Diary

3rd,4th April Barkston Heath	SMAE. Sunday - F1A, F1B, F1C (5 rounds). Monday - O/R,O/G,O/P. Contact D Hipperson : 35 Anthony Rd, Boreham Wood, Herts or tel 01 207 0179.
17th April Odiham	SMAE SE Area Spring Gala. F1A,F1B,F1C, HLG,A1,CO2. Start 10.00. No pre-entry. SMAE membership card required. Contact N Couling, tel (0323) 53116.
17th April Church Fenton	Northern Area Vintage / Pannett / Kay meeting. O/P, O/G, Vintage Duration Trophy. SMAE members only. Contact J Godden, tel (0532) 521002.
30th April/1 May Barkston Heath	SMAE First Trials for 1984 European Championships. F1A,F1B,F1C. Contact D Hipperson, tel 01 207 0179.
8th May Area venues	SMAE 3rd Area Centralised event. F1B (Weston), O/P (White), O/G.
14-15th May Woodbury Common Devon	Bristol and West Golden Jubilee. 14th (19.00 to 21.00h) : Champagne fly-offs O/R, O/G, O/P. 15th 10.00 O/R,O/G,O/P, vintage (S.Bristol rules), All-in FAI (5 rounds, £30 prize for first F1B). Contact for details of contest E Drew, tel (0454) 415092 and for details of local B & B accomodation or for tent and touring caravan bookings at the nearby Castle Brake Caravan Park contact Alan Parker, tel Woodbury 32431. NB - all fixed caravan accomodation on the site is now fully booked.
15th May Cardington	SMAE Indoor. EZB Novice/expert pairs. Contact L Barr, tel 0628 25595.
15th May Albermarle barracks, W of Newcastle	Tynemouth Rally. F1A (5 flights, no rounds), O/R, O/P, Combined mini, Vintage rubber, HLG. Start 10.00 for silent classes, 11.00 for power. Contact A Brown, tel (0632) 362155.
20-22nd May Genk, Belgium	3rd International Indoor Contest. F1D,EZB,Peanut, Pennyplane. Details from FFn or contact J Melis, Kampstraat 25, 3600 Genk, Belgium.
22nd May Port Meadow Wolvercote Oxford	Oxford FF rally. A1, CdH, HLG, vintage rubber (pre 51, ROG weather permitting). No power models.Start at 10.00, 90 minute rounds except HLG. Contact A Crisp, tel Oxford 53800.
28-30th May Barkston Heath	SMAE Free Flight Nationals. Contact D Hipperson tel 01 207 0179.

MARCH 1983 83/03

FFn

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.

F1C DESIGNS by Ken Faux

The models shown in the drawing were built all at once early in 1980. I had qualified for a place on the team for the European Championships to be held at Mostar that year, therefore I wanted models that used existing ideas that I knew would work straight away without having to iron out bugs due to design re-thinks. Model A was intended to be a calm weather high performance model, very similar to my 1976 design published in FFn during 1979, the only major change being the use of the MVA 101 flat-bottom airfoil. Models B and C were built as all-weather models mainly aiming at getting me back into a World Championships team. Model B used the MVA 101 flat-bottom airfoil and model C used the Benedek 8353b/2.

All three models were of similar construction, model A being kept as light as possible in the extremities due to it being unlikely to get the battering in wind expected for models B and C. Much use of carbon fibre and Kevlar is featured in the fuselage front end casting. The tailbooms are 80 gm/sq m Kevlar inside 1.5mm balsa and 30 gm/sq m glass on the outside for model A. The other two got an extra 0.75mm layer of balsa. Other construction is conventional.

These models have served me particularly well over the last three seasons, especially B and C. They have had so much flying that they are really in their last years now. Model A has not flown very much at all and remains in very good condition even though it did its best to sink Spain by making a crater in Burgos. Must try a warhead next time ! This model is performance-wise the best I have ever had. Over the last three years most of my time has been spent on engines and propellers. Model A has been powered by Mk 2 Rossi, Mk 3 Rossi, and Nelson engines. At present it uses my old Mk 2 Rossi that dates back to Bulgaria days, though re-cylindered. Model B is fitted with a Nelson, much reworked and very good, but worth $170 ? Model C has always used old type Rossis, a good one is still as good as any I think.

