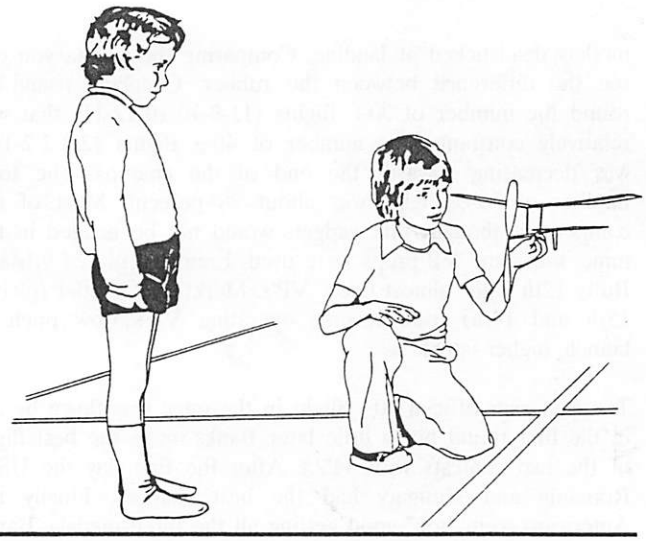
Indoor News

Issue 29 November 1994



DIARY

31 Dec, 1 Jan **MIAMA-Delta King Orange +**
14,15 Jan **Pistachio Inter-Gnats.** Doc Martin,
Miami 2180 Tigertail Ave., Miami, FL 33133, USA. See details in this issue.
1 Jan-31 March **Living Room Stick Postal International.** Mike Colling, 403 Mossy Lea Road, Wrightington, Wigan, Lancs., England, WN6 9SB, Telephone 0257 452624.
18-20 Aug **Interscale '95**, F4D, F4E, F4F and
Maastricht Pistachio, T. Schippers, P.O.Box
Netherlands 2060, 6201CD Maastricht, Netherlands, Phone 00+31.(0)79.212195.
24-27 Aug **19th International Indoor**, All
Liège classes, Bernard Delhalle, rue de
Belgium Souvret 62, B-4100 Sclessin-Liège, Belgium.

1994 F1D INDOOR WORLD CHAMPIONSHIPS

Slanic, September 20-25, 1994

Report by Andras Ree (HUN)

Enclosed I send you the official results of the Indoor World Championships and also of the open international Euroindoor Cup contest. The attendance at this international was not high, but the medal winner teams of the W/Ch were present. The competitors were not housed in Slanic, because the level of the local hotel had decreased too low. Instead we stayed in Ploesti, about 40 km from Slanic and therefore about two hours travel was needed per day.

When you see the results you can discover the high improvement of the results compared to the previous best flights in the mine. I think the main reason is the TanII rubber! Another reason was a new arrangement for the flying site (suggested by Aurel Popa) to make it less crowdy, so we had to walk a lot to fly. This way the conditions on the first and second day were better than during the previous W/Ch in 1982. For the third day the arrangement was broken by most of the persons and therefore the conditions were not as good as before.

It's funny, but I have to correct the bulletin relating the height of the mine. It was published to be 54 m, but we made a measurement after the E/Ch in 1991 at the crossing point of the two legs of the L-shape which showed 62,25 m. It is also true that the height is not constant, but it is over 60 m at other points.

Nearly everybody worried for this champs because of the lack of Pirelli rubber, and because all of the previous American rubbers had proved to be bad in the mine because of their strong temperature sensitivity (we saved our few good old Pirelli since the E/Ch in 1991 just for the mine). During the W/Ch all of the top flyers were using TanII, as did most of the other competitors. We only used our Pirelli at the beginning of the practice day. The American team had their rubber from the best batch and the Romanian team also had some of the same. Our TanII (1/4" wide) was good but very brittle in warm conditions (two of our models exploded in Debrecen during flight at 30°C site temperature). In the mine there was no such problem. This batch was somewhat weaker than the batch used by the Americans and the Romanians as we discovered later. Nevertheless, it was acommon opinion that the new rubber will give the mine a better reputation and better chances for the future. It is interesting to compare the different rubbers. Steve Brown used 1,78 g/m, 381 mm long, 1,44 g rubber with a ϕ508/914 mm prop, and climbed even higher than me with 1,9 g/m, 380 mm long, 1,48 g rubber with a ϕ510/830 prop (similar shape) for my best flight (42+). Both

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 (I can read the latter two, but not write them). Please type your texts on 12,5 cm width. Texts can be sent on floppy disk (3½ or 5¼) in Wordperfect or ASCII format.

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models deadsticked at landing. Comparing these data you can see the difference between the rubber. Checking round-by-round the number of 30+ flights (11-9-10-10-12-11) that was relatively constant. The number of 40+ flights (2-4-2-2-1-0) was decreasing towards the end of the champs. The total number of 30+ flights was about 28 percent. Most of the competitors thought that gadgets would not be needed in the mine, but some VP props were used. Enomoto placed 9th and Butty 12th with "almost fixed" VP's. Merkt and Kuttler (placed 15th and 14th) used reverse operating VP's (low pitch at launch, higher later).

The first ever official 40+ flight in the mine was flown by me in the first round but a little later Banks made the best flight of the two contests with 44'23. After the first day the USA, Romania and Hungary had the best chances. Finally the Americans were "too" good getting all the three medals. Banks placed second for the fifth time, now behind the "junior" (41) of his team, the very consistent Steve Brown. By now Cezar is called the "Silver King".

The Euroindoor Cup after the W/Ch was flown in similar conditions like the first day of the champs. There was just some mixing of the places between the three dominating teams and team members. Just after these teams an international team placed fourth, consisting of the team managers (Romak, Botos and Moraru) of the three best teams.

The organizers have made their best between the given conditions, so let me say not just on behalf of myself, thank you! The spirit was good, there were no protests and the jury (Ian Kaynes, Werner Groth, Mihail Zanciu) had no troubles. As I mentined before, I hope that the TanII will give back the reputation of the mine. We have very few good sites and very few organizers for champs (e.g. no host by now for the next E/Ch), so we need the mine, even though it is cold and dark. It is a real challenge to fly there and the Romanians are able and ready to be host again in the near future.

Report by Bob Randolph (USA)

The U.S. Indoor Team placed 1,2,3 in the 1994 Indoor World Championships, which were held in the infamous Romanian Salt Mine. This site with its cold temperature, dim lighting, and narrow model catching walls, is the toughest that I have ever flown. We had been warned about the impossible flying conditions and were happy to find conditions much better than expected. All of our models made it safely to Romania in good shape due to special travel arrangements made by Bud Romak, our team manager. However, the hour long bus ride from our hotel in Polesti to the mine was such a jolting ride that 3 of my ships were damaged. Two wing cabane struts were broken (repairable) and one wing's mike shattered.

Two days were provided for test flying, but hydrogen was only available for the last 3 hours of the second day, so few ½ motor and no full motor flights were made. The superiority of Tan II rubber was not accepted by the Europeans until after I made some 20 minutes plus ½ motor test flights and Cezars great 44'23" first official flight. At heights over 150 ft (45.7 m) it was impossible to see well enough to steer, so about half the time high level drift would take our models into the walls where they would slide down and stick to the salt. I actually hit the walls on four of my six official flights. My first flight only grazed a wing tip after the first half circle, one ship slid down 40 ft (12.2 m) before breaking loose undamaged and flying down. Two ships stuck fast at good altitudes after leveling off. It seemed to me that just when you had a ship flying well, it would be destroyed or lost, so you had to start working with another model. It was very difficult to judge how high our models climbed and what distance was left between the ship and the ceiling. The Romanian team members were very helpful in explaining their method of using the shadow of the model on the opposite wall to judge model height.Our hotel accommodations were of minimal standard and required a good sense of humor to accept. For example, the water was turned off from about 11PM to 6AM each day. This allowed air into the pipes so that when you turned a faucet on in the morning, it would spit and splatter you like the guy in the TV advertisement caught in the airplane john. One pleasant moment I recall was when an astute Chinese contestant observed my successful technique and declared that I was the worlds best steerer. Another incident that gives me a chuckle was the surprised look on Steve Brown's face when a rejected Romanian gypsy beggar woman in Bucharest declared him a S.O.B. in perfect English.

Steve had the best built and adjusted models and deserves to be World Champion. Cezar is always a great competitor and his 44'23" flight won the high time award and helped gain second place. Our team had the talent and resolve to overcome the incredibly difficult challenge of the Salt Mine. Our three supporters, Dr. Robbins, Dr. Hacker and Larry Parsons were very helpful and great friends. This was my fourth World Championship and each time the US Team has won. However, this is the first time that gold medals were awarded to our efforts. I would like to thank the AMA for sending us to Romania. It was a little embarrassing that the US was the sole country that had not payed the entry fees nor furnished certified contestant I.D..

It is always a pleasure meeting old friends again and I would like to thank the Romanian Federation for an outstanding championship. Our US Team worked hard to prepare for this competition and it was gratifying to finish 1,2,3. Two days after our return to the US, we had our monthly flying session in the Santa Ana Hangar. I have always loved this site, but after the Salt Mine, this is definately indoor model flying heaven.

Report by Steve Brown (USA)

The contest in the salt mine was very challenging, but conditions were better than we had anticipated. It is a difficult site, particularly in regard to the low visibility, the cold temperature, and the narrowness of the upper 1/3rd of the hall. The organizers implemented good crowd control on the first two days. By the third day the crowd control was relaxed and conditions began to slowly deteriorate. Apparently everything was better than in 1982. Attendance was low, probably because of past history, but I found it fascinating and would go back again.

The model I used at the WC is a variation on my usual Banks-inspired design. I increased the wing wash to .375" to improve power handling and built stronger motor sticks. I also used the new .003" boron on the tailboom and wingposts. I didn't notice any structural problems related to the high humidity in the mine. I built 9 new props for the WC: 19 and 20" diameters of 34 to 40" pitch. I only used two, both the same configuration, 20/36 symmetrical. These props were intentionally built stiff and slightly heavy. The prop outline and ribs were selected for extra strength to withstand the force of high altitude steering.

