some cross-country flying during our advanced training course in June.

W.J.E.

## ENSTONE

April and May have been very successful months at Enstone. We have had many first solos and numerous Bronze and Silver legs; not to mention several attempted Gold distance.

We welcome the newly formed Skylark 3 syndicate. Our hangar problems have been partly resolved by the acquisition of a very large "mobile home" which will house our club gliders.

Our congratulations to Gordon Markham on his recent marriage to Jenny and to Justin Wills on his 300km record flight in May.

M.W.

## ESSEX & SUFFOLK

East Anglian thermals have given us a fair share of badge flights. There have been several Bronze legs, Frank Bodiam and Simon Barnes achieving both in a short time. Jeff Cork (Pirat) gained his duration and Ed Leach (K-6) Silver height. Les Marshall, Clare Harris and Bob Green have gone solo.

We had a successful open day on the Spring Bank Holiday Monday when the two-seaters were kept busy. This is basically a public relations exercise and recruiting campaign.

To encourage cross-countries, we now have a club 100km triangle, the first claim being by Russ Richards in his Std Cirrus. We have a good crop of *ab-initios* which means the club K-6 will have more use.

We recently had two visitors on Silver distance from North Weald. We would like to see pilots from farther away - we are just south of RAF Wattisham.

Once again the lads from Crowland with their Rallye have kept us airborne whilst our tugs are being repaired. Many thanks.

C.C.S.

## HEREFORDSHIRE

We are delighted to welcome Dave Carson as our full-time course instructor. Dave has flown for many years, mainly at the Long Mynd, and apart from his considerable gliding hours, he has a PPL and is a BGA Inspector.

Our task week during the Spring Bank Holiday was well attended with visitors from the Long Mynd and the Lakes Club, the latter contributing to the tugging with the Super Cub. John Brenner won the "pot" with Pete Redshaw a close second.

Thanks partly to the committee, things are improving financially at Shobdon. Many thanks also to the instructors who are helping Dave on the courses.

C.B.B.

## INKPEN

The combination of restricted airfield space caused by rapidly growing crops, restriction on airspace caused by low flying F111s and continued local aggression from a few vociferous residents is giving us a prolonged headache which is sometimes exacerbated by the arrival of unheralded private powered aircraft.

Much as we like visitors, those that arrive in this fashion are, we regret to say, liable to a frosty welcome as they are jeopardising our future existence. Please, if you want to drop in on us remember that we are restricted to a Prior Permission Only operation and this does not mean a phone call two minutes before you are due to take-off. We are not being unsociable, we just want to be allowed to continue our operation from the site for a few years to come and until the long awaited appeal decision is published our situation is rather delicate.

Many things are happening on our site in anticipation of a favourable decision to the appeal. Each weekend sees groups of enthusiastic members striving to improve the amenities and appearance of the place and just recently our snack bar has been resurrected on a weekend only basis.

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Once again Ralph Jones featured in the awards list at the Nationals. We wish him and his team colleagues luck in Finland.

Finally a word of warning to cross-country pilots in our vicinity about those F111s. In case you have not heard, they are operating out of Greenham Common for this summer only and so far have not been entirely respectful of our airspace. One "air miss" has already been reported and several other disturbing incidents have occurred. So keep your eyes open particularly on their approach path between the end of Greenham Common runway and Ramsbury.

R.G.W.

## KENT

This season seems to have been the first for some years when the prevailing wind really has been from the SW, and so the good soaring conditions of the early spring have continued through May and into June. This has brought a fair crop of badge flights, two of the more notable ones were durations by Reg Bradley and Dave Miller, the latter completing his Silver C.

The reduction in the size of the Lydd SRZ has increased the length of our North Downs ridge. As well as being able to go as far west as Rochester, we can now go east as far as Hawkinge, providing there is a thermal to get us across the gap to the east of our field. How unusual to be able to mention a reduction in controlled airspace!

For the first time this year we had a stand at the Biggin Hill Air Fair. Our display of a Blank and various pieces of gliding literature and photographs created a great interest. Leslie Wickens, the organiser, and helpers were kept busy answering questions.

C.B.

