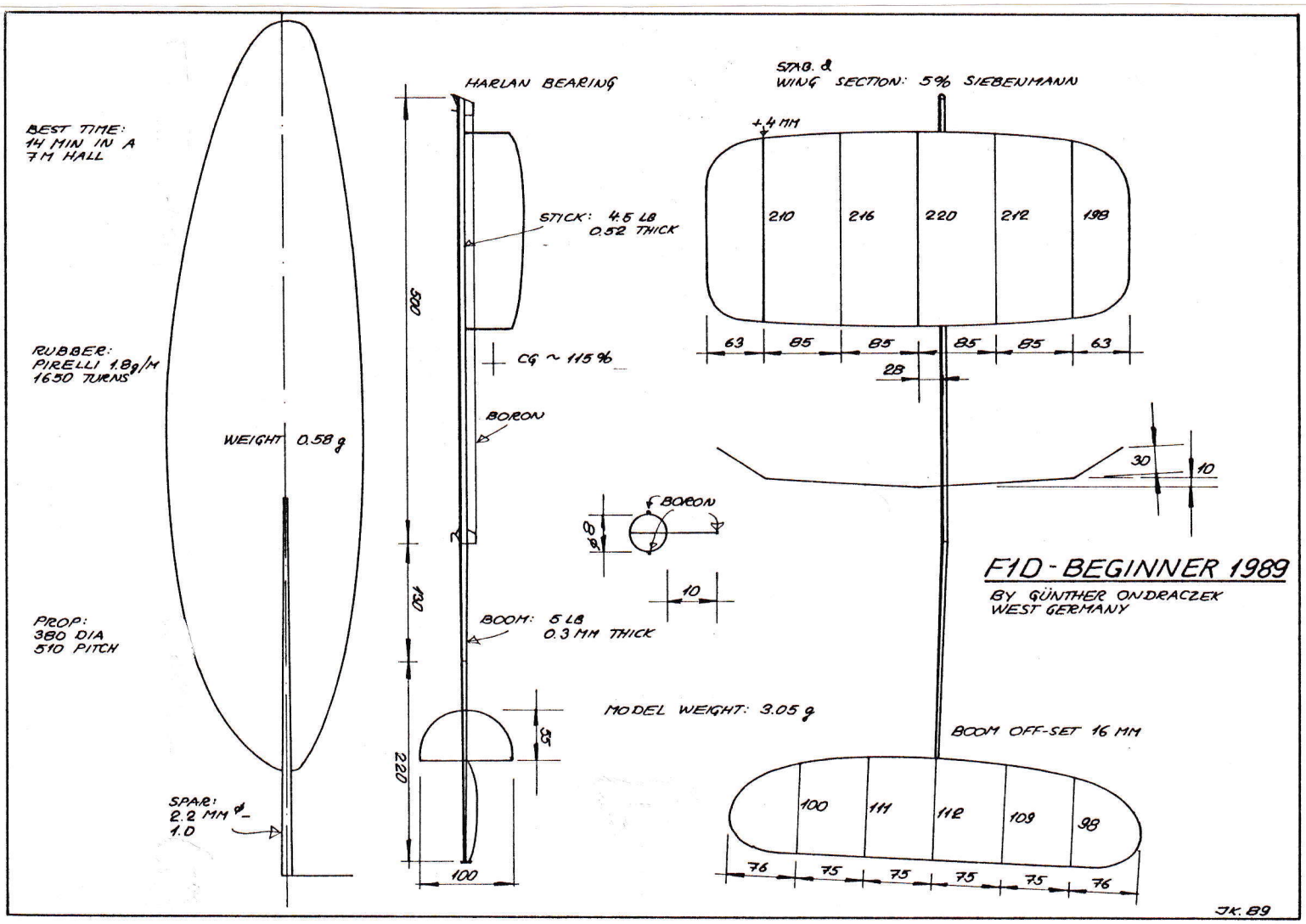


INDOOR NEWS 3·88

Dear friends,

Thank you very much for the stamps you sent me with the aeroplanes and airships on them. Please, do continue that policy instead of throwing them away. Thanks.

The indoor activity in Denmark has been very low since the beginning of 1988, and this year the Danish Champs were cancelled due to the very low entry which could not pay the rent for the hall. However, I do feel that the situation will be much better within the next year as there is a possibility of going to Cardington for the next World Championships.

In the past issue - 1/88 - on page 24 I had some essential questions and requests .... please, do read them and sent your material to the editor .... the sooner the better and the next issue will soon be under way ... it will be IN 1/89.

It is a little frustrating that I haven't got or seen any drawing of one of the models competing at the Tennessee W/Ch last year (though I have personally invited some "names" to contribute!!)

..... Longing to hear from you.....

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,- US $

Manny Radoff:

At the USIC this year I had an unusual thing happen. All but two of about a hundred plastic self seal zipper of precut assorted 40 inch lengths of Pirelli rubber went bad after about two years of storage!! I gave two lengths to a friend to use and he told me they broke in winding. The next day I broke four motors while winding. I became suspecious (who wouldn't?) of the Pirelli and took out another envelope of rubber and gave it a sharp pull - it broke! Then I went through them all with the same result. A bit later a friend came over to whom I had bemooned my loss. I took out some spare rubber I had brought along to cut if necessary and with this I wanted to show him how brittle the stuff was. So and behold, wherever I pulled this spare batch it did not break. I can only guess it was the type of plastic each was stored in.

The Pirelli that didn't break was in a plastic bag of the cloudy crinkly type. The brittle cut up Pirelli was in the clear zipper type of plastic. Obviously these plastics were different. I had purposely put these cut sizes of Pirelli in the plastic envelopes after being told that the sulfer in paper envelopes was bad for rubber.

Later I happened to speak to a man who was in the plastic business, and he told me that he had heard of a person who also had rubber deteriate in plastic.

DO YOU KNOW ANYTHING ABOUT THIS???

Editorial note: What has happened to Manny's rubber is very serious..... how many of you have stored your motors in these plastic bags??

Pete Williams, UK:

... I still have not completed an F1D prefering to concentrate on EZB using a model similar to Bernard Hunt's. Best time so far 22:02 at Cardington on Champion rubber. I will send a drawing and more details when I have flown it a bit more.

The main problem in this country in starting in indoor is that Cardington is very dependent on good weather. Last year we had about 5 good days out of 8 which is not very much time to trim an EZB, if like me, you are not sure what you are doing! This year, given good conditions, I think 25 minutes is possible, I have done 21:30 from about 70-80 feet.

Last year was very bad for F1D here with very little flying, and a lot of arguing amongst the experts!! However, like myself, there are several newcomers all building F1D's for the first time, so hopefully this year will be better.

Thank you for your help, especially the back issues.....

F1D World Championships 1990.

According to the FAI reports there is one offer to host this event, namely the Romanians in the Slanic saltmine, but they have problems paying their fees to the FAI ... which also has meant that there is no European Championships this year.

But now there is a new offer .... I met with Paul Masterman in Holland earlier this year and he told me that the British Indoor management is going to offer to run the 1990 F1D W/Ch .....

The 1992 W/Ch is now already known to be run at Hala Ludowa in Wroclaw, Poland.



András Reé:

..... some contest results, from Hungary, Leningrad and Brno. The F1D-EXP list contains the results according to the Czechoslovakian suggestion: F1D rules + max 0.75 gram rubber.

The F1D-EXP models fly very nice, their performance even too high! (the BRNO results show the bad conditions - contrary to my F1D hall record of 39:29) The EXP flights were flown in the morning - sometimes we couldn't climb at all. During the test flight my son made 30:13 and my best was 29:30. These models were normal F1D models with smaller props (mine 460/900) and rubber length 290 mm.

The F1D results also show the generally bad weather conditions in the hall (pavillion-Z) except only for a few flights - only 15 flights exceeding 30 minutes.

In Leningrad (USSR) the site was also very bad because of the bad weather outside - snow, rain and storm .....

(Editorial note: Did anyone know that there were that many indoor flyers in the USSR???)

Bernd Miehe:

Together with a couple of youngsters I built some Moustique F1D-Beginner models. They were made of "normal" selected balsa from the hobby shop and covered with 40 mg folio. The motorstick is solid balsa and the weight of the models were about 3.2 grams (min. 3.0 grams).

The models fly easily without any problems and I say: Much indoor fun for very little money and highly recommended!!

Frustrations start when they meet the high-tech models of adults .....

Boyd Felstead:

Why do some Europeans use destilled water and Butyl acetate to affix film? Less weight? (destilled water without solids, butyl acetate evaporates completely??? I use plain tap water (purified in our purifier) and saliva. OK but it dries out too quickly when covering.

Werner Nimptsch, D, did 29:55 in a 6.90 m hall....

He writes: This performance was made during our team-trials at the Dillinger Sporthalle in the class F1D. It was in the 5th round and I had taken out another model after my best model showed problems handling the turbulent air in the hall and was not able to do the times it showed during the trimming.

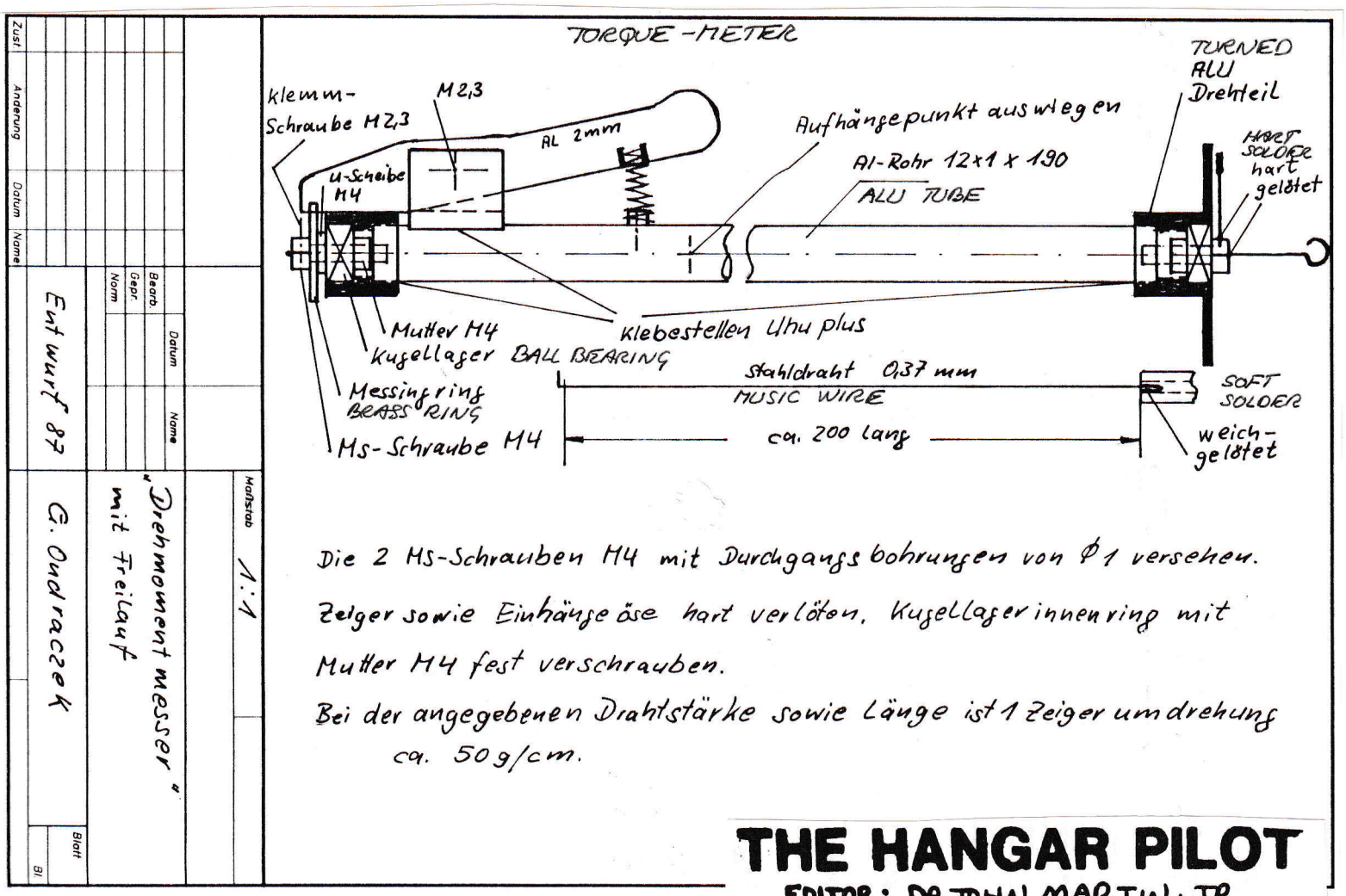
I used a 1978 Pirelli motor, 380 mm long and weighing 1.2 grams. With 1280 turns on the motor I launched the model in the middle of the hall but it was not able to cope with the turbulent air. Before the restart I let some turns off and now launched again, this time without any problems. After about 2 minutes the model touched the 6.9 m ceiling. The prop in high pitch configuration turned a RPM of 35. With the fishing pole I steered the model a couple of times and the model was now in calm air though also in danger of colliding with some basketball equipment.