1994 F1D SENIOR INDOOR WORLD CHAMPIONSHIPS INDIVIDUAL RESULTS

1	Steve Brown	USA	9'43	42'15	43'48	43'50	39'15	38'15	87'38
2	Cezar Banks	USA	44'23	39'57	14'20	4'18	26'42	35'36	84'20
3	Bob Randolph	USA	35'08	38'07	41'23	35'00	42'17	12'00	83'40
4	Andras Ree	HUN	40'17	41'23	38'15	40'45	0'50	1'11	82'08
5	Corneliu Mangaleu	ROM	10'27	41'15	39'21	8'43	35'30	37'38	80'36
6	Dezso Orsovai	HUN	37'05	28'55	10'56	39'10	36'30	34'32	76'15
7	Aurel Popa	ROM	10'54	40'21	35'54	14'15	22'12	14'54	76'15
8	Vasile Nicoara	ROM	32'32	38'04	35'53	32'20	37'16	35'07	75'20
9	Hideyo Enomoto	JAP	30'46	35'48	15'40	26'16	37'47	30'55	73'35
10	Edward Ciapala	POL	34'47	34'27	29'53	30'32	37'28	33'41	72'15
11	Dieter Siebenmann	SUI	22'53	0'09	11'52	33'35	34'23	36'27	70'50
12	René Butty	SUI	36'20	23'04	30'56	24'54	23'42	32'33	68'53
13	Jan Dihm	POL	34'43	15'40	32'19	28'35	31'25	1'06	67'02
14	Peter Kuttler	GER	31'04	1'20	16'06	30'45	35'10	23'53	66'14
15	Thomas Merkt	GER	0'02	24'27	33'40	32'22	26'23	29'08	66'02
16	Ferenc Bakos	HUN	25'25	1'49	24'52	30'31	31'46	30'28	62'17
17	Pentti Nore	FIN	24'32	28'43	19'39	29'20	30'41	23'03	60'01
18	Victor Orlov	RUS	26'44	29'35	30'06	24'13	29'54	24'28	60'00
19	Robert Champion	FRA	30'45	13'35	26'25	24'44	18'55	27'37	58'22
20	Lu Xiu Sen	CHN	23'13	2'46	28'18	28'45	0	0	57'03
21	Alex. Romashov	RUS	0'17	28'54	0'40	13'52	28'06	0	57'00
22	Sylvester Kujawa	POL	28'28	25'39	17'25	27'50	1'17	13'01	56'18
23	Lutz Schramm	GER	0	26'57	13'31	21'35	0'10	28'45	55'42
24	Jean-Marie Chabot	FRA	23'21	16'41	11'25	17'38	0'37	30'05	53'26
25	Gao Guojun	CHN	5'27	0	19'08	22'12	25'26	25'21	50'47
26	Chen Gang	CHN	14'28	0	24'08	0	19'53	26'38	50'46
27	K. Gershtentsveig	UKR	0	0	24'10	18'30	25'25	24'56	50'21
28	Leif Englund	FIN	0'09	9'41	18'10	8'54	23'38	26'05	49'43
29	Anatoly Petrov	RUS	20'18	28'54	2'15	18'29	1'39	4'18	49'12
30	Bernard Trachez	FRA	25'03	19'20	18'29	21'51	19'37	22'07	47'10
31	Yuri Zacharov	UKR	5'22	0	22'35	20'16	18'05	8'45	42'51
32	Shigeyoshi Nonaka	JAP	1'56	1'20	12'07	21'04	15'25	21'32	42'36
33	Vasily Moskalev	UKR	12'48	18'10	15'00	16'35	15'45	15'00	34'45
34	Vilim Dreher	YUG	0	0	7'08	9'56	0	20'54	30'50
35	Harro Erofejeff	FIN	5'58	13'28	9'54	13'57	3'45	13'50	27'47
36	Slobodan Midic	YUG	4'47	6'01	12'54	9'25	12'07	4'21	25'01
37	Oto Dreher	YUG	4'25	14'28	8'09	2'22	1'03	7'49	22'37

1994 F1D JUNIOR INDOOR WORLD CHAMPIONSHIPS INDIVIDUAL RESULTS

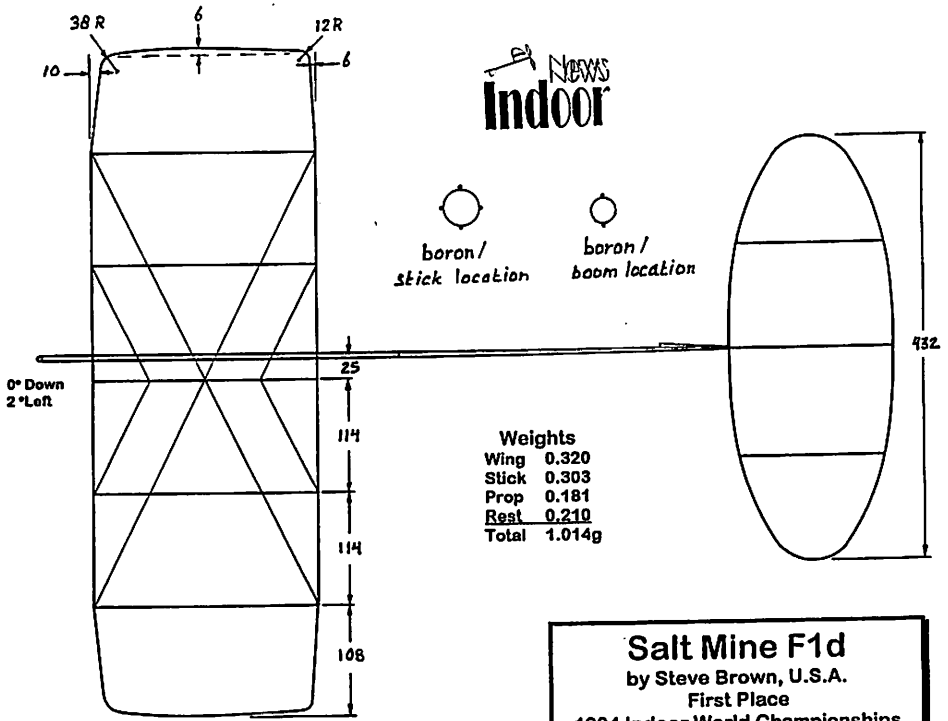
1	Levente Bolonyi	ROM	26'29	0'10	8'53	22'40	30'13	32'15	62'28
2	Lu Min	CHN	14'14	0'15	10'06	16'03	31'24	25'57	57'21
3	Andrey Polujanov	RUS	25'53	28'16	27'57	24'08	0'20	21'40	56'13
4	David Karpatsopulos	POL	17'14	19'18	0	30'04	24'43	8'11	54'47
5	Adam Szukata	POL	0	26'03	0'34	26'40	0	13'58	52'43
6	Alexander Dronov	UKR	18'17	21'51	24'44	9'30	0	27'30	52'14
7	Daniel Doaga	ROM	19'19	22'18	21'08	12'34	26'05	25'09	51'14
8	Krysztof Czapla	POL	23'36	0	22'20	24'27	18'16	25'26	49'53
9	Valentin Doaga	ROM	18'59	18'16	21'15	20'13	16'22	26'56	48'11
10	Andrei Podlesny	UKR	0	0	18'43	20'33	23'04	24'55	47'59
11	Vladimir Linardic	CAN	1'24	9'42	21'35	11'17	18'17	0'40	39'52

SENIOR WORLD CHAMPIONSHIPS TEAM

1	USA	USA	255'38
2	Romania	ROM	232'11
3	Hungary	HUN	220'40
4	Poland	POL	195'35
5	Germany	GER	187'58
6	Russia	RUS	166'12
7	France	FRA	158'58
8	China	CHN	158'36
9	Switzerland	SUI	139'43
10	Finland	FIN	137'31
11	Ukraine	UKR	127'57
12	Japan	JAP	116'11
13	Yugoslavia	YUG	78'28

JUNIOR WORLD CHAMPIONSHIPS TEAM

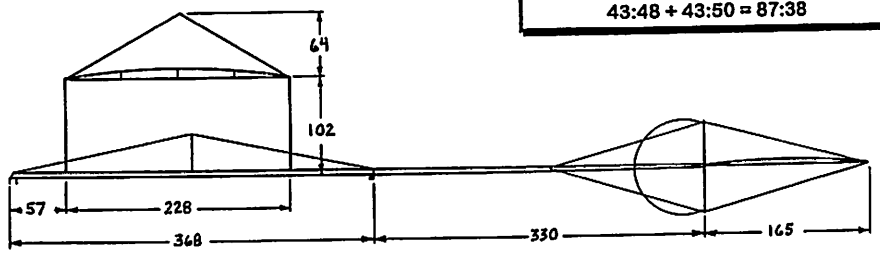
1	Romania	ROM	161'53
2	Poland	POL	157'23
3	Ukraine	UKR	100'13
4	China	CHN	57'21
5	Russia	RUS	56'13
6	Canada	CAN	39'52

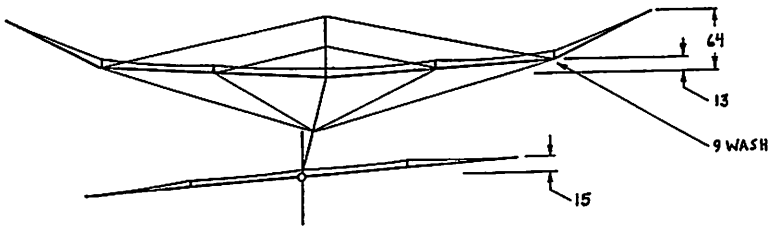


News Indoor

Salt Mine F1d

by Steve Brown, U.S.A.
First Place
1994 Indoor World Championships
Slanic, Romania
43:48 + 43:50 = 87:38





