Diary

18-19th June Beaulieu	South Coast Gala (SMAE Southern area). O/R, O/G, O/P, FAI (7 rounds over 2 days), Mini (5 rounds). Camping, barbeque facilities. Contact B Tyson, tel : (0202) 303748.
19th June Beaulieu	Croydon Dawn Patrol. Sunrise contest for F1A, F1B, CdH at 06.00 (cocoa promised for 05.45).
25-26th June Barkston Heath	RAFMAA/SMAE. F1A, F1B, F1C, also progressive FAI fly-off event on Saturday evening. Camping on the Saturday night. Saturday first round at 12.00. No pre-entry. Contact B Baines, (0526) 21458 (weekends) or 033 483471 ext 420 working hours.
26th June Cardington	SMAE Indoor. EZB Novice/expert pairs. Contact L Barr, tel 0628 25595.
26th June Church Fenton	SMAE Northern Area Clubs Team Championships. SMAE members only. Contact J Godden, tel 0532 521002.
3rd July Driffield	SMAE Centralised Mini. A1,½A,CdH,HLG,CO2. SMAE members only. Contact D Hipperson,tel 01 207 0179.
10th July Cardington	SMAE Indoor. EZB Novice/expert pairs. Contact L Barr, tel 0628 25595.
10th July Beaulieu	Crookham. O/R, O/P, O/G, all-in FAI (no rounds). Contact D Cox, tel Ashford (Middx) 51696.
10th July Heath Common, Wakefield	Morley Silent event. P30, Wigan 70, CdH, A1, silent vintage. Contact J Godden, tel 0532 521002
22-24th July	Kolbri Pokal International, Austria F1A, F1E.
23-24th July	F1D International, Brno, CSSR
24th July Cardington	SMAE Indoor. F1D first team trials (Houlberg Gold Medal, 3 flights). Contact L Barr, tel 0628 25595 NB July 24 - disregard previously published date.
6th August (SAT) Sutton Park	SMAE Junior Kit Contest (Under 16s). Field entry. D Hipperson at 35 Anthony Road, Boreham Wood, Herts (tel 01 207 0179).
20-21st August Noize, France	Vol libre Poitou. F1A (Saturday), F1B,F1C (Sunday) Entry by July 20 to M Poussard, 78 rue de la Fontaine, 79100 Thouars, France. One event 80fr, two or more 110fr, closing meal 60fr.

JUNE 1983 83/06

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FREE FLIGHT NEWS

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8 Blenheim Court, Farnborough, Hants, England GU14 7DS

Compiled and published by Ian Kaynes, Paul Masterman, Malcolm Wood.

THE ORIOLE F1A by Andrew Crisp

"The Oriole" was conceived as a one-off, straight tow windy weather glider. It is very much a "third string", as I really do enjoy flying circle tow models, yet has had a reasonable run of contest successes - second 1983 K&MAA, third 1982 K&MAA, high placing in last two Nationals, etc.

It was really intended as a replacement for my "Accipiter" design, which is in the APS and has flown well for quite a few people. It started life, like the "Accipter", with V wing and a V high mounted stab, but was a total disaster, gliding like a lead balloon and having wild towing characteristics. Despite the wing being built like a brick out-house (200 gm !), a collision with a windsock mast at Barkston meant a heavy repairing session, so I decided to perform some major surgery.

The wing was sawn through some 14" from the tip and readjusted to flat centre section with 6" of tip dihedral. Balsa packing was added to compensate for the previously angled-in ribs at the root. A turbulator was added on the leading edge. A saw was taken to the fuselage and the hatchet-like pod reduced to minimal proportions. At the same time the wing wires were made to pass through the fuselage, doing away with drag producing rubber band fittings. Finally the undercambered V stab was thrown away (or rather given to an unsuspecting small boy in Burgos) and replaced by a flat one with thinned Clark Y type section.

All this managed to knock off 2oz from its previous 16½oz weight and the resulting model trimmed out in a couple of flights to give a performance streets ahead of its original concept.

ACADEMY OF MODEL AERONAUTICS

It seems to have escaped the notice of the UK modelling press that the AMA - the governing body of aeromodelling in USA - has taken a notable step by moving into its own new building. This was specially designed for the AMA and funded partly from $300000 donated by members and benefactors. The interest charges on the loan to cover the remainder of building costs will be paid from the same budget that had previously been directed to paying the rent of the old offices in Washington. As well as serving as AMA headquarters, the "National Center for Aeromodelling" houses the offices of "Model Aviation" (the good magazine published by AMA) and has a display area for a national museum. The address is : 1810 Samuel Morse Dr, Renton, VA 22090; tel (703) 435-0750 for AMA and (703) 435-0760 for Model Aviation offices. Congratulations to AMA for completing these plans.

