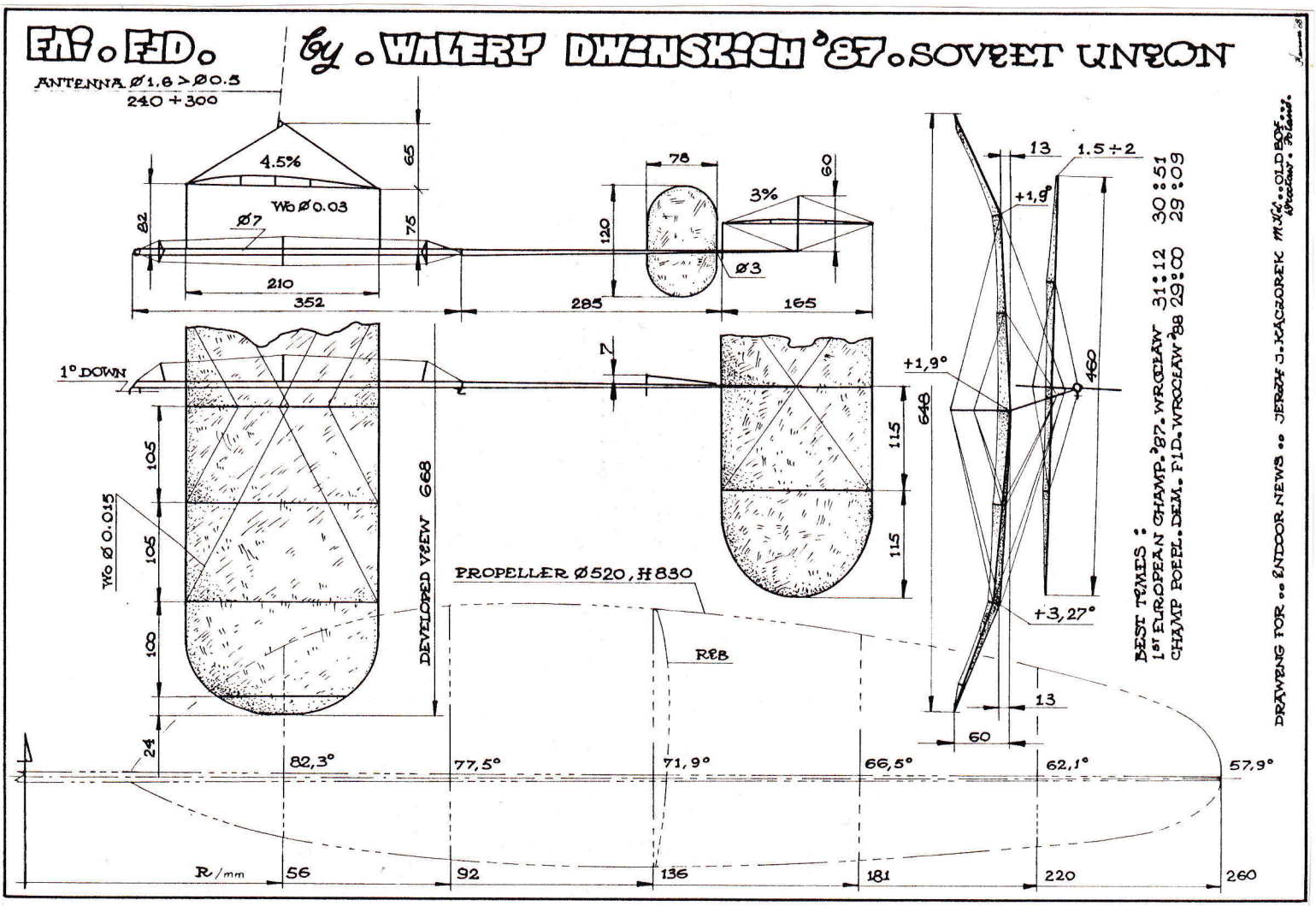


INDOOR NEWS 2·88

Dear Friends,

Yes, this is issue 2/88 which unfortunately will appear here in 1989.....!

But anyway, many thanks to those nice readers who made fine contributions to this issue ... now I am hoping that somebody else will help to fill the pages in 3/88 which can come out in April. Indeed I would like to hear about this winter's contests all around the World. I'm also looking for some Penaut plans of newly developed models.....

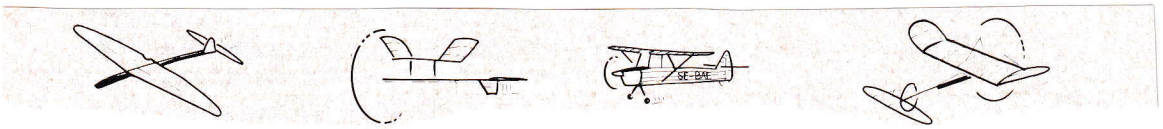
What has happened to INAV, Richard??

Looking forward to hearing from you .....

PS. Don't throw your stamps away, especially when there are aeroplanes, spaceships and airships on them! Send them to me, please!

The Danish P-15 class (one design event) with standard plastic propeller is being tried in England? I wish them all kinds of success, because this is a true beginner's model ... experts, please, don't fly this type of model but help the few newcomers to make them fly. Thanks!

By the way, we are so few .... haven't we organized too many indoor classes??? Where is the FUN in flying against three or four other competitors? Is it possible to reduce the number of classes or must we go on increasing the INDEX flown competitions? Let us hear some heavy arguments.....



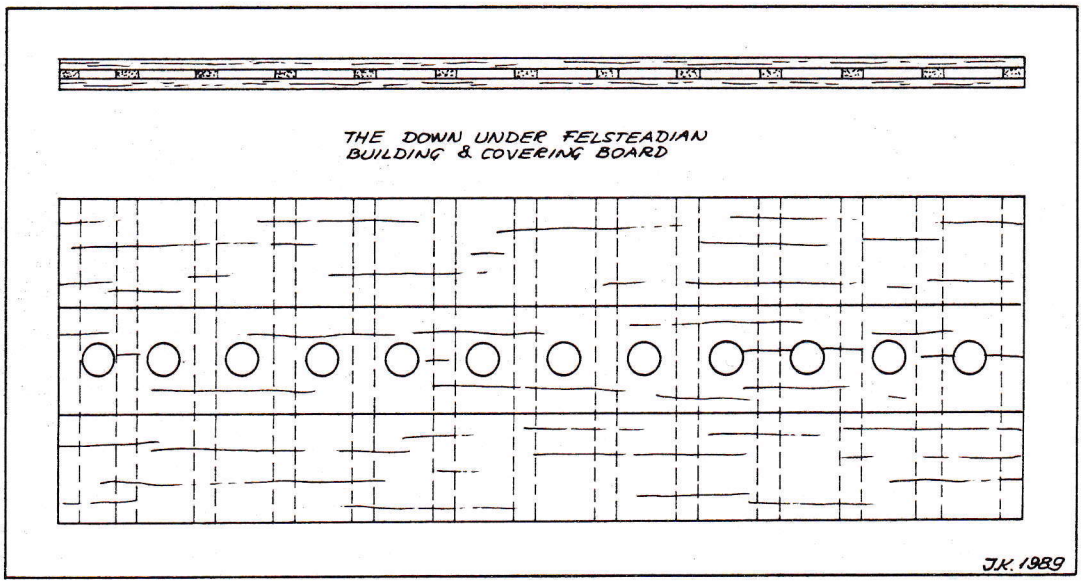
EDITOR ETC .....

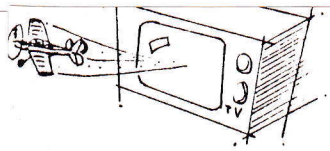
Jorgen Korsgaard
Ahornweg 5
D-2397 Ellund-Handewitt
West Germany

Phone: 04608-6899

3 issues a year (approx) will appear around March, July and November.

Scandinavia 50,- Dkr
Europe 55,- Dkr/15 DM
Airmailed elsewhere 10,- $





VIDEO Tapes!

"1987 U.S. Indoor Championships"
Filmed at the Tennessee Mini-Dome shows most of the events flown, the site, and interviews with modelers. 85 minutes long.
"Peanuts and Pistachios-The Video"
Shows scale models from the 1987 USIC and the 5th Pistachio Inter-Gnats, with emphasis on proxy models and fliers.
$19.95 each plus $3.00 S.&H. VHS or Beta. Sorry but U.S. TV/Video is not compatable with English or European TV equipment. Japanese is ok, please add overseas postage.
Mike Arak, 10900 S.W. 61 court, Miami FL 33156

Felstead's Building & Covering Board.

I build and cover on the same balsa board. It is light and so easy to handle, takes pins etc. Being two sided, different wings can be built on each side.

The board is made of 5mm balsa sheets, 900 mm long, 75 or 100 mm wide, with cross-pieces from 6mm, 20 mm wide and 300 mm long sandwiched between and spaced 75mm apart.

Holes of about 20mm dia. are drilled through the board, they help the air escaping while covering. The board is doped a couple of times to make it waterproof.

Small pieces (5 x 9 x 0.6 mm) of ivory board (white) are cemented inside wing outline so spars can be pinned gainst these when building and to hold spars to shape when wetting for covering.

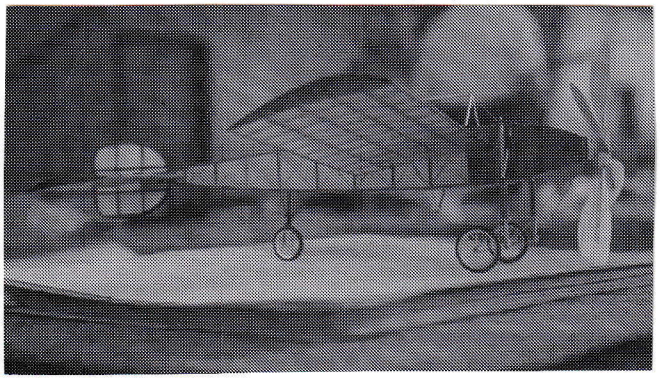
I use removable solid ribs to support the wing ribs while covering, also a special formed "rib" is supporting each wing tip in order to get a cambered wing tip outline.

Such a balsa building and covering board can of course be made to any size of wings, stabs EZB's etc.



JÜRGEN WEIL, D

BENNO SABEL B. VII



AUS News .... Boyd Felstead.

I won the F1D event at the 41st Australian Nats (the 50th Anniversary Nats). This win gave me much satisfaction as I won the indoor fuselage event at the 1st Nationals here in 1938.

To win in 1988 I had 2 15 min flights calculated to keep under the 20 lights hanging on long chains (about 25' to the lights).

In September 1988 I won the F1D at the NSW Indoor Champs in the same site with 2 12 min flights. Less competition hence easier flights - 800 turns.

In October 1988 I won F1D at the Australian indoor Champs in Brisbane, Queensland in a site with 39' ceiling. Had 6 flights, 4 with conventional props 18/32 & 21½/32, times 18, 19, 20 and 20 min. Then with 20/32 VP prop 2 22 min flights on 1300 turns. With conventional props models reached the ceiling in 1½ min, with the VP prop it took 6½ min. VP design was the Californian type and the spring was a bit strong and came off high pitch - about 60" - too soon but it didn't matter as the Ceiling was flat with recessed lights so models could "ceiling scrub".

A real opposition was not there at these contests so .....

The Finnish Nationals 1988

Two contests were flown - 20th Feb and 27th Nov - in the same hall with 18 m ceiling being very tough with girders and things hanging down. All competitors experienced damaged models.

Results: (total of four flights, two on each date)

1. Leif Englund	94:27	best time	25:36
2. Pentti Nore	87:45	" "	25:39
3. Harro Erofejeff	84:07	" "	25:17
4. Harri Raulio	76:40	" "	24:41
5. Kari Heikkala	25:51	" "	13:57
6. Riku Posa	10:58	" "	6:10

I tested 20 and 22 cm wing chord wings but was not able to see any difference on basis on these flights.

