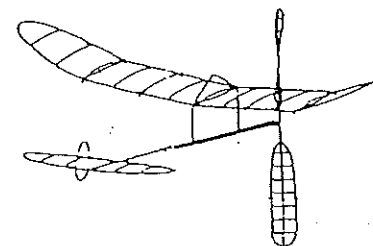


ISSUE # 127
WINTER 2011

INDOOR

NEWS and VIEWS



FROM THE EDITOR'S DESK

A BELATED HAPPY NEW YEAR 2011 !!!!!

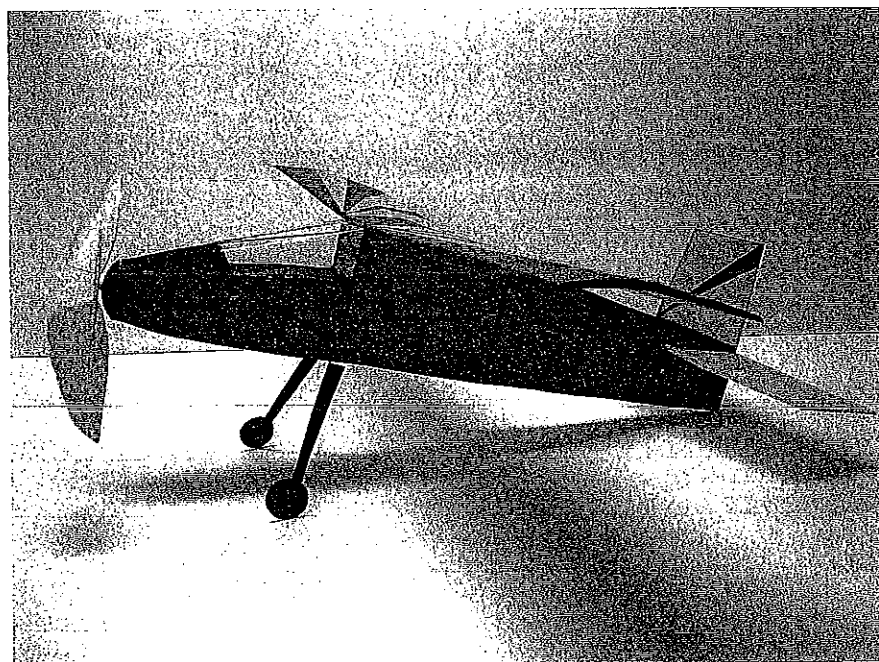
The New Year is here and it's time to make those resolutions on things we should do for ourselves, like build new and better models, go to more contests and help other people. With that piece of advice, I have a request from me to all of you. I need more input from you, our subscribers. Plans, scores from recent contests, upcoming contests, you name and if it's indoors and free flight I'll use it, send it to me. I may not use it in the latest INAV, but I'll use it sooner or later. Check the picture of the roof of the Cardington Air Shed, that's an old one, but ever current. Some of you modelers have fond memories of that site and it's of no use to us now. Enough of that stuff, let's see what we have for you in this issue. From Akihiro Danjo we have two great items. One is his record setting F1M the other is another record setter and it's a discus hand launched glider. There's a lot more thought and effort goes into these models and present more of a challenge than the older type. Try it, you'll like it. We also have a Ministick for you and this is an excellent one for low ceilings and will do well in the Postal Contest that started on the 1st of January. Hint. This model was designed by Walt Collins and has placed numerous times in the Postal Contests. More hints. To round out the plans there is an A-6 by John Lenderman, this is not a beginners A-6. A lot of thought has gone into this model also, so weigh your wood and use the best to stay under weight. Next month we'll have another record setter a Limited Pennyplane by Tom Icobellis. Stay tuned.

DAVID S HAGEN

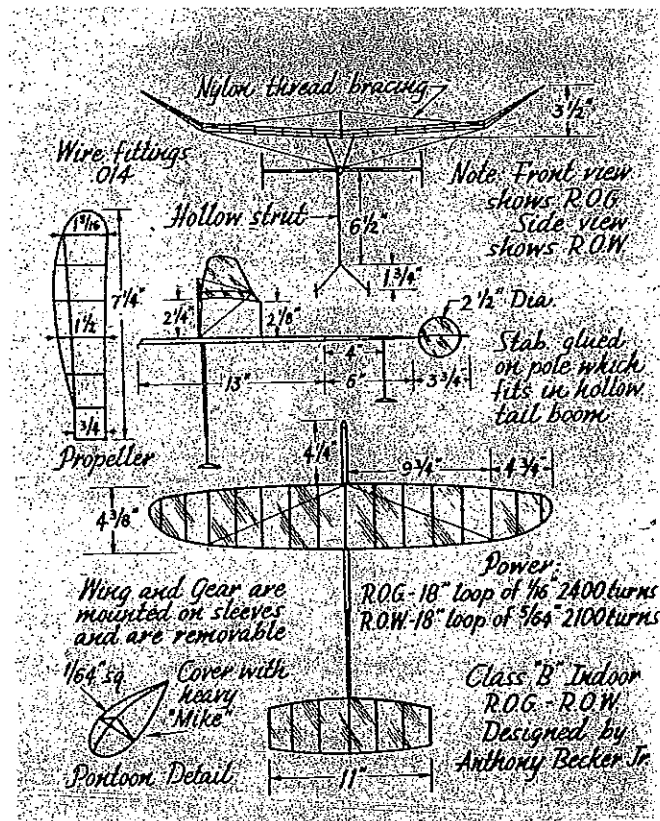
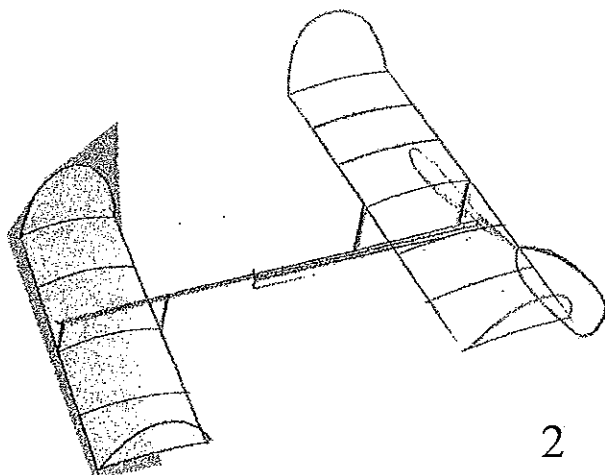
I just received word that subscriber David S Hagen passed away last year in Gresham, Oregon. David's daughter Jennifer was nice enough to inform me of this and asked if his passing could be put in the Indoor News and Views so as to inform all his friends. Any one that would like to contact Jennifer reference David's upcoming Celebration of Life may contact her at E-mail 2.jen.rous@gmail.com.



AIR CONDITIONING FOR CARDINGTON

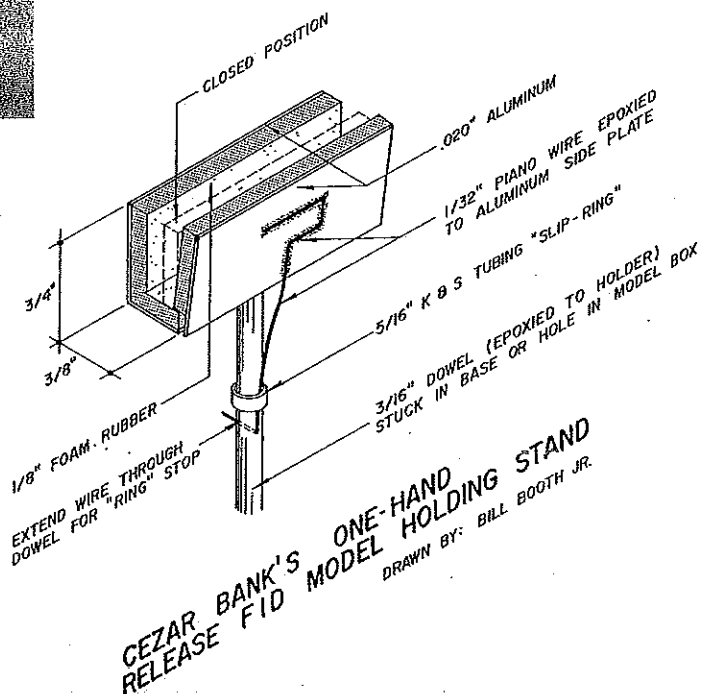


BOSTONIAN BY PAUL GRABSKI



That indoor microfilm model

is "Tony" Becker's original creation which set an R.O.G. mark of 22:22.5 and a rise-off-water record nearly as high—18:51.6. And for awhile it held the stick h. l. time of 24:16!



Bob couldn't resist scooping Bud Tenny with this sketch (by Bill Booth, Jr.) of Cezar Banks' ingenious indoor-model-holding stand. Read about it in the column.

The Magnificent Mountain Men Proudly Bring You 5th Pikes Peak Ceiling Climb

Indoor Model Airplane Contest

Sunday, February 27, 2011

ANA Sanctioned Class AA

**Flying site is the historic Colorado Springs City Auditorium, downtown,
corner of Weber and Kiowa Streets – 37 foot (peak) smooth ceiling**

Flying Hours: 8:00 a.m. to 8:00 p.m.

Practice & fun flying during the contest is permitted but official flights
always have right-of-way. *Please exercise courtesy and common sense.*

Schedule (subject to change per demand for airspace)

8:00 a.m. – 12:00 p.m.

GLIDERS ONLY

Hand Launched Glider, Unlimited Catapult Glider, Standard Catapult Glider, Absolutely no glider flying after 12:00 PM.

12:00 p.m. – 4:00 p.m.
(risk)

HEAVYWEIGHTS (models heavier than 2 grams, and LIGHTWEIGHTS at your own

FAC Peanut Scale, FAC No-Cal Scale, P-24, Limited Pennyplane, Open Pennyplane/F1M combined, WWII No-Cal
combat, Junior Rubber

2:00 p.m.

WWII No-cal combat! All FAC rules apply plus 7" max prop diameter and
minimum empty weight of 6.2 grams. Models must have correct color and markings and must have armament.
Combat aircraft only. At least two rounds of flying.

5:00 p.m.

Back by popular demand: pizza party in the Aud. \$5 per person all-you-can-eat
does not include drinks (soda machine on site).

4:00 p.m. – 8:00 p.m.

LIGHTWEIGHTS ONLY (models not more than 2 grams)

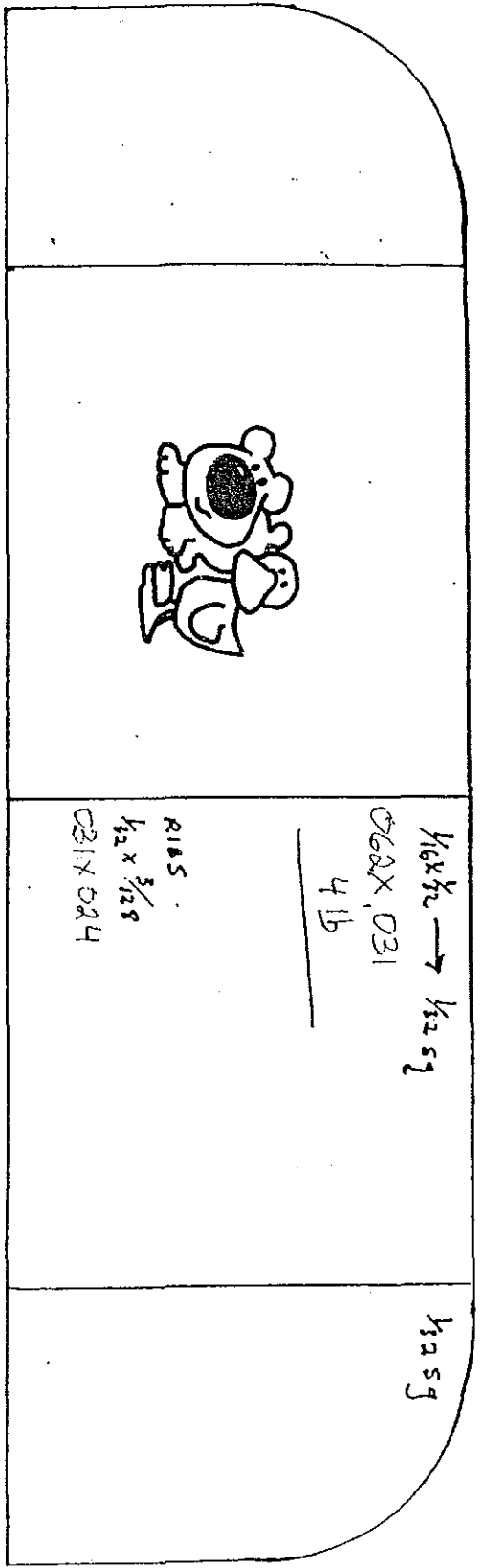
FIL, Easy B, Ministick, A-6, F1D

****Any indoor rubber powered model; Juniors only (15 and under)**

The Fine Print:

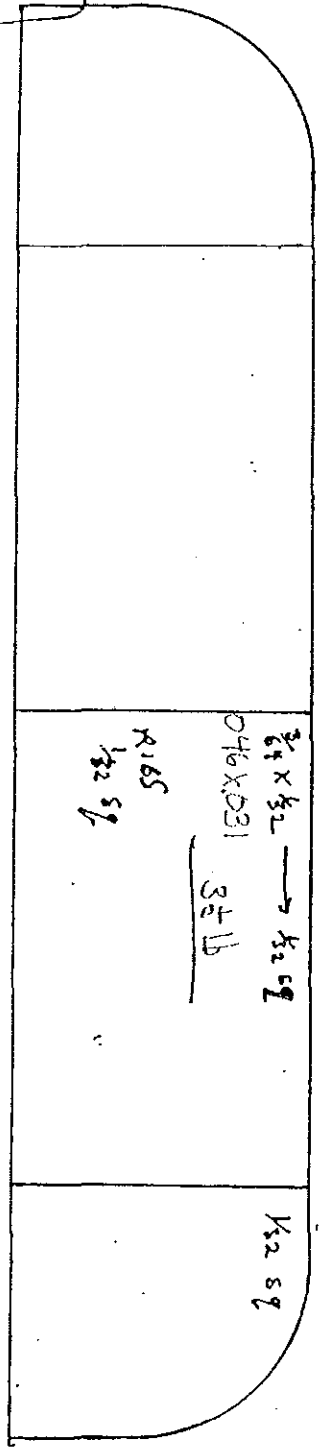
- Contest director: Don DeLoach, ddeloach@comcast.net 719-964-7117.
- Link to AMA rules: <http://www.modelaircraft.org/templates/ama/POF-files/Rulebook/indorff.pdf>.
- Link to FAC rules: <http://www.theplanpage.com/things/FAC%20Rules%202005.pdf>.
- Link to NFFS National Cup rules: <http://www.freeflight.org/competition/IndoorNationalCup/info.htm>
- Entry fee: Open: \$20 - unlimited events. Junior/Senior: \$5 - unlimited events.
- "Colorado Cup" Grand Champ Trophy to highest scorer in up to 5 pre-selected events (at least 1 of the 5 must be a glider event, otherwise you may choose only 4 rubber events). 5-4-3-2-1 points for 1st, 2nd, 3rd, 4th, 5th place; 1 point deducted for each person fewer than 5 in an event.
- AWARDS: contest balsa, kits, other FF supplies
- Tables and chairs provided on site.
- Nearby Hotels: Clarion Inn (1/4 mile) 719-471-8680; Econolodge (1/2 mile) 719- 636-3385.
- Sorry, no RC flying.

TOOER
085-028
TAN II



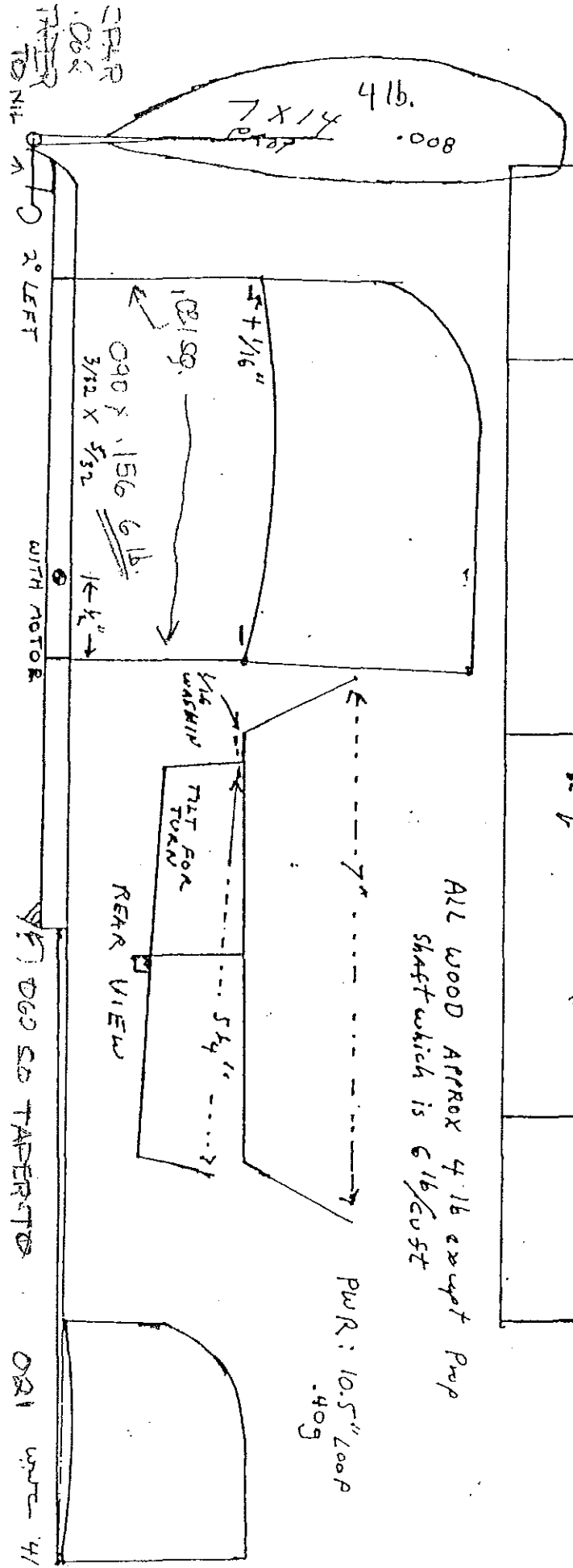
WALTS

MIMI

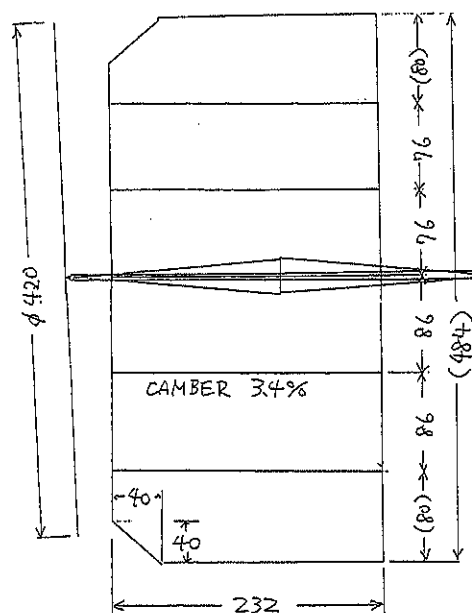


ALL WOOD APPROX 4 lb except Prop
Shaft which is 6 lb/cust

PWR: 10.5" Loop
.40g



FIM CAT 1.2 & 3 WORLD RECORD

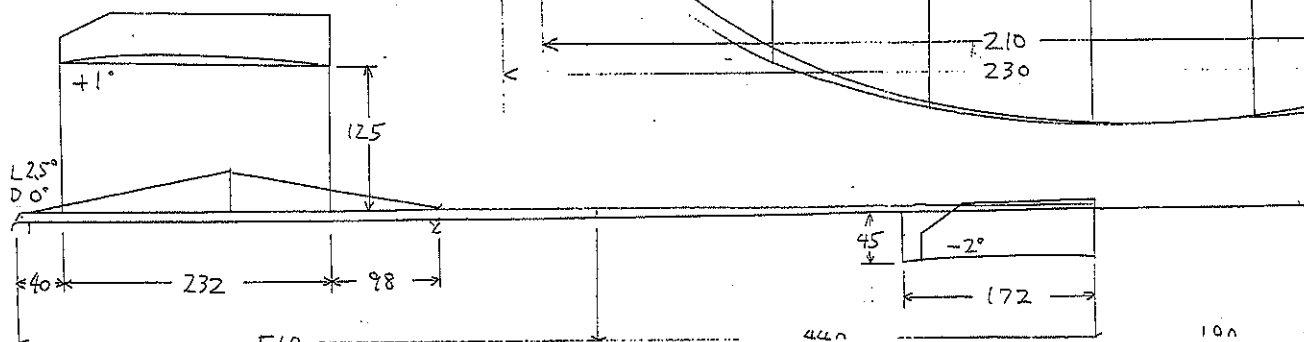
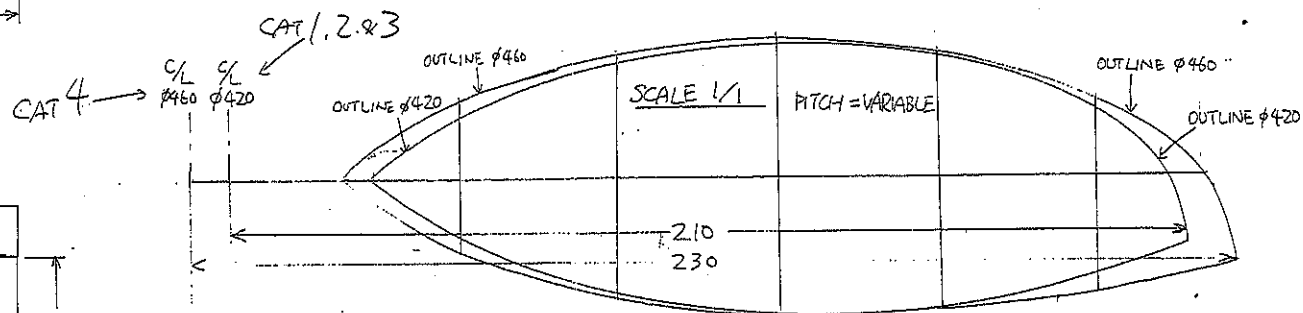
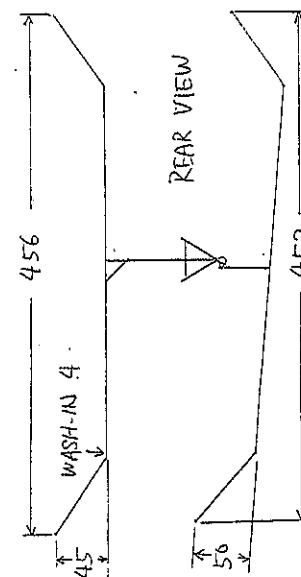
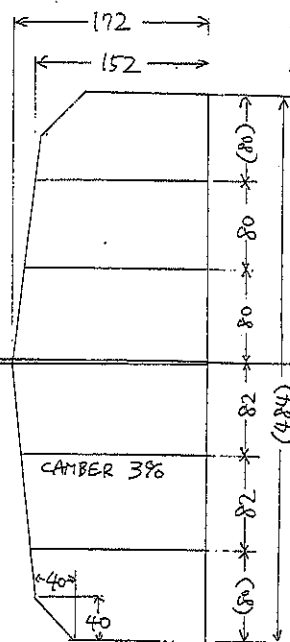