AEROMODELLER

The MAP magazine has announced a re-styled format to be introduced from its July issue. Physically, it will be enlarged to A4 size while contents will include full-size plans every month, more flying scale articles and more on basic construction techniques. Current regular coverage will be give a new presentation. It remains to be seen how free flight coverage will look in the new set-up. Let us hope that it is adequate, for this is the only fully distributed UK magazine to give the public that essential introducion to our sport; circulation has been dropping steadily over recent years. However, inevitably, the changes have also been accompanied by a price increase to 95p per issue (that is, £11.40 for one year).

SMAE THIRD AREA CENTRALISED EVENT May 8th - RESULTS

Open Glider 50 flew, 3x180

1	J Carter	Falcons	540+590	6	D Bartle	NYFFG	+133
2	M Cook	NYFFG	+412	7	B Lavis	Biggles	+130
3	J H Foster	MFFG	+235	8	M Stones	Cleemac	+122
4	J Bailey	Biggles	+226	9	D Wylds	Crawley	540
5	A Jack	Tynemouth	+216	10	K Smith	Crookham	525

F1B Wakefield (Weston Cup + Plugge) 49 flew, 5x180

1	R Pollard	Tynemouth	900+354	6	R Pavely	Anglia	856
2	G Sharp	Croydon	900+276	7	M Dixon	Birmingham	850
3	I Kaynes	Croydon	885	8	M Chilton	E P S	832
=	B Martin	Tynemouth	885	9	D Hipperson	Grantham	831
5	P Ball	Grantham	872	10	P Uden	Crookham	828

Open Power (White Cup) 16 flew, 3x180

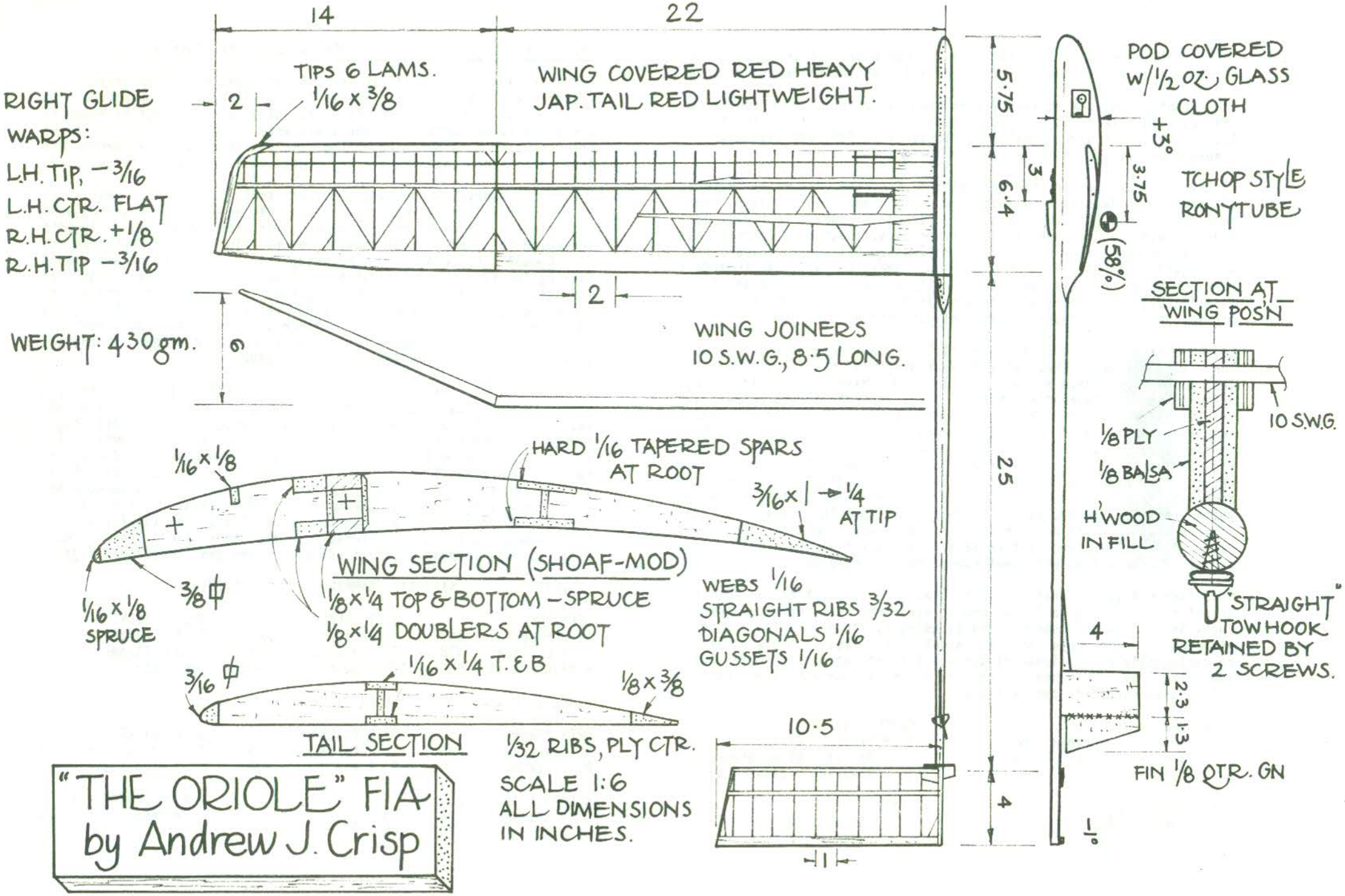
1	S Screen	Birmingham	540+311
2	D Scott	Morley	+181
3	A JAck	Tynemouth	+145
4	J Hopper	Freebirds	540
5	T Payne	Biggles	537