## LINCOLNSHIRE

A 3½ litre Rover has been acquired and is providing autotows to 1000ft. This is a useful back up to our twin drum diesel winch and Auster tug. A second two drum winch is nearing completion, having been converted from stranded wire operation. We have now increased our launch rate and are regularly topping 100 per day.

The AGM resulted in a large turnover of committee members, the Chairman, Treasurer and MT members being the only survivors of the old committee, largely due to voluntary retirements. Many thanks to the retiring committee and congratulations to Jim Aitken who has been appointed deputy CFI.

The Eon Baby is flying after repairs and a second Weihe has been bought by a two-man syndicate. The syndicate Oly was badly damaged on a field landing and Mick Ward was lucky to walk away unscathed.

Mike Dring gained his distance to complete his Silver C. Steve Hart went to Lindholme in the Gull and brought back the "red boot". We are now waiting for it to be collected.

Several members have completed Bronze C badges and a few Silver heights were achieved. Two claims on June 5 were in the same aircraft, when over half the fleet flew to over 6000ft. Two recent flying weeks have gone well with visitors enjoying our excellent launching facilities.

G.A.B.

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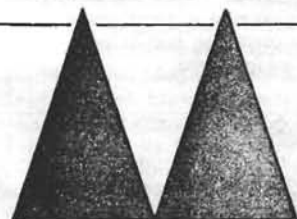
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## LONDON

Tasks these past two months have been numerous but small (300km) with our top pilots appearing to be practising for the Nationals in which we were ably represented by eight. Congratulations to them all for doing so well - Simon Redman won the Standard Class and John Cardiff the Sport Class.

Silver C legs are not only being collected in quantity but there have been some really good quality flights. Angus Munro managed a grand 170km in his Weihe and would have gained Silver distance had the barograph worked. However, he soon managed to do it again and then declared 300km and achieved 250km in seven hours on two consecutive days!

We have a new privately owned K-6E in which Bob Elvy completed his Silver C in one flight. Richard Brown also finished his Silver with a cross-country.

Our AGM was the shortest in history. It's so nice that with the good soaring weather of last year and a profit, how everyone is happy!

D.Y.

## MIDLAND

Weekends recently have not lived up to expectations and cross-country mileage so far is not very high. Best to date is a Don Brown 360km.

We ran a four day club-only course following the Spring Bank Holiday, specifically for the pilot at or near Bronze C standard. It was blessed with some good soaring conditions and all present felt they had benefited. Peter Gill snatched a Silver height on the last afternoon.

Some aerotows, which we don't normally operate, were worked into the course. There are days when a tug here would make life easier - but not during mid-May this year, when the brisk southerlies gave wire launches to well over 2000ft on several days.

This year Tony Spicer has become our first resident clubhouse manager, taking the catering and accommodation responsibilities.

W.J.T.

## NORFOLK

A new two-seater is sharing the thermals in the Tibenham area and all who have sampled its capabilities have been most impressed. Besides having such a surprising soaring performance it is also quite independent in operation - and, in fact, has completely ignored the existence of the Condor.



The Super Falke is a great improvement on the original Falke and deserves to be referred to always as a self-launching glider, but never as a motor glider which gives a totally wrong impression. With a score of three out of four open days ruined by bad weather, we have decided to try a more modest effort this September by holding an "at home day" instead.

On May 8 a certain instructor went off with a pupil for a short cross-country flight in the Falke. They landed at a disused airfield in north Norfolk and were married in a nearby church before returning to Tibenham. They first met, in this aircraft, two years ago. Who was P1...?

C.E.H.

## NORTHUMBRIA

We are looking forward to the delivery of our new two-seater, the IS-28B which, with our Blanik, should give a real boost to the training programme. A new Olympia has also been added to our private fleet.

We were sad to see our Capstan towed away

but hope it will have a good home at Deeside. Perhaps it was even sadder to see the departure of the T-31 - sold to some Air Scouts who raised the cash by selling horse manure. On the day of departure it gave ten soaring flights to the delight of the youngsters who came to collect it.

Congratulations to our CFI, John Greenwood, for achieving Diamond height. We trust Stott's claim for Gold height will be confirmed.

We have had an excellent response to our summer courses and are fully booked.

R.R.H.

## OUSE

After an enthusiastic attendance at the AGM, we welcome the new committee with Leon Laidler as Chairman.