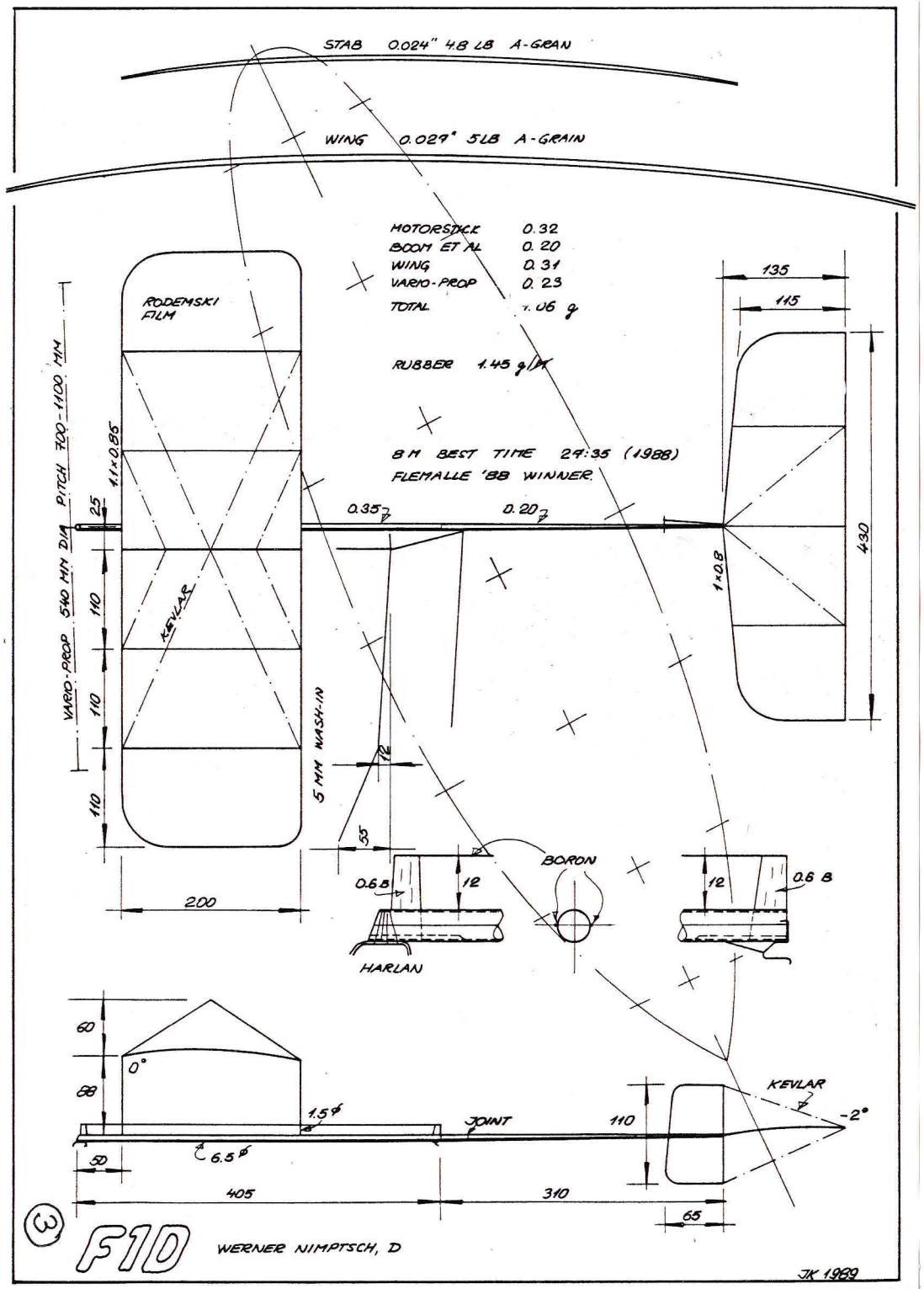
Leif Englund

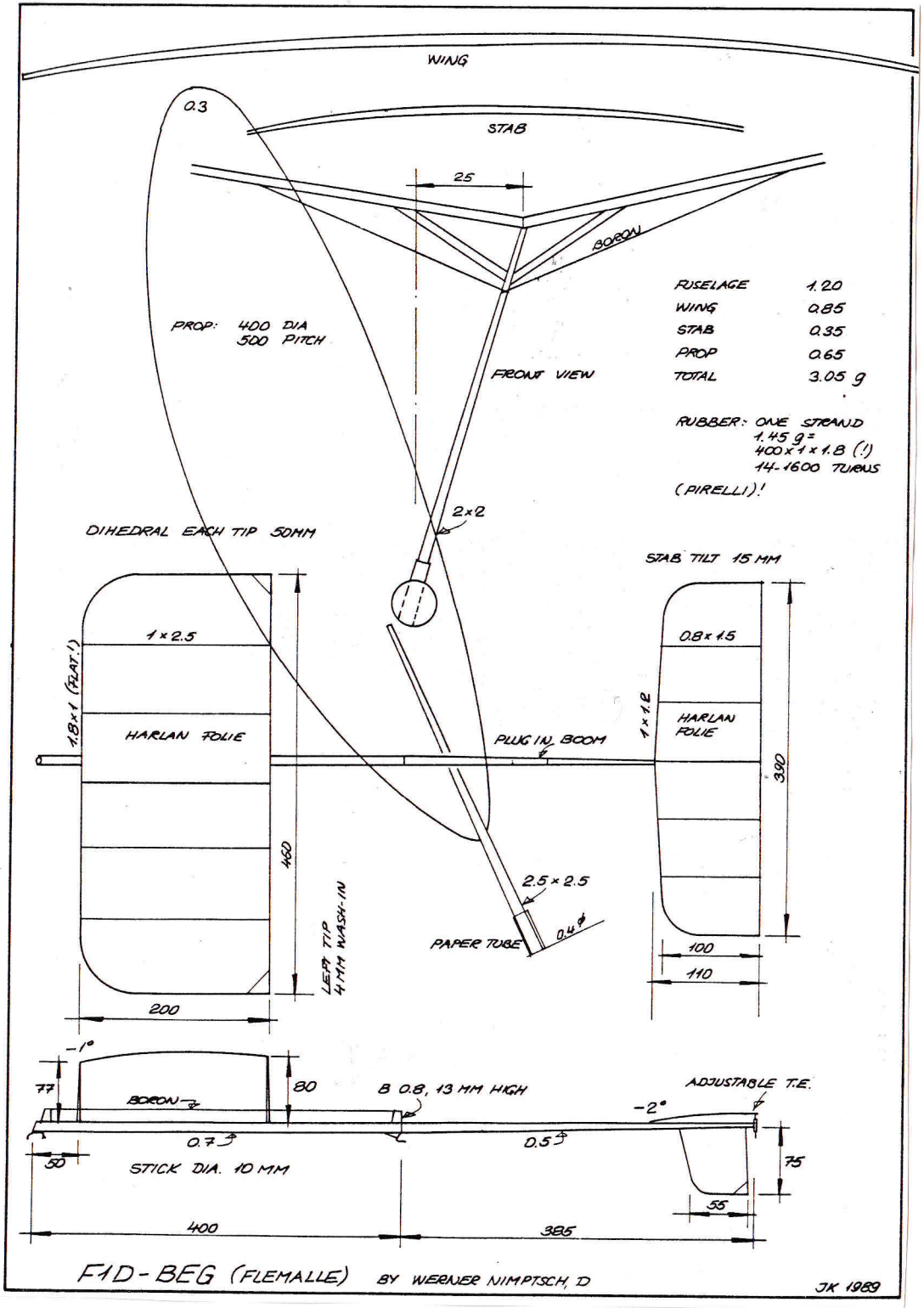
F1D Model by Werner Nimptsch, D.

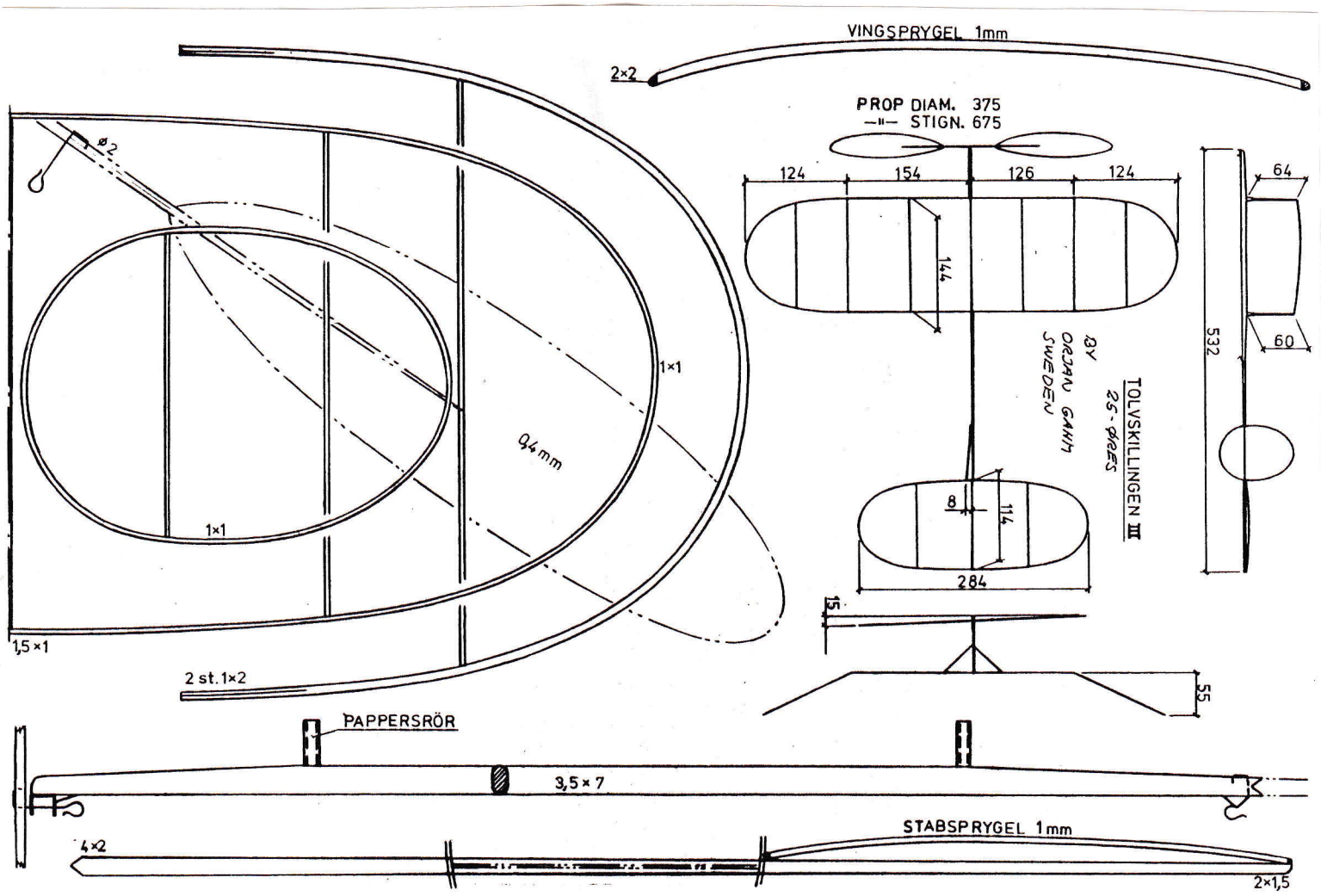
This is my latest model built just after the Danish Nationals in which I competed and where I was inpired by the Boron stick bracing I saw there. Together with a lighter and better calibrated VP prop this model was superior to my Flensburg model. The best time so far with the new model is 27:35 in 8 meters. I'm convinced that 30 min is within the possibilities of this new modeland prop. I find the Boron bracing of the motorstick very good as there is no "give" to make trimchanges due to the different rubber tension during the flight.

