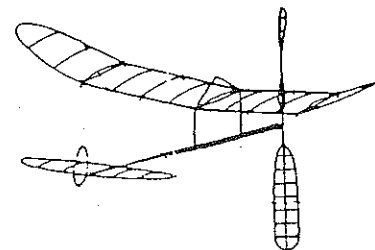


INDOOR

NEWS and VIEWS



FROM THE EDITOR'S DESK

Greetings,

Welcome back to the Indoor News and Views. After about a year and a half of no issues of the newsletter, I, as well as others felt we needed this means of communications. So with pen in hand, I have taken the job of your new editor. The format of the newsletter will change as will the issuance of the newsletter. At present the plan is 10 pages of information of indoor information and 6 copies a year. This will give us more up to date information as well as new techniques, results of recent contest and any rules changes or proposals.

Now a little about your new editor. First off, I am not an English major, I was a Sergeant Major. I am not a computer whiz, some have identified me as a Ludite. The Brainbuster Newsletter was my baby for 29 consecutive years, so I do know a little bit. I also have a burning desire to get information out to our indoor modelers. I have a collection of Bud Tenny's Indoor News and Views, some of them were just two pages, but Bud got the important stuff out to us.

As your editor, your help is needed to get information to me so that it is passed on to our indoor brothers and sisters. There is a possibility that all of it will not get passed on as there may be more important matters to get out ASAP, (As soon as possible). I will try to inform you of this by E-mail or regular mail. Some subscribers will notice that this issue is their last issue. In the past you were promised 4 issues and this will be their fourth, hence these subscribers will need to renew or to drop out. At present we have about 280 subscribers with 51 of them, overseas participants. We hope it stays at this or improves. It's up to you and I. My E-mail address is vandover@cox.net and we hope to hear from you. Positive or negative.

PS The 2011 AMA/NFFS Indoor Nationals will be in Johnson City, TN on the 1-5 of June 2011 This is tentative. Plan ahead!

Indoor Model Specialties

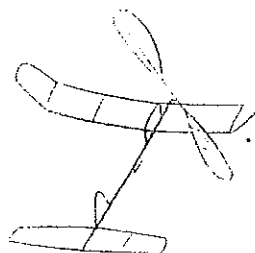
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Once again die hard indoor modelers flocked to Johnson City, TN for the annual National Indoor Championships. There were more than in 2009 and we hope the trend improves. You can be sure this newsletter will keep you informed in 2011 about what's happening at the National level. Back to the 2010 event. We have both pictures and results and a little bit of who did what. John Kagan will give you a more polished version in an upcoming Model Aviation. I'm sure Don DeLoach of NFFS Digest will also have some info on this National event. We cannot get all of this years events in one edition, so that will be in later issues, we will also have all those that flew in each event, no matter how lousy I was. We flew and that's what matters. I told you I was not an English major didn't I?

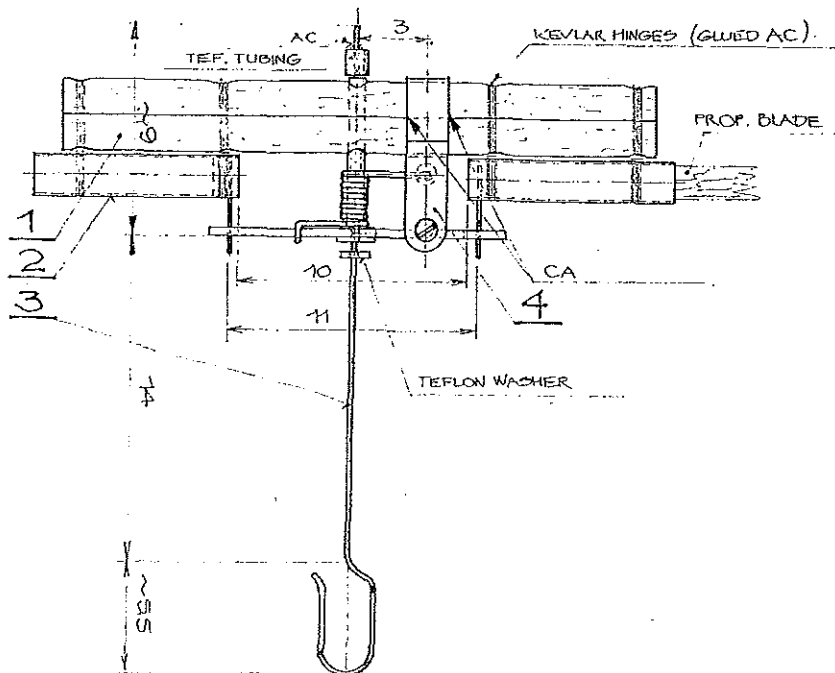
Two Site records were set, one by Stan Buddenbohm and the other by a Junior, the name escapes me, but we will have it in the August/ September issue. A big letdown was that the Smyrna group only had five Juniors. This was due to a fire at their Church. Tim Lavender did have at least 6 Open Contestants to pick up the slack. Tim is the leader of the group and the Church Pastor. Now there is a story for another issue.

All the photos are by Ken Achee, except the one of him, he's not that fast, but he did get around. Ken brought a friend with him, Paul Grabski by name. Paul won Peanut Scale and this was his first Nationals.

For all you Tony Italiano fans he was absent for the first time in over 20 years. If you can remember back that far, Tony started all this stuff at Johnson City and ran the event for at least 10 years. Tony told me by telephone the he was OK, however his driver, Jack Boone could not make it, hence , no Tony. Next year for sure. Below and on other pages are the scores and pictures. All the captions are by me.

BIG THANK YOU TO THE HIRED HELP.

First of all no one was hired and all the help was by volunteers, Think about it !! Carl Bakay was the overall Event Director, J. P. Kish was the scorer all five days. Dave Thomson handled the processing and set up all the measuring devices, plus did the Scale judging chores. Phil Sullivan represented the AMA and filled in as needed Phil is also the NFFS President. John Kagan helped with computer repair and ran the Pro-Am Limited Pennyplane Event which, by the way was a big hit. Maybe, we can get John to write up something for us in the next issue. A big thank you goes to Tim Goldstien for donating a ton of kits and stuff for the big raffle that by the way earned almost a thousand bucks that goes to the AMA to offset the rental of the site. Tim also donated kits for the Pro-Am event.



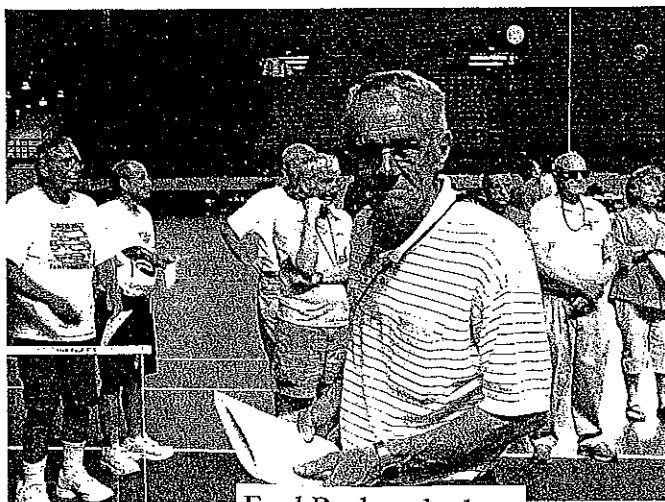
VARIABLE PITCH PROP.

To your left is a line drawing of a variable pitch prop. If this wets your interest, you will have to wait until the next issue comes out in September. We will then have a complete run-down on it. This will make the wait worth it. Trust me

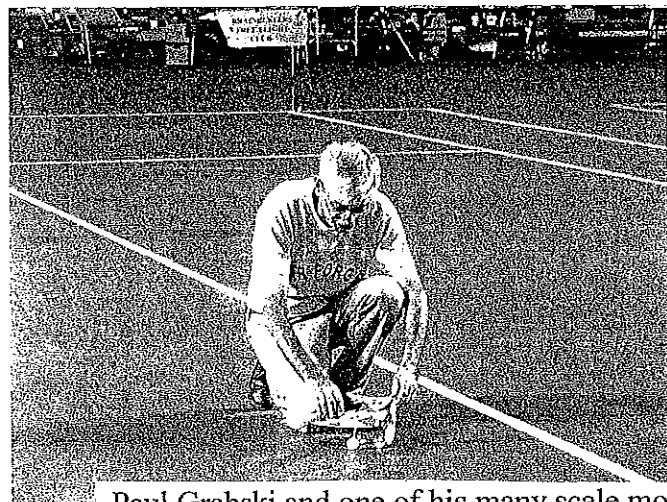
MAKE INVISIBLE REPAIRS TO MODEL PARTS

Larry Coslick

I use this repair method for just about any repair job on an indoor model and it makes the lightest and neatest repair. I use thinned down carpenters glue (Aliphatic) with saliva and a small 10/0 artists brush. Place a small dab of glue on a piece of masking tape and mix it with the same amount of saliva. Light stab outlines break easily and if the film is holding the break together, place the thinned glue on the face and bottom of the outline. The mixture is very thin and will soak into the balsa easily even though you may not be able to open the break. If the stab has folded and the film is intact, carefully place the folded part back to its original position. Take the smallest amount of glue and place it between the break and align the two ends. Do one break at a time. There's no need to pre glue and it will only take about 10 minutes for the glue to dry at 70 degree F. Another advantage is that the break can be manipulated after it sets for around 4 minutes. I try to keep the glue away from the inside of the outline to keep from getting the glue on the film. If glue gets on the film use a clean damp brush to remove the glue. I don't use Aliphatic on areas that are laced with Boron.



Fred Rash and others



Paul Grabski and one of his many scale models

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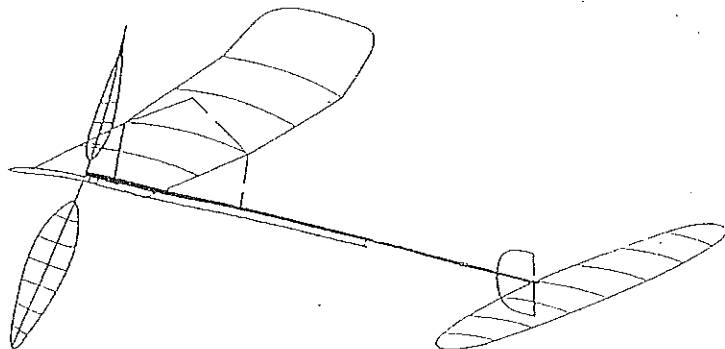
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Indoor News and Views is an open forum presenting ideas, opinions, model designs and techniques for the indoor community. Unless specifically stated INAV does not offer any opinion as to the merit of published work, nor does it indorse any products or services advertised herein.