Improvements are being seen in the bar and the evening flying sessions are fully booked. We would also like to welcome the new Oly syndicate.

J.G.

## OXFORD

We have had few good weekend soaring days this season and the Spring Bank Holiday was disappointing. One encouraging development recently was the large amount of money spent by the RAF in refurbishing our hangar. The hangar, which we share with the RAF Chilterns Club and the parachute boys, now has translucent glass-fibre panels and is much lighter inside. We also have a newer, faster tractor which should improve our winch launch rate.

Congratulations to Mike Randle who came seventh in the Nationals at his first attempt. The wingtip extensions on Kestrel "79" making it up to 20m, were the subject of much interest at the Competition (mainly by Kestrel 19 pilots!) Recent first solos include Mike and Wendy Brennan on the same day.

P.H.

## SOUTHDOWN

A grim period started on April 11 when our club Blanik collided with a steel upright. The crunched wing is still awaiting parts. On April 19 the privately owned and beautiful Rhönbusard came to grief when Roy Sonnex used a local high tree as a turning point and contrived to land upside down, fortunately with little damage to himself.

However, things had to get better. On April 25 Harry Wainwright and Brian Bateson gained Silver distance, Brian before 11.00. Derek Eastell claimed Diamond goal on April 28 when there were various flights of more than 250km. The same week Sue Frampton gave birth to a son.

The most audacious flight was probably by "Boffin" Plunkett who announced he would nip over to Lasham to book some accommodation. He promptly flew there, re-launched and took 18min on the return, an average of 160km/h.

B.A.B.

## SOUTH WALES

Our open day on the Spring Bank Holiday Monday was ably organised by Eric Fitzgerald, with an excellent buffet in the evening provided by Joyce Storey. In spite of rain, the day was a

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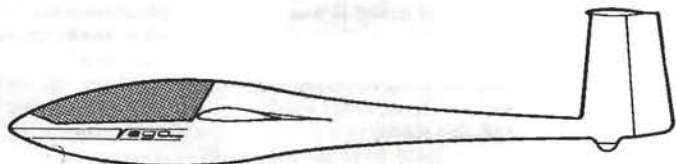
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great success and we gained some new members. The event was supported by the South Wales Hang Gliding Club and the Monmouth & Raglan Model Aircraft Club.

We had wave on 15 days in May, which is unusually good. The final Sunday in the month gave flights to 14000ft and a club K-13 completed an out-and-return to Hay-on-Wye at 10000ft.

Keith Richards, aged 18, has become the Glamorgan Club's youngest pundit by completing his Silver C in their K-7.

F.D.S.

## STAFFORDSHIRE

By the time this appears we hope to have our gully filled or at least made into a gentle dip which would not present a hazard to gliders landing. Drainage work in other parts of the field has also progressed. Visiting pilots should be able to see any remaining open drainage trenches from the air and if they land mid-week when we don't operate, the nearest telephone is on the road at the south end of the field.

John Beech and Philip Barnshaw soloed recently and before he had converted from the K-13 to the Swallow, Philip achieved a half-an-hour flight to gain his C certificate and first Bronze C leg. The club course week was marred by poor weather although some soaring flights were made with Terry Edmond and Keith Ward both going solo. We have an expedition to Shobdon in June with the K-13 and some syndicate machines.

A Hornet is replacing the Std Libelle which was written off, without injury to the pilot, when being landed in a small field after the canopy had frozen over and the ASI had become inoperative through icing.

F.B.

## STRATFORD-ON-AVON

During the club flying week following the Spring Bank Holiday, there were several interesting flights with Alan Wright and Graham Fellowe achieving their duration, Alan with more than six hours. Congratulations to all, plus those who recently went solo, and our thanks to the tug pilots.

Membership is steadily climbing and we have a waiting list for what is possibly one of the best thermic sites in the country. A system of duty marshals has speeded up the launch rate, successfully combining aerotow and reverse pulley-methods. The fire engine is being converted to a launch control vehicle and Andy's new mobile "loo" will be sited "conveniently" nearby.

H.G.W.

## SURREY & HANTS

Much has already been written about April 28 and 29. One most unusual occurrence on the 28th was the cloudbase of 3000ft with four knot thermals all over a frozen Lasham while we were chipping the ice off Hugh Hilditch's trailer after it had been in the sun at the launch point and landed back at Lasham at 16.45 after rounding a 505km triangle. It's not what it was this gliding!