Plugge points after 3 events

1	Anglia	624
2	Birmingham	582
3	Biggles	570
4	Crookham	558
5	East Grinstead	467

OXFORD SPRING RALLY Port Meadow May 22nd

From a report by Andrew Crisp : Luckily for this poor 1983 Spring, May 22nd was neither too windy nor too wet. The contests, apart from HLG, were held in five long rounds which maintained interest throughout the day and spread out the weather, so to speak. Entries were respectable in A1 and Coupe d'hiver but low in HLG and vintage, which is surprising considering all the publicity given to this growing movement. It seems that vintage enthusiasts like to


14
22
TIPS 6 LAMS.
1/16 x 3/8
WING COVERED RED HEAVY
JAP. TAIL RED LIGHTWEIGHT.
2
RIGHT GLIDE
WARPS:
L.H. TIP, −3/16
L.H. CTR. FLAT
R.H. CTR. +1/8
R.H. TIP −3/16
WEIGHT: 430 gm.
6
2
WING JOINERS
10 S.W.G., 8·5 LONG.
5·75
3
6·4
25
4
POD COVERED
W/1/2 OZ. GLASS
CLOTH
+3°
3·75
TCHOP STYLE
RONYTUBE
(58%)
SECTION AT
WING POSN
10 S.W.G.
1/8 PLY
1/8 BALSA
H'WOOD
IN FILL
STRAIGHT
TOW HOOK
RETAINED BY
2 SCREWS.
4
2·3
1·3
FIN 1/8 QTR. GN
-1°
1/16 x 1/8
HARD 1/16 TAPERED SPARS
AT ROOT
3/16 x 1 → 1/4
AT TIP
1/16 x 1/8
SPRUCE
3/8 ⌀
WING SECTION (SHOAF-MOD)
1/8 x 1/4 TOP & BOTTOM – SPRUCE
1/8 x 1/4 DOUBLERS AT ROOT
WEBS 1/16
STRAIGHT RIBS 3/32
DIAGONALS 1/16
GUSSETS 1/16
3/16 ⌀
1/16 x 1/4 T. & B
1/8 x 3/8
TAIL SECTION
1/32 RIBS, PLY CTR.
10·5
1
"THE ORIOLE" FIA
by Andrew J. Crisp
SCALE 1:6
ALL DIMENSIONS
IN INCHES.

build replicas of machines that were contest models in their day, yet fight shy of using them for the purpose for which they were designed.

The light wind coming over Wytham Woods gave no flying problems but the mild turbulence it produced made lift picking difficult. A flight would often start well, particularly in CdH, and then would be dumped down quicker than expected on the glide.

A1 saw a runaway victory for Ken Smith of Crookham. His model featured a simplified "Russian" circle tow unit and went away very positively in lift which was quite strong for such a dull day. Gary Madelin, also of Crookham, started modestly with sub-max flights but sneaked through at the end to beat Martin Dilly into third place. As regards design, A1 seems to have stagnated with most models looking more or less like the APS Little Hinny. Why this should be is difficult to say, because the Wakefield class of comparable size and weight shows a wonderful diversity of approach.

Coupe d'hiver had a cliff-hanger finish. Dave Greaves who had flown "on rails" all day looked set with four maxes in four flights. On his last he hit turbulence and was down in 1.29. Maxes at the final stage allowed man-of-the-meeting Martin Dilly and Pete Harris to pass him into first and second places. The winner used two models of French influence, both with built-up fuselages and outrigger props. Pete Harris broke the wing of his square fuselaged no.1 ship in a winding jig accident, but his reserve with a rolled tube body performed well enough. The prop hubs of his models were neatly fashioned from square-section brass tubing and used the "free wheeling folder" system which pre-dated the now much used Montreal stop. Third placer Greaves prefers not to cover his prop blades and carves them very thinly from block. This allows them to flex to a higher pitch on the first burst and gives a very long efficient run of 40 seconds plus.