Much work has gone into folding props. Original efforts were based on the Russian prop but the power is down compared to fixed props. Glide shows an improvement. It is hoped that this year we will crack the problem and get the power to the same levels as with fixed props.

As for the forthcoming World Championships, I am sorry to say that I seem to be giving a great deal more thought to how to get the money together to get there than to the details of model design. I am finishing two new models for the event now. One is a stretched version of model A . The other is the same as my 1979 design published in FFn 7904. Bettering fifth place from last time could be a big problem but it will be real fun trying. Regardless of the organisation problems in Spain the contest was of a very high standard. I hope that this year will be the same.

COORDINATES OF THE AEROFOIL SECTION MVA 301

% chord	0	1.25	2.5	5	7.5	10	15	20	30	40
Upper	0.7	2.2	3.0	4.2	5.0	5.7	6.65	7.3	7.9	7.55
Lower	0.7	0	0	0	0	0	0	0	0	0

% chord	50	60	70	80	90	95	100
Upper	6.75	5.7	4.45	3.1	1.6	0.8	0
Lower	0	0	0	0	0	0	0

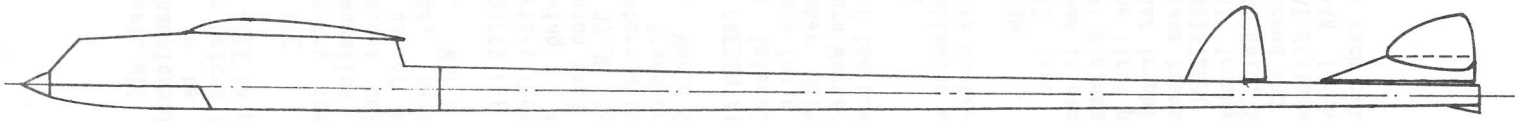
WORLD CHAMPIONSHIPS NEWS

We have received Bulletin No.1 from the organisers of the 1983 World Champs at Goulburn, NSW, Australia, covering information available up to January 31st. We give some extracts from the Bulletin here; further details are available from the Organizing Committee, for the attention of Allen Edwards at 50 Brown Street, St Peters, NSW, Australia 2044.

ACCOMMODATION

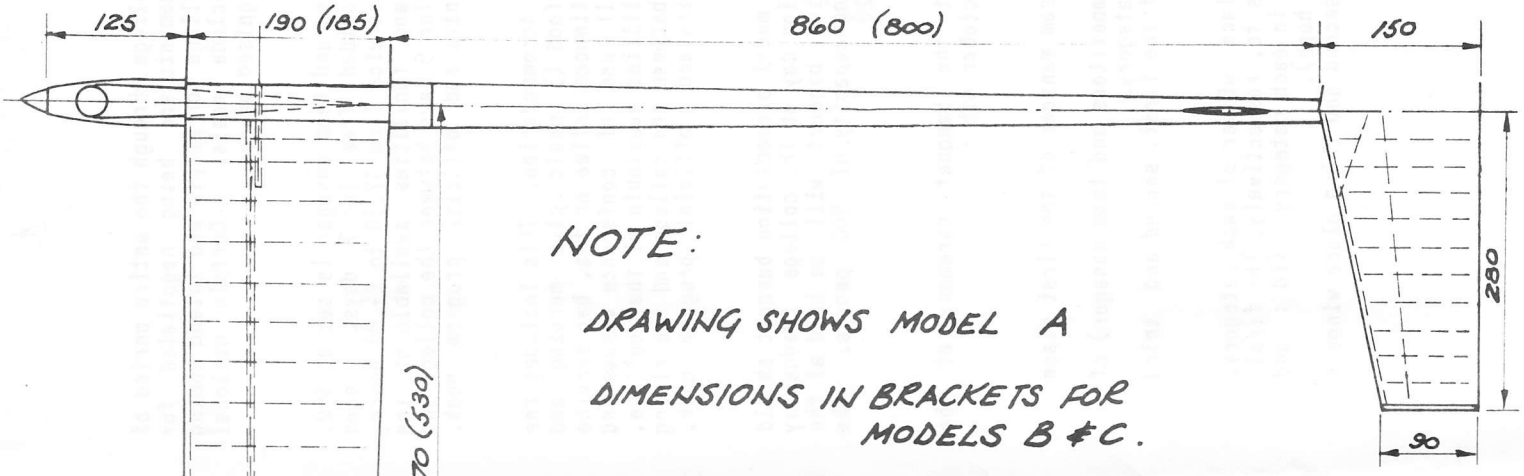
The general lodging of team members, team manager and supporters will be at the Goulburn College of Advanced Education with a room capacity of 288 units; any overflow of supporters will be accommodated at motels close to the college. Each room at the college is for one person, however each is large enough for two persons if so desired. If two people wish to stay in one room, please advise when sending your entry form. The cost of accommodation is as follows :

