Diary

2nd October Odiham	SMAE Southern Gala. O/R, O/G, O/P, ½A P, CdH, HLG, A1, Vintage Wake. SMAE members only, double fee on field unless pre-entry by Sept 19th to N Couling, 7 The Green Walk, Willingdon, Eastbourne, BN22 ORB
9th October Cardington	SMAE Indoor. 1.5g single-design EZB Novices ONLY (£100 first prize). Contact L Barr, tel 0628 25595
9th October Church Fenton	Northern Area Rally. O/R,O/G,O/P, combined FAI (5 flights, no rounds), combined mini (4 flights, K factor), vintage. Contact J Godden,tel 0532 521002
16th October Church Fenton	Northern Area FAI Rally. F1A, F1B, F1C in rounds, start 9.30, 2 flights before 12.30. Contact J Godden, tel 0532 521002.
23rd October Witchford	Third Witchford Meeting. F1A, F1B, F1C, Mini. Start 9.30. Contact N Beaumont, tel 01 393 4398.
23rd October Sheffield	SMAE Sheffield Magnet Cup. F1E (magnet steered gliders). Contact T Faulkner, 4 Birchitt Close, Sheffield.
30th October North Luffenham	SMAE Autumn Centralised Mini event. A1, ½A, CdH, HLG, CO2. Contact D Hipperson on 01 201 0179.
12-13th November Sculthorpe	SMAE Second European Championships Trials. Contact D Hipperson, tel 01 201 0179.
20th November Church Fenton	Falcons Rally.
27th November Watton	East Anglian Wakefield Contest. Vintage Wake (pre-51 design), Own Design up to and including 1953 rules, current F1B. Start 10.00, in rounds with first flight to be made by 12.00. Contact A R Wells, tel 04024 40859 (home), or 0245 67222 ext 2817 (office).

OCTOBER 1983 83/10

FFn

FREE FLIGHT NEWS

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A subscription renewal form is included with this issue

7 Ashley Road, Farnborough, Hants, England GU14 7EZ

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

The two plans which we feature this month are both open models which have achieved good performances - one winning the British nationals outdoors and the other setting a world beating time indoors. Another common feature is that both plans were prepared by the respective designers and our thanks are due to both Bernard and Mike.

OPEN CLASS MICROFILM by Bernard Aslett

The ultimate has long held a strong fascination in sporting competition, not least in indoor aeromodelling. NFFS Symposium Reports have given various accounts of individual approaches and performances (latest ref. Bennett 1982). However, Richmond's article (NFFS 1980) describing his own approach was of particular interest to me. Personal ideas conceived over the winter of '81-'82 had to be shelved due to the Slanic W/C, but one year later this design was able to be ready for the 1983 season.

The Cardington record has stood at 45.40 since September 22 1962, set by K H Rieke using an elegant 90cm F1D model. Since that time, with current F1D rules applying, Green, Aslett and Barr have unofficially exceeded this time (officially, Pymm and then Barr have recorded 40.40 and 41.11 respectively and Hunt has a figure of 43.24 pending).

During '82 Bailey had been flying an open model that had liberally made use of carbon fibre. Wing loading being thought of as a first (but not sole) importance, had directed my approach to conventional construction. Careful wood selection prevented the model being unreasonably fragile, and the light weight achieved has appeared to support this philosophy.

Early trimming experience quickly demonstrated that unless VERY warm conditions could be encountered the design propeller (27"x50") was unacceptably large. An old F1D 24"x50" negative flare "back-up" gave immediate improvement - 37.35 and an average rpm of 35.7. Further experiment with another F1D prop, 22"x40" positive flare, gave another increase to 40+ flight time and average rpm 34.3. This last propeller caused a weight reduction of 0.033g.

Earlier in the year several visits to Cardington without the box being opened due to poor weather had occurred. Sunday July 10th held more promise. Initially overcast cool and misty, it was calm outside. Ambient temperature reached a maximum of 76 F / 24.5 C at 15.00, humidity was high, and drift existed but was very gentle.

Launching with an initial 40 rpm, the model climbed steadily to approximately 135 ft, reducing to 35 rpm after 15 minutes. One steer was necessary to avoid an EZB, later on two other "Bees" were kindly redirected by their owners. The latter part of the descent was achieved with an rpm of 30. Turns remaining were 285, indicating an average of 34.3 rpm. Twenty four hours later the motor measured 19.6" with no nicks present, but calculations indicate it was not fully wound. Further post flight conclusions suggest that with slight motor and launch torque alterations sixty minutes would be possible - the aim for which the model was designed.

Although this achievement of 52.22 probably represents only the third fifty minute flight ever, and the first in Europe, it did not exceed Richmond's existing open world record of 52.14 by the necessary 2% margin. Application is pending for a British national record.

MORLEY SILENT MEETING

The Morley Silent Meeting was held at Heat Common, Wakefield on July 10th under ideal conditions with minimal drift and what seemed like more thermals than downdraughts ! The weather encouraged lazing about on the quite picturesque heathland, with a pub on each of the three corners and a power station directly downwind at about 5 or 6 minutes duration, the site being no use for any form of competition in wind speeds above 8 to 10 mph.