Materials & Dimensions

Wing

spars	.84 X 1.09 6.3lb
middle ribs	.76 X 1.09 5.4lb
compression ribs	
top	.76 X .76 5.2lb
bottom	.94 X .61 5.2lb
uprights	.08 boron
tips	.76 X .94 5.4lb
wingposts	.90 X 1.63 → .90 X 1.14 6.2lb
	(2) .08 boron, full length
bracing	.01 tungsten
airfoil	3% arc

Stabilizer

spars	.71 X 1.22 → .56 x .81 5.6lb
center rib	.71 X 1.07 5.4lb
outer ribs	.64 X .90 5.2lb
bracing	.01 tungsten to center rib only
airfoil	2% arc

Motor Stick

tube	.33 6.35id 3.9lb
	(4) .10 boron, full length
webs	.51 4.5lb
rear hook	.33
bracing post	1.00 X 1.00 X 44.4 6.5lb
bracing	.025 tungsten, single strand
thrust bearing	Harlan, modified

Tail Boom

tube	.20 6.00id → 3.60id 3.9lb
	(2) .08 boron, full length

Fin

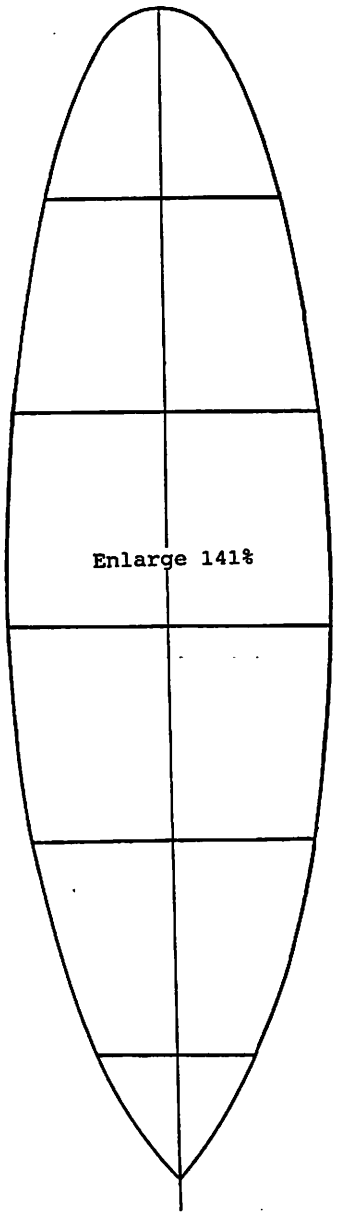
post	.66 X 1.22 → .66 X .90 5.7lb
outline	.10 boron

Propeller

spar	1.73 X 2.00 → .90 X .90 5.5lb
ribs	.60 X .64 4.8lb
outline	.64 X .64 5.0lb
shaft	.33
airfoil	3.5% arc

Rubber

Tan II August 1993
1.17 X 1.78 X 381.00 = 1.44g
2090 turns, none left = 47.7 RPM average



Talk at Slanic was that the Czech Republic has submitted a bid for Brno in 1996. It seems like a very low ceiling site for a WC, so I guess we will all be flying variable pitch propellers. There is some talk of a bid by Moscow, Idaho in the U.S., but I hope the next WC will be held in Europe.

IMPRESSIONS OF LIEGE '94

By Jeroen Wackers and David Lentink (NL)

For the 18th time the most famous indoor contest of the Benelux was held in Flémalle. On thursday, friday and saturday all duration classes had to fly, but in some cases there was not much "duration" to speak of. Or would it be the duration before crashing.... both your reporters damaged their (first) F1D models even before making a comp flight!

The F1L and Micro 35 fliers kept amazing us, some with their good times and some other competitors with their aerobatic program. We wondered what was the propellor: the 45 degrees tilted stabilizer (due to a weak tailboom) or the nicely rotating thing in front of it... But certainly, the standards in F1L where a lot better this year which is a good sign, especially the juniors who were doing almost as good as the seniors.

In the F1D Beginner Junior class the "veteran Flémalle visitors" were doing very well. Durk Steenhuizen started right of with flights of seven minutes! Unfortunedly the infamous ROPE was still hanging half a meter beneath the lamps. Despite being warned Jeroen Wackers launched his F1D Beginner model right underneath but fortunately Thedo André could release it routinely. After some repairing Jeroen flew 9:04 and...then Durk made a very remarkable last flight of 8:53 with his Moustique, causing Jeroen some respiration problems! Also Olaf Wevers did well by becoming third in three classes. Soon after we discovered his secret... he had bought some TanII on the spot in

1994 EUROINDOOR WORLDCUP F1D SENIOR INDIVIDUAL RESULTS

1	Cezar Banks	USA	39'43	42'06	41'54	40'29	34'52	9'58	84'00
2	Andras Ree	HUN	30'51	38'47	40'46	36'18	0	42'11	82'57
3	Steve Brown	USA	6'41	0	44'17	21'12	0	38'22	82'39
4	Dezso Orsovai	HUN	37'15	40'35	38'05	36'18	36'56	41'20	81'55
5	Aurel Popa	ROM	33'45	40'02	16'45	38'55	36'32	39'25	79'27
6	Bob Randolph	USA	36'29	42'49	17'23	0	27'51	0	79'18
7	Vasile Nicoara	ROM	38'45	38'05	36'11	12'58	37'29	36'02	76'50
8	Dan Amoraritei, ROM	INT	1'43	28'19	0	31'47	35'05	39'07	74'12
9	Bud Romak, USA	TMT	23'51	25'34	29'20	30'23	34'08	38'45	72'53
10	Ferenc Bakos	HUN	20'02	2'00	27'04	33'38	37'28	33'12	71'06
11	Istvan Botos, HUN	TMT	35'10	34'31	18'10	30'06	34'18	33'50	69'52
12	Aurel Moraru, ROM	TMT	32'42	34'53	0	34'10	0	31'27	69'03
13	Zoltan Zukosd, HUN	INT	26'06	26'41	31'02	29'41	12'49	32'02	63'04
14	Robert Champion	FRA	27'33	30'42	30'38	0	0	0	61'20
15	Corneliu Mangalea	ROM	37'05	1'30	17'02	0	17'09	22'40	59'45
16	Herb Robbins, USA	INT	0'40	30'17	24'30	2'56	0	0	54'47
17	Guy Cognet	FRA	19'00	0	20'35	22'10	25'42	21'31	47'52

INT= International team, TMT= Team managers team

1994 EUROINDOOR WORLDCUP F1D JUNIOR INDIVIDUAL RESULTS

1	Alina Dragomir, SR	ROM	14'54	29'15	33'23	0	0	21'23	62'38
2	Daniel Doaga, NT	ROM	24'30	29'04	25'45	32'33	29'49	29'12	62'22
3	Valentin Doaga, NT	ROM	24'35	23'08	0	26'03	29'48	0	55'51
4	Levente Bolonyi, NT	ROM	12'18	12'55	28'55	19'35	0	0	48'10
5	Cristina Popa, TM	ROM	12'56	17'41	21'05	16'20	14'14	0	38'46
6	Denisa Armatu, SR	ROM	11'57	14'48	15'13	19'02	14'00	15'19	34'21
7	Ancuta Surca, SR	ROM	0'51	0'08	0	0	0	12'32	13'23

SENIOR TEAM RESULTS

1	USA	USA	245'57
2	Hungary	HUN	235'58
3	Romania	ROM	216'02
4	Team Managers	TMT	211'48
5	International	INT	192'03
6	France	FRA	109'12

JUNIOR TEAM RESULTS

1	Romania, Nat. Team	NT	166'23
2	Romania, Sp.Rosiori	SR	110'22
3	Romania, Tirgu Mures	TM	38'46

the SAMS stand! The SAMS stand attracted a lot of attention on all four days. They sell almost everything for indoor flyers you can think of!

There where 7(!) entries in F1D Microfilm. Most of them had Hunt lookalike models, and there were even three juniors, who unfortunately couldn't set a single official time (beginning is allways hard, but "kick" them up boys!). There was a close competition going on between Christophe Hanriot and Michael Green (second and third). Thedo André won despite some bad luck with the conditions. A promising flight which was still at the lamps after 20 minutes, ended in a steering accident. It could have been 34 minutes. We all regretted that Werner Nimptsch could not come because he had to undergo hip surgery. We wish him well and hope to see him next year.

In the Sainte Formule Junior class Durk did again a good job by becoming first, although he could not be certain about that till the end of the competition as G. Celi started to make some very promising flights.



G. Celi (B) repairs his Easy Bee

Lubomir Koutny flew a new "official" record with his Sainte: 5'22! So he won deservedly. Peter Frostick did also very well with 4:53. Indeed, the standards were very high.

On saturday and sunday there was a lot of Scale, Fun and strange flying going on. Andrew Halstead flew his well flying canard peanut duration model several times. Peter Frostick amazed us all with a very well, beautifully flying helicopter!

Five juniors flew a new class: Fun Fly. It was not originally scheduled but by popular demand the organizers kindly squeezed in some extra half hours. In Holland we call the class "Wortel", which means "carrot" (we know who came up with that one...!) It is basically an enlarged Delta Dart, 400 mm max. wing span) with much better flying characteristics. It is intended for juniors only and one of the rules is that making a looping gives you a bonus of 15 seconds... We proved that there was ample space in the hall, mass launching our models standing just one meter from each other without any collisions... we had a lot of fun.

The entries in Peanut and Pistachio almost doubled compared with last year! On sunday the contest was also very nice for the viewers because there was more "free time" than last year. So this time I (David) didn't get bored or sleepy.
There were a lot of beautiful models, the little pistachio of Dave Masters in particular. This was a very well made Fokker DVII which got the highest static score. Eventually Alfery won because he flew very good and had nicely built models. In the Junior class of Pistachio and Peanut there was only one competitor, Jeroen Wackers. We hope that there will be more junior entries next year because in our view juniors give a competition more color.