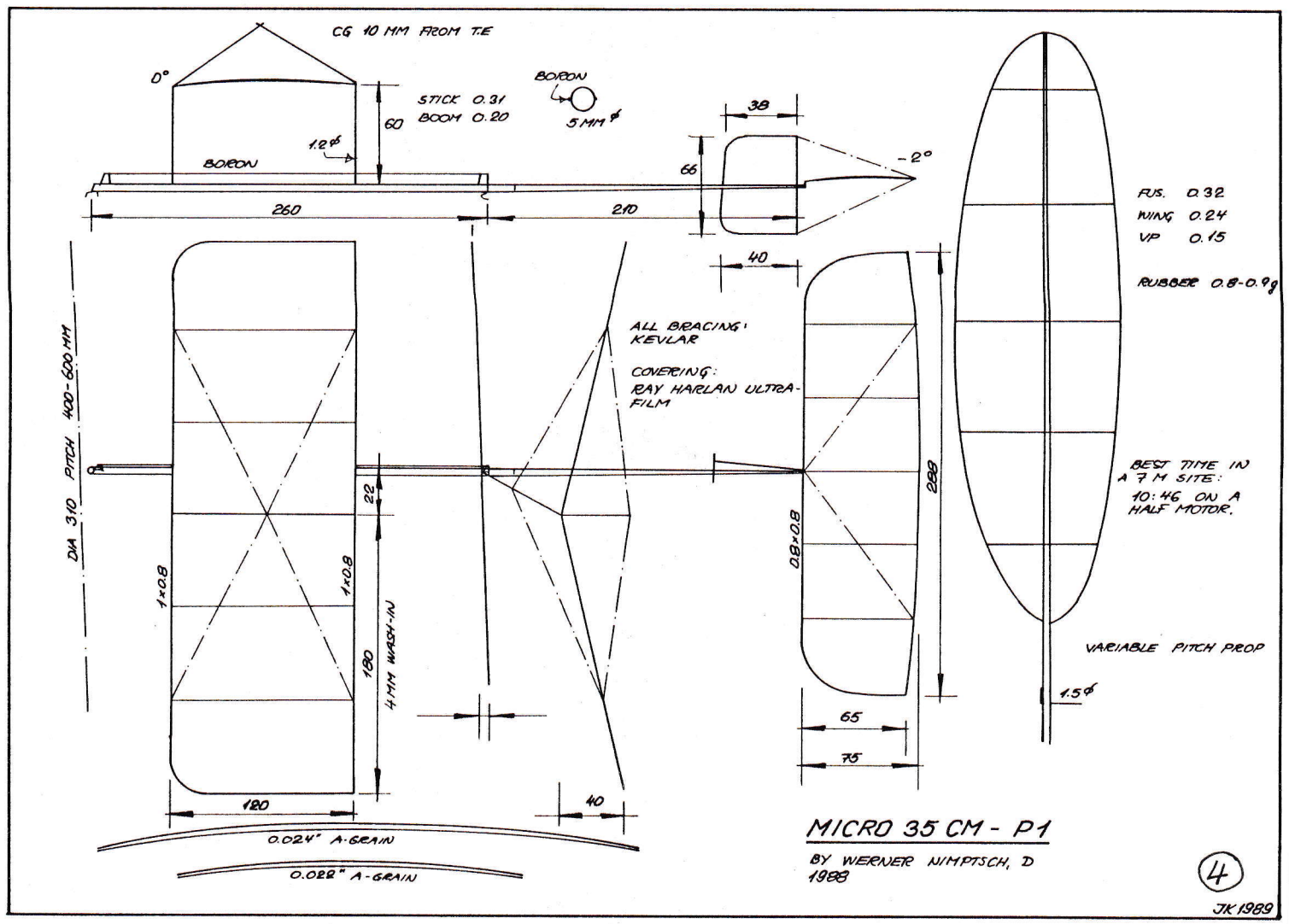
I use A-grain, 5½ lb for the wing spars and 0.013-0.015 C-grain, 3-4 lb for the motor stick blank which only wieghs 0.18 grams before rolling and glueing.

The VP prop hub is only 0.075 grams!


STAB 0.024" 4.8 LB A-GRAIN
WING 0.029" 5LB A-GRAIN
MOTORSTICK 0.32
BOOM ET AL 0.20
WING 0.31
VARIO-PROP 0.23
TOTAL 1.06 g
RUBBER 1.45 g/M
8 M BEST TIME 29:35 (1988)
FLEMALLE '88 WINNER
VARIO-PROP 540 MIN DIA PITCH 700-1100 MM
RODEMSKI FILM
KEVLAR
1.1×0.85
25
110
110
110
0.35
0.20
135
115
1×0.8
430
5 MM WASH-IN
12
5
200
0.6 B
12
BORON
12
0.6 B
HARLAN
60
0°
68
1.5ϕ
JOINT
110
KEVLAR
-2°
50
6.5ϕ
405
310
65
F1D
WERNER NIMPTSCH, D
JK 1989


WING
0.3
STAB
25
BORON
PROP: 400 DIA 500 PITCH
FRONT VIEW
FUSELAGE 1.20
WING 0.85
STAB 0.35
PROP 0.65
TOTAL 3.05 g
RUBBER: ONE STRAND 1.45 g = 400×1×1.8 (!) 14-1600 TURNS (PIRELLI)!
2×2
DIHEDRAL EACH TIP 50MM
STAB TILT 1.5 MM
1×2.5
1.8×1 (FLAT!)
HARLAN FOLIE
PLUG IN BOOM
0.8×1.5
1×1.2
HARLAN FOLIE
390
460
LEFT TIP 4 MM WASH-IN
2.5×2.5
PAPER TUBE
0.4ϕ
100
110
200
-1°
77
BORON
80
B 0.8, 13 MM HIGH
ADJUSTABLE T.E.
-2°
0.7
0.5
50
STICK DIA. 10 MM
75
55
400
385
F1D-BEG (FLEMALLE) BY WERNER NIMPTSCH, D
JK 1989


VINGSPRYGEL 1mm
2×2
PROP DIAM. 375
—"— STIGN. 675
124
154
126
124
64
144
60
532
BY ORJAN GAHN SWEDEN
TOLVSKILLINGEN III
2,5-gRAM
8
114
284
15
55
Ø2
1×1
0,4mm
1×1
1,5×1
2 st. 1×2
PAPPERSRÖR
3,5×7
STABSPRYGEL 1mm
4×2
2×1,5


CG 10 MM FROM T.E
0°
STICK 0.31
BOOM 0.20
BORON
5 MM Ø
60
1.2Ø
BORON
260
210
38
66
-2°
40
FUS. 0.32
WING 0.24
VP 0.15
RUBBER 0.8-0.9g
DIA 310 PITCH 400-600 MM
ALL BRACING: KEVLAR
COVERING: RAY HARLAN ULTRA-FILM
22
1×0.8
1×0.8
180
4 MM WASH-IN
180
40
0.024" A-GRAIN
0.022" A-GRAIN
0.8×0.8
288
65
75
BEST TIME IN A 7 M SITE: 10:46 ON A HALF MOTOR.
VARIABLE PITCH PROP
1.5Ø
MICRO 35 CM - P1
BY WERNER NIMPTSCH, D
1988
4
JK 1989

Sources etc.:

ERV RODEMSKY MICROFILM

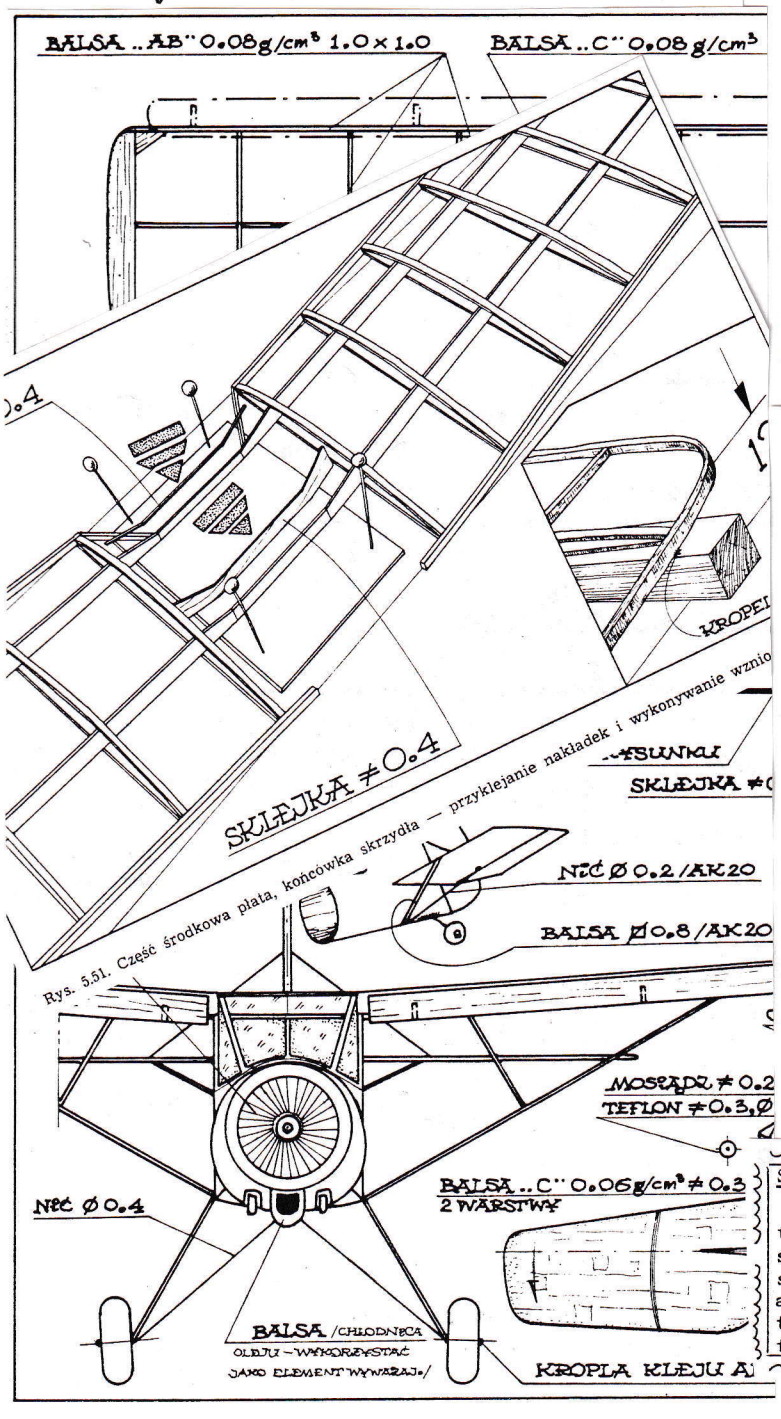
Sources etc.:

MICROFILM 4 oz bottles, 5,- dollars each. postage 2,- for the first, 1,- for the second and 0,50 for each additional bottle. Order from:

Erv Rodemsky
1600 Rockspring Place
Walnut Creek
Ca. 94596
U.S.A.

Books 1988 Piotr S. Bombol, Jerzy J. Kaczorek: "ORZESZKI HALOWE MODELE SAMOLOTOW" (Peanut Indoor Models)
80 pages full of peanut construction and 8 full size building dwgs ofJAK 12R, Piper J3 Cub, clipped wings, Nesmith Cougar, R7 Racek, Wilga, RWD 15, Waco E and Lacey M10 Drawings are by artist Kaczorek.

Available through J. Korsgaard



From Thedo André, NL:

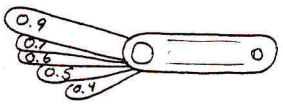
.... Despite of being warned by George Schroedter I ordered some Chinese rubber from Mike Woodhouse. George was right, it's totally useless! Half of the test motors broke while stretching at 6.8 x elongation. Those that survived broke at the first or second winding. I made up two Wakefield motors (22 strands 1 x 4 mm). The first motor broke its first strand at 280 turns at each successive winding and when I was at 340 turns I gave up as I had already 14 knots! The second motor shed all strands at the first winding at 200 turns. There are little voids in the rubber as well as dirt particles but I think the rubber composition itself also causes aerly breaking. Energy content was good at about 94% cruise energy compared to my Pirelli which is slightly better than good FAI.

I had hoped that boiling the rubber in castor oil as suggested by Ron New could improve the handling characteristics but it had no effect. Ron New has done some interesting experiments on winding FAI rubber... ask Dave Hipperson for info, also see AEROMODELLER June 1988.

My experiences with this batch of rubber (1x4 mm) are in complete contrast with Hipperson's enthousiastic description in AEROMODELLER July 1988 and with the very promising article in the 1988 NFFS Sympo Report (which Herman Andresen let me read in Johnson City). I think it is time for some kind of quality guarantee system for rubber. At least by stating batch no. and manufacturing date on the box. I'm afraid the Chinese (and Mike Woodhouse) are spoiling their reputation even before they enter the market!

.....ROUND PROP SPARS ...there is no need to built them! Mine are rectangular with slightly rounded edges. A lot easier to make. A prop spar is loaded in bending and torsion. The bending forces act in two directions, one caused by the lifting force the other by drag. The lift force is probably 10 times the drag and the spar should thus be stiffer in this direction. That is perpendicular to the prop blade section - roughly 45 degrees to the prop shaft. A circular section is the best to counter torsion and a good one should thus be a compromise. I use a spar width of about 0.8x the height. Since I'm using Lew Gitlow's tapered prop spar blanks I have never had to discard a missanded spar!

.... Another matter .. I think a Harlan wood stripper is a bit unsuitable to make multi-tapered spars with, e.g. wing tip spars. Instead I use a straight edge and measure (or estimate) the size with an ignition adjuster/gauge ... I don't know the correct English word for it):



.... I have enclosed a copy of an article from the well-known German FLUG & MODELL TECHNIK magazine by Eric Jedelski about low-speed aerodynamics - Mikro-Aerodynamik. It is very interesting reading! The article was published in 1988 in the Jan, Feb and March issues.

It seems to do away with the idea that our models are flying, or need to fly, with laminar flow over the wings. Some of his observations can be explained by non-aerodynamical reasons, mainly structural, but it gives a lot of food for thought.