After about 12 minutes my heart stood still as the model suddenly hung in the prop but it freed itself very quickly and tailslid down to 1 meter but got flying again and had reached the ceiling in a few minutes. The VP prop switched to low pitch at 18 minutes and the model stayed at the ceiling for 22 minutes, the prop now turning 45 RPM. Eventuelly the model landed after 29 minutes and 55 seconds. (Congratulations, Werner!)

A few comments to the hall and the weather. The Dillinger Sportshalle is 15 meters high but an intermediate wood ceiling consisting of boards with 40 mm intervals,

is forming a flat ceiling at 6.9 meters. Perhaps there is some circulation of air between these two air masses. In the 5th round there was a one-sided sun-warming of the hall making big temperature differences though the 15 degrees C remained most of the day. The outside weather was warm and sunny, 20°C, and perfect flying weather for outdoor models, only slight winds.

(Editorial note: These words have been tranlated from German to English through a Danish brain which might ca use some odd English sentences!!)

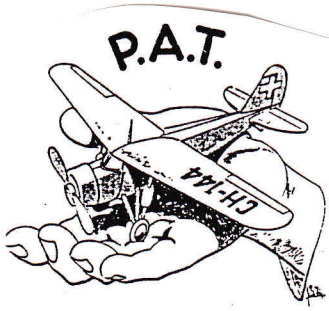


Die 2 MS-Schrauben M4 mit Durchgangsbohrungen von Ø1 versehen.
Zeiger sowie Einhängeöse hart verlöten, Kugellagerinnenring mit Mutter M4 fest verschrauben.
Bei der angegebenen Drahtstärke sowie Länge ist 1 Zeigerumdrehung ca. 50 g/cm.

THE HANGAR PILOT

EDITOR: DR JOHN MARTIN, JR
2180 TIGERTAIL AVE MIAMI FLA.
33133

INDOOR MODEL SUPPLY
1887 West Haven, N.W.
Salem, OR 97304



1, Grand-Place b 52
4110 Flémalle (Belgique)

25th, 26th, 27th August 1989

THIRTEENTH INTERNATIONAL INDOOR CONTEST

Inscription Sheet and Registrations

Family name, first name.....

Address:.....

.....

Nationality.....Age.....

Profession.....

Phone number.....

I'll take part in your contest in the following category (ies):

PEANUTS SCALE - PEANUTS DURATION - PISTACHIOS - Ste FORMULE

F 1 D MICROFILM - F 1 D BEGINNER - E.Z.B. - MICRO 35 PAPER

Federation:.....Sportive licence number:.....

I'll be at the hall on: friday - saturday.

OR I send you one - two model (s) for proxy-fly.

(Cross out what is not necessary)

W·W·1 Aero
THE JOURNAL OF THE EARLY AEROPLANE

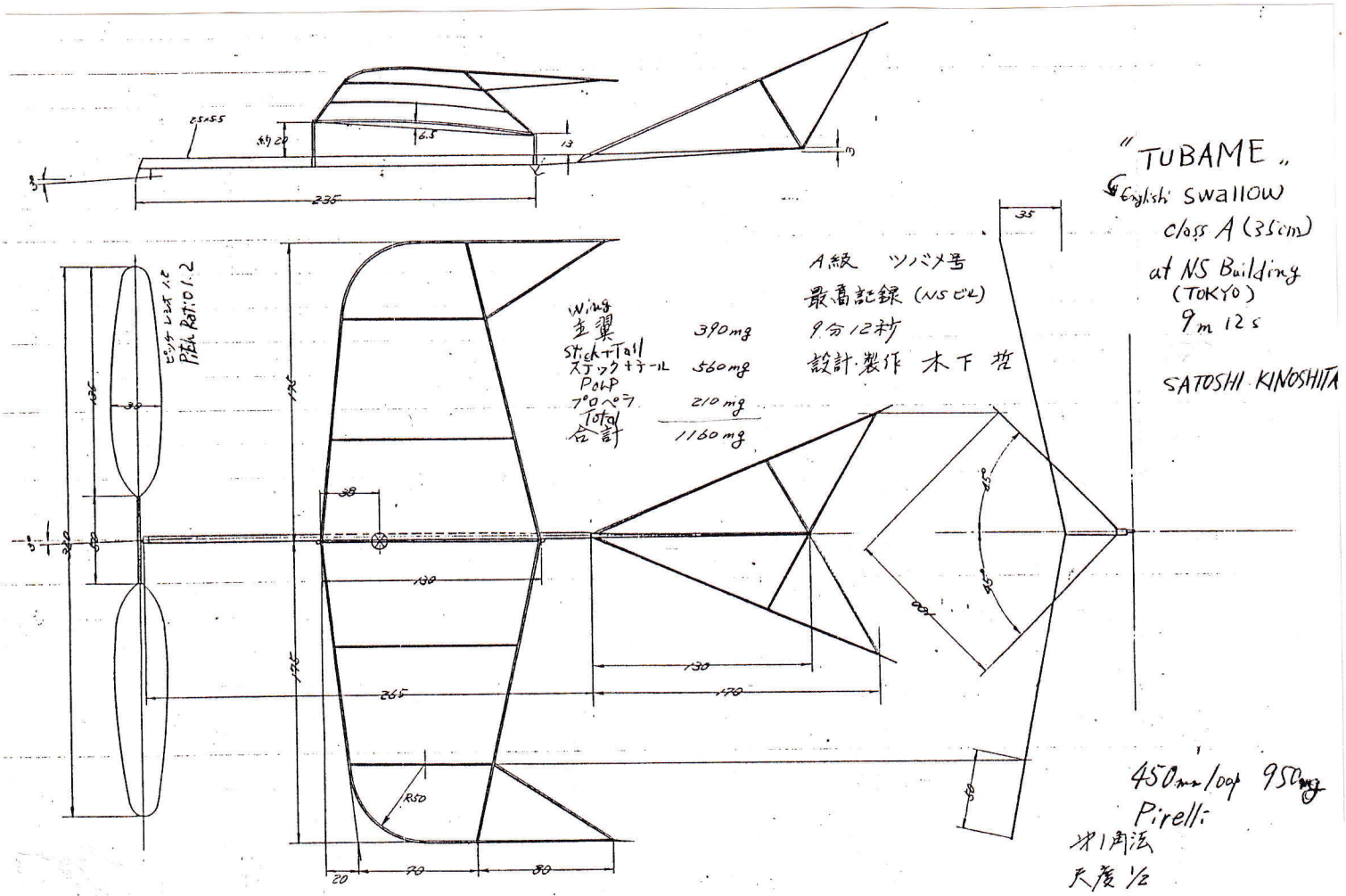
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THIS INTRESTING DWG OF A 35 CM WAS SENT BY HIDETO HORIKIRI, JPN.

SMAE INDOOR 1989 CONTEST CALENDAR

Bob Bailey has supplied the following details of events at Cardington. Note that he acts as contact for all the events (tel 0438 723642).

12 March	Team F1D practice and fun flying
26 March	Team F1D practice and fun flying
2 April	Team F1D practice and fun flying
14 May	All-in Index and fun flying
4 June	All-in Index and fun flying
25 June	All-in Index and fun flying
16 July	All-in Index and fun flying
6 August	P15 contest and fun flying
26 August Indoor Nationals	a) EZB for the Houlberg Silver Trophy, best 2 flights from 6 b) Index for Manhattan Cabin, Flyrod (novice only), HLG, Pennyplane, EZB, Novice Pennyplane, CO2 duration, Peanut duration; best single score from 6 c) CO2 duration for Sparklets Trophy best 2 from 6; d) CO2 duration for Sparklets longest flight trophy, best flight of 6 made on the day; e) fun flying; f) HLG Sweepette Trophy (22 ins max projected span, 10g max weight).
27 August Indoor Nats	a) F1D for Aeromodeller Trophy, best 2 from 6; b) 1990 F1D World Championships Trials first 3 flts, best 3 from 9; c) fun flying.
17 Sept	F1D W/Ch Trials, second 3 flights, best 3 from 9; fun flying
15 October	F1D W/Ch Trials, third 3 flights, best 3 from 9; fun flying

Notes (i) Special rules for Sweepette imply use of 'low ceiling' HLGs to prevent the contest from being an 'athletes only' event.

(ii) Everyone is welcome to fly for fun at Cardington - there is plenty of room! However, heavier models MUST always give right of way to lighter models, i.e. you must wait for that F1D to land!

(iii) Watch for possible further additions to the Calendar.

August 6th P15 rules.

P15 (Standard): Model to be made from plan drawn by Erik Knudsen. Propeller unit to be unmodified except for balancing. Covering can be tissue, condenser paper or cling film - nothing else is permitted.

P15 (Modified): Model has to use a plastic commercial propeller and bearing with a maximum diameter of 5.5 ins, but can be modified. Maximum projected span for lifting surfaces is 15 ins.

No person can enter both events. If model does not meet standard class it can be entered in modified class. Total of the two highest timed flights from any number of flights determines the contest score.



Hannan's RUNWAY
P.O. Box A
Escondido, CA 92025

P15 INDOOR MODEL

Article by Mike Colling

The SMAE Indoor Technical Committee aim to encourage newcomers to indoor flying by arranging a contest on August 6th especially for the P15 shown in this plan from Jorgen Korsgaard's Indoor News. A fully detailed construction article was supplied and should appear in other journals, partly aimed at newcomers to free flight. A shortened version of the article is given here.