The Peanut class is becoming more and more a duration class. Alfery won the first, second and third price by setting high flying scores. He was unbeatable. You all have to do some hard work for Interscale '95 if you want some stiff competition! Also very remarkable was the sentationally well flying Gee Bee built by Richard Crossley. In the Open/CO2/Electro class Pavel Stranic flew again with his very very nice BE 2c but of course Alfery won, in fact he won all scale classes....

Since we had to leave before the pricegiving ceremonies we will end this (short) report by writing that we where amazed about the number of British entries. They seem to triple every year, despite their Nationals being held at the same weekend. And we want to thank all the people involved in organizing this nice competition to which we look forward to every year!!

Till next year!

18th International Indoor Competition Liège (B)

August 25-28, 1994

F1D MICROFILM (5 competitors)

1. T. André	NL	19'24	3'17	27'59	2'41			47'23
2. C. Hanriot	F	11'45	16'13	14'03	15'04			31'17
3. M. Green	GB	4'33	16'07	0	1'20	2'34	6'08	22'15

F1D BEGINNER SENIOR (13 competitors)

1. M. Green	GB	11'13	12'17	10'55	3'36	11'03	9'18	23'20
2. F. Patat	F	6'23	9'56	9'50	2'43			19'46
3. E. Roch	F	8'37	10'06	3'17	5'52	6'55	6'43	18'43

F1D BEGINNER JUNIOR (5 competitors)

1. J. Wackers	NL	8'42	7'56	9'04	9'00			18'04
2. D. Steenhuizen	NL	7'39	7'42	4'05	2'20	6'19	8'53	16'45
3. O. Wevers	NL	4'57	6'16	7'53	7'31	7'16		15'24

F1L EZB SENIOR (9 competitors)

1. R. Boor	GB	9'18	8'46	9'00	8'20	8'01		18'18
2. M. Green	GB	4'10	6'41	4'33	3'08	8'01	10'02	18'03
3. M. van Vyncht	B	6'29	3'54	7'15	6'19	9'32	8'58	16'47

F1L EZB JUNIOR (2 competitors)

1. A. Melice	B	6'03	7'04	1'28	7'03	7'06	14'10
2. G. Celi	B	1'37	4'34	3'56	2'25		8'30

MICRO 35 PAPIER SENIOR (5 competitors)

1. C. Hanriot	F	7'00	9'24	9'52	10'07	8'47	9'29	19'59
2. R. Deschamps	B	7'08	8'10	6'34	4'45	6'53	2'27	15'18
3. E. D'Hondt	B	6'02	7'00	7'31	7'33	6'20	6'40	15'04

SAINTE FORMULE SENIOR (20 competitors)

1. L. Koutny	CS	4'06	4'38	4'22	4'21	5'22	14'22
2. P. Frostick	GB	4'53	3'43	4'13	4'17	4'12	13'23
3. R. Deschamps	B	3'19	3'33	3'21	3'21	3'44	10'38

SAINTE FORMULE JUNIOR (4 competitors)

1. D. Steenhuizen	NL	3'06	2'42	1'57	1'41	1'19	7'45
2. G. Celi	B	2'39	2'40	1'11			6'30
3. O. Wevers	NL	1'01	'07	1'30	1'27	'57	3'58

PEANUT SENIOR (41 competitors/models)

			2 best flights		Pl. Fl.	Pl. Stat.
1. A. Alfery	CS	P-51H Mustang	83	80	7	5
2. A. Alfery	CS	Zlin 50ZM	86	85	4	16
3. A. Alfery	CS	Heinkel 70G	87	75	6	15

PEANUT JUNIOR (1 competitor/model)

			2 best flights		Pl. Fl.	Pl. Stat.
1. J. Wackers	NL	Piper J3 Cub	59	50	1	1

PISTACHIO SENIOR (19 competitors/models)

			2 best flights		Pl. Fl.	Pl. Stat.
1. A. Alfery	CS	Canard	68	56	4	4
2. A. Alfery	CS	Kokusai TA-GO	54	45	9	3
3. P. Frostick	GB	Lacey M.10	86	83	2	12

PISTACHIO JUNIOR (1 competitor/model)

			2 best flights		Pl. Fl.	Pl. Stat.
1. J. Wackers	NL	Pietenpol	19	11	1	1

OPEN/CO2/ELECTRO SENIOR (6 competitors/models)

			Static	Best flight
1. A. Alfery	CS	Spad XIII	1577	603
2. P. Stranik	CS	BE 2c	1558	603
3. E. D'Hondt	B	Gee Bee Ascender	1478	507

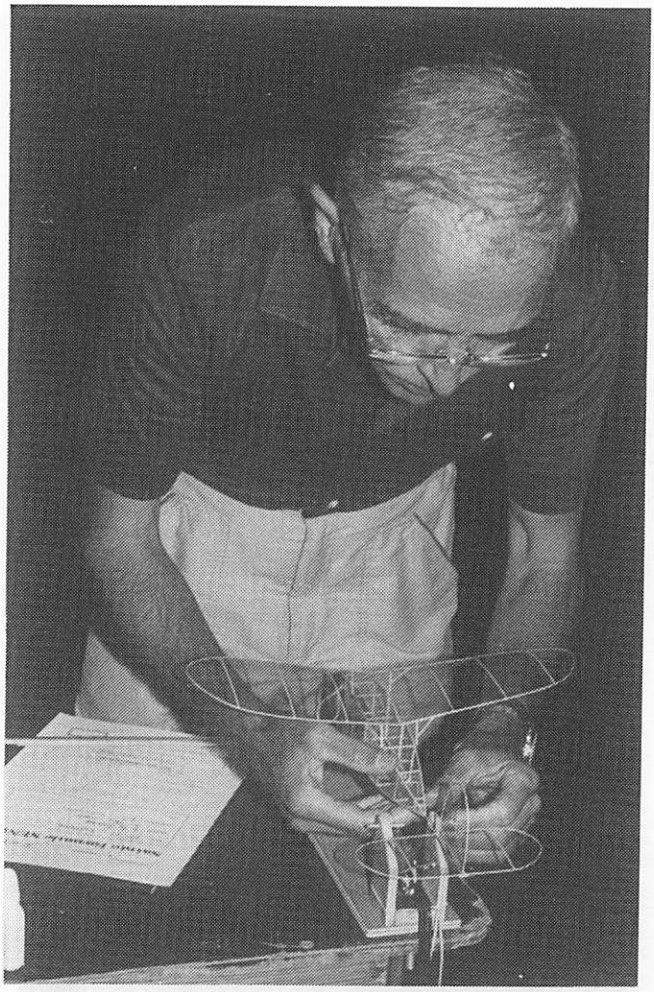
OPEN RUBBER SENIOR (12 competitors/models)

			Static	Best flight
1. A. Alfery	CS	Fairey Firefly	1562	520
2. R. Crossley	GB	Curtiss R-6	1553	520
3. A. Alfery	CS	P-39Q Airacobra	1561	493

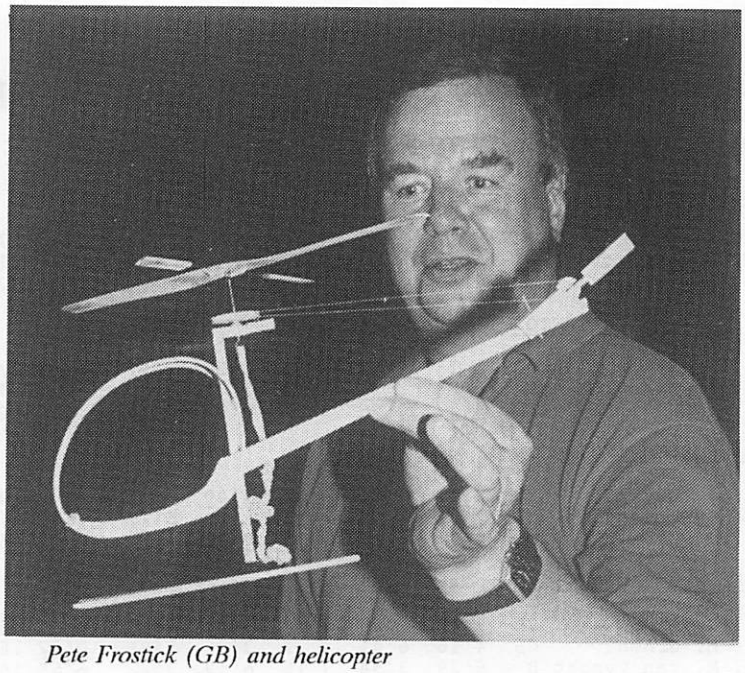




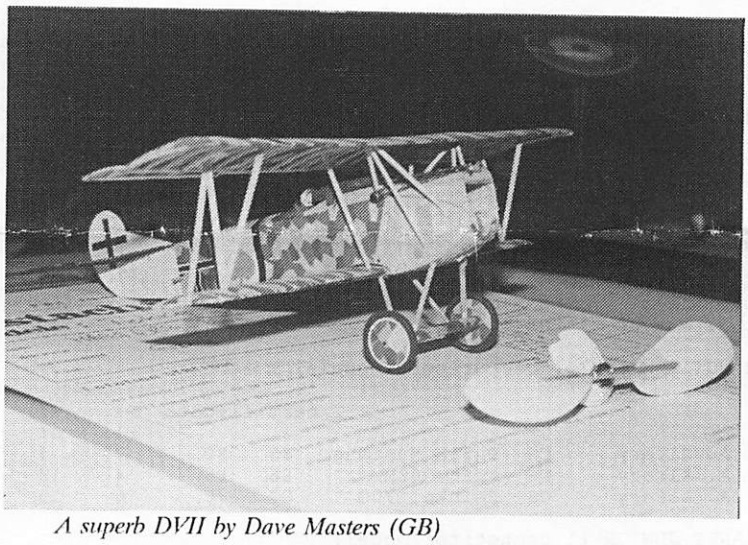
Penny Masters built a BMFA Dart on the spot!



