Indoor News

Issue 51 November 1999



DIARY

28 Dec Enschede Netherlands	**Open Dutch Championship,** F1M, Ste Formule + Junior Contest (Moustique, Bostonian, (F)looper, Pylon Race). Contact: Ebele Schouwstra, Vijverlaan 6, 7553CA Hengelo, The Netherlands, +31 74 2420392
23 Jan. 2000 Florence Italy	**Open International 9th Indoor Contest** Classes: F1M, TH, Ministick; F1N hand launch glider, Catapult, Fun Fly. Contact: Carlo Pesciolini c/o Gruppo Aeromodellisti Fiorentini, P.O.Box 18250, ITA-50100 Firenze, tel. +39 055221625. Details see elsewhere in this issue.

POSTAL/PROXY EVENTS

Nov 1999 - 31 March 2000	**F1L and F1M Postal.** Info: Don Slusarczyk, 12721 Walnut Hill Dr., Apt. 312, N. Royalton OH 44133, U.S.A. or: http://members.stratos.net/dslusarc
1 Jan - 31 March 2000	**Mini-Stick, A-6 and EZB Postal,** Brainbusters Model Club, 112 Tillerson Drive, Newport News, VA 23602, USA.

21st Flemalle International

2- 5 September 1999

THE DURATION COMPETITIONS

by Michael Green (GB)

Once again this event took place in the sports hall of the Tennis Club de Condroz in the picturesque village of St. Severin some 12 Kms from Liege. And once again we got lost in Liege, albeit making different mistakes from the last occasion.

For the benefit of new readers to this report, and with apologies to the old ones, the sports hall has a reasonable floor area - 47 x 36 metres. The maximum height is 10 metres but lights at 7 metres height effectively divide the hall into three parts. The cross-section is an arc and the cladding is of blocks which consist of some straw-filled composition. Thus, the hall is not a sympathetic environment for duration models and steering skills come to the fore.

Entries were marginally down on last time, which could be attributed to the slightly later date, the "Rentree" having begun (school holidays over - a big thing in France and Belgium). Reg Boor and myself were the sole UK contestants in the duration events. I flew in all five and Reg flew in F1L (EZB). Things kicked-off with F1L. Unfortunately I had not got the steering sorted out, which resulted in "touchettes", i.e. hang-ups in the lights, in fact, I did not get it together until late in the contest, grimly hanging on to third place until relegated to fourth by Jean Bogaerts(B) who was flying a very neat one piece model. Nery Bernard(B) and Emile D'Hondt(B) did not fill their quota of flights, presumably because of getting caught in the lights. Reg had steering problems with his high wing post/low stabiliser model - a pity for I have seen it flying very nicely. Edmond Roch(F) came through to take a well-deserved second place and Werner Nimptsch(D) showed everybody how to do it by taking first place.

In Saint Formula Werner again came out the winner with best flights of over 4 minutes, not bad at all for a 3gm model. Bernard Delhalle had to be content with second place, always the bridesmaid,

COLOPHON

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Correspondence, texts, etc. can be sent in english and french.

Subscription details to be redefined.

never the bride! I was third, my model beginning to show its age and my new one not being ready. We do not fly Micro 35 in the UK, which is a shame. There were only three entries in this class at Flemalle so I was assured of third place! Werner Nimptsch well and truly won with a total of 38mins 7secs. His models weigh about 0.7gm and have variable pitch (VP) propellers. Edmond Roch was second, flying for 10 - 11 minutes under this very low ceiling, I'm sorry, I forgot to look at his propeller. I had opted to fly my Frugoli derived model - my other , a tandem, had a potentially better performance, but was more prone to mishap with steering (the propeller locking under the wing). The one I used was overweight, but allowing for that it flew quite well.

F1M senior (formerly F1D-beginner) was again dominated by Werner Nimptsch with two flights of over 15 minutes. In this regard, Werner's mastery in steering was to count. He was employing a VP propeller, which is essential in this class for low ceiling events. Second place went again to Edmond Roch, with a very smart model also featuring a VP propeller. Edmond's models are beautifully covered. By the way, he publishes the excellent newsletter CERVIA. Eric Crins (NL) secured a creditable third place for the Netherlands. Also from the Netherlands, Noud Coetsier and Schouwstra appeared to be flying PacMan type models. As far as I was concerned it was death and destruction, my table resembling a scrap yard. I could not keep my models out of trouble. The use of a VP propeller is indicated, together with much steering practice! F1M Junior was won by Gijs Oosterhuis with Nick Vissers in second place and Leon Oude Aarninkhoff third, all from Ebele Schouwstra's Netherlands party.

F1D Senior only fielded two protagonists - myself and Werner. The result was a foregone conclusion with Werner making two flights of over 30 minutes. I was flying a modified version of the John Tipper "Stork" design with lower wing posts and covered using Y2K film. Using a VP propeller for some of the flights I was learning about VP props during the contest and consequently my flights were virtually test flights. It will be interesting to see how the new rules for F1D work out, my guess is that a more level playing field will result.

Ebele's youngsters also flew in the Bostonian event, Oude Aarninkhoff won with Vissers second and Oosterhuis third. I confess that I do not know the rules for this class but the boys are full of enthusiasm, which is refreshing.

Undoubtedly the man of the duration events was Werner Nimptsch, not forgetting his friend Claus Nottelmann with the poles and telescope! Before handing over to Reg I must thank Bernard Delhalle, Ferdinand Van Hauwaert and all the timekeepers and people behind the scenes who helped make this an enjoyable meeting, as always. Thanks also to the untiring bar and catering staff.

RESULTS OF THE DURATION MEETING

Name		1	2	3	4	5	6	Total
F1D SENIOR								
1. Nimptsch,W	D	**1845**	**1862**					**3707**
2. Green, M	GB	652	**774**	714	750	701	**1071**	**1845**
F1L EZB SENIOR								
1. Nimptsch,W	D	626	654	**818**	**731**			**1549**
2. Roch,E	F	479	15	167	**669**	**721**	604	**1390**
3. Bogaerts,J	B	488	433	520	**642**	**585**	162	**1227**
4. Green,M	GB	49	538	536	498	**589**	**618**	**1207**
5. Bernard,N	B	**562**	311	251	**472**			**1034**
6. D'Hont,E	B	417	373	**522**	**496**			**1018**
7. Boor,R	GB	**379**	214	**455**	108	340	225	**834**
F1M JUNIOR								
1. Oosterhuis,G	NL	388	416	**445**	381	**442**	442	**887**
2. Vissers,N	NL	377	395	380	**416**	**419**	390	**835**
3. Aarninkhoff	NL	378	**399**	**389**	295	387	305	**788**
F1M SENIOR								
1. Nimptsch,W	D	**906**	**945**					**1851**
2. Roch,E	F	539	552	**645**	522	**626**	618	**1271**
3. Crins,E	NL	144	102	518	**572**	**558**		**1130**
4. Coetsier,N	NL	416	465	**499**	**516**			**1015**
5. Schouwstra,E	NL	379	**496**	255	374	395	472	**968**
6. Green,M	GB	**476**	139	130	**480**	177		**956**
7. Patat,F	F	**495**	236	**439**	222	359		**934**
MICRO 35 SENIOR								
1. Nimptsch,W	D	**1112**	**1175**					**2287**
2. Roch,E	F	15	**678**	**670**	246	609	637	**1348**
3. Green,M	GB	**529**	223	**554**				**1083**
BOSTONIAN								
1. Aarninkhoff,L	NL	**83**	74	73	67	73	**91**	**174**
2. Vissers,N	NL	27	65	66	54	**75**	**67**	**142**
3. Oosterhuis.G	NL	**71**	46	66	**68**	51	49	**139**
SAINTE FORMULA SENIOR								
1. Nimptsch,W	D	229	0	236	248	**259**	**256**	**515**
2. Delhalle,B	B	208	**220**	**245**	215	86	0	**465**
3. Green.M	GB	138	**186**	162	175	**190**	104	**376**
4. Ter Horst,M	NL	157	108	**171**	**179**	162	133	**350**
5. D'Hondt,E	B	136	147	47	134	**153**	**167**	**320**
6. Brendel,N	NL	132	**143**	119	**151**	120		**294**
7. Brendel,G	NL	10	**147**	17	**111**			**258**
8. Schouwstra,E	NL	49	77	40	79			**156**

THE SCALE CONTESTS

by Reginald Boor(GB)

My lasting impression of the 1999 Flemalle scale event will be the quality of flight realism shown by the models of the young men and women of the Netherlands. Each year, for as many years as I have been attending and I guess for some years before that, Ebele Schouwstra has encouraged a number of young people from his school to take up aeromodelling and has brought them along to the annual Flemalle contest. However, as the contingent this year consisted mainly of seniors perhaps I am a little out of date with the school connection, but the fact remains that Ebele has encouraged many youngsters to try aeromodelling over the years and now has a core of very skilful and committed modellers. Until recently their skills have been mainly in F1M, F1D-beginner as we used to call it, but this year marked a major shift into F4D rubber-driven scale as well as other classes.

The reader must remember that in F4D and F4E scale events the models are flown one at a time in full view of all and their performance, or often and embarrassingly their lack of it, is obvious for all to see. Whereas in Peanut and Pistachio events an individual model is one of a number of others in the air and a poor flight is often noticed only by the competitor himself and, of course, the timekeeper. Also, and I have said this before in these pages, the achievement of a realistic flight of 15 seconds from a take-off with a good scale model is just as challenging as recording many minutes in the duration classes. However, a study of the F4D results will show that "team Netherlands" had very few problems with their scale flying. The best senior flight of the day was made by the Volksplane of Niels Brendel but his static score was only good enough to give him fourth place. In third place overall was the Bell Airacobra of Eric Crins, his first scale model! Constructed from foam, it made the second best flight of the day and was the first time that I have seen a tricycle undercarriage aeroplane in F4D. Not to mention the fact that it is a low-wing model and that there were four other low-wing models in this contest, all of which flew well. First and second places in F4D were taken by Masters and Prior of the UK, but these men are experts at scale modelling, as their static scores show.