Bostonian

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	2nd Best	Flt Total	Charisma	Total	Place
EMIL SCHUTZEL	508384	4:12	4:41	4:29			4:41	4:29	9:10	1.20	11:00	1
FRED RASH	63458	3:53	4:10				4:10	3:53	8:03	1.15	9:15	2
H DIEBOLT	5286	3:31	4:13	1:24	3:14		4:13	3:31	7:44	1.15	8:54	3
SORIN SLATER (JR)	880359	0:31	0:48	0:52	0:47	0:41	0:52	0:48	1:40	1.10	1:50	4
LOU YOUNG	3304	1:37					1:37		1:37	1.10	1:47	5
ROBERT WARMANN	187	0:08					0:08		0:08	1.10	0:09	6
ROBERT BOYD	44454	0:42	0:21	0:45	3:14		3:14	0:45	3:59		0:00	7
RAYMOND HARLAN	131										DNF	
ROBERT STEVENS	615257										DNF	

FAC Scale

Name	AMA #	Aircraft	Const. Det.	Color & Markings	Work.	Scale Score	Bonus Points	1st Flight	2nd Flight	3rd Flight	Flight Points	Total Points	Place
ROBERT STEVENS	615257	1911 Voisin	25	20	12.5	57.5	30	46	49	44	49.00	136.50	1
KATIE BOSMAN	336184	Douglas SBD	28	20	11.0	59.0	10	39			39.00	108.00	2
VAL THOMAS	944976	Piper Vagabond	30	20	12.5	62.5	0	38	41	35	41.00	103.50	3
SORIN SLATER (JR)	880359	Pilatus Porter	26	18	12.0	56.0	0	28	38	36	38.00	94.00	4
PAUL GRABSKI	344853	Lincoln Beachey	20	18	10.0	48.0	5	23	23	26	26.00	79.00	5
GREG THOMAS	185281	0:00:00	30	20	12.5	62.5	10	0	0	0	0.00	72.50	6
VICTOR GAGLIANO	110081												
KENNETH JOHNSON	28705												

HLG

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Flight 7	Flight 8	Flight 9	Best	2nd Best	Total	Place
STAN BUDDENBOHM	189385	77.9	73.2	83.9	86.0	57.0	78.8	86.2	83.6		86.2	86.0	172.2	1
JOHN YOST	906929	30.6	40.8	12.0	48.0	21.0	10.1	3.2	11.9	54.0	54.0	48.0	102.0	2
#REF!	#REF!												DNF	
VICTOR GAGLIANO	110081	50.0	46.6	47.5							50.0	47.5	97.5	3
DENNIS TYSON	137300	27.1	30.7	32.4	38.5	39.2	31.0				39.2	38.5	77.7	4
ROBERT EBERLE	411592	29.5	11.6	31.7	34.0	42.2	32.9				42.2	34.0	76.2	5
PARKER TYSON (Jr)	802447	14.2	16.3	18.5	17.1	21.8	21.9				21.9	21.8	43.7	6
BRANDON KAGAN (Jr)	928289												DNF	
#REF!	#REF!												DNF	
JIM MAYES	28485												DNF	
ROBERT ROMASH	130061												DNF	

NoCal

Name	AMA #	Aircraft	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
LARRY LOUCKA	1210	Hosler Fury	6:30					6:30	1
WALTER COLLINS	249365	Chambermaid	3:51	4:24	4:44	5:10	5:09	5:10	2
H DIEBOLT	5286	Hosler Fury	3:11	4:09	3:25	4:20	4:21	4:21	3
ROALD TWEET	68634	Piper Sky Cycle	0:58	1:56	1:58	2:02	2:03	2:03	4
ROBERT BOYD	44454	D. H. Beaver	1:50	1:58	1:12			1:58	5
DEL OGREN	6874	Cessna CR-3	1:55	1:10	1:06			1:55	6
WILLIAM ODELL	408354		1:14	1:12	1:33			1:33	7
WILLIAM LYONS	864154	Monocoupe	0:25					0:25	8
ABRAM VANDOVER	894							DNF	
PAUL GRABSKI	344853							DNF	
ROBERT WARMANN	187							DNF	

WWI ML

Name	AMA #	Aircraft	Down	Place
LARRY LOUCKA	1210		2	1
TIM LAVENDER	269765		1	2

WWII ML

Name	AMA #	Aircraft	Down	Place
LARRY LOUCKA	1210			
SORIN SLATER (JR)	880359			
KENNETH ANDERSON	587497			

Sta. Cat

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Flight 7	Flight 8	Flight 9	Best	2nd Best	Total	Plac
RALPH RAY	5007	57.9	81.5	87.5	81.5	88.8	85.9				88.8	87.5	176.3	1
STAN BUDDENBOHM	189385	82.9	83.5	8.0	28.0	46.1	84.3	84.4	80.6	14.4	84.4	84.3	168.7	2
#REF!	#REF!												DNF	
THOMAS BATTE	17842	75.8	77.8	78.8	77.7	79.3	82.0				82.0	79.3	161.3	3
ROBERT WARMANN	187	49.7	16.5	5.2	49.7	52.6	64.9	63.2	64.7	68.1	68.1	64.9	133.0	4
VICTOR GAGLIANO	110081	5.0	46.6	47.5	41.6	54.1	53.5	54.5			54.5	54.1	108.6	5
MICHAEL KAGAN (Jr)	928287	37.2	42.8	39.1							42.8	39.1	81.9	6
BRANDON KAGAN (Jr)	928289	30.2	38.3	35.8	39.7	32.5	34.7	39.1	39.6	38.0	39.7	39.6	79.3	7
JOHN YOST	906929	12.0	38.0	31.0	27.6						38.0	31.0	69.0	8
BORIN SLATER (JR)	880359	21.4	31.0	33.9	31.6	34.1	30.8	32.8			34.1	33.9	68.0	9
ROBERT EBERLE	411592	10.3	15.2	4.3	20.7	10.4	28.0	31.8	5.8	10.2	31.8	28.0	59.8	10
JOHN ODELL	918943	24.0	31.0	20.0	12.0						31.0	24.0	55.0	11
WILLIAM ODELL	408354	24.0	27.0	27.0	27.0	18.0	26.0	27.0	23.0	25.0	27.0	27.0	54.0	12
#REF!	#REF!												DNF	
H DIEBOLT	5286												DNF	
ROBERT ROMASH	130061												DNF	
TEM JOHNSON	16707												DNF	
JIM MAYES	28485												DNF	

F1L

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Best	2nd Best	Total	Place
JOHN KAGAN	469254	18:07	20:22	20:07	20:57			20:57	20:22	41:19	1
LAWRENCE CAILLIAU	79985	18:29	19:46	20:34	19:48			20:34	19:48	40:22	2
JAMES RICHMOND	4936	14:41	18:21	19:29	19:37			19:37	19:29	39:06	3
WILLIAM GOWEN	6157	13:22	18:24	16:05	19:23			19:23	18:24	37:47	4
BRETT SANBORN	L486	17:25	18:43	17:18	16:33	18:41		18:43	18:41	37:24	5
YUAN KANG LEE	941575	12:43	16:35	15:19	18:14	18:02	18:45	18:45	18:14	36:59	6
BENJAMIN SAKS	663661	18:06	18:48	17:53	17:22	16:11		18:48	18:06	36:54	7
TOM SOVA	473169	15:39	16:47	17:15	15:15			17:15	16:47	34:02	8
VICTOR GAGLIANO	110081	12:34	14:28	13:07	14:33			14:33	14:28	29:01	9
PARKER TYSON (Jr)	802447	10:18	12:02	11:44	14:54	13:37		14:54	13:37	28:31	10
H DIEBOLT	5286	13:47	14:11	8:08	13:33			14:11	13:47	27:58	11
THOMAS BATTE	17842	8:09	8:16	12:53	12:01	12:42		12:53	12:42	25:35	12
DENNIS TYSON	137300	13:17	11:17	11:25				13:17	11:25	24:42	13
BILLIE LANDRUM	52674	10:49	11:07					11:07	10:49	21:56	14
ABRAM VANDOVER	894	8:56	10:38					10:38	8:56	19:34	15
WALTER COLLINS	249365	9:20	9:01	2:31				9:20	9:01	18:21	16
LEN SINGER	209081	12:15						12:15		12:15	17
ROBERT WARMANN	187									DNF	
LARRY LOUCKA	1210									DNF	
ROBERT ROMASH	130061									DNF	

F1D

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Best	2nd Best	Total	Place
JAMES RICHMOND	4936	34:28	32:25	27:30	34:07			34:28	34:07	68:35	1
JOHN KAGAN	469254	32:47	33:09	33:22	33:44	32:25		33:44	33:22	67:06	2
LAWRENCE CAILLIAU	79985	28:49	32:25	33:28	29:08	33:11	31:56	33:28	33:11	66:39	3
BRETT SANBORN	L486	30:06	32:52	31:19	33:12	14:03	30:42	33:12	32:52	66:04	4
TOM SOVA	473169	32:31	30:45	0:22				32:31	30:45	63:16	5
BENJAMIN SAKS	663661	23:54	28:18	30:24	25:05	29:49	30:47	30:47	30:24	61:11	6
DENNIS TYSON	137300	17:56	20:01	19:29	21:14			21:14	20:01	41:15	7
#REF!	#REF!									DNF	
PARKER TYSON (Jr)	802447	16:12	20:04	20:00	18:55	20:37		20:37	20:04	40:41	8
#REF!	#REF!									DNF	
CURTIS WERNETTE	872931	18:29	20:08	16:59	19:31			20:08	19:31	39:39	9
THOMAS IACOBELLIS	6698									DNF	
KENNETH JOHNSON	28705									DNF	
NICHOLAS RAY	770974									DNF	

Unl. Cat

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Flight 7	Flight 8	Flight 9	Best	2nd Best	Total	Place
#REF!	#REF!												DNF	
STAN BUDDENBOHM	189385	101.6	96.6	100.1	100.6	103.8	109.5	109.6			109.6	109.5	219.1	1
RALPH RAY	5007	40.3	47.7	77.1	87.5	31.5	10.2	85.3	75.3	81.5	87.5	85.3	172.8	2
THOMAS BATTE	17842	75.8	79.9	80.2	80.3						80.3	80.2	160.5	3
ROBERT EBERLE	411592	3.3	44.8	41.1	7.9	5.1					44.8	41.1	85.9	4
JOHN YOST	906929	28.9	8.6	31.9	11.8	22.4	24.8	44.0	30.6	41.5	44.0	41.5	85.5	5
ROBERT WARMANN	187												DNF	
#REF!	#REF!												DNF	
TEM JOHNSON	16707												DNF	
JIM MAYES	28485												DNF	
ROBERT ROMASH	130061												DNF	

HLS

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
RAYMOND HARLAN	131	36:10					36:10	1
JAMES RICHMOND	4936	27:55	28:01				28:01	2
JEFFREY HOOD	824593	26:50	6:26				26:50	3
DENNIS TYSON	137300	15:08	16:03				16:03	4
BENJAMIN SAKS	663661						DNF	
PARKER TYSON (Jr)	802447						DNF	
LARRY LOUCKA	1210						DNF	

Dime Scale

Name	AMA #	Aircraft	Bonus	1st Flight	2nd Flight	3rd Flight	Score	Place
DIEBOLT	5286	B.A.T. Monoplane		120	120	120	360	1
OBERT WARMANN	187	Arado		108	108	94	310	2
ATIE BOSMAN	336184	Stinson		50	61	59	170	3
IM LAVENDER	269765	Lloyd CV		44	46	59	149	4
EORGE WHITE	652626	P-6e		50	44	45	139	5
ILLIAM ODELL	408354	Cessna		38	42	44	124	6
OALD TWEET	68634	S.E.5		24	32	33	89	7
ILLIAM LYONS	864154	B.A.T. Monoplane						
AYMOND HARLAN	131							
AUL GRABSKI	344853							

A-ROG

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
LARRY LOUCKA	1210	13:42					13:42	1
H DIEBOLT	5286	10:40					10:40	2
RAYMOND HARLAN	131						DNF	
DAVID ERBACH	198						DNF	
CARL BAKAY	478659						DNF	

Int Stick

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
TOM SOVA	473169	31:53	34:03				34:03	1
LARRY LOUCKA	1210	29:50	32:32				32:32	2
RAYMOND HARLAN	131	28:17					28:17	3
JEFFREY HOOD	824593	19:16					19:16	4

35cm

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
RAYMOND HARLAN	131	24:19	26:30	27:45			27:45	1
TOM SOVA	473169	26:57					26:57	2
NICHOLAS RAY	770974	25:26	25:02				25:26	3
THOMAS IACOBELLIS	6698	22:27					22:27	4
WALTER COLLINS	249365	20:32	19:54	5:48	18:03	15:01	20:32	5

Manhattan

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
EMIL SCHUTZEL	508384	9:12	11:37				11:37	1
LARRY LOUCKA	1210	7:22	9:02				9:02	2
DAVID ERBACH	198	4:27	6:07	6:36			6:36	3

FINAL RESULTS FOR THE 2010 INTERNATIONAL POSTAL MINISTICK AND A-6 CONTEST

At long last we have the results for another successful International Ministick and A-6 Postal Contest. Because of previous commitments, the USA Indoor Nationals for one, I have been behind the power curve and for this I apologize. I do have the awards and they will follow this notice in a day or two. We had some close competition this year and we like that. Once again Akihiro Danjo and his band of merry modelers gave us a lesson on how to win, practice, practice, practice. The Brainbuster group and others promise to do better next year. With that notice we will announce now that the Brainbusters will run the 2011 contest, clubs and individuals can expect to receive flyers in October or November. This will give all ample time to prepare for 1 January 2011

Below are the various event winners and all who participated. We wish to thank all and wish everyone good luck in 2011.