Who will make an translation of this article into English??

Thedo also searches for an article in FLYING MODELS, Jan/Feb 1960 by Stuard B. Savage called "Hand launched Gliders". Can any of the readers help him with this.

Stamp collecting.....!

The EDITOR of this humble newsletter has over the years got so many letters with many interesting stamps on them that he has started collecting stamps with aeroplanes, model aircraft, airships and spaceships. So if you see any with theses motives, please, don't throw them away but send them to the editor THANKS!

INTERNATIONAL INDOOR CHAMPIONSHIP OF ROMANIA * SLANIC * Sept. 23-25, 1988

	Name &	Country	1	2	3	4	5	6	Total
1	REE Andras	HUN	38:07	32:15	32:10	34:17	16:57	-	72:24
2	MORAR Aurel	ROM ind.	29:41	27:09	36:00	31:32	33:02	34:01	70:01
3	KUJAWA Sylwester	POL ind.	14:05	11:02	33:32	32:02	36:26	13:15	69:58
4	ORSOVAI Dezso	HUN	34:14	35:03	33:13	34:25	34:22	33:31	69:28
5	POPA Aurel	ROM A	28:46	30:58	32:57	34:01	31:55	0:35	66:58
6	BEZMAN Nicu	ROM A	33:30	32:20	27:54	24:55	32:38	4:25	66:08
7	REE Laszlo	HUN	31:06	32:15	20:34	0:18	30:02	32:30	64:45
8	CIAPALA Edward	POL ind.	20:41	25:56	33:09	29:34	31:16	31:31	64:40
9	BEKE Geza	HUN ind.	23:51	32:00	32:13	25:01	30:00	14:32	64:13
10	MANGALEA Cornel	ROM B	30:34	33:15	28:43	26:55	15:00	18:39	63:49
11	WALEK Leopold	TCH	22:11	1:20	26:19	29:55	30:59	32:16	63:15
12	NICOARA Vasile	ROM ind.	30:50	30:10	21:34	31:15	30:45	21:05	62:05
13	DIHM Jan	POL	18:46	28:30	27:39	13:36	31:39	-	60:09
14	FURJES Gyorgy	ROM B	30:08	12:39	23:28	29:57	21:47	14:43	60:05
15	VINCZE Sandor	ROM ind.	4:35	-	29:04	30:05	14:05	-	59:09
16	SUKOSD Zoltan	ROM A	27:41	3:33	27:08	0:28	27:16	29:45	57:26
17	FRACKIEWICZ Pawel	POL	27:17	27:22	11:24	24:44	22:02	2:22	54:39
18	SIERKO Jaroslaw	POL	23:17	24:29	16:55	0:27	26:55	26:30	53:25
19	HINTS Otto	ROM ind.	25:26	12:31	25:32	25:20	27:00	17:08	52:32
20	TEUT Mihail	ROM ind.	16:21	14:05	25:25	21:15	20:35	24:35	50:00
21	GAHER Lajos	ROM ind.	14:29	23:48	25:31	16:17	15:16	23:24	49:19
22	AMORARITEI Dan	ROM B	14:57	27:10	11:29	17:55	17:58	19:03	46:13
23	FLOREA Petru	ROM ind.	18:46	11:56	6:06	17:17	18:53	1:04	37:39

ind.: individual competitor

	Country	1	2	3	Total
1	HUNGARY (HUN)	72:24	69:28	64:45	206:37
2	ROMANIA A (ROM A)	66:58	66:08	57:26	190:32
3	ROMANIA B (ROM B)	63:49	60:05	46:13	170:07
4	POLAND (POL)	60:09	54:39	53:25	168:13
5	CZECHOSL. (TCH)	63:15	-	-	63:15

CHAMPIONSHIPS OF BUDAPEST
Budapest — Jun. 11-12, 1988 (14.9 m site)

1	Reé, András	33:11	32:33	=	65:44
2	Orsovai, Dezsö	32:51	31:06	=	63:57
3	Reé, László	30:59	31:33	=	62:32
4	Botos, István	26:01	27:18	=	53:19
5	Beke, Géza	24:36	24:38	=	49:14
6	Kemény, Miklós	21:23	22:47	=	44:10

. . .

VARSZEGI MEMORIAL
Budapest — Jun. 25-26, 1988 (14.9 m site)

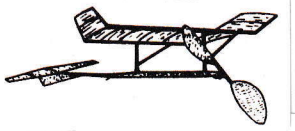
1	Reé, András	33:03	34:05	=	67:08
2	Orsovai, Dezsö	31:44	31:07	=	62:51
3	Reé, László	30:18	31:15	=	61:33
4	Beke, Géza	27:18	26:22	=	53:40
5	Botos, István	23:54	22:40	=	46:34
6	Hellenborth, Csaba	19:08	17:53	=	37:01

. . .

HUNGARIAN CHAMPIONSHIPS
Debrecen — Aug. 26-28, 1988 (29.3 m site)

1	Reé, András	37:25	38:14	=	75:39
2	Orsovai, Dezsö	35:22	35:22	=	70:44
3	Reé, László	33:20	33:15	=	66:35
4	Bakos, Ferenc	32:41	33:45	=	66:26
5	Beke, Géza	32:11	30:57	=	63:08
6	Botos, István	30:17	30:28	=	60:45

. . .



-CLUB AEROMODELISTE DE TOURAINE--FFAM-
CHAMPIONNAT DE FRANCE INDOOR
TOURS 23.24 JUILLET 1988

MICRO 35 CADET

PL	NOM	CLUB	VOL 1	VOL 2	VOL 3	VOL 4	VOL 5	VOL 6	TOTAL
1	COLLON E	CMAM	8'27	0'00	0'00	9'14	9'46	0'00	0H19'00
2	BESSE X	UAO	8'29	8'29	7'47	7'51	8'22	10'16	0H18'45
3	CHABOT S	CAT	4'18	4'40	5'37	6'28	6'40	6'28	0H13'08
4	TIBURCE P	CAT	3'19	3'09	4'09	3'43	3'01	0'00	0H 7'52

MEILLEURE PERFORMANCE CADET : BESSE XAVIER 10' 16"

MICRO 35 JUNIOR

PL	NOM	CLUB	VOL 1	VOL 2	VOL 3	VOL 4	VOL 5	VOL 6	TOTAL
1	DUCASSOU F	ACL	10'47	11'04	11'11	3'00	12'08	10'49	0H23'19
2	HANRIOT C	CMAM	10'39	10'39	0'00	12'04	9'12	0'00	0H23'03
3	CHABOT I	CAT	7'26	7'20	7'31	7'30	8'02	7'53	0H15'55
4	BERLOT JL	UAO	6'30	5'33	7'40	7'13	7'33	6'47	0H15'13
5	BONNOT N	UAO	6'26	6'25	3'13	6'30	6'45	6'18	0H13'15
6	PICARD L	ASCPA	0'00	4'25	4'01	5'32	6'44	6'16	0H13'00
7	RICHON F	UAO	4'37	6'29	6'14	4'45	6'12	5'50	0H12'43
8	BODIN C	ACY	5'17	5'20	0'00	4'31	4'29	0'00	0H10'37
9	FOUCREAU A	CAT	0'00	0'00	0'00	3'24	4'01	4'09	0H 8'10
10	CHAUVEAU S	CAT	2'22	3'10	1'45	3'28	3'40	0'00	0H 7'08

MICRO 35 SENIOR

PL	NOM	CLUB	VOL 1	VOL 2	VOL 3	VOL 4	VOL 5	VOL 6	TOTAL
1	FRUGOLI J	MAC	14'32	5'28	15'06	5'21	2'03	0'00	0H29'38
MC	KELLER P	ACS	14'55	13'48	0'00	7'06	14'34	0'00	0H29'29
2	BESSE A	UAO	11'40	13'08	13'14	11'41	12'41	0'00	0H26'22
3	DUCHENNE F	ACP	7'51	12'45	12'41	1'20	11'50	10'45	0H25'26
4	TRACHEZ A	AZAY	11'07	12'14	0'00	11'16	12'37	0'00	0H24'51
5	CHAMPION R	CAT	11'51	12'16	0'00	5'18	2'32	12'29	0H24'45
6	TRACHEZ B	AZAY	9'50	9'27	11'56	9'37	11'22	10'20	0H23'18
7	COGNET G	ACP	7'07	13'25	0'00	0'07	2'20	0'00	0H20'32
8	HANRIOT JC	CMAM	7'20	8'53	0'00	9'06	8'28	7'33	0H17'59
9	DELCROIX J	UAO	9'16	3'37	3'00	6'21	3'42	7'58	0H17'14
10	HUA-NGOC T	ASCPA	0'00	8'46	0'21	0'00	0'00	0'00	0H 9'07

EZB

PL	NOM	CLUB	VOL 1	VOL 2	VOL 3	VOL 4	VOL 5	VOL 6	TOTAL
1	TRPCHEZ B	AZAY	11'01	11'59	11'31	5'37	6'12	10'22	0H23'30
2	VALERY J	ACL	11'30	10'59	8'28	6'50	7'22	10'31	0H22'29
3	DELCROIX J	UAO	10'42	11'22	11'00	8'24	10'39	10'05	0H22'22
4	TRACHEZ A	AZAY	10'23	10'12	0'02	9'37	10'30	10'01	0H20'53
5	CHAMPION R	CAT	0'00	1'00	9'34	6'56	5'45	5'27	0H16'30
6	DUCHENNE F	ACP	5'48	5'20	0'00	5'35	0'04	7'13	0H13'01
7	BESSE A	UAO	6'22	1'32	6'31	1'08	0'05	0'32	0H12'53
8	HANRIOT C	CMAM	4'34	5'46	5'46	0'00	0'00	0'00	0H11'32
9	CHABOT JM	ACT	0'00	0'00	0'00	2'05	3'54	6'30	0H10'24

F1D BEGINNER

PL	NOM	CLUB	VOL 1	VOL 2	VOL 3	VOL 4	VOL 5	VOL 6	TOTAL
1	VALERY J	ACL	10'24	10'28	11'04	11'27	11'52	12'51	0H24'43
MC	KELLER P	ACS	11'06	11'09	11'09	12'32	—	—	0H23'44
2	HUA-NGOC T	ASCPA	7'31	1'01	8'58	9'25	9'13	9'04	0H18'38
3	BESSE A	UAO	3'01	9'02	6'00	7'49	8'41	5'59	0H17'43
4	CAILLAUD M	UAC	8'21	7'44	7'58	8'20	8'48	8'47	0H17'35
5	FRUGOLI J	MAC	8'25	8'22	0'00	7'41	8'15	7'57	0H16'47
6	DELCROIX J	UAO	7'40	7'24	7'09	5'39	7'35	5'44	0H15'15
7	HANRIOT JC	CMAM	7'41	6'20	0'00	0'00	7'23	3'23	0H15'04
8	PICARD L	ASCPA	6'44	0'00	0'00	6'57	7'05	7'02	0H14'07
9	BESSE X	UAO	6'40	6'48	6'19	3'21	3'39	5'59	0H13'28
10	CHABOT JM	ACT	0'00	0'00	0'00	0'00	8'15	5'06	0H13'21
11	DUPEYRON D	ASCPA	3'13	0'00	0'00	0'41	0'00	0'00	0H 3'54

F1D MICROFILM

PL	NOM	CLUB	VOL 1	VOL 2	VOL 3	VOL 4	VOL 5	VOL 6	TOTAL
MC	KELLER P	ACS	22'25	25'39	15'28	6'54	26'08	2'56	0H51'47
1	CHAMPION R	CAT	12'06	17'16	12'07	23'09	24'27	24'10	0H48'37
2	TRACHEZ B	AZAY	22'06	15'59	13'10	23'27	15'05	9'24	0H45'33
3	ALLAIS JR	MACLA	0'20	8'57	3'54	1'53	21'41	22'27	0H44'08
4	COGNET G	ACP	16'36	2'48	15'11	21'16	18'42	21'52	0H43'08
5	ALLAIS R	MACLA	14'20	10'23	17'20	18'26	18'04	21'40	0H40'06
6	CAILLAUD M	UAC	11'08	13'19	11'27	16'30	21'25	8'57	0H37'55
7	FRUGOLI J	MAC	18'03	15'13	19'48	0'14	2'26	13'06	0H37'51
8	CHABOT JM	ACT	0'00	0'00	0'00	12'47	17'33	17'30	0H35'03
9	CHATEAU S	ACT	9'37	8'00	0'00	11'22	15'10	18'10	0H34'20
10	HANRIOT C	CMAM	13'50	13'33	15'20	15'28	15'36	18'05	0H33'41
11	PILLER M	UAO	15'05	12'42	12'15	16'50	14'05	15'18	0H32'08
12	GRONNIER X	UAO	7'47	17'23	0'00	12'51	1'51	14'27	0H31'50
13	VALERY J	ACL	6'30	12'21	12'30	10'08	18'29	13'15	0H31'44
14	TRACHEZ A	AZAY	15'12	15'30	0'00	15'10	15'04	12'29	0H30'42
15	DUCHENNE F	ACP	10'45	11'50	18'10	10'36	7'58	8'27	0H30'00
16	BESSE A	UAO	0'00	4'51	5'10	12'06	14'35	12'47	0H27'22

EQUIPE DE FRANCE 1989 : CHAMPION ROBERT
TRACHEZ BERNARD
ALLAIS JEAN-RENÉ

REMPLACANT : COGNET GUY

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Hello Jørgen,

I must thank you very much for the excellent issue of Indoor News. We started to wonder if our subscriptions had run out over here, but it's certainly worth waiting a while for I.N. !

