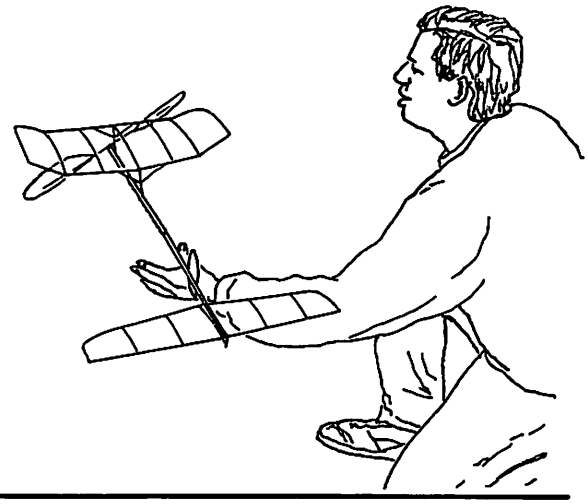
Indoor News

Issue 44 November 1997



POSTAL/PROXY EVENTS

Oct. 1- Feb 1	**MIAMA Pistachio Postal Intergnats,** Pistachio Scale, Model of a model, Ridotto models. Send MIAMA a photo of your model, it's weight without rubber, and it's span, with it's best time. Contact: Doc Martin, 2180 Tigertail Ave., Miami, FL 33133, USA.

Indoor World Championships 1998

The Japan Aeronautic Association has informed the FAI that it is not able to continue with plans to host the Indoor World Championships in 1998. At the moment no other country has come forward to take over.

1997 European F1D Indoor Championships

Slanic-Pradova, Romania, Oct. 1-4, 1997

Report by Andras Ree (HUN

The attendance of the E/Ch was rather low, just a bit higher than in 1991. There were 8 preliminary entries, but the Czech, French and Yugoslavian teams had not arrived to Slanic. Anyhow, from the first four teams at the Slanic W/Ch'94 Romania, Hungary and Poland were present. Also, from the CIAM Plenary Meeting up to the beginning of September there had been no official news about the champs, the final bulletin arrived only within the first week of September. The reason is clear, only by that time it was assured that the Eurochamps could take place in the salt mine. The background was technical (the renovation of the elevator) and out of the responsibility of the organisers.

This time the housing was again in Slanic, because a part of the local hotel was renovated. This way it was not necessary to travel about two hours daily as in 1994. We had the breakfast and dinner in the hotel and there was hot lunch in the mine. The flying conditions were as usual with the temperature of 10,5-10,9 °C and the humidity of 75-79 % also with an average drift. Two rounds per day were scheduled with a lunch break in between.

We had received preliminary news from the Romanian Champs and a training session (both were held before the E/Ch) that all team members were over 40 minutes with the lead of Vasile Nicoara. Following this news, Nicoara entered with a good 42:44 in the first round and took the lead before his team member Cornel Mangalea, the Polish Jan Dihm, his other team member Aurel Popa and the Hungarian Ferenc Bakos. My flight was drifted to the tapering upper part of the wall and the model was partly damaged.

In round two Nicoara produced 7 minutes less, but kept a safe lead before Dihm, Popa and Edward Ciapala. I succeeded to record a good 41:44, and Dezso Orsovai did over 38 minutes. Mangalea and Bakos drifted into the wall. At the end of the first day Romania had the lead before Poland and Hungary.

On the second day Nicoara strengthened his position with a 41:13, now with me on the second place after a 40:42 flight and before Dihm, Ciapala and Orsovai. Mangalea failed his flight, Popa had drif-

COLOPHON

Indoor News is published at least four times a year and covers all types of indoor models, from peanuts to microfilm. Texts can be sent in Dutch, English, German and French. Please type your texts on 12,5 cm width. Texts can be sent on floppy disk (3½ or 5¼) in any text format. I can make drawings, if you are no draftsman.

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Subscription: (per 8 issues)
Holland NLG 28,-
Europe NLG 30,-
Airmail USD 20.00

ted into the wall but Bakos improved to 39 minutes. During the afternoon round I improved to 42:53 and took the lead from Nicoara with 40 seconds, who was followed by Dihm, Ciapala and Orsovai with small differences. The team positions also changed taking the lead by Hungary before Romania and Poland.

The final day also was tough up to the very last flight. In round five I could strengthen my lead a bit with a 42:35 while Nicoara was close to his second best flight and was followed by Dihm, Ciapala, Bakos and Orsovai within about only one minute! Because both Hungarians improved close to 40 minutes, the Hungarian team got a safer position contrary to the improvement of Mangalea. The Polish new boy Robert Woldanski lifted the team closer to the second place with a 35 plus flight. After round five still we had open questions on the lead, particularly for the 3rd to 6th positions in the individual, and the 2nd and 3rd place in the team standings.

Just to make the bad luck complete, during the last round Mangalea drifted into the wall again (according to him that was not only bad luck but bullshit). Nicoara was again over 40, but not improved so I decided not to fly. Woldanski improved nearly 4 minutes and Popa also a bit, but finally he was short just with 5 seconds and the Polish team came up to second. At five minutes before the closing of the champs Orsovai was the last to fly and managed his best in the mine with 42:26. This flight was good enough to become third instead of Dihm.

In the Junior Championships the Romanians have got all individual medals and of course the winning of their team was very safe.

Concerning the technical details everybody was using a kind of Tan2 rubber. The Romanians used Sept. 93, the Hungarians July 97. There were no VP props used by others than the Ukrainians. The Romanians also tried to use during their training session, but they could not manage to get the necessary height.

The details of the first two – Ree and Nicoara – models can be seen on the drawings. For my best flight (also my personal best in the mine) I wound 2160 turns and after the back-off I launched with 2040 turns. The model climbed to about 4-5 metres below the ceiling and landed with 70 turns left. The average rpm was 46. The third placed model of Orsovai basically was similar to his Opole design (IN 87/3) but with increased wing chord (230 mm), a rather different CG position (67 %) and also different prop (ø 508 / 930 / 65). In his best flight he launched with 2080 turns, and had 50 turns left at landing in a 410 mm long rubber that weighed 1,62 g. His average rpm was 47,9.

Looking on the results we may compare the average performance to the W/Ch in 1994. The round-by-round number of 30+ flights (7-6-6-6-8-6) was relatively constant, also the number of 40+ flights (1-1-3-1-2-2). The total number of 30+ flights was 39, that is about 43 % (28 % at the W/Ch '94). The same ratio for the 40+ flights was about 11 % (5 % at the W/Ch '94). These values show the improvement in the average performance (contrary to the missing Americans).

The Euroindoor Cup after the E/Ch was flown in similar conditions but without any outstanding results. The official Hungarian and Polish teams were not competing because both had to leave after the E/Ch.

The organisers have made their best between the given conditions, so let me say on behalf of all competitors, thank you all who worked hard for us! The spirit was good, the competition was tough up to the very last moment, there was no protest, the jury (Pierre Chaussebourg, Pawel Wlodarczyk, Mihail Zanciu) had no troubles. The low attendance has caused a definite loss for the organisers. They are able and had the intention to organise champs in the future too, but to avoid the loss of money, there has to be higher participation. Therefore at this moment they are thinking only about the organisation of the W/Ch in 2000.

Three years ago in my report on the W/Ch in Slanic I expressed the hope to have a new reputation for the mine by the Tan2 rubber. But to have it we need the countries concerned to enter to the champs, otherwise we will lose the very few organisers and very few good places. I believe and declare again, that the mine is one of the best places in the world for indoor flying, even though it is dark and cold and not comfortable. I can say this also because up to now I have attended the mine 22 (twenty-two) times and there is no other foreign competitor with higher number of attendance. After so many contests in the mine it still always catches me when I am entering into the Indoor Cathedral made of salt. It is always a challenge to fly there!

4th European F1D Indoor Championships

Slanic-Pradova, Romania, Oct. 1-4, 1997

Seniors		1	2	3	4	5	6	total
1. Andras Ree	HUN	12'32	41'44	40'42	**42'53**	**42'35**		**85'28**
2. Vasile Nicoara	ROM	**42'44**	35'16	**41'13**	38'25	41'06	40'30	**83'57**
3. Dezso Orsovai	HUN	4'01	38'38	37'19	38'33	**39'47**	**42'26**	**82'13**
4. Jan Dihm	POL	34'58	**39'25**	**40'21**	35'12	23'20	26'46	**79'46**
5. Edward Ciapala	POL	30'02	38'02	**39'27**	**39'45**	30'56	35'17	**79'12**
6. Ferenc Bakos	HUN	33'28	14'58	**39'05**	21'47	**39'41**	24'41	**78'46**
7. Cornel Mangaleu	ROM	**36'01**	19'45	2'24	33'48	**36'54**	16'30	**72'55**
8. Aurel Popa	ROM	34'11	**37'34**	11'45	0'54	20'32	**34'20**	**71'54**
9. Robert Woldanski	POL	30'33	27'35	28'42	27'39	**35'22**	**34'31**	**69'53**
10. Oleg Korneichuk	UKR	12'47	20'37	27'25	25'20	**34'25**	**30'34**	**64'59**
11. Kiril Gershtensveigh	UKR	21'43	8'43	**28'16**	**27'48**	27'30	27'24	**56'04**
12. Alexandr Dronov	UKR	11'11	15'02	26'14	25'02	**26'45**	**28'54**	**55'39**
13. Rimas Steponenas	LIT	19'43	16'17	**27'06**	**23'38**	16'25	12'01	**50'44**
14. Vladimiras Mosinas	LIT	6'06	15'27	**20'53**	20'17	20'47	**22'16**	**43'09**
15. Vitalijus Sologubovas	LIT	6'15	12'53	13'10	**13'40**	**14'31**	8'15	**28'11**