1. Team members and manager staying at the college from September 28th to October 5th will be accommodated free.
2. Single supporters staying at the college from September 28th to October 5th will be accommodated for US $280.
3. Married couples staying at the college, in the same room, from September 28th to October 5th will be accommodated for US $430.
4. Any person wishing to stay at the college prior to the Championships will be accommodated for US $35 per day
5. Any person wishing to stay at the college after the Championships will be accommodated for US $30 per day



MODELS A & B USE M.V.A 101 FLAT BOTTOM WING AIRFOIL

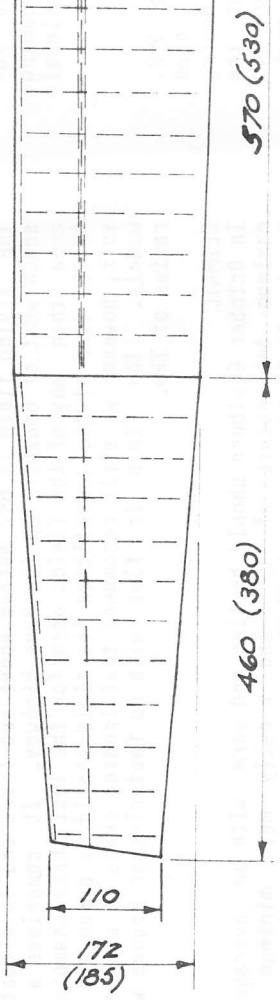
MODEL C USES B8353 b/2



NOTE:

DRAWING SHOWS MODEL A

DIMENSIONS IN BRACKETS FOR MODELS B & C.



MAJOR CONTEST RECORD.

			MODEL USED
1980	PIERRE TREBOD	5th 1260+139	A
	MOSTAR E.C.	6th 1260+240+300+360+276	A
	TEAM TRIALS	1st 3539	B & C
1981	COUPE D'AMSTERDAM	1st 1254	B
	WORLD CHAMPS	5th 1260+240+	B
	POITOU	4th 1212	
1982	SEZIMOVO USTI	1st 1260+240	C
	POITOU	1st 1260+240+300	C & B
	TEAM TRIALS	3rd 2520+ O.R.	A

F.I.C. DESIGNS BY KEN FAUX.

All meals will be served at the college through the entire period of the Championships. Special arrangements are being negotiated for meals to be served at the college for people who intend coming early; prices at 4 and 5 above include meals. Certain national foods will be prepared in the recognised manner.

ENTRY FEE
The entry fee for the team members and team manager is set at $50. Accommodation and meals are provided free for 7 days, plus continuous coffe or tea, bar service from 17.30 to 24.00 hours, full use of conference venues and facilities available at the college, daily transportation for 5 days between the college and field, World Championships souvenirs and official program book.

SUPPORTERS FEE
Supporters fees are as shown under Accommodation. This includes the following : full lodging and food (3 meals plus morning and afternoon tea) for 7 days plus continuous coffee or tea, bar service from 17.30 to 24.00 hours, full use of conference venues and projectors with all recreation facilities available at the college, daily transportation for 5 days between the college and the flying field, World Championships souvenirs and official program book.