I submit a sample of a new fibre called Spectra. According to the manifacturers it has the following characteristics:

	Kevlar	Spectra	
Tensile strength	190	230	cN/tex
Elong. at rupture	3.7	3.5	%
Density	1.41	0.95	kg/cu.dm
UV-resistance	poor	very good	
Bending resist.	not good	very good	
Chemical resist.	acceptable	excellent	

The Spectra is a white polyethylene fibre with a very "slippery" feel, making you think it might be hard to glue, but I haven't preformed any systematic tests yet. Compared with the Kevlar, the price of the Spectra ought to be rather low since Du Pont hasn't got monopoly on it. The sources for Spectra is for example kiteflying suppliers (who call it Spider Line) or the cord maker FSE to which I only have the Swedish agents adress :

AB Interteknik
Gustav III:s v. 69
S-161 44 Bromma
SWEDEN

A big supplier of all sorts of kite stuff, including Spectra- and Kevlar lines.

Into The Wind
1408 Pearl Street
Boulder, CO 80302
USA

I would like to ask a few questions, if you answer them your self or print them in the paper doesn't matter.

First I wonder if anyone could help me with drawings, photos, pictures or 3-views of the Staib Midget. It seems to have been an attempt to make the smallest possible one engine full scale airplane. Walt Mooney published a photo of a peanut model of it in the July issue of American Aircraft Modeller -73. The model seems to have been built by Dough Fronius.

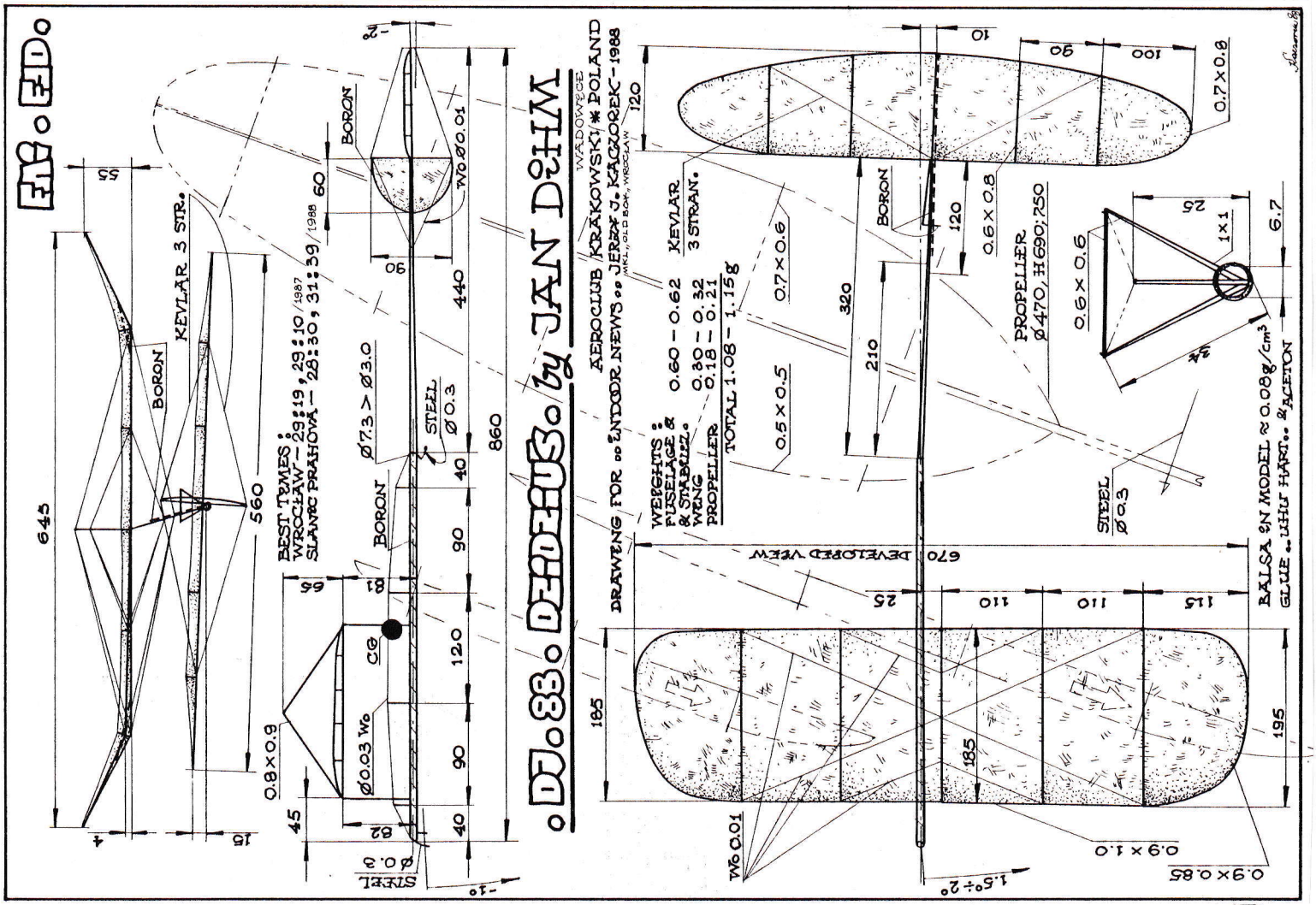
Second, I understand the Swiss F1D team uses extremly compact boxes. It would be very interesting to know how they get at least four models into a box which seems to be designed for peanuts (almost).

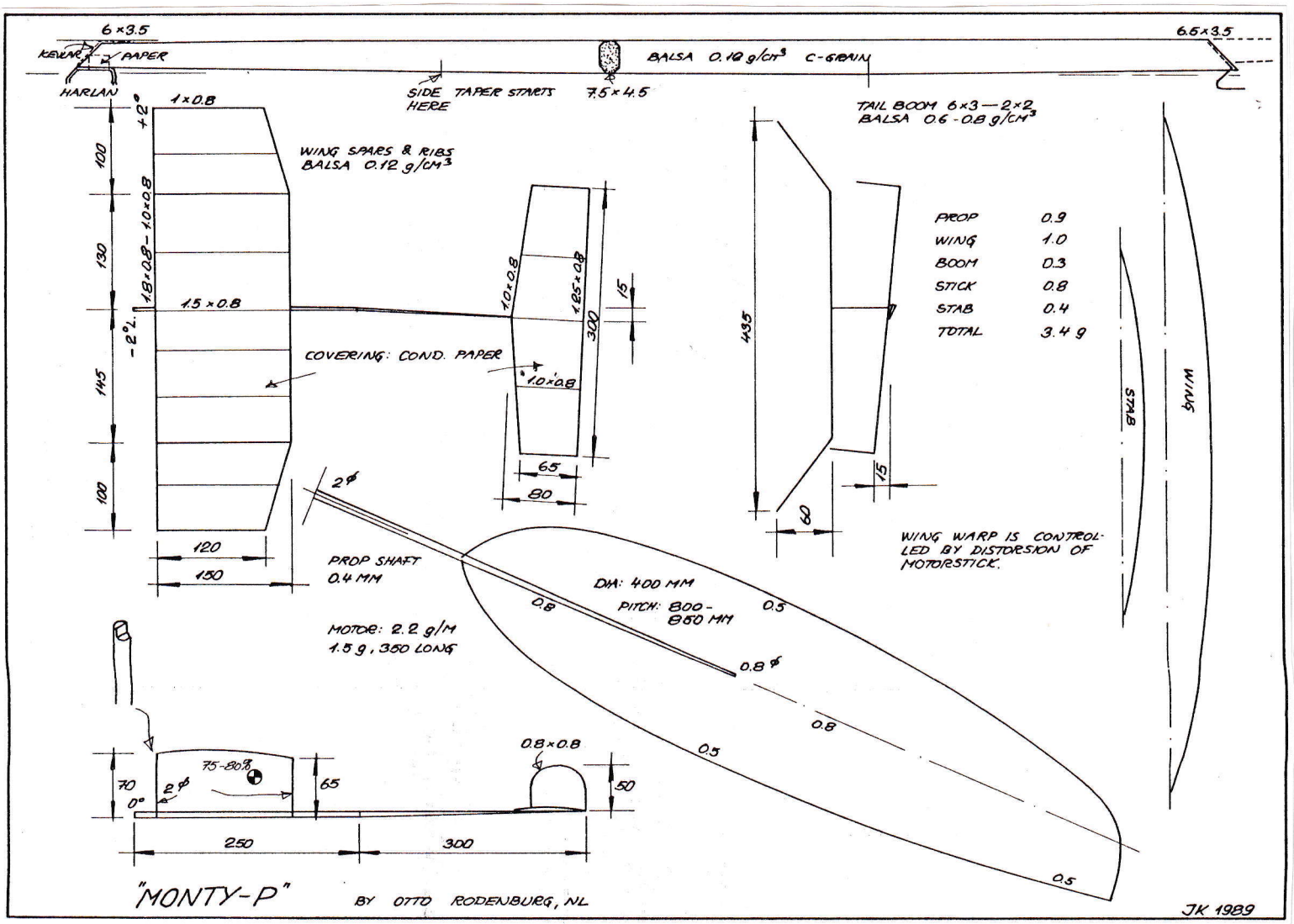
Third, the advantages of folding wingposts are obvious, but I never saw anyone who has experiences of them describe how they are made.

At last I have a faint memory of you (?) mentioning that a small strip of wood on the bottom of the hollow motor stick on a F1D might have the same effect as a boron fibre in the same place. Could you explain it in more detail, or republish the article ?

Again thanks for a very good paper.

Jonas Romblad
Annebergsv. 32
136 66 Haninge
SWEDEN





MONTY P, an F1D-X model by Otto Rodenburg.

Monty P was originally derived from the "Lucky Penny" by Tom Sova (USA). But when we adopted the F1D Beginner rules two years ago in Holland in preference to the Penny Plane rules Otto increased the tail moment arm by 100 mm. This greatly improved its climb pattern and made the model very easy to trim. We advise newcomers to build Monty P as a second model. As a first model we found Siebenmann's Moustique the most suitable. The 1,5 gram max. motor weight rule is not strictly applied. Models heavier than 4 grams are allowed free use of rubber. The competitors are further advised not to use Pirelli rubber. It is better to save that for future use on microfilm models. So far these rules seem to work. The number of participants is rising and the performances of the models are now approaching 12 minutes at Schiphol Hangar. I saw a couple of US indoor rules change proposals in Model Aviation which seem to confirm some of the shortcomings of Penny Plane and Novice Penny Plane rules (IND 90-4, IND 90-6, IND 90-11). In my opinion however an increase of fuselage length to 20 inches is not sufficient to substantially improve the climb characteristics. Why not build a model to the F1D Beginner rules and experiment a bit for a while with it? These rules are not perfect, but they have some advantages. The long moment arm models fly more gracefully and the 1,5 gram motor weight rule prevents the use of huge propellers. Also these ugly biplanes are not allowed Try it, you'll like it!

Thedo André.

Indoor in Knittlingen

The Aerosportclub in Knittlingen in West Germany is inviting to the 3rd Indoor Contest. Please, contact Benno Schlosser, Pflegmuehleweg 59, D7134 Knittlingen. Telf.: 07043-32934 & 07043-31224.