	WEIGHT
PROP.	483
WING	673
M.S.	884
T.B.	296
STAB.	421
TAIL	244
WEIGHT	3001g

@ CAT2 RECORD TRIAL

COVERING: PPP FILM (0.7/-)

SCALE 1/4 (EXCEPT PROP)



Akihiro Danjo's Parts & Size List

FIM-4 MATERIALS

WING MAIN SPARS #5.2 .137 x 2.4 ~ 1.7

TIP SPARS #5.5 1.3 x 1.5 ~ 1.2

RIBS COMP(2) #4.6 0.94 x 1.0
" " 0.94 x 1.1

NORM(3) #4.6 0.94 x 1.8

TIPS #5.7 1.2 x 1.3

TAIL MAIN SPARS #4.7 1.45 x 2.2 ~ 1.5

TIP SPARS #5.5 1.3 x 1.3

RIBS #4.6 0.94 x 1.5

TIPS #5.0 1.0 x 1.3

STICK STICK #4.5 0.67 x 2.7

BORON .003" @ 2 x 10 o'clock
.004" @ 5 x 7 o'clock

TAIL #4.6 0.35 x 2.7 ~ 1.5

BORON .003" @ 0 & 6 o'clock l=220

WING POSTS #7.2 1.25 x 2.5

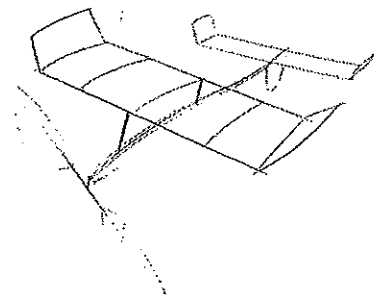
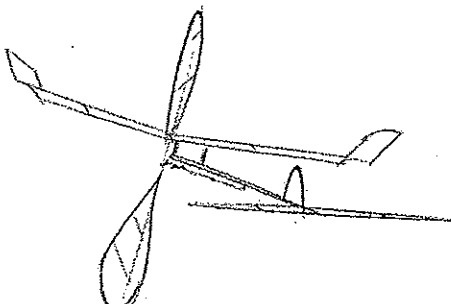
BORON .004" @ SIDE

PROP SPAR #8 2.0 x 2.0 ~ 1.0 x 1.0


OUTLINE #7 0.8 x 0.8



Bill Carney



Wanted !!! Bill Carney. Bill, please contact me about missing Florida personnel from the AMA Indoor NATS in Johnson City, TN. We miss all you guys and gals Contact me at vandover@cox.net



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props 4" - 9 1/2"
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Great for solvents & oil



One Nite 28
Contest Balsa & Laser Cut.
A quick building P30 & sport flying
outdoor duration plane
Item code: PP013-L



McLeod Balsa Stripper
Perfect for outdoor FF
& RC builders.
Cuts to 1/4" x 3/4"
Item code: BSDM1



Phantom Flash
Build for rubber FF or micro RC.
Contest Balsa & Laser Cut.
Item code: PP045-L



Ambroid Cement
Classic glue for building
light & strong.
Tubes, pints, and quarts.



Nesmith Cougar
Held the world's record
in peanut scale.
Contest Balsa & Laser Cut.
Item code: PP007-L



Pietenpol Air Camper
A popular 1931 papasol homebuilt.
Contest Balsa & Laser Cut.
Item code: PP001-L



Peck Contest Balsa
Individually weighed sheets.
Sold in 1 lbs ranges, 4, 5, 6, 7,
8lbs/cu ft. Grain categories A/B or C.

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Indoor Model Specialties

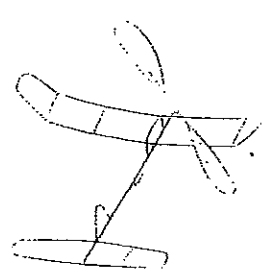
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Material from Ultrafilm to Thrust Bearings
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<http://www.indoorduration.com>

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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

NATIONAL FREE FLIGHT SOCIETY

Contact: Gene Ulm
703/981-2651
geneulm@pos.org

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Free flyer Roy Hanson has made a generous offer: He thinks so much of the NFFS and the its publication, the NFFS *Free Flight Digest* he is paying out of his own pocket HALF the cost of EVERY NEW member who signs up for two years. \$29 dollars gets you two years if you are 19 or older ; \$9 dollars if you are younger. Non-U.S. members pay just \$37.50 for two years.

Each *Digest* issue is at least 40 pages, delivered six times a year. Each issue crammed with Free Flight how-to, plans, contest reports, photography and much more. *Digest* covers every aspect of Free Flight: AMA, Indoor, FAI, FAC, SAM, Nostalgia--the works.

If you are a former member who has let their membership lapse for a year or more, now is your chance to re-up for half price. To make it easy, you can even hit the following link and use your credit card.

<http://www.freeflight.org/JLF/MembershipOffer.htm>

Founded in 1967 to "preserve, enhance and promote the art, sport and hobby of Free Flight model aviation in all its forms", the non-profit 501(c)3 National Free Flight Society is the largest Free Flight advocacy group in the world. For more than forty years NFFS has been serving Free Flyers through various charitable programs. NFFS stages the AMA Nationals, publishes the annual NFFS Symposium Reports, and disburses tens of thousands of dollars in scholarships to deserving youth. For more information on NFFS and its programs visit www.freeflight.org.

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INDOOR

NEWS and VIEWS

ABRAM VAN DOVER, EDITOR
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ISSUE # 127
WINTER 2011



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INAV

Indoor News and Views

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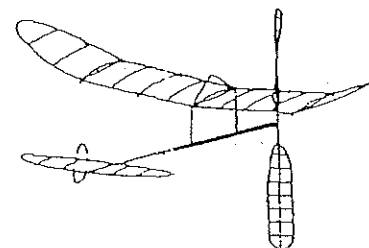
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ISSUE # 128
EARLY SPRING
2011

INDOOR

NEWS and VIEWS



FROM THE EDITOR'S DESK

Here we go again with issue #128. We have for you plans, pictures, hints and kinks, a product review plus blurbs on just indoor stuff. On the plans we have Tom Icobellis' record setting limited Pennyplane. This is a model that any body can build and fly. The ability to set records is up to you and I. Did we build it to weight, is the prop pitch correct, CG ? How about good rubber? Weather conditions and old fashion good luck? Tom can help just so much and the rest is up to us. It's a darn good model and can really help us in our learning curve. We will have the wood sizes and weight in issue 129.

Speaking of wood sizes, we have the sizes and wood weights for his record setting F1M in our last issue. Again this is one part in building a good flying model. It also gives modelers like me a starting point. If I feel the size and weight are not in my skill level, I can use bigger wood and weight, until I reach that level. Thanks again to Akihiro Danjo for his F1M and Tom for the Limited Pennyplane.

Next we have a new torque meter by Bill Gowens. Do you have a torque meter, do you use it? Bill sells us a torque meter that you will use, it's high tech and very accurate. I compared my Bob Wilder torque meter, mounted on my Wilder winder and they measure the torque about the same. As for me I will use this meter as I do not have one for heavy motors and need it. You can contact Bill at his E-Mail address as to price and stuff. It is a bit pricey, but a needed item if you want to do well. Here's Bill's E-Mail address wdgowen@gmail.com. Be nice to Bill, he will be helping out at the Indoor Nationals by running Hand and Catapult Gliders. Thanks Bill.

To assist you in your search to do well in the indoor arena we have Rodney O'Neill's wood stripper. This is another tool needed in your shop. This one you can fabricate yourself or you can purchase from Ray Harlan. His ad is in this newsletter so check with him or make your own. Rodney has some pretty good instructions and now you have a new skill while gaining a much needed tool. Buy or build, your choice.

Once again we will gain a new skill by following Larry Coslick's instructions on how to set a new pitch on a plastic prop. If you fly events that allow plastic props this is a big thing as far as pitch goes. Once again you fabricate the tool and cost is low or nil. No higher education is needed, follow the instructions. Maybe we need to include a prop pitch tool in our next issue, once again, you can buy or build, it's that easy. We will have an article on prop pitch indicator for you in the next issue. Thanks Larry, we miss you at the NATS.

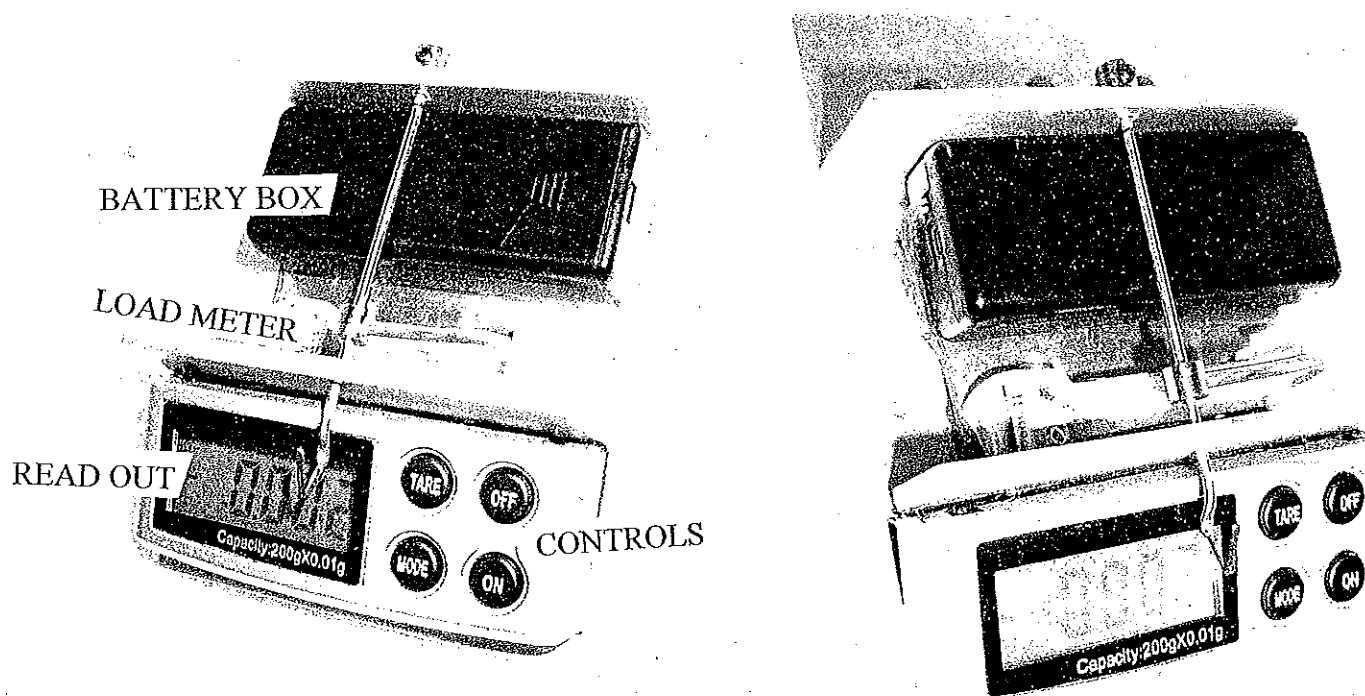
There will also be small blurbs about the USA Indoor Free Flight Nationals, the International Postal Contest for Ministick and A-6. How about the Wally Miller event and Science Olympiad, we have that and more.

LOCATION OF BILL CARNEY, INDOOR FLYER.

Not only did we locate Bill Carney, but we gained three entries for our 2011 National Indoor Free Flight Contest. Bill has also volunteered to run the Science Olympiad Helicopter event. Now that's response. Many thanks to Bill, but we say come and fly Bill. We have the event covered.

BILL GOWENS DIGITAL READOUT TORQUE METER.

Here we have pictures of Bill Gowen's fantastic digital torque meter. It has complete Instructions on the operation of this little beauty. It takes two A size battery's these are installed in the little box at the top of the instrument. The load meter is located in the center and of course the digital read out and controls are at the bottom. Not shown are the instructions, these will be in the box the torque meter is shipped to you in at no extra charge. As you can see by the pictures the read out has a nice dark back ground that makes the white numbers stand out and is quite easy to read. We forgot to add that it has a very heavy duty aluminum base with a U shaped heavy duty aluminum bracket that cradles the torque meters components. This is not a wimpy instrument that will fall apart some where down the road. You can will it to your grand children. Contact Bill wdgowen@gmail.com for info and price.

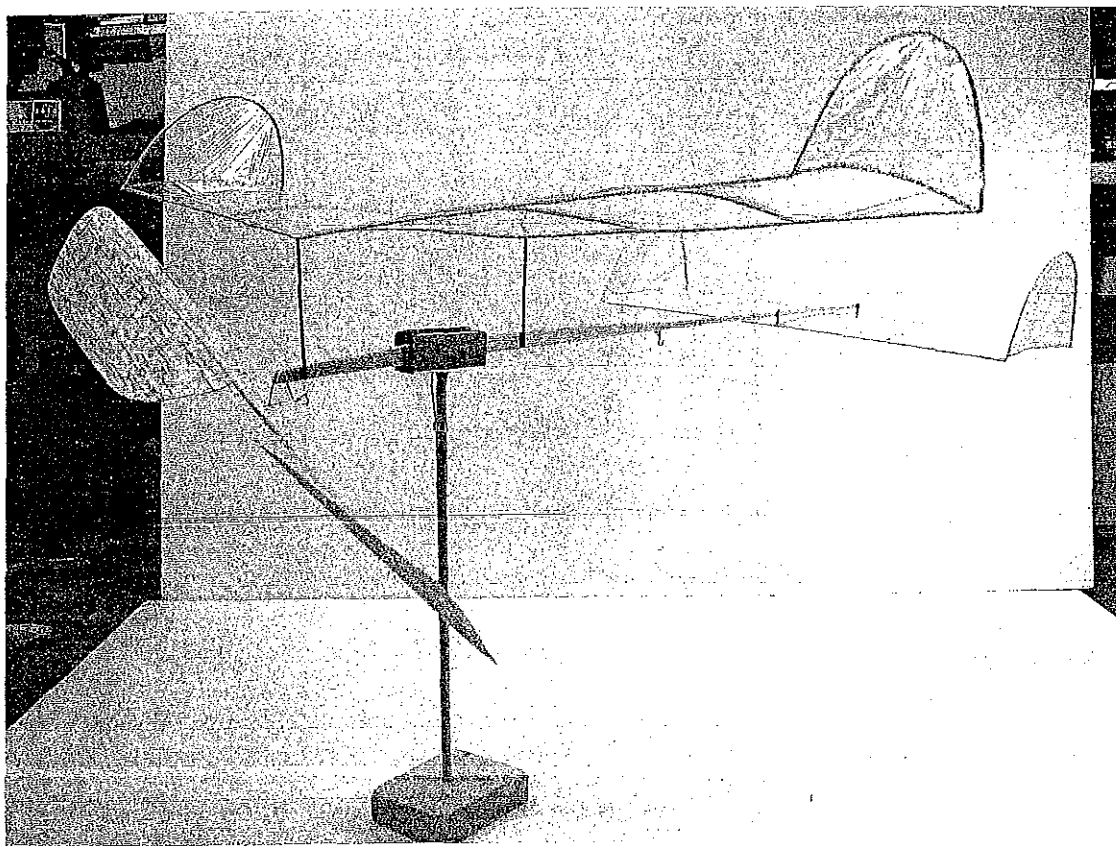


AMA & NFSS NATIONAL INDOOR FREE FLIGHT CONTEST, 25-29 MAY 2011

Indoor flying time again sports fans, Johnson City, TN is the location at the East Tennessee State University's Mini Dome. At a ceiling height of 114 feet, it's not mini to me. We will have two SO events for the school kids, Helicopter and Capacitor Electric, none for the old guys, unless you set it up yourself and fly at the same time as the kids. There are no prizes for the old guys. We also have the Wally Miller event with \$100 for first, \$50 second and 25bucks for third. The model must be built with the exact same size wood as Wally's and weigh 1.9 grams. Lotsa luck to all. Bring money as John Kagan will have a huge raffle with lotsa merchandise.

LOU YOUNG'S CROOKED LTD PENNYPLANE AND CEASAR BANK'S RUN DOWN STAND.

Paul Grabski received INAV # 125 and saw the above items and before you know it had built both and sent off the pictures to me for you. Paul says the weight came out right on the 3.1 gram mark and will tests it's flying ability come Indoor National's time in late May. Good luck Paul.



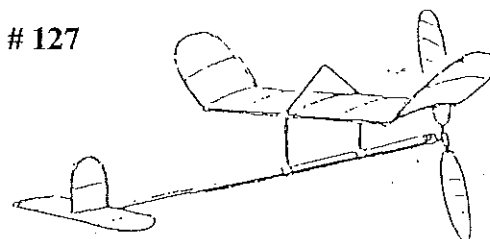
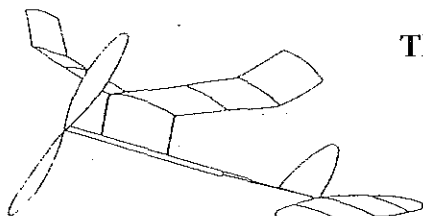
AKIHIRO DANJO'S F1M PROP WOOD SIZES AND WEIGHT

PROP OUTLINE 0.8 X 0.75 #7.0

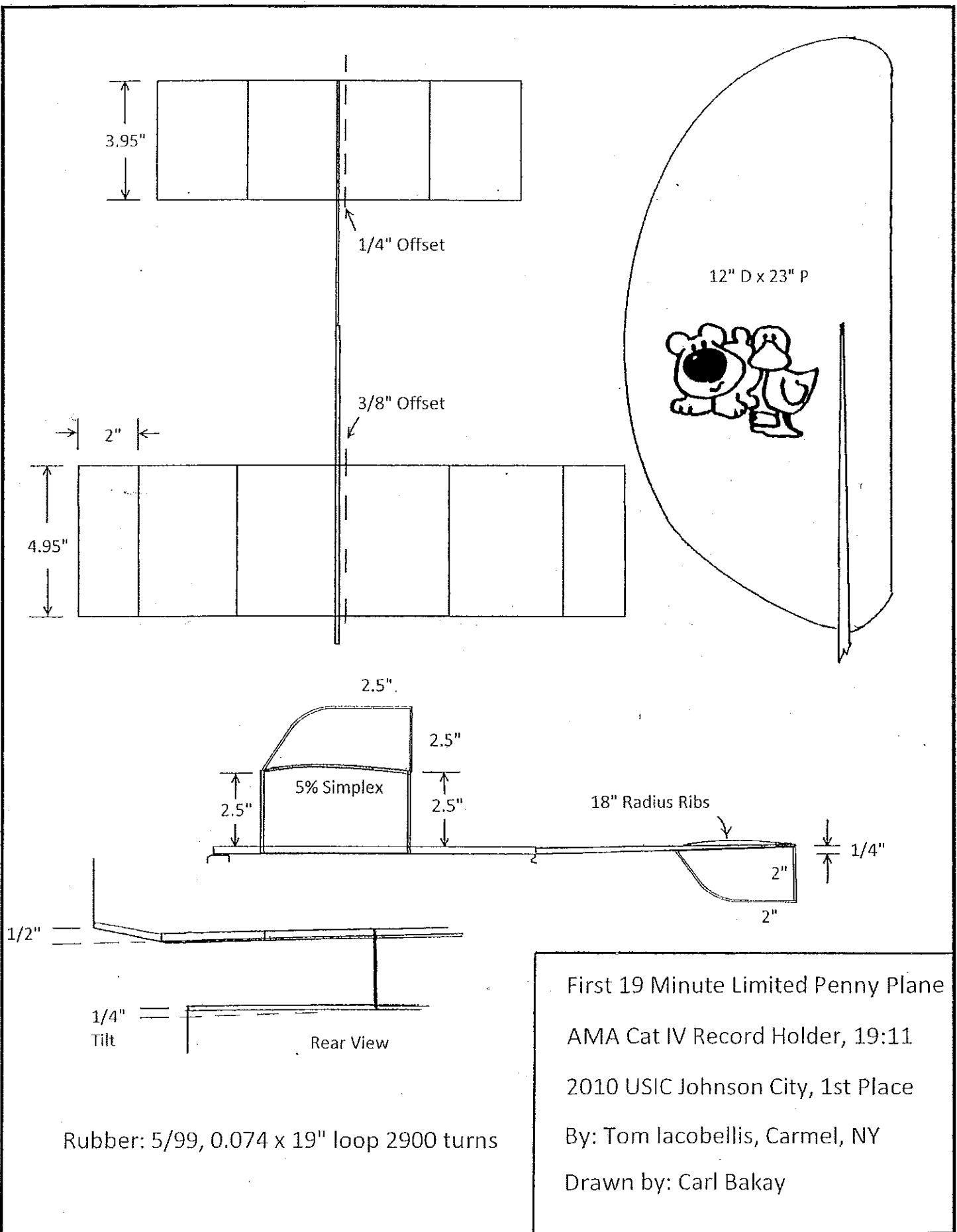
PROP RIBS 0.75 X 0.75 #6.0

PROP SPAR 2.0 X 2.0 - 1.0 X 1.0 #8.7

THIS WAS FOR AKIHIRO'S F1M IN ISSUE # 127

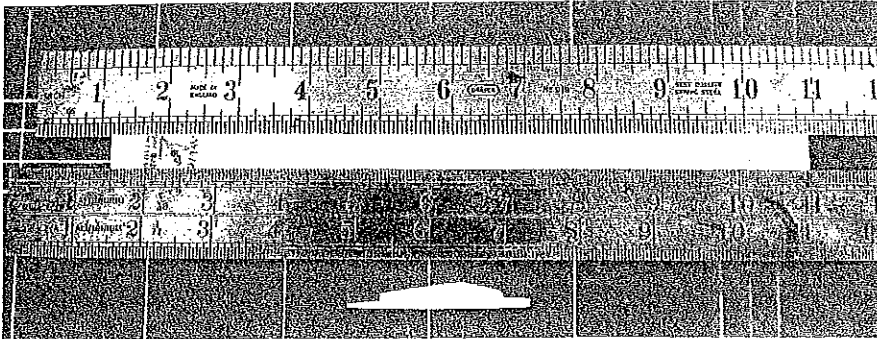


TOM'S LIMITED PENNYPLANE



BALSA STRIPPER

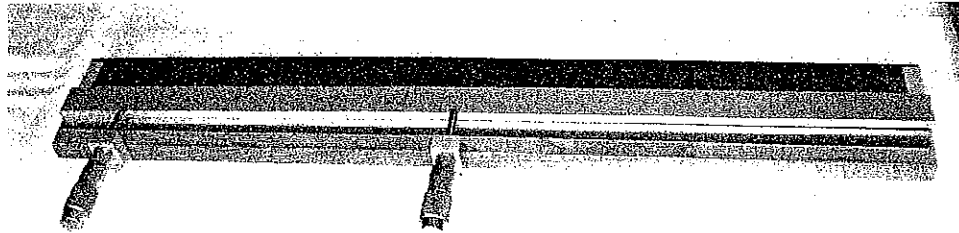
When I started indoor duration flying, about 20 years ago, I cut spars, using two steel rules and homemade slip gauges. I made a set of slip gauges to suit the size of taper required for the model I



was building. This practice continued for quite a few years until I was introduced to INAV and took out a subscription. In INAV, I came across Ray Harland's advert and took a look at his web site where I saw his balsa stripper

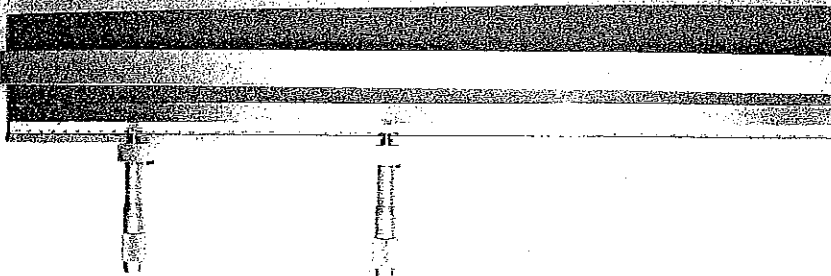
and purchased one.