Entries were very good considering the "low key" nature of the event. There were no single large prizes given - the modelling goodies being distributed between the top half of the entry. Most flyers enjoyed the day, even two distant travellers from Coventry thought the journey worthwhile.

All events except HLG were run to three flights. Conditions for the fly-offs were very similar to those throughout the day, with only J O'D's winning A1 flying away into the murk without any chance of being found the same day (the way the model was found the next day some 10 miles away is another story !). John Godden

Combined A1 + CdH 24 entries

1	J O'Donnell	A1	6.00+8.42
2	A Abrahams	CdH	+5.35
3	G Beal	A1	+2.55

Vintage Duration 14 entries

1	S Wingate	6.00+4.34
2	R Brownson	+3.35
3	G Ferer	+2.24

P30 10 entries

1	J Godden	6.00
2	J O'Donnell	5.31

CO2 4 entries

1	S Fielding	6.00+4.12

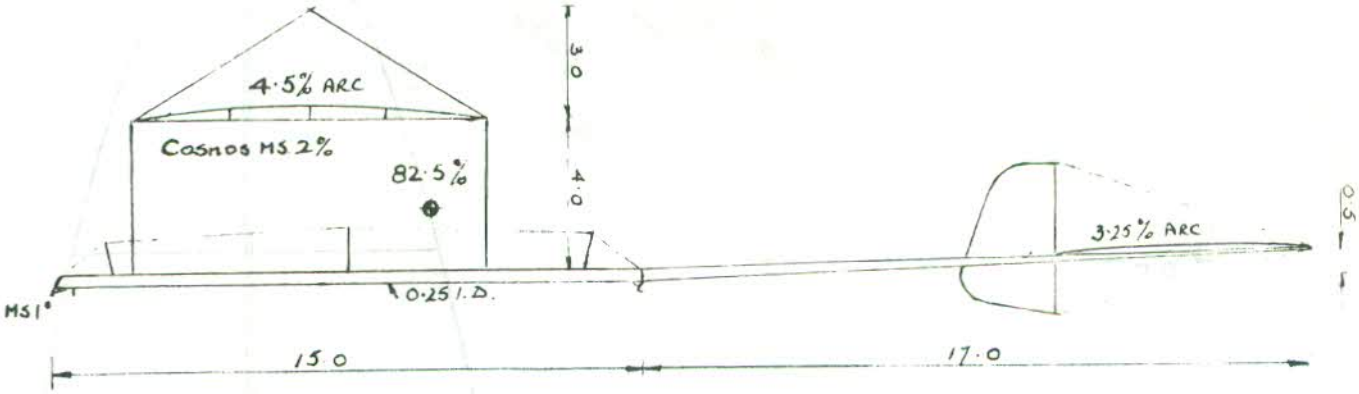
Wigan 70 4 entries

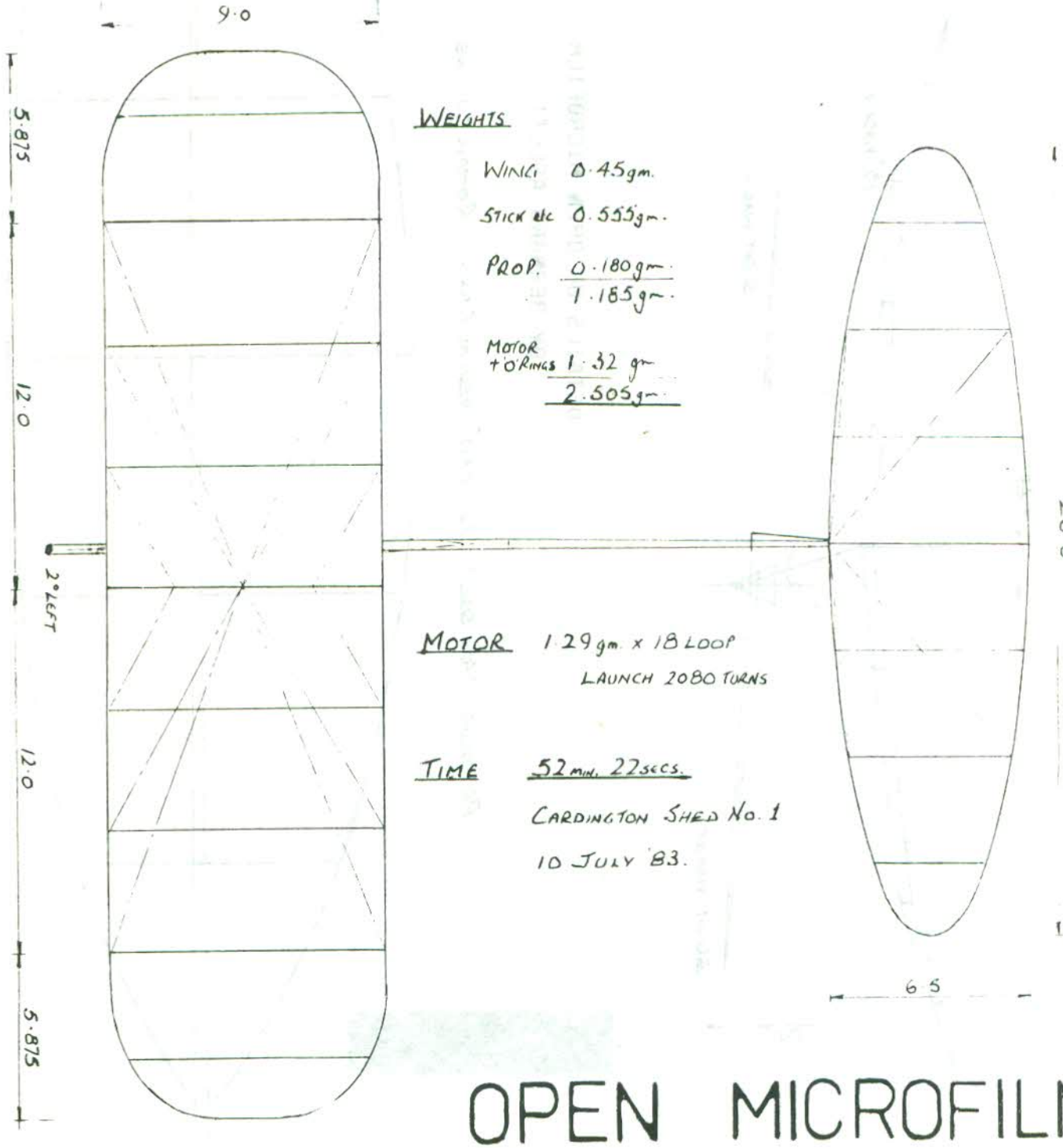
1	I Davitt	4.30+2.07

HLG 2 entries

1	G Beal	4.06

SCALE 1:5 DIMENSIONS INCHES/CMS.





WEIGHTS

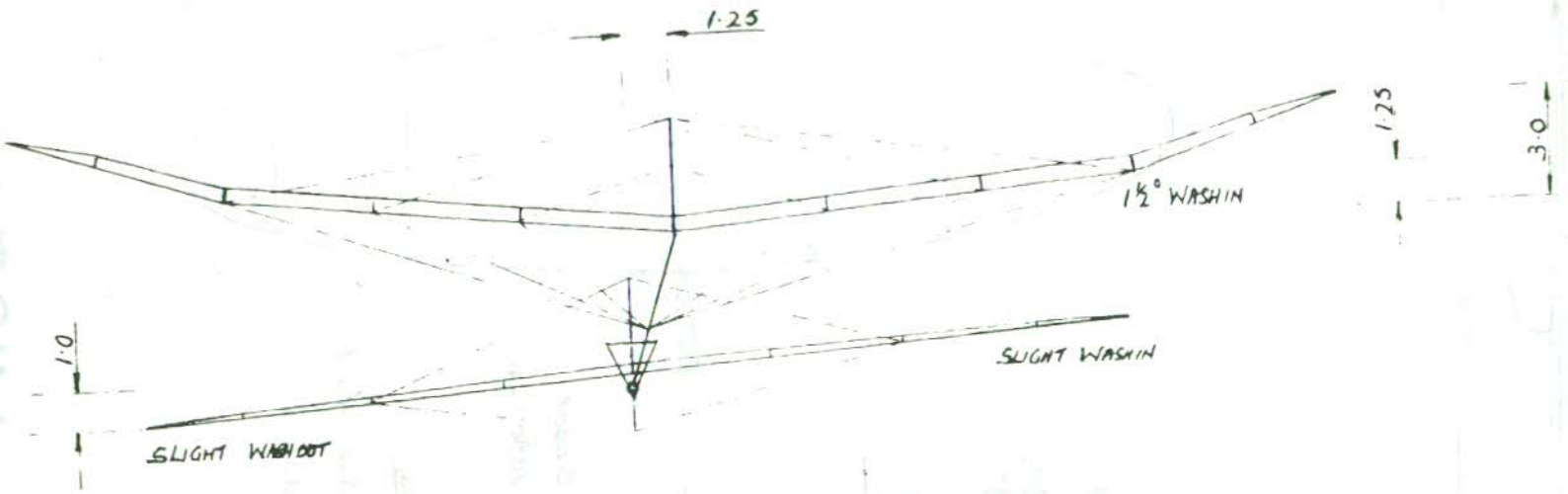
WING	0·45gm.
STICK etc	0·555gm.
PROP.	0·180gm.
	1·185gm.
MOTOR + O'RINGS	1·32 gm
	2·505gm.

MOTOR 1·29gm. x 18 LOOP
LAUNCH 2080 TURNS

TIME 52 MIN. 22 SECS.
CARDINGTON SHED No. 1
10 JULY '83.