OVERALL CHAMPION

AKIHIRO DANJO JAPAN

MINISTICK INTERNATIONAL CLASS.

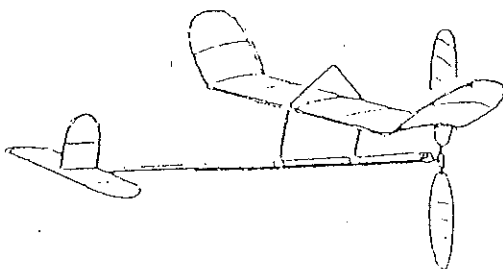
FIRST PLACE	AKIHIRO DANJO	JAPAN
SECOND PLACE	TORU ONISHI	JAPAN
THIRD PLACE	SYOJI KANEKO	JAPAN

MINISTICK USA CLASS

FIRST PLACE	WALT COLLINS
SECOND PLACE	ANDREW TAGLIAFICO
THIRD PLACE	ED BERRY

COMBINED A-6 CLASS

FIRST PLACE	AKIHIRO DANJO	JAPAN
SECOND PLACE	TEM JOHNSON	USA
THIRD PLACE	ANDREW TAGLIAFICO	USA



On the reverse page are names, scores countries and other pertinent data on all contestants.

2010 INTERNATIONAL POSTAL MINISTICK RESULTS AND SCORES

NAME	FLT SCORE (SEC)	CEILING HEIGHT	CLUB	DATE	
Danjo, Akihiro	691	29.52 ft	K.I.P.C.	20 Mar 2010	1,039.2
Collins, Walt	481	7.75 ft	Brainbusters	27 Mar 2010	1,022.3
Onishi, Toru	653	29.52 ft	K.I.P.C.	20 Mar 2010	982.0
Kaneko, Syoji	520	29.52 ft	K.I.P.C.	20 Mar 2010	782.0
Okayasu, Hiroyuki	514	29.52 ft	K.I.P.C.	20 Mar 2010	773.0
Fujita, Shigeru	510	29.52 ft	K.I.P.C.	20 Mar 2010	767.0
Tagliafico, Andrew	420	21.00 ft	Williamette Modlrs	28 Feb 2010	697.1
Kato, Yoichi	441	29.52 ft	K.I.P.C.	20 Mar 2010	663.2
Kobukai, Syoetsu	424	29.52 ft	K.I.P.C.	20 Mar 2010	637.7
Yaginuma, Tokurirc	414	29.52 ft	K.I.P.C.	20 Mar 2010	622.6
Miura, Shinsuke	400	29.52 ft	K.I.P.C.	20 Mar 2010	601.6
Tida, Miniru	397	29.52 ft	K.I.P.C.	20 Mar 2010	597.0
Berray, Ed	387	36.00 ft	Williamette Modlrs	9 Jan 2010	547.7
Singer, Len	242	7.75 ft	Brainbusters	17 Mar 2010	514.3
Wilson, Roy	260	13.75 FT	BMFA	11 Mar 2010	482.9
Long, Bill	286	23.00 ft	Christ church MAC	28 Mar 2010	467.5
Yamada, Minoru	289	29.52 ft	K.I.P.C.	20 Mar 2010	434.6
Hayashi, Osamu	271	29.52 ft	K.I.P.C.	20 Mar 2010	407.6
Shimizu, Takayuki	258	29.52 ft	K.I.P.C.	20 Mar 2010	388.0
Van Dover	182	7.75 ft	Brainbusters	27 Mar 2010	386.8
Beaton, Aubrey	242	25.00 ft	Scotia Free Flight	14 Mar 2010	382.2
Boudon, Keenan	260	36.00 ft	Williamette Modlrs	9 Jan 2010	368.0
Borland, Chris	256	36.00 ft	Williamette Modlrs	9 Jan 2010	362.3
Boudon, Nathan	175	36.00 ft	Williamette Modlrs	28 Feb 2010	247.7

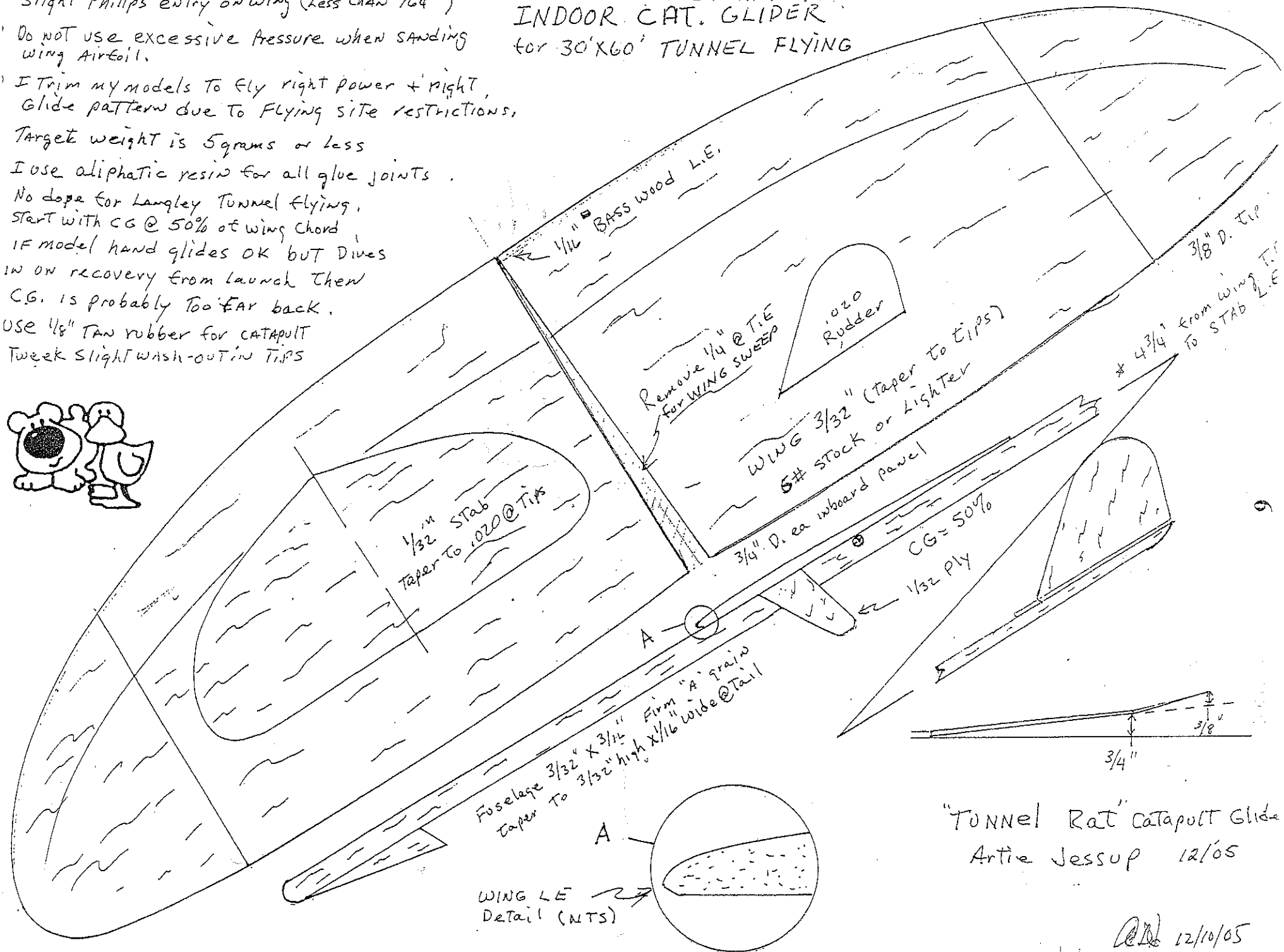
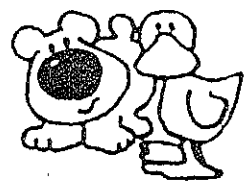
2010 INTERNATIONAL POSTAL A-6 RESULTS AND SCORES.

NAME	FLT. SCORE (SEC)	CEILING HEIGHT	CLUB	DATE	COR. TIME
Danjo, Akihiro	466	42.16 ft	K.I.P.C.	5 Mar 2010	466.00
Johnson, Tem	385	26.50 ft	H.A.F.F.A.	27 Mar 2010	395.50
Taglifico, Andrew	372	36.00 ft	Williamette Modlrs	28 Feb 2010	376.12
Altig, Mike	368	36.00 ft	Williamette Modlrs	9 Jan 2010	372.12
Berray, Ed	329	36.00 ft	Williamette Modlrs	30 Jan 2010	333.12
Wannop, Urlan	313	25.00 ft	Scotia Free Flight	14 Mar 2010	324.49
Beaton, Aubrey	297	25.00 ft	Scotia Free Flight	14 Mar 2010	311.49
Collins, Walt	286	7.75 ft	Brainbusters	27 Feb 2010	309.05
Long, Kay	220	23	Christchurch MAC	28 Mar 2010	232.77
Gilbert, George	220	36.00 ft	Williamette Modlrs	30 Jan 2010	224.12
Alderson, James	218	36.00 ft	Williamette Modlrs	28 Feb 2010	222.12
Singer, Len	189	7.75 ft	Brainbusters	17 Mar 2010	213.05
Long, Bill	193	23.00 ft	Christchurch MAC	28 Mar 2010	205.77
Plassman, Jerry	173	7.75 ft	Brainbusters	27 Feb 2010	196.05
Borland, Chris	186	36.00 ft	Williamette Modlrs	9 Jan 2010	190.12
Boudon, Keenan	138	36.00 ft	Williamette Modlrs	28 Feb 2010	142.12
Kershner, Dave	117	7.75 ft	Brainbusters	27 Mar 2010	140.05
Van Dover, Abram	116	7.75 ft	Brainbusters	27 Mar 2010	139.05
Tate, John	69	7.75 ft	Brainbusters	27 Mar 2010	92.05

ABBREVIATIONS: K.I.P.C. = KANAGAWA INDOOR PLANE CLUB
H.A.F.F.A. = HEART OF AMERICA FREE FLIGHT ASSOCIATION
B.M.F.A. = BRITISH MODEL FLYING ASSOCIATION

- Slight Philips entry on wing (less than $1/64"$)
- Do NOT use excessive pressure when sanding wing Airfoil.
- I trim my models to fly right power + right, glide pattern due to flying site restrictions.
- Target weight is 5 grams or less
- I use aliphatic resin for all glue joints.
- No dope for Langley Tunnel flying.
- Start with CG @ 50% of wing chord
- IF model hand glides OK but Dives in on recovery from launch then CG. is probably too FAR back.
- USE $1/8"$ TAN rubber for CATAPULT
- Tweak slight wash-out in TIPS

INDOOR CAT. GLIDER for 30'X60' TUNNEL FLYING



"Tunnel Rat" Catapult Glider
Artie Jessup 12/05

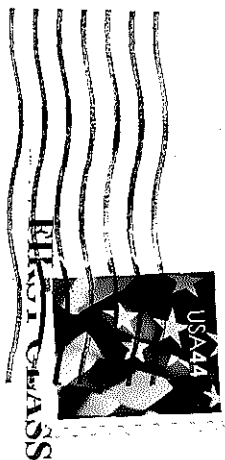
12/10/05

INDOOR

NEWS and VIEWS

ABRAM VAN DOVER, EDITOR
112 TILLERSON DR
NEWPORT NEWS, VA
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ISSUE 124
SUMMER 2010



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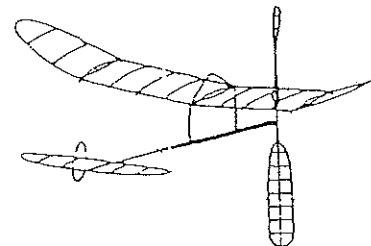
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23602

ISSUE #125
FALL 2010

INDOOR

NEWS and VIEWS



FROM THE EDITOR'S DESK

Here we go with issue #125 ! I wanted to have a list of all the people that have renewed their subscriptions in this issue , but due to other info and stuff it will have to wait until issue #126 comes out in November. Also the expiration date will have to wait also, due to my recent back surgery. I cannot sit or stand too long as I have a lot of pain still. Please bear with me.