There was only one entry in the junior F4D contest, Nick Visers' Moustique, but look at his flying score, better than all the seniors! So, although the F4D contest was won by high static scores. In the F4E, CO2/electric, contest a good flight by Knight's electric powered Tiger Moth was sufficient to make up for his lower static score than Masters' CO2 powered SE5a and he was first to Masters' second. Regrettably, the Gee Bee of D'Hondt did not achieve a flight score.

There were 28 models entered in F4F Peanut, 25 of which made flight scores. But, taking account of the multiple entries, you find that 14 modellers actually flew aircraft. Jacques Cartigny and Niels Brendel tied for top honours in F4F but as Jacques with his Loire 41 had the higher static score he gained first place. This aeroplane is a little-known inverted-gull monoplane with an elaborate undercarriage, it was modelled beautifully and flew well. Jacques was awarded the Armand Petit Challenge Trophy for his effort. Niels, of "team Netherlands", had made up for a middle ranking static placing with an excellent flight score to be placed second with his Volksplane and Francis Patat held on to a good static place with good flying to place third with his Mustang. Three low-wing models in the first three places. Top static place went to Divs Masters with his Sopwith Triplane which was fourth overall, with my Thunderbolt fifth. Jean-Claude Bourdeaud'Hui had fun in peanut, not only rescuing his Mustang from the lamp support wires many times but achieving 1st, 2nd and 4th flying placings. Unfortunately he did not have the static points to exploit these and was 7th overall with his Legrand-Simon LS.60.

The Renard Trophy was awarded to Gert Brendel who flew a Renard RSV-18-100, a parasol monoplane with an exposed radial engine. Neither my geared R-36 fighter nor my R-35 airliner could fly for long enough to compensate for their inferior static placings.

In Pistacho, Divs Masters' SE5a scored higher overall than his Sopwith Triplane, despite the latter's top static score, and won the contest for him. In second spot was Gert Brendel with his tiny Volksplane, which had achieved a massive flight score, higher than anything in Peanut. The next three places were tied but David Prior was awarded third place by virtue of his higher static score. His model was a Flitzer, a bright red, biplane, home built quasi-replica of a WW1 fighter.

The "fun-fly" at Flemalle is a competition for the most outlandish model which can fly for a minimum of 10 seconds. There were five entries this year, two sheet foam biplanes of very odd appearance, a space vehicle in sheet foam with an alien pilot and a pun on the Mars confectionary bar. All these from the team Netherlands stable. Fred Ver

RESULTS OF THE SCALE MEETING

NOTE!! "*" implies a multiple competition entry

F4D RUBBER SCALE, SENIOR

	Name		Model	Best flight	Static	Total
1	Masters,D	GB	Sopwith Triplane	489	1578	2067
2	Prior,D	GB	Sopwith Baby	479	1422	1901
3	Crins,E	NL	Airacobra	491	1233	1724
4	Brendel,N	NL	Volksplane	523	1141.5	1664.5
*	Brendel,N	NL	Dart Kitten	470	1174.5	1644.5
5	Masters,V	GB	Lacey M10	431	1045.5	1476.5
6	Ter Horst,M	NL	Jodel D-9	421	979.5	1400.5
7	Van Leeuwen,H	NL	Piper Vagabond	281	943.5	1224.5
8	De Bruin,H	NL	Volksplane	479	676.5	1155.5

F4D RUBBER SCALE, JUNIOR

	Name		Model	Best Flight	Static	Total
1	Vissers,N	NL	Moustique	574	957	1531

F4E CO2/ELECTRIC SCALE, SENIOR

	Name		Model	Best Flight	Static	Total
1	Knight,D	GB	Tiger Moth	481	1492.5	1973.5
2	Masters,D	GB	SE5a	214	1587	1801
	D'Hont,E	B	Gee Bee	0	1227	1227

F4F PEANUT, SENIOR

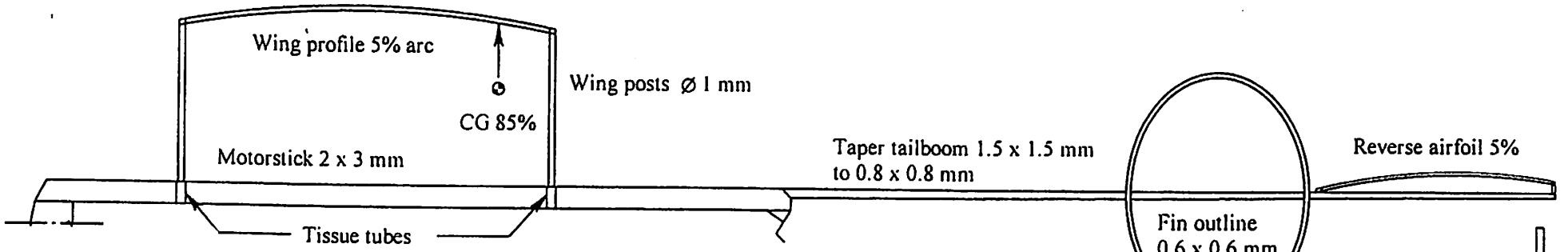
	Name		Model	Flying Time	Place	Static Points	Place	Place Total
1	Cartigny,J	F	Loire 41	94	8	176.25	5	13
2	Brendel,N	NL	Volksplane	131	3	161.2	10	13
3	Patat,F	F	Mustang	80	12	180	4	16
*	Patat,F	F	Farman 450	94	8	164.25	9	17
*	Cartigny,J	F	Loire 46	68	16	190.5	2	18
*	Patat,F	F	Luciole	75	13	168.75	7	20
4	Masters,D	GB	Sopwith Tri	47	21	219.75	1	22
5	Boor,R	GB	Thunderbolt	67	17	170.25	6	23
6	Brendel,G	NL	Renard 18-100	88	11	142.5	13	24
*	Patat,F	F	Poullin JP30	103	5	122.25	19	24
*	Cartigny,J	F	Flitzer	75	13	147.75	12	25
7	Bourdeaud'Hui,J-C	F	Legrand LS60	147	1	111	24	25
*	Brendel,N	NL	Piper PA18	100	6	120.75	20	26
8	Boys,P	GB	Waco SRE	42	23	186	3	26
9	Prior,D	GB	Mig 3	93	10	129	17	27
*	Bourdeaud'Hui, J-C	F	Pottier100TS	132	2	101.25	27	29
*	Bourdeaud'Hui, J-C	F	Mustang	80	12	128.25	18	30
10	Masters,V	GB	Lacey M10	96	7	116.25	23	30
*	Bourdeaud'Hui,J-C	F	Broussard	128	4	94.5	28	32
*	Cartigny,J	F	Farman Mon.	69	15	120	21	36
*	Boor,R	GB	Renard R-36	43	22	136.5	16	38
*	Boor,R	GB	Renard R-35	22	24	140.25	16	39
11	Stichbury,B	GB	Bernard 191	63	18	105	26	44
*	Stichbury,B	GB	Renard R-17	51	20	105.75	25	45
12	Dubois,P	F	Nesmith Coug.	57	19	84.75	29	48
	Patat,F	F	SE5a	0		165.75	8	-
	Knight,D	GB	Miles Hawk	0		148.5	11	-
	Verburg,F	NL	Harvard	0		141	14	-

PISTACHIO, SENIOR

	Name		Model	Flying Time	Place	Static Points	Place	Place Total
1	Masters,D	GB	SE5a	63	3	111	3	6
*	Masters,D	GB	Sopwith Tri	31	7	126	1	8
2	Brendel,G	NL	Volksplane	150	1	61	8	9
3	Prior,D	GB	Flitzer	37	6	88	5	11
4	Cartigny,J	F	Thunderbolt	46	5	84	6	11
5	Stichbury,B	GB	Lacey M10	56	4	67	7	11
6	Boor,R	GB	M20	110	2	49	10	12

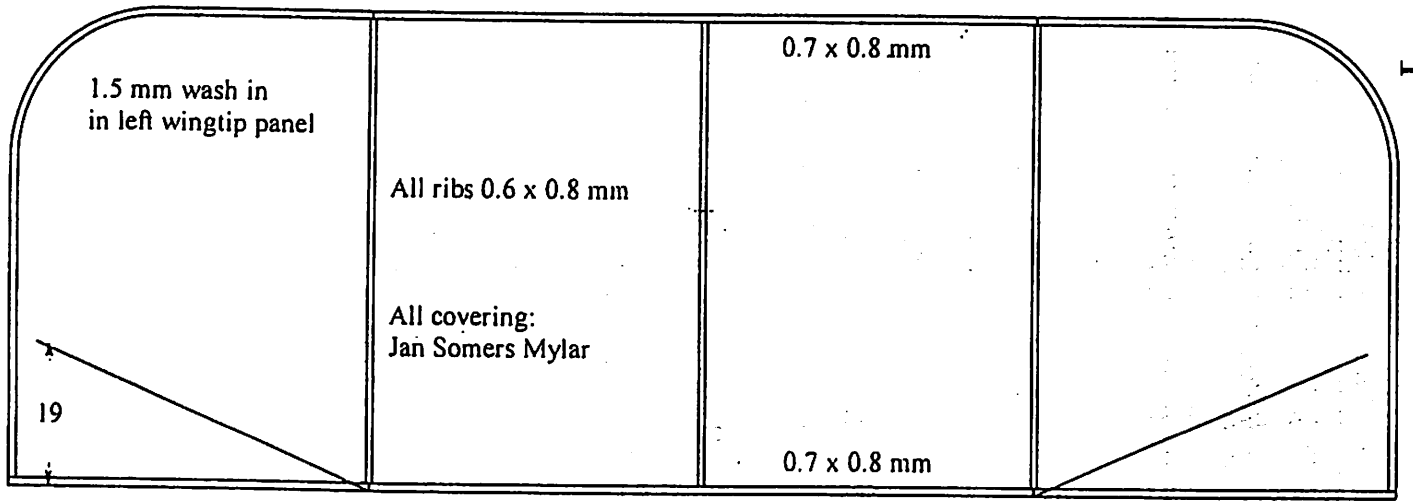
burg entered a Rutan style design in balsa sheet and my own entry was a tailless pusher built from Depron foam. The mock space vehicle was judged to be the weirdest entry but unfortunately could not be persuaded to remain airborne for 10 seconds so, as the models of Fred and myself had been judged of second equal weirdness, the result hinged on a duration competition between us which Fred won. The other two sheet foam biplanes flew well and great fun was had by all.