Juniors		1	2	3	4	5	6	total
1. Gheorge Liviu Papuc	ROM	23'32	12'17	**35'17**	**36'24**			**71'41**
2. Cristian Romonti	ROM	10'02	26'04	**27'58**	27'07	**30'00**		**57'58**
3. Aurelian Vaida	ROM	16'48	20'57	17'54	24'31	**28'00**	**28'52**	**56'52**
4. Alexei Alexeyenco	UKR	**25'52**	16'27	2'13	**29'56**	24'41	24'11	**55'48**
5. Artiom Alexeyenco	UKR	17'29	**27'13**	19'55	17'28	15'51	**24'49**	**52'02**
6. Adam Szukala	POL	18'00	**24'16**	1'47	17'35	**26'19**	23'46	**50'35**

Senior Teams	
1. Hungary	246'27
2. Poland	228'51
3. Romania	228'46
4. Ukraine	176'42
5. Lithuania	122'04

Junior Teams	
1. Romania	186'31
2. Ukraine	107'50
3. Poland	50'35

Euroindoor Open F1D

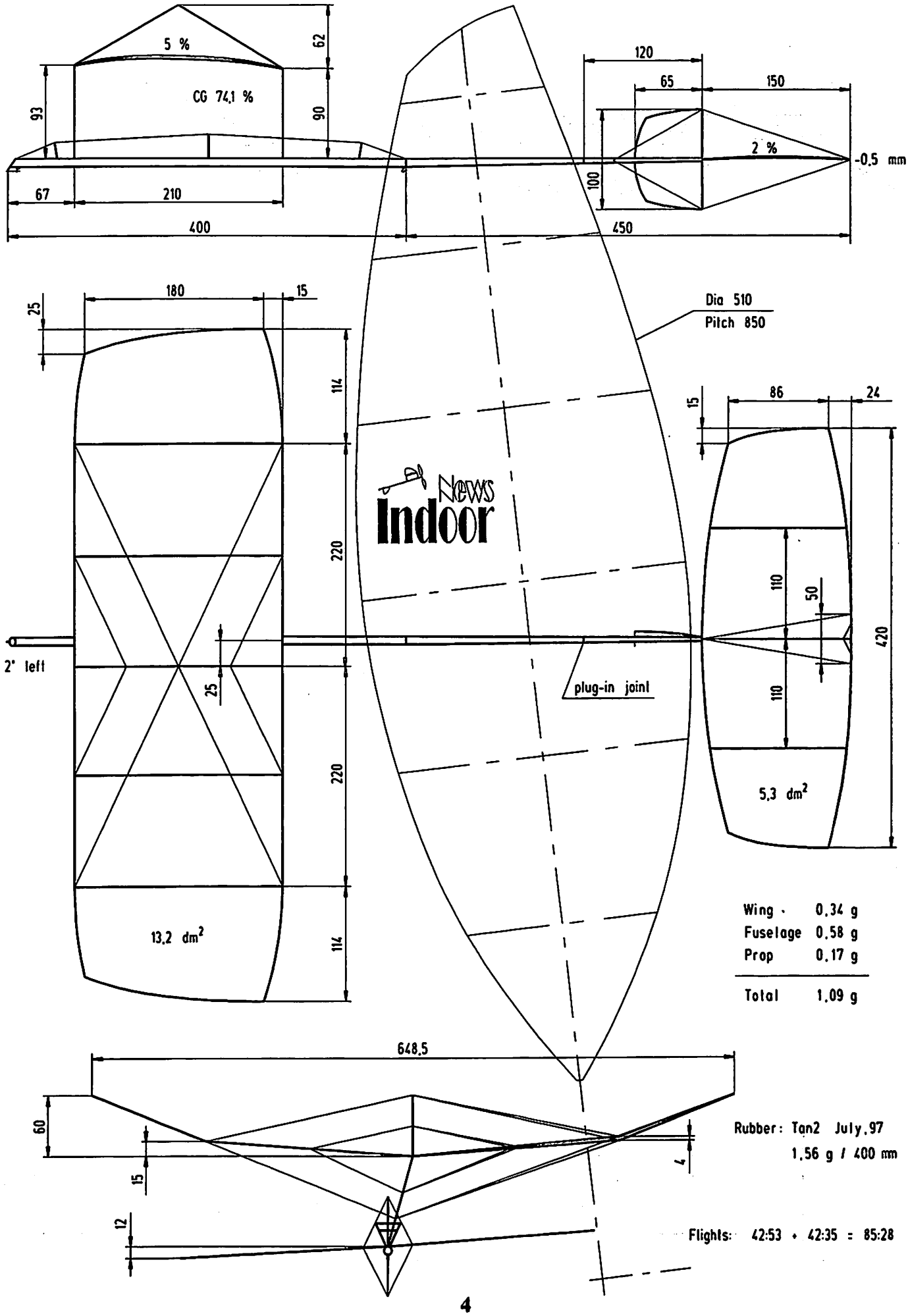
Slanic-Pradova, Romania, Oct. 5, 1997

Seniors		1	2	3	4	5	6	total
1. Aurel Popa	ROM I	**37'55**	33'54	32'26	**37'38**			**75'33**
2. Dan Amoraritei	ROM II	**36'01**	35'00	35'49	**38'16**			**74'17**
3. Vasile Nicoara	ROM I	36'13	**36'19**	**36'35**	13'04			**72'54**
4. Istvan Botos	HUN	**36'56**	**35'39**	30'24	32'25			**72'35**
5. Cornel Mangalea	ROM I	**36'25**	35'27	**35'47**	23'34			**72'12**
6. Dimitri Silin	UKR II	31'30	**33'49**	**31'41**	30'47			**65'30**
7. Genadi Iaschenko	UKR I	20'45	**30'19**	**27'31**	19'50			**57'50**
8. Alexandr Dronov	UKR I	20'25	**25'23**	**31'02**	25'19			**56'25**
9. Vasili Moskalev	UKR I	**28'44**	20'58	19'11	**22'21**			**51'05**
10. Aurel Morar	ROM II	**29'00**	21'42	**19'32**				**50'42**

Juniors		1	2	3	4	5	6	total
1. Horatiu Somesan	ROM II	15'22	30'08	**31'29**	**33'36**			**65'05**
2. Gheorge Liviu Papuc	ROM I	**35'34**	**29'44**					**64'19**
3. Cristian Romomti	ROM I	**30'46**	**29'01**	27'57	28'31			**59'47**
4. Anna Moskalev	UKR	01'11	**28'49**	**28'25**	26'47			**57'14**
5. Tatiana Moskalev	UKR	**29'49**	**26'49**	26'16	25'25			**56'38**
6. Aurelian Vaida	ROM I	**26'57**	26'28	**28'42**	22'33			**55'39**
7. Alexei Alexeyenco	UKR		14'00	**21'55**	**20'39**			**42'34**