In this issue we will have the Variable Pitch Prop set up, along with plans for Lou Young's radical Penny Plane, The text for this will be in # 126. Along with these plans , we will have Wally Miller's original EZ-B plans and it's history. Now for a bit of a challenge. I plan to sponsor a one design event, featuring Wally's original EZ-B at the 2011 AMA/NFFS Indoor Nationals. You will have to build the model to the exact parameters of the original plans, with the exception of the covering. You may use mylar of your choice. The kicker? First Place will be \$100.00, Second place \$50.00 and third \$25.00. All others will receive certificates. The ball is in your court.

Now that I have your attention, there was a mistake in Issue #124 on the dates of our AMA/NFFS Indoor Nationals, I had June 1-5, the actual dates are 25-29 May 2011. Please mark your calendars accordingly.

We also have for you the results of the World F1D Championships to include the Junior results and Senior Team standings, thanks to Nick Aikman.

Any questions on the above info feel free to contact me at vandover@cox.net or 757-877-2830

Indoor Model Specialties

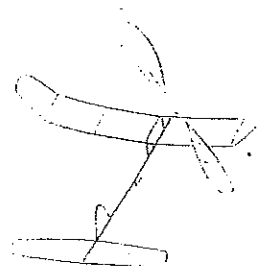
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Material from Ultrafilm to Thrust Bearings
Bambino competitive Science Olympiad model kit

See my brochure under Links at
<http://www.indoorduration.com>

Ray Harlan
15 Happy Hollow Road
Wayland, MA 01778
508.358.4013

Mastercard and Visa accepted



Ray wants to add this to his ad for Indoor Specialties, so here it is. Next month we will have Tim Goldstein's Ads.

Specialty tools, including Scales, Rubber and Balsa Strippers, Tail boom forms, Dial gages, Boron glue Applicators, And Top Hat Benders.

Materials, including, Ultra and Superultra Pigtail thrust Bearings, Bracing Wire, Boron (.003 and .004), O Rings, Condenser Paper.

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Credit cards and PayPal accepted

INDOOR MODELING 1959-1960

Wally Miller

This was a period of dramatic and historic change in our indoor scene as we know it today. In early 1959, the thought of flying for records under various height categories had not occurred. There was no "Easy B" or anything else easy. Delicate frameworks covered with microfilm and braced with invisible wire were considered to be an expert only event, and so it was.

Then a series of events began to fall into place that worked out as though they had been scripted. It all started in July of 1959, when a group of very dedicated modelers from the Los Angeles area formed an exclusive indoor only model club, "The Wilmington Model Airplane Club" (named after the community and monthly flying site).

In September 1959, a simple comment triggered the biggest change in our indoor history. Two experts and well known modelers, David Copple and Tom Finch, were standing in a flying site, Dave was timing a model being flown by Tom. As the model circled high overhead, Tom said to Dave "we should have records for multiple ceiling heights". Having known Dave and how dedicated he was to modeling, I am positive that the moment Tom made that statement, he envisioned every recreational building in the country flying indoor models. Dave and Tom then collaborated on what was to be known as "The Wilmington Indoor Proposal".

During the drafting of this proposal, the two fine clubs in Detroit and Chicago were consulted for their support and approval. Both clubs endorsed the proposal now called "The Detroit, Chicago, Wilmington Proposal". On April 8, 1960 it was completed and presented to the charter members for signing. Dave Copple had held many positions within the AMA and decided this important matter should have his personal attention. By the end of the month, he had made arrangement to hand carry, at his own expense, the proposal to AMA headquarters. On April 29th, the chairman of the free flight board, Mr. John Patton had the proposal in hand. After a very cordial visit, Mr. Patton said he would make a presentation to the board members.

In May 1960, I was invited to join "The Wilmington Model Airplane Club". Past indoor experience consisted of 1 "A" ROG from a Zaic year book; powered by golf ball rubber it flew for about 30 seconds, did not last too long and I lost interest.

At my first club meeting, I met Lew Gitlow, who had established his indoor model supply business called Micro Dyne: lots of great supplies including 3 kits loaded with information that I am sure put many modelers over the hump.

At this time, AMA designated classes by the square inch of wing area. C1 "A" 30 sq. in. max., "B" 100, "C" 150.

By the next meet in June, I had build a 68 sq. in. C1 "B" original design; best flight time 12:30. I was happy.

My 8 ½ year old son, Don, would accompany me to all the meets and fling his hand launched glider around. After 3 months, he expressed a desire to build his own indoor model. My first thoughts were quite negative, but then I remembered back when I was his age. I had built my first dime scale, stick and tissue, with no help. Perhaps it could be done.

A great deal of thought went into a design that was simple to build, strong enough to take a little abuse and still fly long enough to satisfy his young ego. I selected solid components and a medium size model. Plans were drawn up and the first EZB was built in September 1960. Wing spars on this model were 3/32 sq. sig contest balsa double tapered to 1/16 with 1/16 ribs, indoor wood for the balance of the model and the covering was home made microfilm (dope and castor oil). Don managed to complete 75% on his own, my part was to build the prop. And help with the final assembly. This model was never weighed, a good guess would be .065.

The Los Angeles Armory (42') was the first opportunity to fly. At this time, torque meters had not been developed. The practice was, one person (the stooge) would hold the model by the rear hook while another wound. Lew Gitlow had stopped by and was soon delegated to wind. Approximately 900 turns were put into a short loop of 1/16 Pirelli, and the model was launched. To our amazement, this flight lasted 3 ½ minutes. Don made subsequent flights with a longer motor that produced consistent 5 minutes plus flights with a high time of 5:53.

For the October meet, I had built my 1st EZB, weighing around .035, flight times 6 to 7 minutes in our 30' site. During the next few months, many more joined in. Dave and Lew had also built one weighing around .035. My son, Don, built a second model that weighed .038; with it, he set a National Jr. CL "B" record of 6:38 in our 30' site.

On October 4, 1960, the long awaited approval of the "Detroit, Chicago, Wilmington proposal" was passed, to be effective November 1st 1960.

On November 11, 1960, over 80 people attended the first Cat. 1 record trials at Wilmington recreational center. Times were low due to excess air movement. By December, things settled down and new records were made.

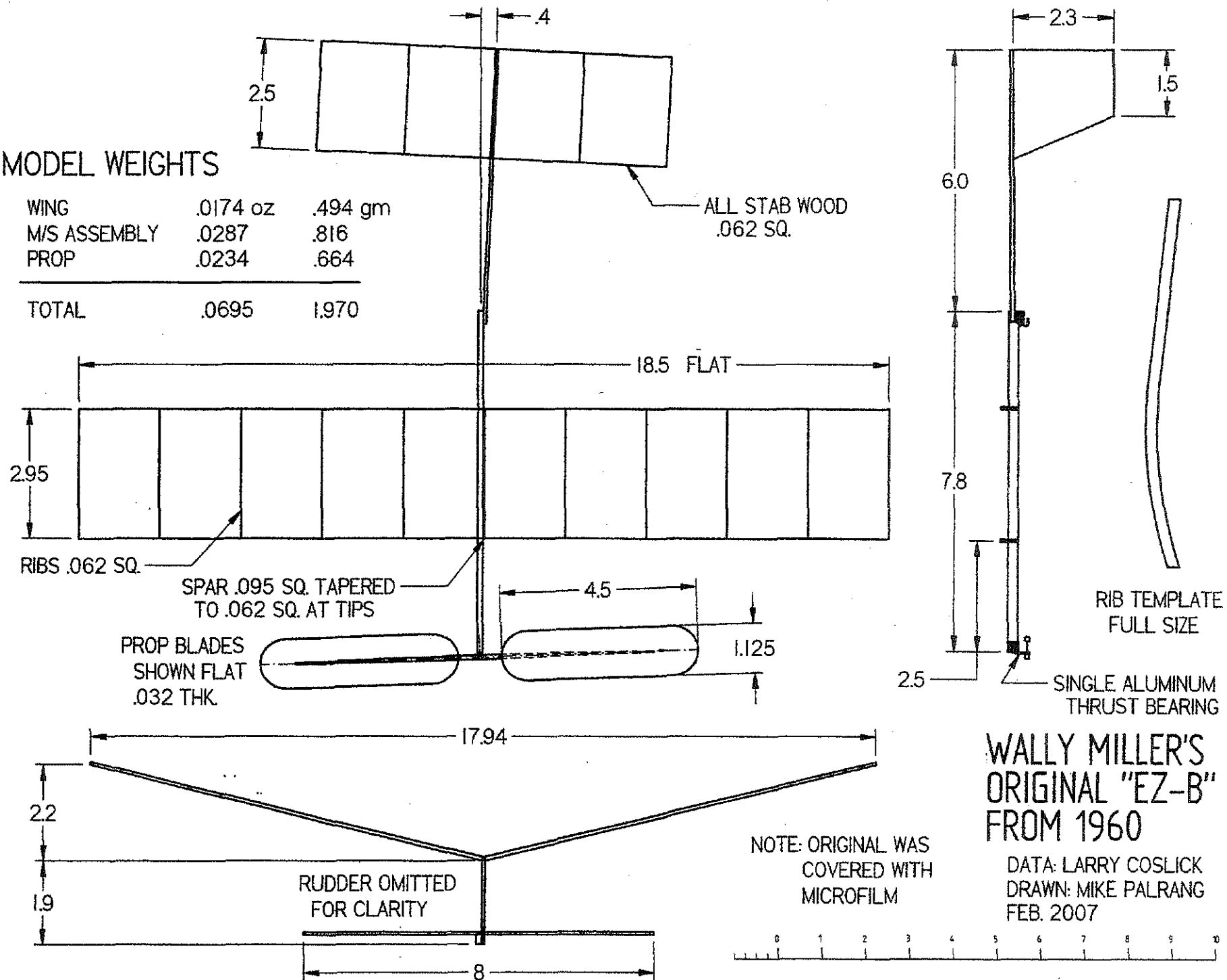
In January of 1961, Dave Copple, our newsletter editor, decided it was time to publish plans for my new model. We discussed the parameters one last time. These parameters remain basically the same as we know them today with the exception that all outlines had to be straight lines, and the 50% stab. Rule. As I turned to leave, Dave stopped me and asked: by the way, what are you going to call this model? Without any thought at all, out came "EASY B".