Building materials required: some 1/16 balsa sheet, as light as possible with reasonable stiffness; 1/8 x 1/4 x 14 ins med-hard balsa for fuselage; piece of 1 or 2mm ply for rib template; tissue, condenser paper or cling film for covering; 5.5 ins diameter 'Sleek Streek' prop and hub assembly (available by buying and canibalsing a Sleek Streek kit or from SAMs at The Chapel, Roe Green, Sandon, Buntingford, Herts, tel 076388384).

Construction: Make the rib template and cut 5 ribs from 1/16 balsa for the tail and 7 ribs from 5/64 (2mm) balsa for the wing. Strip some 1/16 balsa for the leading edge, trailing edge and fin outline. Cover plan with cling film and position LE and TE with pins beside, not through, the wood. Glue ribs as shown, note that left and right hand wing panels are the same.

Cover the surfaces, upper side only, with one of thee materials listed above, using contact adhesive such as Photo-mount or Grab, diluted with lighter fluid or similar.

Cut the motor mount as shown, heavier end to the front, and add extra front packing. Sand so that prop hub fits snugly and with some left sidethrust as shown. Fit a pin as the rear motor hook and glue the tailplane and fin (note offset) on to the rear of the motor stick.

Make the wing posts from 1/16 diameter balsa or spruce and glue to wing, rear post skewed to give wash-in on left panel. Note also that the wing post is not at the centre rib but more to the right. Make paper tubes for mounting the wing posts on the motor stick: round the ends of a 2 ins length of 16 swg wire and coat thinly with Vaseline. Cut a 1 ins square of tissue, coat one side with thin cement and roll on to the wire. Slide the tube off IMMEDIATELY with a fingernail and leave to dry.

The motor is a 12 ins loop of 1/16 rubber. Rubber will be provided for Standard class on August 6th.

Postal Contest

Sept 15/88 to March 15/89

C = Calgary 22'
T = Toronto 21 + 22'
W = Winnipeg 22'
V = Vancouver 20'

adjusted for ceiling heights
Vancouver only x 1.0488
Per Bud Tenny
Fudge Factors
Model Aviation Mag
March 89

$\sqrt{\frac{22}{20}}$

$= \sqrt{1.10}$

$= 1.0488$

H.L. Glider (2 Flight total)

Tony Mathews	T.	70.8
Barrie Taylor	W.	66.4
Ken Davey	T.	63.2
John Bortnac	C.	59.6
Jim Holland	W.	59.2
Dunc. McRae	W.	58.1
Jason Youck (Jr)	C.	30.2
Peter Kearney (Jr)	T.	26.8
Antonio Ponte (1 Flight)	T.	10.1

Easy B

Jack McGillivray	T.	12:16
Ken Groves	T.	10:17
John Marett	T.	10:15
Barrie Taylor	W.	9:57
Duncan McRae	W.	8:22
Mike Thomas	T.	8:10
Bill Henderson	T.	7:47
Lou Liefer	T.	6:32
Doug Hannay	V.	6:02
Richard Smith (Jr)	T.	5:12
Clinton Hanneson (Jr)	V.	1:56

Bostonian

John Marett	T.	2:29
Chris Brownhill	T.	2:04
Bill Henderson	T.	2:02
Dunc. McRae	W.	1:48
Garry Hunter	T.	1:41
Dan Kitchen	W.	1:05
Bill Algeo	W.	1:03
Bill Penny	T.	1:01
Bob Newman	V.	:42

Canadian Indoor News.

John F. Marett
1214-5 Vicora Linkway
Don Mills, Ont., Canada.
M3C 1A5

INDOOR

7/3/89
69 Flamingo Dr.
Warwick, RI 02886 USA

Dear Sir or Madam,

To facilitate an important publication of mine, may I ask that you make the following announcement in your newsletter?

John C. Fredriksen, vexed by his inability to find the model planes he wants, is compiling Flying Model Warplanes: An International Guide to Plans and Kits. To insure comprehensiveness, the author solicits information regarding the addresses of little-known companies and plans distributors from fellow modelers. Information on Japanese, Italian and German firms is especially sought. Contact: John C. Fredriksen, 69 Flamingo Dr. Warwick, RI 02886 Tele. 401-737-7983. USA

Your help is most useful and appreciated.

Thankyou,
John C. Fredriksen
John C. Fredriksen

CHAMPIONSHIPS OF BUDAPEST — May 27-28, 1989
TUB Budapest (14.9 m site)

1	Reé, András	31:47	33:36	=	65:23
2	Bakos, Ferenc	27:17	27:11	=	54:28
3	Reé, László	25:22	28:45	=	54:07
4	Beke, Géza	25:19	25:52	=	51:11
5	Káplár, János	25:32	25:00	=	50:32

. . .

VARSZEGI MEMORIAL — June 10-11, 1989
TUB Budapest (14.9 m site)

1	Reé, András	32:57	34:09	=	67:06 *
2	Reé, László	29:26	29:47	=	59:13
3	Bakos, Ferenc	28:51	30:10	=	59:01
4	Beke, Géza	25:21	24:29	=	49:50
5	Káplár, János	23:23	24:45	=	48:08
6	Botos, István	24:55	18:31	=	43:26

. . .

LOCAL TRIAL — July 8-9, 1989
TUB Budapest (14.9 m site)

1	Reé, László	30:30	29:48	=	60:18
2	Reé, András	28:19	27:04	=	55:23 **
3	Botos, István	20:54	25:48	=	46:42

. . .

Notes: * 34:09 is 2 seconds higher than the current world record

** flights according to a Czechoslovakian suggestion: F1D + max. 0.75 gr rubber

April 1, 1989

Dear Jorgen:

I enjoyed receiving your recent issue of Indoor News 2-88. There has been very little activity here in Southern California. We did manage to hold a team selection F1D Regional on Sept 3-5 in 1988 at the Santa Ana Hanger. Times were quite high, considering it was a half motor contest.

F1D Regional Santa Ana, Ca. Sept. 3-5, 1988

Contestant	Best	Next	Total
Steve Brown	25:30	23:41	49:11
Bob Randolph	24:18	24:09	48:27
Warren Williams	21:46	21:32	43:18
Herb Robins	21:10	18:05	39:15
Clarence Mather	18:58	18:26	37:24

The bad news is that there will be no more indoor sessions at Santa Ana until the doors are repaired. This will be after FY 1990.

I am building some new ships for our US Team Finals, which will be held July 21-23 at Moscow, Idaho in a 145 ft. high site.

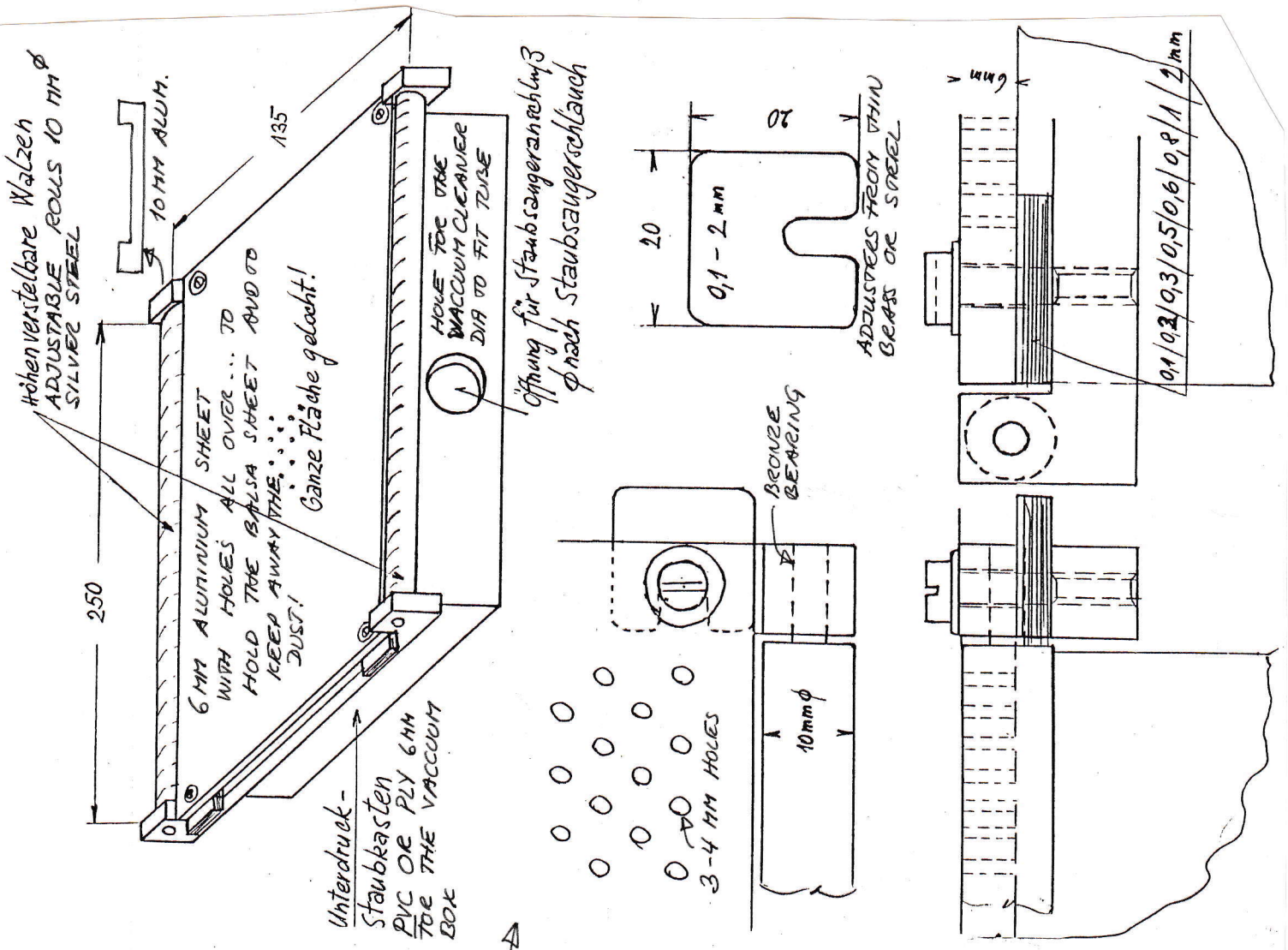
My old friend, Bob Gibbs, just sent me an update on the 40 Minute Club. Since you need info for your April newsletter, I am inclosing a copy.



Best wishes,

Bob

Bob Randolph
25145 Lawton Ave.
Loma Linda, Ca, 92354
USA



Sanding apparatus for thin balsa sheets:

By Bruno Waechter, West Germany.

I have had trouble buying thin C-grain balsa for my motorsticks and prop blades so I decided to built a sanding device where I could make these sheets from thicker sheets which are easier available.

I have tried the method by sanding the balsa between two music wire guides of the right thickness but I found that the sanding paper was spoilt by the wires.

Therefor I designed a device where the thickness guides are moving with the sanding block and where the thickness can be easily adjusted.

On the shown apparatus I am able to sand balsa down to 0.2 mm without any troubles and furthermore with the vaccumcleaner the dust is kept away and the piece of wood hold in place at the same time.