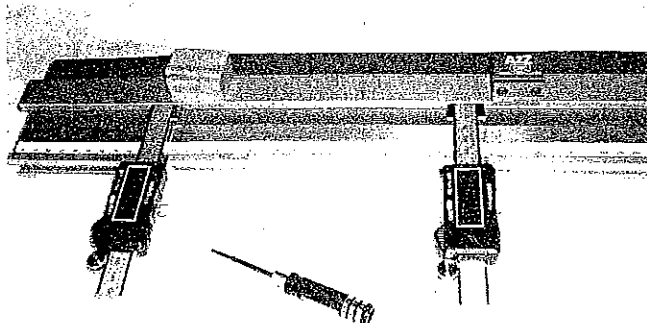
This piece of equipment made stripping spars a lot easier and much more consistent. I never took to calculating the taper required, as recommended with the stripper, when it was first purchased. I resorted to moving one of the micrometers to suit the length of spar to be cut. I decided that I needed to revise my method of cutting spars, as after a few years of use, the surface of the cutting area was getting marked by the cutting blade. The marking meant that occasionally the cutting blade would deviate from its proper path and I also was looking at ways to make adjusting the position of the micrometers on the board, easier.



After much head scratching and a long search for the bits to make it, I arrived at my version of a balsa stripper. The base of this stripper is a piece of beech wood which was machined to get a uniformly flat surface on both sides. The thickness of the base was set at 0.875 ins to ensure that the base would not bow when I stuck a piece of an art type cutting mat, to it. On the cutting mat, I then stuck a thin narrow strip of stainless steel, as per Ray's cutting board. On one edge of the base I fixed an alloy channel section to allow me to slide the micrometers around as required and I also added a paper rule (cms) from IKEA. I used this version for about 18 months until I decided I need to replace

the micrometers with modified digital callipers.



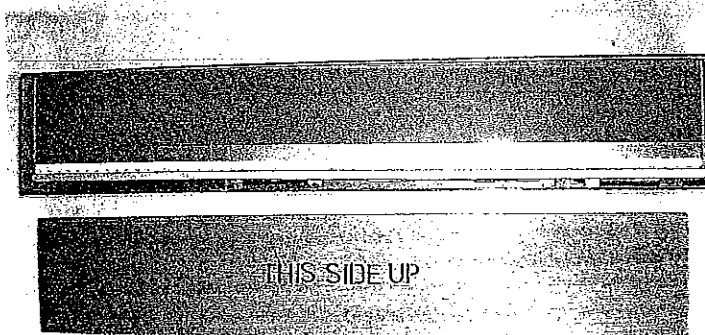
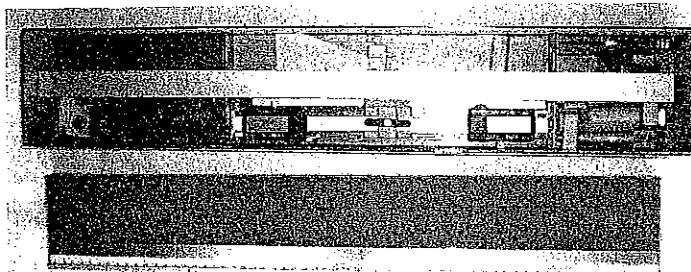


Why was the move to digital callipers necessary? Well I have had too many birthdays and I found that sometimes when adjusting the micrometers my concentration lapsed. I would start to make an adjustment and find that I could not remember the starting point for that adjustment; I had to resort to writing down each micrometer setting, for each cut I made. That was a bit of a bind, so I decided to invest in a couple of cheap digital callipers from China and modify

them, too suit my application. Now I move the callipers by the amount required and then tighten the locking screws and then make my cut. I then zero the callipers before releasing the locking screws and proceed to cut another spar.

Over the years the original stripper sat around my workshop in various dilapidated cardboard boxes. I realised that with the ability to easily dismount the micrometers / callipers, that I could make a sturdy box which would hold all the bits of my stripper. I had also purchased Tim Goldstein's spar deflection

tester and his CNC machined blade holder for use with the stripper. The box which I finally constructed holds all these bits.

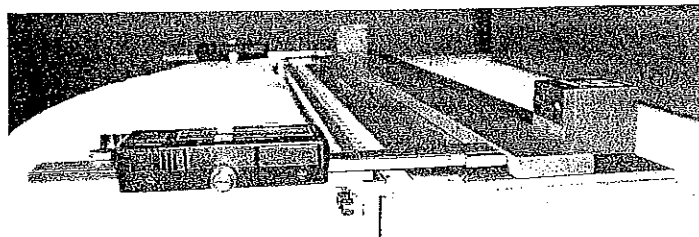


Note that the final shape of the alloy track and two of the four T section sliding blocks were made by hand using only a flat file and vertical drill. The T-section blocks used with the digital callipers were made on a milling machine, which I acquired recently. The alloy channel section started out as

a complex alloy extrusion used in some way, by shop outfitters. From this extrusion, using a hacksaw and a flat file I was able to produce the shape of channel required. I have more detailed pictures of this project, if anyone would like to see them please contact me at rodney.oneill@talktalk.net

Now, what will I do next?

Rodney O'Neill



UNITED STATES INDOOR CHAMPIONSHIPS 2011 SCHEDULE

AT ETSU MINI-DOME IN JOHNSON CITY, TN (USA) MAY 24-29, 2011

(ASTERISKS INDICATE NON-AMA EVENTS)

TUESDAY	TABLE SETUP AND GLIDER PRACTICE DAY
24 MAY 2011	

WEDNESDAY 25 MAY 2011	7:30	1:30	1:15	1:31	6:00	6:01	6:30	6:31	10:00
			P-24*						
	IHLG		MASS						
	STD. CATAPULT		LAUNCH	INTERMEDIATE STICK		RETRIEVAL		INTERMEDIATE STICK	
	UNLIM. CATAPULT		AT	35 CM*		IF		35 CM*	
	RTP SPEED*		1:15	F1D		NECESSARY		F1D	
	STRAIGHT LINE SPEED *								
THURSDAY 26 MAY 2011	7:30	12:30	12:31	6:00	6:01	6:30	6:31	10:00	
		BOSTONIAN				RETRIEVAL			
		MODERN CIVIL PRODUCTION *		F1D		IF		F1D	
		BOSTONIAN MASS LAUNCH 12:15 *		HAND LAUNCH STICK		NECESSARY		HAND LAUNCH STICK	
FRIDAY 27 MAY 2011	7:30	12:00	12:01	5:00	5:01	5:30	5:31	10:00	
		WW I MASS LAUNCH 11:30*							
		DIME SCALE *		MINISTICK		RETRIEVAL		MINISTICK	
		SCIENCE OLYMPIAD*		EZ-B		IF		EZ-B	
		FAC SCALE *		F1L *		NECESSARY		F1L *	
		TOWLINE GLIDER		A-ROG*				A-ROG*	
SATURDAY 28 MAY 2011	7:30	12:00	12:01	5:00	5:01	5:30	5:31	10:00	
		COCONUT SCALE*		A-6*				A-6*	
		NO CAL SCALE *		PENNY PLANE		RETRIEVAL		PENNY PLANE	
		WWII MASS LAUNCH* 11:15		MANHATTAN		IF		MANHATTAN	
		COCONUT MASS LAUNCH* 11:45		HELICOPTER		NECESSARY		HELICOPTER	
		WALLY MILLER EZ-B*		ORNITHOPTER				ORNITHOPTER	
				RODEMSKY LPP PRO/AM				RODEMSKY LPP PRO/AM	
SUNDAY 29 MAY 2011	7:30	11:30	11:31	12:00	12:01	3:00	3:01	6:00	
								PREPARATION TO DEPART	
		LIMITED PENNYPLANE		RETRIEVAL		LIMITED PENNYPLANE		THE BUILDING MUST BE	
		F1M*		IF		F1M*		CLEARED PRIOR TO 6 PM	
		ELECTRIC FF DURATION (EVENT 221)		NECESSARY		ELECTRIC FF DURATION (EVENT 221)		* = NON AMA EVENTS	
								HAVE A GREAT WEEK !!!!	

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USE A HEAT GUN TO CHANGE THE PARAMETERS OF YOUR PLASTIC SO PROP BLADES

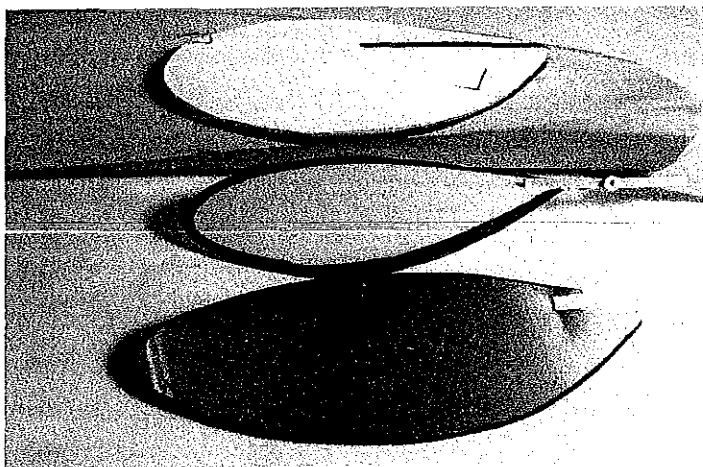
Larry Coslick

The plastic prop that was used for this project was purchased from FAI Model Supply, Part # SOP95A, 9.5" wide blade version. The blades were cut down to 3.5" long and 1.4" at its widest point. A poster paper template of the new blade shape was made and traced on the original blades, then cut out with scissors.

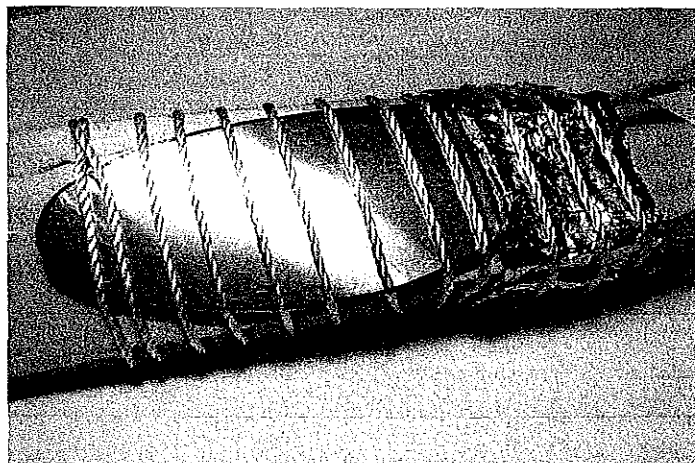
Any pitch block can be used for this procedure as long as the chord width of the block will accommodate the blade width of your prop.

To change the shape of the plastic blades a camber form is made out of $\frac{1}{4}$ " 5-5.5# A grain balsa. Trace the outline of the prop blade on the balsa and make it at least $\frac{1}{8}$ " larger on all of its edges then boil the form in a covered sauce pan for 25 minutes. Make a protective cap out of $\frac{1}{16}$ " hard balsa and strap the cap and camber form down to the pitch block. You really have to pull hard on the strapping twine to get the form to conform to the pitch block.

After the camber form has dried, sand an airfoil on the form and the $\frac{1}{4}$ " thickness along the leading and trailing edges allows for changes to the tip and hub angles so that they can be washed out if desired. The blade camber was reduced by 50%.



[1] This shows the order of placing the prop and aluminum cap on the camber form. The cap is made out of aluminum flashing material which most hardware stores carry. There are 2 alignment holes in the cap that match the pins on the camber form. Make the aluminum cap at least $\frac{3}{32}$ " larger on all of its edges than the prop blade because the heat from the 1000 watt Hanger 9 heat gun will melt any plastic that is not covered by the cap. Color was added to the prop outline and camber form for contrast. The black line on the camber form shows the groove for the plastic prop spar to set in. The placement of the aluminum cap in the picture makes it look larger than it actually is.



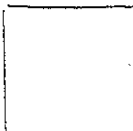
[2] Everything is tightly tied together with 6' of twisted nylon multi-purpose twine. Make sure that the outside edges of the cap are laying flat against the camber form, because a small kink in the blade could occur if a section is raised. Place 3 plies of aluminum foil over the prop hub to protect the plastic hub from the heat. Place the heat gun on high and watch the heating element until it glows orange. Use a stop watch to time the procedure, then place the nozzle 1" away from the cap and go over the entire cap for 15-20 seconds, no more. Let the cap cool to room temperature and the prop blade will conform to the camber form with no spring back.

INDOOR

NEWS and VIEWS

ABRAM VAN DOVER, EDITOR
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ISSUE # 128
EARLY SPRING
2011



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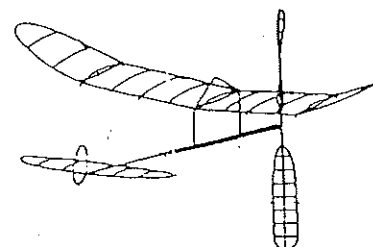
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FROM THE EDITOR'S DESK

Welcome to the 2011 AMA Indoor Free Flight Nationals Issue, But, first I must apologize for this late issue. As I did my planning for issue #129, I thought how could I get the Nationals in this issue. Answer? Put the issue out late. If We waited until August, the news would be old hat. Put the issue out late was the only answer. So we will mail it out on a very historic date, June 6th, D Day, the WW II invasion of Europe. Short history lesson.

So this is the 2011 Indoor F.F. NATS. We will have as many scores as we can jam into this issue, some pictures and other news. As I was the Event Director for this contest, and busy, some of the pictures do not have names, but I am sure you will get the intent of the picture. We also had a record set in A-6 by Tom Sova. Yes, A-6 is now an AMA event along with F1M. Things move fast these days.

We will also have the results of the A-6 Ministick International Postal Contest. This contest was marred by the absence of the Japanese fliers due to the earthquakes and Tsunami.

Last issue had some pictures of a balsa stripper that was sent to me in color and I printed in black and white. It did not show the stripper as good as color. If anyone would like to see the stripper in color send me a request and I will forward it to you. Your editor at work for you.

I may have wrote this up before, but I want everybody to know about this man, one Billy Landrum. He has donated \$100.00 to INAV. He feels strongly about INAV and wants to see it go forward. Thanks to Jeff Hood, Tony Pavel and Billy we are financially secure. We cannot forget Tim Goldstein's, Ray Harlan's and others donations to the raffle at the last few Nats. These people are behind the scenes and contribute much help. Thanks guys.

I have received some Indoor wood from Nick Aikman in Merry Old England and it really looks good, there is not enough room in this issue to do it justice. We will really check it out and build some indoor models from this wood not just me, but others and then get back to you. Thanks Nick!

On to the scores and such.

PS I'm still working on the expiration dates they will be posted in issue 130. It reminds me of the saying, "the hurrier I go, the behinder I get"

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EZB

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Lee, Y.K.	0	23:50	28:11				28:11	1
Harlan, Ray	0	28:06	26:14				28:06	2
Richmond, Jim	0	26:48					26:48	3
Iacobellis, Tom	0	25:25	25:46				25:46	4
Zaluski, Max	0	23:30	24:52				24:52	5
Collins, Walt	0	20:34	18:34	18:12	20:07	21:47	21:47	6
Hood, Jeff	0	19:38	19:12				19:38	7
Bosman, Katie	0	16:31					16:31	8
Aronstein, David	0	12:37	12:51	13:00			13:00	9
Erbach, David	0	11:00	9:56	11:02	11:40	10:20	11:40	10
Kagan, John	0	7:40					7:40	11
Barker, John	0						DNF	
Berton, Ed	0						DNF	
O'Dell, William	0						DNF	
Romash, Rob	0						DNF	
Pavel, Tony	0						DNF	

Ministick

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Van Gorder, Walt	0	12:09	12:25	11:11	12:15		12:25	1
Sova, Tom	0	10:01	5:53	12:03	10:54	9:49	12:03	2
Schutz, Emil	0	11:51	8:22	11:26	8:51		11:51	3
Rash, Fred	0	10:18	3:13	11:45	10:34	11:38	11:45	4
Romash, Rob	0	10:19	7:50	11:37	11:15	0:26	11:37	5
Pilachowski, L	0	0:00	7:33	9:57	8:07		9:57	6
Collins, Walt	0	6:26	8:48				8:48	7
Barker, John	0	2:46	6:28	6:35	7:47		7:47	8
Singer, Len	0	7:00					7:00	9
O'Dell, John	0	5:21	4:44	3:51			5:21	10
O'Dell, William	0	3:38					3:38	11
Oleson, Doug	0						DNF	
Warmann, Bob	0						DNF	
Bosman, Katie	0						DNF	
Iacobellis, Tom	0						DNF	
Erbach, David	0						DNF	
Loucka, Larry	0						DNF	

HLS

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Kagan, John	0	32:01					32:01	1
Sova, Tom	0	26:48	29:46				29:46	2
Lee, Y.K.	0	23:42	24:42	27:45			27:45	3
Harlan, Ray	0	10:45					10:45	4
Loucka, Larry	0						DNF	
Hood, Jeff	0						DNF	

A-ROG

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Diebolt, John	0	7:29	10:37				10:37	1
Harlan, Ray	0	3:36					3:36	2
Erbach, David	0	1:04					1:04	3
Oleson, Doug	0						DNF	
Loucka, Larry	0						DNF	

Science Olympiad Electric

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Rash, Fred	0	3:03	2:29	2:55			3:03	1
Markos, Chuck	0	2:19	2:31				2:31	2

Pennyplane

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Harlan, Ray	0	16:03	15:51	17:23			17:23	1
Iacobellis, Tom	0	15:44	16:26				16:26	2
Hood, Jeff	0	14:03	13:53	6:54	15:23	14:50	15:23	3
Sova, Tom	0	12:24	14:57				14:57	4
Pilachowski, L.	0	13:15	13:24	13:38	13:09		13:38	5
Singer, Len	0	8:08	9:40				9:40	6
Archee, Ken	0						DNF	
Berton, Ed	0						DNF	
Gowen, Bill	0						DNF	
Johnson, Tern	0						DNF	
Kagan, John	0						DNF	
Landrum, Bill	0						DNF	
Lee, Y.K.	0						DNF	
Loucka, Larry	0						DNF	
Pavel, Tony	0						DNF	
Richmond, Jim	0						DNF	
Wrzos, Chet	0						DNF	

Heli

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Diebolt, John	0	3:36	6:18	5:41	6:39		6:39	1
Richmond, Jim	0	6:31					6:31	2
Collins, Walt	0	4:41	2:25	1:56	3:48		4:41	3
Erbach, David	0	1:56	1:49				1:56	4
Grabski, Paul	0						DNF	
Loucka, Larry	0						DNF	

LPP Pro/Am

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Soren Slater/Zaluska	0	13:27	12:33	11:56	13:27	13:55	13:55	1
John Moses/Richmond	0	13:03	12:06	13:01	11:57	12:15	13:03	2
Dan Moses/Richmond	0	7:21	11:35	11:41	12:37	11:34	12:37	3
Yost/Romash	0	11:27	11:19	11:56	12:02	12:25	12:25	4
Magda Moses/Lee	0	12:14					12:14	5
Bosman/Kagan	0	12:11	12:07				12:11	6
Zevi Aronstein/Iacobellis	0	11:49	8:33				11:49	7
Lee Sumner/Gowen	0	6:10	10:15	11:02			11:02	8
Morgan Slater/Aronstein	0	9:27	8:54	6:16	5:45	9:07	9:27	9