Hand launched glider went to Dave Brawn, late of Biggles but now transferred to Anglia for an undisclosed fee. His recent sojourn in Papua New Guinea was commemorated by using two coins of that country attached to the nose of the model for ballast. The wing of the conventionally proportioned glider was interesting, being horizontally laminated from 1/16" sheet which gave a pretty contour line pattern effect when sanded to the section.

A1 GLIDER

1	K Smith	Crookham	549
2	G Madelin	Crookham	516
3	M Dilly	Croydon	515

HAND LAUNCHED GLIDER

1	D Brawn	Anglia	154
2	R Woodruffe	Swindon	65

COUPE D'HIVER

1	M Dilly	Croydon	584
2	P Harris	Birmingham	577
3	D Greaves	Bristol & W	569

VINTAGE

1	P Michel	SAM	311
2	G Johnson	FACCT	248

BRISTOL & WEST GOLDEN JUBILEE EVENT Woodbury May 14th and 15th

To celebrate their fiftieth year, Bristol and West club organised a special event at Woodbury. Thanks to Alan Parker, the proprietor of the Castle Brake Caravan Park actually on the edge of Woodbury Common, a large number of competitors were accomodated in caravans for the weekend. Almost the entire site was occupied by aeromodellers from all over the country and a good holiday atmosphere resulted.

A warm and sunny Saturday was fine for activities other than free flight, including Devon cream teas of course, but a strong wind persisted which was not promising for the Champagne fly-offs scheduled for the evening. However, by the time we had gathered on the Common the wind was beginning to drop and it became a good evening for fly-offs. Some light lift was around and a patch was effectiveiy found by Martin Gregorie to win glider. Some of the vintage competitors were eliminated before getting airborne, by spectacular fuselage blow-ups. There was some added excitement (or incredulity) with a special full-size aerobatics display culminating with a run along the valley at very low level.

A barbeque at the caravan site completed Saturday evening in fine style. Then Sunday dawned with a real gale blowing. The max was set at 2.30 for all events and this was enough to take models right across the Common (and beyond for flights in lift), assuming that you managed to get away from the ground turbulence. Use of the radio club's mowed flying area greatly eased the problems of flying glider in the wind - much better than trying to tow through the short gorse and heather ground cover. Much interest centred on the All-in FAI class, with especial concentration on Wakefield since their was a special prize offered for the top Wake flyer. Local flyer Chris Chapman placed first after some good consistent flying.

RESULTS - SATURDAY CHAMPAGNE FLY-OFF EVENTS

OPEN POWER		OPEN RUBBER		OPEN GLIDER	
1 J Hopper	257	1 R Peers	407	1 M Gregorie	215
2 F Chilton	178	2 J O'Donnell	378	2 J Williams	149

VINTAGE : 1 V Dubery 175 (Judge); 2 P Michel 165 (Isis)

RESULTS - SUNDAY EVENTS

OPEN POWER		OPEN RUBBER		OPEN GLIDER	
1 J Hopper	450	1 J Carter	415	1 J Carter	450+192
2 R Peers	409	2 B Bow	410	2 J O'Donnell	+ 71

ALL-IN FAI 5x150			VINTAGE PRECISION	
1 C Chapman	F1B	705	1 M Kemp	2%
2 P Uden	F1B	636	2 J Down	4%

GETTING THE BEST FROM YOUR HARVARD CB by Martin Gregorie

This article is mainly concerned with the care and feeding of Harvard 410T hand-held CB transceivers, but the remarks about operation will apply to all sets.

OPERATING CONSIDERATIONS

I'm assuming that the set is being run from NiCd rechargeable cells, as this is so much cheaper than dry cell operation. However there is a disadvantage - namely the relatively low capacity of these cells. They will give only 1/3 of the operating time per charge of dry cells. This may be reducedeven further by the so-called "memory effect". If a NiCd is run through several charge/discharge cycles using just a fraction of the cell capacity, it "forgets" the unused charge is available. This can be cured by periodically running the cells flat and then fully charging them. Don't leave a NiCd fully discharged for long periods as local action can wreck it. NiCds do loose charge whenleft standing so remember to charge the set the night before a contest. Assuming that we have a fully charged set of batteries in full possession of their faculties we still have problems as it is unlikely that you can use the CB for a full 7 round contest and still get any joy from it in the fly-offs. The obvious solution is to carry an extra set of batteries but this costs money.

A significant gain can be had by sensible use of the CB. Some figures should show this. These numbers were measured on my Harvard.

Drain with full squelch and ¾ volume (set silent) 50mA
Drain with no squelch and half volume (set hissing) 75mA
Low power transmit 350 mA
High power transmit 500 mA
Channel display on adds 30 mA to the drain.