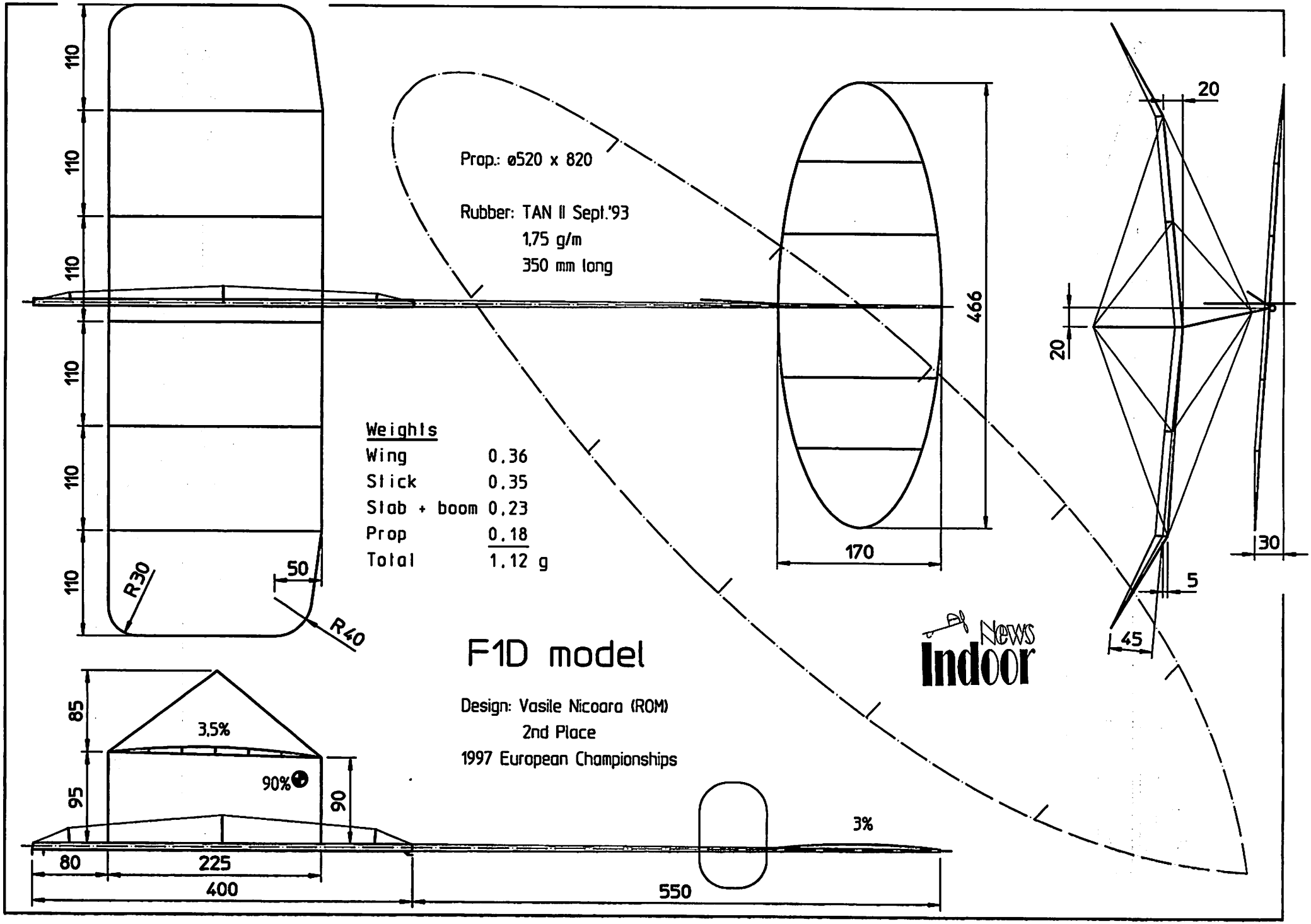
Senior Teams	
1. Romania I	220'39
2. Ukraine I	165'20
3. Romania II	124'59
4. Hungary	72'35
5. Ukraine II	65'30

Junior Teams	
1. Romania I	179'45
2. Ukraine	156'26
3. Romania II	65'05



4

European Champion '97 - Slanic	INDOOREE'97	Andras REE - Hungary	M 1:5


110
110
110
110
110
110
R30
50
R40
Prop.: ø520 x 820
Rubber: TAN II Sept.'93
1,75 g/m
350 mm long
466
170
20
20
30
5
45
Weights
Wing 0.36
Stick 0.35
Stab + boom 0,23
Prop 0.18
Total 1.12 g
F1D model
Design: Vasile Nicoara (ROM)
2nd Place
1997 European Championships
News
Indoor
85
95
3,5%
90%
90
3%
80
225
400
550

INTERSCALE 1997

Maastricht, The Netherlands, August 29-31, 1997

by Reg Boor (GBR)

Setting out from home to travel to Maastricht it was difficult to imagine that a second Interscale at the Dousberg Parc Sportel could exceed the pleasures of the first, held in 1995. But the Rotterdamse Luchtvaart Club, who organised this event as a "private venture", excelled themselves and from registration with a formal opening by the lady Mayor on Friday through to leaving, regretfully, on Monday morning everyone involved had enjoyed themselves immensely.

With a total entry of 90 models, divided roughly equally between the four classes of competition, from seven countries, there was always something to watch during the competion periods, yet plenty of time was available for trimming, or just fun flying. In fact, a prominent feature of the meeting was the number of indoor radio contol models demonstrated, from lightweights that looked more like electric-powered F1D models through a CO_2-radio peanut formula to a CO_2 1/20th scale Bristol Scout. Is this the form of things to come ? I should emphasise that 90 models required much effort and application from the international teams of judges assembled by the organisers. The static judging of the F4D entries alone took 12 hours and must have tested the stamina of the judges to the utmost.

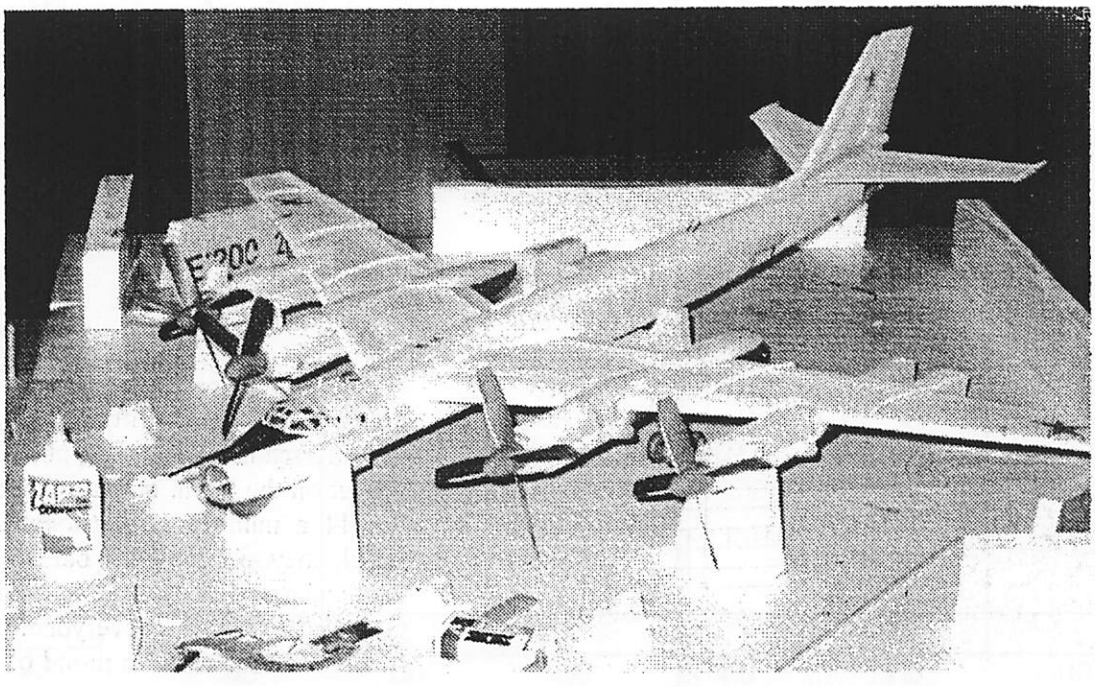


Peter Smart (GBR) with his impressive Tupolev Bear

figures for an indoor scale event.

This is not to say that everyone found it easy! Far from it. In F4D Tonda Alfery repaired a major wing break on his new Tigercat to retrim and win the contest. Charlie Newman fought with his SE5a for a good flight and placed 4th, this model also achieved the highest static score of the whole event. Many others overcame initially poor flights to improve their scores, the results speak for themselves.

But it was well worth it, for the standard of flying in the two major classes of F4D and F4E was extremely high, only four models out of the 45 in these two classes did not achieve the qualifying flight time. Every model in F4F recorded flights and in Pistachio only one model did not. These are remarkable

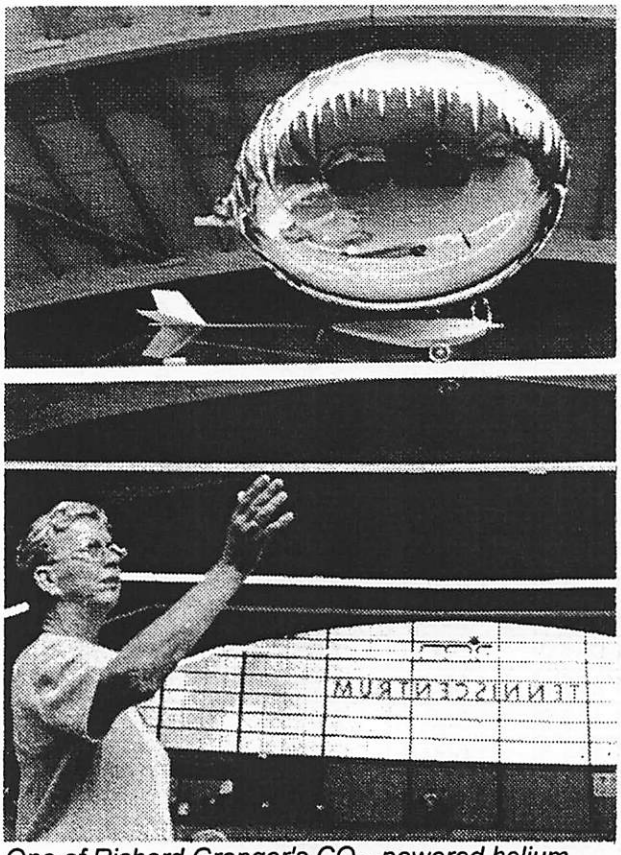


The Bear in its transport box, which is made from the same Floormate foam as the airplane itself!

I should explain that three judges were employed in F4D and F4E for both static and flying so the maximum score in either section was 3*650=1950 points, to which must be added a multi-engine flight bonus of 15% if applicable (1996 BMFA rules were used). Additionally, the organisers had allowed the entry of two models in each class, only the best of which was to figure in the results.