MEDAL PRESENTATION BANQUET
People intending to go to the medal presentation banquet should purchase their ticket on Registration day at the college (Wednesday September 28th). The presentation banquet will be held at the Goulburn Workers Club with a seating capacity of 500 people. The cost of the banquet ticket is $A 20.

AWARDS
The following will be presented at the banquet ceremony, at the Goulburn Workers Club on Tuesday October 4th :

TEAM
1. FAI Team trophies to the team manager of the first place team in each category.
2. FAI Diploma to each member (competitors and team manager) of the first place team in each category.
3. MAAA Trophies to each member of the first, second and third place teams in each category.

INDIVIDUAL
1. FAI Trophy to the first place winner of each category.
2. FAI Gold, Silver, Bronze medals to, respectively, the first, second and third place winners in each category (Ed : and FAI diploma to these winners I hope).
3. MAAA Trophies to the first, second and third place winners in each category.

FLYING FIELD
The flying field is 647 metres above sea level and is situated 17km south west of Goulburn on the Hume highway. It comprises a larger area than any of the fields used for the last three Championships. At the time of the competition the field should be green and fairly soft, however we still recommend that landing skids be used on power models. The field is flat with no factories or houses within a radius of 7km.

CLIMATE
In October Goulburn should be fine and warm with an average daily maximum temperature of 19 C and a daily mean minimum of 5 C. Sunrise is 05.38 and sunset 18.04, but with no long twilight period. Generally, records show that winds are calm to light (less than 10km per hr) and from the north and west direction in the morning, building a little during the day and swinging more westerly. The average humidity at 09.00 is 70% and average number of days with 0.1mm or more of rainfall is 10 per month for September and October. Inland mists and fogs are recorded as averaging one day a month at this time of year. The nights may get cool and frost may sometimes occur during the night; however, this is a good sign for the next day. From the above, deduce that both warm and cool clothing could be needed.

AIR FARES
At the time of FFn going to press, the organising committee had not yet been able to establish any special deals for group travel from Europe. Final information on this will be available shortly.

ENTRIES
By mid-February preliminary entries for full teams had been received from France, Canada, China, USA and New Zealand (and also plus Australia presumably).

FURTHER DETAILS OF GOULBURN

The following additional information about the 83 Champs site is extracted from a description by Paul Lagan.

The flying site is known as the TSR field - I can't recall what the initials stand for, but they are jokingly known as Tiger Snake Reserve by some modellers. Rest assured that there are few snakes in this area and that the time of year selected is certainly not snake season anyway ! The field is actually a set of paddocks used to hold stock awaiting rail transport to their final destinations (IK : TSR stands for Travelling Stock Route). It is fenced into paddocks which are about 800m square and the surface for at least

5km in all directions is close grazed sheep pasture. This year, following drought, there is very little grass cover and it is quite dusty. In normal years at this it is green, short and pleasant to run over. The surface undulates a little and there are some small water dams and trees, but these are sparsely located. Fences are multi-strand wire which are easily climbed, making retrieving on foot quite easy. For the contest, there will probably be gates opened but I am not sure if retreiving by vehicles will be allowed. It is unlikely that any sort of model retreiving service will be available. There will be toilet and refreshment facilities on the field for the Champs, but probably not operating before Sept 29th.

Weather. The typical pattern is a series of anticyclones travelling west to east with their centres at approximately the lattitude of Goulburn. These are interspersed with cold fronts. The fronts can carry rain but usually move through quite fast and would be unlikely to last more than one day. The most unpleasant weather for flying occurs when the fronts come through - the wind could reach the 9 m/sec limit at these times and the air temperature could be down to 14 C at the middle of the day. After the front, a day or maybe two of dying southerly winds and then another day or two of light variable winds could grace the event and in this period ideal flying conditions can occur - cool calm mornings, dew on the grass until after 9am followed by warm days (up to 25 C), light winds with thermal patterns obvious until around 5pm after which it can become very still until dark. On the 'perfect day' possible at this time of year it is quite likely that the first round of the contest and definitely the last fly-off round could be flown in very still air.