The moral seems clear : always put squelch fully in so the set is silent, use the lowest convenient volume, and transmit as little as possible. Make sure the channel display is OFF. High/low tx power is awkward as the switch is buried in the battery compartment. Nonetheless, low power is OK in flat country if the wind is less than a gale. By using the minimum power setup one charge will last six rounds together with 2-3 fly-offs for the downwind retriever. I don't like the idea of battery changes downwind as it is more to carry apart from loss of contact while you change batteries. The launch site set will not last a day ever as much more sending is needed to keep the rest of the team informed - retrievers need only acknowledge launches etc and report models collected.

MODIFICATIONS

The first section has pointed out the fact that care is needed to make your batteries last a full contest. The life can be stretched and set operation improved with some mods. The following applies only to Harvard 410T sets. It should not be attempted unless you have done some electronics and own a proper 15-20 Watt sub-miniature printed circuit soldering iron. A desoldering pump or wick is very handy. My set is modded to this standard and works fine but I cannot be responsible for damage to your set if you adapt it. Three mods are described in order of difficulty.

Disassembly :

1 Unscrew the Phillips screw in the bottom of the case back.
2 Pull all the knobs off the top.
3 Unscrew the ring round the Ext.Ant. socket. The case is made in three parts that clip together and appear to be tacked with Loctite or equivalent.
4 Remove the case top by squeezing front and rear to disengage pips Remove the back by squeezing its sides.

Take care not to break the battery wires off their tags when you handle the dismantled set.

Reassembly is the reverse of the above steps.

MOD 1 : Push-to-view Channel display

This mod prevents the switch from locking down so the display cannot be left on. After this mod the switch must be held down to see the display.

1 Locate the display switch (SW4) in the diagram. Examine the switch. Viewed from the back, a bronze leaf spring can be found inside the left side of the switch. This controls the lock-down wire.
2 Grab the spring with small tweezers and mangle it until the switch doesn't lock down.

MOD.2 : Idle current reduction.

This mod reduces the idle current by 10%. Both this and the next mod require the PCB to be removed.

1 Take out the 4 Phillips screws on each side of the PCB and remove it to reveal the small PCB behind the Rx and Call lamps.
2 Disconnect the green wire on the right of this board.
3 Solder a 2.2 K Ohm 1/8 Watt resistor on to the tag in place of the wire.
4 Solder the wire to the resistor. This reduces the current drawn by the green lamp by 5 mA.

MOD.3 : An external Hi/Lo Tx power switch.

After this mod the Channel 9 emergency switch is converted into the output power switch. Channel 9 is selected like any other channel on the main channel selector.

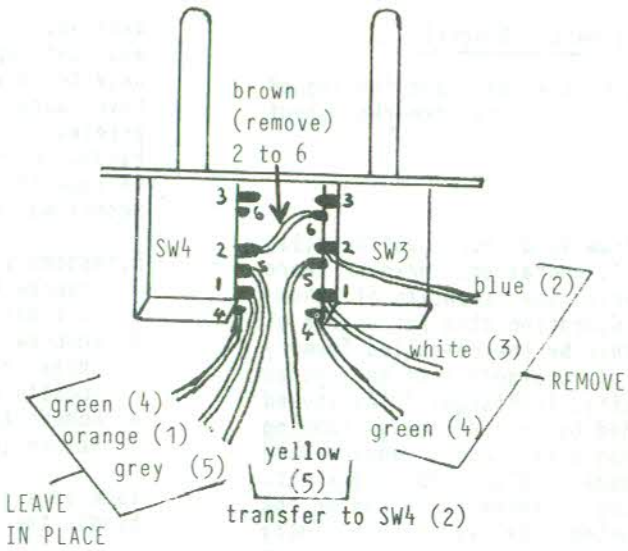
1 If the PCB is still in place, remove it (see above).
2 Locate and remove the brown wire connecting SW3 to SW4
3 Transfer the yellow wire from SW3 tag 5 to SW4 tag 5 (see diag).
4 Remove all other wires on SW3 (white, blue, green). We now have a free switch to use for Tx power.
5 Locate the old Tx power switch in the middle PCB.
6 Locate its solder points on the PCB solder side.
7 Prepare a triple wire cable that reaches from the old to the new switch.
8 Remove the old Tx power switch.
9 Solder the cable into the holes freed by the switch.
10 Solder the other end to SW3 (tag a to 1, b to 2, c to 3 in diag).

The old channel 9 switch now controls transmission power. The switch is out for low and locked down for high power. Use low power normally, switching up to high when going out of range. NOTE : do not transmit with the aerial retracted during this or you can destroy the Tx output stages.