Still with F4D, there were many excellent flights, ter Horst, Cartigny, Brendel, van Dijk all flew well. Mike Green with his new Puss Moth in Spanish Civil War colours got it all together for his final flight and was awarded the second best flight score of the day. The best flight of the day was Alfery's Tigercat, even after the multi-engine bonus is removed from the score. This model, like his Bearcat, although from foam, is vac-formed, unlike the UK foam models which are carved and hollowed-out. Tonda, I know, was disappointed at the weight that he had added to the Bearcat in order to achieve the characteristic gloss blue finish of these aircraft but has overcome this on the Tigercat by pre-covering the model in film. Also, he has returned to an undercambered wing section for the Tigercat.

Turning now to F4E an unexpected but very welcome second place went to Richard Granger flying his large English Electric Wren. To a rather average static score he added the best flight of the day by a large margin, a flight as near perfect as could be, everyone held their breath whilst watching this slow and stately model. Third place model, the F2B of Mike Goldby, must have been re-powered for it normally has some trouble in taking-off. But not at this meeting, it was very impressive from start to finish. Nevertheless, Tonda's Vimy won the day, as well it might.



One of Richard Granger's CO_2 -powered helium filled balloons, launched by Ria Gordijn

I must mention Rainer Gaggl's Pou de Ciel, at not more than 100mm span and powered by one of his micro CO_2 motors (1mm diameter piston!). He flew as close to the judges as he could and got a very respectable flight score. His static score was good also, most of us would not have the courage to enter such a tiny model. Notice also Mike Allen's very high flight score in this competition. He placed plastic mats on the carpeted floor to enable his Schneider Floatplane to take-off, and very nearly landed on them!

The Peanut, F4F, and Pistachio contest places were dominated by foam models, first three in both contests, but their success was due to good static placings as well as excellent flying for in both of these contests there were many flights of over one minute.

Richard Granger, as Minister for fun, ran two air races and a mass launch and throughout the weekend there were gifts of magazines and other modelling articles to be had, donated by supporting organisations. The bar is adjacent to the flying halls, which are two twin indoor tennis courts, where liquid refreshment of all kinds is available, together with cooked snacks if required. The first class comfortable living accommodation is conveniently in the same building.

Whilst the modellers were fighting it out the ladies visited the Maastricht Doll Museum and shopped in the town on Saturday and on Sunday they took a two hour cruise on the Meuse down to Liège for the famous Sunday market in that interesting city, arriving back in time for an excellent banquet and prize-giving which started at 19.00hrs and continued into the small hours. During the banquet there was once again a gift for everyone from Klaus Hammerschmidt. However, not only did the ladies go out on the town, on Saturday they had secretly bought a number of slot-together chuck gliders which they quietly built out of the sight of the gentlemen and proceeded to hold their own contest, to the delight of everyone! The Rotterdamse Luchtvaart Club can be proud of Interscale '97. It will be long remembered.

(Photograph's by Thijs Gordijn (NED))

INTERSCALE 1997

Final results — F4D Rubber

Competitor	Model	Points			Rank
		Static	Flight	Total	
Antonin Alfery	F7F-3P Tigercat	1.638,5	1.719,3	3.357,8	1
Antonin Alfery	F8F-2 Bearcat	1.691,0	1.593,0	3.284,0	-
Mike Goldby	Farman Moustique	1.596,5	1.334,5	2.931,0	2
Charley Newman	SE 5a	1.828,0	1.091,0	2.919,0	3
Peter Smart	Tupolev-95 Bear	1.424,5	1.448,4	2.872,9	4
Richard Crossley	Heinkel 177 Greif	1.467,0	1.342,0	2.809,0	5
Peter Smart	Lancaster	1.233,0	1.534,8	2.767,8	-
Barry Hetherington	Travel Air	1.383,5	1.289,0	2.672,5	6
Aad van Dijk	Lambach HLII	1.172,5	1.465,0	2.637,5	7
Michael Green	DH. Puss Moth	1.124,5	1.473,0	2.597,5	8
Lindsey Smith	Arado 96	1.200,0	1.225,0	2.425,0	9
Paul Briggs	Bleriot Parasol	1.257,5	1.071,0	2.328,5	10
Richard Granger	Microplano Veloz	1.108,0	1.217,0	2.325,0	11
Reginald Boor	Hawker Fury mk.1	1.398,0	879,0	2.277,0	12
Marian ter Horst	Bebe Jodel	831,0	1.409,0	2.240,0	13
Jaques Cartigny	Lohner Type AA	943,0	1.250,0	2.193,0	14
Barry Hetherington	Dewoitine	1.324,0	787,0	2.111,0	-
George Phillips	Lacey M10	982,5	948,0	1.930,5	15
Niels Brendel	Dart Kitten II	978,5	914,0	1.892,5	16
Michael Green	Farman Carte Postale	667,0	1.040,0	1.707,0	-
Theo Ganzenboom	Tipsy Nipper	521,0	1.156,0	1.677,0	17
Derek Knight	P-51 Mustang	1.309,5	-	-	
Lindsey Smith	Sacota S10	1.306,5	-	-	
Jan Willem Roest	Fokker FII	810,5	-	-	

For a competitor with two models oniy the best model is counted. The last three models did not fly or did not achieve the 15 second minimum flight time.

Final results — F4E CO_2/Electric

Competitior	Model	Points			Rank
		Static	Flight	Total	
Antonin Alfery	Vickers Vimy	1.731,5	1.837,0	3.568,5	1
Antonin Alfery	Aero A-18	1.716,0	1.721,5	3.437,5	-
Richard Granger	English Electric Wren	1.447,0	1.881,0	3.328,0	2
Mike Goldby	Bristol Fighter F2B	1.686,0	1.598,0	3.284,0	3
Charley Newman	SE 5A	1.707,5	1.568,5	3.276,0	4
George Tornkvist	DH82A Tiger Moth	1.516,0	1.596,0	3.112,0	5
Derek Knight	DH82 Tiger Moth	1.539,5	1.560,0	3.099,5	6
Paul Briggs	Bleriot Parasol	1.450,0	1.607,0	3.057,0	7
Michael Allen	Sopwith Schneider	1.221,5	1.821,0	3.042,5	8
Peter Smart	Kalinin K5	1.434,0	1.578,5	3.012,5	9
Barry Hetherington	Caproni Ca133	1.311,0	1.678,0	2.989,0	10
Rainer Gaggl	Pou du Ciel	1.450,0	1.347,5	2.797,5	11
Derek Knight	Avro 560	1.214,5	1.424,5	2.639,0	-
Lars Tolkstam	DH82A Tiger Moth	1.382,5	1.255,0	2.637,5	12
Michael Green	Anec 1A	1.087,0	1.546,0	2.633,0	13
Johan Svanestrand	Piper J-3 Cub (SE-BEG)	1.208,0	1.385,0	2.593,0	14
Barry Hetherington	Bellanca Aircruise	1.108,0	1.300,0	2.408,0	-
Rainer Gaggl	Sablatnig	1.144,5	1.050,0	2.194,5	-
Roger Aime	Breguet XIX Super Bidon	1.103,5	879,5	1.983,0	15
Theo Ganzenboom	Monocoupe	171,0	1.376,0	1.547,0	16
Roger Aime	Farman Moustique	1.077,5	-	1.077,5	-

Final results		F4F Peanut					
Competitor	Model	Static		Flight		Total	
		Points	Rank	Points	Rank	Points	Rank
Antonin Alfery	P51-H Mustang	184,5	1	198	1	2	1
Richard Crossley	Vought Chesapeake	156,0	7	189	2	9	2
Peter Smart	Arado 196	184,0	2	98	10	12	3
Jaques Cartigny	Lohner Type AA	166,0	6	102	8	14	4
Paul Briggs	Hawker Fury	183,0	3	84	12	15	5
George Tornkvist	Pober Pixie	137,5	13	135	4	17	6
Reginald Boor	Republic Thunderbolt P-47M	174,0	5	76	15	20	7
Christophe David	Canard Bleriot 25	144,0	12	100	9	21	8
Niels Brendel	Piper PA18 Super Cub	144,5	11	91	11	22	9
Christophe David	Hyperbipe	153,5	9	81	13	22	-
Gert Brendel	Volksplane vp-1	97,0	21	163	3	24	10
Jean Bourdeaud'hui	Potier 100 TS	92,0	22	135	4	26	11
Jean Bourdeaud'hui	Poullin	83,0	23	121	6	29	-
Christophe Cramoisan	Nieuport X	175,5	4	3	25	29	12
Michael Green	Farman Carte Postale	137,5	13	70	17	30	13
George Sneed	Piaggio p4 (Pegna Pc2)	154,5	8	50	23	31	14
Fred Verburg	BD IIII	70,5	25	104	7	32	15
Georges Vella	Farman Moustique	134,5	15	63	19	34	16
Lindsey Smith	Vultee Vanguard	150,0	10	42	24	34	17
Bryan Stichburry	Piper WB J3	107,5	19	74	16	35	18
Jaques Cartigny	Pigeon-Fraser Pursuit	112,0	18	70	17	35	-
Derek Knight	Swift F4	114,0	17	60	20	37	19
Georges Vella	Huntington H12	71,5	24	77	14	38	-
Derek Knight	Swift F1	114,5	16	52	22	38	-
George Phillips	Lacey M10	105,0	20	56	21	41	20