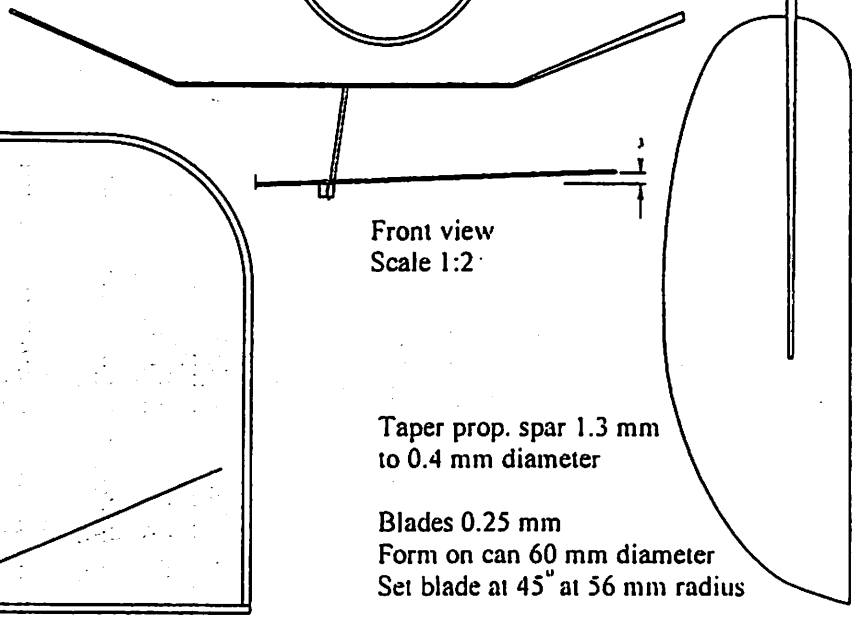
I must not end this report without saying that this was the 21st International meeting organised by "Petite Aviation des Trixhes", of which I have attended a mere eight. The present flying site is the indoor tennis club of Condroz, which, it has to be admitted, is not an easy hall in which to achieve high durations because of the cable suspended lighting system, but this is accepted by the contestents because of the camaraderie of the meeting, the welcome and hospitality extended by the owner of the club and his restaurant and last, but far from least, the willing hard work of Bernard Delhalle, Monsieur Van Hauwaert and their team of dedicated judges and timekeepers who, with long-suffering patience, accept the mis-flights, the re-windings and the problems of the contestants with good humour. Long may it continue.



2° sidethrust, no downthrust

Make "pig tail" from 0.3 mm wire

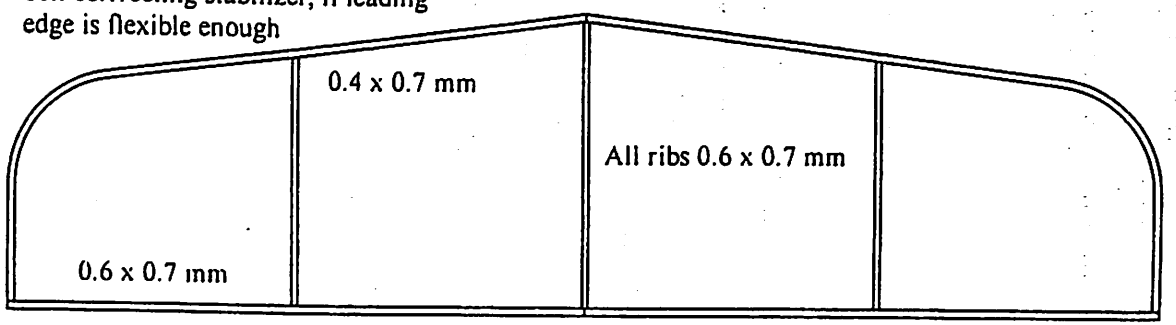




Taper prop. spar 1.3 mm
to 0.4 mm diameter

Blades 0.25 mm
Form on can 60 mm diameter
Set blade at 45° at 56 mm radius

Self corrrecting stabilizer, if leading edge is flexible enough



Living Room Stick By Gert Brendel		
Part	Uncovered	Covered
Wing	0.032	0.072
Stabilizer	0.026	0.043
Fuselage	0.121	0.154
Fin	0.004	0.008
Prop	0.088	0.088
Ballast	-	0.060
Total	0.271	0.425

INDOOR NEWS

Due to pressures of work and an ever increasing workload at the local model club I feel forced to stop publishing Indoor News. I am happy to announce that Peter Kearney from Canada has volunteered to take the newsletter over from me. I am confident that Peter has all the skills required to take up this job. Just have a look at his website http://www.hurontario.net/~freeflight/ and you will see why...! Peter is already investigating the possibilities, finding a suitable printer, etc.. The format of Indoor News will likely change somewhat with improvements sought in lay-out, DTP-aspects and printing of plans and photographs. The subscription price may change a bit also, but the intention is to continue basicly along the same format. Subscriptions that are payed in advance will remain unchanged. Indoor News will certainly maintain its "international flavour" and in this regard the help of you the readers is indispensable. So browse through your files, your current modeling projects, and send Peter an article, plan or contest report. Help him make a good start with his first issue!

I have always enjoyed producing the newsletter and I want to thank all of you for subscribing. Special thanks go to everyone who took time out to prepare and send material for publication, in particular to those who did this on a regular basis! I wish Peter the best of luck in his new role as an editor and with the continued support of the readership I am confident that we will enjoy Indoor News for a long time to come!

New editorial address: Peter Kearney, 372 Cedar Ave., London, Ontario, Canada N6G 1E7, phone +1-519-858-3004, e-mail freeflight@hurontario.net Correspondence, texts, etc. can be sent in english and french.

British Indoor Championships 1999

Report by Laurie Barr

For the first time in many years, we were fortunate to have the use of Hanger No 2 at Cardington, after Hanger No 1 became unusable due to roof damage and plastic storage all over the main floor area. Hanger No 2 belongs to the Building Research Establishment and through the kindness of their executive offices, we were able to have the use of the front half of the hanger, behind the main doors, the rear half being occupied by full size tall buildings on which they conduct research, including fires!

On some days, when the wind is from a southerly direction, the air can get very turbulent, as the main doors do not shut closer than a 7" to 8" wide gap, and on most days lots of steering of models with balloons on lines is necessary, although not desirable! For this reason we flew most of this years meetings, including these Nationals, with "half motors" used together with a "stick" measuring half the length of the motor stick of the model, and not less than half the weight of the motor. All the times shown below, except of Mini-Stick (which had full motors) are for half motor flights.

August 28th. Best flight from 5 attempts.

Easy B/F1L, Houlberg Silver Medal Trophy

1.	John Tipper	14'02
2.	Derek Richards	13'27
3.	Laurie Barr	13'22

Limited Penny Plane

1.	Peter Lawson	8'52
2.	Roy Wilson	8'51
3.	Eric Hawthorn	7'29

F1M (F1D Beginner)

1.	Ron Green	10'32
2.	Bernard Hunt	10'17
3.	Bob Bailey	10'04

August 29th

The weather this day was very windy and the hanger so turbulent, that as the wind rose, the afternoon was unflyable! This, and the "half motors", meant very low times.

F1D Microfilm, Aeromodeller Trophy, Best two flights from 6

1.	John Tipper	30'58
2.	Geoff Lefever	29'19
3.	Bernard Hunt	24'31

Mini Stick

1.	Terril Park	8'31 (one entry!)

Overall National Champion for the Dave Yates Memorial Trophy was once again Bernard Hunt.

F1D Team Trials for the year 2000 World Champs in Rumania were decided by the above results and the earlier first trials on August the 22nd, with the best times being recorded on the first trials.

1. Bob Bailey 52'36 (Wins Houlberg Gold Trophy)
2. John Tipper 50'12
3. Laurie Barr 47'18 *
4. Derek Richards 47'17

* Laurie Barr declined his team place, so Derek Richards takes this place, and the team, with the selected team manager Mike Colling FSMAE, will go to Rumania next year, subject to SMAE/BMFA approval.

Laurie Barr, FSMAE, Contest Director.