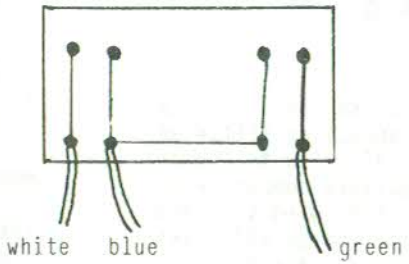
SMAE BRITISH NATIONALS Barkston Heath May 28-30th

As usual, we must apologise for not having a full "in-depth" report on the Nationals, but flying in 5 events took all my efforts. One aspect which was most apparent to all competitors was Dave Hipperson's organisation of the event. He sacrificed his flying for all three days to act as contest director sand the result was one of the smoothest running Nats for years. Moreover, he printed results in the same week as the Nats - a contrast to last year. Many thanks Dave.

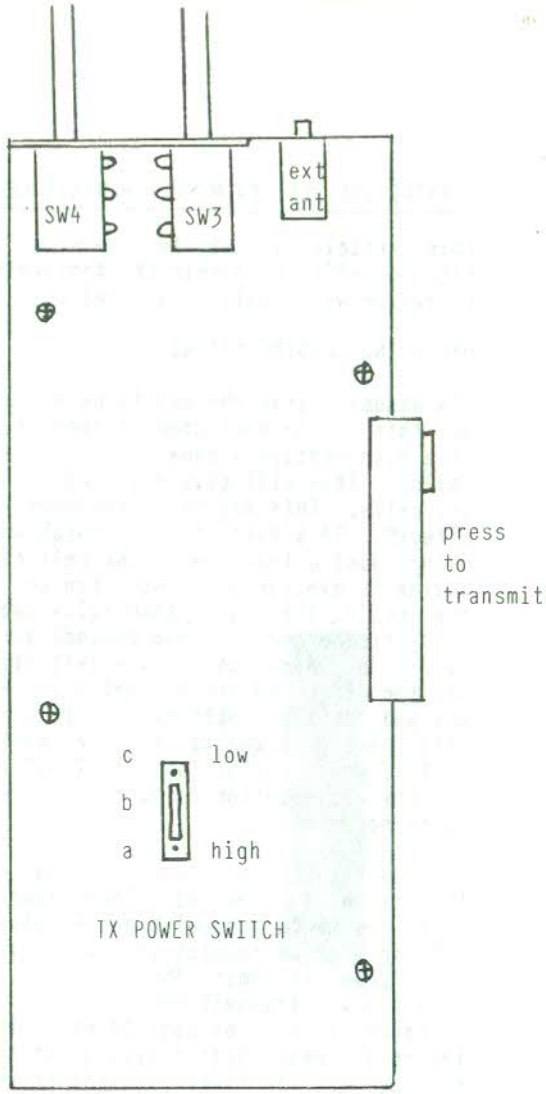
The Saturday started wet and with an unpromising forecast, but the weather became drier during the afternoon with the winds remaining light. There were small fly-offs for each mini class. For A1 this was a walkover since John Cooper broke his (ex-Wake) wings when towing. Coupe was also an anti-climax : Sharp hit the ground, then Walker had a poor climb after hitting his prop with his hand during launch, Davitt made a short flight and finally Ferer had a disappointing climb. ½A was won by Marcus still chasing a variable trim. The open events on Sunday had pleasant light winds, again



CHANNEL DISPLAY AND
CHANNEL 9 SWITCHES



CALL / RX DISPLAY L.E.D.
SUB P.C.B.



MAIN P.C.B. SHOWING MOUNTING
SCREWS AND POWER SWITCH

warming up later to benefit those who gambled on waiting to fly later. Massive fly-offs in the late evening had only very light lift and the longest flights only just left the airfield.

An early (6am) start for FAI was interesting but certainly not in still air, as shown by maxes in the first glider round. By the third round the lift was stronger and we had returned to standard day conditions. The wind shifted towards the compound - after two days luckily blowing straigh away from it - and despite the best position of the launch line models were dropping inside. One particular large thermal in a glider round deposited half the entry in the compound, but the RAF crew were doing a good job in returning the models to grateful owners. Wind shifted again and conditions cooled for the last 2 rounds and reduced the size of the fly-offs. Full scores in glider came from Cooper, Fantham, Baines and on of the internationals at the Nats Arno Hacken. He had been flying well all day, with some skilled crosswind and downwind tows to reach lift. He had "bent" a tip during on launch (it returned to proper position for the flight and then finally broke off after DT) and then finished the day flying AH26 - plans in FFn soon. Fantham just made the 4 minute flight to join Cooper for a second fly-off. Wake fly-off was clearcut - Foster making an impressive climb in good air, picked from the thermistor, while Sharp flew a little later in poor air. The power fly-off was made to an unofficial 5 sec run, after being frightened by Faux temporarily loosing a model downwind.