Coconut

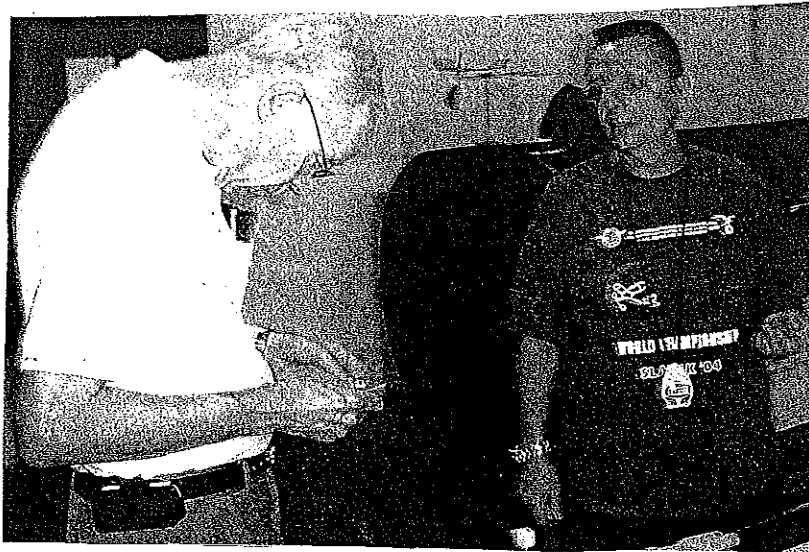
Name	AMA #	Aircraft	Flight 1	Flight 2	Flight 3	Best	Place
Aronstein, David	0	ANT 25	3:27	3:35		3:35	1
Stevens, Robert	0	1912 Plague Torpedo	1:45			1:45	2
Lavender, Tim	0	Miss Grand Rapids	1:17			1:17	3
Oleson, Doug	0	Feisler Storch	0:24	0:31		0:31	4
Landrum, Bill	0	Pilatus Turboporter				DNF	
Traugher, Joe	0					DNF	

Manhattan

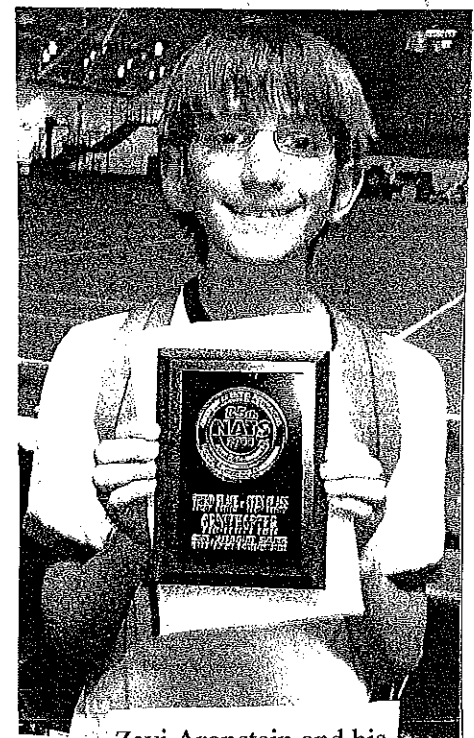
Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Schutzel, Emil	0	9:56					9:56	2
Aronstein, David	0	5:45	8:05	8:03			8:05	4
Erbach, David	0	2:53	2:57				2:57	6
Diebolt, John	0	2:37					2:37	7

Electric FF

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Harlan, Ray	0	0:55	9:19	17:05			17:05	1
Rash, Fred	0	7:17	10:45				10:45	2



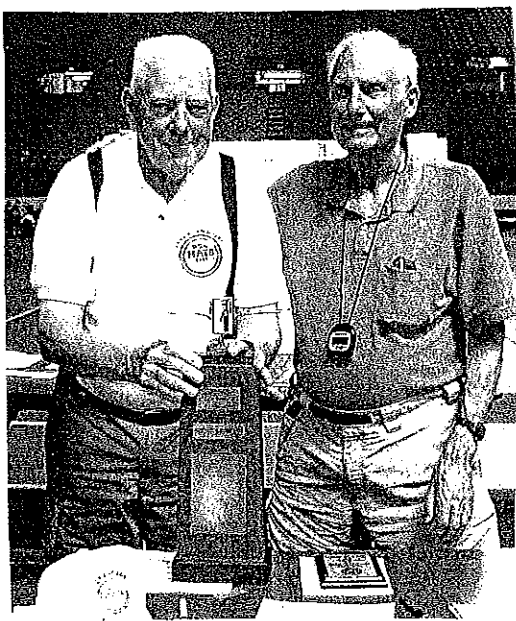
Walt Van Gorder bats the Breeze with Tom Sova
New record holder in A-6



Zevi Aronstein and his 3rd place trophy for Ornithopter



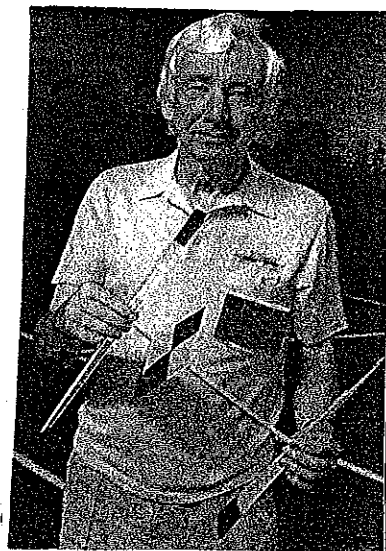
Joe Morris and His WW I Mass Launch winner



Emil Schutzel receives The Aeronuts Perpetual Bostonian award. Presented By Abram Van Dover



Voisin hydro gets 2nd place win for Robert Stevens



Jovial Dave Erbach And his winning Helicopter

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
Grabski, Paul	0	Lemberger	25	20	12.0	57.0	15	62			61.00	133.00	1
Stevens, Robert	0	1911 Voisin Hy	25	19	12.0	56.0	30	30			30.00	116.00	2
Slater, Sorin	0	Lacey	22	18	12.0	52.0	15	38			38.00	105.00	3
Lavender, Tim	0	Lord IV	20	16	12.0	48.0	15	30			30.00	93.00	4
O'Dell, William	0	Cessna AW-10	25	18	12.0	55.0	0	25			25.00	80.00	5
Oleson, Doug	0	WeeBee	21	18	6.0	45.0	5					50.00	6

A-6

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Sova, Tom	0	9:19	9:16	9:11	9:33		9:33	1
Johnson, Tem	0	8:14	8:46	9:21	3:09		9:21	2
Gowen, Bill	0	1:58	9:09	9:11	8:20	5:02	9:11	3
Schutzel, Emil	0	8:24	7:57	8:29	8:30	8:05	8:30	4
Rash, Fred	0	6:25	5:32	7:18	6:42	3:10	7:18	5
Collins, Walt	0	5:15	5:20	6:59	7:07	6:54	7:07	6
Bosman, Katie	0	4:29	5:57	6:24	7:01		7:01	7
Grabski, Paul	0	5:01	5:48	5:54	5:16	5:02	5:54	8
Erbach, David	0	3:30	4:44	5:22			5:22	9
Archee, Ken	0	3:25	1:47				3:25	10
Pavel, Tony	0						DNF	
Oleson, Doug	0						DNF	
Singer, Len	0						DNF	
Wrzos, Chet	0						DNF	

Towline Glider

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Harlan, Ray	0	3:07	3:08	2:43	3:03	3:18	3:18	1
Diebolt, John	0	3:04	2:59	2:56	3:07	2:41	3:07	2
Collins, Walt	0	2:19	2:48	2:31	2:35	2:31	2:48	3
Markos, Chuck	0	2:34	2:07	2:20	2:23	2:34	2:34	4
Rash, Fred	0						DNF	

RTP

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Diebolt, John	0	99.00	99.00	3.29	99.00	3.35	3.29	1
Harlan, Ray	0	99.00					99.00	2
Collins, Walt	0	99.00					99.00	2
Whittles, J.L.	0	99.00					99.00	2

35cm

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Harlan, Ray	0	26:09	28:52				28:52	1
Ray, Nick	0	24:08	15:51	20:34	24:18	22:40	24:18	2
Collins, Walt	0	16:35	18:32	14:38	23:28	21:06	23:28	3
Sova, Tom	0	0:43	20:59	23:15			23:15	4
Romash, Rob	0	17:42	19:01	18:40	18:07	19:00	19:01	5
Whittles, J.L.	0	8:45	10:59	12:07			12:07	6
Wrzos, Chet	0						DNF	
Iacobellis, Tom	0						DNF	
Bosman, Katie	0						DNF	
Loucka, Larry	0						DNF	

Int Stick

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Kagan, John	0	33:04	17:31	35:19			35:19	1
Harlan, Ray	0	33:49					33:49	2
Sova, Tom	0	29:53					29:53	3
Lee, Y.K.	0	0:00	27:37				27:37	4
Finn, Josh	0	0:00	0:00	13:00	5:58		13:00	5
Berton, Ed	0						DNF	
Loucka, Larry	0						DNF	
O'Dell, William	0						DNF	

Ornithopter

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Harlan, Ray	0	11:37	13:23	15:00			15:00	1
Diebolt, John	0	5:29	9:33				9:33	2
Aronstein, Zevi	0	0:14	0:15				0:15	3

F1D

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Best	2nd Best	Total	Place
Calliau, Larry	0	33:37	15:33	34:42				34:42	33:37	68:19	1
Kagan, John	0	9:58	13:49	31:43	32:01			32:01	31:43	63:44	2
Richmond, Jim	0	30:30	31:10	31:20				31:20	31:10	62:30	3
Iacobellis, Tom	0	30:49	28:01	27:11				30:49	28:01	58:50	4
Finn, Josh	0	16:05	18:32	19:46	17:35	19:14		19:46	19:14	39:00	5
Pilachowski, L	0	13:29	15:25					15:25	13:29	28:54	6
Berton, Ed	0									DNF	
Sanborn, Brett	0									DNF	

F1L

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Best	2nd Best	Total	Place
Kagan, John	0	18:48	20:20	20:05	20:24			20:24	20:20	40:44	1
Richmond, Jim	0	20:03	20:14					20:14	20:03	40:17	2
Lee, Y.K.	0	18:23	8:02	12:08	19:38	19:17	20:22	20:22	19:38	40:00	3
Calliau, Larry	0	18:41	19:28					19:28	18:41	38:09	4
Pilachowski, L	0	19:01	16:01	18:17				19:01	18:17	37:18	5
Gowen, Bill	0	13:58	14:39	14:57	18:05			18:05	14:57	33:02	6
Romash, Rob	0	11:30	9:47	13:30	15:28	16:12		16:12	15:28	31:40	7
Fujikawa, Steve	0	16:07	15:26					16:07	15:26	31:33	8
Markos, Chuck	0	15:07	15:24					15:24	15:07	30:31	9
Diebolt, John	0	15:11	13:53					15:11	13:53	29:04	10
Singer, Len	0	8:48	12:33	13:47				13:47	12:33	26:20	11
Landrum, Bill	0	11:26	12:48	11:08				12:48	11:26	24:14	12
Wrzos, Chet	0	10:26	11:32					11:32	10:26	21:58	13
Collins, Walt	0	10:20	6:10					10:20	6:10	16:30	14
Loucka, Larry	0									DNF	
Kish, J.P.	0									DNF	
Sanborn, Brett	0									DNF	

F1M

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Best	2nd Best	Total	Place
Gowen, Bill	0	16:03	15:30	15:47				16:03	15:47	31:50	1
Diebolt, John	0	12:14	11:41	9:19				12:14	11:41	23:55	2
Pavel, Tony	0									DNF	
Markos, Chuck	0									DNF	
Landrum, Bill	0									DNF	

Bostonian

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	2nd Best	Flt Total	Charisma	Total	Place
Schutzel, Emil	0	4:41	4:04	5:21	5:12		5:21	5:12	10:33	1.15	12:08	1
Diebolt, John	0	4:49	4:36				4:49	4:36	9:25	1.11	10:27	2
Grabsky, Paul	0	3:11	3:53	3:32	3:58	4:00	4:00	3:58	7:58	1.15	9:10	3
Rash, Fred	0	3:48	3:48				3:48	3:48	7:36	1.10	8:22	4
Iacobellis, Tom	0	2:39	3:17				3:17	2:39	5:56	1.16	6:53	5
Erbach, David	0	1:30	1:30	1:43			1:43	1:30	3:13	1.12	3:36	6
Barker, John	0	1:15					1:15		1:15	1.14	1:25	7
Sheperd, Curt	0										DNF	
Oleson, Doug	0										DNF	

Dime Scale

Name	AMA #	Aircraft	Bonus	1st Flight	2nd Flight	3rd Flight	Score	Place
Diebolt, John	0	BAT Monoplane	148	120	120	120	804	1
Aronstein, David	0	Heath Parasol	141	120	120	120	783	2
Harlan, Ray	0	Corbin Super Ace		93	88	120	301	3
Markos, Chuck	0	Pussmoth		79	88	93	260	4
Barker, John	0	Curtis Robin		71	73	66	210	5
Bosman, Katie	0	Pussmoth		56	66	47	169	6
Shepherd, Curt	0	Farman Stratoplane		51	48	45	144	7
O'Dell, William	0	?		31	39	40	110	8
Grabski, Paul	0	?		40			40	9
Oleson, Doug	0	Russel Monoplane						

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
Krempetz, Kurt	0	62.7	24.6	69.8	66.1	64.0	63.0	23.4	60.7	20.8	69.8	66.1	135.9	1
Yost, John	0	60.1	46.5	45.3	47.4	48.6	54.7	58.3	57.5	54.3	60.1	58.3	118.4	2
Ray, Ralph	0	53.9	38.9	51.8	48.5	27.2	35.3	43.5	24.9	37.9	53.9	51.8	105.7	3
Eberle, Rob	0	0.0	7.6	0.2	8.2	4.3	5.7	23.3	44.6	0.0	44.6	23.3	67.9	4
Whittles, J.L.	0												DNF	
O'Dell, John	0												DNF	
Romash, Rob	0												DNF	

Indoor Hand Launch Glider

LPP

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Iacobellis, Tom	0	14:51	15:48				15:48	1
Gowen, Bill	0	14:40	0:00	0:00	15:15		15:15	2
Zaluski, Max	0	14:52					14:52	3
Kagan, John	0	4:19	14:36	13:53	12:58		14:36	4
Pilachowski, L	0	13:38	13:00	13:49	3:10	14:24	14:24	5
Van Gorder, Walt	0	14:02	13:49	13:36			14:02	6
Lee, Y.K.	0	12:50	13:51				13:51	7
Romash, Rob	0	13:41	12:25	13:15	12:15	11:25	13:41	8
Grabski, Paul	0	12:13	1:53	12:54	13:40		13:40	9
Calliau, Larry	0	5:54	12:09	13:20			13:20	10
Sova, Tom	0	12:32	12:01				12:32	11
Diebolt, John	0	11:34	4:40	12:06	11:56	11:10	12:06	12
Fujikawa, Steve	0	12:05	10:42	10:01	11:31		12:05	13
Johnson, Tem	0	11:59					11:59	14
Collins, Walt	0	4:59	10:32	11:05	10:56	11:29	11:29	15
Bosman, Katie	0	10:52	0:00	6:07	9:03		10:52	16
O'Dell, William	0	4:35	8:29	9:56	9:33	9:00	9:56	17
Barker, John	0	4:30	5:00	6:10	9:11	9:18	9:18	18
Erbach, David	0	7:19	8:17				8:17	19
O'Dell, John	0	6:22	6:59	7:39	5:47	7:21	7:39	20
Kish, J.P.	0	5:14	5:29	0:00	5:15	5:07	5:29	21
Archee, Ken	0						DNF	
Berton, Ed	0						DNF	
Hood, Jeff	0						DNF	
Landrum, Bill	0						DNF	
Loucka, Larry	0						DNF	
Oleson, Doug	0						DNF	
Sanborn, Brett	0						DNF	
Warmann, Bob	0						DNF	
Wrzos, Chet	0						DNF	



David Aronstein and his
AN-25 Coconut Mass
Launch winner

NoCal

Name	AMA #	Aircraft	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Best	Place
Warmann, Bob	0		5:26	5:50	0:35	5:10		5:50	1
Aronstein, David	0		5:10	5:40	4:15	5:35		5:40	2
Collins, Walt	0		4:29	4:38	5:19	4:50	5:19	5:19	3
Diebolt, John	0		4:39	4:17				4:39	4
Grabski, Paul	0		1:06	2:00	3:50	2:31	4:18	4:18	5
Warren, J.Tim	0		0:49	0:45	0:32	0:39	1:23	1:23	6
Oleson, Doug	0							DNF	
Loucka, Larry	0							DNF	

Standard Catapult

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
Ray, Ralph	0	80.1	83.7	0.0	6.1	69.1	72.6	65.8	65.0	1.0	83.7	80.1	163.8	1
Krempetz, Kurt	0	61.0	10.2	79.3	79.7	79.8	77.5	37.6	20.9	69.3	79.8	79.7	159.5	2
Yost, John	0	51.8	58.4	70.6	70.5						70.6	70.5	141.1	3
Warmann, Bob	0	6.1	67.5	10.9	70.2	70.4	15.4	67.7	69.9	66.4	70.4	70.2	140.6	4
Johnson, Tem	0	68.5	68.7								68.7	68.5	137.2	5
Markos, Chuck	0	60.7	59.3	58.6	53.2	63.7	65.7	63.4	46.5	68.0	68.0	65.7	133.7	6
Kagan, John	0	58.0	58.0	60.0	64.0	34.0	55.0				64.0	60.0	124.0	7
Romash, Rob	0	40.2	44.9	47.1	39.9	33.9	51.5	52.3	49.2	57.2	57.2	52.3	109.5	8
O'Dell, William	0	38.9	31.0	39.7	46.6	49.6	50.2	46.9	55.5	50.4	55.5	50.4	105.9	9
Stoddard, Chris	0	46.6	50.1	40.7	51.7	37.8	49.8	41.7	41.4		51.7	50.1	101.8	10
Warren, J.Tim	0	33.6	46.4	48.2	50.5	47.1	32.4	44.3	47.9	45.3	50.5	48.2	98.7	11
Whittles, J.L.	0	27.4	24.4	26.7	32.1	27.3					32.1	27.4	59.5	12
O'Dell, John	0	25.3	28.0	27.0	26.0	26.7	24.3	23.7	23.6	25.2	28.0	27.0	55.0	13
Batte, Tom	0												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
Ray, Ralph	0	97.6	24.3	91.1	96.9	89.5					97.6	96.9	194.5	1
Krempetz, Kurt	0	91.3	0.0	95.5	93.0	90.0	95.0	90.5	93.9	85.3	95.5	95.0	190.5	2
Batte, Tom	0	66.0	74.0								74.0	66.0	140.0	3
Johnson, Tem	0	68.2	68.1								68.2	68.1	136.3	4
Romash, Rob	0												DNF	

Unl. Speed

Name	AMA #	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Flight 7	Flight 8	Flight 9	Best	Place
Collins, Walt	0	7.7	7.5	7.8	6.9						6.9	1
Yost, John	0	99.0	7.4	99.0	99.0						7.4	2
Blevins, Doyle	0	99.0	9.7	9.8	99.0	99.0	8.8				8.8	3
Diebolt, John	0	99.0	99.0	99.0	10.4						10.4	4

P-24 Mass Launch

Name	AMA #	Time	Place
Johnson, Tem	0	0:01	1

FINAL RESULTS FOR THE 2011 INTERNATIONAL POSTAL MINISTICK AND A-6 CONTEST

Once again we have the scores for our International Indoor postal Contest for Ministick and A-6 Models. This time we have some glad tidings and some not so glad tidings. The bad news first. For the very first time we have had no Japanese entries. It took an earthquake and a tsunami to stop our Japanese flyers. We all feel bad that due to Mother Nature these dedicated flyers could not participate and we do miss them and wish them well in the future. More bad news, the Brainbusters will not host the Postal Contest for 2012. It is with much regret to inform you of this and we sincerely hope some club or group will pick it up. Please feel free to call or E-Mail me if you desire to do so. I have names and addresses for a lot of contestants that may want to participate. You do not have to buy a lot of high priced fuel to join in.

Now the good news: Check the name of the third place contestant in USA Ministick. Keenan Boudon, He is a Junior! When you look in the complete roster you will see Nathan Boudon also a Junior and as you may have guessed by now, Keenan's brother. Also from the same club as the Boudon brothers our Grand Champion, Mike Altig is from the same club, the Williamette Model Club. We also want to congratulate Urlan Wannap for his First Place win in International Ministick. Also Kudos and stuff go to our own Walt Collins for his win in USA Ministick. His last flight on the last day we could fly won the day for him.

If there is anything I can say to end this chapter of our modeling life is, it is, we must support and nurture our Juniors. We are the educators, role models and heroes, yes heroes as was Lindberg, Yeager and Ernie Pyle was to our generation.

OVERALL CHAMPION

MIKE ALTIG USA

MINISTICK INTERNATIONAL CLASS.