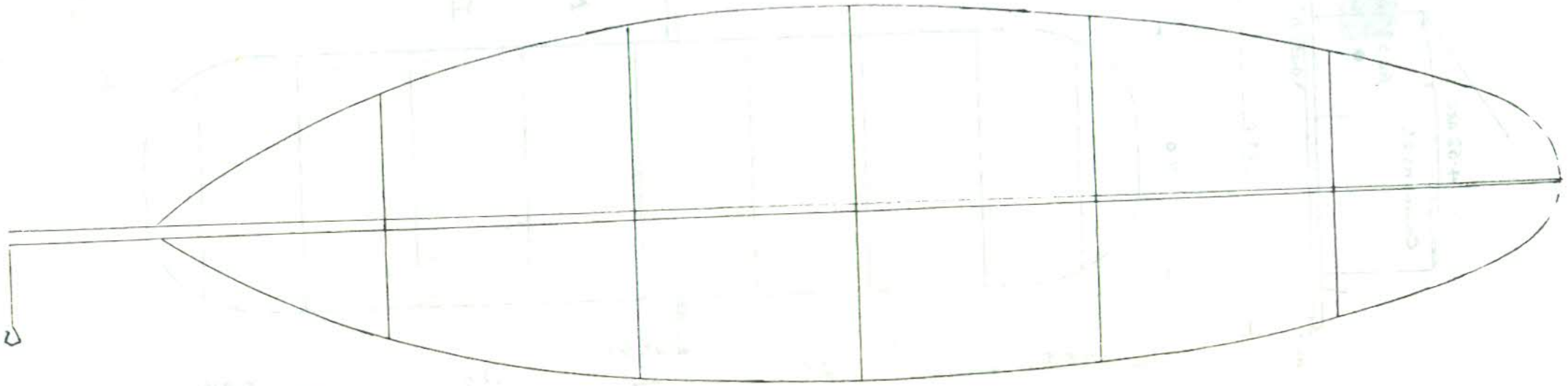
OPEN MICROFILM

by BERNARD ASLETT.



DETAILS OF OPEN MICROFILM
BY BERNARD ASLETT

PROPELLOR (FULL SIZE) 22" x 40" HELICAL PITCH - ROMAK OUTLINE



OPEN RUBBER by Mike Howick

This model was born of a desire to join the 'large' model fraternity, although it is not really big now by some standards, being approximately 510 sq ins total area. My main criteria was not to build a fragile, difficult to handle model, hence the rubber sprung rear end and wing panels which give if the model should DT on rough terrain or be blown over after landing. A by-product of the above is that the whole model 'knocks down' to a relatively small package. The motor section of the fuselage is built separate to the rear end, which both makes wood selection much easier and also in the event of a longeron collapsing or a model winding in you are not left with a tattered unusable rear end (I have several of these in my workshop).

The sweepback on the wing was initially decided upon in an effort to produce a better ratio between the moment arm and nose moment and to use less dihedral, but on the latter I baulked a bit on the mock up and used more than intended as it did not 'look right'. The object of the above is hopefully to produce a better glide. The sweepback also gives the model a remarkable resistance to stalling on either power or glide, as it has to be pushed well beyond a very acceptable glide attitude before it goes into a very mushy stall. This is probably just as well as the wing is braced for normal flight loads only - the fine braided wire brace is simply hooked from one side to the other, with no centre guide. Accidental benefits of the swept wing is that the model is instantly recognisable in the air and shows more of itself in side elevations, hence it can be seen longer when being timed.

Two models have so far been built - the first completed its trimming out whilst flying in last year's Gamage Cup and won the fly-off with 11.16, but unfortunately lost. The second was built fairly soon after, but put to one side whilst busy with Wakefields and then bought out and trimmed just before this year's Nationals and was fortunate enough to win Open Rubber at that event with a fly-off time of 8.35.

ARGENTINE NATIONALS AND TEAM SELECTIONS by Alan Carter

The 37th Argentine Nationals were held at La Cruz in the province of Cordoba over the Easter 1983 weekend. La Cruz was the site for the 1982 Pan American / South American Championships, was potentially the site for the 1983 World Champs, and could be the site for future Champs if they are ever held in Argentina (which they want to). It is located in a very wide valley at an altitude of 600m. The terrain surrounding the field is a huge almost flat area of mostly short grass, somewhat similar to Wiener Neustadt except for a large artificial lake to the north. The field is within view of a 600 megawatt Canadian nuclear power station which, because of my work there, has enabled me to fly in this and two other Nationals.

The FF events flown were FAI, 10g rubber, A1, ½A power, and glider events for juniors. The FAI events were flown as two seperate contests per class, i.e. 7 flights for the nationals with the times counting towards team selection and 7 flights specifically for team selection. The 14 flight total was used as team selection for the 1984 Pan American champs in Santiago, Chile. For the World Champs Argentina uses a two year selection process of 28 flights; the scores from this year will be carried over to next year, so that fliers have to work and plan over two years. The team for Australia was selected last year (see FFn 8301) but may not be able to attend (for economic reasons).