- IK

A1 GLIDER	5x2.00	51 flew
1 G Beal	C/M	10.00+2.57
2 J Cooper	Biggles	+0.00
3 R Sheen	Nantwich	9.50
4 K Smith	Crookham	9.45
5 P Harris	MFFG	9.44

COUPE D'HIVER	5x2.00	39 flew
1 J Walker	Birmingham	10+1.24
2 I Davitt	Leeds	+1.20
3 G Ferer	Leicester	+1.03
4 G Sharp	Croydon	+0.07
5 S Screen	Birmingham	9.55

½A POWER	5x2.00	25 flew
1 N Marcus	Croydon	10.00+2.31
2 R Peers	Falcons	+1.58
3 M Gilmore	Grantham	9.53
4 R Moore	Biggles	9.46
= I Payne	Biggles	9.46

TAILLESS	3x3.00	7 flew
1 J Pool	NYFFG	9.00
2 I Kaynes	Croydon	8.49
3 R Peers	Falcons	8.17

OPEN GLIDER 3x3.00	97 flew,	27 F/O
1 P Owens	Liverpool 9	+3.38
2 D Staines	Grantham	+3.16
3 J Cooper	Biggles	+3.14
4 G Madelin	Crookham	+2.58
5 E Drew	Bristol & W	+2.53
= M Fantham	Richmond	+2.53
7 A Jack	Tynemouth	+2.43
8 A Cordes	Birmingham	+2.39
9 J Anderson	NYFFG	+2.35
10 J Carter	Falcons	+2.33
= J Williams	Freebirds	+2.33

OPEN RUBBER 3x3.00	54 flew,	34 F/O
1 M Howick	E Grinstead	+8.35
2 P Ball	Grantham	+7.43
3 J Bailey	Biggles	+7.40
4 J Carter	Falcons	+7.24
5 T Hargreaves	Leeds	+7.04
6 I Kaynes	Croydon	+7.00
7 C Strachan	Impington	+6.48
8 J O'Donnell	Whitefield	+6.25
9 D Neil	Anglia	+6.19
10 M Croome	Grantham	+6.17
11 P Davies	Bristol & W	+5.37

CO2 DURATION	5x2.00	14 flew
1 R Cherry	E Grinstead	+4.50
2 S Philpott	Biggles	+3.02
3 P Ball	Grantham	+2.22
4 R Staines	Grantham	+0.21
5 B Kenny	Vulcan	9.20

VINTAGE	3x3.00	33 flew
1 P Ball	Grantham	9.00
2 T Dilks	Falcons	8.55
3 B Harding	Darlington	8.54
4 M Croome	Grantham	8.44
5 S Philpott	Biggles	8.38

WOMENS CUP	3x3.00	8 flew
1 J Nash	Watton	9.00+4.06
2 J Joiner	Marley	+1.53
3 B Tyson	Crookham	8.58
4 R Hubbard	Watton	8.32

FROG JUNIOR 3x3.00	15 flew,	5 F/O
1 J MacDonald	Biggles	9.00+3.45
2 N Dixon	Birmingham	+3.22
3 R Anderson	NYFFG	+3.12
4 S Dixon	Birmingham	+3.03
5 A S Cordes	Birmingham	+3.02

CO2 SCRAMBLE	30.00 period	7 flew
1 I Davitt	Leeds	17.56
2 A Staggs	MFFG	16.29
3 M Coomes	Grantham	16.05
4 J Tipper	Lee Bees	12.07

OPEN POWER 3x3.00	29 flew,	14 F/O
1 T Smith	BAC	+7.43
2 R Cummins	Bristol & W	+7.42
3 T Payne	Biggles	+7.30
= S Screen	Birmingham	+7.30
5 R Monks	Birmingham	+7.25
6 R Staines	Grantham	+7.24
7 J Hopper	Freebirds	+7.13
8 P Harris	Birmingham	+6.49
9 J Smith	BAC	+6.10
10 R Peers	Falcons	+5.56

F1A GLIDER	7x3.00	78 flew
1 J Cooper	Biggles	21+4+2.44
2 M Fantham	Richmond	21+4+2.09
3 B Baines	RAFMAA	21+2.55
4 A Hacken	Holland	21+2.40
5 S Philpott	Biggles	20.49

F1B WAKEFIELD	7x3.00	41 flew
1 G Foster	RAFMAA	21.00+4.00
2 G Sharp	Croydon	+2.20
3 D Greaves	Bristol & W	20.59
4 I Taylor	Falcons	20.53
5 R Elliott	Croydon	20.22

F1C POWER	7x3.00	13 flew
1 S Scrren	Birmingham	+3.11
2 P Harris	Birmingham	+2.51
3 R Monks	Birmingham	+2.34
4 K Faux	Freebirds	+0.00
5 F Chilton	Crookham	20.00

NATIONAL CHAMPIONS

Glider : John Cooper Biggles 2nd A1, 3rd Open glider, 1st F1A
Rubber : Ian Kaynes Croydon 7th CdH, 6th Open rubber, 9th F1B
Power : Stafford Screen Birmingham 8th ½A, 3rd Open power, 1st F1C

NOTICEBOARD

MERCURY PLANS : Ron Magill has asked for readers to help him obtain plans of either the Mercury Mallard Junior or the Mercury Gili Chopper. If anyone can help by supplying plans that are no longer required or photocopies of plans, please write to Ron at :
1852 Great North Road, Auckland 7, New Zealand.