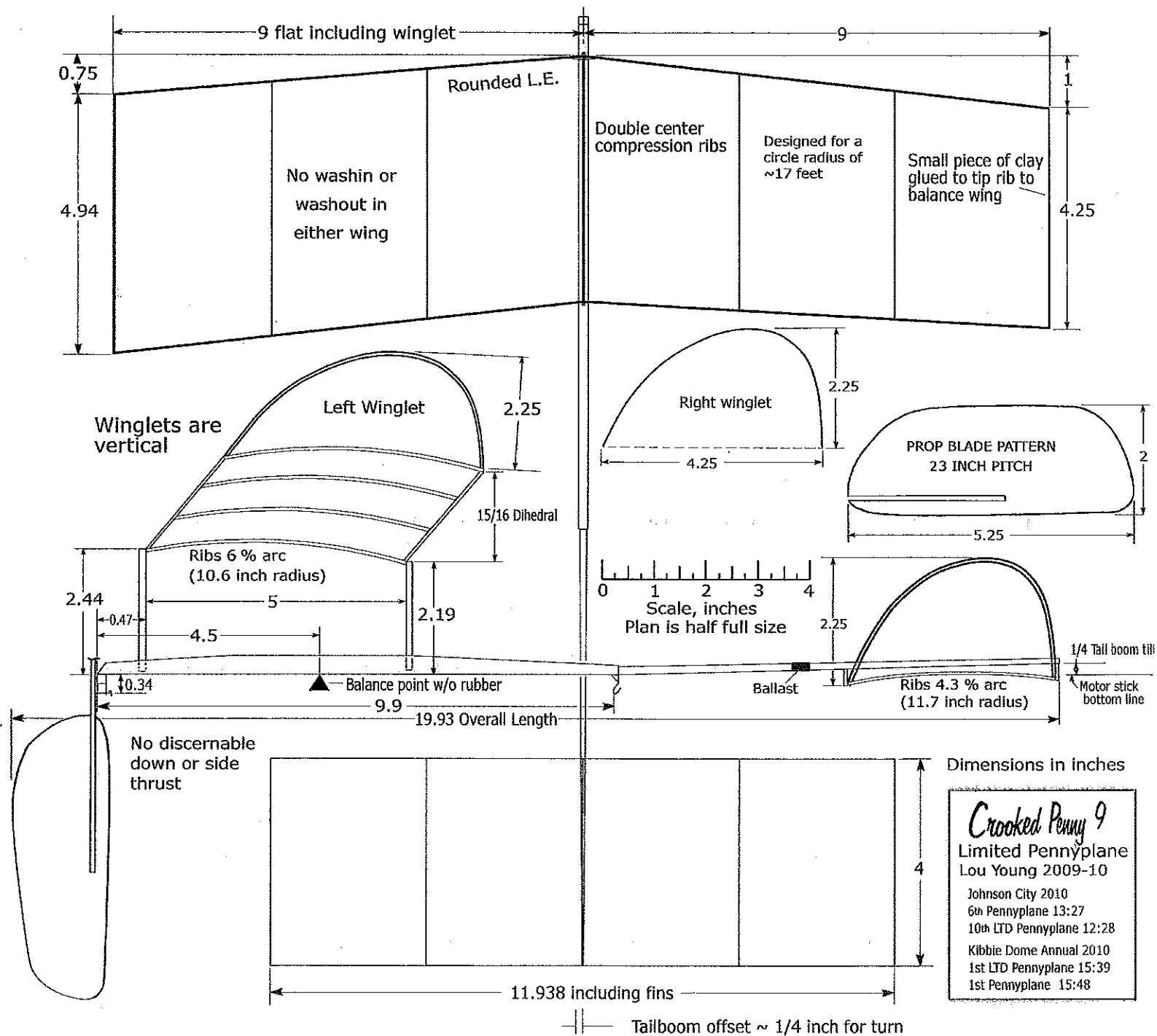
The February 1960 Wilmington newsletter went out around the world and so did "Easy B"; the rest is history.

For a long time, the "Easy B" was easy, now it's whatever you choose to make it.

MODEL WEIGHTS

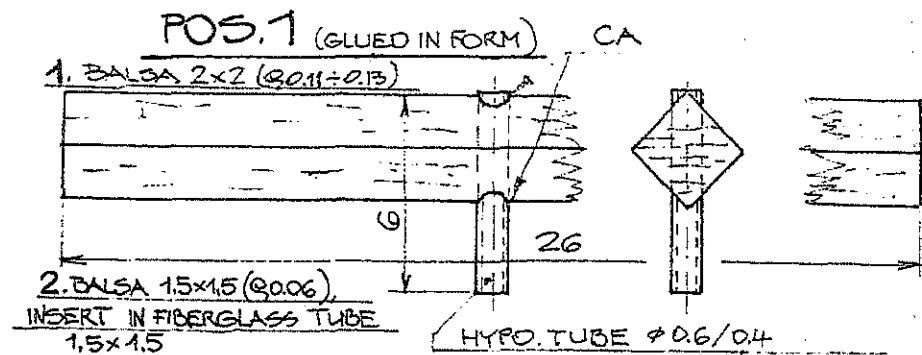
WING	.0174 oz	.494 gm
M/S ASSEMBLY	.0287	.816
PROP	.0234	.664
<hr/>		
TOTAL	.0695	1.970



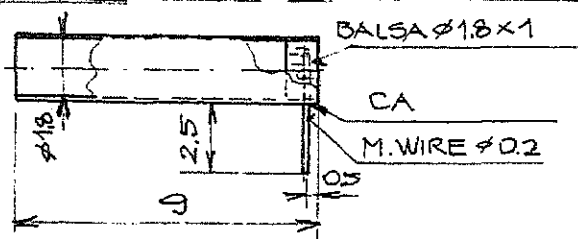


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 Contributing Editor- Nick Aikman, UK
 Contributing Editor-Bill Gowen

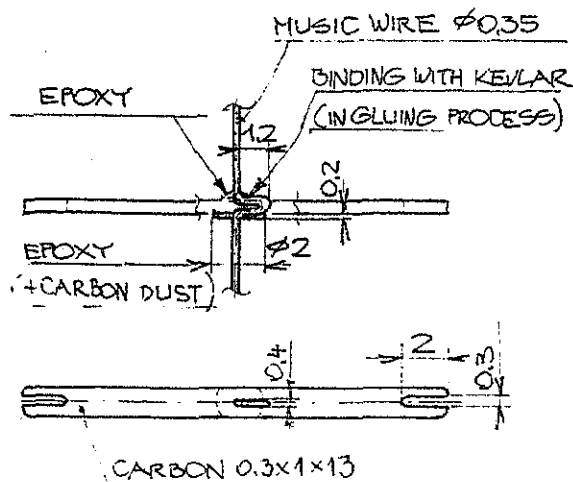
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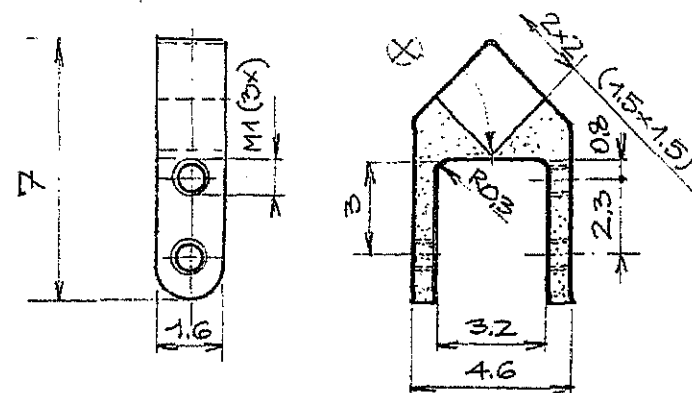
POS.2. FIBERGLASS OR PAPER TUBE



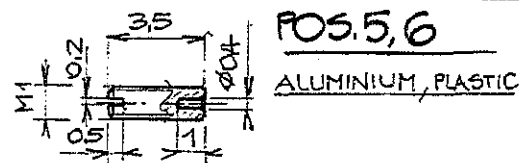
POS.3 DRIVER AND PROPSHAFT (GLUED TOGETHER IN FORM)



POS.4

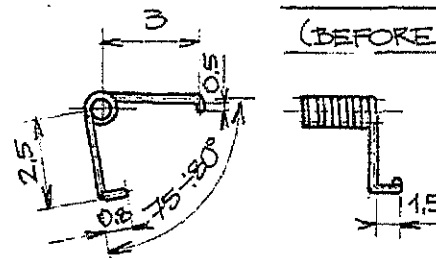


X - PLACE FOR CUT - TO EASIER PLUGGING ON TO POS.1



POS.7

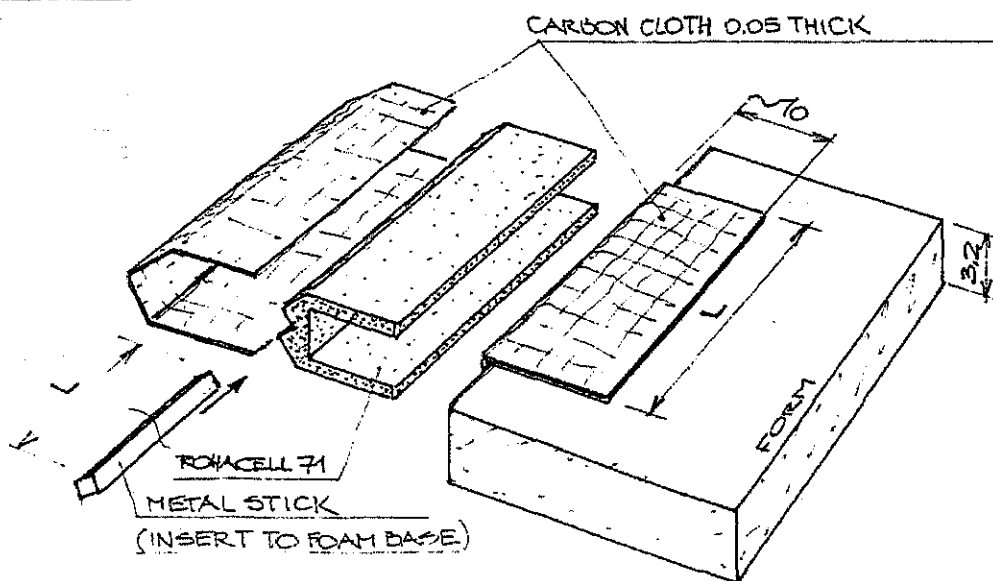
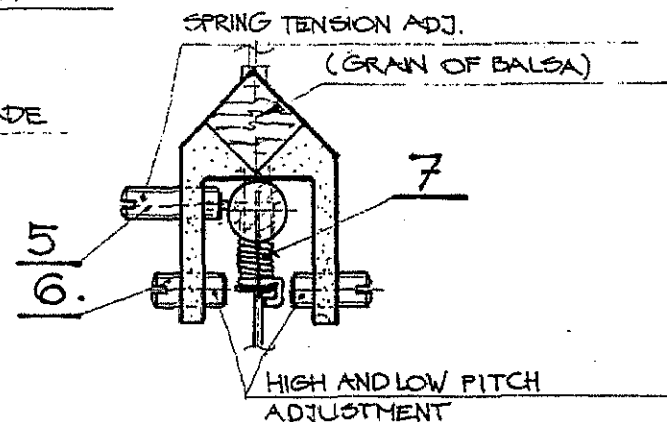
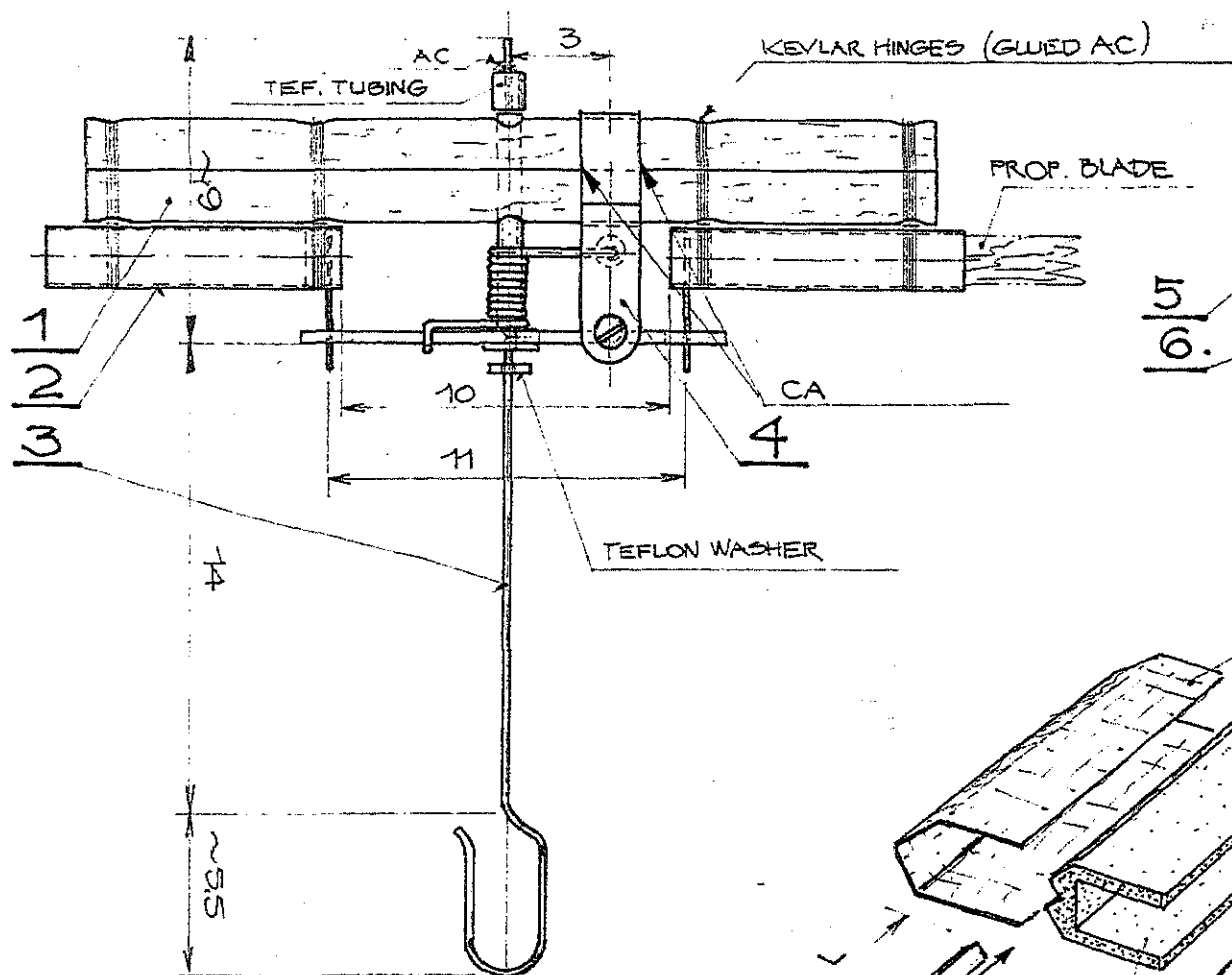
(BEFORE FITTING)