The sanding blocks are moved across the grains following the rotation of the guide rolls. It is possible to adjust the rollers so that you can sand tapered wood i.e. propblades. The sanding blocks have have different grades ending with no. 400.

It takes some time and efforts to make the device but it is worth it ... and it certainly works.

Happy sanding.

FAI TAN rubber.....?

This is not bad for F1B Wakefield models, but who has some inddor experience with the stuff?? We would certainly like to hear from them.....

The GLOBE in Stockholm, Sweden:

This super site is now being tested by some Swedish indoor flyers. The GLOBE is 85 meters high and 115 meters in diameter, but the "ceiling" is restricted by a big framework carrying lamps, loudspeakers TV screens etc. to about 35 meters. Sven Pontan will tell us in the next issue about the indoor flying there.

Bill Henderson, CDN:

.... A copy of the 3-view for my autogyro which set a new cat. I Canadian record of 2:03. This record was wiped out by a flyer in Calgary flying one of Jean Andrews designs to over 3 minutes. I intend to rebuild my design using lightweight construction to reduce current weight of 4.6 grams. This is the first autogyro I have built that has the rotor contributing lift. The forward speed of lightweight autogyros is so slow that the rotor only turns due to drag on the blades i.e. very slowly.

This model category will not be flown at USIC year so I am building a lightweight helicopter instead.

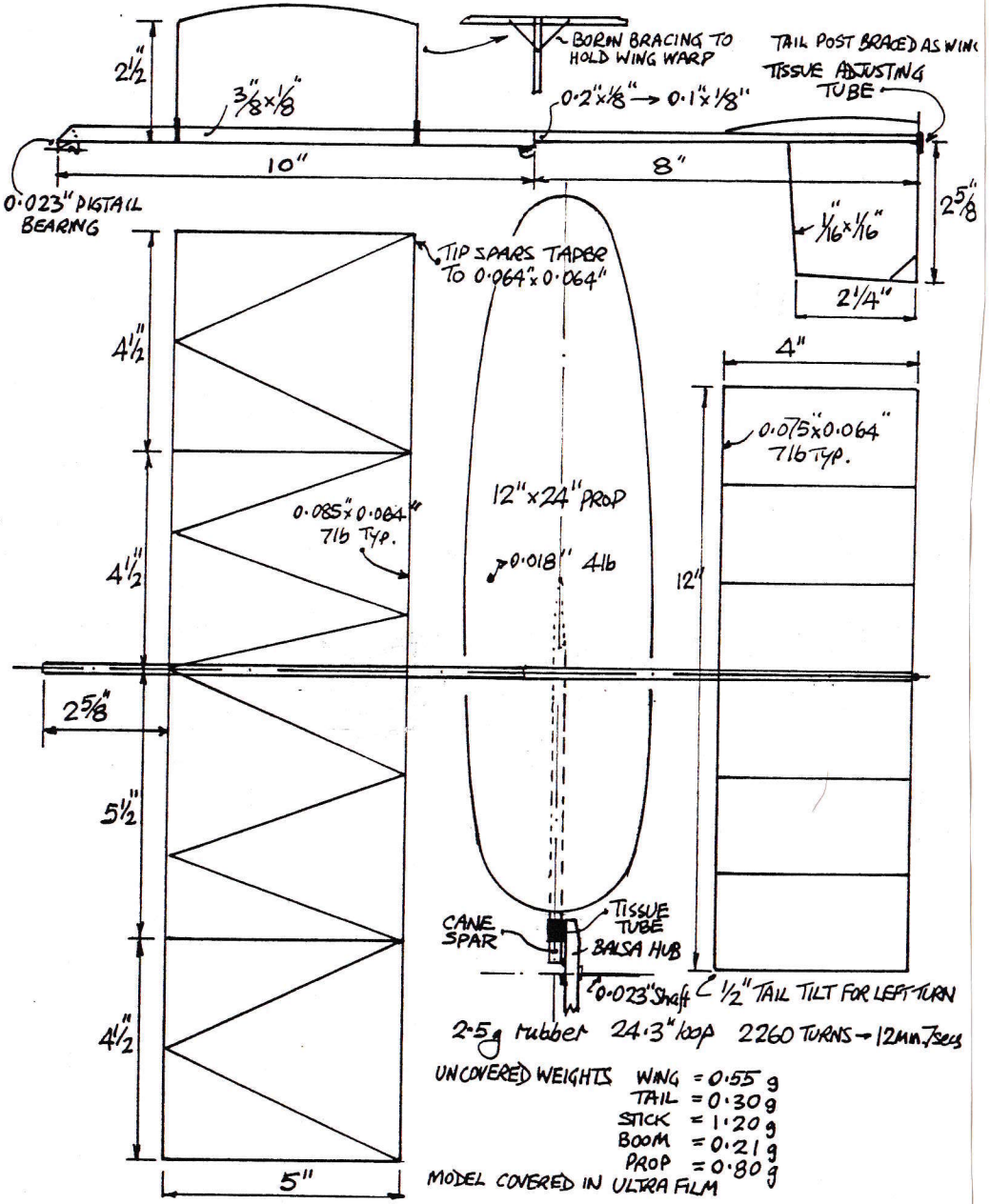
I also send a copy af a newsletter recently put out by John Marett for all the new flyers in indoor in Canada. The interest has been generated by the postal contest started up at the suggestion of Dave Erbach of Winnipeg at last year's USIC in Tennessee. See the results on page 3 of the newsletter. As you can see the Toronto group had a real competition going in Bostonian as well as EZB.

My new Manhattan appears to have a good potential, but only USIC will tell. I hope to fly 11 classes down there and now I am very busy trimming and flying everything from open speed to helicopter! We now have access to a disused ground level water tank, it has about a 16 metre ceiling with very few obstructions but being of uninsulated steel we cannot use it in the winter or summer - the former because of the cold and the latter because of the enormous convection currents when directly heated by the sun. It does give us another space to test models, although the best is the 29 metre high Air Canada hanger. We can only use the hanger once the weather has warmed up and the automatic heaters do not function!

CORRECTION/WARNING:

In the article about Boyd Felsteads building jig I wrote that the jig should be doped. DON'T DO THIS inside the wing outline or you might risk sticking of the film to the doped surface when covering. Manny Radoff gave me the hint. Thanks. JK.

NOVICE PENNY PLANE

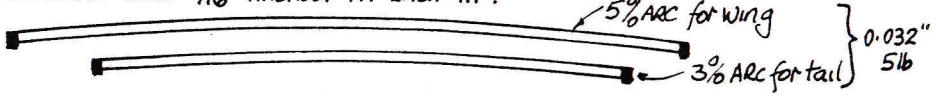


2·5g rubber 24·3" loop 2260 TURNS → 12mm./sec

UNCOVERED WEIGHTS
WING = 0·55 g
TAIL = 0·30 g
STICK = 1·20 g
BOOM = 0·21 g
PROP = 0·80 g

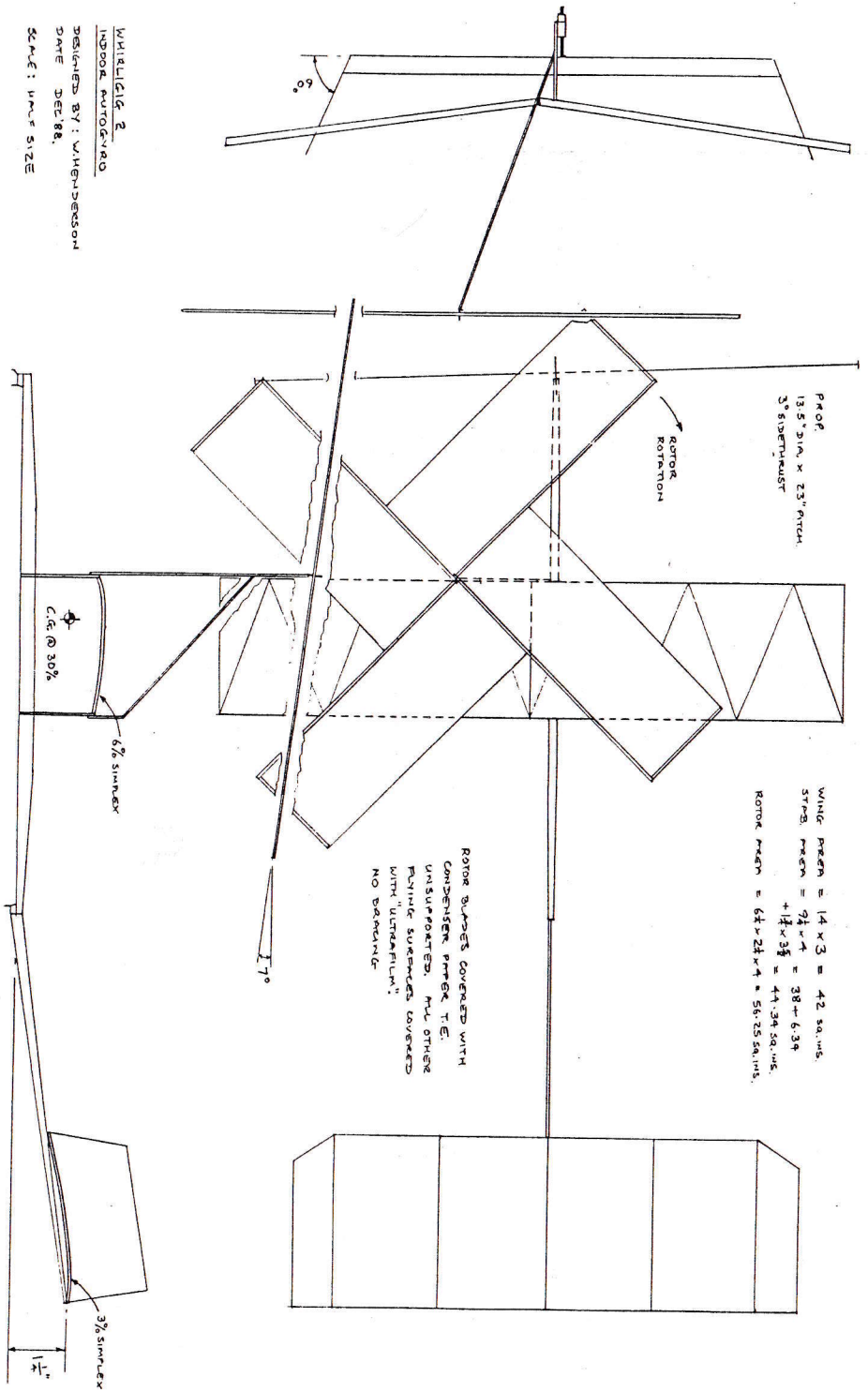
MODEL COVERED IN ULTRA FILM

WING HAS FLAT CENTRE PANEL WITH APPROX 1/8" WASHIN FOR LEFT TURN - 2" TIP DIHEDRAL WITH 1/16" WASHOUT AT EACH TIP.



BRIAN KENNY 19.5.89.

WHIRLIGIG 2
INDOOR AUTOGYRO
DESIGNED BY: W. HENDERSON
DATE DEC '88.
SCALE: HALF SIZE



37 WINCHESTER CRESCENT
UPPER FULWOOD
SHEFFIELD S10 4ED
U.K.

17. 5. 89

Dear Jorgen,

First of all many thanks for continuing to produce your excellent newsletter. I am not sure if my subscription has run out so just in case it has I include a further amount.