Edmond Roch (FRA) placed 4th in Sainte Formule



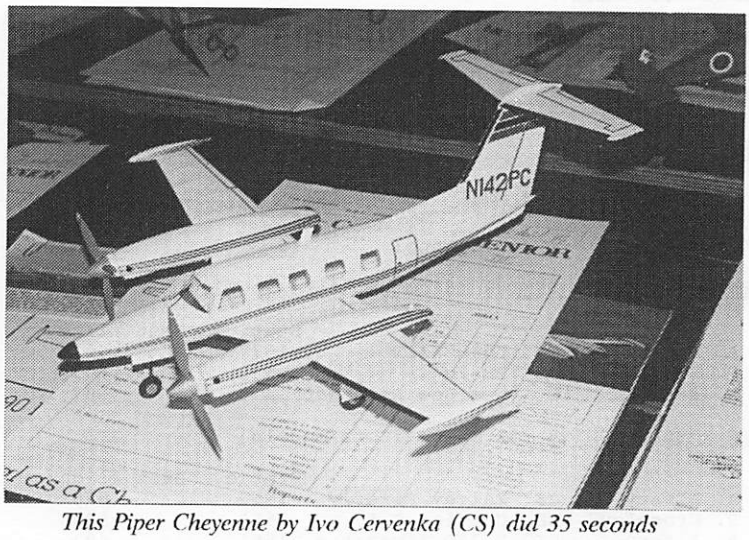
Pete Frostick (GB) and helicopter



A superb DVII by Dave Masters (GB)



José Vigneront's (B) Renard 18 (see plan in IN28)



This Piper Cheyenne by Ivo Cervenka (CS) did 35 seconds

ONCE MORE FLY THE PISTACHIO INTER-GNATS

HURRICANE ANDREW blew away the 1993 & 1994 Inter-Gnats, but we're back again and you are all invited to participate in the 1995 proxy meet. No entry fee and plaques to all who enter.. Plenty of plans are around..you can shrink one of Mooney's peanuts down to a 8" span or 6" overall length. After you get your model trimmed, pack it up and send it to MIAMA with return postage, and your scale documents, anda sheet for your proxy pilot about how many turns, flight characteristics, trim suggestions, a spare motor. The meet is Jan. 14,15 at Dade County Youth Fair so get your models here by Jan. 10. We'll do our best to get some great flights for you.



CAPTAIN PISTACHIO INVITES YOU

MIAMI PISTACHIO RULES

General: Recognizable model of a full scale, man carrying, aircraft. Exception: Model of a model class which is a pistachio sized model of an outdoor free flight model with a built up (Not stick or profile) fuselage.
Size: Built to either a 8 inch span or a 6 inch overall length (Excluding prop)
Construction: No restrictions on materials.
Documents: Full quality of documentation consideration given to entry who supplies a 3-view and at least one photo. Color documentation should ideally be a color photo, but if no photo a color reference should be included.
Flying: Best of 2 of 9 flights, hand launched. Ranking points awarded from best to least as in scale judging.

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NEW! PEANUTS & PISTACHIOS VI

COMPILED BY BILL HANNAN

New from Hannan's Runway, Volume 6 in our popular Peanuts & Pistachios series accentuates vintage aircraft. Featured are model construction plans, documentation, articles and a world-wide selection of fine photographs to inspire greater excellence in your own modeling!



HIGHLIGHTS OF VOLUME SIX

MODEL CONSTRUCTION PLANS:
- 1909 Demoiselle, by the late Walt Mooney (USA)
- 1912 Sommer Monoplane, by J.F. Frugoli (France)
- 1931 AVRO Cadet, by Ken McDonough (England)
- 1939 Waco SRE, by Walt Mooney (USA)

DOCUMENTATION DRAWINGS:
- 1909 Demoiselle, by the late Wally Batter (Canada)
- 1910 Demoiselle, from a ZFM magazine (Germany)
- 1911 Vonin Hydro Canard I, by Benno Sabel (Germany)
- 1911 Nieuport "double-tail", by Bill Hannan (USA)
- 1931 AVRO Cadet, by Ken McDonough (England)
- 1938 Mew Gull, by Harry Robinson (England)
- 1939 Waco SRE, by Harry Pack (USA)

ARTICLES:
- Walt Mooney Remembered
- Mooney's Modeling Methods } compiled by Bill Hannan
- Delightful Demoiselles
- Use Your Beak! By Jim Alsbeck
- Feedback from our readers (extracts from letters)

PHOTO ESSAYS:
- Peanuts & Pistachios People
- The Peanut Gallery
- Symphony in Structures
- The Pistachio Presentation

Format: 8 1/2" x 11", 2 color cover, 36 pages, 84 photos, 4 model plans, 7 documentation drawings, plus cartoons, sketches and schemes, printed on superior quality stock for long life.



Mew Gull

BY BILL HANNAN



This is STICK & TISSUE No. III, compiled, per usual, by BILL HANNAN. Third in this international series, this volume includes a splendid selection of modelers and their models' photographs, Peanut and Pistachio construction plans, 3-view drawings and whimsical philosophy.

My favorite is the 1890 Ader Eole, by France's Emmanuel Fillon. As a kid, I saw drawings of this 'plane' and doubted its ability to fly as claimed by its designer and builder, Clement Ader...But Fillon's model does fly.

Price of Stick & Tissue No. III is $9.50 plus $2.50 postage. Latest catalog is $1.00. HANNAN's RUNWAY, Box 210, Magalia, CA 95954 USA.



inter//scale'95

18-19-20 AUG. MAASTRICHT-NEDERLAND

CUP FOR INDOOR FREE FLIGHT SCALE MODELS

Organizing Committee and Maastrichtse Luchtvaartclub

PRELIMINARY INFORMATION

INVITATION: At the beginning of 1995, an invitation will be sent to all National Aeroclubs of the Fédération Aéronautique Internationale (FAI) to participate in the 1995 INTERSCALE event, to be held in The Netherlands.

DATE AND PLACE: The event will take place: August 18th, 19th and 20th, 1995 in the municipality of MAASTRICHT - "DOUSBERG PARC" SPORTS CENTER.

ORGANIZERS: The 1995 Interscale Organizing Committee, in cooperation with the Maastrichtse Luchtvaartclub, under the auspices of the Aeromodelling Section of the Royal Netherlands Aeronautical Association (KNVvL).

PARTICIPATION: Every interested aeromodeller, affilliated to a National Aeroclub has the right to compete. Participation is possible in the categories F4D - F4E - F4F and "Pistachio".

COMPETITION RULES: As far as possible, according to the Provisional Rules of the 1995 FAI Sporting Code, Section 4a and the General Section, plus amendments effective from january 1st 1995.

OFFICIAL LANGUAGES: English and Dutch

INFO BULLETINS: The first Information Bulletin will be sent to all National Aeroclubs of FAI at the beginning of 1995. All further Information Bulletins will be sent to all whose preliminary entry application has been received by the organizer.

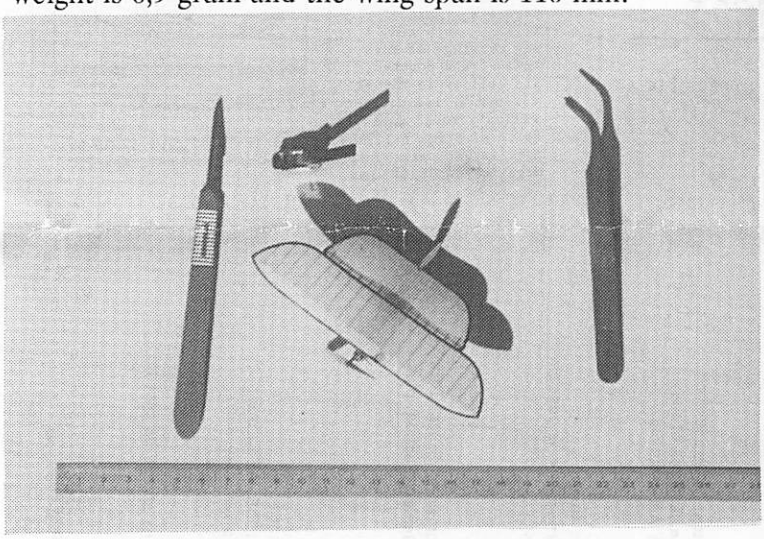
CORRESPONDENCE: All correspondence and communications should be sent to:
1995 Interscale Organizing Committee
P.O.Box 2060
6201 CD Maastricht
Tel: Mr. T. Schippers, Chairman Organizing Committee
00 + 31.(0)79.212195

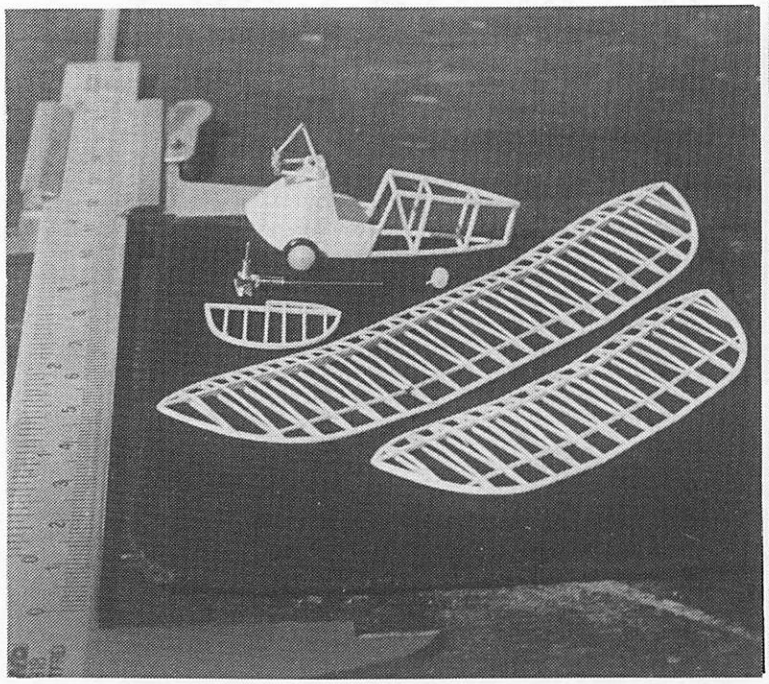
POU DU CIEL

by Rainer Gaggl (AUT)

Klaus Jörg Hammerschmidt and Walter Hach report: Last year Austrian model builder Rainer Gaggl went to the Liège International Indoor Competition and flew some of his small models powered by home made CO_2 motors. We then had the opportunity to look at the worlds' smallest CO_2 motor with a capacity of 0.79 mm3 only. Unfortunately he could not go to this years Belgian event because he took part in an international F1K (CO_2 outdoor duration) contest which was held at the same date.