SPRING: MUSIC WIRE $\phi 0.2$, 3.5 TURNS ON $\phi 1$ MANDREL, OR 3.5 TURNS ON $\phi 0.6$ MANDREL

VP PROP HUB
(DIMENSIONS IN MM)

IVAN TREGER (SK)



AC - ACETON GLUE (THINED)

CA - SUPER THIN CA GLUE

ROHACELL - TECHNICAL FOAM (AIRCRAFT)

M1 - METRIC SCREW

G - SPECIFIC WEIGHT g/cm^3

MAKING THE COMPOSITE SCREW HOLDER (POSITION 4)

1. LAMINAT. PROCESS IN PLASTIC SOCK IN VAKUUM
2. REMOVE THE METAL STICK
3. CUT WITH HIGH SPEED DIAMOND CUTTING WHEEL TO LENGTH

FAI WORLD CHAMPIONSHIP INDOOR CLASS F1D 2010

Individual results

1	Ivan Treger	SVK	34.08	22.02	39.27*	34.03	29.41	35.42+	75.09
2	John Kagan	USA	35.09	35.57	34.53	36.33*	22.09	36.07+	72.40
3	Lutz Schramm	GER	34.50+	33.05	33.26	34.51*	30.47	31.47	69.41
4	Slobodan Midic	SRB	14.46	35.22*	34.00+	32.12	32.51	31.24	69.22
5	Brett Sanborn	USA	33.41+	32.17	33.17	34.54*	33.40	32.42	68.35
6	Aurel Popa	ROU	33.50+	1.18	34.03*	32.15	2.11	0.00	67.53
7	Dezso Orsovai	HUN	32.10	33.18+	33.42*	25.19	32.58	32.00	67.00
8	Zoltan Sukosd	HUN	32.46*	32.34+	29.45	31.49	26.58	31.16	65.20
9	Derek Richards	GBR	31.11	31.46+	33.07*	31.20	31.22	30.42	64.53
10	Mark Benns	GBR	30.45	31.21	30.50	32.56*	31.35+	27.38	64.31
11	Andras Ree	HUN	31.58+	19.44	29.49	32.30*	13.10	9.46	64.28
12	Mikita Kaplan	CZE	26.19	27.47	31.01+	32.44*	29.52	30.16	63.45
13	Didier Barberis	FRA	27.55	31.48*	6.26	30.25	31.15+	28.44	63.03
14	Stephen Brown	USA	10.40	31.24*	0.00	30.36+	12.03	6.56	62.00
15	Vasile Nicoara	ROU	9.52	10.07	33.11*	21.02	17.28	28.21+	61.32
16	Edward Ciapala	POL	30.01	30.35+	30.54*	8.26	0.00	28.22	61.29
17	Thierry Marilier	FRA	24.55	29.40	29.04	30.11+	11.11	31.01*	61.12
18	Jerzy Markiewicz	POL	30.24*	26.12	29.49	30.10+	3.39	13.55	60.34
19	Robert Champion	FRA	29.12+	31.19*	28.23	28.03	28.10	25.28	60.31
20	Klara Kaplanova	CZE	30.12*	28.06	18.19	29.17	29.24	29.58+	60.10
21	Slobodan Milic	SRB	28.49	11.52	27.16	30.32*	29.08	29.10+	59.42
22	Jan Dihm	POL	29.42+	29.40	29.18	29.53*	23.12	21.27	59.35
23	Lotz Reiner	SUI	19.50	28.43	29.06+	29.28*	25.30	26.18	58.34
24	Karl Schoenfelder	GER	12.42	27.55+	10.52	11.56	21.12	30.30*	58.25
25	Dan Amoraritei	ROU	28.09+	2.30	26.47	27.40	28.07	29.21*	57.30
26	Milan Najman	CZE	26.34	27.07+	30.00*	25.14	26.10	23.43	57.07
27	Uwe Bundesen	GER	24.34	24.14	27.24	28.00*	28.00+	11.07	56.00
28	Hideyo Enomoto	JPN	26.08	27.46*	25.42	26.10	25.39	26.48+	54.34
29	Siebenmann Dieter	SUI	25.19	27.14*	27.07+	26.54	1.58	16.49	54.21
30	Pentti Nore	FIN	18.09	23.23+	28.19*	5.56	16.40	21.19	51.42
31	Lazar Lacimic	SRB	23.37	24.56+	16.10	26.17*	8.23	8.20	51.13
32	John Shaw	GBR	23.45+	7.50	16.58	24.37*	0.00	23.29	48.22
33	Tapio Linkosalo	FIN	22.37+	7.16	21.35	22.19	19.18	23.24*	46.01
34	Okitsugu Sasaki	JPN	1.25	16.21	20.28	21.05+	22.21*	17.58	43.26
35	Leif Englund	FIN	16.53	7.02	6.48	19.54+	18.11	21.35*	41.29
No.of best flights in each round			3	6	8	12	1	5	
No.of 2nd best flights in each round			9	8	4	5	3	6	
No.of scoring flights in each round			12	14	12	17	4	11	
No.flts exceeding 25 min			22	22	26	27	18	21	136
No.flts exceeding 30 min			13	12	13	16	7	11	72
No.flts exceeding 35 min			1	2	1	1	0	2	7

Longest single flight 39.27 by Ivan Treger

Senior Team results

	Country	Abbrev	Total	Round-by-round places					
1	USA	USA	203.15	6	2	3	1	1	1
2	Hungary	HUN	196.48	1	1	1	2	2	2
3	Romania	ROU	186.55	8	11	8	7	7	3
4	France	FRA	184.46	5	4	4	3	3	4
5	Germany	GER	184.06	7	6	9	9	9	5
6	Poland	POL	181.38	2	3	2	4	4	6
7	Czech Republic	CZE	181.02	4	5	5	5	5	7
8	Serbia	SRB	180.17	9	8	6	6	6	8
9	Great Britain	GBR	177.46	3	7	7	8	8	9
10	Finland	FIN	139.12	10	10	10	10	10	10
11	Switzerland	SUI	112.55	11	9	11	11	11	11
12	Japan	JPN	98.00	13	12	12	12	12	12
13	Slovakia	SVK	75.09	12	13	13	13	13	13

FAI JUNIOR WORLD CHAMPIONSHIP INDOOR CLASS F1D 2010

Individual results

1	Gabriela Kaplanova	CZE	31.03+	30.58	0.00	13.40	0.00	31.05*	62.08
2	Lucas Marilier	FRA	24.21	25.14	27.10+	29.30*	18.40	24.05	56.40
3	Parker Tyson	USA	7.00	7.16	11.15	24.17	24.56+	26.44*	51.40
4	Curtis Wernette	USA	5.47	23.58	25.31+	25.53*	23.21	20.19	51.24
5	Eduard Mihail Moraru	ROU	17.51	24.23+	23.35	18.34	0.00	26.10*	50.33
6	Mihnea Serban	ROU	10.53	23.21	23.35	21.14	24.33+	25.23*	49.56
7	Laurynas Puodziunas	LTU	23.32	0.00	24.28	25.05*	24.50+	11.48	49.55
8	Jonas Deveikis	LTU	24.07+	23.57	10.09	25.29*	7.09	23.29	49.36
9	Alexandru Visan	ROU	20.27	4.20	22.04+	14.01	26.45*	13.49	48.49
10	Nicolas Brouant	FRA	19.28	19.26	13.19	22.26	23.08+	24.39*	47.47
11	Nicolas Tranchon	FRA	15.00	18.33	18.36	20.33	22.00*	20.57+	42.57
12	Tomas Mazvila	LTU	19.35	18.13	21.12*	20.36	20.50+	18.22	42.02
No.of best flights in each round			0	0	1	4	2	5	
No.of 2nd best flights in each round			2	1	3	0	5	1	
No.of scoring flights in each round			2	1	4	4	7	6	
No.flts exceeding 20 min			5	6	7	9	8	9	44
No.flts exceeding 25 min			1	2	2	4	1	4	14
No.flts exceeding 30 min			1	1	0	0	0	1	3

Longest single flight 31.05 by Gabriela Kaplanova

Team results

	Country	Abbrev	Total	Round-by-round places					
1	Romania	ROU	149.18	3	3	1	3	1	1
2	France	FRA	147.24	2	1	3	2	2	2
3	Lithuania	LTU	141.33	1	2	2	1	3	3
4	USA	USA	103.04	5	5	4	4	4	4
5	Czech Republic	CZE	62.08	4	4	5	5	5	5

INDOOR

NEWS and VIEWS

ABRAM VAN DOVER, EDITOR
112 TILLERSON DR
NEWPORT NEWS, VA
23602-4011

ISSUE #125
FALL 2010



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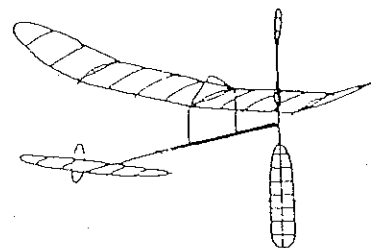
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ISSUE # 126
WINTER 2010

INDOOR

NEWS and VIEWS



FROM THE EDITOR'S DESK

Here we go with issue #126. We still have bugs to work out, mostly in the end of subscriptions. Its going to take a lot of typing and going through our past records and my back is not quite up to it. I can sit for a while but pay for it afterward. The best place to sit is in my van, it has real comfortable seats up front. Back to the end of subscriptions. I will not cut off any body until I get it squared away. The other problem is getting a bank to get a non profit checking account. I have the Federal EIN number, but am having problems with the City Of Newport News. It should be solved in a week or two. I have a bunch of checks to be cash and have been waiting for this checking account. My back is getting better but progress is slow.

Back to issue #126. We have the rest of the text on Lou Young's radical Limited Pennyplane. It helps to read this so you know where Lou is coming from in his design. I just reread it myself and I thought EZ-B was a bit too technical.