UK PARTICIPATION IN THE CHAMPS

The SMAE FF Technical Committee has selected Martin Dilly as UK team manager, from four applicants. He is also to undertake the daunting task of coordinating the team travel plans. Any potential supporters to join the party from UK should contact Martin immediately at 20 Links Road, West Wickham, Kent. It may be too late to join the party travel booking, since it was hoped to make bookings by the end of March to achieve lower fares. The latest and cheapest airfare so far found is £620 return by UTA, but this has a hefty charge for excess baggage.

Three potential members of the team have not been able to confirm that they would be able to meet the financial burden of travel costs; in order to give reserves the maximum time to prepare, a deadline of March 31st was set for full team acceptance. The Tech Committee sympathised with the people placed in this awkward situation, but the entire FF team travel fund stands at £860.

SMAE NEWS

Martin Dilly, PRO of the SMAE Free Flight Technical Committee sent us the following information. Julian Hopper has resigned from the 1983 Committee and membership is now Dave Hipperson (Chairman), Tony Cordes, Martin Dilly, Trevor Faulkner, Ken Faux and Mike Woodhouse. All Tech Committee correspondence should be sent to the Chairman.

SMAE CONTEST RESULTS : Dave Hipperson will collate and distribute the SMAE Area Centralised event results. If you wish to receive these results, send 6 stamped and addressed envelopes to Dave at :
35 Anthony Road, Boreham Wood, Herts.
Dave will also collate a master set of results for all SMAE FF Centralised events and Junior and Senior Championships points.

SENIOR CHAMPIONSHIPS : The winner will be the person gaining top points in all SMAE FF events as published in the contest programme in Model Flyer. 3 points will be awarded for a first place, 2 for a second and 1 for a third. As in 1982, if only two people fly in an event only two points will be awarded to its winner.

JUNIOR CHAMPIONSHIP TROPHY : This will be awarded on the basis of all FF events at the Nationals, apart from Junior Kit and Scramble events. The top junior placer in an event will receive 3 points, the second 2 and the third 1 point. If a junior flyer places in the top three of the entire event then he will additionally receive the senior points for that event.

CONTEST CALENDAR : Barkston Heath is confirmed as the venue for the Easter 2-day meeting, the first trials for the 1984 European Championships and the Nationals. The second European Championships trials will NOT now be held on August 28 and 29; the event will now not take place before November 1983. The Club Championships is now scheduled for August 14th; the provisional venue is Everleigh.

JUNIOR KIT CONTEST : Having been removed from the programme for the Nationals this year, this will take place at Sutton Park (west of Sutton Coldfield, West Midlands) on Saturday August 6th. Entry is open to anyone under 16, not necessarily SMAE members, for unmodified rubber or glider models built from commercially available kits of 50" wingspan or less.

PRE-ENTRY : SMAE members are reminded that pre-entry is required for all centralised contests as provided for in rules 2.2.4.1 to 2.2.4.5; field entry to these events may be made at double the normal fee. One aim of this rule is to avoid overloading the contest director and wasting time on the contest day.

FF NATIONALS : Martin notes that this is now the world's biggest model flying contest, with a considerably larger entry last year than the entire RC, CL and FF entry at the US Nationals. At the instigation of Dave Hipperson, some £200 worth of prizes will be awarded in addition to the normal winners plaques. The Technical committee would welcome your comments on prizes at SMAE events.

TECHNICAL COMMITTEE MEETING : Topics considered at the meeting on February 19th included the following :

a) Monopolisation of airfields by local RC clubs with minimal SMAE membership, at the expense of national FF usage.
b) FF use of Chobham Common.
c) Purchase of a CB base station for use at major events and Championships.
d) Contest organisers expenses are to be set each year by technical committeess and will be in the form of a standard overnight allowance plus petrol costs actually incurred.
e) The Society of Antique Modellers (SAM) has been invited to the Nationals, but attention was drawn to litter problems at the site they used in the past two years at Barkston Heath.
f) Because of the difficulty of obtaining FF Area Centralised sites, addresses of SMAE Area competition secretaries are to be published in Model Flyer, so flyers can contact them for up-to-date information.
g) A proposal to adopt the Wigan 70 rules for use at SMAE events was discussed but rejected unanimously; it was felt that there was no need for such an event to be added to an already long list of FF classes with official SMAE status. Offers to run such events as "unofficial classes" at major SMAE contests would continue to be welcome.
h) Mike Woodhouse is investigating six possible future FF sites.