Date is: April 16 (training from April 15)

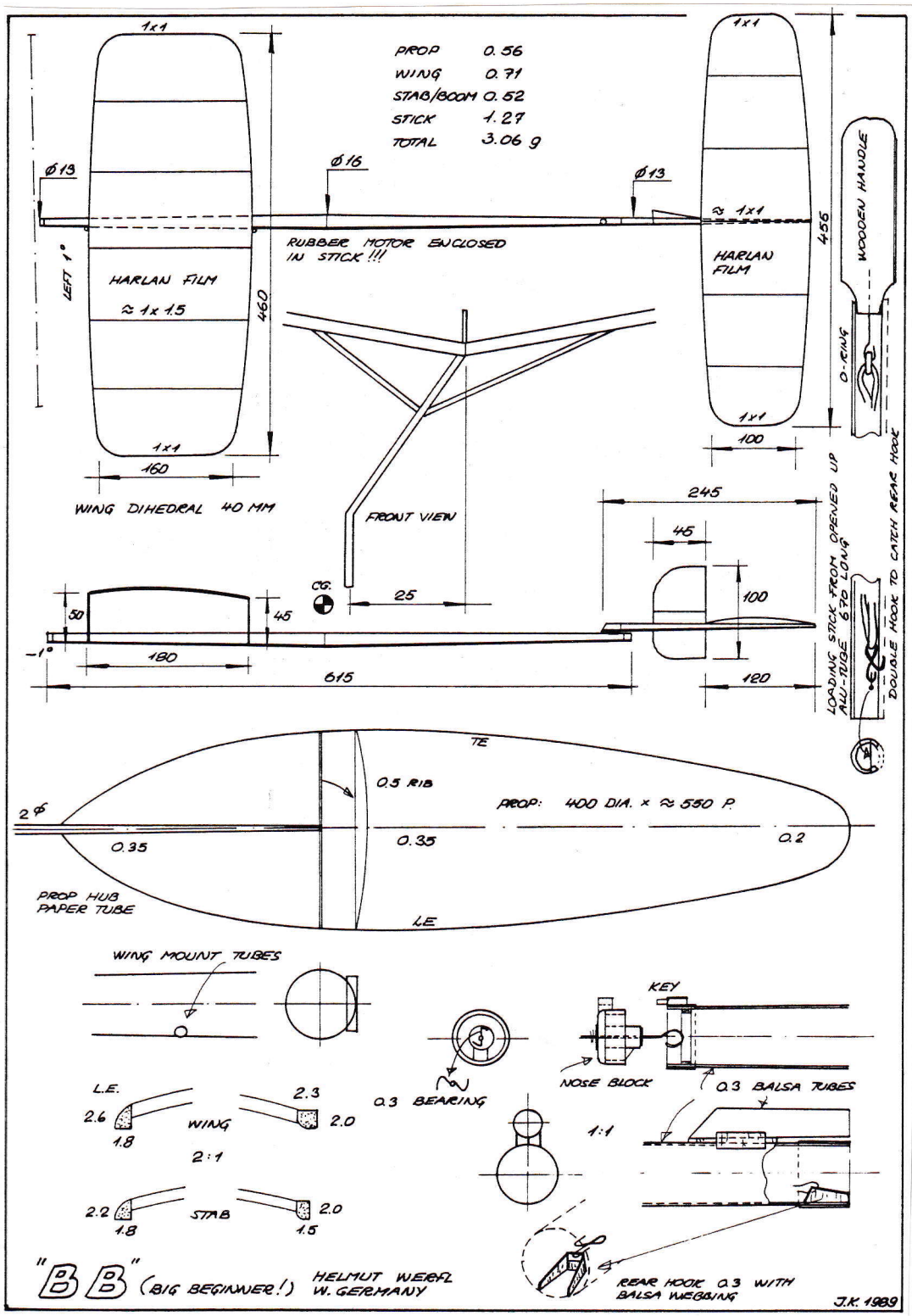
Classes: TH, F1D-Beginner and EZB. Seperate junior contest.

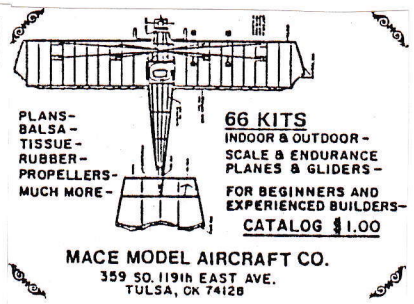
CONTEST CALENDER/NEWS

29-30 April	Danish Indoor Champs, Flensburg Contact Jorgen Korsgaard
10-11 June Orleans, F	Vol Interieur International, F1D Contact J. Delcroix, 7 rue de Foncemagne, F-45000 Orleans, France
1-2 July Tours, F	1st Criterium Internationale de Touraine. F1D. Contact Club Aeromodeliste de Touraine, 2 place Leo Lagrange, F-37300 Joue-Les-Tours, F
15-16 July Brno, CSSR	INGRA CUP, F1D. Contact Ustredni Modelarsky Klub, Opletalova 29, CS-116 31 Praha 1, Czechoslovakia
25-27 August Flemalle, B	13th International Indoor. Contact Petite Aviation Trixhosaures, F. Van Hauweart, Grand Place 1, Bte 52, B-4100 Flemalle, Belgium
????	European Indoor Champs. Bad News! FAI cancelled this contest to be held in Slanic, Romania, in April. The reason for this was that Romania had not paid its membership fee for a long time, and that no details were available at the Bureau meeting in December.
1992	Indoor World Championships at Hala Ludova, Wroclaw, Poland.
1990	Indoor World Championships. Site?????? Any offers???

New contest site in West Germany.

Gerhard Woebbeking, D, phoned me some weeks ago and told me that he had found a good indoor site in Hamburg .... More details, please, Gerhard!





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New York, NY 10005

CARDINGTON 1989

Everyone is welcome to fly at Cardington - there is plenty of room! However, heavier models MUST always give right of way to lighter models - ie you must wait for that F1D model to land!
Do also contact Mr Bob Bailey well in advance before going to Cardington - especially foreigners.
His address is:

Bob Bailey
162 York Road
Stevenage
Herts SG1 4HQ
England

Dates:

12 March
26 March
2 April
} Team F1D Practice and Fun Flying

14 May
4 June
25 June
16 July
} All In Index and Fun Flying

6 August P 15 Contest and Fun Flying

26 August:
a) EZB for Houlberg Silver Trophy
b) INDEX for Manhattan Cabin, Flyrod (novice only) HLG, EZB, Pennyplane, Novice Pennyplane, CO_2 Duration and Peanut Duration.
c) CO_2 Duration, Sparklets Trophy
d) CO_2 Longest single flight.
e) Fun Flying
f) Sweepette Trophy for Indoor HLG. SPECIAL rules:
1: Max 22" proj. wingspan
2: Max weight 10 grams

27 August:
a) F1D for Aeromodeller Trophy
b) 1990 F1D W/Ch Trials - first 3 flights
c) Fun Flying

17 Sept, Team Trials F1D and Fun Flying

15 Oct, Team Trials F1D and Fun Flying

NB: The P 15 Contest on 6 August is flown with the model "P 15" shown in Indoor News 1/87 page 5!

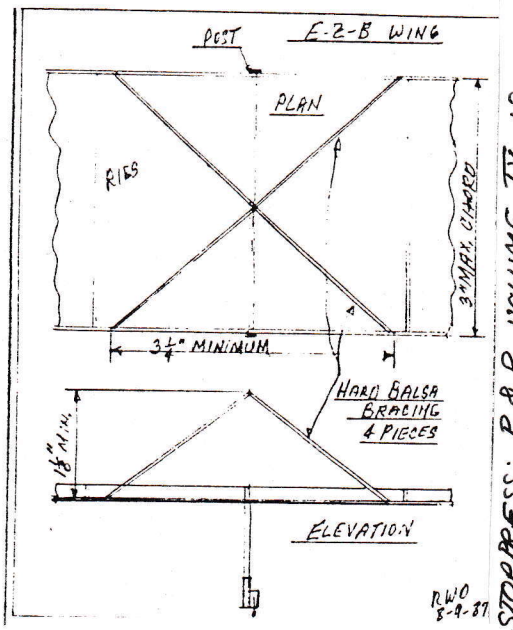
A HANGAR PILOT ORIGINAL ARTICLE BY THE OLD MAESTRO

EZB Tips

One of the big problems in EZB flight adjustment is the tendency for the solid stick to twist due to the motor torque. When the stick twists, the wing does also, causing the inside wing to increase incidence. The adjustment for this is to rig the wing for a slight negative or the outside wing for a slight positive or both, so that under torque the twist will compensate.
Also bracing can be employed on wings to stiffen them. Unfortunately, most bracing does not decrease the wing twist unless full bracing with a cabane is used (as in microfilm or Int. stick models). Since only wood bracing is allowed on EZB, the repair and weight trade*off is bad news. By using a double cabane only very little weight is added and the truss effect stiffens the wing for both bending and twisting and in addition stiffens the motor stick between the wing posts. This bracing can be applied to the top or bottom surface of the wing. With this arrangement a standard trim can be used with a slight incidence on the inside wing half as is the case with a "mike" or Int.stick or other braced indoor free flight models using a R.H.propeller.
Flights of over 18min. at U.S.I.C. and 21.5 min. at Akron have been made with this bracing.
The 1988/89 rule changes will allow Microlite covering for EZB and probably make the wing twist problem an even greater one.

Further development of the "Torque Burner" for basically low ceiling flying is still progressing. More on this later.