Our next set of plans is an EZ-B by Yuan Kang Lee. What got my attention was the 30 minute flight in it's log book and of course it's total weight, .38 grams. If your going to build this model check with Jeff Hood and Tim Goldstein for the wood. Your not going to find it at your local hobby shop. Kang has also given us a good list of wood, grain and size to help keep you near the weight of his model. The top view has the shape of an FAI power model and is quite pleasing to the eye. All my stuff has square corners. Send in pictures and results if you build and fly one

Let's talk about the Wally Miller One design event to be held at the 2011 Indoor Nationals in Johnson City, TN. A letter from Wally indicated the weight should be 1.7 grams, so as you will see in this newsletter, I made that change. I then received another letter from Wally that the model weighed 1.6 grams. In the interest to eliminate confusion there will be no more rules changes. There is also a small blurb elsewhere in this newsletter on this subject.

Also in this issue is a flyer on an International Postal contest for Ministicks and A-6 models the times are handicapped on ceiling height so flying a low ceiling site helps. It is a postal contest, however I will take scores by E-mail to save time and money. However since we send the results and trophies to the flyers we will need addresses as well as the scores, site height and date. No, I will not set up a web site. By the way the Brainbusters have run this contest for a number of years and are looking for a club or some person to pick up the operation of this long running contest.

My telephone # is 1-757-877-2830 and the E-Mail is vandover@cox.net

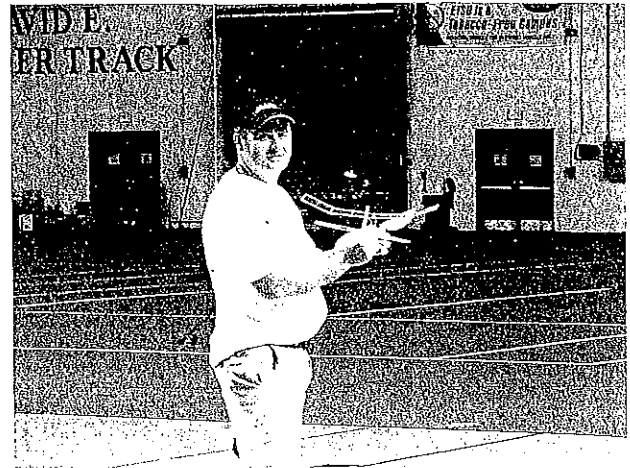
WALLY MILLER'S ONE DESIGN EZ-B EVENT RULES.

We mentioned these rules in the last newsletter and now we want to update you. We have changed the weight from 1.9 grams to 1.7 grams. A letter from Wally suggested this and I feel we should respect his wishes, so 1.7 it is. The prop blades may be cupped, the degree is up to the builder. The covering will be Mylar and the rubber motor will be Tan II, the vintage will be your choice. All dimensions as given on the plans will be adhered to. Wally also added that the prop is 10 inches in diameter and the stab width is 8 inches, We'll publish some of Wally's flying tips on trimming the model in the near future, so stay tuned.

PICS FROM THE 2010 INDOORS



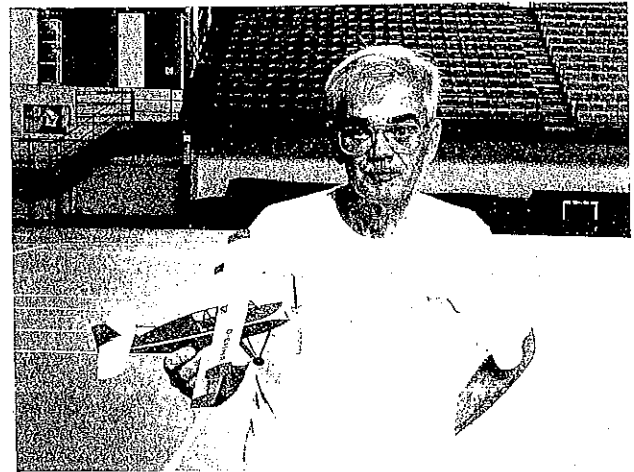
Name all these guys and win
A cup of coffee in 2011



Doyle Blevins, won in scale

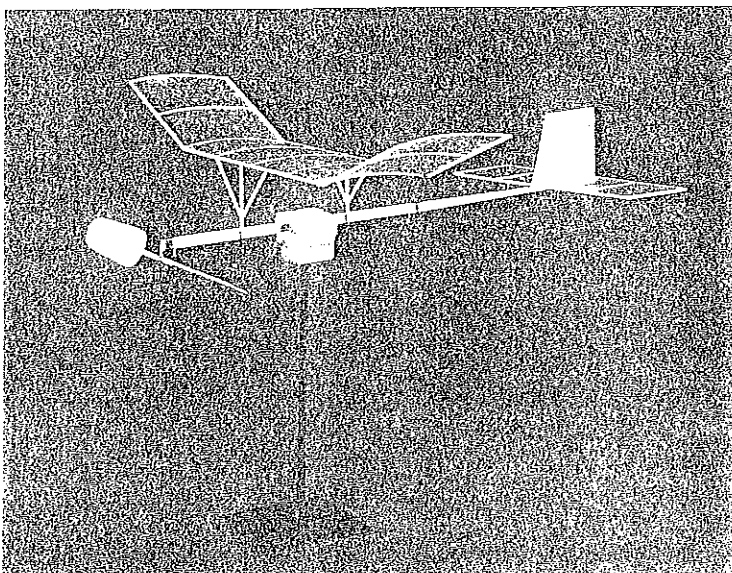


Hard working Bill Gowen



Paul Grabsky is that you ?

Pics by Ken Achee



A級
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ー
チ

室内競技機の中で、A級はもっとも基本的な種目ですので、性能だけに拘らず、工作・取り扱い・強度・安定性などがより重要になってきます。

ここに取り上げる「アハーチ」は、以上のような点

を考えて設計したもので、競技機というよりむしろ、入門機として適当なものです。使用材料を細かくすることで、高性能競技機として高い記録に挑戦することもできます。本機は機体重量2.5~2.6gで、3分以上の飛行性能を持っています。

HELP!!, MR DANJO.

Crooked Penny 9

Lou Young 8/15/2010

I'm an experimenter who almost never builds the same plane twice. However, planforms for Limited Penny Planes are constrained so I have been using the same layout with minor variations for some time. I like to try different ideas with every plane, for LPP that pretty much comes down to props. The crooked wing design has been explained in the 41st Symposium Report of the NFFS, so I don't need to describe the reasoning other than to say that the plane is supposed to fly level at its design cruise circle radius of about 17 feet (constrained by the size of the San Jose gym we test in). I believe that the reduction of area on the right wing is not a problem because the whole wing, when circling close to its design circle radius, is more efficient than a rectangular, offset and twisted wing, especially at small radius circles. The effect is that the lift distribution is similar to a symmetrically tapered wing flying straight. In my earlier LPPs I was troubled by wing deflections that spoiled trim, added drag and caused performance variations that masked effects of changing rubber size and props. I stiffened #9s wings with boron strips. Time constraints kept me from making a new motor stick so I used the one from CP #8. On the 15:39 flight at Kibbie Dome under high torque the motor stick twisted and caused the right wing to twist (diverge) to a nearly negative angle of attack and the plane raced left around me for a couple of laps, tipped into a right roll! It should have rolled out of the circle -- I couldn't see it, but I think the motor stick was also bending so the resulting downthrust was actually left thrust. Karma. Luckily it straightened out and went into a good climb to just under the "clouds" (suspended white panels) and a nice cruise. For the next flight the torque was only 78 percent of the first but the flight was longer, though the plane gently hit the clouds twice.

Here are my outlooks on the features of the plane.

Winglets: Invented by Dick Whitcomb at NACA Langley Field, they are widely used on full size planes to improve lift/drag ratio, and are also very popular on indoor ships that are span-limited by the rules. Years ago Hank Cole glide-tested winglets on a Pennyplane and said that they improved performance over the non-winglet wing. I had already been using them, but with Hank's stamp of approval I went whole hog. I've tried longer (higher) winglets but their structure has to be heavier and I don't want weight at the wing tips, nor do I want the twisting effect of the winglet drag high above the wing. It seems important to fit the winglets carefully to the wing tip chord to minimize parasite drag at the joint. Winglets also help to reduce the span wise airflow caused by both sweep and dihedral. I've tried no dihedral with only winglets plus the high wing to substitute for dihedral but it was obvious that the plane had to yaw to avoid slipping sideways into the turn. Adding sweepback to a wing without dihedral but with vertical winglets still required a little yaw to provide stability.

Sweepback: I use it to reduce the divergence tendencies of straight wings. It also serves as extra dihedral if the plane runs into disturbances or whacks the ceiling.

Dihedral: I will decrease the dihedral on #10 a little bit to increase projected area.

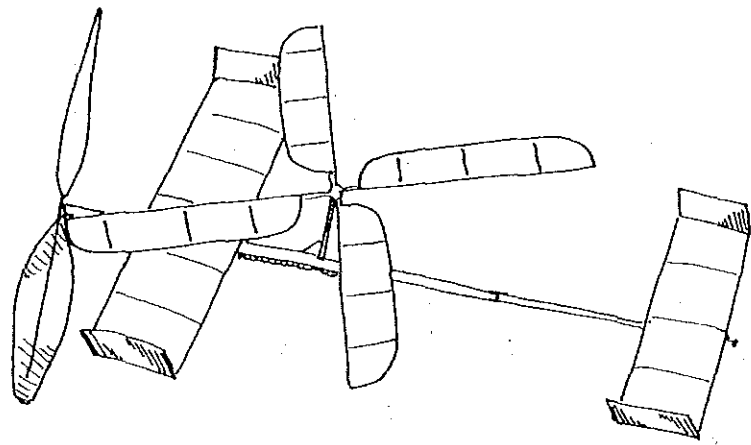
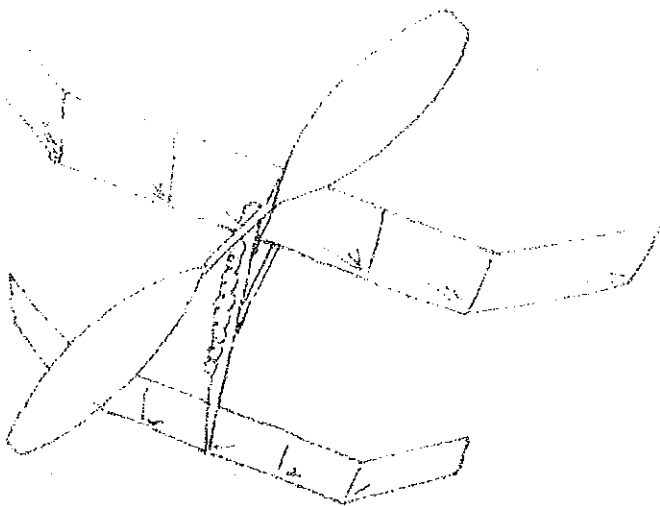
Airfoils: Don't seem to make much difference, though I favor higher camber for no good reason. I've tried high point at 40 percent and 60 percent back from the L.E. and they seem to work, too. Hank found a German paper that showed performance advantages for the 60 percent location, and I want to try that again.

Covering: I like tight covering so I build the wing in 2 pieces and glue them together after covering. I've tried only dihedral at about midway out on the wing because it is more effective than central-only dihedral but the wing was heavy where I don't want it to be heavy.

Prop: This is the biggest area prop I've tried. I wasn't happy with its flare because the camber made the spanwise stiffness too high. So I made a new form and took the camber out. This thing flares good.

Trim: The prop became heavier during the Nationals after repairs - a fully wound motor broke while I was fitting it to the rear hook and whacked the prop. So the balance point moved further forward, and to keep minimum weight I couldn't use enough ballast to move the balance point back. I should have made the tail heavier so the rubber weight would be centered at the BP and the decalage could be decreased so the big tail would carry a larger share of the lift. After we got home from Kibbie Dome I checked the lateral balance of the wing. An accident at the Nats required repairs to the left (larger) winglet so it turns out that the wing was heavier on the left side by 0.015 gram. Also, the tail boom offset for turn places its weight slightly to the left of the centerline. I may try cocking the fins with no tail boom offset on #10, though I don't expect a measurable performance change..