FIRST PLACE URLAN WANNOP UNITED KINGDOM

MINISTICK USA CLASS

FIRST PLACE WALT COLLINS

SECOND PLACE MIKE ALTIG

THIRD PLACE KEENAN BOUDON

COMBINED A-6 CLASS

FIRST PLACE	GARY HODSON	USA
SECOND PLACE	TEM JOHNSON	USA
THIRD PLACE	JAMES ALDERSON	USA

International 2011 Postal A-6 Scores and Other Data

NAME	FLT. SCORE (SEC)	CORR. FACTOR	CEILING HEIGHT	CLUB
Hodson, Gary	423	454.62	27.6 ft	HOAFFC
Johnson, Tem	419	450.62	27.6 ft	HOAFFC
Alderson James	374	400.01	36.0 ft	Williamette M. C.
Altig, Michael	354	380.01	36.0 ft	Williamette M. C.
Berray, Ed	350	376.01	36.0 ft	Williamette M. C.
Borland, Chris	274	309.35	22.0 ft	Sierra Eagles
Kopriva, Tom	279	305.01	36.0 ft	Williamette MC
Collins, Walt	255	288.35	25.0 ft	Brainbusters
Farrell, Walt	259	259.00	75.0 ft	Maxecuters
Acton Dave	204	237.35	25.0 ft	Skyscrapers
Beaton, Aubrey	185	218.35	25.0 ft	Scotia FF
Alderson, Jim	191	217.01	36.0 ft	Williamette M. C.
Tagliafico Andrew	187	213.01	36.0 ft	Williamette MC
Singer, Len	161	205.56	8.2 ft	Brainbusters
George Gilbert	146	172.01	36.0 ft	Williamette M. C.
Plassman, Jerry	123	167.56	8.2 ft	Brainbusters
Escalante, Mike	158	158.00	75.0 ft	Maxecuters
Van Dover, Abram	109	153.56	8.2 ft	Brainbusters
Kershner, Dave	62	106.56	8.2 ft	Brainbusters

International 2011 Postal Ministick Scores and Other Data

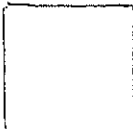
NAME	FLT SCORE (SEC)	CORR. FACTOR	CEILING HEIGHT	CLUB
Collins, Walt	448	940.32	8.2 ft	Brainbusters
Altig, Mike	349	493.96	36.0 ft	Williamette MC
Wannap, Urlan	300	473.80	25.0 ft	Scotia FF
Boudon, Keenan	327	462.81	36.0 ft	Williamette MC
Van Dover, Abram	177	371.51	8.2 ft	Brainbusters
Gilbert, George	255	360.91	36.0 ft	Williamette M.C.
Kershner, Dave	146	306.44	8.2 ft	Brainbusters
Bauman, Scott	149	251.35	19.8 ft	Fla Indoor FF
Svenson, Rolf	146	246.29	19.8 ft	Fla Indoor FF
Boudon, Nathan	172	243.44	36.0 ft	Williamette MC
Berray, Ed	149	210.89	36.0 ft	Williamette MC

INDOOR

NEWS and VIEWS

ABRAM VAN DOVER, EDITOR
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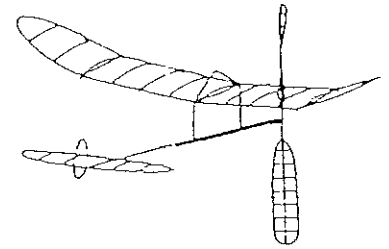
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ISSUE # 130
SUMMER 2011

INDOOR

NEWS and VIEWS



FROM THE EDITOR'S DESK

Greetings and Salutations,

For Issue #130 we have some new things for you, Some great photos by Jeff Hood and Tim Warren. We wanted to go color, but that would raise the cost by \$350 plus. Maybe next year for the Indoor Nationals. First we have full size plans for Tom Vallee's Bandersnap What inspired the Bandersnap plans? Nick Aikman, the famous English balsa wood cutter and salesman, more on him and other things as above. To really whet your appetite, Issue # 131 will have a slew of articles and plans by none other than one great indoor builder and flyer, Larry Coslick. John Kagan has promised us the whole ball of wax on the FAI F1D finals at Lakehurst on Labor Day. we will hold the press's for that info. Thank you John. In addition to all this we have expiration dates on some of your newsletter. "One small step" I'm not a computer expert and it was pencil, eraser and yellow paper, but I think I got it. If you have any questions on your expiration date contact me at VanDover@cox.net

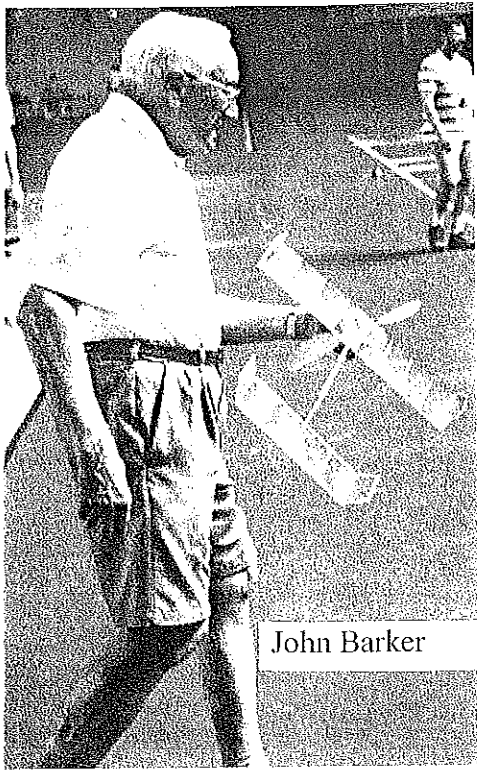
Let's talk about the Bandersnap. I've always wanted to build that model and never got around to it, sound familiar? Well anyway, Nick Aikman, famous balsa wood guy sent me a bunch of his famous light weight indoor balsa wood, the Bandersnap hit me right twixt the eyeballs. I can build Tom's model and at the same time check out Nick's wood. Flying friend Walt Collins also got some of Nick's wood and is planning on building an indoor model also and will report on his findings. Almost all the Brainbusters got a chance to look and feel the wood and pronounced it out of this world wood except for the drool marks. Thank you Nick and we will have a good report for you, next issue. By the way, I've always wanted to build Frank Zaics Miss New Yorker and will do that as soon as the Bandersnap is done. Not with Nick's wood though.

How about Jeff Hood and Tim Warren's pictures. Tim had about 8 pictures, all good and we printed most of them.

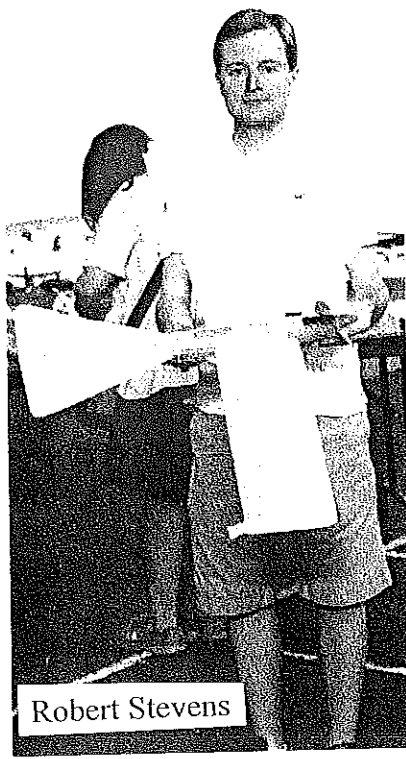
Jeff took over 1100 and I still haven't seen all of them. We did look at quite a few and will print a bunch for this issue. They will be in black and white. Color costs 79 cents and black and white 9 cents, Throughout the year we will print some more of Jeff's pictures and may use color. Let's see what our readers response is , after all it's their money. By the way if you have some pictures, send them in and we'll squeeze them in also. While we are on that subject we need feed back from you and you out there should send me some stuff, no guarantee we'll print it right away, but it should get printed. Thank you, some of my stuff is, ugh !!

Next and last is some good stuff by Larry Coslick . Larry is quite famous for his Hobby Shopper, but let me tell you this guy has done more for EZ-B, Pennyplane and Ministick then anybody. If you are not using at least one of Larry's techniques, you ai'nt living. I could talk about Larry all day, but I'll let him show you the way to better indor rubber flying, next issue.

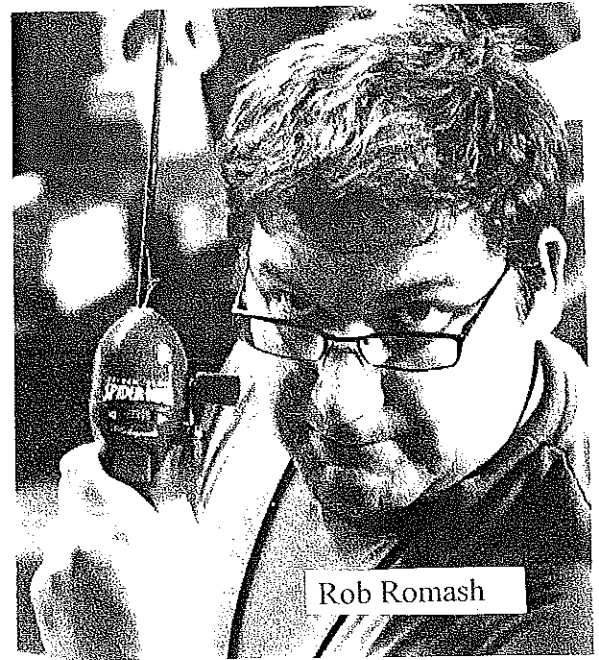
One last thing, all you Larry Loucka fans. Larry is alive and well. It was his daughter that he had to take to the hospital just as he was getting ready to leave for Johnson City, like 30 minutes. We hope she is well and our prayers go out for her. Look forward to your being there next year, Larry. I told you I was not an English Major.



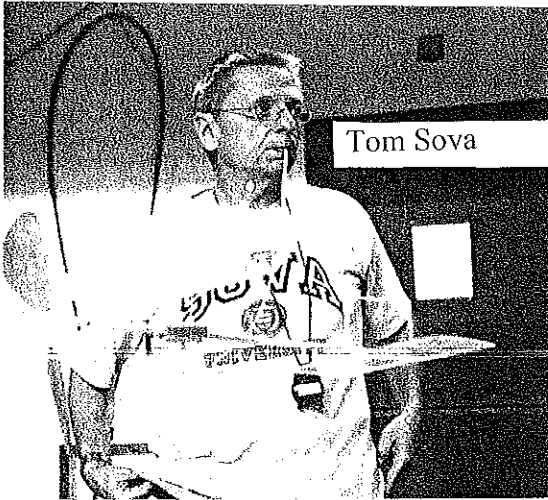
John Barker



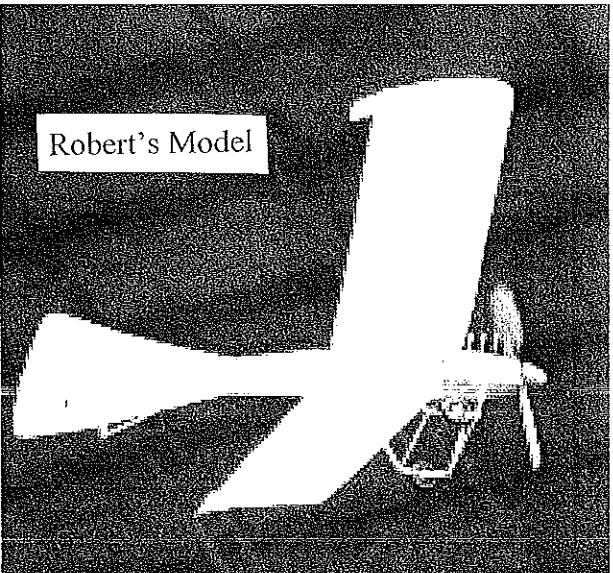
Robert Stevens



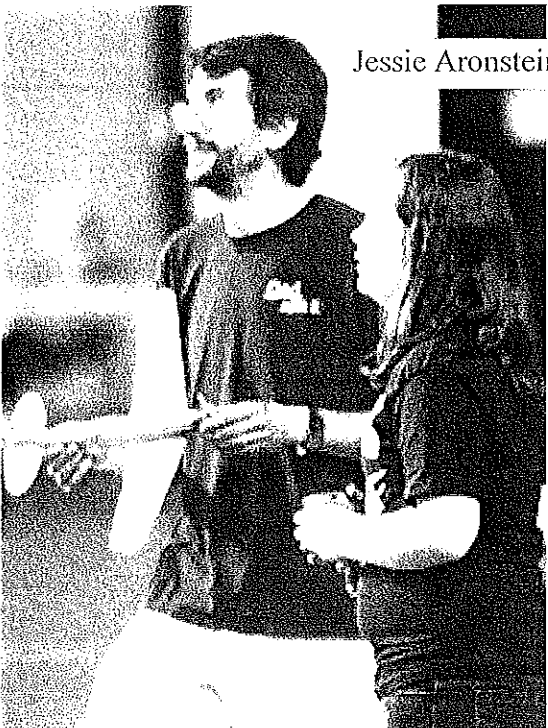
Rob Romash



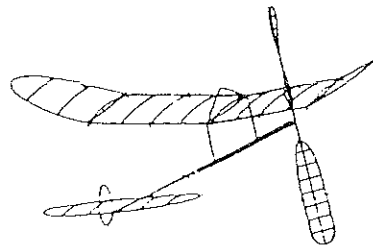
Tom Sova



Robert's Model



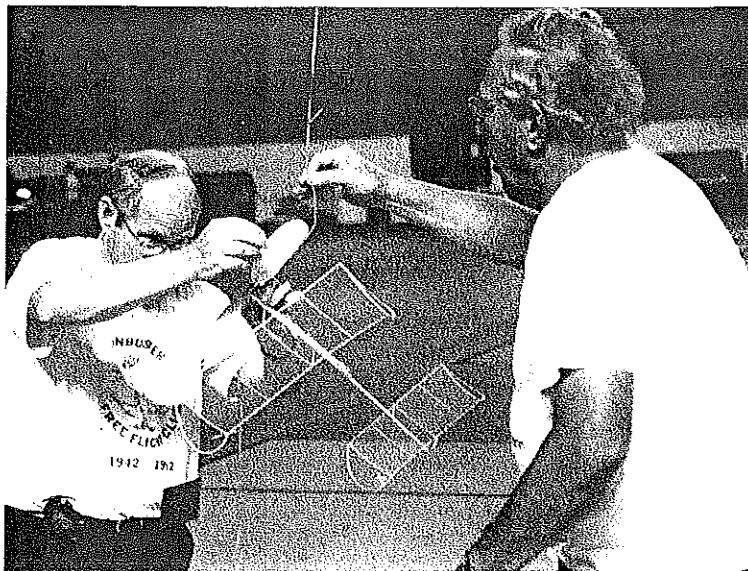
Jessie Aronstein



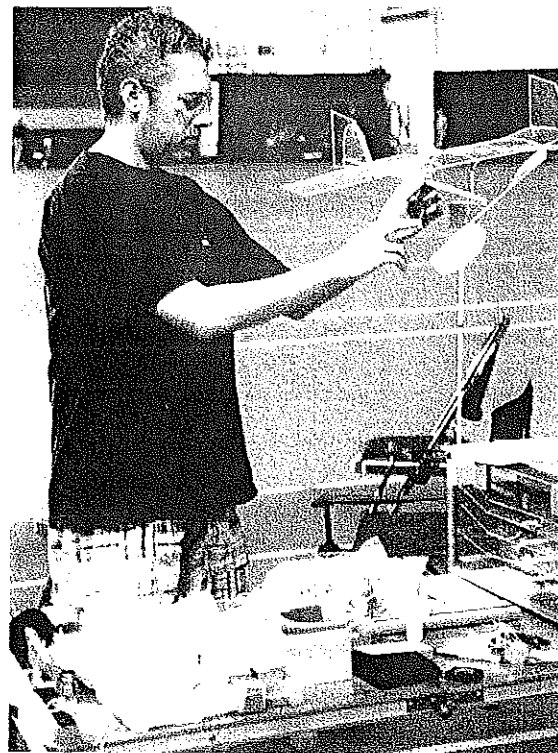
One of Tim's
Young Ladies



Zevi Aronstein

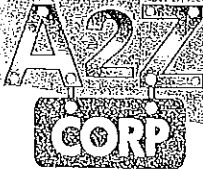


Walt Collins & John Diebolt




John Kagan

TIM GOLDSTEIN'S INDOOR STUFF

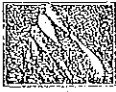


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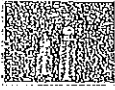
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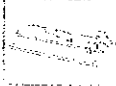
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Classic silver Peck
props 4" - 9 1/2"
Ikara indoor props.




Needle Cap Bottles
Save your health & kicker
20 and 25 ga blunt needle
1/4 & 1/2 oz bottles
Great for solvents & oil




One Nite 28
Contest Balsa & Laser Cut
A quick building P30 & sport flying
outdoor duration plane
item code: PP013-L




McLeod Balsa Stripper
Perfect for outdoor FF
& RC builders.
Cuts to 1/4" x 3/4"
item code: BSDM1



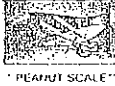
Phantom Flash
Build for rubber FF or micro RC
Contest Balsa & Laser Cut
item code: PP045-L



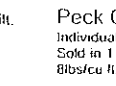
Ambroid Cement
Classic glue for building
light & strong.
Tubes, pints, and quarts.



Nesmith Cougar
Held the world's record
in peanut scale.
Contest Balsa & Laser Cut.
item code: PP007-L



Pielcenpoi Air Camper
A popular 1931 pipasol homebuilt.
Contest Balsa & Laser Cut
item code: PP001-L



Peck Contest Balsa
Individually weighed sheets
Sold in 1 lbs ranges, 4, 5, 6, 7,
8lbs/cu ft. Grain categories A/B or C

Divisions Include:

STING AERO PRODUCTS

Peck-Polymers

Indoor Model Supply

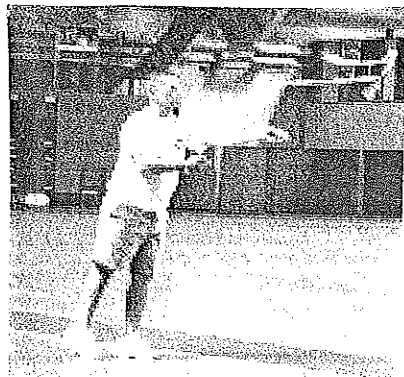
A2Z CNC

OVER 300 MODEL KITS IN STOCK!

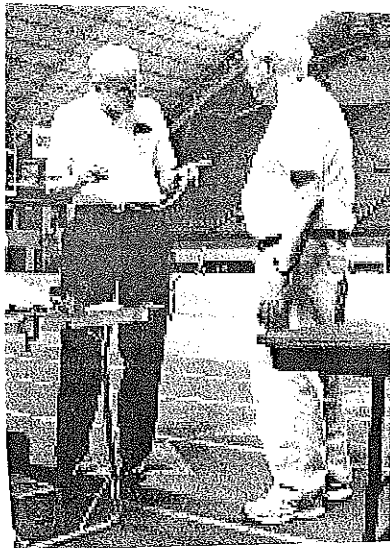
For fastest service order online at:

www.A2ZCorp.us/store

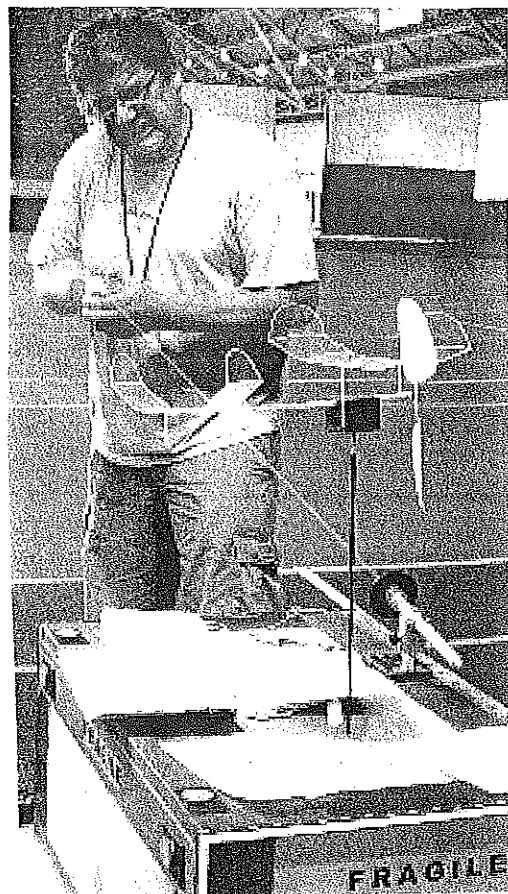
Download a free log of prices with over 1000
free items and more at www.A2ZCorp.us/store



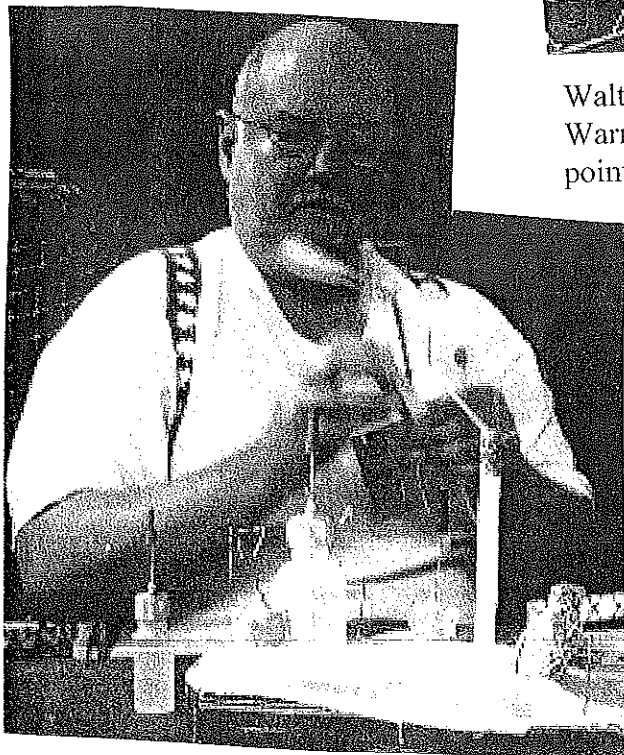
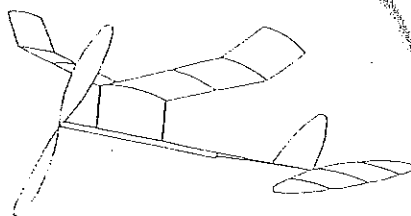
Tom Sova gets off
a perfect launch



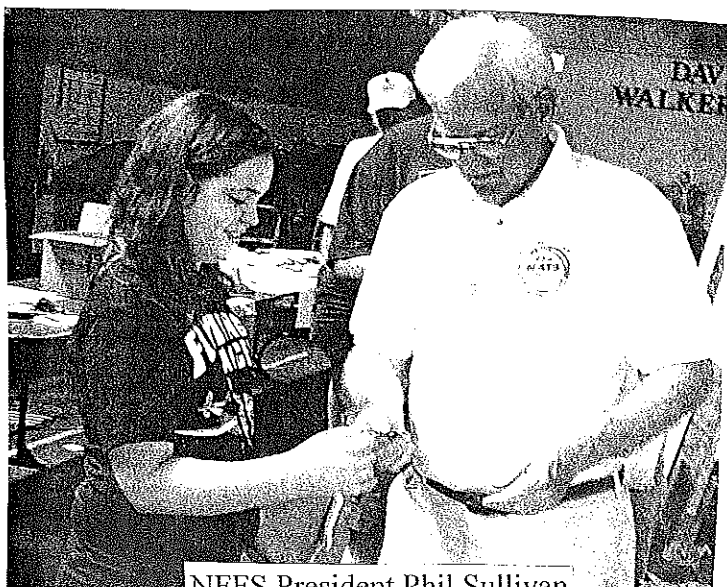
Walt Van Gorder and Bob
Warmann discuss the finer
points of indoor



Winding his Ministick is
Rob Romash. One potato,
Two potato.