Hungarian F1D Nationals 1999

20-22.August 1999
Debrecen (29.3 m)

1 Andras Ree	42:03 + 42:32 = **84:35**
2 Dezso Orsovai	41:51 + 42:08 = **83:59**
3 Ferenc Bakos	39:01 + 41:10 = **80:11**
4 Zoltán Sükösd	28:30 + 31:30 = **60:00**
5 Csaba Hellenbort	14:37 + 14:51 = **29:55**

Japanese F1D Nationals 1999

Report by Akihiro Danjo

The 1999 Japanese F1D National Championship were held on Sep, 25-26 at Yamabiko Dome (34m ceiling) in Matsumoto city again. The air conditions were good, but the times were not very good (but, please consider the factor that the building stands 600m above sea level). Frankly speaking, I think it was caused by the lack of practice. Or they might lose a target and a goal. The opportunity to fly in a high ceiling site was limitted, besides they rarely fly in a low ceiling site. Their practices were a few days per year at most, and the entrants were almost alike these several years. There are no newcomers... Will the new F1D rules change this situation??

F1D (6 flew)

Name	Best 2 of 6	Total
1 Hideyo Enomoto	42:29 + 41:08 =	83:37
2 Kazumasa Kihara	38:27 + 36:57 =	75:24
3 Youichi Ichiyama	33:44 + 33:10 =	66:54
4 Toshiaki Okada	31:36 + 28:16 =	59:52
5 Yasutaka Tanaka	29:14 + 15:28 =	44:42
6 Susumu Tanaka	24:01 + 19:33 =	43:34

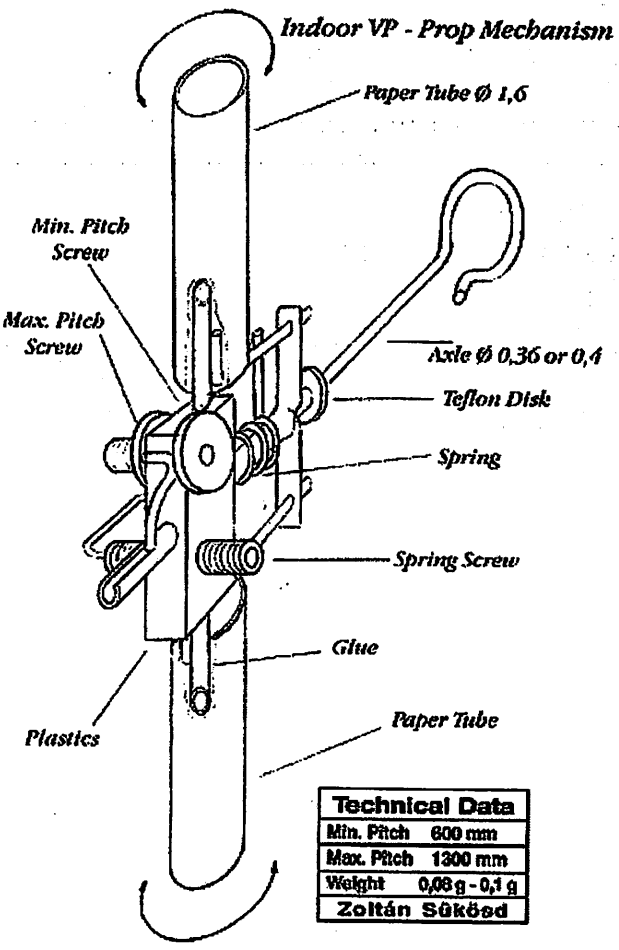
9th Indoor Contest Florence

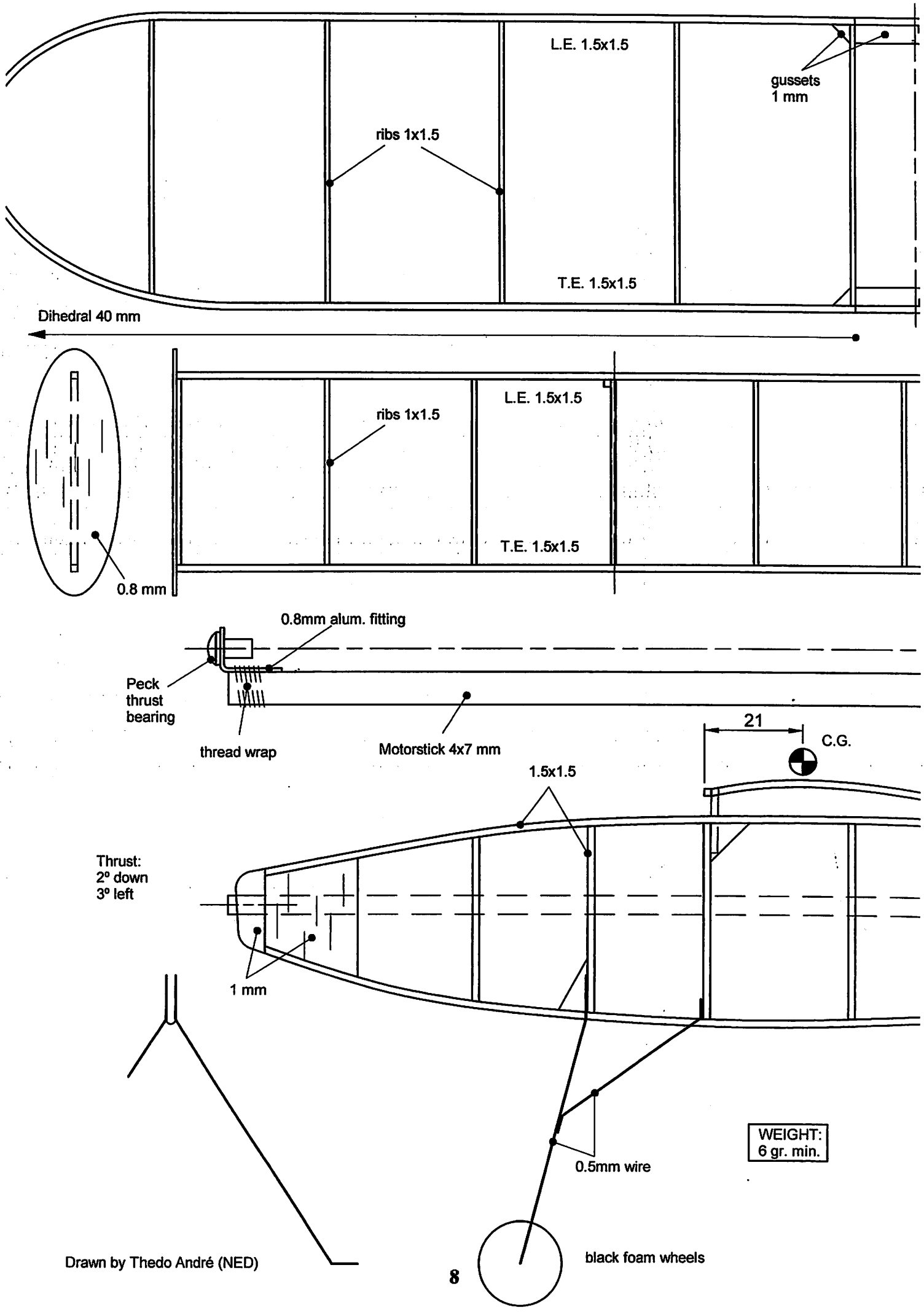
The 9th edition of this contest will be at 23rd January 2000. The site is a sporting hall with a 9 meter smooth ceiling and galleries at both sides. The classes are F1M (with unlimited rubber), TH (35cm, 2 grms), Ministick; F1N hand launch glider, Catapult and a Fun Fly too. This last is ruled with a innovative procedure, by introduction of the model (interpreter supplied by the organizers) and jury's remarks about originality, difficulty and visual result of flight, without timing. Foreign competitors are very welcomed and low priced lodging facilities are planned (hotel near the hall or private rooms or hostel). A sporting licence is not required. Contact: Carlo Pesciolini c/o Gruppo Aeromodellisti Fiorentini, P.O.Box 18250, 50100 Firenze, Italy, tel. +39 055221625.

Variable Pitch Mechanism

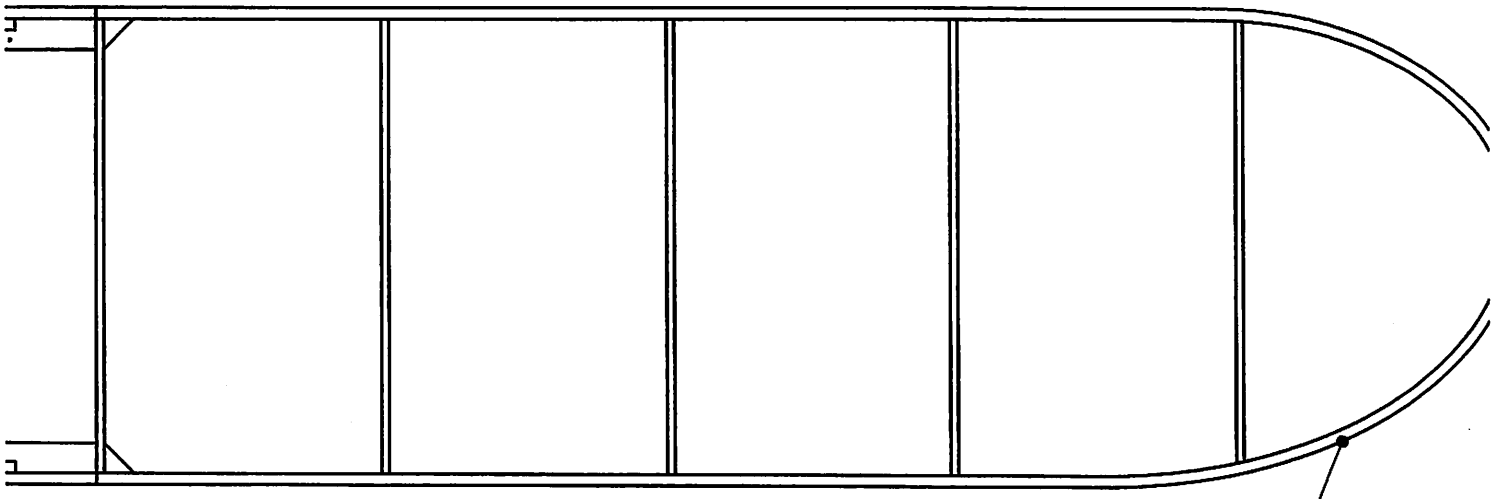
Zoltan SUKOSD from Hungary offers a variable pitch propeller mechanism for F1D models. His mechanism is small, performs well and weighs 0.075-0.08 g. The price is 40 dollars.