You have requested further input to your newsletter and my friend Bernard Hunt has suggested that I send you some information on my current NOVICE PENNY-PLANE. I can just hear you saying "what, not another class of model! "

The indoor scene at CARDINGTON has regular INDEX competitions where model classes which are well established in the U.K. are eligible. Currently we allow the following classes, F1D,35cm,OPEN FILM, FLYROD, EZB, PEANUT DURATION, MANHATTAN, CO2, H.L.G., PENNYPLANE and NOVICE PENNYPLANE.

The flying of Novice Pennyplanes in Cardington was pioneered by Mike Colling who had seen the class flown in the U.S.A. on his regular modelling holidays over there.He was impressed by their simplicity and ruggedness and decided to give the class a try.

It is fair to say that the other flyers were not impressed by these strange and ugly looking models when they first saw them . Mike persevered however and it was through his efforts that the B.M.F.A. INDOOR TECHNICAL COMMITTEE accepted the class for their INDEX COMPETITIONS and allocated a target time of 12 minutes. This time proved to be near to the potential duration of the class and it has become a popular and successful class in the hands of several flyers.

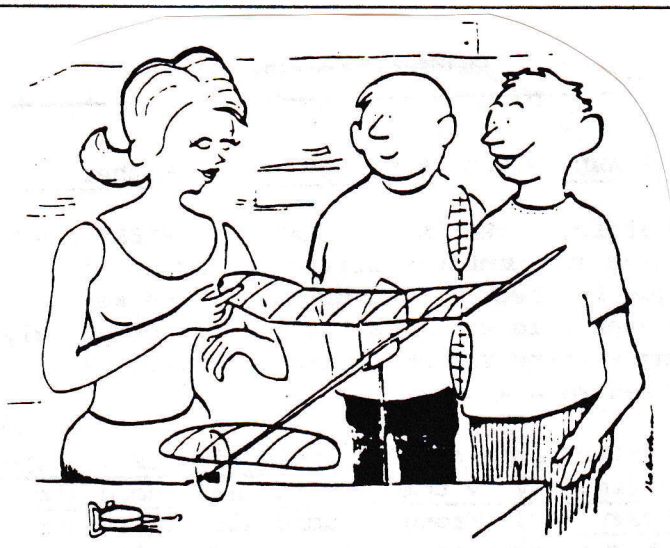
The accompanying plan shows my first design in this class and which has just won its first competition by raising the class time to 12min. 7secs at only its second outing at Cardington. The model is very easy to fly and has shown that it can handle the full torque of the specified motor without any backoff of turns. This has produced a very steep-angled climb which has been held by the model without hesitation, to a position near the roof. I believe that the under-fin contributes significantly to this climb pattern having witnessed other conventional finned models.

The class provides a model which is quite robust and which is not as tricky to trim for good performance as say the E.Z.B. I hesitate to suggest yet another "perfect beginners" model but it does in my opinion have much to offer in this respect. One thing is sure and that is that it has become the class to fly if you want success at the Cardington Index competitions.

Yours sincerely,

Brian Kenny

BRIAN KENNY



Indoor flying gets more and more interesting .....

Modellbau-Club Ingolstadt e.V.

Modellbau-Club
Ingolstadt e. V.
1. Vorsitzender
Ernst Feuerlein
Blütenstraße 4
8076 Baar-Ebenhausen
Telefon 08453/2664

Ergebnisliste Bayerische Meisterschaft
Saalflug 1989/BY-23/89

Sportleiter: Bernd Hauschild Wettbewerbsleiter: Bruno Wächter
Die zwei besten von 6 Durchgängen wurden gewertet (BeMod 1989)

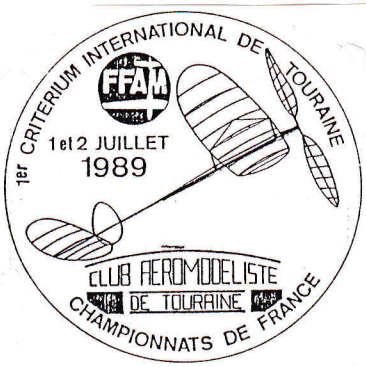
Zeiten in min : sek

	F1D (Halber Strang)	Verein	lizenz	1.	2.	gesamt
1.	Lotz, Rainer	Kirchheim	BW	15:40	14:05	29:45
LM.	Kuttler, Peter	Oberkotzau	809667	11:27	12:56	24:23
3.	Kuttler, Thomas	Oberkotzau	825614	11:06	6:25	18:02
	F1D-B					
1.	Ondraczek,Günther	Plochingen	BW	14:00	13:25	27:25
LM.	Wächter, Bruno	Ingolstadt	841397	8:41	9:51	18:32
3.	Pronath, Peter	MFJ	INT.1753	9:22	9:07	18:29
4.	Lehner, Josef	Ingolstadt	844170	7:50	7:54	15:44
5.	Bergmeier, Günther	Ingolstadt	831682	5:53	6:05	11:58
6.	Heusinger, Dieter	Ingolstadt		5:18	5:59	11:17
7.	Feuerlein, Ernst	Ingolstadt	829825	3:31	2:10	5:41
	F1D-B Jugend					
1.	Kubata, Paul	Ingolstadt	844115	8:09	8:55	17:04
2.	Dormann, Jochen	Ingolstadt	844110	6:24	6:07	12:31
	F1D-TH					
1.	Ondraczek,Günther	Plochingen	BW	10:00	10:12	20:12
LM.	Lehner, Josef	Ingolstadt	844170	7:39	7:36	15:15
3.	Heusinger, Dieter	Ingolstadt		5:58	6:10	12:08
4.	Bergmeier, Günther	Ingolstadt	831682	6:00	5:45	11:45
5.	Wächter, Bruno	Ingolstadt	841397	7:22	1:53	9:15
6.	Feuerlein, Ernst	Ingolstadt	829825	3:54	3:49	7:43
7.	Hollfelder, Hans	Bamberg	806794	3:59	3:36	7:35
	F1D-TH Jugend					
LM.	Kubata, Paul	Ingolstadt	844115	6:50	6:55	13:45
2.	Dormann, Jochen	Ingolstadt	844110	6:58	6:44	13:42
3.	Klima, Christian	Ingolstadt		5:36	6:18	11:54
4.	Schäl, Stephan	Bamberg	Gast	3:40	3:02	6:42
5.	Schickentanz, Math.	Bamberg	Gast	2:18	2:11	4:28
6.	Lepski, Ralf	Bamberg	Gast	2:03	2:15	4:18
	F1D-P1-Halber Strang					
1.	Lotz, Rainer	Kirchheim	BW	9:30	9:25	18:55
LM.	Kuttler, Peter	Oberkotzau	809767	8:30	8:43	17:13
3.	Wächter, Bruno	Ingolstadt	841397	6:46	7:37	14:23
4.	Lehner, Josef	Ingolstadt	844170	6:19	6:50	13:09
5.	Bergmeier, Günther	Ingolstadt	831682	5:45	5:59	11:44
6.	Kuttler, Thomas	Oberkotzau	825614	4:52	3:14	8:06
7.	Kubata, Paul	Ingolstadt	844115	2:43	4:33	7:16
	F1D-P2-Halber Strang					
LM.	Kuttler, Peter	Oberkotzau	809767	9:10	9:50	19:00
2.	Lotz, Rainer	Kirchheim	BW	7:41	10:06	17:47
3.	Bergmeier, Günther	Ingolstadt	831682	1:08	1:40	2:48

Für die Richtigkeit: gez. Bruno Wächter

Ergebnisse des 4. Offenburger Saalflugwettbewerbes am 5.3.1989

FID-Beginner	1.	2.	3.	4.	5.	6.	Ges.
Erwachsene :							
1. Günter Ondraczek	12:08	-	13:05	-	12:15	-	25:20
2. Uwe Bundesen	8:40	-	9:54	-	-	-	18:34
3. Benno Schlosser	8:07	-	7:12	-	7:02	-	15:46
4. Wolfgang Berger	-	-	6:50	7:10	7:57	-	15:07
5. Wolfgang Gerlach	6:33	-	4:47	7:56	-	-	14:29
6. Dieter Servay	5:03	6:11	5:09	4:00	6:12	6:59	13:11
Jugendliche:							
1. Thomas Merkt	-	-	8:11	-	9:17	8:55	18:12
2. Frank Heisch	6:41	7:04	7:33	2:49	7:17	6:28	14:50
3. Matthias Glückler	4:37	-	6:23	-	7:10	7:19	14:29
4. Fabian Berger	-	-	6:15	5:51	7:37	6:47	14:24
5. Thomas Streif	4:56	7:19	6:34	6:41	3:59	5:49	14:00
6. Bernhard Schulze	6:23	3:40	6:31	2:30	6:32	-	13:03
7. Andreas Doll	2:16	6:24	5:57	5:24	4:52	4:57	12:21
8. Jürgen Durke	5:06	2:21	4:25	4:01	4:22	1:03	9:31
9. Gunnar Wieland	-	6:26	-	-	-	-	6:26
TH							
Erwachsene:							
1. Günther Ondraszek	-	10:50	11:04	-	-	-	21:54
2. Uwe Bundesen	4:04	8:54	9:46	-	-	-	18:40
3. Wolfgang Berger	7:29	4:26	8:39	8:52	-	-	17:31
4. Jan Mc Keverne	4:07	-	6:56	7:13	7:36	7:43	15:19
5. Christian Grams	6:50	6:35	6:06	7:05	6:57	-	14:02
6. Jürgen Weil	5:15	5:40	5:39	7:01	6:53	6:46	13:54
7. Egon Reutlinger	5:32	-	6:17	6:15	5:58	6:59	13:16
8. Wolfgang Gerlach	6:26	-	-	4:51	-	-	11:17
Jugendliche:							
1. Thomas Merkt	7:14	-	5:38	-	6:31	7:39	14:53
2. Fabian Berger	5:42	7:27	1:59	6:24	5:50	-	13:51
3. Michael Mc Keverne	6:23	5:03	6:44	6:38	6:56	3:54	13:40
4. Andy Eyrich	4:28	-	4:26	5:20	5:40	5:36	11:00
TH-O							
1. Falk Eisleben	4:39	4:24	4:40	3:50	-	-	9:14
2. Fabian Berger	1:33	1:07	2:11	1:20	4:25	4:24	8:49
3. Jürgen Durke	4:03	2:48	3:17	2:30	2:58	3:04	7:20
4. Florian Schrimpf	3:23	3:43	3:07	3:18	2:27	3:14	7:16
5. Thomas Streif	3:03	2:53	2:33	3:01	3:06	3:15	6:21
6. Gunnar Wieland	-	-	3:04	3:14	2:35	2:30	6:18
7. Sandor Csiko	3:03	2:52	3:06	2:37	3:01	2:28	6:09
8. Ralf Klingbeil	2:46	-	2:29	2:47	3:04	3:00	6:04
9. Bernhard Schulze	2:29	2:33	2:23	2:51	2:57	2:52	5:49
EZB							
1. Uwe Bundesen	13:54	-	4:36	11:32	-	-	25:26
2. Benno Schlosser	11:17	11:21	7:33	12:03	12:31	12:35	25:06
3. Richard Grünewald	7:13	-	7:20	7:25	7:00	6:31	14:45
4. Wolfgang Berger	3:35	-	6:26	-	-	-	10:01