FFn BULK PURCHASING : The new batch of ¼" FAI Model Supply rubber has now arrived. As forecast already, the position of Sterling relative to the Dollar and also hefty import duties have forced the price to be increased and this is now £11.00 per 14oz box including postage within the UK, or £12.50 to overseas readers. The Hatschek circle towhook is

in stock and the price remains at £18.50 each. The masterpiece rubber winders which Dave Stapleton manufactures have also had a price rise, now costing £29.50 for the standard version or £34.50 for the lightweight type. The full bulk purchasing catalogue reads as follows :

Seelig timers :	4 function power	£14.00
	3 function Wakefield	£11.50
	1 function Wakefield	£9.00
	1 function glider	£9.00

FAI Model Supply rubber, supplied in boxes of approx 14 ounces

1/8"	£9.50,	or £11.00 overseas
1/4"	£11.00,	or £12.50 overseas

FFn Wakefield prop hub assembly	£9.50
Turned alloy housing + nose ring for FFn hub, made to order to fit Ronytube or similar motor tube (state exact dimensions required)	
Additional cost over basic hub assembly :	£5.00 for one
	£7.50 for two
Rear fuselage joiners made to order (state size) :	
one-piece	£3.00
two-piece	£5.00 for one
	£3.75 each for two or more
'T' bar for multistrand rubber motors	£0.40
Rear bobbin, FFn cartridge loading system	£0.25

Self-reeling glider towline winch, complete except for rubber motor drive	£4.50, £5.00 overseas
spare spools for the above winch	£2.75, £3.25 overseas
Extender disc, to allow 12 minute (maximum) DT time from Tatone or KSB clockwork timers	£1.50
DT scroll for 'Snoopy' type timer	£1.00

Bob Hatschek circle tow hook	£18.50

PTFE tubing for running DT lines	£1.50 per 5 metre pack

Rubber motor winder with counter, engraved with name/telephone number	standard	£29.50	(£31.50 overseas)
	lightweight	£34.50	(£36.50 overseas)
Charge for converting winder from standard to lightweight			£8.50 (£10.50 overseas)

All Bulk Purchasing prices include postage and the prices apply to both inland and overseas except where stated. There is a surcharge of £3 per order for people who are not subscribers to FFn. Send your orders to :
David Stapleton, 21 Ravensbourne Drive, Chelmsford, Essex CM1 2SJ, England; please make your cheques payable to FREE FLIGHT NEWS.

NFFS : Further to our recent publication of the list of NFFS Models of the Year for 1983, Tony Italiano has asked us to request readers' nominations for future Models of the Year. Tony would like to receive your suggestions at :
1655 Revere Dr, Brookfield, WI 53005, U.S.A.

BEAULIEU - If you are interested in finding out some of the background aviation history of this flying site of the south coast, then you may like to read "History of Beaulieu Airfield" by Robert Coles. This is a 64 page booklet covering the period from the start of flying in 1910 to the end in 1946. It costs £4.50 plus 50p postage from Robert Coles at Ivy Cottage, East Poldre, Brockenhurst, Hants. There is no specific aeromodelling connection - the author is a local doctor who was jogging on the Heath and found the runway remains with which we are so familiar. Proceeds are in aid of the upkeep of East Poldre Village Hall - which is the only surviving building from the original World War I airfield !

ADDRESS LABELS - Len Auckland writes that he got his local printer to make some address labels on very light paper. The weight is 0.1g per label. The snag for Len was that get enough for about 500 years of his use and so he is offering them for sale at a price of 15p per sheet of 15 labels. This does not include postage, so send an SAE with your order to Len Auckland, 10 Meadow Court, Staxton, Scarborough, Yorks. A label is reproduced below :

Society of Model Aeronautical Engineers No. .....
This is a Competition Model Aircraft, flown from a nearby Airfield or open area. Please leave in a safe prominent place, as owner will be following Model from up wind. Alternatively, at your discretion, take Model home and contact Owner, who will be most grateful and be pleased to refund any expenses incurred.

ADDRESS .....

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FREE FLIGHT NEWS * SPECIAL OFFER *

There are movements within the editorial team. Paul moved during May to a different part of West London and in August Ian will be moving house, also a local move staying within Farnborough. Even if the distance is small the quantity of FFn paper is not negligible and to help reduce this a little we are making a special offer on back numbers of FFn. For just £1 we will send you a full set of issues for any one year; all years between 1978 and 1982 (inclusive) are in stock, and there is also a combined set of 12 issues from 1975 to 1977. This is less than 10p per issue and the price includes basic postage costs. A good opportunity to extend your library.