But Rainer Gaggl is still making motors and models! This year he made a 2x0.79 mm^3 twin engine and for the single cilinder motor he built a very small scale model. It is a POU DU CIEL designed by Frenchman Henri Mignet in 1933, its total weight is 0,9 gram and the wing span is 110 mm!



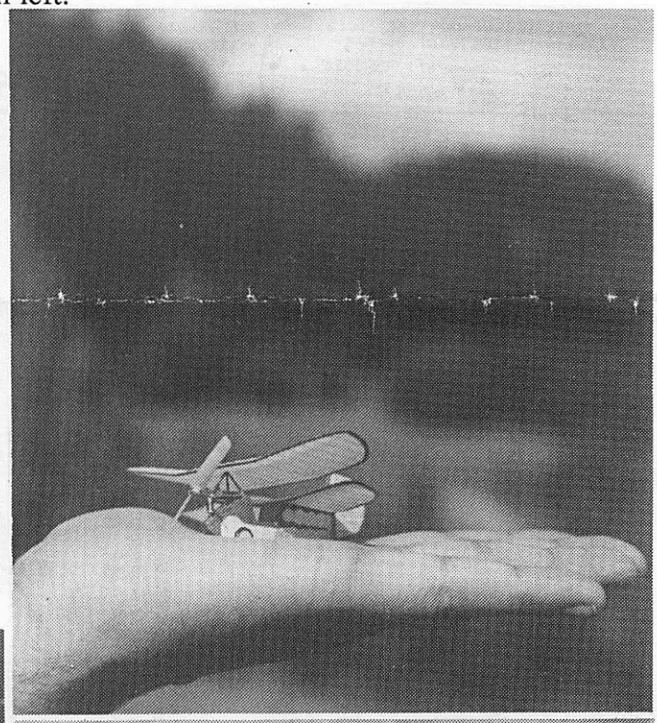


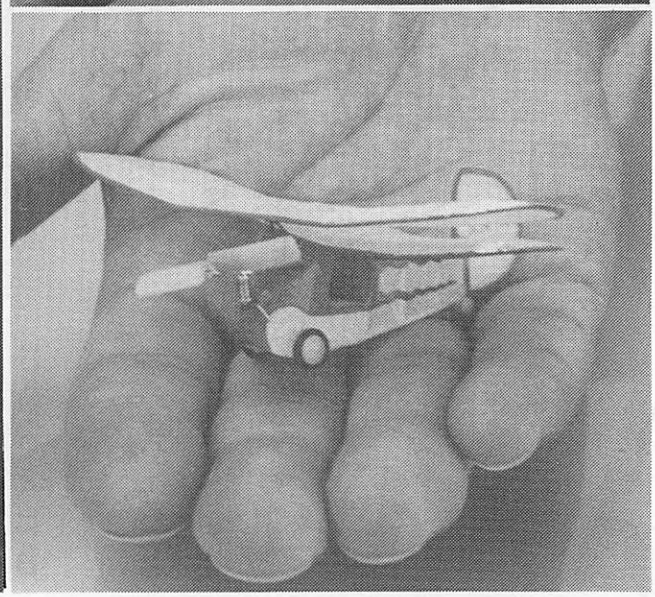
This model really flies and the best duration was 140 sec in a 13 m hall in Graz, Technical University. This small aircraft is powered by a 0,78 mm^3 motor which weighs about 0,5 gram and has a maximum RPM of 13000!

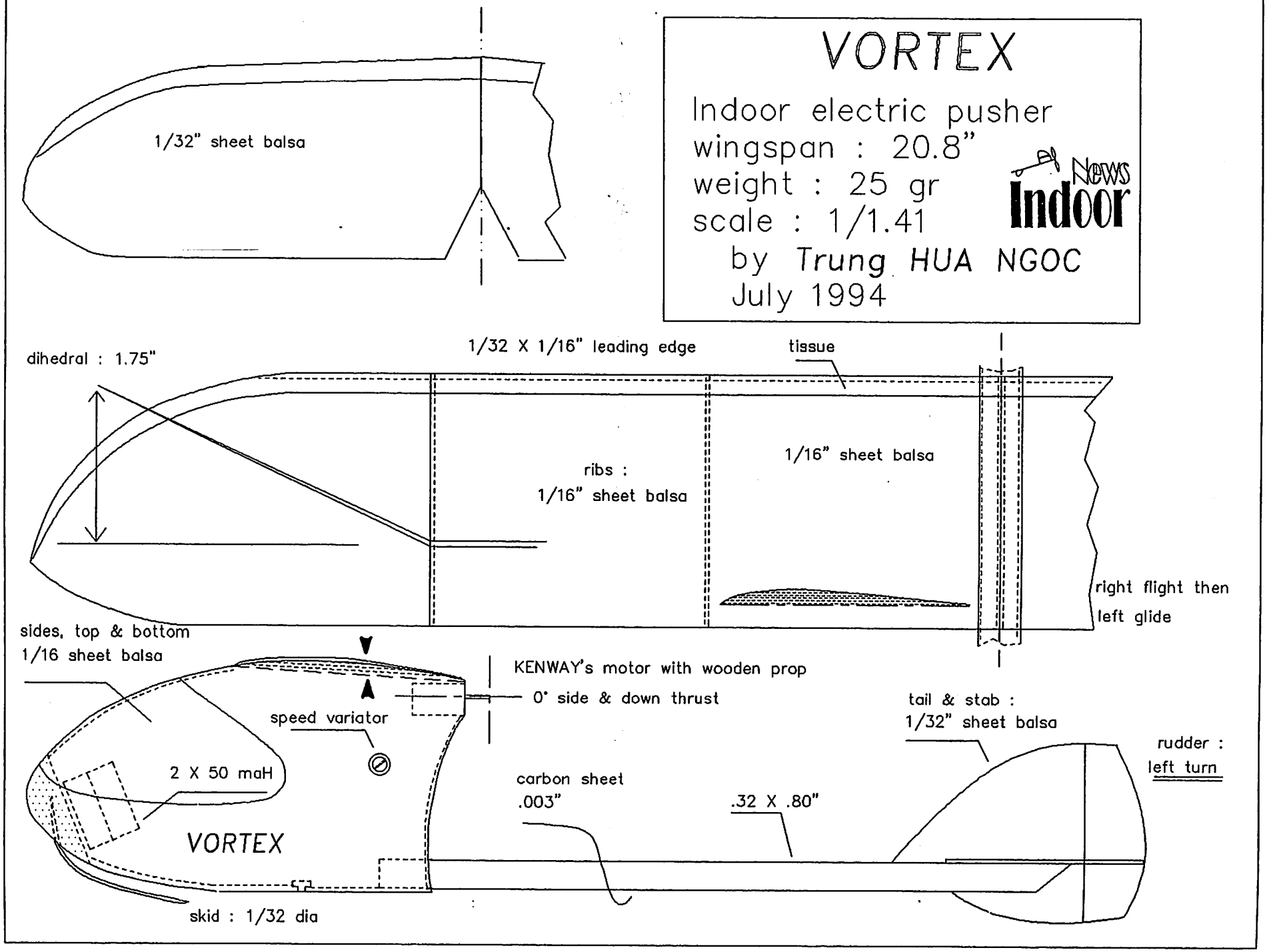
VORTEX

by Trung HUA NGOC (FRA)

Here is a plan of an electric pusher which may interest the readers of Indoor News. It is an easy to build plane, weighing 25 grams, motorized with an electric motor and two 50 mAh cells. You can get the motor, the speed trimmer (an ohmic resistor) and the wooden propeller from Kenway. If weight does not exceed 25 gr. the flying time is easily more than 2'30". The flying pattern is right then left.





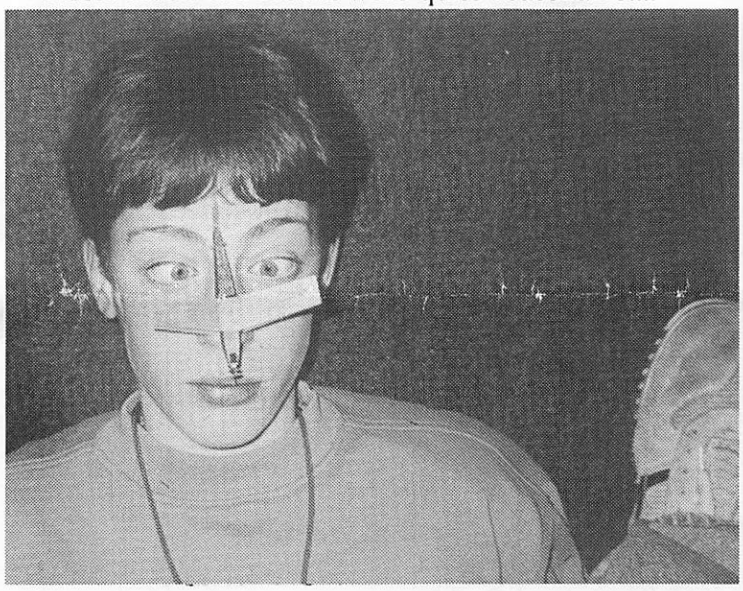

1/32" sheet balsa
VORTEX
Indoor electric pusher
wingspan : 20.8"
weight : 25 gr
scale : 1/1.41
by Trung HUA NGOC
July 1994
News
Indoor
dihedral : 1.75"
1/32 X 1/16" leading edge
tissue
ribs :
1/16" sheet balsa
1/16" sheet balsa
right flight then
left glide
sides, top & bottom
1/16 sheet balsa
KENWAY's motor with wooden prop
0° side & down thrust
speed variator
2 X 50 maH
VORTEX
tail & stab :
1/32" sheet balsa
rudder :
left turn
carbon sheet
.003"
.32 X .80"
skid : 1/32 dia

TIPSY MIDGET

by Jeroen Wackers and David Lentink (NL)

Last year in Flémalle we watched Wijnand de Joode flying a small biplane model with a wing span of only 10cm. At that time the model could only tumble around for a few seconds. I tried to help him and had so much fun that I decided to build such a model too and proposed to make it a special class: the "Midget"-class. Together with Wijnand we set up the following provisional rules:
- max. wing span 100 mm,
- the model should resemble a real airplane!