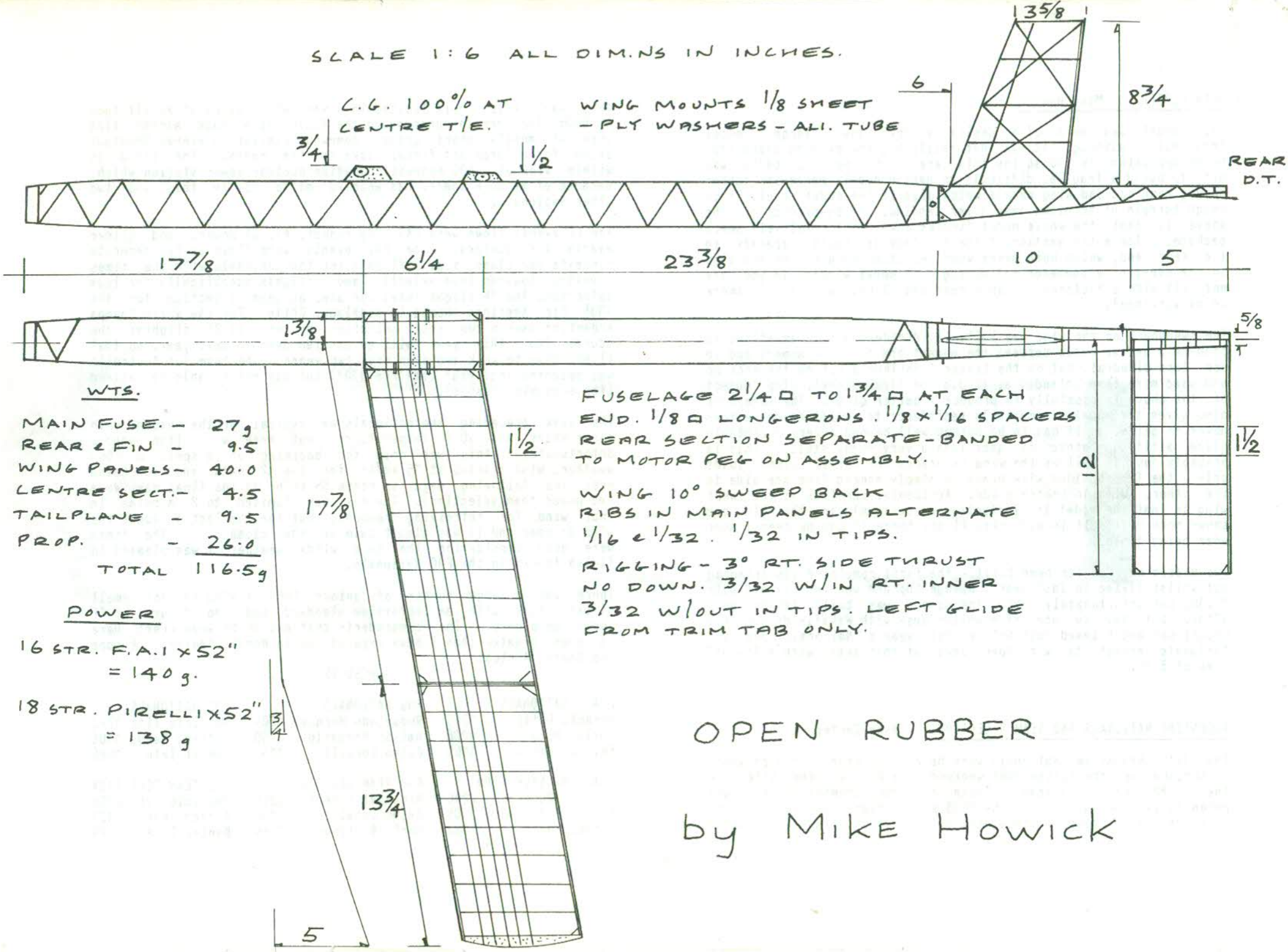
The week preceding the nationals was typical for the autumn, with clear skies and 70 F temperatures, but more wind than usual. Unfortunately, this was only the begining of a spell of bad weather. Wind started at 15 km/hr for the A2 nats and increased over the following days to reach 35 km/hr on the final day (Wake and power team selection). The max was limited to 2 minutes in that wind for retreiving reasons, but for the last 3 rounds the wind dropped and it was almost calm at the close ! The times were good considering the cold windy weather, I was pleased to finish fourth in the F1C Nationals.

There was a large number of juniors (40) flying in the small glider class with an impressive standard and the future of FF looks good here. The comaraderie that exists between FFers here is even greater than I have experienced in North America, Europe and South Africa.

RESULTS

F1A NATIONALS		F1B NATIONALS		F1C NATIONALS	
Horacio Dotti	1245	Rudesindo Marquez	1204	Mauricio Zito	1260
Carlos Minoli	1206	Helvio Propatto	1180	Alfredo Banos	1106
Emilio Romero	1165	Delmo Donelli	1141	Daniel Iele	1086
F1A TEAM SELECTION		**F1B TEAM SELECTION**		**F1C TEAM SELECTION**	
Ernesto Dondero	2296	Arcangel Armesto	2259	Mauricio Zito	2308
Rodolpho Andreoli	2105	Delmo Donelli	2132	Alfredo Banos	2121
Horacio Dotti	2082	Mario Blitzman	2044	Daniel Iele	1999

SCALE 1:6 ALL DIM.NS IN INCHES.