Final results		F4 Pistachio					
Competitor	Model	Static		Flight		Total	
		points	Rank	Points	Rank	points	Rank
Antonin Alfery	Kingfisher	78	6	175	1	7	1
Richard Crossley	Grumman F6F-3 Hellcat	84	4	151	4	8	2
Peter Smart	Heinkel 112	70	8	127	6	14	3
Jeroen Wackers	Fly Baby biplane	75	7	107	8	15	4
Jiro Sugimoto	B&P 6	105	1	71	14	15	5
Gert Brendel	Volksplane VP-1	61	13	153	3	16	6
Christophe David	Bleriot 25 canard	89	3	86	13	16	7
Peter Frostick	Mustang	63	11	124	7	18	8
Bryan Stichburry	Lacey M-10	63	11	90	9	20	9
Paul Briggs	Sopwith Triplane	96	2	10	19	21	10
Doc John Martin	Gold Wing	23	20	174	2	22	11
David Linstrum	Messerschmitt M18	36	17	132	5	22	12
Jaques Cartigny	Republic F84 H	64	10	87	12	22	13
David Hanks	SE 5A	83	5	61	17	22	14
Jaques Cartigny	Lippisch Stork	52	14	88	11	25	-
Christophe David	Colibri MB 2	69	9	42	18	27	-
David Linstrum	Messerschmitt M17	28	19	90	9	28	-
Jean Bourdeaud'hui	Pottier 100 TS	44	16	64	16	32	15
Christophe Cramoisan	Poltier 180 TS	30	18	67	15	33	16
Jean Bourdeaud'hui	Focke Wulf	46	15	0	20	35	-

J. H. MAXWELL

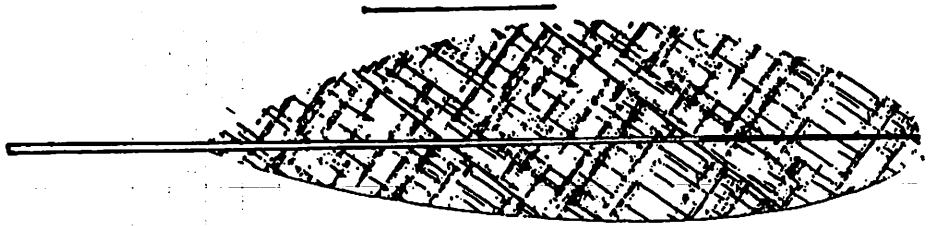
Aids For Advanced Aeromodelling

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FAX 01786 447325

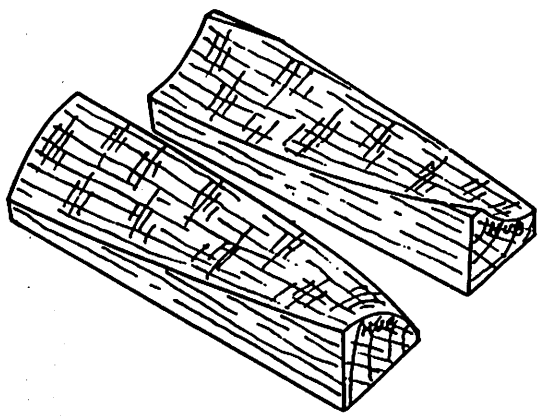
INDOOR LIST



BALSA for PROPELLER BLADES

Sheets of balsa suitable for the propeller blades of EZBs, Living Room (Mini) Sticks and similar. Each sheet is 9" x 1.1/8" and 0.008" thick. They are carefully sawn to give true 'C' grain. Density 4 to 5 lb/cu.ft.

A typical EZB propeller, fabricated with diagonal joints, requires two sheets.



CONVEX/CONCAVE FORM BLOCKS for PROPELLER BLADES

This Laurie Barr brainwave consists of matching blocks, one convex and the other concave, machined in balsa to any required pitch and camber.

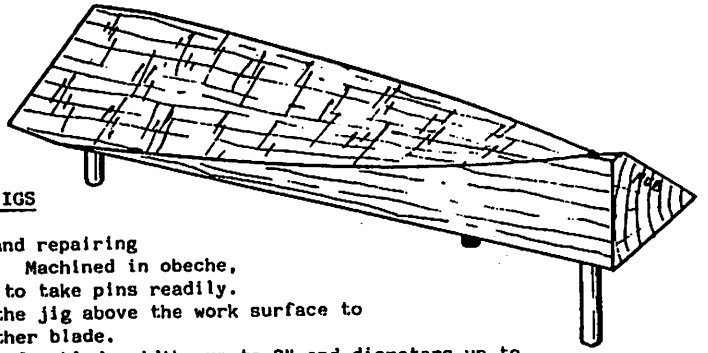
Just sandwich the dampened blade blanks between the two blocks, and bind with rubber. Heat in a 650watt microwave oven for 1¼ minutes and leave overnight to cool and dry off.

The concave block then makes a perfect support jig for each blade while the spar is being glued in position.

PRICE LIST

Balsa for Propeller Blades	£1.00 per sheet
Convex/Concave Form Blocks for Propeller Blades	£20.00 per set
Microfilm Propeller Jigs	£12.00 each
Form Blocks for Propeller Blades with Camber	£10.00 each
Rib Form Blocks . . . £3.00 each up to 3" chord, plus 50p per inch over 3"	

The post and packing charge for all orders for items in this list is £2.00

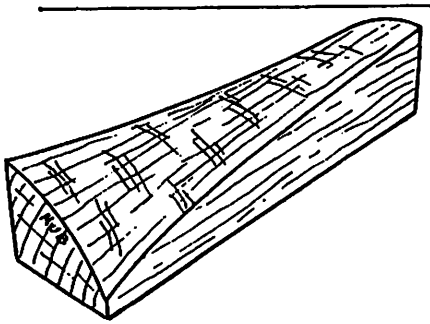


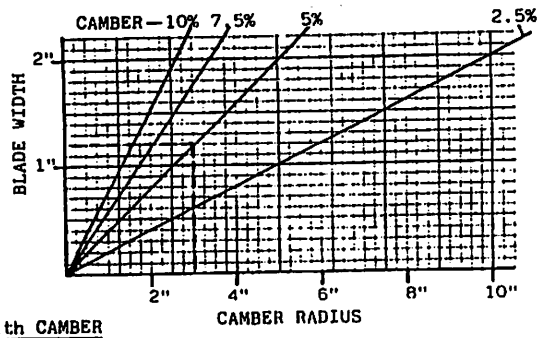
MICROFILM PROPELLER JIGS

Jigs for building and repairing microfilm propellers. Machined in obeche, which is soft enough to take pins readily. Removable legs lift the jig above the work surface to give space for the other blade.

Standard jigs allow for blade widths up to 3" and diameters up to 25". Any pitch.

The axis of twist (location for a straight spar) may be on the centre line or some distance behind it, to give more clearance from the wing.





FORM BLOCKS for PROPELLER BLADES with CAMBER

These blocks, for forming balsa propeller blades, are machined in obeche to the required pitch and camber. Standard blocks will take any blade width up to 2" and any length up to 9". Other sizes on request. Any pitch. Any camber.

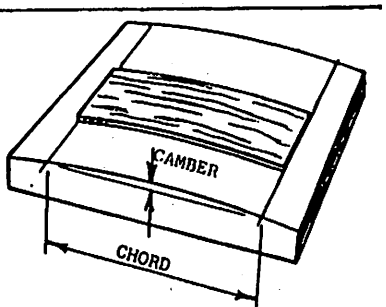
Camber radius depends upon blade width and camber percent. Use the graph to find the camber radius to suit your propeller. Example - Blade width 1.2", camber 5%, therefore camber radius 3"

RIB FORM BLOCKS

Formed ribs are superior to sliced because the grain follows the camber, with no areas of short grain. Just form a piece of A grain sheet on one of these blocks and then cut off the ribs, to the required thickness, with a balsa stripper.

The blocks are machined in Medium Density Fibreboard (MDF) and are wide enough to take diagonal ribs as well as straight.

Any chord. Any camber.



OUTDOOR AIDS

Leading outdoor Free Flight enthusiasts have used these products for many years. They are, of course, still available, and include -

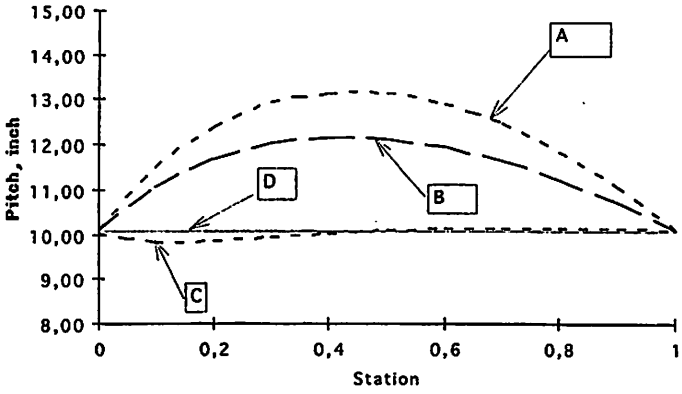
Cambered building boards on which to construct accurate wings.
Sets of machine-cut ribs.
D-box moulds and presses.
Propeller blade moulds.
Propeller blade blanks, in balsa.