With Ebele Schouwstra's model club we both would go to the Model Engineer Exhibition in London. On the boat we designed and built our first Midget. Despite "see-sickness" and Guns 'n Roses music the results were quite reasonable....



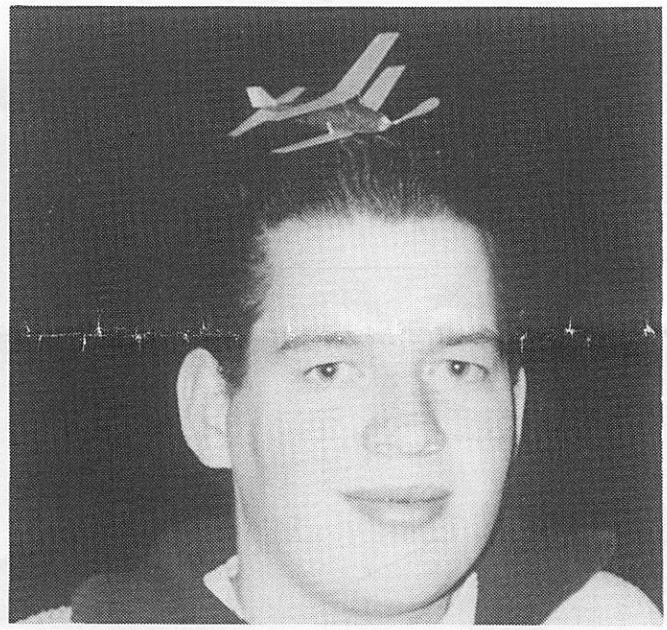
We finished the model at the exhibition and for three days we did nothing but midget flying...

At first the model would not fly at all, but after a splendid crash of Jeroen's model a propellerblade broke off.... and all of a sudden it flew!!! Since then we fly with one blade only. The results were surprising, after some 15 sec. flights the times increased to 30 sec. and in the end the model did 39 sec. and reached a height of 15 meters! In the same hall there were C/L combat and RC Stunt demonstrations. One of the flyers watched my model in disbelief when it raced back and forth over a track of barely 1½ meter doing a wing-over and a roll in the turns... He admitted that his model would never be able to accomplish this...

Some of the problems we encountered were:
- the model cannot handle the torque of a two-bladed propeller,
- you need very thin rubber, which is difficult to cut,
- the vertical fin is a bit to small, it cannot compensate for the large propeller,
- the tailplane has a large aspect ratio, which makes the trim more sensitive.

On the way back we held the first international extra-territorial Midget-competition flown on a ferry. The "hall"-conditions were:
- highly turbulent air, because the door to the deck was opened frequently,
- annoying, obstructive passengers passing by,
- a maximum flight circle of 3 meter dia. and a ceiling height of 2 meters.

Despite this and much lack of sleep we enthousiastically started the competition. But, as was to be expected, the results were disappointing. Jeroen's Midget was damaged in an accident.



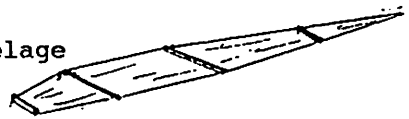
These were the results:

	flight 1	flight 2	total
1 David Lentink	11 sec	10 sec	21 sec
2 Jeroen Wackers	5 sec	3 sec	8 sec

The low ceiling and walls hardly survived the severe beating by the Midgets, so after half an hour we quit. Jeroen presented David with an on the spot engineered "trophy".

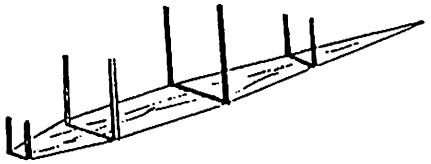
We will visit the Model Engineer Exhibition again this year and we invite you to join us in the next "Midget"-contest to be held at the exhibition. The date is still to be decided. We accept proxy entries. Send your models and enquiries to: David Lentink, Hanninkhoek 49, NL-7546 AE Enschede, The Netherlands. Please add some money for the return postage. And keep in mind, considering the circumstances, your Midget might not survive unharmed....

Tipsy Midget!



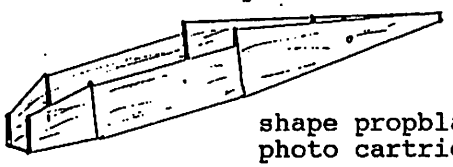
fuselage

1. glue stiffeners to sheet underside

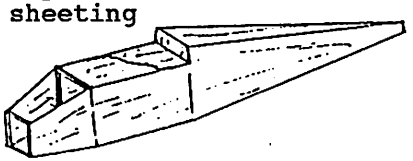


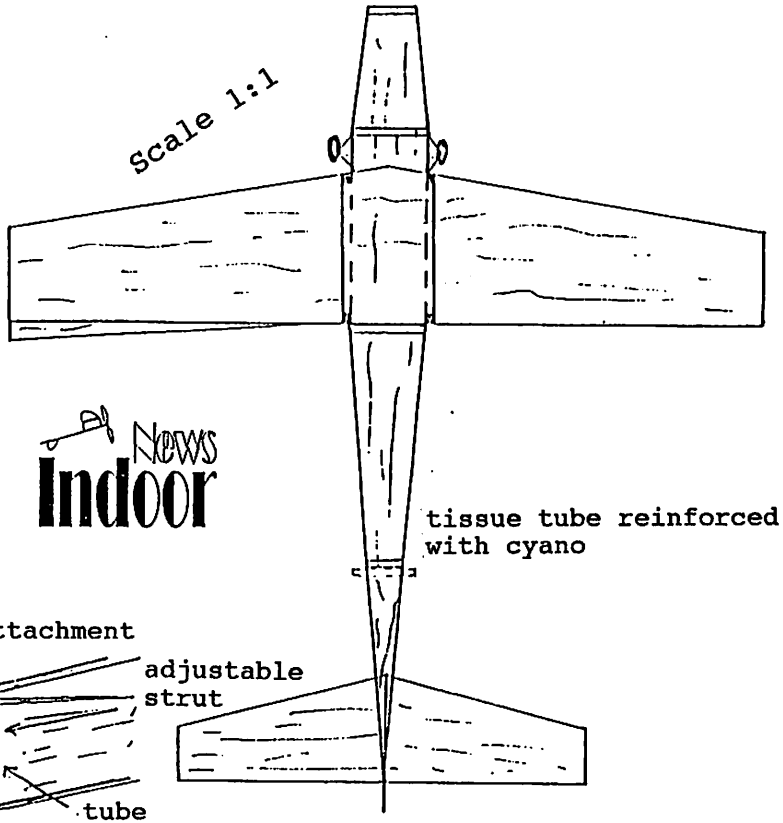
2. glue vertical stiffners

3. sheet the sides
note: crack first where necessary



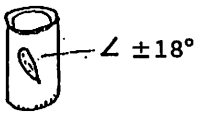
4. add top stiffeners and sheeting



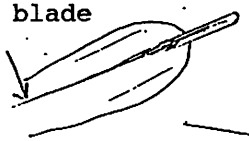


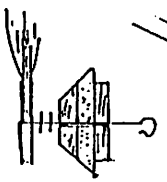
shape propblade on photo cartridge

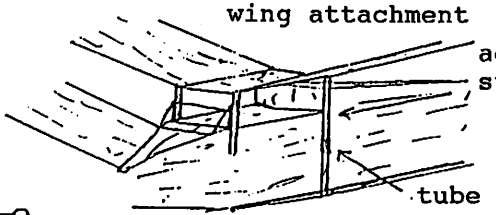




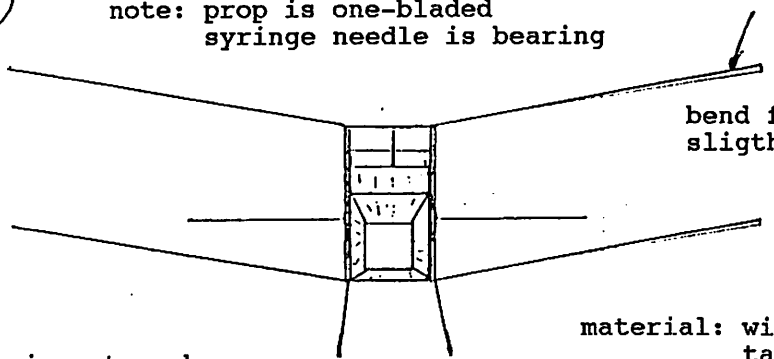
carbonfiber on top of blade



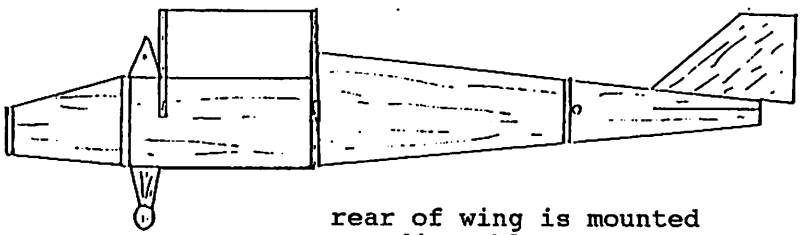




note: prop is one-bladed
syringe needle is bearing



bend flaps sligthly down



rear of wing is mounted on adjustable posts

windscreen from cigaret-pack
glue with contact cement

material: wing + fuselage 0,3 mm balsa
tail + prop 0,2 mm balsa

rubber: tan, ±0,3 g/m, ±10 cm long

best time: 39 sec.