KLIMAX F1A by Cenny Breeman

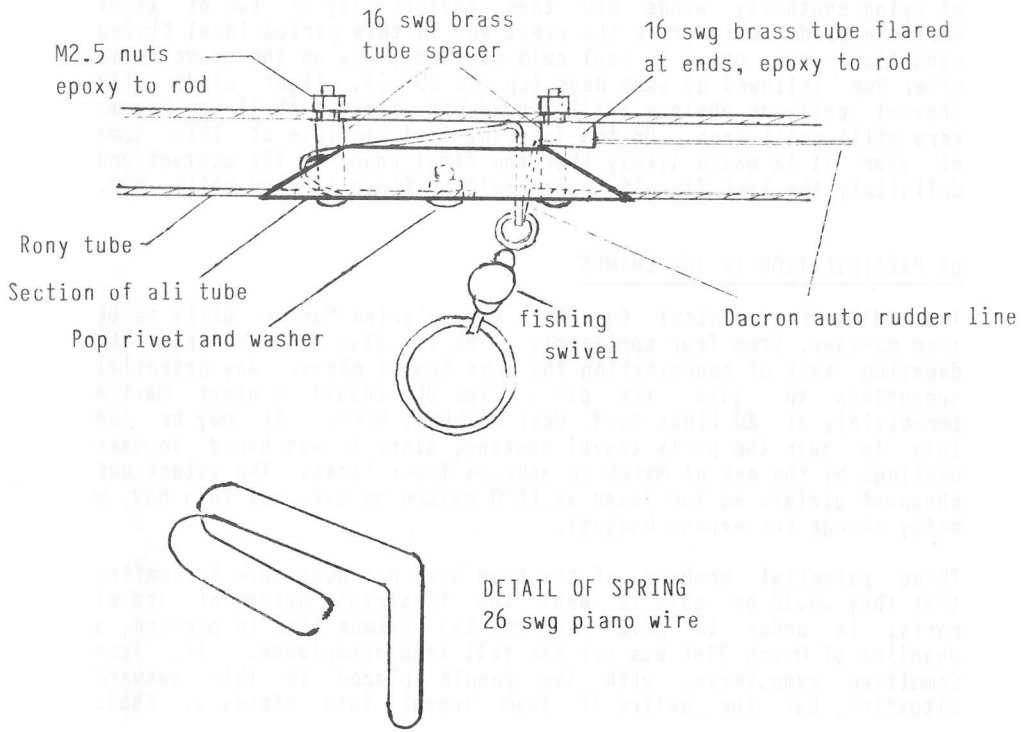
Following the publication of the plan of KLIMAX in the September 1982 issue of FFn, Peter Allnutt pointed out that the wing section as printed had a chord of 147mm compared with the stated wing chord of 150mm. Cenny has told us that the quoted chord of 150mm was indeed correct and the difference in size must have been the result of distortion introduced somewhere in the processes of his photo-copying his original, our drawing made from that copy, or printing FFn from that drawing.