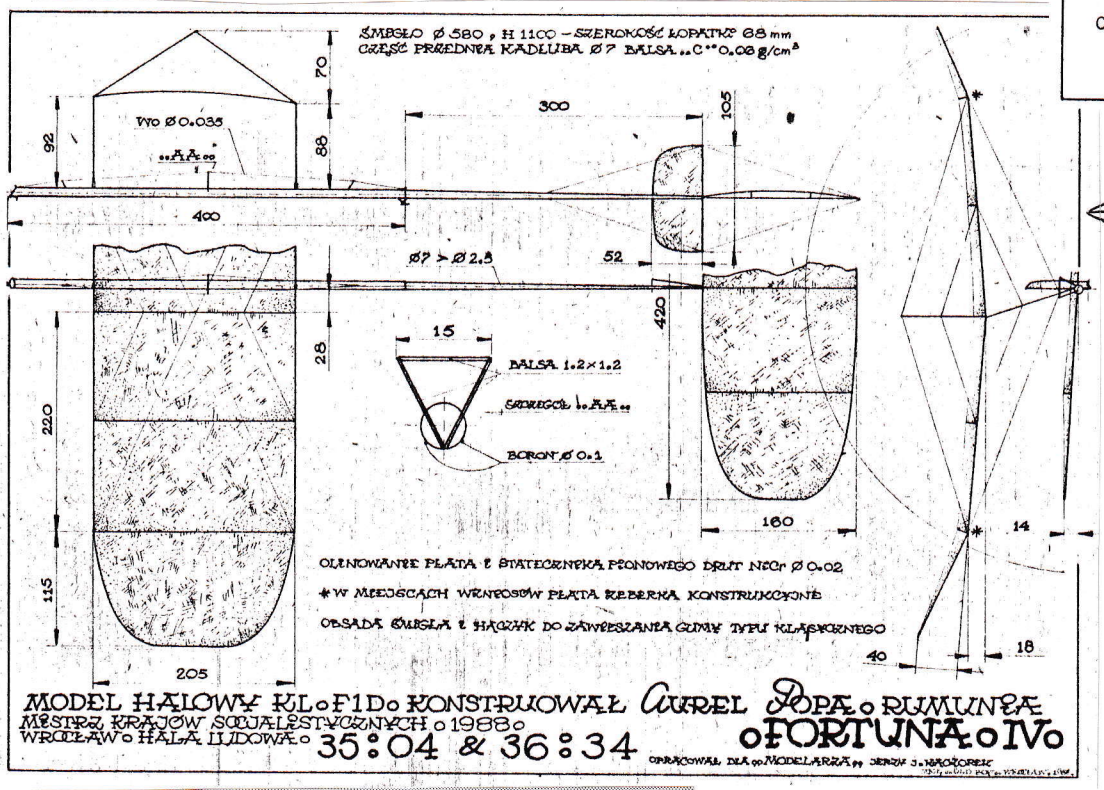
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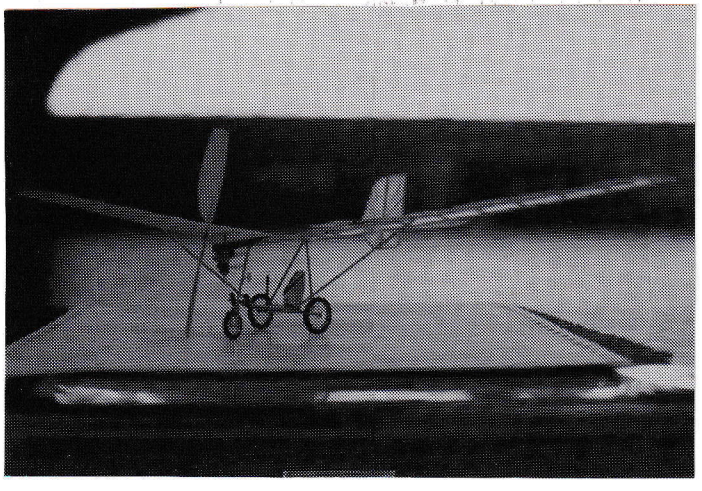
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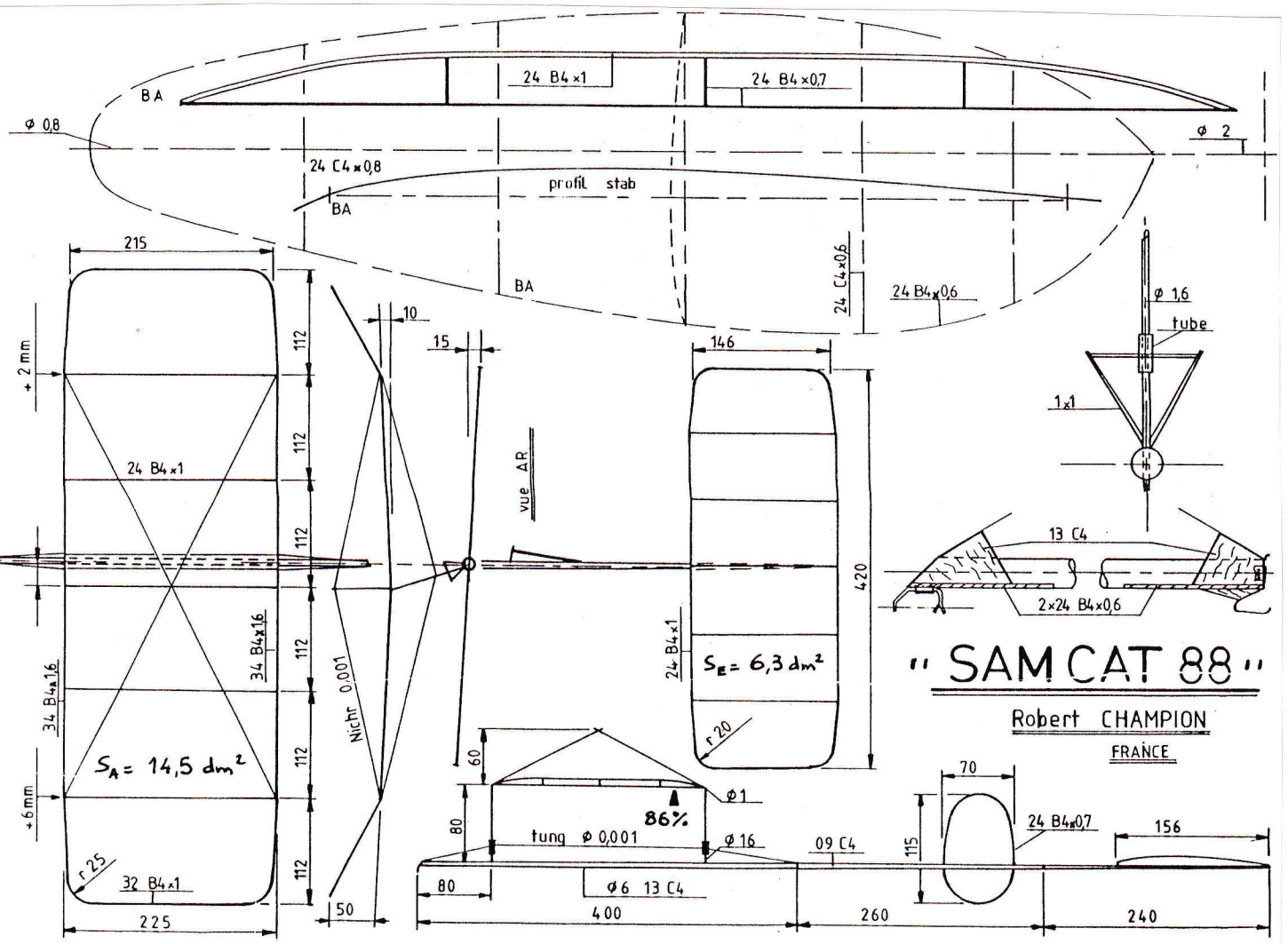


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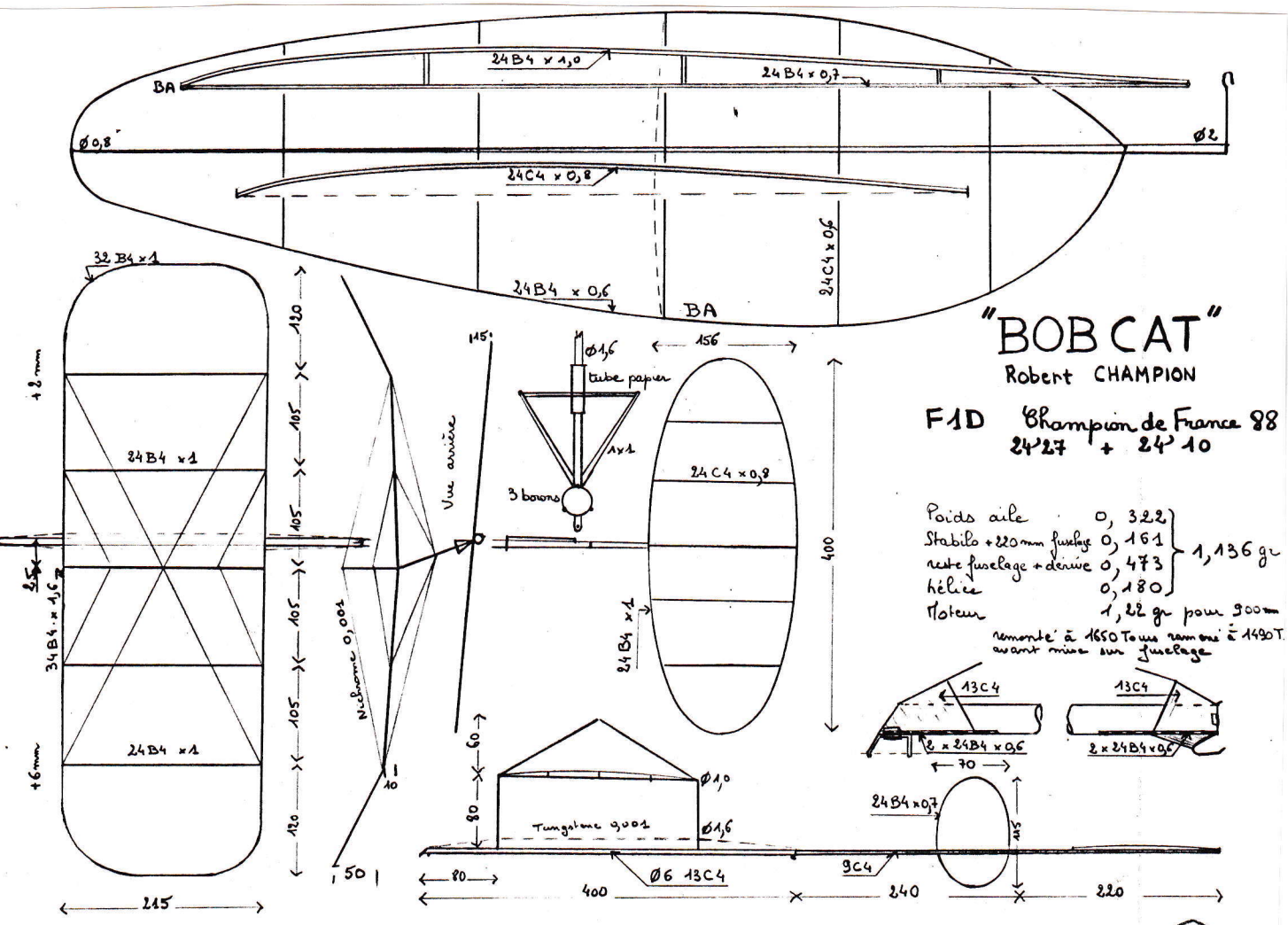
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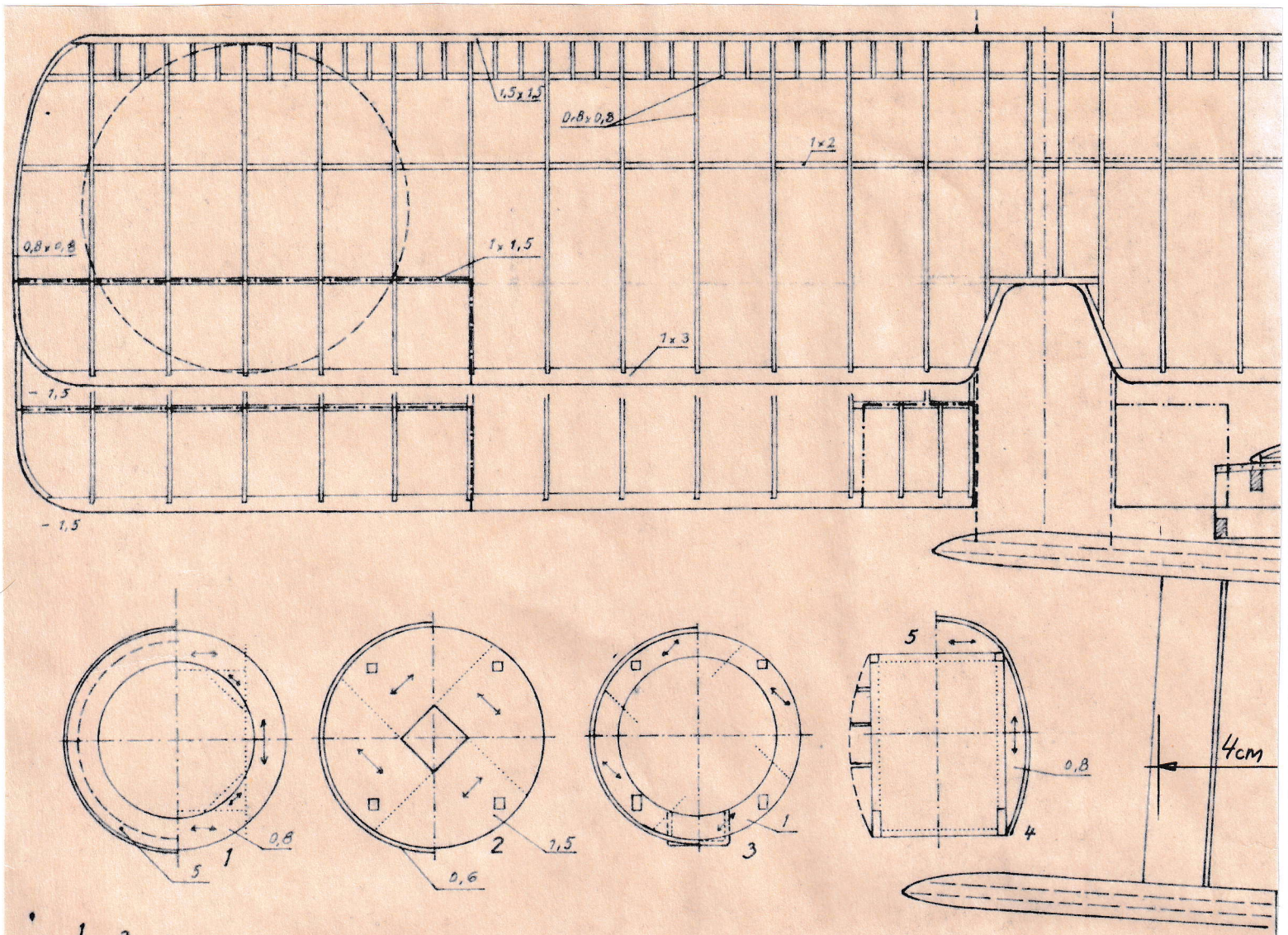
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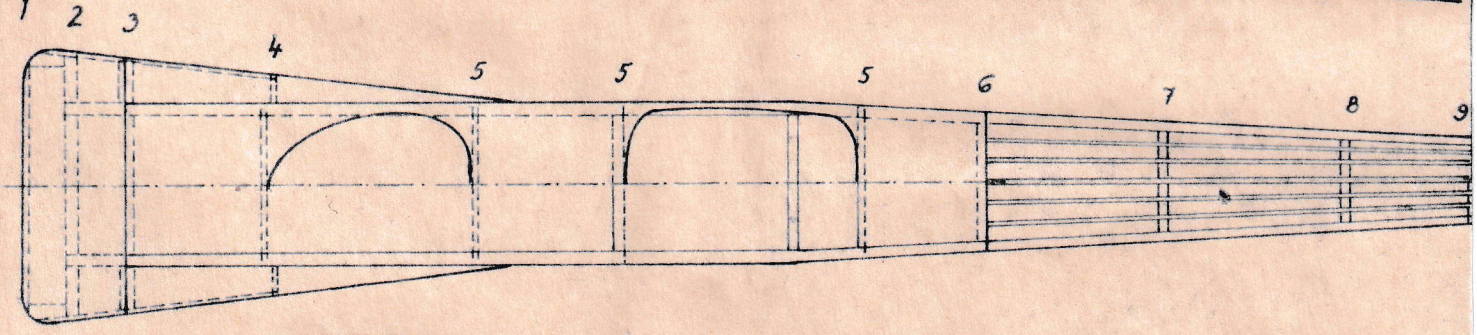
F1D Champion de France 88