Tipsy Midget
"Midget-class" model

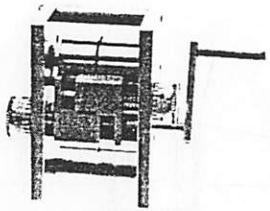
design: David Lentink,
Jeroen Wackers (NL)

INDOOR MODEL SPECIALTIES

by

RAY HARLAN

15 Happy Hollow Rd.
Wayland, MA 01778



- Rotary shear cuts rubber cleanly.
- Independently adjustable guides for any rubber, any cut.
- 0.001 in. graduations.
- Complete with sharpening stone and honing fluid.

SUPERSTRIP RUBBER STRIPPER



INDOOR BEAM SCALE

- An extremely sensitive instrument for a very low price.
- English version reads to 0.05 oz. with 0.0002 oz. divisions.
- Metric model reads to 1.4 gm with 0.005 gm divisions.
- Magnetic damper for fast weighing.
- Pointer-slideweight is quickly positioned and cannot be lost.
- Pivot system uses a hardened, ground pivot working in polished agate vee blocks - a standard in the analytical balance industry.
- Sensitivity is about .1 in beam deflection for .0001 oz.

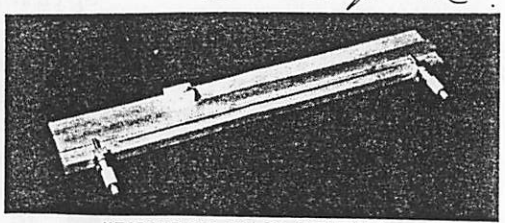
also .003 in. diameter (65% weight of Tungsten core boron (.004)

- BORON fibers. 0.004 in. diameter. 200 ft. in 2 ft. lengths. Non-toxic, but beware of pieces or loose ends shorter than 1 in. They can penetrate the skin before buckling and usually break off at the surface, making removal difficult.

- Balloons. Sturdy 30 inch diameter balloons. For all ceiling heights. Reusable many times.

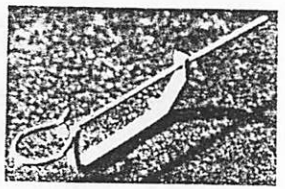
and 78% weight of my carbon core .004)[1].

Same price.



MICROMETER BALSA STRIPPER

- Two micrometer heads for the most accurate cuts.
- Satin finish micrometers for easy reading.
- Smooth redwood base.
- Heavy aluminum straightedge.
- Precision machined blade holder for square cuts and long blade life.
- Two feet long to accommodate all indoor needs.



- Simple "drop in" feature of rear bearing - low wear and no crushed motorsticks from snapping in the propshaft.
- Precision sawn diagonal slot gives full 360 degree support.
- Strong aluminum alloy.
- 7/16 inch long.
- Acclaimed by many to be the world's best.

model	cross section	hole size	clearance	weight	max rubber
EZB	.02x.04	.016	1/8	.00073 oz.	.085
PENNY	.02x.05	.018	5/32	.00098 oz.	.125
F1D	.02x.04	.016	5/32	.00077 oz.	.085

PIGTAIL THRUST BEARINGS

- ULTRAFILM covering. 25% lighter than any other plastic film, and more tear resistant. Trims easily with a pencil soldering iron. 12.4 in. by 10 ft. roll. Instructions for applying included.
- Aluminum tailboom form. Tapered from .25 to .092 in., 18 in. long. Ideal for F1D, AMA Stick, Pennyplane, Intermediate Stick.
- O Rings. 3/64 ID, 9/64 OD for F1D and lighter models. Packaged by the dozen or 100.
- Steering tubes. 30 ft. length of 1 in. poly tube with tee for auxiliary balloon to keep tube inflated.
- Bracing wire. Nichrome (.001) or Karma (.0012), 500 ft. spool.

ANNOUNCING !

SUPER ULTRAFILM

The lightest model airplane covering available anywhere this side of microfilm. It weighs only .00266 to .00280 oz/100 sq in which is 1.5 to 6.8 percent lighter than the lightest previously available.

It is the standard 12 3/8 inches wide and 15 feet are rolled on a tube for protection and ease of handling. Instructions for applying it nearly weightlessly with spray cements are included with each roll.

The cost is $15.00 postpaid in the US. Foreign orders please add $3.00 for airmail postage.

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Price List

All prices include postage and handling
for continental US only.

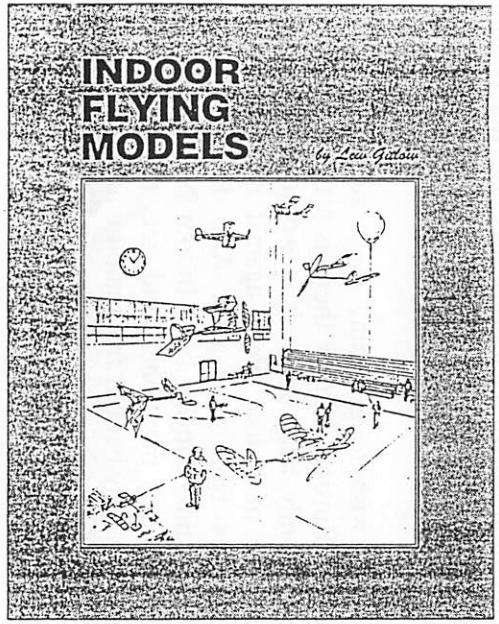
Superstrip rubber stripper	$118.00
Indoor beam scale	82.00
Boron fibers	12.75
Balloons	3.25
Micrometer balsa stripper	59.00
Pigtail thrust bearings	1.60
Ultrafilm	9.00
Super Ultrafilm	15.00
Aluminum tailboom form	18.50
O rings (specify small or Pennyplane)	2.50/doz
	12.75/100
Steering tubes	3.75
Bracing wire	
specify .001 nichrome or .0012 Karma	12.75
.001 shiny tungsten, 656 ft.	28.00
.0003 shiny tungsten,656 ft.	36.00

Additional Postage For Foreign Delivery

	Surface		Air				
	CDN	Others	CDN	CH	FRG,I GB,NL	AUST'L N	J F
Scale	$6	$9	$6	$19	$22	$25	$29
Balsa stripper	8	11	8	22	26	30	35
Both	9	13	9	28	33	38	44
Rubber stripper	-	-	6	10	12	13	15
Bracing wire	-	-	-	1	1	1	1

Air (uninsured - small packet)	AUST'L J	All Others
Boron (1-2)	$5	$4
(3)	6	5
Ultrafilm	4	3
Tailboom	5	4

4/94



INDOOR FLYING MODELS

by Lew Gitlow

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Flight Log Sheet

For more Information

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Cover art by Mark Allison

Indoor Flying Models is approximately 160 pages, 8.5" x 11", with loads of plans. Many of the plans are full size and include I.M.S. Kits in addition to the original designs of famous contest winners like Banks, Coslick, Brown, Hunt, and dozens of others. The scope covers gliders to the F.1.D. international microfilm class models. With all the illustrations, technical data, building and experimenting with his own models, it comprises years of work.

You will find a development that starts with a theme of man's first dream of flying and how with imagination and the use of experimental models he actualized this dream. Then with a strong message for instructors he presents material that can be used to stimulate interest before the instructor adds his own experience. The basics of tools, materials, and "the right moves" lead you from the most simple to the most complex models and techniques, including "How to brew your own microfilm solution" and the secrets of the experts are revealed including "What your best flying buddy won't tell you."

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TIP

by David Thomson (USA)

Do your motors also have the tendancy to climb the prop hook? Slide a short section of a stirrer (drinking straw) over the motor and push it close to the hook.

SUBSCRIPTION RATES

You may have noticed that the printing of Indoor News has now reached a stable level of quality. I have had some trouble in finding a reliable printer but have now found a good one who also is relatively cheap. This means that the subscription rates can be reduced. You now get 8 issues for the same amount of money. The Dutch rate was too low and also because of increased postal rates the subscription rate is now set at NLG 28.00 for 8 issues.

Subscriptions that have been payed in advance will be adapted proportionally. As always you will receive a reminder when your subscription has expired. I strongly urge readers who pay by cheque (other than Eurocheque) to include NLG 20.00 per cheque for handling charges. My bank charges me this amount even when the cheque is drawn in guilders and named on my own bank! The handling charge for payment by Eurogiro is NLG 6,50. I will no longer accept cheques with inadequate handling charges. It is cheaper and more convenient to pay by Postal Money Order or in cash, for more issues or together with a friend.

Indoor News is getting great support with regard to contributions from its readers. Most of it is good quality and of much more variety than I had expected. I will thank you very much for that and also for the many favourable and complimentary comments. The number of subscribers still rises, but very slowly. Why not help me in getting much more publicity for Indoor News. Use the coupon printed below, copy it and give to your friends. Use it as a price gift at competitions.

It is my wish to get some more subscribers from Eastern Europe. I know there is activity there, but we seldomly hear about it. I would welcome the exchange of Indoor News against newsletters and magazines from that area. Also I do not have much against copying from Indoor News as long as the source is mentioned and gets the credit. The sport can only benefit from good communication!



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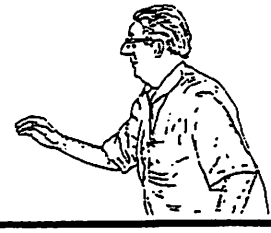
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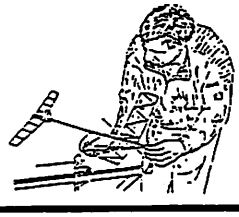
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