Address: SUKOSD Zoltan, Vacduka ter 28. I.8., H-1151 Budapest, Hungary. E-mail (through his son): saftics@satimex.tvnet.hu





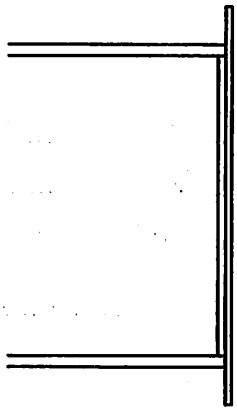
Drawn by Thedo André (NED)



1949 Wakefield Trophy Winner

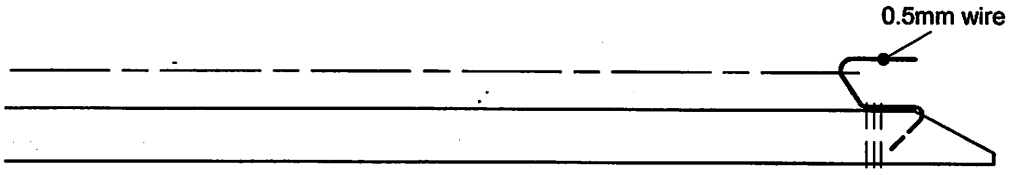
by Aarne Ellila (Finland)

No-Cal Wakefield Class



1.5x1.5
or laminate from
2 layers 0.8mm

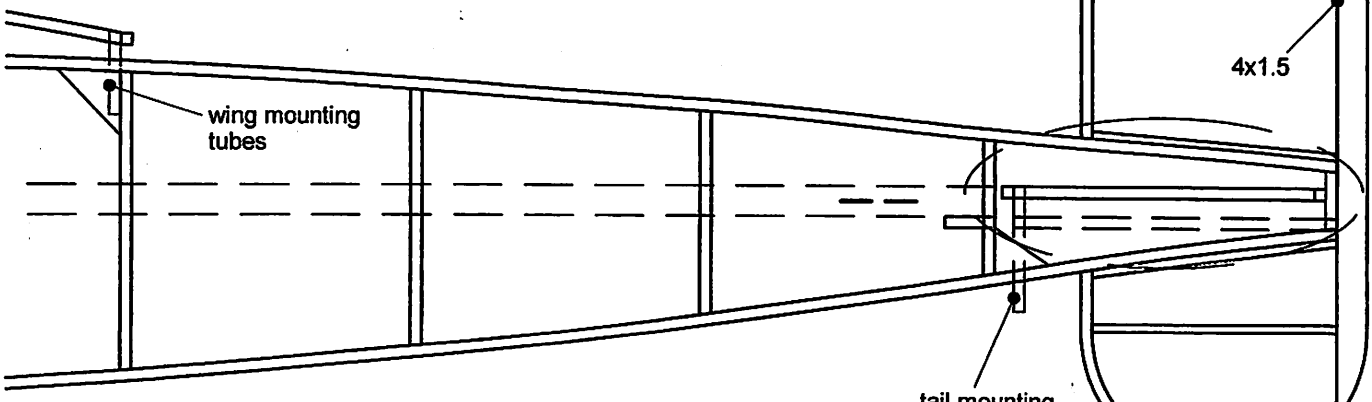
0.5mm wire



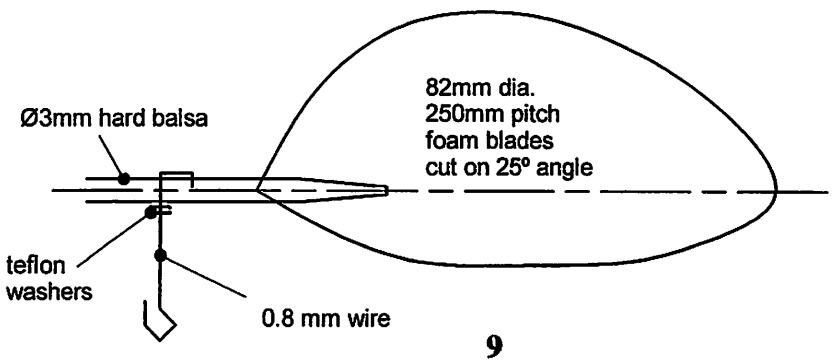
ribs 1x1.5

4x1.5

wing mounting
tubes



tail mounting
tube



Colour scheme:

Overall light pink/orange

Model flies left

Power:
1 loop 1,4-1,5 g/m Tan II
500mm long

Making Colored Tissue

by Paul Boyanowski

(from SAM 86 Speaks)

Every scale free-flight builder has faced this same dilemma; sometimes the range of color available in tissues simply won't match your scale documentation. To paint the model seems like a burden you really don't want to negotiate. But, even those of us with minimal airbrushing skills, indeed can come up with virtually any color required, and with a minimum amount of effort. First, aside from an airbrush and compressor (the air brush need not be an overly fancy model, just of good quality), we will use a friendly paint. Winsor & Newton Designer's Gouache comes in a tube as a paste form. There are many colors available, and all are water soluble. The paints mix well, give brilliant colors and clean out of the airbrush nicely with tap water. I also use plain tap water to thin the paint for application. The paints are available at artist supply stores. It may seem pricey, but a tube of gouache goes a long way.

Next, get together enough frames to paint several sheets of tissue. You may as well make plenty while you have everything out, and besides, when the inevitable time comes to repair your ship, you'll need some tissue that matches. Frames can be made from a variety of materials, wood, metal, etc.. They can be purchased as picture or window frames. I like Ralph Kuenz's idea of simply cutting an opening through an appropriate size piece of rigid cardboard. At any rate, whatever material you choose make the frames large enough to accommodate a full size sheet of tissue.

After you have attached the tissue to the frame with white glue, water shrink and allow to dry. Now apply several light coats of paint. If water droplets begin to appear you've applied a bit to much. No problem, let your work dry thoroughly and proceed to complete painting. It does not take much paint to bring the color out. Keep in mind the weight factor and shoot for the type of tissue that will display your model's lovely structure after it is applied. By the way, I use a good quality white Japanese tissue available at Joe's Hobby Centers in Dearborn, MI.

Because the paints are water soluble, they will need to be sealed. Use Krylon Crystal Clear 1301 Acrylic spray coating to do this. It is available in spray cans at your local hardware store. If your model requires a dull finish use Krylon No. 1311 Matte Finish spray coating. An even dry coat over your paint will adequately do the job. Now simply remove the tissue from the frames and and it is ready to be applied. I use thinned white glue (50/50) to attach the tissue to the airframe. For neatness sake be careful about the amount of glue you use. The tissue can be water shrunk after it is applied. Use a spray bottle and just allow the fall-out from the spray to come into contact with the tissue. Personally I just let nature take its course to do the shrinking process. There is enough humidity in the air here in Michigan to eventually give you a smooth cover job. If you like, another coat of the clear Krylon may be applied after completion of your covering to homogenize the finish although it probably isn't necessary. However, it will cover any dull spots from excess white glue. Just be sure you mask off anything you don't want to spray. Any foam parts should be covered and sealed with tissue as the spray will attack and destroy foam. As a final note, rather than using dope to apply markings such as registration etc. to the model, apply 3M Spray Mount to the back of the tissue markings for application. 3M Spray Mount Artist's Adhesive is available in spray can form at your artist supply store. I have also seen it at Kinko's Copies.

I have found using the airbrush in this manner to be enjoyable and fun, I hope you do too. Good flying.