MICRO35 CADET

1	BESSE XAVIER	UA ORLEANS	8'44	8'52	10'20	10'00	7'18	9'34	- 20'20
2	STUARDO CARLOS	AC LANDES	7'59	7'14	6'40	9'09	8'41	8'55	- 18'04
3	RIDOUX JULIEN	UA ORLEANS	5'45	6'28	6'45	6'51	8'13	8'00	- 16'13
4	CHABOT SYLVAIN	CA TOURAINE	7'45	7'24	4'05	5'55	2'11	----	- 15'09
5	TIBURCE PHILI.	CA TOURAINE	5'57	6'28	7'28	6'36	7'39	6'15	- 15'07
6	MONTEIRO MATH.	UA ORLEANS	5'48	6'16	5'05	6'10	6'01	6'47	- 13'03
7	BODIN FLORENT	AC YONNAIS	3'26	3'28	----	5'00	5'23	6'35	- 11'58

RECORD DU HALL : BESSE XAVIER 10'20

MICRO35 JUNIOR

1	HANRIOT CHRIS.	MEUNG/LOIR	10'17	11'10	12'30	5'23	9'23	13'19	- 25'49
2	BODIN CEDRIC	AC YONNAIS	8'01	10'03	8'16	11'24	11'25	----	- 22'49
3	DUCASSOU FRAN.	AC LANDES	7'24	9'02	6'58	11'37	7'37	11'07	- 22'44
4	COLLON ERIC	MEUNG/LOIRE	5'13	8'39	9'51	9'31	10'42	11'01	- 21'43
5	BERLOT J-LOUIS	UA ORLEANS	9'07	9'27	9'30	9'42	7'52	9'54	- 19'36
6	CHAUVEAU SEBA.	CA TOURAINE	6'57	6'42	6'06	7'28	6'43	7'16	- 14'44
7	CHABOT ISABEL.	CA TOURAINE	6'46	7'02	6'56	7'22	6'13	----	- 14'24
8	BONNOT NICOLAS	UA ORLEANS	0'03	6'39	5'38	5'28	5'17	7'11	- 13'50
9	RICHON FABIEN	UA ORLEANS	4'01	1'10	4'42	3'23	2'24	6'34	- 11'16

RECORD DU HALL : HANRIOT CHRISTOPHE 13'19

MICRO35 SENIOR

1	COGNET GUY	AC POITOU	15'52	10'41	15'32	14'43	----	----	- 31'24
2	KELLER PETER	SUISSE	14'03	13'57	13'16	10'03	7'24	----	- 28'00
3	CHAMPION ROBER	CA TOURAIN	13'39	11'32	14'04	13'21	12'39	----	- 27'43
4	WOLSTENHOLME D	ANGLETERRE	12'07	4'30	----	5'27	15'31	----	- 27'38
5	TRACHEZ ANDRE	AZAY BRULE	12'39	12'30	12'58	13'14	12'17	13'48	- 27'02
6	BESSE ALAIN	UA ORLEANS	10'51	8'19	11'35	6'49	9'42	12'59	- 24'34
7	HUA NGOC TRUNG	PESSAC	3'33	10'55	10'25	11'10	12'16	----	- 23'26
8	DELCROIX JACQ.	UA ORLEANS	7'24	7'11	3'20	9'34	3'20	11'04	- 20'38
9	FRUGOLI J-FRAN	MARSEILLE	----	2'32	----	8'20	1'28	----	- 10'52

RECORD DU HALL : COGNET GUY 15'52

E.Z.B.

1	BAILEY ROBIN	ANGLETERRE	14'38	13'52	----	15'12	----	----	- 29'50
2	WOLSTENHOLME D	ANGLETERRE	14'06	5'07	----	13'29	3'12	----	- 27'35
3	VALERY JACQUES	AC LANDES	12'16	2'29	13'02	11'08	13'14	13'25	- 26'39
4	WOLSTENHOLME H	ANGLETERRE	12'01	12'50	----	11'56	10'13	----	- 24'51
5	YATES DAVID	ANGLETERRE	10'21	10'51	9'21	10'40	12'15	11'52	- 24'07
6	DELCROIX JACQU	UA ORLEANS	10'41	10'55	10'55	5'45	10'44	12'31	- 23'26
7	BESSE ALAIN	UA ORLEANS	11'27	11'13	10'44	----	----	----	- 22'40
8	BERLOT J-LOUIS	UA ORLEANS	5'52	11'27	7'39	10'20	6'18	4'06	- 21'47
9	HANRIOT CHRIST	MEUNG/LOIRE	5'08	8'33	9'08	6'10	6'57	11'35	- 20'43
10	CHAMPION ROBER	CA TOURAINE	8'34	10'00	----	10'18	----	----	- 20'18
11	MASTERMAN PAUL	ANGLETERRE	9'38	3'16	3'07	5'22	9'01	6'21	- 18'39
12	TRACHEZ BERNAR	AZAY BRULE	9'37	8'24	8'10	5'48	0'16	0'10	- 18'01
13	COLLING MIKE	ANGLETERRE	8'00	7'09	4'33	5'42	7'59	8'02	- 16'02
14	BESSE XAVIER	UA ORLEANS	1'53	3'31	5'16	2'36	2'24	2'17	- 8'47

RECORD DU HALL : ROBIN BAILEY 15'12

BEGINNER

1	KELLER PETER	SUISSE	9'30	11'36	2'45	12'35	12'31	13'10	- 25'45
2	VALERY JACQUES	AC LANDES	8'57	9'40	----	12'22	12'20	----	- 24'42
3	DUCASSOU FRANC	AC LANDES	10'51	11'28	7'33	1'20	----	----	- 22'19
4	HUA NGOC TRUNG	PESSAC	4'08	6'47	9'26	8'32	9'05	9'32	- 18'58
5	PAILHE PIERRE	AC PAU	7'15	1'14	7'42	8'21	8'35	9'52	- 18'27
6	BERLOT J-LOUIS	UA ORLEANS	8'27	7'42	8'15	8'45	9'20	8'53	- 18'13
7	RICHON FABIEN	UA ORLEANS	8'05	8'34	8'05	7'45	8'12	8'56	- 17'30
8	BOULANGER FRED	UA ORLEANS	8'01	7'37	----	8'40	8'48	8'27	- 17'28
9	ALLAIS J-RENE	MACLA	6'55	7'13	7'07	8'45	7'34	8'41	- 17'26
10	COLLING MIKE	ANGLETERRE	7'38	8'25	----	7'56	8'52	7'46	- 17'17
11	BESSE ALAIN	UA ORLEANS	7'44	7'42	8'08	7'03	6'55	8'44	- 16'52
12	MARILIER THIER	MANDRES	8'13	7'48	8'26	6'44	3'48	7'16	- 16'39
13	CAILLAUD MICHE	UAC BOURGES	8'11	6'50	----	8'07	7'07	8'24	- 16'35
14	CHABOT ISABELL	CA TOURAINE	7'33	8'05	6'39	8'10	7'38	7'55	- 16'15
15	BESSE XAVIER	UA ORLEANS	6'05	6'01	6'31	7'01	7'27	8'00	- 15'27
16	TIBURCE PHILIP	CA TOURAINE	7'17	6'04	6'13	5'55	1'04	6'38	- 13'55
17	CHAUVEAU SEBAS	CA TOURAINE	5'33	5'00	6'02	6'30	6'44	6'58	- 13'42
18	CHABOT SYLVAIN	CA TOURAINE	3'27	3'08	4'27	4'56	6'29	7'06	- 13'35

RECORD DU HALL : PETER KELLER 13'10

F1D MICROFILM

1	KELLER PETER	SUISSE	25'34	23'46	15'20	24'27	23'11	10'45	- 50'01
2	TRACHEZ ANDRE	AZAY BRULE	12'44	22'24	20'27	19'52	19'41	23'35	- 45'59
3	CHAMPION ROBER	CA TOURAIN	21'17	21'37	21'42	4'32	23'07	22'45	- 45'52
4	TRACHEZ BERNAR	AZAY BRULE	5'40	11'03	12'21	21'24	20'43	22'16	- 43'40
5	VALERY JACQUES	AC LANDES	12'08	14'30	18'04	10'59	19'35	23'37	- 43'12
6	TABELLINI RENZ	ITALIE	17'11	15'04	18'41	22'16	20'28	20'00	- 42'44
7	COGNET GUY	AC POITOU	13'19	20'26	20'15	15'13	20'10	21'59	- 42'25
8	BAILEY ROBIN	ANGLETERRE	13'46	19'21	----	18'22	22'14	----	- 41'35
9	FRUGOLI J-FRAN	MARSEILLE	13'29	10'38	15'55	17'46	6'30	22'32	- 40'18
10	HANRIOT CHRIST	MEUNG/LOIR	11'34	11'35	17'57	18'13	18'33	17'36	- 36'46
11	ALLAIS RENE	MACLA	13'29	2'38	----	9'08	2'28	22'04	- 35'33
12	CAILLAUD MICHE	UAC BOURGE	17'29	8'33	17'33	16'44	15'20	15'56	- 35'02
13	WOLSTENHOLME D	ANGLETERRE	15'32	11'57	----	12'34	6'52	18'07	- 33'39
14	ALLAIS J-RENE	MACLA	3'30	----	-----	14'36	18'40	0'39	- 33'16
15	CHAUSSEBOURG P	VENOURS	15'24	12'51	11'16	14'39	16'31	4'46	- 31'55
16	PILLER MICHEL	UA ORLEANS	12'41	12'40	10'50	15'09	12'25	11'00	- 27'50
17	MASTERMAN PAUL	ANGLETERRE	11'34	13'50	----	4'30	4'00	----	- 25'24
18	MARILIER THIER	AC MANDRES	5'40	10'34	9'04	11'53	5'22	11'39	- 23'32
19	BESSE ALAIN	UA ORLEANS	0'18	2'30	8'50	----	----	----	- 11'20

MFK Saar, Sparte Freiflug
LSC Dillingen

A. Klinck
Kurt-Schumacher-Allee 235
663 Saarlouis
11. 5. 1989

Ergebnisse des 1. B-Kader Wettbewerbs F1D und des
Team-Cup Saalflug des LSC Dillingen/Saar

Klasse F1D Mikrofilm 65 cm

1.	Werner Nimptsch	Ni	21.55	19.52	9.40	22.15	29.59	25.41	55.36
2.	Rainer Lotz	BW	24.11	26.44	28.05	- -	5.23	- -	54.49
3.	Klaus Nottelmann	Ni	3.00	19.43	20.39	24.29	24.56	25.32	50.28
4.	Bernd Miehe	Ni	21.09	22.53	23.31	- -	23.25	10.30	46.56
5.	Jörg Becker	Rp	20.50	20.22	19.40	22.18	- -	22.40	44.58
6.	Günter Ondraczek	BW	17.51	22.01	18.02	13.50	22.36	19.32	44.37
7.	Alfred Klinck	Sa	20.37	21.18	16.42	17.00	21.02	21.55	43.13

Klasse F1D Beginner

1.	Günter Ondraczek	BW	12.31	12.39	--	7.40	12.31	12.38	25.17
2.	Benno Schlosser	"	2.58	10.49	11.07	11.32	11.56	11.40	23.36
3.	Jörg Becker	RP	10.05	10.13	11.02	10.54	10.52	10.52	21.56
4.	Werner Nimptsch	Ni	5.19	10.43	10.32	10.13	--	--	21.15
5.	Jürgen Luxenburger	Sa	7.14	7.38	7.32	8.26	8.20	9.48	18.14
6.	Wolfgang Berger	BW	7.23	7.31	7.51	8.37	6.58	9.32	18.09
7.	Fabian Berger	"	7.43	8.03	6.23	5.46	9.04	9.00	18.04

Klasse F1D - P1

1.	Jörg Becker	RP	15.08	12.58	2.58	16.00	15.21	---	31.21
2.	Werner Nimptsch	NI	14.31	14.18	15.10	15.47	14.20	---	30.57
3.	Bernd Miehe	"	13.42	13.25	12.24	11.47	13.36	---	27.18
4.	Wolfgang Berger	BW	6.23	13.12	10.36	---	---	11.35	24.47
5.	Dr Volkmar Tröbs	Sa	3.06	7.48	11.27	12.11	--	--	23.38

Anmerkung: Die Ergebnisse der Klasse Mikrofilm gelten für B-Kader und Team-Cup
Der 5. Durchgang von Werner Nimptsch stellt eine deutliche
Verbesserung des bestehenden Weltrekordes für Wallen bis 8 m
Deckenhöhe dar. Die Leistung wird daher als neuer deutscher
und als Weltrekord beantragt werden.
Alle Wettbewerbsergebnisse sind C-Zeiten.