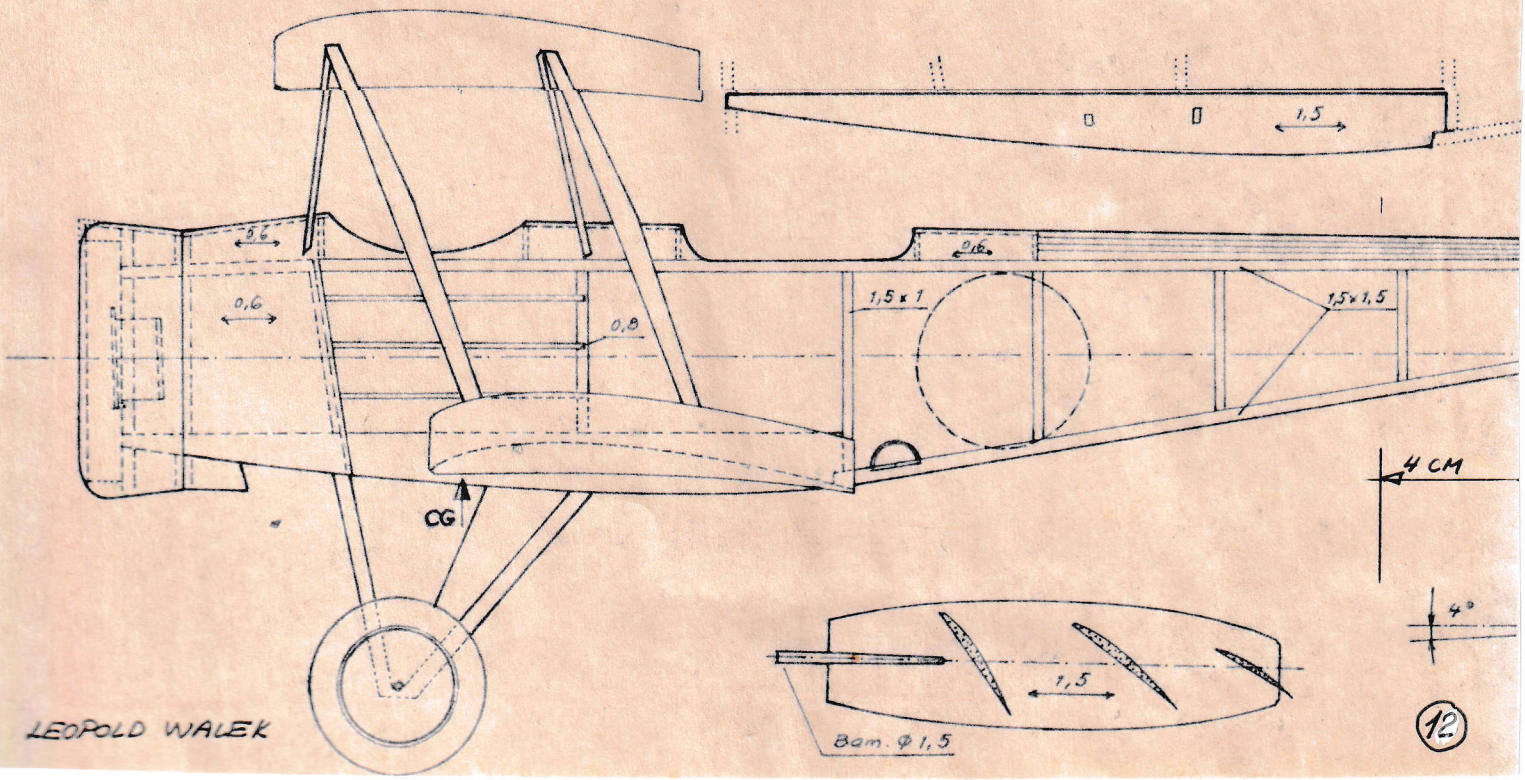
24'27 + 24'10

Poids aile	0, 322	1,136 gr
Stabilo + 220mm fuselage	0, 161	
reste fuselage + dérive	0, 473	
hélice	0, 180	
Moteur	1, 22 gr pour 900	

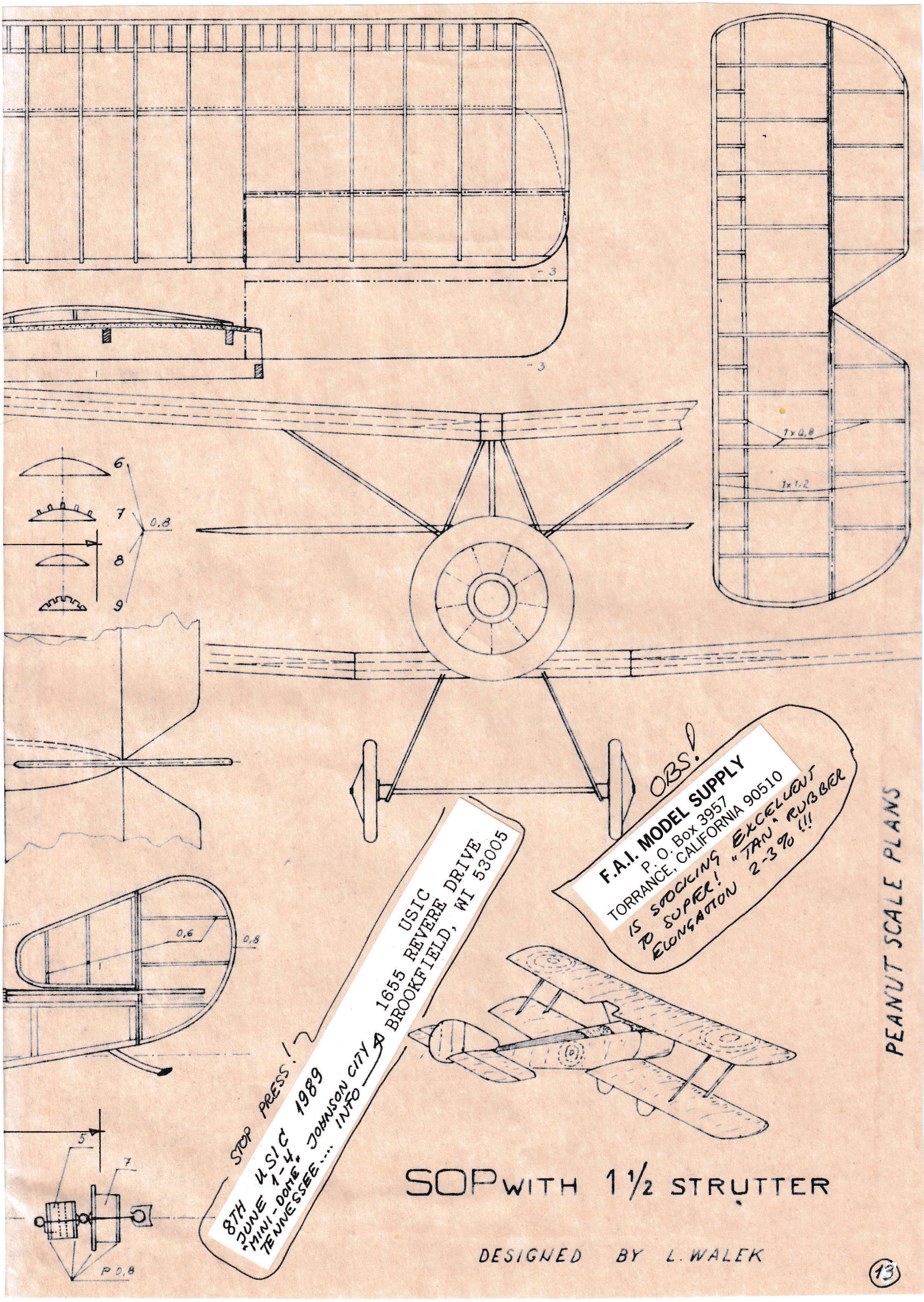
remonté à 1650 Tours remonté à 1490 T. avant mise sur fuselage

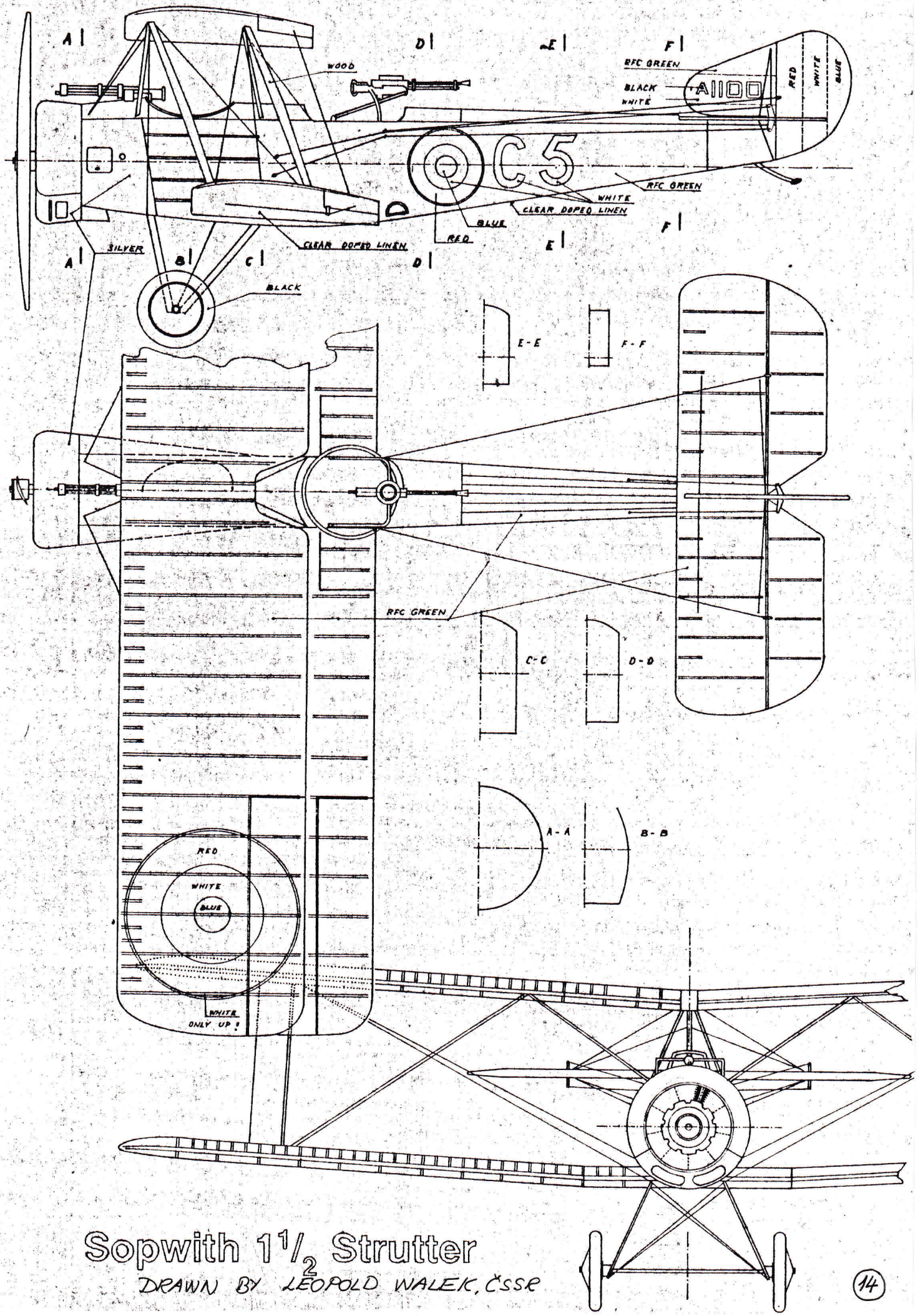






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