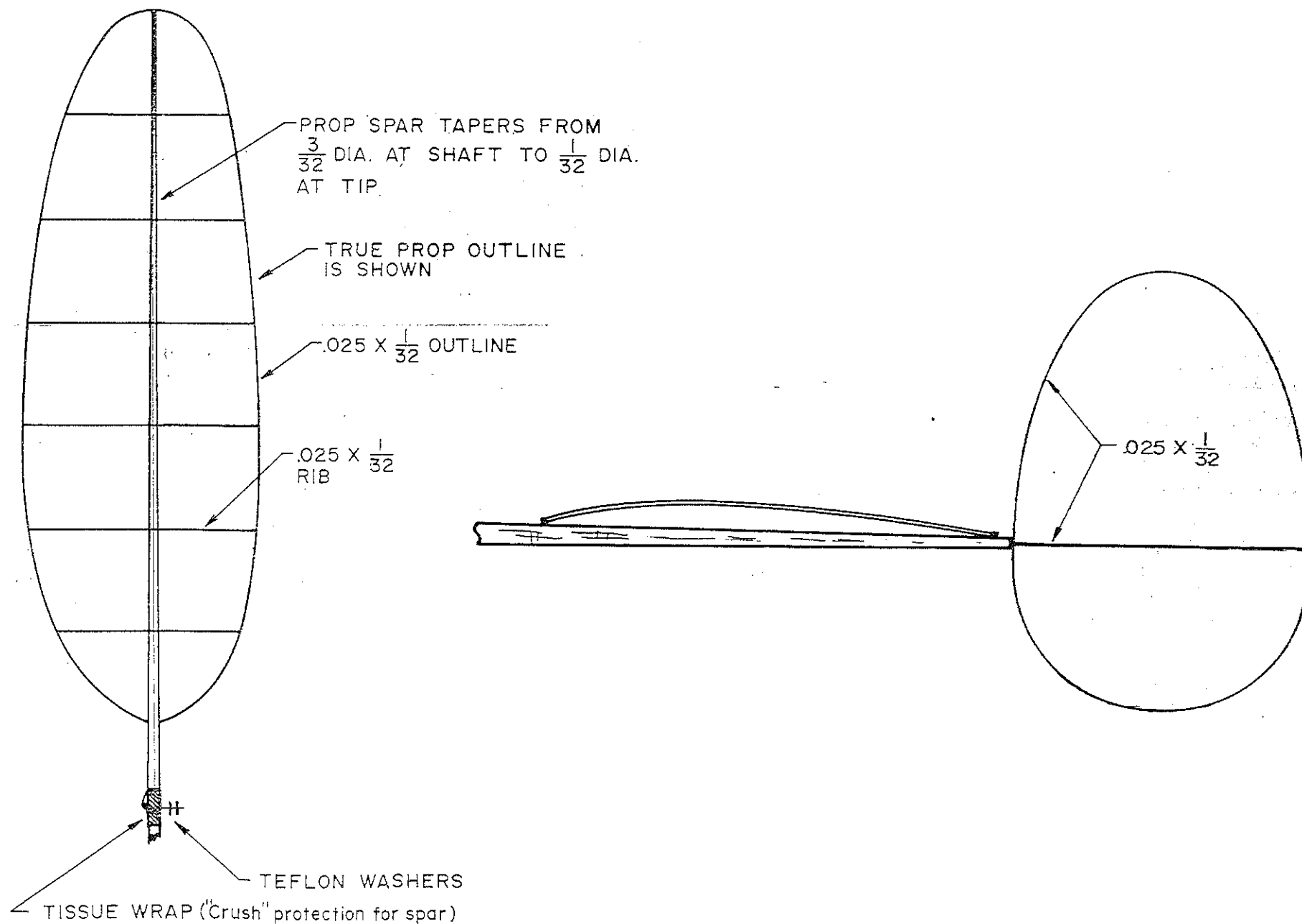
John O'Dell repairs one of
his many models



NFFS President Phil Sullivan
presents award to one of Tim
Lavender's Kids



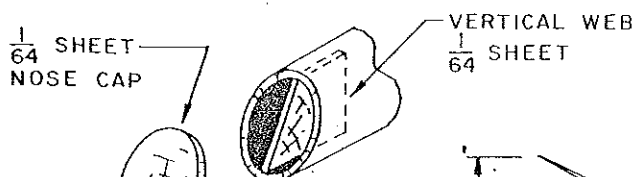
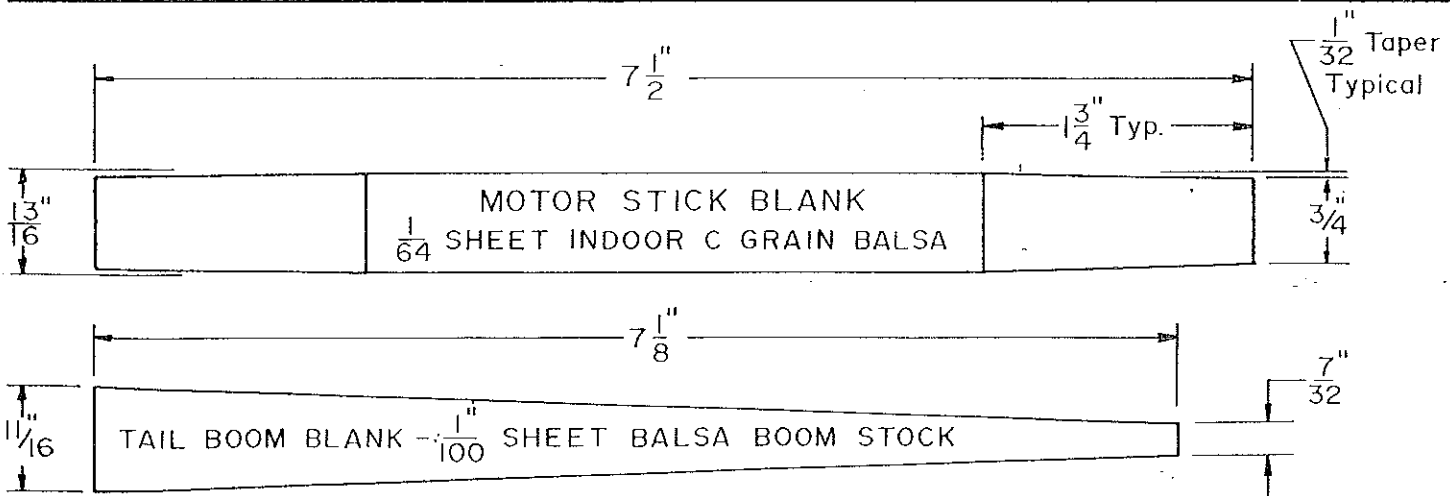
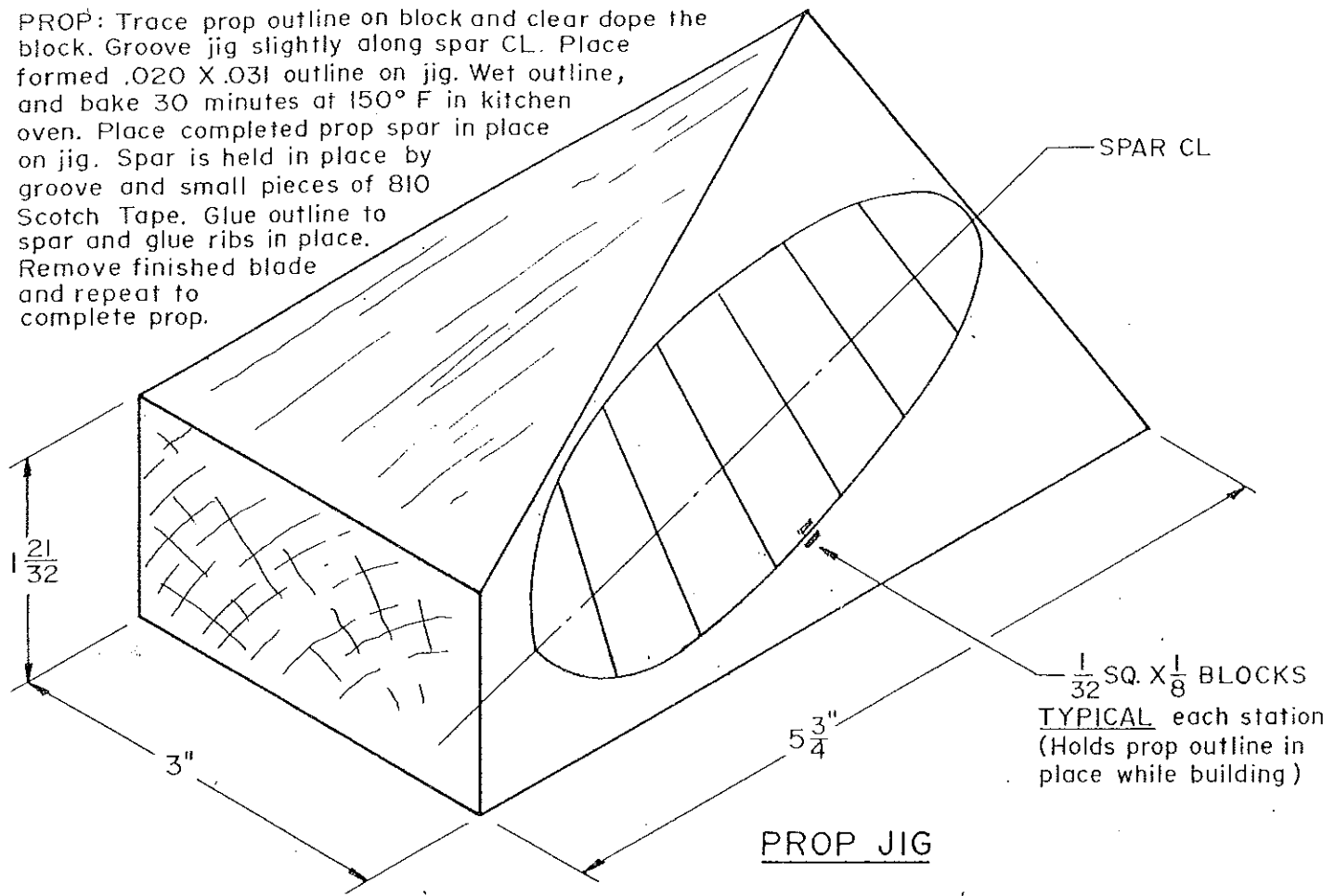
Emil Schutzel preps his
Manhattan Cabin



5

TOM VALLEE'S BANDERSNAP INDOOR STICK

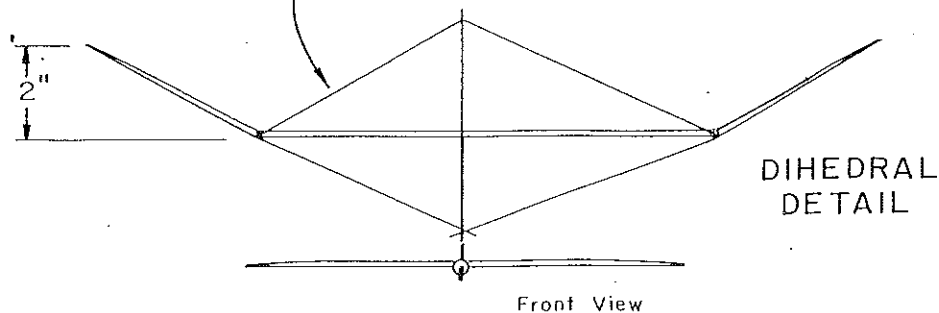
PROP: Trace prop outline on block and clear dope the block. Groove jig slightly along spar CL. Place formed .020 X .031 outline on jig. Wet outline, and bake 30 minutes at 150° F in kitchen oven. Place completed prop spar in place on jig. Spar is held in place by groove and small pieces of 810 Scotch Tape. Glue outline to spar and glue ribs in place. Remove finished blade and repeat to complete prop.



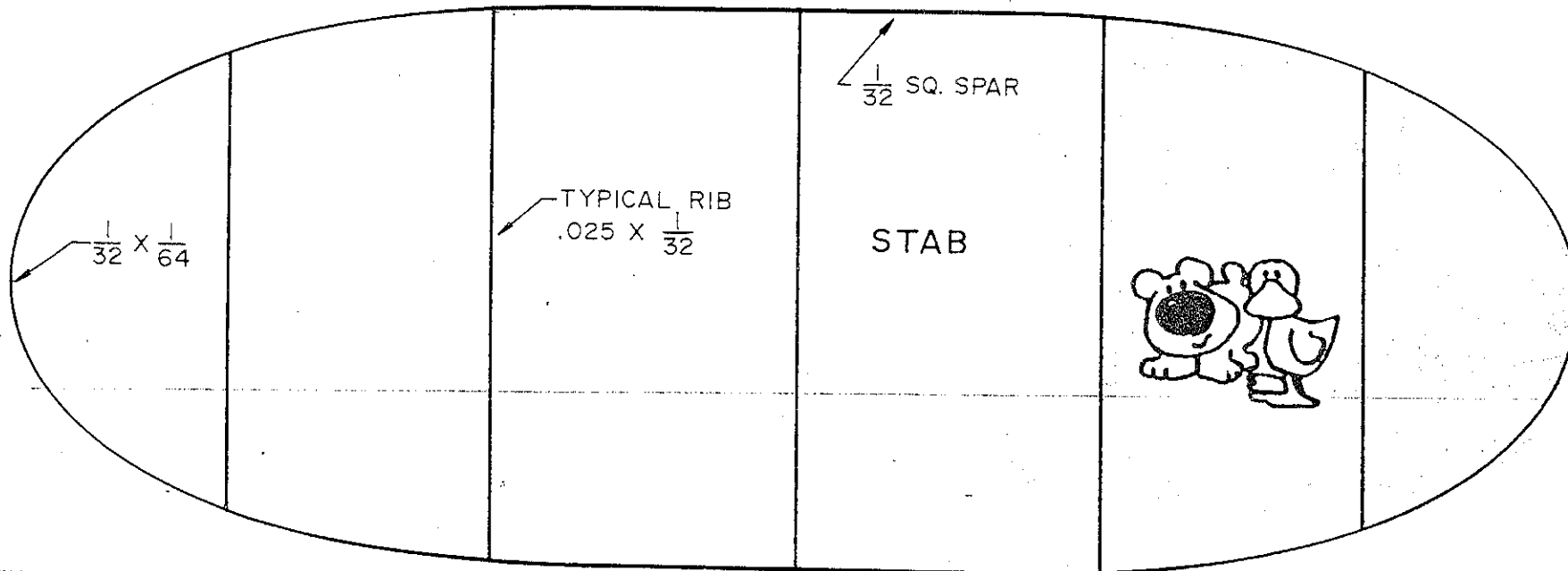
NOSE
DETAIL

MICRO-X
PREFAB
BEARING

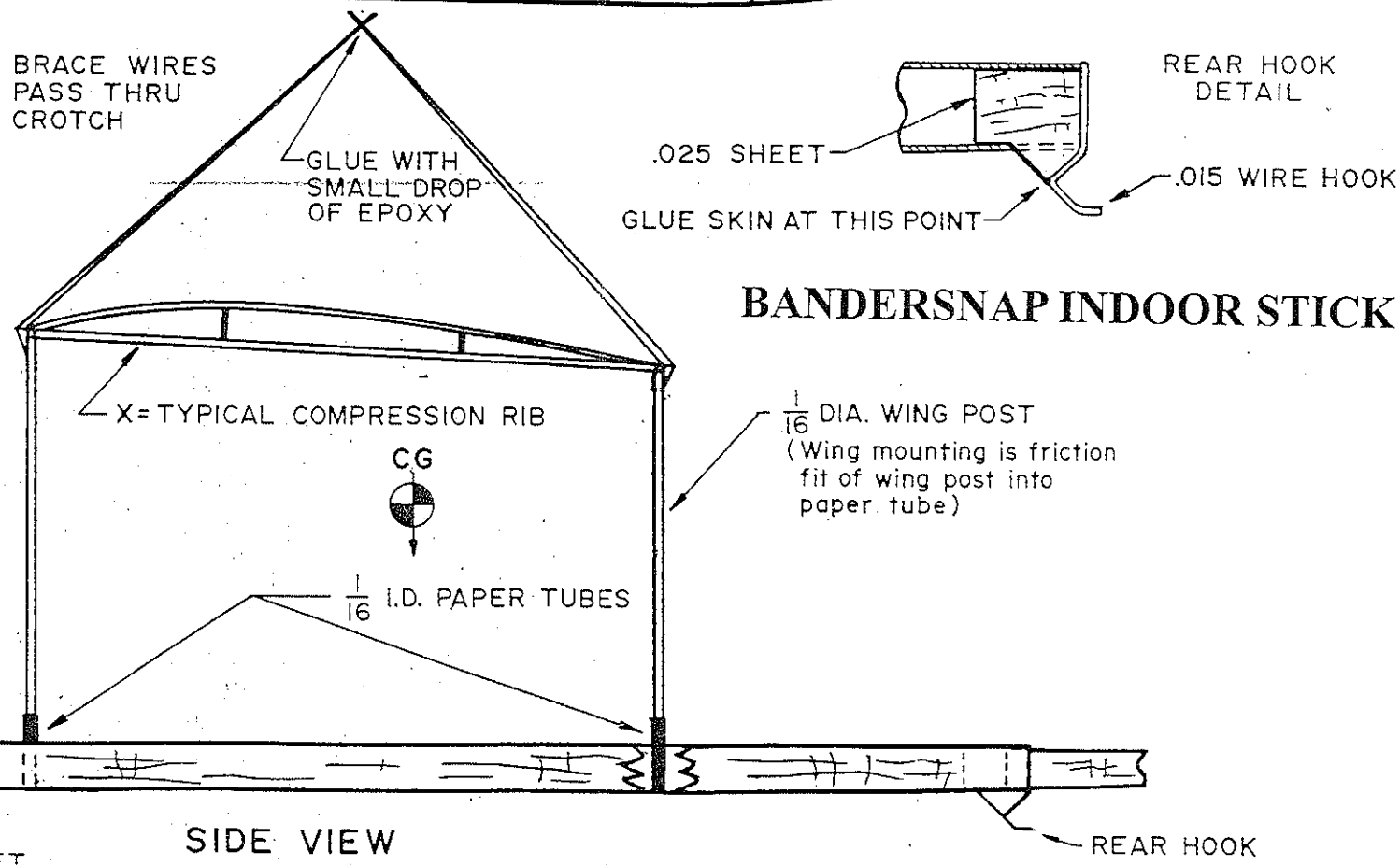
Standard Indoor Bracing
.001 Nichrome Wire