A list giving details of these and other outdoor supplies will be sent on request.

Corrections

One of the graphs in Kai Halsas' article in the last Indoor News was not clearly printed and missed one line. Here is a better version of the graph:

Fig. 2



A = Blade formed on a Ø 60 mm cylinder
B = Blade formed on a mug, bottom Ø 60 mm
C = Blade formed on a 30° cone
D = Helical pitch distribution

There was an error in Reg Boor's report of the British Scale Nationals. In the second paragraph the line that begins with "But if..." should read : "But if, as I did last year, you take-out the multi-engined flight bonuses of 10% for a twin and 20% for a four from the flight scores of both Richard and Peter you see that they become 922 and 950, respectively." .

"Merci Interscale!"

Due to an accident at home Jean-Francis Frugoli (FRA) was unable to attend the Interscale '97 competition at which he should have been one of the judges. He wants to express his thanks to all the participants, the organising committee and the jury members, for the friendship and sympathy expressed to him. Hope to see you next time!

Bien amicalement,

Jean-Francis Frugoli

Domeduster Newsletter

Stan Fink no longer publishes his Domeduster Newsletter, but he continues to sell his plan packets. Currently available are:

Plan packet # 1, 2, 3	$12.00
Plan packet # 7	$15.00
Domeduster Spoked Wheel System	$10.00

Prices include postage and handling for USA. To foreign countries a surcharge is asked of $2.00. Send orders to: Stan Fink, 1810 Pine Street, Philadelphia, PA 19103, USA.

Model Warplanes 1996

Dr. John Fredriksen is anxious to sell of his present inventory of **Model Warplanes 1996** so that he can start the next edition. Therefore, he is selling remaining volumes at $5.00 each, or $25.00 for the full set of five. Add $3.00 for postage to all orders. contact John Fredriksen, 461 Loring Ave., Salem, MA 01970, 508/745-9849 or visit his website at http://www.rconline.com/1812

Japanese F1D Indoor Championships 1997

Matsumoto City, September 6-7, 1997
Yamabiko Dome, ceiling 34 m

Report by Akihiro Danjo

The Japanese F1D championships were held in the Yamabiko Dome, a 34m high building in which they can fly only 2-4 days each year. This is their highest Cat IV site at just over the 30m upper limit for Cat. III. So, the Japanese flyers are "world class" only in low ceiling flying.

The air conditions on this day were good and the winning time of 43'02 by Hideyo Enomoto is a new Japanese F1D (65cm) record.

	Best	2nd	Total
1. Hideyo Enomoto	43'02	42'25	**85'27**
2. Kazumasa Kihara	40'21	38'08	**78'29**
3. Shigeoshi Nonaka	39'33	34'00	**73'33**
4. Yasutaka Tanaka	37'07	34'36	**71'43**
5. Yoichi Ichiyama	35'49	34'01	**69'50**
6. Tosiaki Okada	21'44	20'44	**42'28**
7. Susumu Tanaka	13'37	0'37	**14'14**

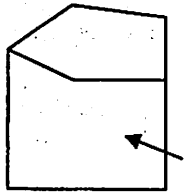
1997 USA F1D Team Selection

	Best	2nd	Total
1. Jim Richmond	49'44	47'46	**97'30**
2. Bob Randolph	48'21	47'41	**96'02**
3. Larry Coslick	48'16	47'18	**95'34**
4. John Kagan	47'58	47'14	**95'12**
5. Cezar Banks	47'21	46'36	**93'57**

The U.S. team consists of Jim Richmond, Bob Randolph, Larry Coslick and defending World Champion Steve Brown.



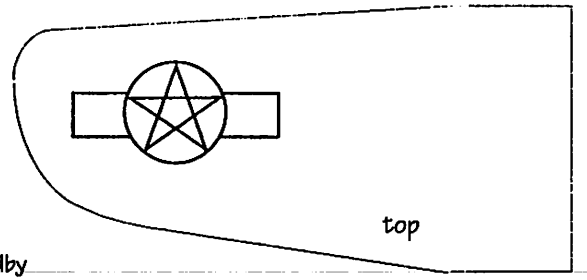
top view



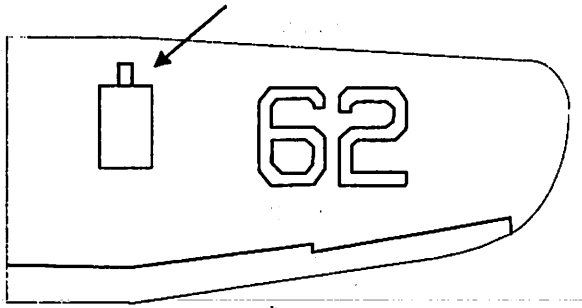
Basic canopy mould

Leave a bit to hold onto.

Use a super sharp scalpel to cut out the templates and numbers / insignia. These will help position them in the correct place



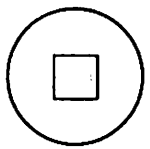
Undercarriage door on under side (but you knew that !)



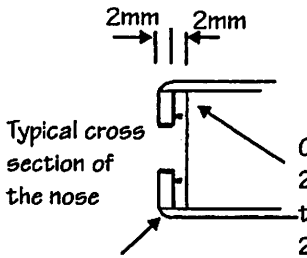
Carve canopy mould from balsa and use acetate sheet to make the canopy - see SLAN canopy data sheet.

Profits support flying at Oadby
South Leicester Aero Nutz
1 Compton Rd. Leicester England

I use Humbrol Acrylic water based paint, a mix of blue and black. Very thinned down and brushed on in about three coats

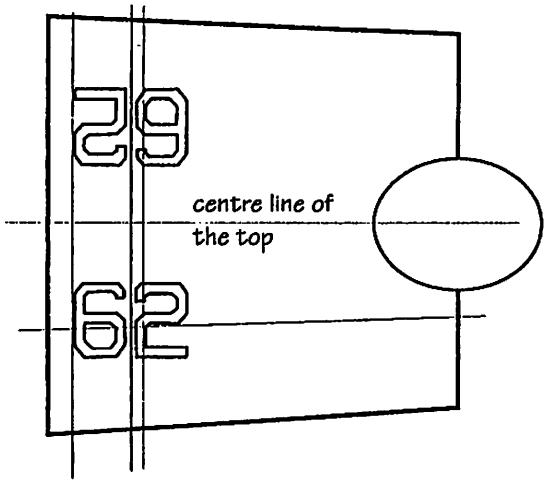


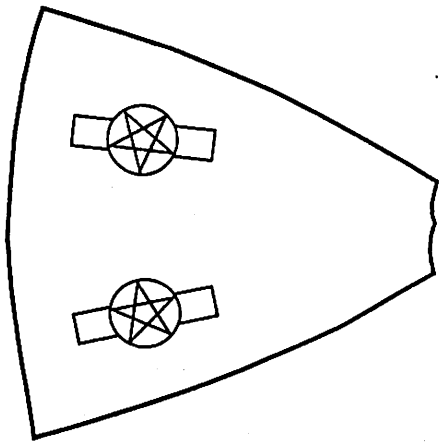
Nose block is cut from 2mm sheet foam



Cut a strip of 2mm foam 2mm wide and glue it inside the fuselage - allow for the 2mm thick nose block

After you have fitted the nose block, carve the fuselage down to make it look rounded

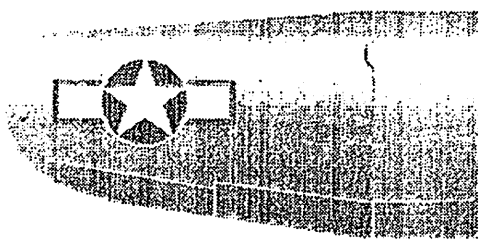






Glue two very thin 0.015" balsa strips along the inside face





I find a small dark coloured aircraft looks rather heavy, so I keep the blue a bit on the light side. I try and give the plane some character and catch the spirit of the original by adding some signs of wear, dirt and a little shine along the highest point of the wings. Get a good book and draw on the panel lines. Be brave, if it looks a mess you can throw that bit away and do another

Ultimate !

Corsair ©

Sheet two of three
All parts made from
2 mm foam sheet £3
Unless stated otherwise

Note off set to keep rubber in line withprop shaft's right thrust



Glue 0.020" steel wire between two blocks of foam Not to scale



Typical tether point

6.0" span SLAN foam fun flier. The Ultimate!