WTS.

MAIN FUSE. –	27g
REAR & FIN –	9.5
WING PANELS –	40.0
CENTRE SECT. –	4.5
TAILPLANE –	9.5
PROP. –	26.0
TOTAL	116.5g

POWER

16 STR. F.A.1 x 52"
= 140 g.

18 STR. PIRELLI x 52"
= 138 g

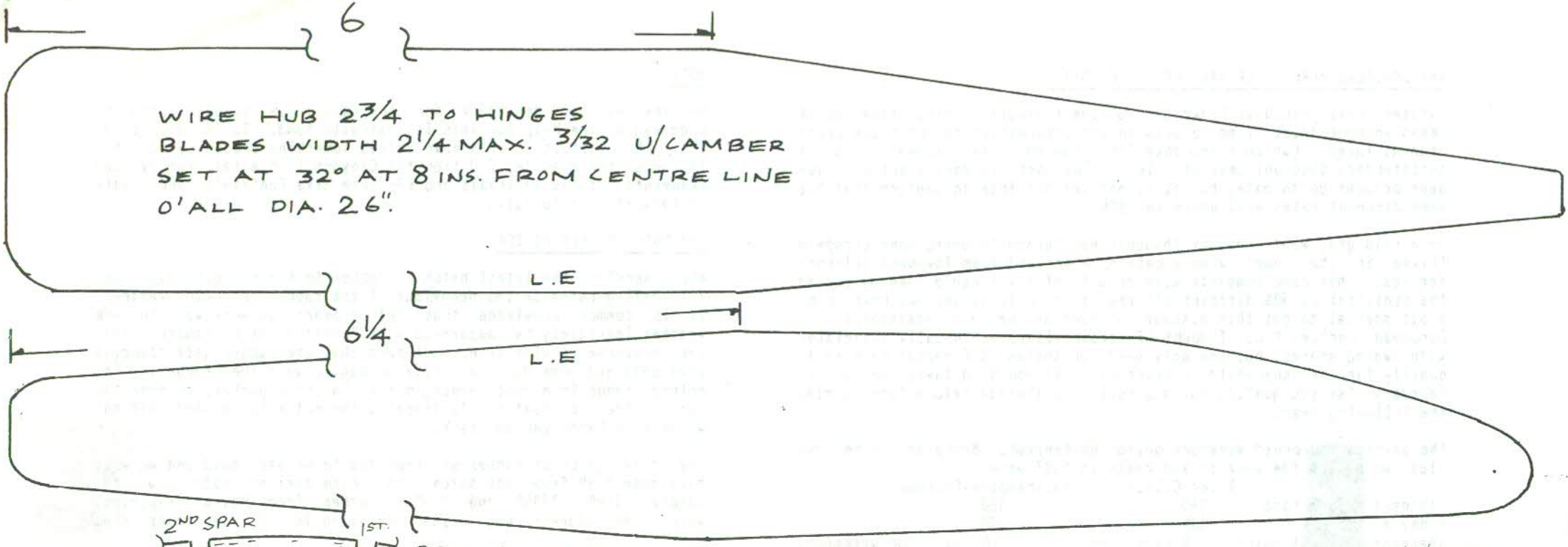
FUSELAGE 2 1/4 □ TO 1 3/4 □ AT EACH END. 1/8 □ LONGERONS. 1/8 x 1/16 SPACERS REAR SECTION SEPARATE - BANDED TO MOTOR PEG ON ASSEMBLY.

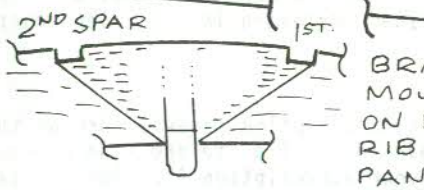
WING 10° SWEEP BACK
RIBS IN MAIN PANELS ALTERNATE 1/16 & 1/32. 1/32 IN TIPS.

RIGGING - 3° RT. SIDE THRUST NO DOWN. 3/32 W/IN RT. INNER 3/32 W/OUT IN TIPS. LEFT GLIDE FROM TRIM TAB ONLY.