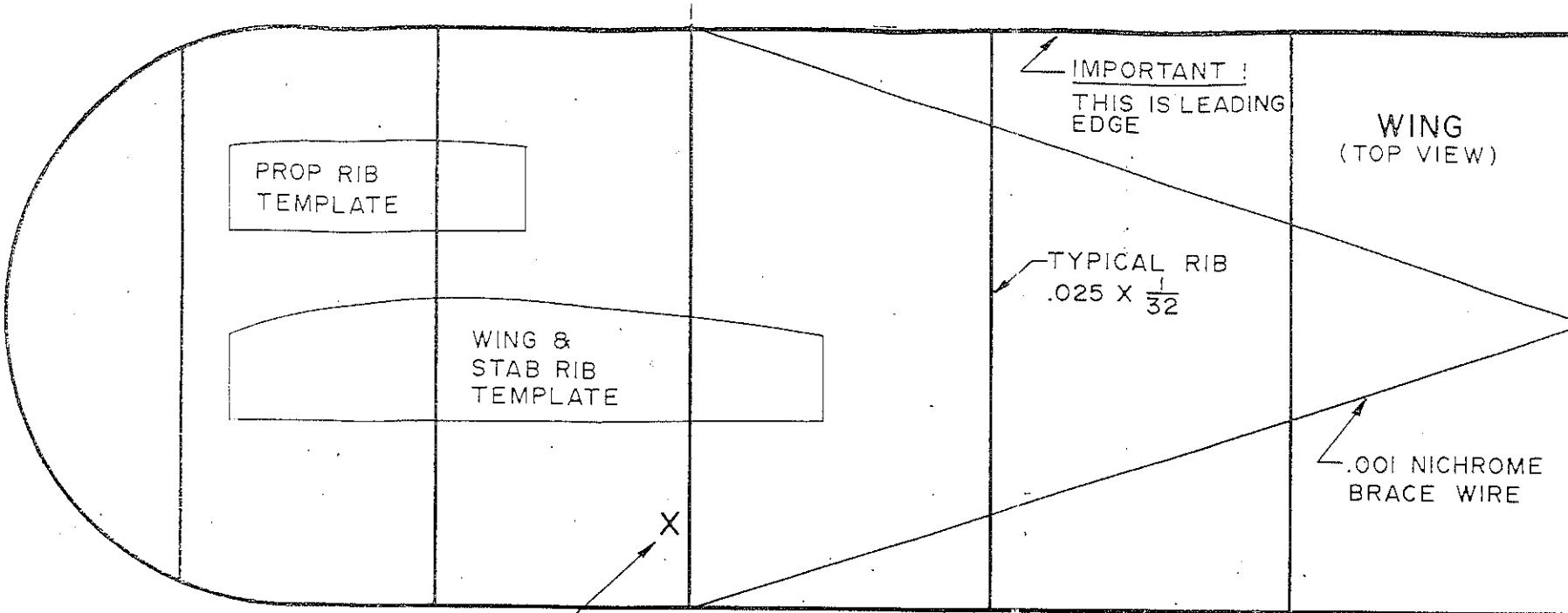


BANDERSNAP 6



Leo
Pilachowski

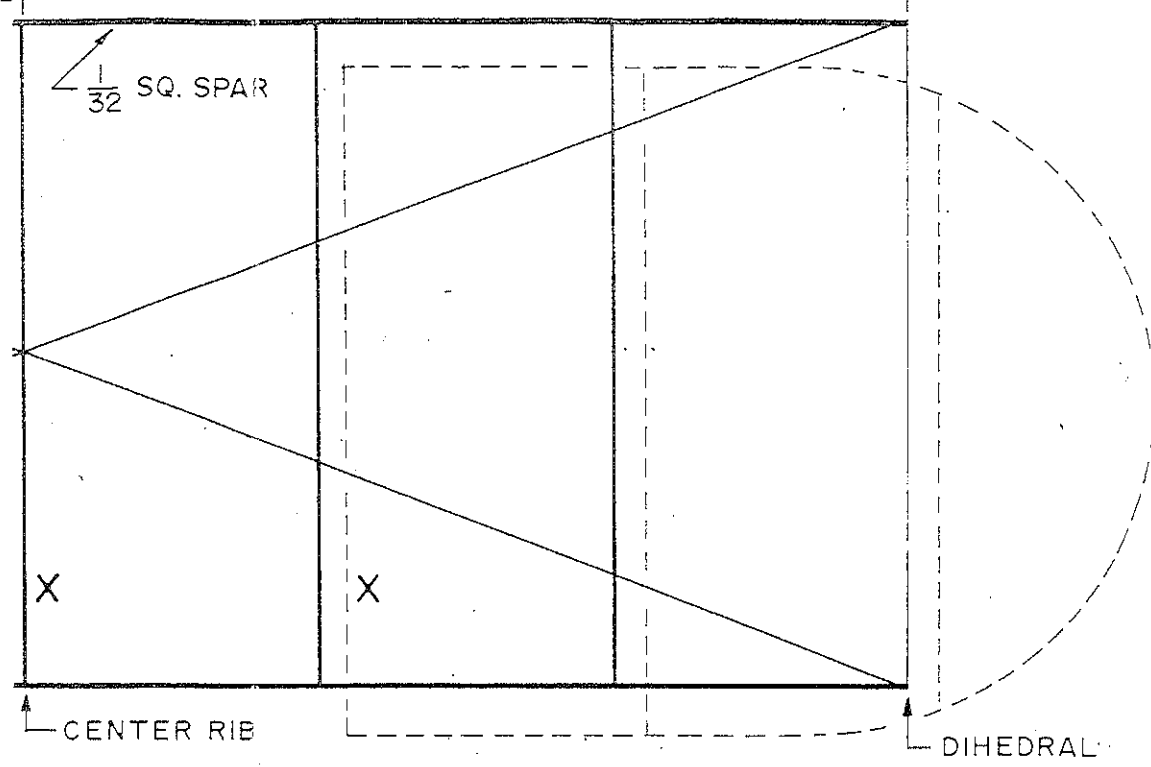


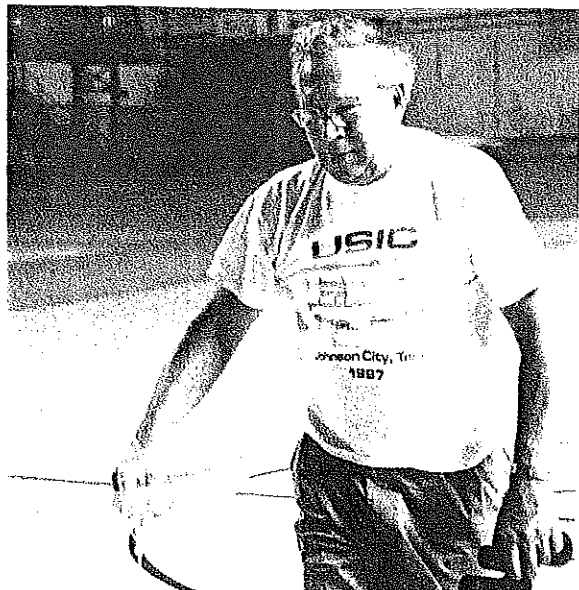


X = COMPRESSION RIB
(See side view)

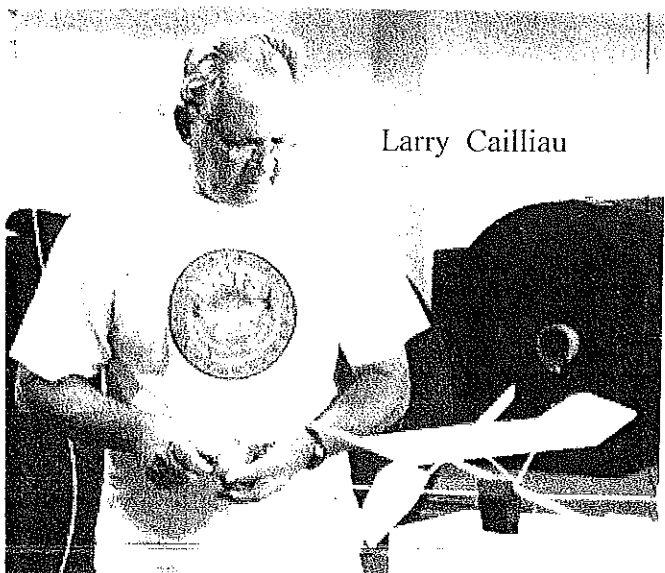
DIHEDRAL BREAK

BANDERSNAP INDOOR STICK





John Diebolt



Larry Cailliau



Bill Gowen

RAY HARLAN'S INDOOR STUFF

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INDOOR

NEWS and VIEWS

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ISSUE # 130
SUMMER 2011



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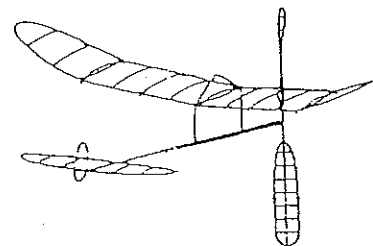
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ISSUE # 131
EARLY FALL
2011

INDOOR

NEWS and VIEWS



FROM THE EDITOR'S DESK

Here we go again folks, issue # 131 and a bunch of good stuff for your Indoor News And Views eyeballs to view. We have Larry Coslick on deck, Jeff Hood and his F1D final team selection rankings and scores. Some welcome products by Dennis Tyson. Pictures by Walt Collins and Van Dover and a stolen picture from the latest NFFS Symposium. (Larry Coslick). At Lakehurst, we signed up four new subscribers and received 4 more in either E-mail or snail mail orders, we'll try to add their names to the end of this blurb.

First I would like to talk about the fliers at Lakehurst. The site is about 160 feet high and covered with girders all over the place. This is normal. What is not normal, is the crowded floor. Don't get me wrong, it's still a great place to fly. However you have to give the flyers a lot of credit to do as well as they do with these handicaps. What handicaps? Trying to steer amongst those big storage shelves when the model is at the 160 foot level.. Steering on the 12 foot high partial aircraft deck and then running down the stairs to get back to steering on the cluttered floor. There is some drift, however we learn to live with it and it's part of the game. Some of you readers know all about this situation, but not all our readers do. The scores that you see on Jeff's score sheet are scores that these flyers really bust their butt to get. That's my Army talk coming out. Thanks to all the people that came out to participate and watch, help and do a little flying on the side.

Check and see what Dennis Tyson has for sale and contact him if you need or just like his products. Those wood strippers by Steve Gardner are works of art and work. What can I say about the glue bottles, George White says it all. My thoughts, I have ten of them. Proceeds go to offset the cost of Parker and Spencer Tyson going overseas to the World Champs' It's in Serbia next year.

Next issue will have pictures of a new winder that utilizes chain drive instead of gears, chain drive? This item will soon go into production and go on public sale. We will also try to have an up to date ad for Shorty's Basement, they now carry some ARF Pennyplanes, plus a lot of FAC scale stuff, they fly indoors to you know. I think we need one of John Blair's Dime scale models in our next issue. This is your newsletter, feel free to write in what you would like to see

NEW AND RENEWAL SUBSCRIBERS.

AL MKITARIAN	NEWJERSEY
JAKE PALMER	WASHINGTON STATE
FRANK WOOD	WASHINGTON STATE
JIM SOLLY	NEW JERSEY
ART VALAND	NEW JERSEY
DICK HARKER	ILLINOIS
ED KONEFES	ILLINOIS
ART HOLTZMAN	FLORIDA

PS We still got some room to thank people for the F1D finals Walt Collins, Horace Hagen Jeff Hood, Ray Harlan Victor Cagliano, Dennis Tyson, Y. T. Kang and Al Mkitarian

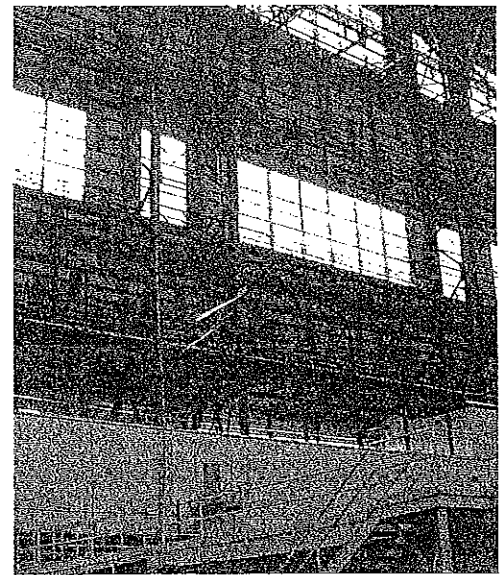
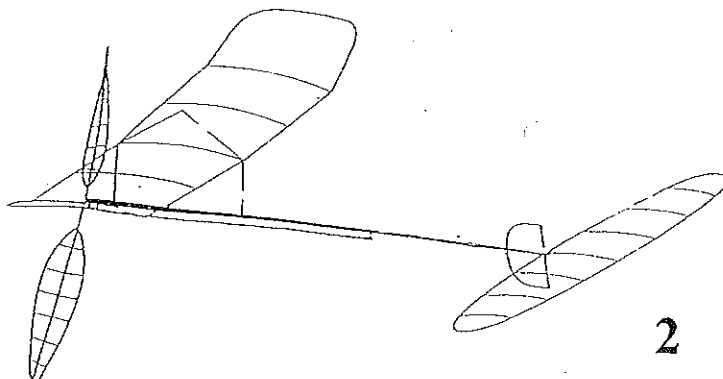
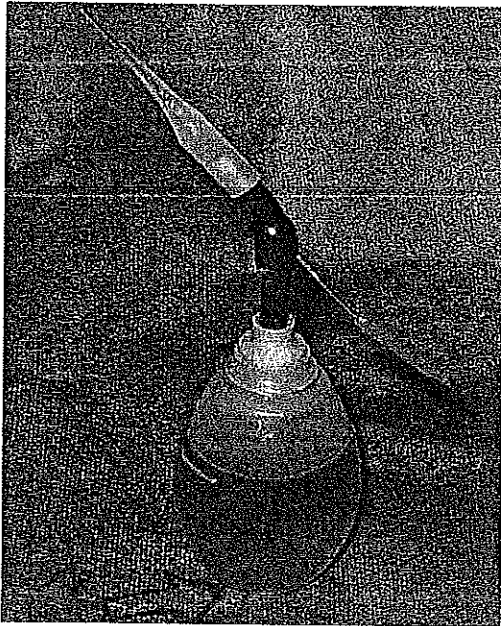
A VERY HANDY GLUE BOTTLE

By George White

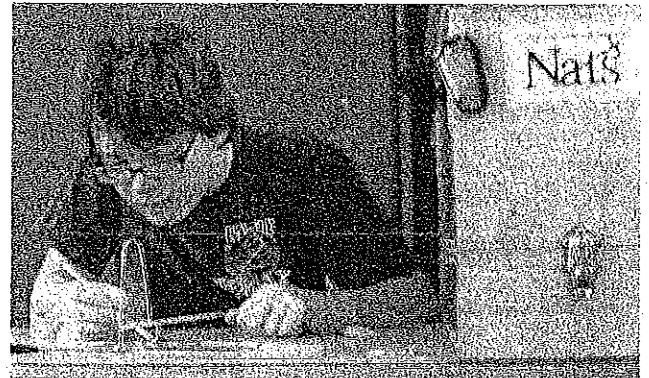
When I was at Johnson City for the indoor NATS this past summer I was introduced to a very nice little bottle for applying glue without having more of it on the joint than was necessary.

For almost all my building needs I've used a combination of 50% duco and 50% acetone, and applied it by using the small bottles available from A2Z folks in Colorado. They have two sizes of needle tops. I use the large one for glue and the small one for keeping a bit of acetone available for correcting the many mistakes I make. The down side of using A2Z's bottles is that I have to keep a short piece of .012" wire handy to unclog the needle when glue dries on the tip.

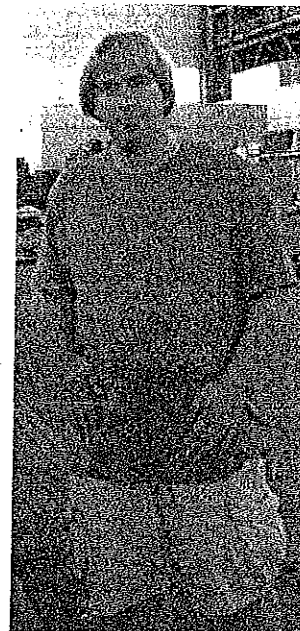
The bottle I found at Johnson City is made by Dennis Tyson and his son Parker, who sold them to raise money for Parker to go to the F1D world champs. As you can see from the photo, the bottle has its own unclogging wire built in. At \$10 that's a nice deal. Check out <http://www.indoornews.com/>, or send them an email at ddtyson@peoplepc.com



F1D CLIMBING (WC)



**PARKER TYSON
JR F1D TEAM
MEMBER (WC)**



(WC)= Walt Collins

**NICK RAY
#3 MAN ON (WC)
OPEN F1D TEAM**

JUNIOR 2011 F1D TEAM SELECTION

First	50m 20s	P Tyson											
Second	37m 30s	Icaobellis											
Contestant		Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7	Round 8	Round 9	High	Second	Total
P Tyson	Processed	x	x	x	x	x	x	x	x				
	Motor	x		x	x	x	x	x	x				
	Watch 1	14:18.000	00:00.000	23:56.000	21:23.000	23:00.000	26:48.000	20:03.000	23:54.000	00:00.000			
	Watch 2												
	Watch Total	14:18.000	00:00.000	23:56.000	21:23.000	23:00.000	26:48.000	20:03.000	23:54.000	00:00.000			
	Prop Stop	00:29		00:27	00:22				00:22				
P Tyson	Total	13:49	00:00	23:59	21:01	23:00	26:48	20:03	23:33	00:00	26:48	23:37	50:20
S Tyson	Processed	x	x	x	x	x	x	x	x				
	Motor	x	x	x	x	x	x	x	x				
	Watch 1	14:33.000	14:23.000	16:43.000	18:40.000	18:19.000	16:59.000	13:54.000	13:54.000	00:00.000			
	Watch 2												
	Watch Total	14:33.000	14:23.000	16:43.000	18:40.000	18:19.000	16:59.000	13:54.000	13:54.000	00:00.000			
	Prop Stop	01:04	00:00	00:00		00:51	00:10	00:10	00:10				
S Tyson	Total	13:79	14:23	16:43	18:40	17:28	16:49	13:44	13:44	00:00	18:40	17:28	36:08
Icaobellis	Processed			x	x	x							
	Motor				x	x							
	Watch 1	00:00.000	00:00.000	00:00.000	17:22.000	20:08.000	00:00.000	00:00.000	00:00.000	00:00.000			
	Watch 2												
	Watch Total	00:00.000	00:00.000	00:00.000	17:22.000	20:08.000	00:00.000	00:00.000	00:00.000	00:00.000			
	Prop Stop												
Icaobellis	Total	00:00	00:00	00:00	17:22	20:08	00:00	00:00	00:00	00:00	20:08	17:22	37:30

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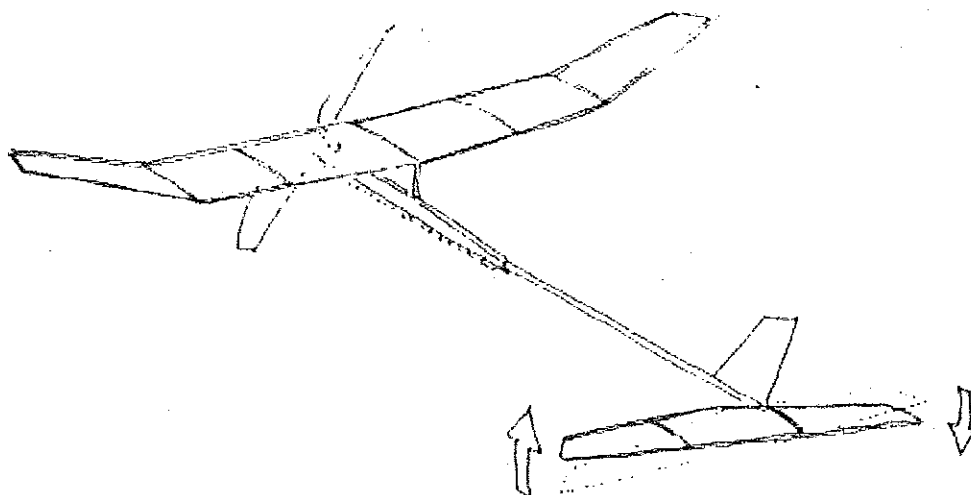
LOOK ME UP

RESULTS: F1D FINALS, TEAM SELECTION, OPEN 2011

First	75m 7s	Sanborn												
Second	73m 34s	Kagan												
Contestant		Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7	Round 8	Round 9	High	Second	Total	
Kagan	Processed	x	x	x	x	x	x	x	x	x				
	Motor	x	x	x	x	x	x	x	x	x				
	Watch 1	35:15.000	36:14.000	37:08.000	33:28.000	34:21.000	34:01.000	33:41.000	34:05.000	38:43.000				
	Watch 2													
	Watch Total	35:15.000	36:14.000	37:08.000	33:28.000	34:21.000	34:01.000	33:41.000	34:05.000	38:43.000				
	Prop Stop	00:44	00:07	00:29	00:02	00:37	01:00	00:32	01:16	01:48				
Kagan	Total	34:41	36:07	36:39	33:26	33:44	33:01	33:09	32:49	36:55	36:55	36:39	73:34	
Sanborn	Processed	x	x	x	x	x	x	x	x	x				
	Motor	x	x	x	x	x	x	x	x	x				
	Watch 1	09:43.000	36:47.000	38:53.000	34:56.000	36:25.000	24:30.000	30:07.000	22:15.000	17:00.000				
	Watch 2													
	Watch Total	09:43.000	36:47.000	38:53.000	34:56.000	36:25.000	24:30.000	30:07.000	22:15.000	17:00.000				
	Prop Stop	00:00	00:16	00:17	00:08	00:32	00:21			00:11				
Sanborn	Total	09:43	36:31	38:36	34:48	36:55	24:00	30:07	22:15	16:49	38:36	36:31	75:07	
Tyson	Processed	x	x		x	x	x	x	x	x				
	Motor		x		x	x	x	x	x	x				
	Watch 1	00:00.000	22:08.000	00:00.000	23:02.000	23:21.000	24:10.000	26:12.000	30:11.000	28:26.000				
	Watch 2													
	Watch Total	00:00.000	22:08.000	00:00.000	23:02.000	23:21.000	24:10.000	26:12.000	30:11.000	28:26.000				
	Prop Stop		00:07	00:00				00:30	00:40	01:24				
Tyson	Total	00:00	22:01	00:00	23:02	23:21	24:10	25:42	29:31	27:07	29:31	27:02	56:33	
Iacobellis	Processed	x			x	x	x	x						
	Motor				x									
	Watch 1	00:00.000	00:00.000	00:00.000	25:01.000	00:00.000	00:00.000	00:00.000	00:00.000	00:00.000				
	Watch 2													
	Watch Total	00:00.000	00:00.000	00:00.000	25:01.000	00:00.000	00:00.000	00:00.000	00:00.000	00:00.000				
	Prop Stop				00:12									
Iacobellis	Total	00:00	00:00	00:00	24:49	00:00	00:00	00:00	00:00	00:00	24:49	00:00	24:49	
Ray	Processed	x	x	x	x	x	x	x	x	x				
	Motor	x	x	x	x	x	x	x	x	x				
	Watch 1	30:49.000	08:19.000	30:20.000	29:00.000	29:53.000	35:44.000	28:35.000	05:37.000	29:01.000				
	Watch 2													
	Watch Total	30:49.000	08:19.000	30:20.000	29:00.000	29:53.000	35:44.000	28:35.000	05:37.000	29:01.000				
	Prop Stop	00:37	00:00	00:00	00:22	00:12	00:44	00:10		00:12				
Ray	Total	30:12	08:19	30:20	28:38	29:41	35:00	28:25	05:37	28:49	35:00	30:20	65:20	
Bennett	Processed			x		x	x		x	x				
	Motor			x		x			x	x				
	Watch 1	00:00.000	00:00.000	28:50.000	00:00.000	33:09.000	00:00.000	00:00.000	22:53.000	31:38.000				
	Watch 2													
	Watch Total	00:00.000	00:00.000	28:50.000	00:00.000	33:09.000	00:00.000	00:00.000	22:53.000	31:38.000				
	Prop Stop					00:48			00:08	01:28				
Bennett	Total	00:00	00:00	28:50	00:00	32:24	00:00	00:00	22:45	30:10	32:24	30:10	62:31	
Zaluska	Processed					x								
	Motor					x								
	Watch 1	00:00.000	00:00.000	00:00.000	00:00.000	29:17.000	00:00.000	00:00.000	00:00.000	00:00.000				
	Watch 2													
	Watch Total	00:00.000	00:00.000	00:00.000	00:00.000	29:17.000	00:00.000	00:00.000	00:00.000	00:00.000				
	Prop Stop													
Zaluska	Total	00:00	00:00	00:00	00:00	29:17	00:00	00:00	00:00	00:00	29:17	00:00	29:17	

INDOOR HINTS AND KINKS BY LARRY COSLICK

Automatic stab tilt. If your model won't turn left under a full launch torque, try this
Drawing by Steve Gardner



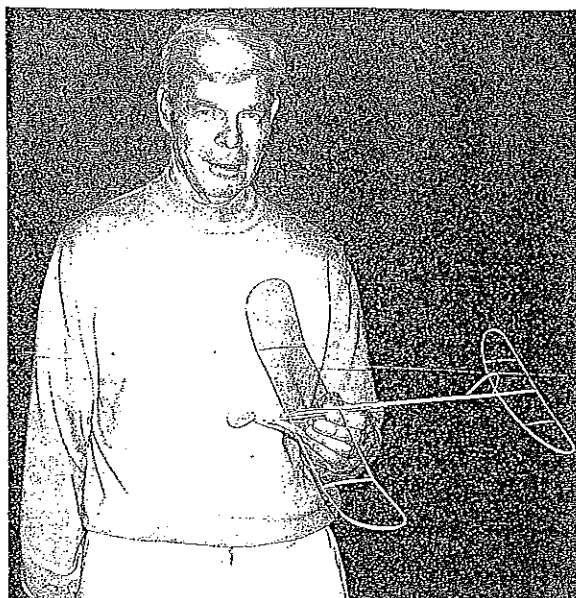
I stumbled on this automatic stab tilt phenomena by accident after completing a small 15 square inch model called 1/2A stick, designed by Wally Miller, the originator of the EZB. VP props are legal on this model.