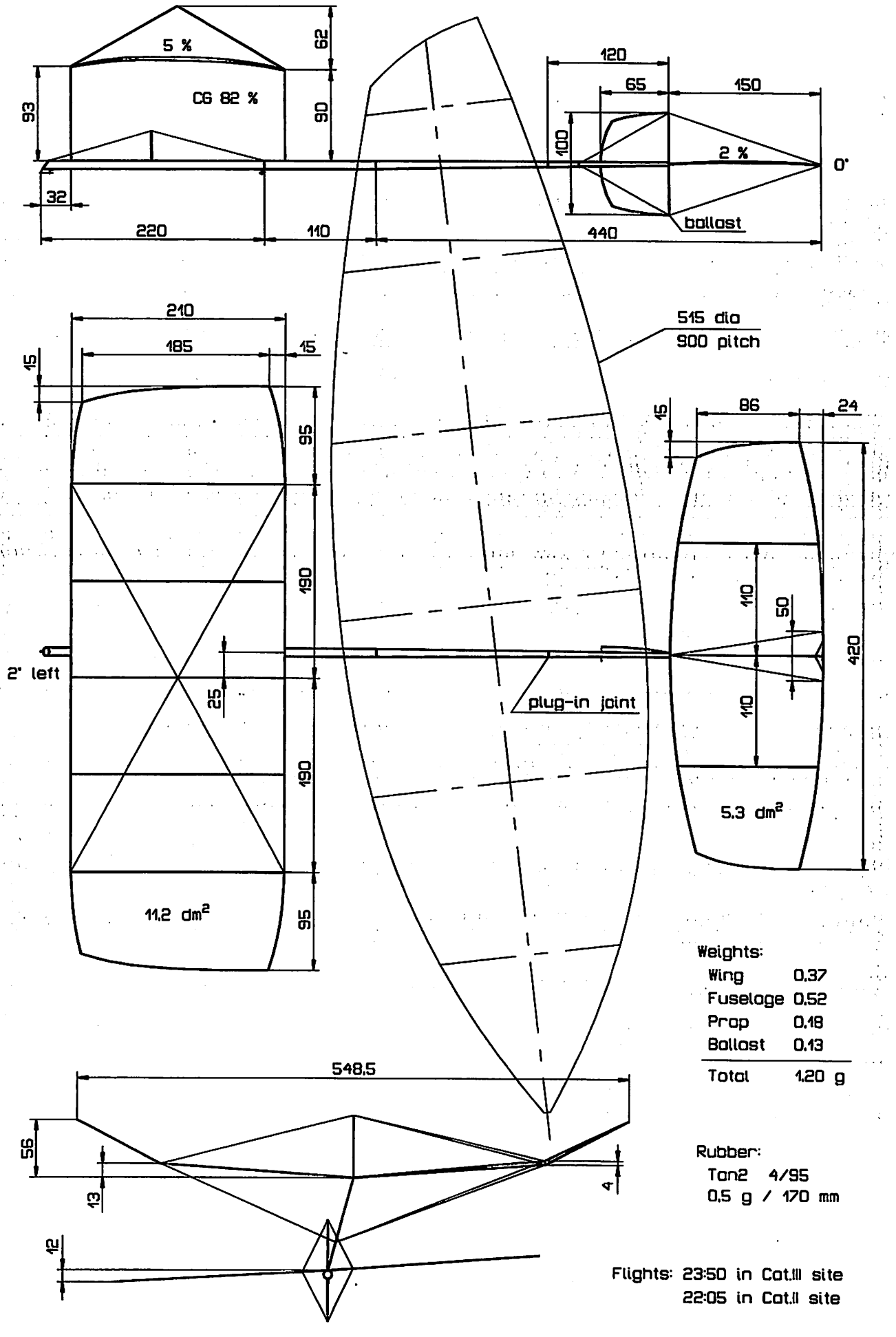
Experiences with F1D Formula 2001

by Andras Ree (HUN)

My previous tests during the past 2-3 years using 0.5 gram rubber on one of my present F1D model and also my IndooRee55 model (see the drawing) proved that this rubber is "tiny" but still usable for relative good performance, around the 60% of the present times. On the other hand the flying style is very nice because of the low surface loading.

Based on the experiences I have re-designed my new formula model but had no time to finish and fly it because of my long lasting work trip abroad. This way now I can describe only the experiences collected with the previous model and some changes made in the design.

The building was not a problem at all. I used stronger wingspars so I applied only one bracing on the wing. The rear part of the model was the same what I am using since years. I shortened a used motorstick and put a part of the rest of the tube behind the rear hook.



Weights:	
Wing	0.37
Fuselage	0.52
Prop	0.18
Ballast	0.13
Total	1.20 g

Rubber:
Tan2 4/95
0.5 g / 170 mm

Flights: 23:50 in Cat.III site
22:05 in Cat.II site

IndooRee'55 F1D-55	Andros REE - Hungory	M 1:5

The right CG position proved to be around 82%, but it was not easy to reach that. The short nose is critical because of the prop left trust. In some cases the prop touched the wing or the wing stopped the prop rotating. The CG position was adjusted by the ballast, finally it was fixed to the rudder trailing edge (see the drawing).

I intended first to have experiences with fixed prop and finally I had only a few flights with VP, because of the weather and site conditions during the season. The model proves my previous estimation that there is no real need for using VP at about 30 m site height or above. I could fly the model in Debrecen (29.3 m) without touching the ceiling and running out of the turns about landing. On the other hand the VP mechanism used was not designed for the new rule conditions, I just adjusted an existing one to make it about usable.

It was not hard to get rather safe and stable launch conditions. The initial climb happens with tilted model position. The model cruises at about a prop revolution of 40 rpm. At the end of some flights the model was deadsticked. In that cases the hook length proved to be too long, the still tight rubber was wound back by the prop while producing high drag and faster descending.

The rubber loop lengths used for my test flights were between 175 mm and 162 mm (loops made of 1.41 g/m to 1.52 g/m rubber strips respectively). These give 2.82 g/m to 3.04 g/m total rubber size for the two strips. When one checks the foreseen loop length range for the half-gram rubber, a shorter motorstick is applicable.

Based on the experiences above the changes made in my new design were intended to avoid the prop to collide to the wing and to move the expected CG position forward (there is no new drawing yet):

- nose length increased from 32 to 40 mm
- motorstick shortened from 220 to 200 mm
- total length shortened from 770 to 750 mm
- traditional stab arrangement with full length boom
- adjustable stab trailing edge position by using paper tube
- smaller stab, 400x140 mm.

One can reach me by work phone (..36-1 / 463-1366, but it is not easy to catch me), by work fax (..36-1 / 463-1366), by e-mail (ree@eik.bme.hu) and by home phone (..36-1 / 326-8216) at the late evening hours.

WING TIP

by Bill Henderson (CAN)

Continuing our review of the materials we use, this wing tip will be devoted to adhesives.

Balsa Cements

These adhesives have been around for many years, such as Ambroid, Testors, etc. and are based on cellulose nitrate dissolved in acetone. They form a strong joint, are quick setting, tend to be gap-filling and have a certain amount of grab that holds the joint in place, but the joints should be held in place by some means to ensure an accurate bond. If the joint is wrong, acetone can be used to soften the cement and corrections made. They do have several disadvantages: they have a high degree of shrink which can severely distort light structures; they are easily absorbed by end grains and thus require a first coat on these areas, which is allowed to dry before a light second coat is applied and the pieces brought together; their rapid drying can give problems in bonding up large areas such as sheeted leading edges with the possibility of areas of the cement setting before assembly is complete; they are dissolved by glow fuel, which resulted in the use of different adhesives for these type models; they have poor adhesion to plywood, hardwood and metals. In spite of this they are used extensively in indoor models, especially on joints that may have to be adjusted to change wing washin and washout, stab tilt etc..

White glues and Aliphatic glues

These were the first glues to replace balsa cements in areas exposed to glow fuel and are now used extensively in indoor and outdoor models. The white glues give soft, elastic joints and because of this have been superseded by the yellow aliphatic glues, which give much more rigid joints. Both types of glue are water based and air-cure in the same way as balsa cement. The most efficient glue joints are thin and, to achieve this, some form of clamping is required and the excess glue wiped away. These glues have low shrink, give strong joints and will bond to foam, plywood and hardwood. They are softened by water and are difficult to sand, but they now have extensive uses in the gluing of indoor model structures, especially as they can be used full-strength or thinned with water. These glues do not penetrate the wood very much and hence may create weak joints, but a new variety of aliphatic glue, called Super Phatic, has come on the market and does penetrate the wood just like Cyanoacrylates (see below) and produces high strength joints.

Report on Family Day's

"Flight Demo, and Education Exchange"

plus the

CATIA Demo

From: Boeing Hawks Newsletter

Keith Varnau
Event Coordinator
T-6650, 425-266-3197, MC: OK-07

From opening bell til' closing there was a steady gathering of youth and adults around the model airplane displays presented by the Boeing Model Airplane Program and Quality Assurance Engineering, T-6650. **What an experience!**

Fun and education happened at the same time. Northwest modelers (19 adults and 3 youth) and Boeing and community professionals (33 volunteers) shared their experiences of designing, building and flying models and Boeing airplanes. In the 777 tunnel theater, 200 participants witnessed a live CATIA Demo for 25 minutes every hour. CATIA instructors, experienced QA CATIA employees and the Everett Site Fly-Through Focal - all contributed to this popular event.

The highlight for many youth was to help wind and launch an indoor model airplane into the nearly 2.4 million cubic feet of air space. From a miniature version of Paine Field, indoor models flew for between 1 to 9 minutes. It was a thrill to see the facial expressions of those youth upon "letting go" of the models, watching them in awe of aerodynamics at work, models ascending 80 feet into the 767 bay.