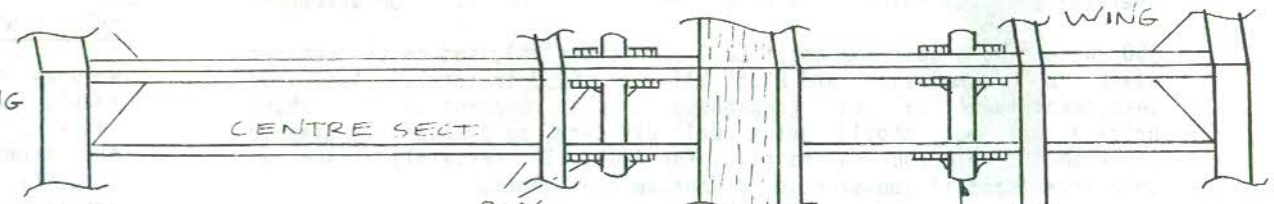
OPEN RUBBER

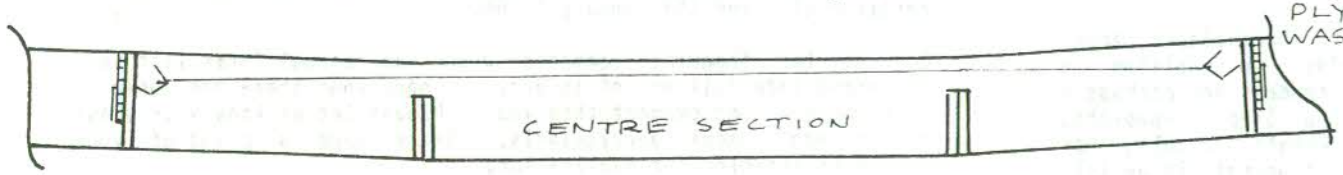
by Mike Howick

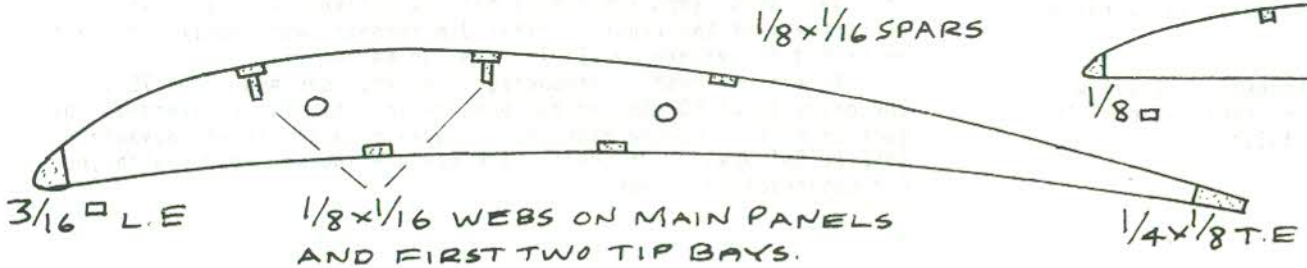


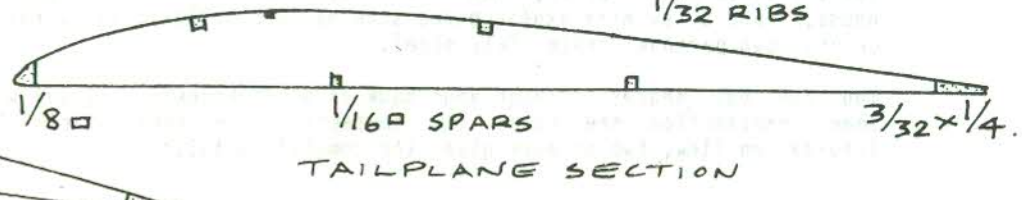


BRACING WIRE MOUNTING POINT ON 10th OUTER RIB ON MAIN WING PANELS.









FULL SIZE DETAIL.

SHAREHOLDERS PERKS - OR HALF PRICE TO POITOU

Earlier this year Dave Brawn sent us the following contribution and it seems an appropriate time to pass on the information on cut price cross channel fares (which I now take for granted after seven years of satisfactory discount benefit - IK). The costs in Dave's article have been brought up to date, but it is not yet possible to confirm that the same discount rates will apply in 1984.

On a cold grey winter day my thoughts had turned to doing some European flying in the summer when a catalogue arrived from Townsend Thoresen ferries. This came complete with details of how I could take my car to the continent at 50% discount off the normal prices. Now you have to be a bit special to get this discount - such as being a shareholder in European Ferries PLC. I doubt if aeromodellers are usually associated with owning shares, but you only need 300 shares in European Ferries to qualify for the shareholders discount. If you hold these shares on February 1st you qualify for discount on unlimited return fares during the following year.

The savings you could make are quite substantial. Based on a 4.5m car plus two adults the peak period costs in 1983 were :

	Dover-Calais	Southampton-Cherbourg
Standard return fare	140	180
5-day mini break	106	136
Shareholders full return	70 (any time)	108 (excl Aug weekends)

300 shares would cost you about £230 (September 83), add on £4 transfer stamp, £10 commission and £1.50 VAT - say £250 in total. Also your investment won't be lost (depending on what happens to the share prices) and you should get a small dividend, so perhaps its time to think about buy?g your shares ready for 1984. It certainly looks a good investment if you plan to go "sur le continent".

It is not only European Ferries who offer perks to shareholders, about 90 companies offer some sort of perk to shareholders in addition to dividends. Some of the most relevant to FFn readers are perhaps : 10 to 20% off clothes at shops such as Burtons, Top Shop, Hepworths, etc; Discounts at hotels/motels/restaurants (beats camping or sleeping in the car); £100 off BL cars (on top of normal discounts); 10% off tyres and exhausts; 10% off holidays; £500 off a Barratt house, and a few more exotic perks such as FREE holidays in Gibraltar or your own personal train (full size).