Ergebnisse des Team-Cup

1.	BW I in der Besetzung	Lotz/F1D - Ondraczek/Beginner - Becker/P1	111.27
2.	Ni " "	Nimptsch/F1D und Beginner - Miehe/P1	104.09
3.	BW II " "	Ondraczek/F1D - Schlosser/Beginner - Berger/P1	93.00
4.	SA " "	Klinck/F1D - Luxenburger/Beginner - Tröbs/P1	85.05

FdR
Alfred Klinck, Wettbewerbsleiter

Horst Heinz, Sportleiter

(9)

FORTY MINUTE CLUB

FEBRUARY 1989

NAME	COUNTRY	TIME	1	2	YEAR	SITE
RICHMOND, JIM	USA	52:14	X		1979	AKRON
KOWALSKI, DICK	USA	50:41	X		1976	AKRON
RICHMOND, JIM	USA	47:44		X	1986	CARDINGTON
RANDOLPH, BOB	USA	47:30	X		1987	SANTA ANA
BARR, LAURIE	ENGLAND	47:28		X	1982	CARDINGTON
HARLAN, RAY	USA	47:13		X	1980	AKRON
DOIG, RICH	USA	46:24	X		1983	AKRON
RODEMSKY, ERV	USA	45:50	X		1974	SANTA ANA
BANKS, CEZAR	USA	45:48		X	1986	CARDINGTON
RIEKE, K. H.	W. GERMANY	45:40	X		1962	CARDINGTON
BROWN, STEVE	USA	45:25		X	1987	SANTA ANA
REDLIN, CARL	USA	45:17	X		1962	CARDINGTON
ANDREWS, PETE	USA	44:59		X	1979	AKRON
MATHER, CLARENCE	USA	44:44	X		1974	SANTA ANA
RANDOLPH, BOB	USA	44:37		X	1986	SANTA ANA
ROMAK, BUD	USA	44:23		X	1987	SANTA ANA
HACKLINGER, MAX	W. GERMANY	44:20	X		1961	CARDINGTON
NORE, PENTTI	FINLAND	44:01		X	1986	CARDINGTON
ANDRE, THEDO	NETHERLANDS	44:01		X	1986	CARDINGTON
KOPECKY, ERNIE	USA	43:42	X		1963	SANTA ANA
ORSOVAI, DEZSO	HUNGARY	43:37		X	1986	CARDINGTON
CUMMINGS, FRANK	USA	43:28	X		1963	SANTA ANA
ATWOOD, BILL	USA	43:17	X		1963	SANTA ANA
PLOTZKE, RON	USA	42:53	X		1969	LAKEHURST
FOSTER, JOE	USA	42:44		X	1987	SANTA ANA
SIEBENMANN, DIETER	SWITZERLAND	42:33		X	1986	CARDINGTON
CAILLIAU, LARRY	USA	42:29		X	1985	AKRON
DOMINA, DAN	USA	42:25		X	1979	AKRON
CANNIZZO, SAL	USA	42:20		X	1983	LAKEHURST
REE, ANDRAS	HUNGARY	42:06		X	1986	CARDINGTON
PYMM, DAVE	ENGLAND	42:03		X	1986	CARDINGTON
ROMAK, BUD	USA	42:01	X		1965	MOFFETT NAS
GIBBS, BOB	USA	41:35		X	1981	SANTA ANA
OBARSKI, DICK	USA	41:30		X	1981	AKRON
FINCH, TOM	USA	41:27	X		1963	SANTA ANA
HUNT, BERNARD	ENGLAND	41:27		X	1986	CARDINGTON
CHAMPINE, BOB	USA	41:23	X		1963	SANTA ANA
RODEMSKY, ERV	USA	41:23		X	1979	AKRON
STOLL, ED	USA	41:21	X		1963	SANTA ANA
MATHER, CLARENCE	USA	40:54		X	1974	SANTA ANA
DRAPER, RON	ENGLAND	40:44	X		1962	CARDINGTON
HULBERT, BILL	USA	40:39		X	1983	AKRON
BILGRI, JOE	USA	40:37	X		1965	SANTA ANA
NONAKA, S.	JAPAN	40:36		X	1978	CARDINGTON
STEVENS, DARRYL	USA	40:35		X	1986	SANTA ANA
GITLOW, LEW	USA	40:15		X	1987	SANTA ANA
MCGILLIVRAY, JACK	CANADA	40:14		X	1988	JOHNSON CITY
DOIG, RICH	USA	40:13		X	1981	AKRON
KALINA, JIRI	CZECH	40:11		X	1975	CARDINGTON
TRIOLO, JOHN	USA	40:06	X		1974	LAKEHURST

* CLASS 1 - FAI 90 cm OR AMA D
CLASS 2 - FAI 65 cm - 1 gram

Listings are of official flights at officially sanctioned activities (best effort only, by individual, by class is shown)

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IGRA CUP * FID * July 15-16, 1989 * BRNO

"Z-HALL"

	Name	Country	1	2	3	4	5	6	SUM
1	VELUNSEK Oton	YUG	19:55	24:21	24:53	33:18	33:45	-	67:03
2	REE Andras	HUN	27:30	0:41	12:00	-	39:29	10:50	66:59
3	DIHM Jan	POL	18:00	24:08	21:31	26:09	32:05	33:49	65:54
4	KUJAWA Sylwester	POL	19:19	30:25	33:58	-	18:03	24:07	64:23
5	BAKOS Ferenc	HUN	3:57	27:33	31:02	-	32:40	19:41	63:42
6	JIRASKY Jaroslav	TCH	1:29	31:01	30:39	27:33	32:20	24:46	63:21
7	ORSOVAI Dezso	HUN	22:20	0:28	1:09	29:46	28:57	30:23	60:09
8	FRACKIEWICZ Pawel	POL	19:24	27:00	30:00	-	15:31	29:53	59:53
9	RYBECKY Karol	TCH	-	28:23	29:29	29:49	26:54	25:40	59:18
10	ZAGAR Iztok	YUG	1:20	17:10	27:45	24:13	29:17	29:31	58:48
11	BRANDEJS Karel	TCH	18:15	20:22	27:50	9:06	26:05	29:30	57:20
12	WALEK Leopold	TCH	22:22	27:34	28:46	-	11:53	25:25	56:20
13	SCHRAMM Lutz	GDR	9:07	8:48	27:20	17:58	25:56	28:44	56:04
14	KALINA Jiri	TCH	22:02	12:58	27:10	23:13	27:35	5:40	54:45
15	SCHONFELDER Karl	GDR	13:05	25:20	28:12	20:03	16:32	22:53	53:32
16	REE Laszlo	HUN	4:44	22:29	30:49	-	13:25	20:49	53:18
17	KAPLAR Janos	HUN	-	23:09	25:14	-	7:38	27:13	52:27
18	WALEK Vaclav	TCH	-	28:23	23:55	-	10:46	20:33	52:18
19	FADRNY Jindrich	TCH	19:19	22:46	-	22:25	9:08	25:36	48:22
20	KMOCH Vilim	YUG	-	9:38	16:00	13:28	5:50	29:52	45:52
21	BEKE Geza	HUN	1:12	4:20	17:38	24:15	19:00	21:06	45:21
22	CZECHOWSKI Ryszard	POL	19:16	10:54	10:53	3:25	21:22	22:51	44:13
23	ZANKA Vaclav	TCH	17:35	22:18	15:21	15:31	20:42	16:54	43:00
24	BOTOS Istvan	HUN	15:12	10:47	18:56	-	-	15:32	34:28
25	VINS Karol	TCH	-	2:43	1:58	6:00	4:32	-	10:32

IGRA CUP * FID-EXP * July 15-16, 1989 * BRNO

	Name	Country	1	2	3	4	SUM
1	KUJAWA Sylwester	POL	28:02	22:22	15:27	-	50:24
2	JIRASKY Jaroslav	TCH	19:55	24:35	7:57	23:19	47:54
3	KALINA Jiri	TCH	25:45	15:40	14:39	20:30	46:15
4	VELUNSEK Oton	YUG	24:27	3:01	15:02	-	39:29
5	SCHRAMM Lutz	GDR	21:57	15:50	3:01	-	37:47
6	REE Laszlo	HUN	1:21	19:35	17:57	10:20	37:32
7	REE Andras	HUN	13:16	23:09	2:35	1:52	36:25
8	BRANDEJS Karel	TCH	1:07	8:38	27:40	1:32	36:18
9	BEKE Geza	HUN	16:35	9:07	8:57	-	25:42
10	VINS Karol	TCH	18:00	4:35	-	-	22:35
11	ORSOVAI Dezso	HUN	1:58	18:47	0:46	-	20:45
12	ZANKA Vaclav	TCH	0:54	4:43	3:32	12:10	16:53
13	KMOCH Vilim	YUG	14:33	-	-	-	14:33
14	ZAGAR Iztok	YUG	7:18	-	-	-	7:18

OBS? USSR!