A superb series of cartoons were drawn on the

Nationals' canteen menus by Piers Bois, a pilot of no mean ability. His characterisations of well-known Lashamites caused many mirthful minutes. A sample of his drawing is in the June S&G, p99.

The good but patchy and unpredictable Nationals weather reflects the general flying this year with badge getting and cross-countries a bit erratic. Even so, there have been many good flights. John Bell, who has only just completed his Silver C, caught the breaking up of the inversion on a hot day just right and whistled up to 11500ft for Gold height.

C.L.

We had an enjoyable evening to say thanks to our retiring CFI, Jim Martin, who recently received an MBE in the Queen's Birthday Honours list, and to welcome Peter Griffiths as our new CFI.

The instructors were loaned the Bocian for Competition Enterprise in gratitude of their hours' spent instructing. They did well, finishing 12th overall and joint first in the two-seaters.

Congratulations to Ken Wiseman and John Ward on their Silver distances - the first for Woodspring.

G.M.

# SERVICE NEWS

## BICESTER (RAFGSA Centre)

The exceptionally dry weather this year has given rise to a great deal of flying at Bicester. In turn, this has presented our engineering staff with a mammoth task of keeping the aircraft and ground equipment serviceable. We offer them our sincere thanks.

Our K-18s have arrived, and the Centre has kept one which is very well utilised and liked by our pilots. Congratulations to John Delafield on his well deserved win at the Nationals, to Andy Gough on his high position in the Standard Class and to Don Spottiswood on his Diamond goal.

During the last few months the Centre has grown a considerable crop of Bronze and Silver legs and we look forward to reaping a good harvest of A and B certificates from our *ab-initio* students.

B.L.

## CRANWELL (RAFGSA)

Jayne Denham and Derek Thomson completed their Bronze Cs and Dai Jones nearly got his Silver distance - twice. All the single-seaters were at the Inter-Service Regionals with Jim Bond flying our K-8. Bryan Harvey, Engineer Member (and engineer by trade), set fire to Rod Rea's car wiring whilst installing their Comps radio set.

Work continues on the K-4 and we hope to have it airborne soon. Finally, best wishes to Mike Cottingham who tried to reposition a mountain with his K-6 - it can't be done!

E.G.N.

## EAGLE (Detmold)

The club has received several boosts to its morale. John Mitchell joined us from Upavon in April, a much needed full cat instructor, and he has become deputy CFI. We have a new and active Chairman in Bill Price, and, as they did at Kestrel, he and Linda have injected new ideas into the club.

The best news is John Mitchell's 500km plus downwind task to France on Monday, May 24. He landed north of Paris and in spite of a rushed take-off, remembered to take his passport.

We are now in the middle of a very wet and

## TRENT

We have three new solo pilots, Miles Buxton, Roger Cawood and Ken Edgell, and Steven Slater and Dick Pickles have completed their Bronze C. Congratulations to Brian Fowkes, Dennis Snowden and Nev Wilson who have successfully completed an instructors' course run by Brian Spreckley.

Finally, we have welcomed two privately owned gliders, a Cirrus to replace the Blanik and a M-100s.

J.P.N.

## WOLDS

Spring brought mixed fortunes. Our beloved Skylark 2, new livery and all, disintegrated in a horrifyingly spectacular accident following a 300ft cable break. Happily and remarkably the pilot, Peter Norrison, though injured and detained several days in hospital, appears to have suffered no permanent damage and is flying solo again.

The season of flying weeks and flying evenings is upon us whilst, on the ground, a team led by Steve Skolik, Brian Stott and Arthur James has completed the conversion of the tea'bus. On the competitive side, we hope to have two teams in the Northern Comps.

Eddie Rooms recently took his Cobra, via thermals and wave, to a club and site record of 11500ft, at the same time gaining duration to complete his Silver C.

G.H.H.

## WOODSPRING

The soaring season started around mid-April when the sea breeze front gave quite a few Silver heights but, due to the lack of barographs, only two were claimed.