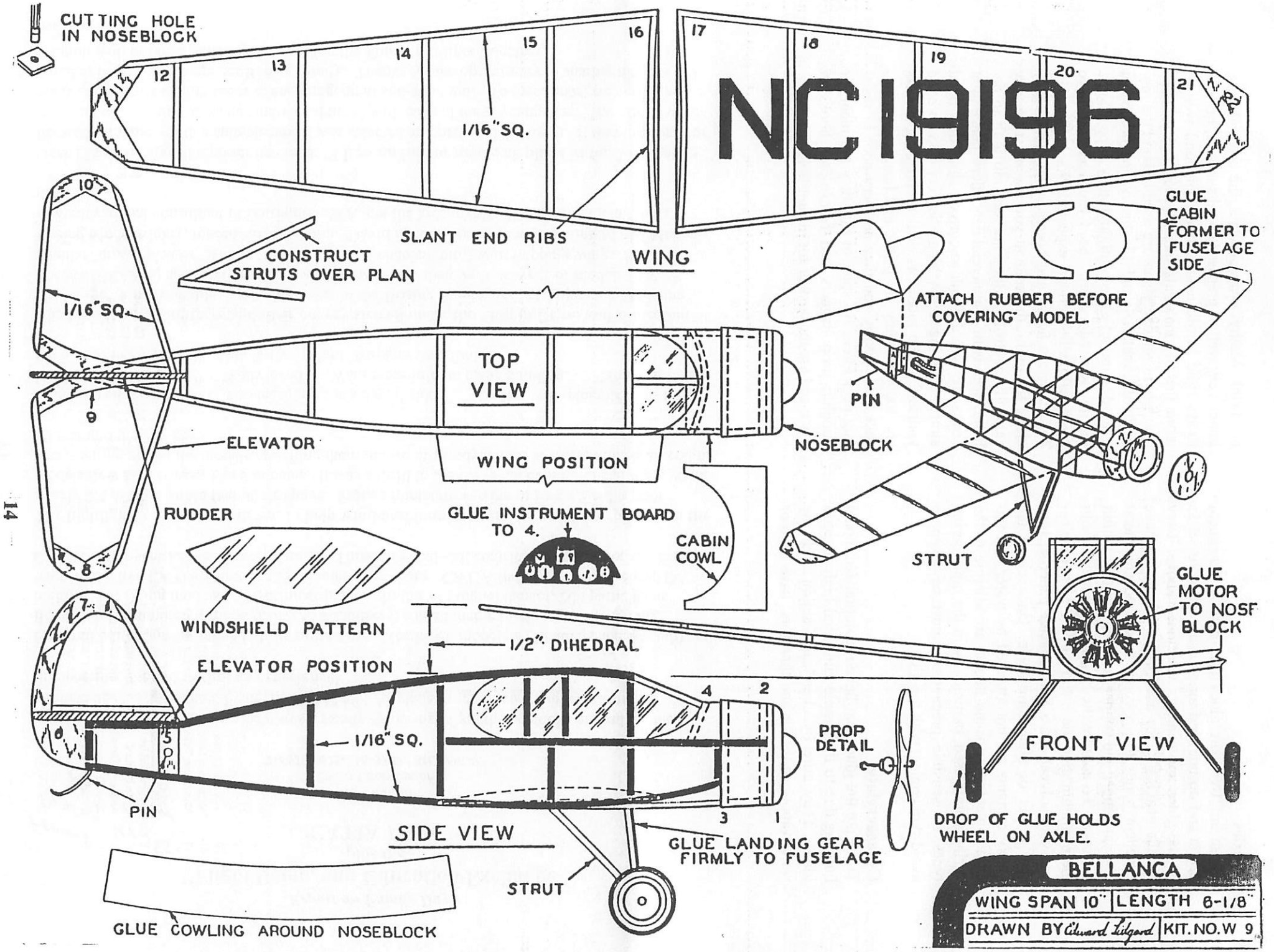
Some parent comments: "You made my son's day, thanks." "Candice will remember this for a long time." "Inspiring" "Kids loved it...Want more info on plane building." "This was by far the best of Family Day!" And, lastly: "Fun! Airplanes are fun!"

The number of volunteers and their energy shared made the "Flight Demo and Education Exchange" a memorable event. Members of the Boeing Employees' Aerodynamic Modeling Society (BEAMS) answered questions and showed how their various types of models flew. A popular "crowd pleaser" was an "Ornithoper" (mechanical bird) with flapping wings, flown by Boeing Model Maker, retired, Gil Coughlin. David Elliot, another retired Boeing Model Maker, now educational consultant in Darrington, WA, got the kids involved by having them fly his models.

Over 125 youth signed a poster that read: **"I flew an indoor model airplane in the 767 Factory."** For each of these youth a suitable model was selected and prepared for flight. It was inspiring for the event coordinator to spend "individual time" with each of these youngsters. The efforts were many...the results are but seeds of encouragement and good will. To these ends, we can all be proud to be part of the greater Boeing family. Thanks for the opportunity to sharing the joys of aviation with our next generation...Building the Future of Flight Together.

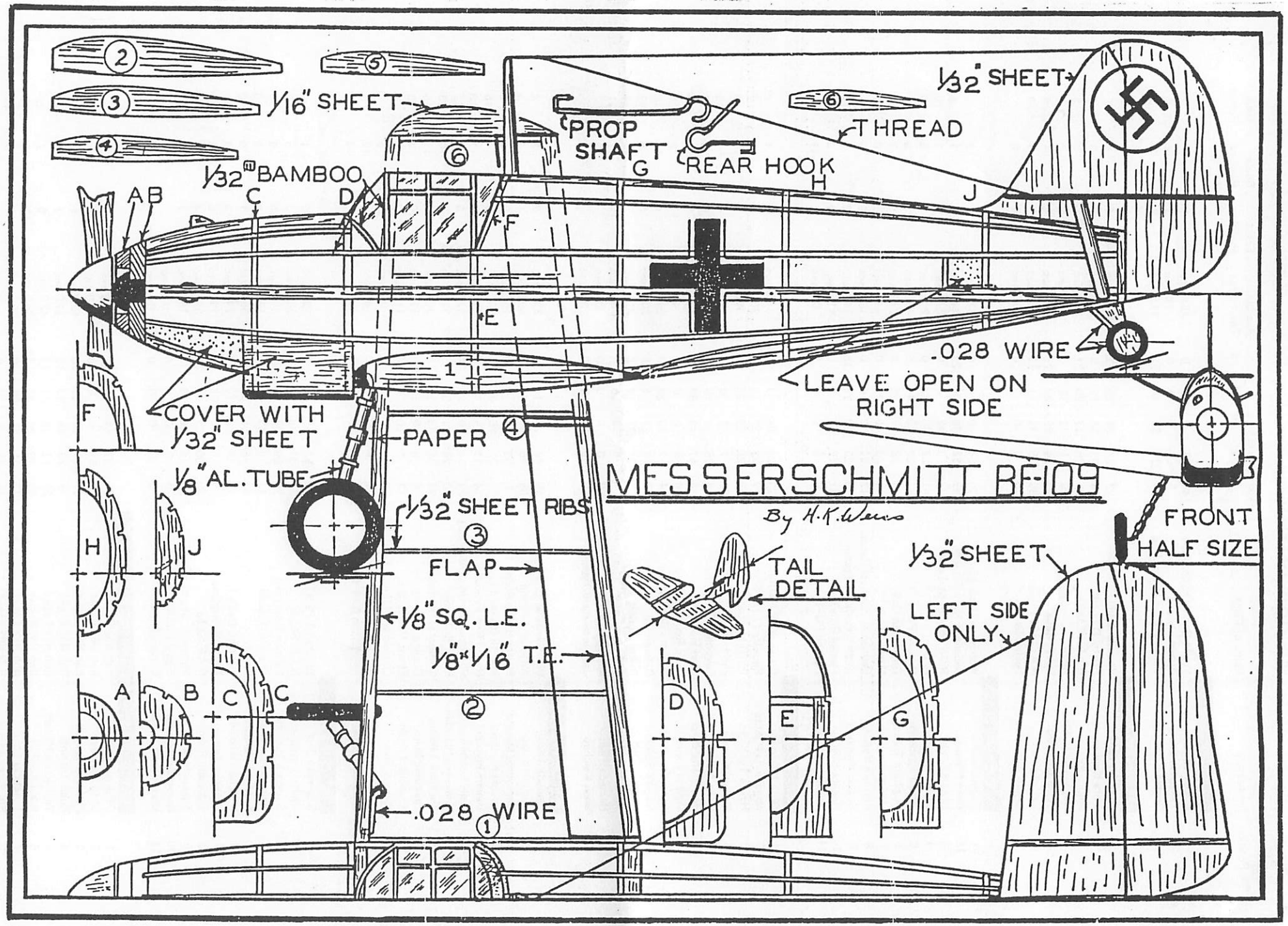
Epoxies
These are two part glues that cure by chemical action and do not need air or evaporation to set as do the glues and cements mentioned above. They are the heaviest glues used in modeling, but have excellent bonds to plywood, hardwood and metal (except copper and copper based alloys that inhibit the cure). To achieve the best bond to metals with the minimum glue the metal surface must be cleaned with solvent and a fine abrasive paper such as fine garnet or aluminum oxide. Once cured the epoxy cements are not attacked by water or common solvents, but some people are allergic to the curing agents used, particularly in the rapid curing types, so sensible precautions must be taken to avoid skin contact with the glues.

Cyanoacrylates
These are the glues that have revolutionized model building due to their rapid cures and high strength joints. They cure by chemical reaction with the water vapour in the air and therefore, have little or no shrink. Methyl cyanoacrylate, the original type, bonds very well to prepared metal surfaces, but due to it's rigid brittle nature, does not bond well to more flexible materials like plastics and rubbers. The ethyl Cyanoacrylates are used to bond the more flexible materials and it is this cyanoacrylate that is used in model glues. Although they appear to be the miracle adhesives, the Cyanoacrylates have some serious limitations, especially for indoor models: they are heavy and because they wick easily along the grain, the amount you use must be very carefully controlled; they are very difficult to debond, even with commercial debonders, hence joint errors are very difficult to correct; since they bond almost anything to anything it is very easy to bond yourself to the model as well as bonding fingers etc. together; they are brittle and hence resist impact loads poorly and they are very poor in resisting peel forces. In spite of this they are ideal for bonding prop hangers and rear motor hooks in place and are the answer for instant field repairs.