Tail planform: The tip fins should increase tail lift like the winglets. The sweptback wing places less side area ahead of the C.G. so only small fins are required to provide lateral stability. I was asked why the tail isn't whopperjawed like the wing. I have tried it (unswept), but couldn't justify the extra weight to make 1 or 2 more joints on a surface that has lower span and therefore less velocity difference across the span than the wing.



Clip art by Steve Gardener

2011 INTERNATIONAL INDOOR POSTAL CONTEST MINISTICK & A-6

Welcome to the 2011 International Postal Contest. Once again the Brainbusters will host the Competition for Ministick and A-6. As before the two events will be flown between 1 January 2011 and 31 March 2011. Individuals may fly as many times as they like, in as many sites as they can, in the three month period. However, only their highest scores will count towards winning in their respective events. All scores will be mailed or sent by E-mail to the address listed below. We will not have a web site and will not divide flyers into various groups. Scores will be published in the Brainbusters Newsletter for February and March and in the February/ March 2011 Indoor News and Views. All final scores will be mailed to all entrants that participate. Trophies will be awarded to third place in both the Ministick and A-6 Events. E-mailed scores will include the flyers home address, please print. Thank you for your past support and good luck in 2011. Both event rules are included.

SEND YOUR RESULTS TO:

BRAINBUSTERS

112 Tillerson Dr

Newport News, VA

23602 USA

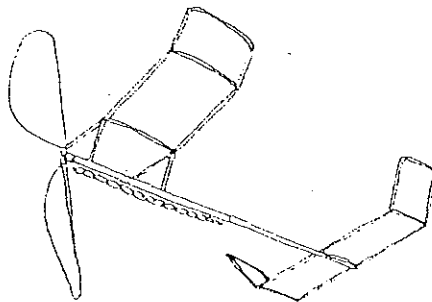
E-MAIL vandover@cox.net

This contest is open to indoor models that comply with the AMA Ministick Rules:

All contest flights to be timed by someone other than the flyer

Best single flight time wins after the flight time has been corrected for different ceiling heights. Ceiling height to be measured as per FAI Rules, but with a five meter circle. The correction factor is 627 divided by, ($167 \text{ plus } 46 \text{ times the square root of the ceiling height in feet.}$) The time in seconds will be multiplied by this to give the corrected time.

MINISTICK RULES



24. Mini-Stick. For event 220.

24.1. The intent of this proposal is to make Mini-Stick an official event to allow including the event in AMA contests, to increase participation, and to allow records to be more easily kept.

24.2. The Mini-Stick model shall be a monoplane covered with any commercially available material sold in sheet form. Microfilm is not allowed.

24.3. The maximum projected wingspan shall be seven (7") inches.

24.4. The maximum wing chord shall be two and one-half (2-1/2") inches.

24.5. The maximum length (from front of nose bearing to front of rear motor hook) shall be five (5") inches.

24.6. The maximum length from front of nose bearing to rear most part of model shall be ten (10") inches.

24.7. The projected area of the stabilizer shall not exceed 50 percent of the projected area of the wing.

24.8. The maximum diameter of the propeller shall be seven (7") inches. The propeller shall be constructed of wood. Wire shafts are permitted. Hubs that allow blade replacement and/or manual pitch adjustment are allowed. Mechanisms that cause variable pitch and/or variable diameter of propellers while in flight shall not be allowed. (Natural flexing and flaring of wooden blades is allowed.)

24.9. The minimum overall weight of the model (without motor) shall be 0.015 ounce.

24.10. Construction is to be primarily wood, with adhesives used only for joining. Tissue and/or thread is permitted for wrapping bearings, hooks, and for making sockets, if desired. Boron, carbon fiber, Kevlar, and fine wire bracing are not permitted.

24.11. Mechanisms that restrict the torque available to the propeller are not allowed.

A-6

1. The contest is open to indoor models that comply with the A-6 rules.

2. All contest flights to be timed by someone other than the flyer.

3. Best single flight time wins, after the flight time has been corrected for the 70 ft factor. Ceiling height will be determined by the AMA/FAI measurement method. Flight times will be normalized against times from the highest site entered according to the following formula:
 * The normalized flight time = $\frac{2}{3} (\text{Highest Ceiling Height}) - (\text{Local Ceiling Height}) + (\text{Local Time})$

* Highest ceiling height will be established as 70 ft until an entry from a higher site is recieved.

* Example:

Highest ceiling entered = 70 ft
 Local ceiling = 22 ft
 Local time = 97 sec
 Normalized time = 129 sec
 $\frac{2}{3} (70-22) + 97 = 129.0$

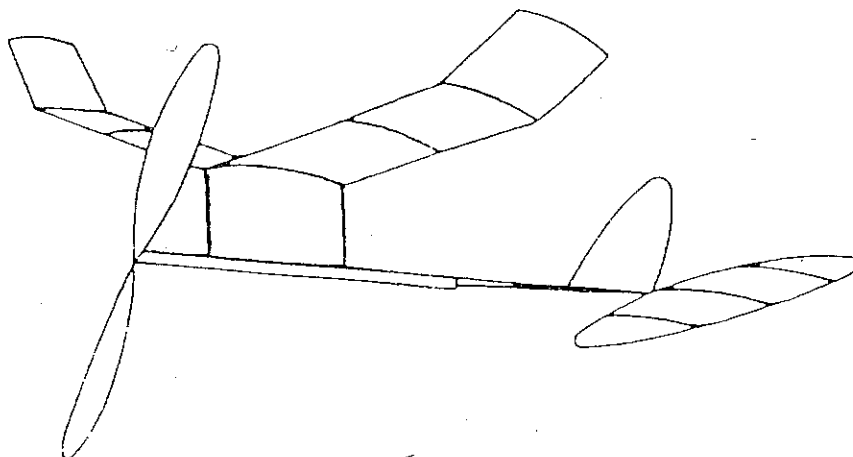
*Note That the offical normalized times will not be available until the contest is completed

A-6 MODEL RULES.

1. 30 sq in max wing area.
2. 1/32 max prop shaft diameter
3. 6 in max prop diameter. The blades are to be flat, no chamber. Blades may be made of balsa or unlightened plastic, no foam. 1/32 in thick or 1 mm
4. 6 in max motor stick length as measured from the prop thrust bearing to the rear hook. Tail boom length unlimited.
5. All strip wood construction is to be a minimum of 1/16X1/16 or 1.5X1.5mm where only metric sizes available. The strip wood may not be sanded to any shape other than a square.
6. All sheet wood construction, prop blades, wing and stab ribs are to be a minimum of 1/32 or 1mm thick. Prop blade edges will not be rounded.
7. All wing and stab ribs will be 1/32 X1/16 or 1.5mmX1mm minimum cross section.
8. Covering materials are limited to: Jap tissue, condenser or Gampi paper.
9. Only wood, wire, adhesives and allowed covering materials can be used for construction with the exception of the prop shaft support and bearing which may be wire, aluminum or plastic. No special indoor material may be used.
10. Rubber power only.
11. The use of metric size wood is restricted to those that normally cannot get other size wood.
12. The model must weigh a minimum of 1.2 grams

Mail results to:

Brainbusters
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Club Name _____

Date of Contest / / Site Name

Ceiling Height _____ Feet Circle one Ministick A-6 EZ-B

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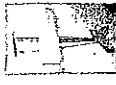
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 Cuts to 1/4" x 3/4"
 item code: BSDM1



Phantom Flash
 Build for rubber FF or micro RC.
 Contest Balsa & Laser Cut.
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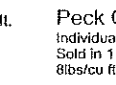
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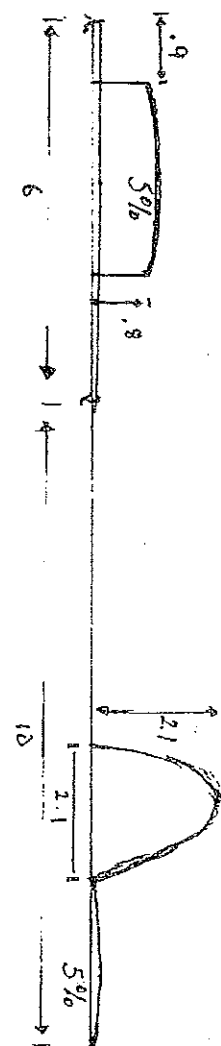
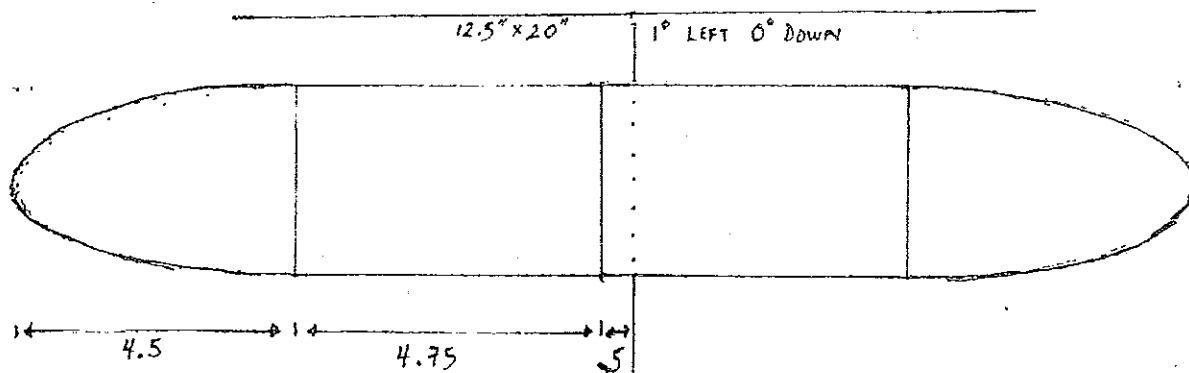
Ray wants to add this to his ad for Indoor Specialties, so here it is.

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8



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SPAR .015 x .030 3.7#
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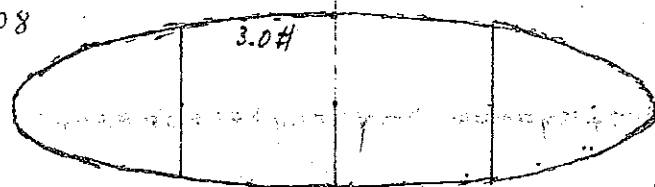
STICK

MOTOR STICK .095 x .150 (F) 3.5#
Y .145 (C)
X .105 (E)

POST .050 DIAMETER 7.3#

BOOM .040 x .070 6.0#
.030 x .025

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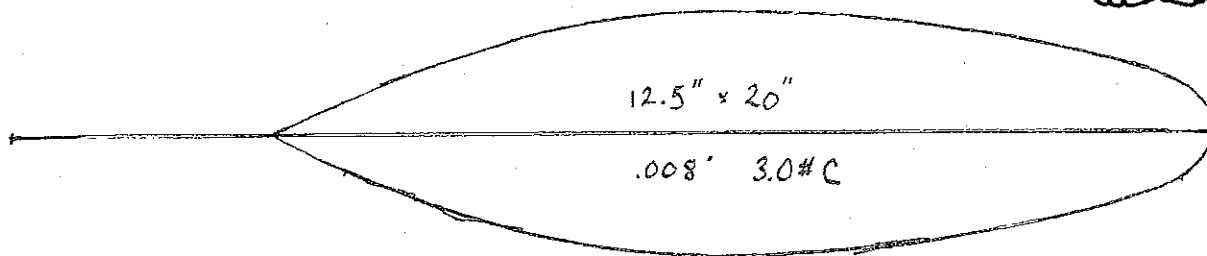
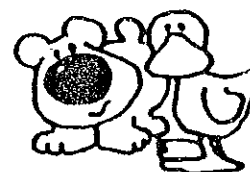


2.625

10

1/4"

1.5



WING .105
PROP .102
FUSE ASSEMBLY .167
TOTAL .374g

MINIB EZB BY YUAN KANG LEE

30:00 SEPT 19, 2010 LAKEHURST
.0169/in (.024") x 12" x .38g
3/02 TAN II

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NEWS and VIEWS

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