You can buy shares through your bank or a stockbroker. If you want some explanation see me at the contests - one pint starts the information flow, two or more gives the complete details.

HOTTA

On the eve of departure for Australia, we should record the progress of the Help Our Team To Australia fund. It is understood that the various efforts have raised something around £500. This includes, for example, £50 from the Croydon jumble sale run by the Beaumonts at the Nationals and £75 from Mike Fantham's jumble sale at Tadworth during July.

FAI MODEL SUPPLY RUBBER

When sending the latest batch of rubber to FFn Ed Dolby gave some interesting notes on the behaviour of the rubber in cold weather. It is common knowledge that FAI appears to work well in warm weather (certainly by comparison with Pirelli) but Ed remarks that the converse is also true. He says that the rubber gets sluggish when cold and some US fliers take action to warm the rubber. The methods range from just keeping motors in their pocket, or near the car engine or heater, to dropping the motor (in a bag) into hot water in a large vacuum flask.

The July batch of rubber was reported to be very good and we will have some 1/8" from that batch soon. From earlier batches we can supply 1/8", 3/16" and 1/4". Order from David Stapleton, with the address and prices detailed in the September FFn.

FREE FLIGHT NEWS

We draw your attention to the subscription renewal form on the next sheet. We hope that you have found FFn interesting / useful / enjoyable and will renew your subscription for 1984. Please do this promptly - partly to save forgeting to do so, but also to simplify our processes and facilitate supplying your issues continuously from the January issue.

One of the frequent comments with the renewal forms last year concerned late delivery of issues. I hope that there has been a satisfactory improvement this year. Please let us know your views on FFn and, most particularly, please send us plans of your models or articles for publication.

The 1983 NFFS Symposium Report has now arrived in stock. The list of contents of the report (editor Jim Bennett) was published last month and copies are available from Ian Kaynes at :

7 Ashley Road, Farnborough, Hants. England GU14 7EZ.

The price is £8.50 including postage in the UK or overseas by surface mail. Please make your cheques or money orders payable to FREE FLIGHT NEWS. Of course, you may combine your order with your FFn subscription renewal.

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The cost of a 1984 subscription for 12 issues is as follows :

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£6.50	US $14	£11.00	US $25

There is a £1.00 surcharge for paying by a £ cheque drawn on a bank outside UK (eg under Eurocheque). Payment may be made by cheque or postal order payable to FREE FLIGHT NEWS or by direct payment to the FREE FLIGHT NEWS Giro account number 25 365 4009. If you pay by Giro transfer and include full details of your name, address and subscription requirements on the counterfoil then there is no need to send a subscription form as well. If you wish to minimise the number of transactions you may pay for more than one year, as a straight multiple of the single year costs.

FFn back numbers are available at the cost of 40p each or £1 for a complete set for any one year - the years available at this price of £1 each are 1982, 1981, 1980, 1979 (11 issues), 1978, 1974-1977 (12 issues in total from these years). 1983 back numbers are available at 50p each or £5 for the full year.

All readers' subscriptions expire after the December 1983 except for those listed below, with date denoted as year + month (eg 8406 represents June 1984).

J H Abad	8412	R Hawkins	8408	I Oxager	8403
B Aslett	8412	A Hotard	8408	G Percival	8403
J Bennett	8412	S Hayashi	8404	P Pailhe	8412
P Barber	8412a	G Honda	8406a	P Quarnstrom	8504
D Brawn	8402	A Howard	8410	E Radoff	8404
E Buchar	8406a	A Italiano	8412	D Rowsell	8404
M Benns	8404	R Isaacson	8412	C Royce	8403
C Banks	8403a	I Ben Itzhak	8408	D Roche *	8311
R Bosch *	8310	S Ito	8512a	B Rene	8412
R Bratton	8412	K Kraemer	8402a	G Stranieri *	8310
B Barberis	8512	T Lawrie	8408	D Siebenmann *	8310
W Booker	8404	F Morrison	8404a	D Sutcliffe	8401
S Colson	8406	G Matherat	8410	O Sandahl	8412
S Chilton	8402a	G Marini	8404	K Salzer	8412
A Cowan *	8311	G Martin	8404	F Schlachta	8412a
A Clark	8406	A Maud	8405	T Smith	8412
L Doring	8502	P Michel	8412	C Stout	8404a
J Fletcher	8412a	I McDonald	8412	R Santiago	8912
W Frohlich	8412	Y Mikami	8404a	J Somers	8412
P Fauser	8404	M Marilier	8412	D Simons	8412a
M Green	8404	T Marilier	8412	C Schueler	8412
D Goodwin	8412	G Nilsson	8404	R Staines	8412
W Ghic	8412	G Nocque	8502	C Strachan	8404
A Gartshore	8406	P Nash	8412	L Thorpe	8404
J Luian Garcia	8412	W Nutini	8404a	D Thomas	8403a
G Goodwin	8412a	F Nielsen	8412	C Vizquerra	8402

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Please add your comments overleaf on FFn features which you have liked or disliked or would like to see during 1984, or make offers of contributions of plans or articles to FFn, etc.