CUTTING HOLE IN NOSEBLOCK
12
13
14
15
16
1/16"SQ.
SLANT END RIBS
17
18
19
20
21
NC19196
WING
CONSTRUCT STRUTS OVER PLAN
GLUE CABIN FORMER TO FUSELAGE SIDE
ATTACH RUBBER BEFORE COVERING MODEL.
10
1/16"SQ.
TOP VIEW
9
ELEVATOR
WING POSITION
NOSEBLOCK
PIN
RUDDER
GLUE INSTRUMENT BOARD TO 4.
CABIN COWL
STRUT
8
WINDSHIELD PATTERN
1/2" DIHEDRAL
GLUE MOTOR TO NOSE BLOCK
ELEVATOR POSITION
4
2
1/16"SQ.
PROP DETAIL
FRONT VIEW
5
PIN
3
1
SIDE VIEW
GLUE LANDING GEAR FIRMLY TO FUSELAGE
DROP OF GLUE HOLDS WHEEL ON AXLE.
STRUT
GLUE COWLING AROUND NOSEBLOCK
BELLANCA
WING SPAN 10"
LENGTH 6-1/8"
DRAWN BY Edward Lidgard
KIT. NO. W 9

NAGOYA NUTS 1999 RESULTS

Position	Contestant	Name of Plane	Flight Times of 5 1	2	3	4	5	Ave of Two Flights	Flight Position	Scale Position	Total Points
	PIONEER CLASS										
1	Sugimoto Jiro	Voisin Canard Hydroplane	49	49	0	0	0	49.0 sec	1	1	2
2	Takeuchi Shiro	Bleriot Canard	5	7	7	0	0	7.0 sec	3	2	5
3	Sugihara Takashi	Voisin Canard Hydroplane	31	39	38	44	51	47.5 sec	2	3	5
	W.W.1 CLASS										
1	Ohta Masashi	Sopwith Camel	23	28	24	26	23	27.0 sec	4	1	5
2	Ohta Kenichi	Bristol D Scout	29	33	34	12	0	36.5 sec	3	3	6
3	Iimuro Ken	R.A.F. SE5a	35	38	17	20	27	33.5 sec	1	5	6
4	Nagayama Makoto	BE2e	30	11	22	11	0	26.0 sec	5	2	7
5	Takeuchi Shiro	R.A.F. SE5a	23	24	28	20	26	27.0 sec	4	4	8
6	Iimuro Ken	R.A.F. SE5a	30	35	34	11	28	34.5 sec	2	7	9
7	Iimuro Ken	Fokker Dr.1	0	0	0	0	0	0.0 sec	0	6	
	GOLDEN AGE CLASS										
1	Sugimoto Jiro	Waterman Gosling Racer	70	64	0	0	0	67.0 sec	1	2	3
2	Ohta Masashi	Japanese Navy Type 96	27	32	36	8	29	34.0 sec	4	1	5
3	Ohta Kenichi	Ryan Sprit of St. Louis	27	6	22	0	0	27.5 sec	7	3	10
4	Iwaki Keichiro	PZL	21	27	20	28	0	24.5 sec	5	5	10
5	Hirata Toshihiko	Peguna PC-1	44	32	39	40	0	42.0 sec	3	8	11
6	Sugihara Takashi	Goppingen Go9	14	28	27	26	8	27.5 sec	5	7	12
7	Maruyama Yoshiaki	Martin	41	43	46	10	0	44.5 sec	2	10	12
8	Kuroiwa Kouichi	Farman Monowheel Racer	12	24	0	0	0	18.0 sec	9	4	13
9	Suzuki Kazuhiro	Bugatti model 100 racer	15	28	20	16	16	24.0 sec	8	6	14
10	Nagata Seiichi	Parnall Pixie2	11	12	0	0	0	11.5 sec	10	9	19
11	Maruyama Yoshiaki	Peguna PC-1	0	0	0	0	0	0.0 sec		11	
	W.W.2 CLASS										
1	Ohta Masashi	Focke-Wulf Fw190	23	21	34	7	29	31.5 sec	3	1	4
2	Nagayama Makoto	Fieseler Fi 156 Storch	7	25	27	16	0	26.0 sec	5	2	7
3	Hirata Toshihiko	P51D Mustang	39	28	29	25	34	36.5 sec	2	6	8
4	Minami Kiyoshi	F6F Hellcat .	30	7	3	0	0	18.5 sec	9	4	13
5	Goto Akihiko	Fairchild PT-19	16	26	3	18	5	22.0 sec	6	8	14
6	Hirata Toshihiko	Wind Indecater	34	47	49	62	0	55.5 sec	1	13	14
7	Minami Kiyoshi	Aichi Ryusei B7A-3	6	3	0	0	0	4.5 sec	11	5	16
8	Asou Yasuyuki	Junkers Ju87 Stuka	24	7	29	29	18	29.0 sec	4	12	16
9	Nagata Seiichi	Delanne 10	17	8	21	1	19	20.0 sec	8	9	17
10	Kitahara Chihei	Nakajima KI-87	15	21	21	17	18	21.0 sec	7	10	17
11	Asou Yasuyuki	F6F Hellcat	7	5	3	0	0	6.0 sec	10	11	21
12	Hamada Taku	Miles M-18	0	0	0	0	0	0.0 sec		3	
13	Iwaki Keichiro	Japanese Navy Type93	0	0	0	0	0	0.0 sec		7	
	MODERN CLASS										
1	Hamada Taku	Piper J-3Cub (Itoh)	10	49	29	11	27	39.0 sec	2	2	4
2	Sugimoto Jiro	Wittman Tailwind	88	36	83	44	0	85.5 sec	1	3	4
3	Nagayama Makoto	Pilatus Turbo Porter	0	32	0	0	0	16.0 sec	8	1	9
4	Suzuki Kazuhiro	Mig-15 (Ducted Fan)	25	23	25	28	24	26.5 sec	6	4	10
5	Minami Kiyoshi	Ryan FR-1 Fireball	24	17	19	5	3	21.5 sec	7	5	12
6	Iwaki keichiro	P51 Mustang (Miss.America)	27	31	10	22	34	32.5 sec	5	7	12
7	Kunimasa Hideaki	Fuji T-5 Trainer	20	26	23	31	43	37.0 sec	3	10	13
8	Sugihara Takashi	Contester (Homebuilt)	24	36	35	36	0	36.0 sec	4	11	15
9	Takeuchi Shiro	Cessna AG wagon	6	8	9	13	0	11.0 sec	10	8	18
10	Kazaoka Tamaki	Evans Volksplane	13	5	10	0	0	11.5 sec	9	9	18
11	Nishina Tomoshi	Cosmic wind (Little Toni)	0	0	0	0	0	0.0 sec		6	
12	Nakai Kataro	Itoh N62 Eaglet	0	0	0	0	0	0.0 sec		12	
13	Watanabe Naoki	Andreason BA4-B	0	0	0	0	0	0.0 sec		13	
	PISTACHIO CLASS										
1	Sugimoto Jiro	Boulton & Paul P-9	38	38	40	0	0	39.0 sec	2	1	3
2	Michel Leveque	R.A.F. SE5a	32	31	36	36	0	36.0 sec	3	5	8
3	Sugihara Takashi	Farman Post card	26	29	28	32	27	30.5 sec	5	4	9
4	Nagayama Makoto	Sopwith Tabloid	12	9	13	20	16	18.0 sec	8	2	10
5	Sugihara Takashi	Fike E	43	48	55	51	57	56.0 sec	1	9	10
6	Nishina Tomoshi	Lippisch Delta 1	11	16	8	10	13	14.5 sec	9	3	12
7	Kazaoka Tamaki	Evans Volksplane	6	8	18	8	21	19.5 sec	6	6	12
8	Takeuchi Shiro	R.A.F. SE5a	28	30	31	33	32	32.5 sec	4	8	12
9	Takeuchi Shiro	Pietenpol Sky Scout	14	15	16	19	19	19.0 sec	7	10	17
10	Nagayama Makoto	Sigma USSR	0	0	0	0	0	0.0 sec		7	
11	Maruyama Yoshiaki	Curtiss Robin	0	0	0	0	0	0.0 sec		11	
	ONE DESIGN CLASS OF ITOH N62 EAGLET										
1	Danjyo Akihiro	Itoh N62 Eaglet	60	57	61	56	27	60.5 sec	2	1	3
2	Ohta Kenichi	Itoh N62 Eaglet	49	51	0	0	0	50.0 sec	3	2	5
3	Kazaoka Tamaki	Itoh N62 Eaglet	51	61	63	39	30	62.0 sec	1	5	6
4	Kubo Tetsuro	Itoh N62 Eaglet	8	29	49	33	15	41.0 sec	7	6	13
5	Yoshikawa Hiroshi	Itoh N62 Eaglet	22	13	33	51	17	42.0 sec	6	7	13
6	Iwaki Keichiro	Itoh N62 Eaglet	40	20	28	32	18	36.0 sec	13	4	17
7	Takeuchi Shiro	Itoh N62 Eaglet	27	31	21	28	10	29.5 sec	16	3	19
8	Shimizu Kazuo	Itoh N62 Eaglet	38	43	45	0	0	44.0 sec	4	16	20
9	Hirata Toshihiko	Itoh N62 Eaglet	44	22	29	23	0	36.5 sec	12	9	21
10	Hasegawa Akira	Itoh N62 Eaglet	5	17	23	45	31	38.0 sec	11	11	22


MESSERSCHMITT BF-109
By H.K. Wens
1/32" SHEET
1/16" SHEET
PROP SHAFT
REAR HOOK
THREAD
1/32" BAMBOO
.028 WIRE
LEAVE OPEN ON RIGHT SIDE
COVER WITH 1/32" SHEET
PAPER
1/8" AL. TUBE
1/32" SHEET RIBS
FLAP
1/8" SQ. L.E.
1/8"x1/16" T.E.
.028 WIRE
TAIL DETAIL
FRONT HALF SIZE
LEFT SIDE ONLY
AB
C
D
F
G
H
J
E
A
B
C
C
D
E
G