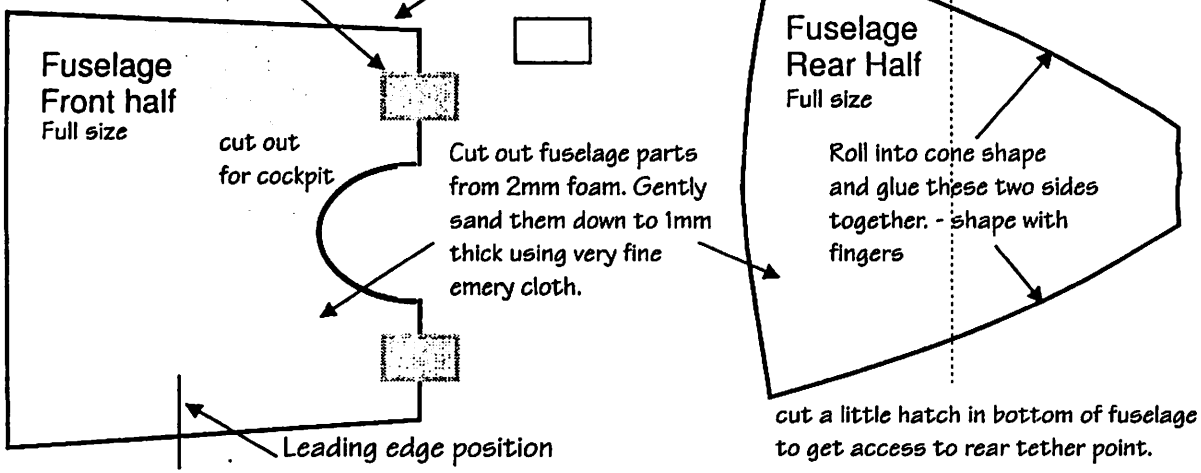
Corsair ©

Sheet one of three
All parts made from
2 mm foam sheet £3
Unless stated otherwise

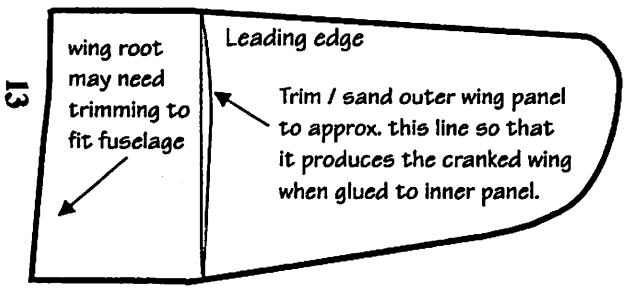
But joint the front and rear fuselage halves and then glue 3 paper stiffeners over the joint - on the inside.
One at the bottom.

Joints are on the underside

Rear tether point position



cut a little hatch in bottom of fuselage to get access to rear tether point.

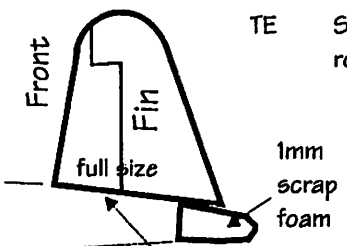


full size pattern

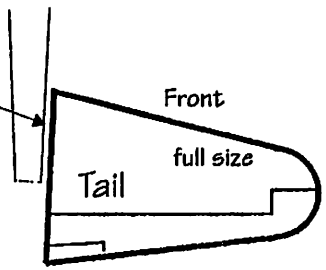
Cut wing from 2mm foam. Carve / sand the leading and trailing edges. Paint, fold airfoil, cut wing into two halves. trim to allow for cranked wing and trim to fit fuselage.



Shape wing airfoil before rolling in under camber



Trim tail and fin to suit fuselage

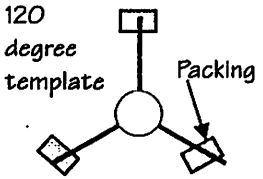


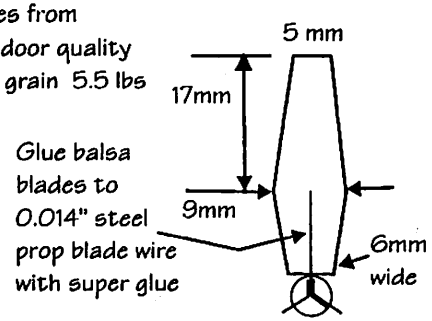
Cut out tail and fin parts from 2mm foam. Then use a sharp scalpel to cut them down to 1mm thick

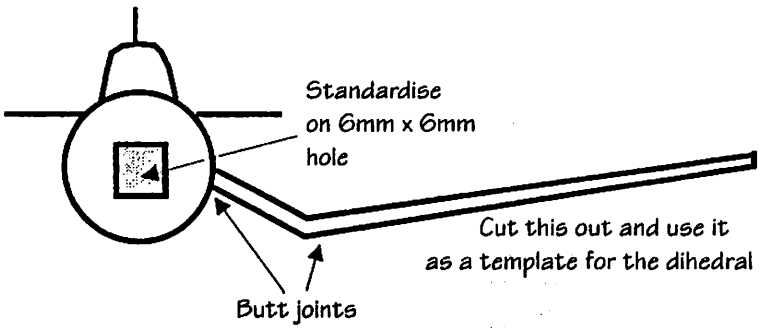
Use a circle of 2mm thick sheet foam for nose block - see sheet 2.
For prop. making details see SLAN bendy wire prop data sheet.

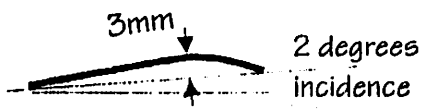
Aim for 2 degrees of incidence , 3 degrees of down thrust 2 degrees right thrust.
Use a loop of 0.020" Tan II flight rubber motor 200mm long loop ← OR LONGER!
Use a three blade Dia. 65 mm fine pitch prop. (tip angle of 21 degrees) Blade wire Dia. 0.014", shaft wire 0.020"

Cut prop. blades from 0.015" thick indoor quality balas sheet. C grain 5.5 lbs





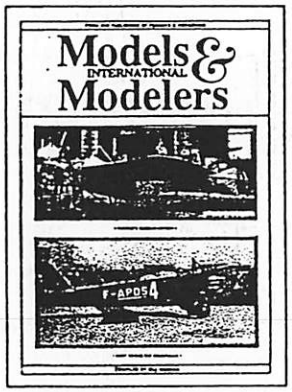




I use a ruler as a straight edge and form the under camber in three folds

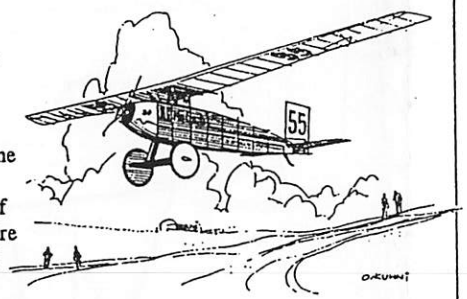
NEW FROM RUNWAY! Models & Modelers International

Compiled by Bill Hannan



Another in our "ampersand" series of publications, this volume salutes the modelers, many of their creations, and their supporters, in various international locations.

Presented are photos of some of the world's most talented craftspeople, and examples of their fine work, to help inspire greater enthusiasm for model building and model flying.

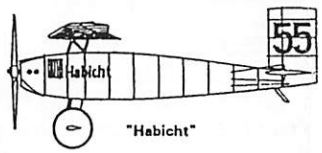


M & M HIGHLIGHTS:

MODEL CONSTRUCTION PLANS:
- ⊙ 1913 "Aviette" Flying Bicycle by Tim Hayward-Brown
- ⊙ 1936 Farman F.451 Peanut by Bill Hannan
- ⊙ 1936 Farman F.451 Pistachio by Dr. David Aronstein

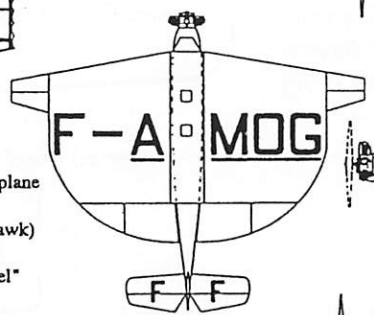
ARTICLES:
- ⊙ History of Hannan's Hangar
- ⊙ Fabulous Farman Moustiques
- ⊙ The World's Smallest CO_2
- ⊙ Reader responses to previous Runway publications, plus a few surprises!

PHOTOGRAPHS:
- ⊙ A truly international selection of fascinating models and their builders

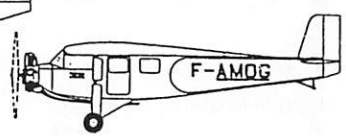


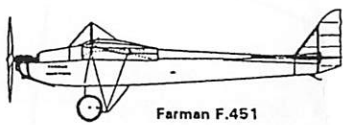
"Habicht"


Pistachio Mosquito



Farman F.1020




Farman F.451

DOCUMENTATION DRAWINGS:
- ⊙ 1910 Nieuport "Swallowtail" monoplane by Bill Hannan
- ⊙ 1924 Blume-Hentzen "Habicht" (Hawk) by Otto'Kuhni
- ⊙ 1934 Farman F.1020 "Flying Shovel" by Tim Hayward-Brown
- ⊙ 1936 Farman F.451 "Mosquito" by Bill Hannan



FORMAT: 8½" x 11", softbound, 26 pages, 69 photos, 4 documentation drawings, 3 model construction plans, plus cartoons, philosophy, and whimsey, printed on superior quality stock for long life.