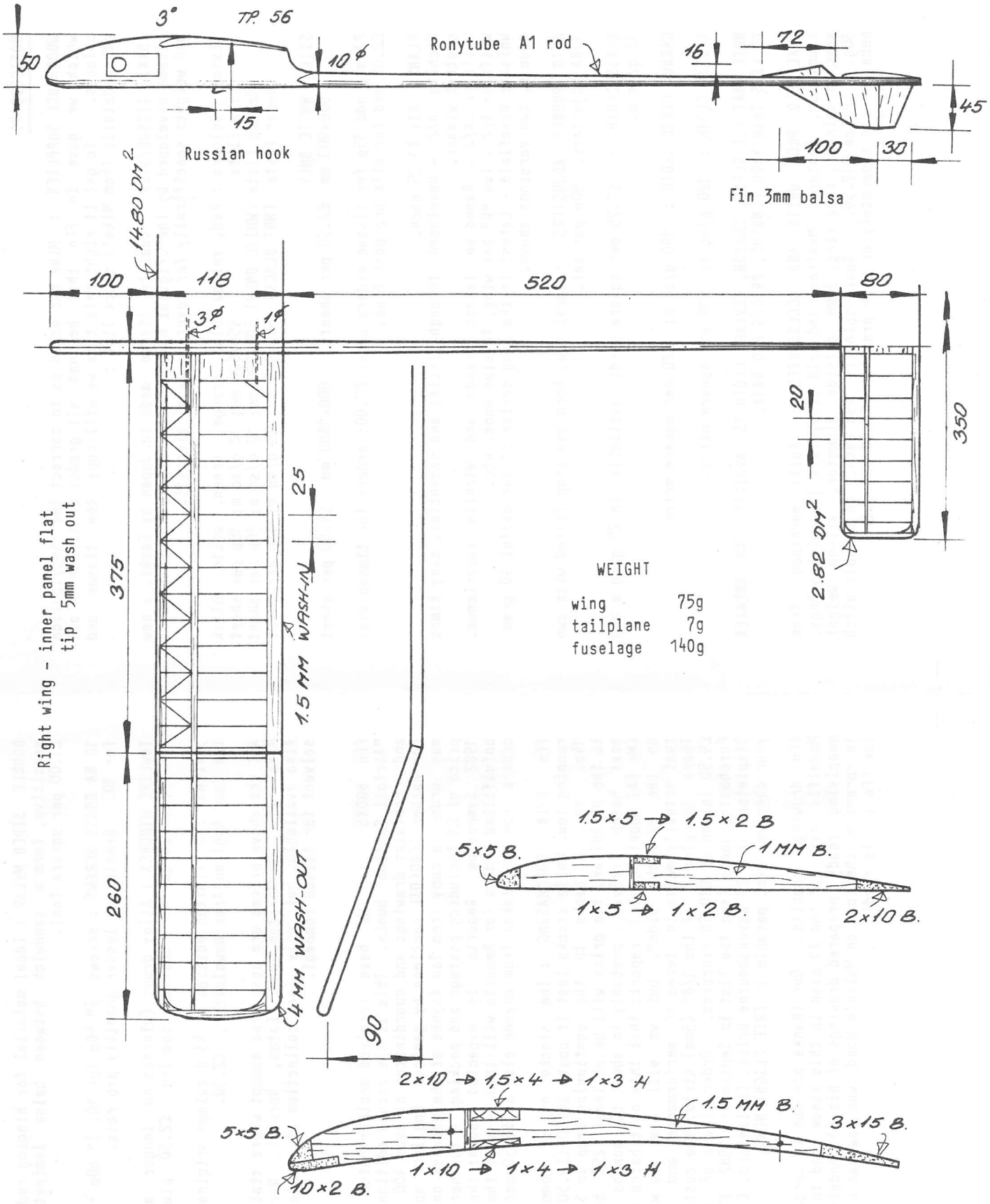
Although we endeavour to publish plans to the highest possible accuracy, small distortions can creep in at any stage; a percentage discrepancy of this magnitude represents less than the width of a pen line in the thickness of the aerofoil. The greatest accuracy is possible when contributors send their section ordinates, allowing our readers to draw them to their required accuracy.

Cenny also told us that he uses a 0.6mm diameter turbulator on the wing, positioned at 5% chord.

TWANG TOWHOOK by Dave Hambley

Dave writes that he has been using this hook for several years. It is very simple and uncritical to make, the most difficult part is the 26 swg wire spring. It takes about an hour to make the whole hook assembly. I use a 6" decorative plate hangar spring for the twang spring.





F1H · BELLEVUE

A1 by SVEIN LARSEN. NORWAY

SCALE 1 : 5

NOTICEBOARD

WOODHOUSE SUPPLIES : Mike has asked us to correct the implication which we gave in FFn that he had all grades of tissue in all colours. To get it right this time we will copy the tissue and other details from Mike's stock list :

ESAKI TISSUE/SILK Quality tissue made in Japan by Esaki, a new tissue developed by the original manufacturers in a range of colours and weights specifically for covering model aircraft.