1st INT. FID CONTEST * Leningrad, Apr.16, 1989 * Lenin Sportpalace

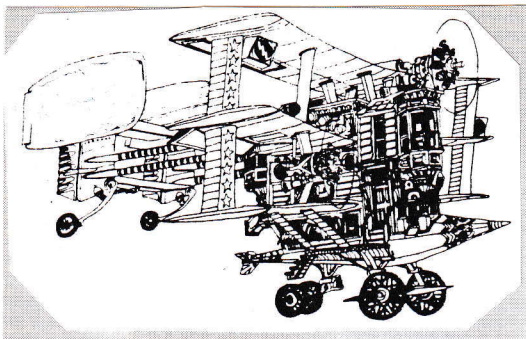
1	REE, Andras	HUN	-	-	-	21:40	35:40	5:03	57:20
2	ORSOVAI, Dezso	HUN	-	-	1:27	20:25	32:45	22:24	55:09
3	ROMASHOV, A.V.	Perm	10:09	25:10	11:00	26:00	9:33	19:18	51:10
4	KUJAWA, Sylwester	POL	6:21	4:48	13:29	17:33	26:06	24:37	50:43
5	NORE, Pentti	FIN	3:27	17:00	26:30	-	5:25	20:25	46:55
6	ZGORZELSKI, I.B.	Perm	-	-	1:21	21:19	20:45	22:48	44:07
7	CIAPALA, Edward	POL	1:05	3:12	5:35	19:50	18:08	24:10	44:00
8	IVLEV, M.N.	Moscow	5:13	9:35	21:33	11:19	18:18	21:15	42:48
9	ELBAKIDZE, Ju.V.	Moscow	4:23	-	21:03	21:42	20:50	12:58	42:45
10	ORLOV, V.V.	Penza	-	11:18	-	6:14	20:46	21:30	42:16
11	MOSKALEV, V.S.	Ukraine	15:52	8:27	16:50	13:58	24:58	6:49	41:48
12	MITIN, G.L.	Moscow	1:13	10:58	11:39	-	21:01	20:43	41:44
13	DIHM, Jan	POL	20:11	20:12	4:08	8:27	19:01	8:45	40:23
14	RAULIO, Harri	FIN	4:45	16:37	18:34	2:48	21:48	5:17	40:22
15	PETROV, A.A.	Penza	7:40	-	10:31	3:52	19:42	20:35	40:17
16	PROHOROV, M.I.	Leningr.	13:11	17:40	19:19	11:06	2:57	18:30	37:49
17	PODLOSNI, A.V.	Ukraine	7:46	15:06	7:57	6:43	20:35	16:28	37:03
18	SLINKO, V.N.	Sverdl.	10:57	4:34	4:46	4:57	17:44	18:12	35:56
19	PATIN, M.R.	Tula	-	8:43	16:45	-	15:33	19:08	35:53
20	ABUZAROV, R.V .	Penza	17:33	12:00	6:57	7:25	17:50	10:08	35:23
21	MACHULKO, V.M.	Ukraine	8:28	-	12:20	19:08	14:48	10:57	33:56
22	KAKMANOV, I.N.	Penza	13:21	15:30	3:26	14:50	18:14	5:37	33:44
23	ZAHAROV, Ju.V.	Jakutia	10:15	6:08	10:43	-	15:30	17:55	33:25
24	SHIKUNOV, I.A.	Leningr.	9:35	-	12:11	2:46	7:12	21:05	33:16
25	DVINSKIH, V.V.	Perm	6:38	8:30	-	3:33	6:32	24:15	32:45
26	HISHMATULIN, S.M.	Perm	16:02	11:20	-	-	16:40	5:10	32:42
27	AKULOV, K.V.	Moscow	16:27	1:13	15:44	10:41	-	9:15	32:11
28	AGEEV, M.L.	Tula	10:28	5:40	7:45	14:32	17:30	11:56	32:02
29	KASHKIN, A.V.	Leningr.	-	6:40	4:49	13:08	18:15	12:55	31:23
30	DVINSKIH, V.V.Jr.	Perm	12:00	-	-	6:22	18:15	9:34	30:15
31	ENGLUND, Leif	FIN	14:44	-	11:26	5:17	6:38	15:17	30:01
32	MITINA, L.V.	Moscow	8:25	-	10:28	9:13	7:00	19:00	29:28
33	KOMAROV, V.V.	Moscow	-	3:56	5:50	5:23	5:30	23:34	29:24
34	PETROV, P.L.	Moscow	8:58	6:54	13:43	-	14:23	-	28:06
35	CHEKANOV, I.V.	Penza	9:39	2:58	11:47	6:33	14:01	-	25:48
36	JEGOROV, Ju.A.	Pskov	9:40	11:34	3:55	-	2:04	13:51	25:25
37	VASHTANNIK, V.H.	Leningr.	16:33	1:32	8:24	6:18	8:27	7:53	25:00
38	MITIN, L.L.	Moscow	6:00	-	3:15	12:35	12:02	12:10	24:45
39	RIZKOVA, T.A.	Sverdl.	3:30	8:53	2:12	14:30	5:40	10:12	24:42
40	MITIN A.L.	Moscow	-	4:59	-	10:40	-	13:13	23:53
41	SAVCHUK, V.B.	Moscow	-	-	15:30	3:33	-	6:38	22:08
42	RIZKOV, A.N.	Sverdl.	16:38	-	5:19	-	-	3:50	21:57
43	KMIS, Ju.P.	Pskov	2:19	5:00	-	7:29	13:16	4:04	20:45
44	EROFEJEFF, Harro	FIN	-	2:28	1:25	3:33	4:48	11:15	16:03
45	LANTZOV, A.B.	Leningr.	-	4:01	4:13	4:41	4:20	2:00	9:01
46	REE, Laszlo	HUN	2:10	-	1:55	-	-	-	4:05

Team results:

1. POL	135:06	6. Ukraine	112:47
2. Perm	128:02	7. Moscow	100:36
3. Moscow terr.	117:44	8. Leningrad	95:53
4. HUN	116:34	9. FIN	92:50
5. Penza	116:17	10. Sverdlovsk	82:35

Newsletter exchange:

John Martin - The Hangar Pilot
Ed Whitten - New York Indoor Times
Edward Ciapala - Modelarz
Leopold Walek - Modelar
Andre Schandel - Vol Libre
Richard Doig - Indoor News and Views
B. Schwendemann - Thermiksense
George Peace - El Torbellino



KZ III

OY-ACT

KZ III



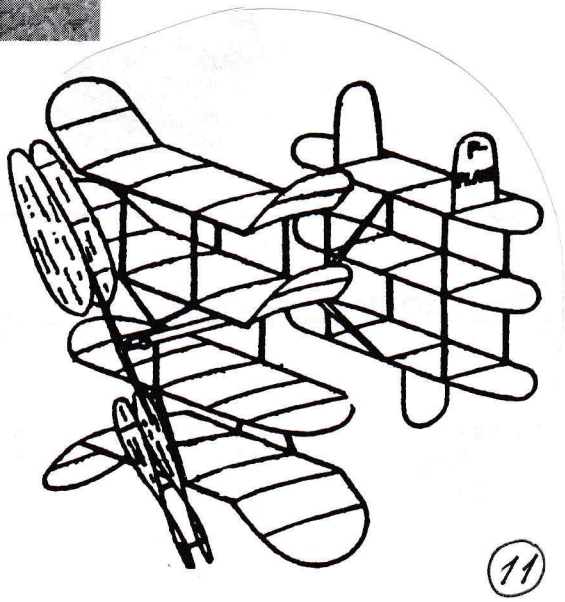
KZ-III

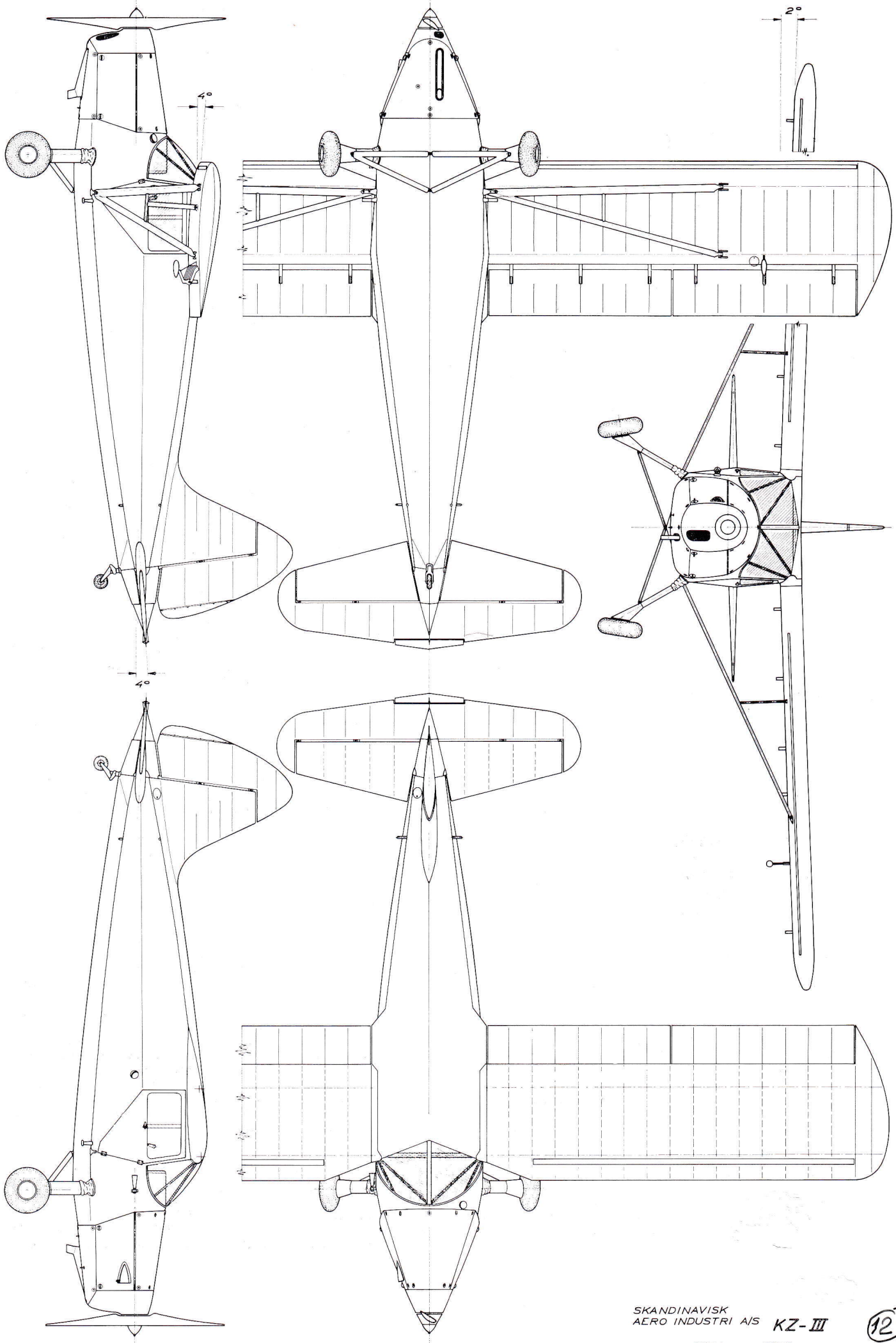
From about 1935 to 1950 there was a Danish factory building real aeroplanes. The factory was called Scandinavian Aero Industries but all the planes built were named after their designers, Kramme and Zeuthen, the prefixes KZ. The most successful plane was the KZ-III which was built mostly in 1946. 64 planes were built and many of them are still flying in Denmark.

KZ-III was famous for its low stalling speed - about some 50 km/h - and it would not stall in the usual way due to the leading edge slats. It was impossible to make it spin.

The fuselage was a steel tube construction covered with fabric. The wing was made of wood covered with plywood and fabric.

Who makes a Peanut construction plan?? I'm sure it will a good flying machine.





SKANDINAVISK
AERO INDUSTRI A/S

KZ-III

12

SKALA 1:50 DATUM 7.69 Håkan Lundberg