Thanks to our loyal contributors, customers and reviewers, who make these publications possible! Bill and Joan

Summer 1997

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PRESS RELEASE 20 Aug. 1997

Terrific wind up !

South Leicester's AeroNutz have developed **an electric hand held rubber motor winder** for their indoor models. The electric motor is geared down to turn at about 4000 rpm and has a reverse facility - useful for winding down rubber motors ! The mechanical counter shows 1/10th of the output shaft turns - 1000 turns reads 100 on the counter .

" AeroNutz machines use lots of revs due to their fine pitch props, so a good wind up is essential " Said Simon who designed the hand held winder using commercially available parts.

Other features include recharging jack for the integral cells and two direction on off switch so you can reverse the winder a little to help get the rubber off the hook.

"We need a long winder hook for our 15" span Lancaster design to be able to get past the front turret. The new winder helps a lot. " Commented Mark

The design is for **right handed** folks but a left hand version is in the pipeline.

The AeroNutz are asking £3 for their basic design data sheet. The money going to help fund their new **all day fun fly** event in October.

As some of the parts are cheaper if bought in large quantities a kit of parts and the data sheet is available at £12 inc. P & P.

Contact:

South Leicester AeroNutz 1 Compton Rd Leicester LE3 2AA

For details of other data sheets, indoor flying sites in the UK and AeroNutz plans and advice please send a large SAE and 37p stamp.

AeroNutz All Day Fun Fly
Sunday Oct. 26th 1997 Parkland Lesiure Centre Oadby Leicester

Big Bosom LE VRAI

Depuis 1973 date de sa création. 27 - 1ère place — 20 — 2ème place ... etc ... Meilleur temps ... 6'

par E. Fillon - Aéromodéliste

Avion d'intérieur
Catégorie
Sainte Formule

poids
Aile nue 0,1 gr
Recouverte 0,28
Stab nu 0,03
fuselage nu avec
bequille et Tube
0,25 gr
Recouvert 0,43
Hélice avec
Axe et Bloc
0,2 gr

Gabarit en carton

Mise en baguette de mouillée ammoniac

Morceau de Gomme

forme balsa à l'eau +

Pose et collage des fils Colle Blanches

fil de soie ou Perlon fil fin

Couper l'excédent des fils

fil

Papier Sopalin Enlever Gabarit retourner et poser les nervures Colle cellulo

fil

Assembler avec dièdre la nervure Colle Cellulo

sur chantier et poser centrale

Recouvrement film de 44 collé à la colle Plastique allongé à la benzine ou Mylar ou Ultra film colle contact 0,5 allongé

des Voilures Polypropylène Colle Scotch

Paille ϕ 0,8

Pour les

Bord d'attaque

Découper des nervures hauteur ∃ 0,8 en balsa 5/10

Gabarit profil Aile

Gabarit profil Stab

Dièdre 20 m/m à 30 m/m

Aile gauche fortement Positive ≅ +3 à 5°

Pale d'hélice à plat ép 0,8 amincie à 0,3 sur les bords

Mylar, Ultra film ou Scélofrais tendu à chaud

Centrage

Collage des flancs à la colle Blanche de menuisier

Recouvrement du fuselage en papier collé à la colle allongée à Condensateur Limpidol Messager 6gr/M² Tension à l'alcool

Papier Papeteries Cascades ou -film. 4 m R. Tension ou Mylar ou

Condensateur Bolloré à Scaër Sud finistère Polypropylène Brisura 432 So Ultra film 2 1/2 m²

Paille et bambou collages Araldite rapide

Broche en Bambou ϕ 1

Bambou ϕ 0,3

Balsa ϕ 9 à 10 — Balsa 0,8

Cale A

Cale B

Poids suivant réalisation 0,8 à 2 Gr sans moteur
Moteur 0,4 à 0,6 gr Section 9x1 à 12x1 long. 400 à 460 mm

Calage de la dérive

Hélice balsa Taillée ou moulée
Butée téflon ou mine de crayon percée
Rondelles Dural ou laiton
Palier paille
Bloc Styrofoam dur
Axe cap 3/10
Joint Torique ϕ5
Collé à araldite

2 pailles télescopiques servant de vérin de réglage profondeur

Balsa 0,8x0,8

BB N° 9

Tilt au Stabilo si nécessaire pour serrer le virage

paille ou tube papier recevant à frottement dur la paille portant les empennages

Mâts paille ϕ 0,5 ou Balsa 0,8x0,8

Petite tige de bambou 0,5x0,5 pique lest

Bambou ϕ 0,8

Mât avant gauche

2 pailles télescopiques coulissantes à frottement dur

Cap 1/10

Paille

Paille recevant Bambou ϕ 0,3

3 triangles Balsa 0,5 ou Roue ϕ 18 en Styrofoam

Roue

Cale B

Cale A

Mode d'assemblage des Flancs sur chantier collage à la colle cellulosique

Remontage 1200 à 2000 TT avec tube de protection

Planches pour découper les Contours Aile et Stab
Balsa 0,8

AILE

STAB

Couper baguettes

Trusquin Bois dur

Cale ép 0,5 0,8 1

lame rasoir

Bord d'attaque

Même ailes ne qui fait au dessus

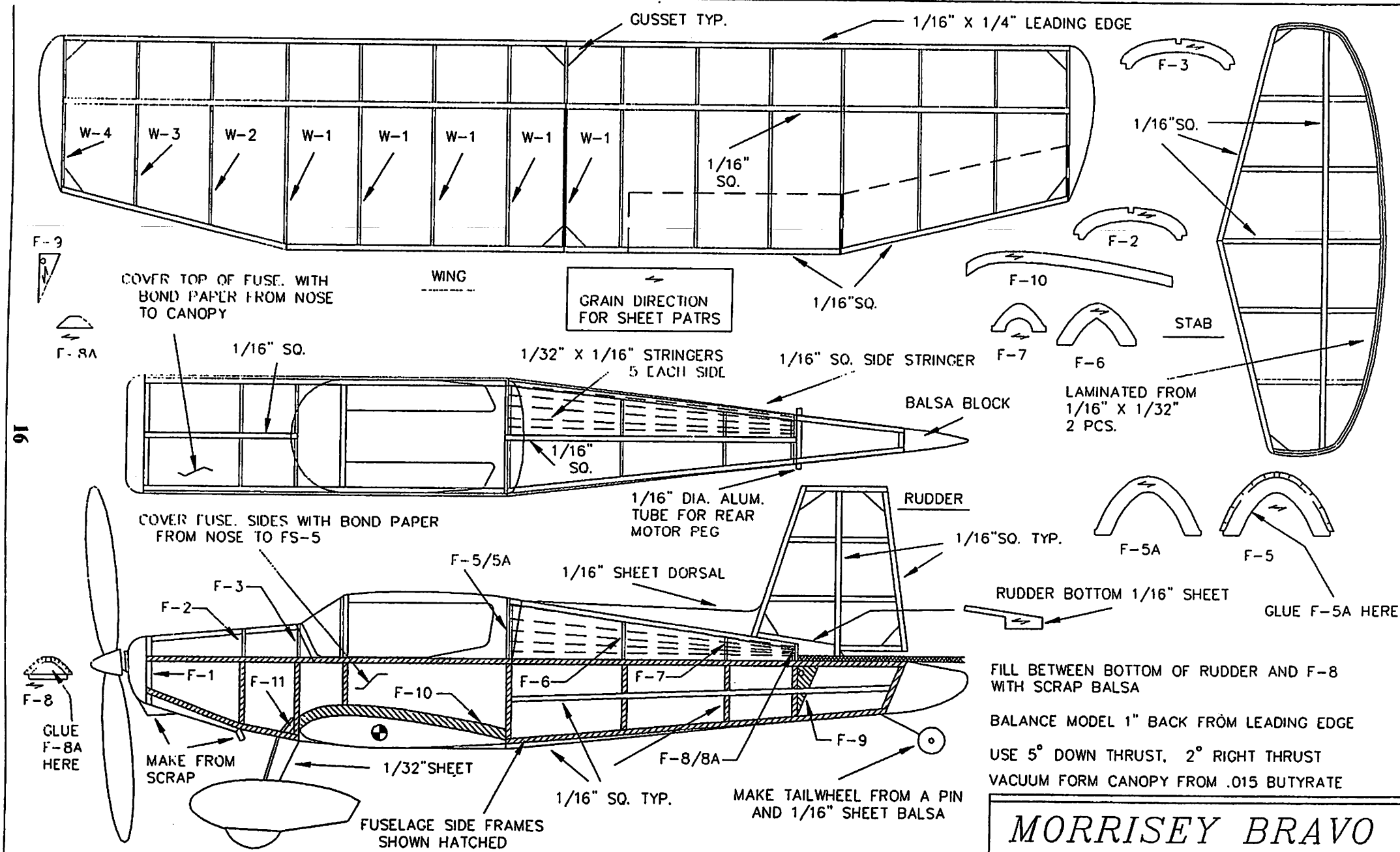
procédé pas passer partie de du recouvrement

d'assemblage la nervure le dérive et

que les centrale vient

Collage Araldite

ET B2



MORRISEY BRAVO

DESIGNED BY:	DRAWING #
THOMAS HERR	BRAVO-A-1