Tissue Colours : Red, yellow, blue, orange, green, white, black
Lite Flite 450x600 mm; 12 g/sq m; 15p per sheet
Medium Flite (WHITE ONLY) 600x900 mm; 17 g/sq m; 30p per sheet
Super Flite (NOT BLACK) 600x900 mm; 24 g/sq m; 33p per sheet

Silk WHITE ONLY
900x900 mm £2.50 per sheet; 900x1800 mm £4.80 per sheet

Please add 35p for tissue orders under £2.00; orders for tissue over £2.00 and for silk are post free.

PLANS All $1.25 each.
Wichita A/2 - Developed through sixties and seventies, many times contest winner.
Whiffler A/2 - Based on latest trends and Wichita experience.
Whiffler A/2 - Two "D" box wing, Russian hook, etc.
Whiskas Wakefield - Latest in the long series of successful 40 gram models, two versions shown.

AUTO RUDDER ADJUSTERS : Dural rod, horn and stop fitted with two 10BA adjusters, 90p per set.

GLASS CLOTH : £2.75 per square yard; available in 25 g/sq m and 18 g/sq m.

CARBON FIBRE CLOTH : 180 g/sq m; £20 per square metre.

KEVLAR CLOTH : 120 g/sq m; £10 per square metre.

NOTE THAT ALL GLASS, CARBON, KEVLAR CLOTH IS AVAILABLE IN GREATER OR LESS THAN YARD LENGTHS, PRICES PRO RATA.

WAKEFIELD PROP UNITS AND ACCESSORIES : Fully machined from aluminium, features Montreal and hold stop, twin journal bearings, snap-on spinner, nose ring, 30mm outside diameter, all-up weight 30g. Price £17.50. Spare spinners 99p each. Adjustable pitch hubs for use separately or with prop hub £2.00 per pair.

DOUBLE SIDED MYLAR : Ideal material for hinging rudders, etc. Heat sensitive, form a sandwich between balsa laminations and iron. £1.00 per square foot.

10 BA BRASS SCREWS : screws ½" 40p for 10, ¾" 60p for 10, nuts 10p for 10. Greater or lesser quantity pro rata.

TOWLINE WINCHES : Alloy drums (winches no longer available) small for A/2, large for thermal soaring £2.50 plus 35p postage.

3-VIEWS : A limited edition of 43 drawings originally published in the East Anglian Area Newsletter, £2.30.

All the above prices are post free except where stated. Order from Mike at 12 Marston Lane, Eaton, Norwich, Norfolk, NR4 6LZ. Also available, but only for collection at contests, is a dope solvent for tissue removal.

FFn BOOKS : We have received another batch of John Malkin's "Airfoil Section" books. This is the second edition of John's book and contains drawings and coordinates of over 400 airfoil sections (or rather AEROFOIL sections by genteel English appellation). You may order a copy from Ian Kaynes at the address on the cover, at a price of £3 including postage and packing. A further batch of NFFS 1982 Symposium Reports is expected soon; the few people with unfulfilled orders for Reports will then be sent their copies; new orders can be taken from anyone else at £7.50 per copy inclusive.

FFn BULK PURCHASING : The stocks of ¼" (6mm) FAI rubber are running low. While stocks last it costs £8.50 (£9.50 overseas) per 14oz box. Thanks to the continuing drop in Sterling relative to the US Dollar, the price will be at least 25% higher when the next batch arrives - probably in about two months time. Ed Dolby (Mr FAI Model Supply) reports that this next batch will be "a bit on the stretchy side", but we will have to wait and see what that actually means in terms of performance and characteristics. There is plenty of the 1/8" (3mm) strip, the costs for this being £9.50 inland or £10.50 overseas. Order these or any other Bulk Purchasing goods (see the list in September 1982 FFn) from Dave Stapleton at 21 Ravensbourne Drive, Chelmsford, Essex and make your cheques, etc. payable to FREE FLIGHT NEWS.

FFn drawings credits. Our thanks are due to Jorgen Korsgaard and Modelflyvenyt for the A1 plan in this issue and to Ken Faux for supplying ready prepared drawings of his F1C models - very helpful in spreading the load on Malcolm Wood, who now has over 200 drawings for FFn to his credit.