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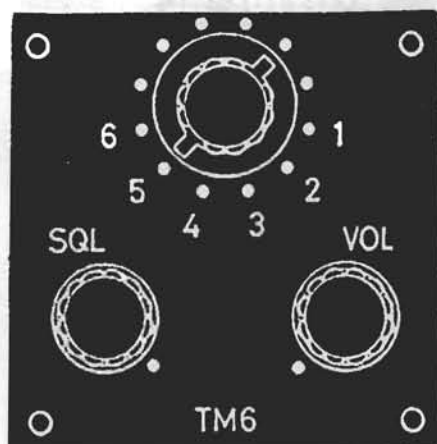
George Lee had the DOLPHIN conversion and Audio System in his ASW-17 in Finland.

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depressing British Forces Gliding Championships at Detmold from May 26 to June 9. Competitors have travelled up from Laarbruch and Brüggan and are beginning to wish they had stayed there!

M.A.H.

**FOUR COUNTIES (RAF Syerston)**

We were off to a first-class start this season with Hamish Brown and Trevor Gorley gaining Diamond distance. Trevor Allsop beat the field in the Club Class at the Inter-Services and Dave Cockburn won the Open.

Minor heartaches were imminent on hearing that George Lee's ASW-17 and trailer had had an accident *en route* to the Nationals. The club put in more than 300hrs hard labour on the

trailer alone, but the damage was rapidly repaired at Henlow.

Task weeks have been successful despite the weather. On one, a contingent from Humber-side came with a Cobra and K-8, the latter being much used by our long list of K-8 pilots.

Field landing practice caught some criticism after the Blanik did a pruning job on a tree whilst landing. Fortunately the deputy CFI was in command to prevent a write-off.

Phil Wilshire gained Silver distance and height and first solos include Annalise Burton and Dave Wiseman.

D.D.

**HUMBER (RAF Lindholme)**

Chuck Berry, Terry Reynolds and Des Gilmore have gone solo and Silver distances were flown by Keith Sleigh and Kathy Gildea, the latter becoming the first lady to complete her Silver C at Humber. Our deputy CFI, Chris Gildea, gained his Gold C with a 308km triangle on the first day of the Inter-Services, so adding another Diamond to his collection.

Our membership is picking up and we are delighted with our new Blanik.

K.M.G.

**KESTREL (RAF Odiham)**

Our new K-18 has arrived and fits nicely into our fleet. The K-6CR it replaces is the Army glider two of our RAF members, Gerry O'Dell and Peter Charnell, flew into first place at the Inter-Service Regionals last month. The problem now is who wins what?

Our retrieve taxi continues to receive the kiss of life and deserves a medal for service. Recent achievements include A and B certificates by Charles and Heather in the T-21, Silver height for Jack Mills and a 300km triangle by Pam Davies.

M.A.P.

**WITTERING**

The Station Commander of RAF Wittering has given his approval for a Service Gliding Club to be set-up and operated at this base. Subject to the approval and allocation of aircraft, etc., from the RAFGSA, it is hoped to start flying there before the end of the season.

D.D.

**WREKIN (RAF Cosford)**

This month we have had an excellent sequence of achievements. It started with Jed Toal just failing to reach a Gold height at Aboyne, followed by John Richardson completing his Silver distance. Meanwhile Trish Platt converted to the K-8, John Harrison and Simon Davies gained both Bronze legs and Andy Batchelor his full Bronze. Colin Moore and Marty Platt set out for more Silver legs, Colin gaining his height but missing his duration after 4hrs 36min. Marty fell short on his 50km attempt, but achieved a Silver height in the process.

Finally, our congratulations to Dave Merryshaw on going solo, and to our new Chairman, Roger Cox, on returning to solo status after a number of years. Welcome to the club!

I.D.M.

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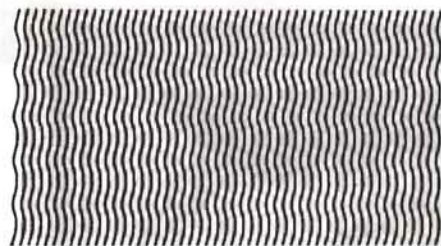
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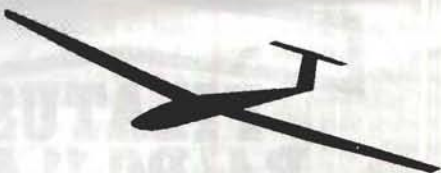
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