The model would fly fine on a fixed pitch prop but it didn't like the high pitch of my 8" VP prop. I used a lot of off set in the wing along with wash in and it would start its climb OK, and then crab off to the right and stall. Nothing seemed to work to correct this problem, including lowering the pitch.

I decided to offset the stab and did it in a big way, 70% of the stab on the inboard side. The offset stab looked weird and drooped enough to cause quite a bit of negative stab tilt at rest.

The model is small enough to fly in a large room and when I flew it with the same torque and high pitch that caused the stall in the first place, the model continued its climb without any hint of a stall. The boom and stab twist under the flight load to give a left turn. I tried the stab offset on one of my FIL's that didn't want to turn with a launch torque over .2 inch ounces and it solved that problem. I didn't have to change the boom on either model and tweaking the boom can be used to change the circle.

L. Coslick 2010



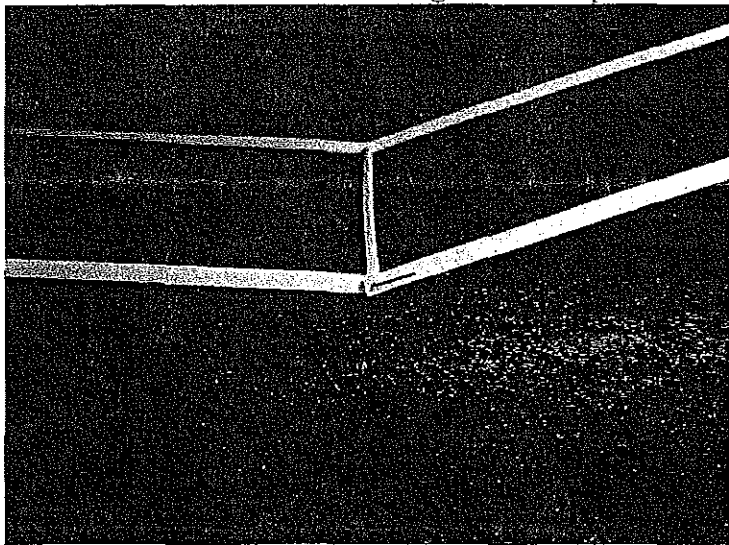
**LARRY COSLICK INDUCTED INTO THE
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HALL OF FAME. INDOOR NEWS AND
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WELL DONE!**

Folding FID Wing tips

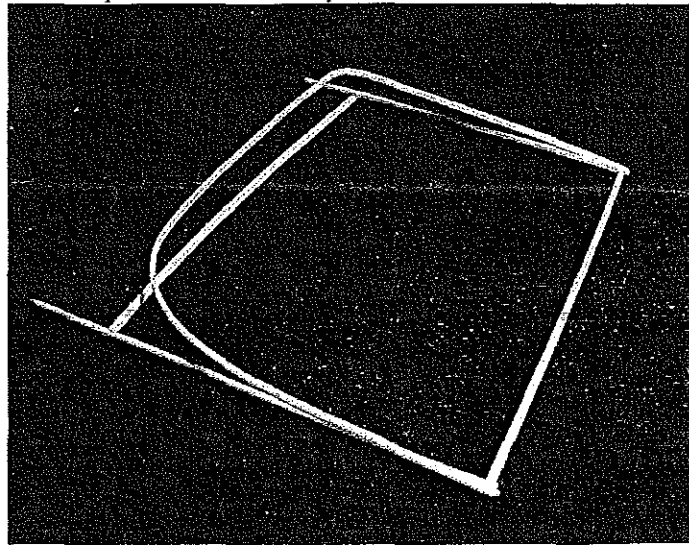
Whether you want to take along an extra wing or there is some question about your model box fitting into the overhead compartment of an airliner, here is a way to travel with a much shorter box. The wing tips are folded over so each wing will fit into a slot or box .7X8.5X15" or shorter depending on the length of the center panel. To use this system the dihedral joints are overlapped and it will be necessary to adjust the chord at those joints to comply with the 20 CM chord rule.

After the wing tips have been unfolded, the wing can be stored in one of those cardboard under the bed boxes. The box lies flat when disassembled and can easily be placed in with clothing or support gear and reassembled in a few minutes.

When building the wing, overlap each tip spar at the dihedral joint (.075") and glue it to the main spar with Aliphatic (carpenters glue) and glue the ribs in with Acetate glue. There's no reason to worry about the film or rib coming loose near the dihedral breaks when using Aliphatic to glue the dihedral joints. After the wing is removed from the building board, make up four wire hinges using short pieces of .005 music wire bend at ninety degrees. (Four hinges weigh less than .006 gram) Make a piercing tool using a .4" long piece of .005" music wire mounted in a small dowel and it's best to sharpen the piercing end. Back up the spar with a pair of tweezers or hold the dihedral rib with your fingers. Take the tool and pierce a hole in the center of the joint and rotate the tool while pushing it through the spar, glue joint and into the dihedral rib. Insert the hinge and line up the end so that it is parallel with the spar.

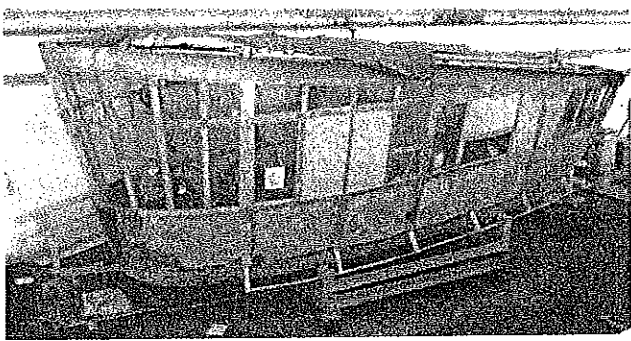


.005mw hinge to prevent wing tip from separating from main spar

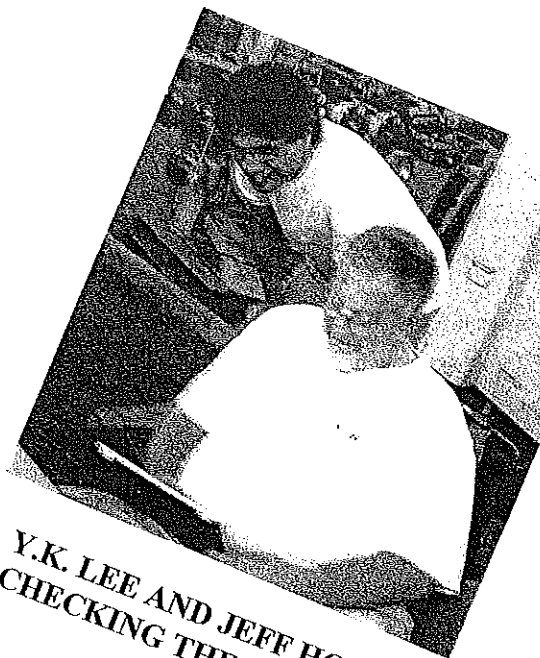


Wing tip in the folded position

After the wing is covered, lay out a small piece of plastic or waxed paper under each dihedral joint. Lay a small weight on the spars near the inside of each dihedral rib and one right in front of each dihedral joint and puddle two drops of water under each joint. Lift up each tip about 1/2" with a piece of balsa so that the tip outline will bow near the dihedral break. It will take several minutes for the glue to soften and it might be necessary to place a little extra water on the joints, but don't flood them. Slowly lift the tip a little more to place added pressure to each joint. The tip outline could break at the dihedral joint if you get in a hurry. The glue will usually let go all at once and the wing tip can be folded over on the center panel. Leave the small weights in front of each dihedral joint until the aliphatic glue hardens to make sure the joint doesn't open when the tips are folded over joint. The wire is placed at each joint to prevent this from happening but I leave them in place for added security. Then place a little extra Aliphatic glue at each dihedral joint. Reverse the procedure to fold the wing back to its original length. I. Coslick 07



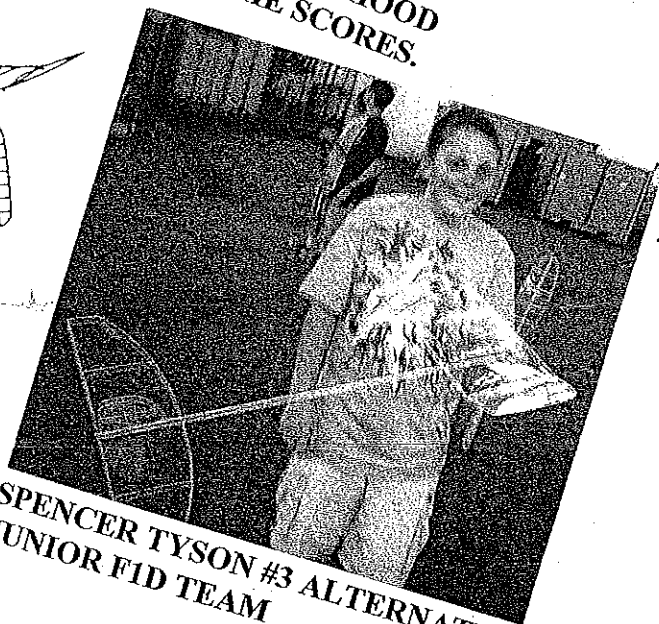
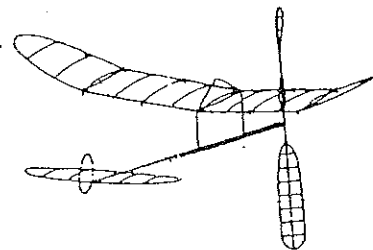
REPLICA GONDOLA FROM MOVIE,
"THE HINDENBERG"



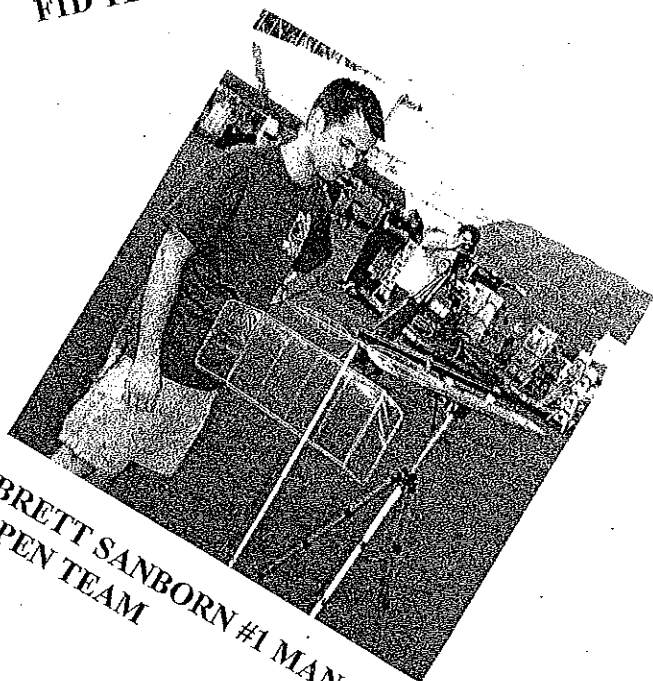
Y.K. LEE AND JEFF HOOD
CHECKING THE SCORES.



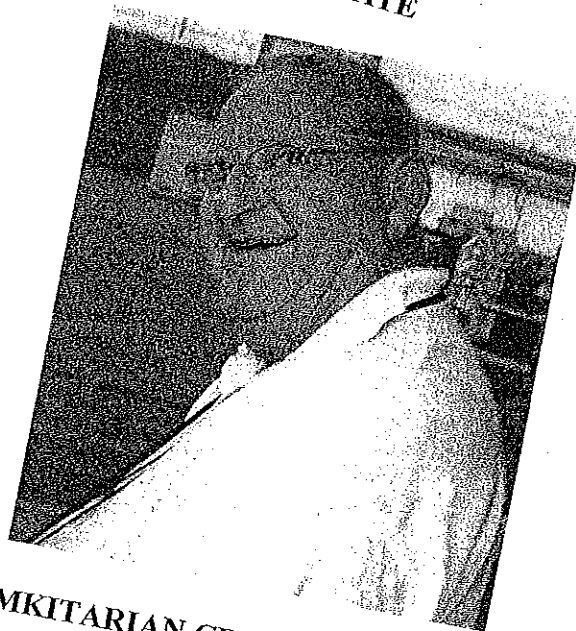
JOHN KAGAN #2 MAN ON OPEN
FID TEAM



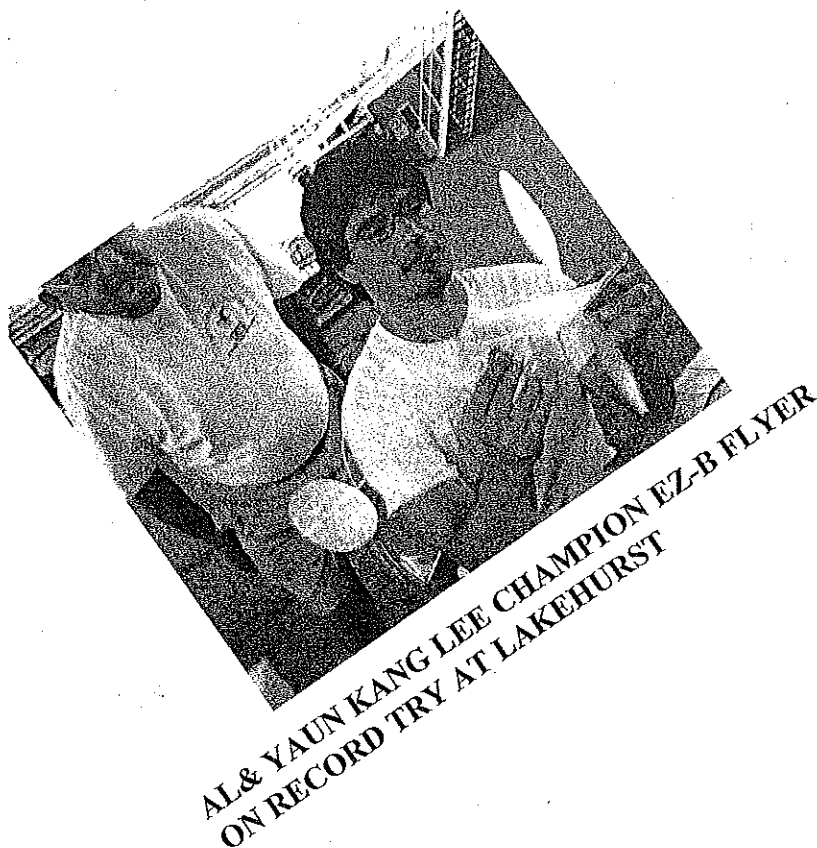
SPENCER TYSON #3 ALTERNATE
JUNIOR FID TEAM



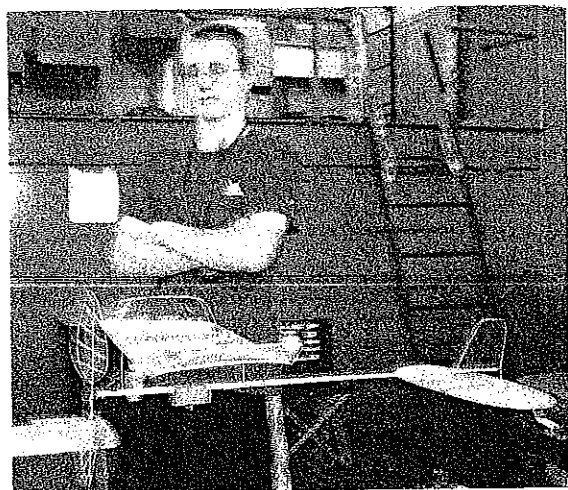
BRETT SANBORN #1 MAN FOR FID
OPEN TEAM



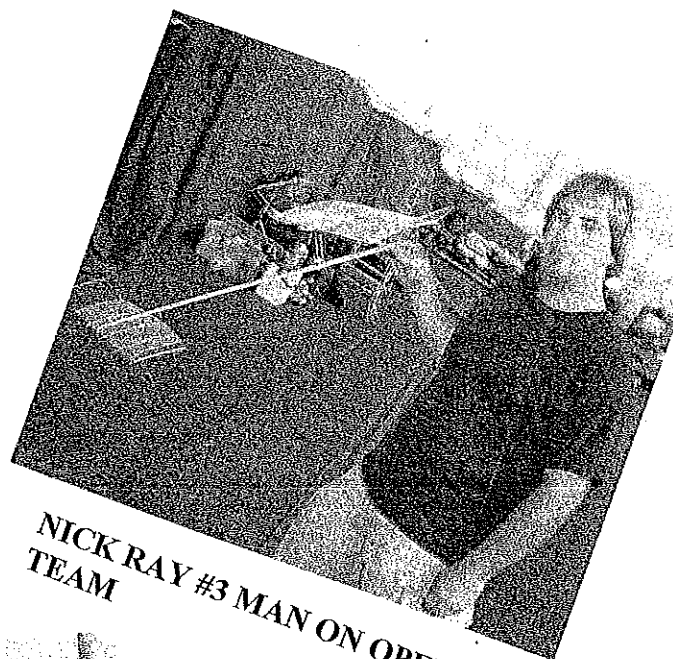
AL MKITARIAN CD FOR THE FINALS



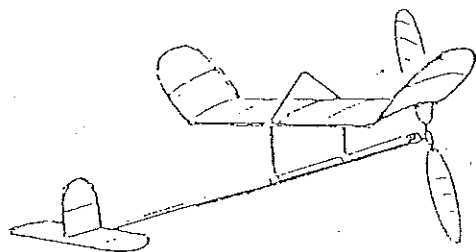
**CARRIER DECK FOR TRAINING SAILORS
IN FLIGHT DECK OPERATIONS.
DECK IS ABOUT 12 FEET ABOVE
THE FLOOR OF THE HANGAR.**



**TOM ICAOBELLIS #2 MAN ON
JUNIOR FID TEAM**



**NICK RAY #3 MAN ON OPEN FID
TEAM**

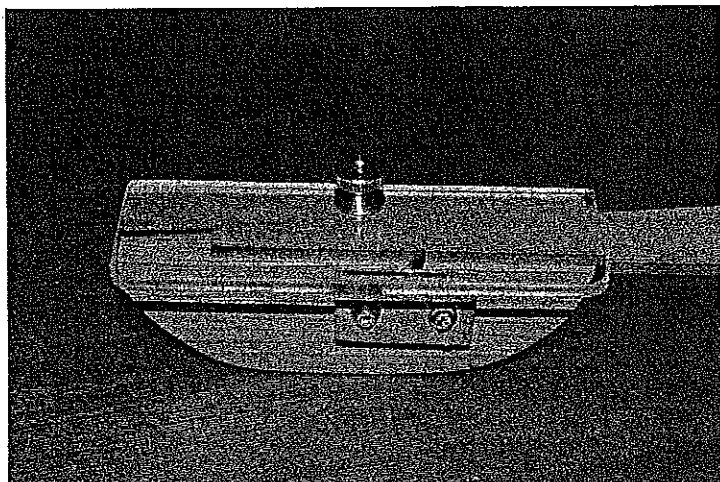
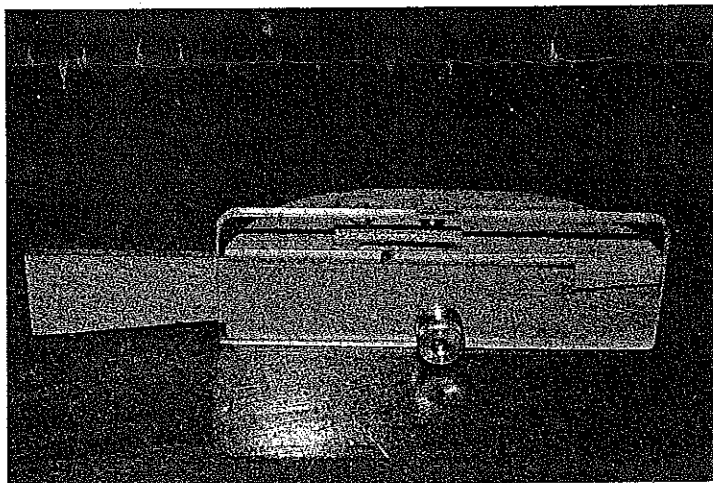
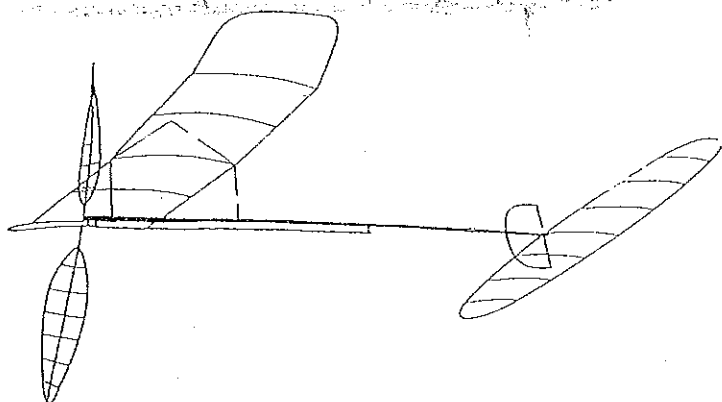
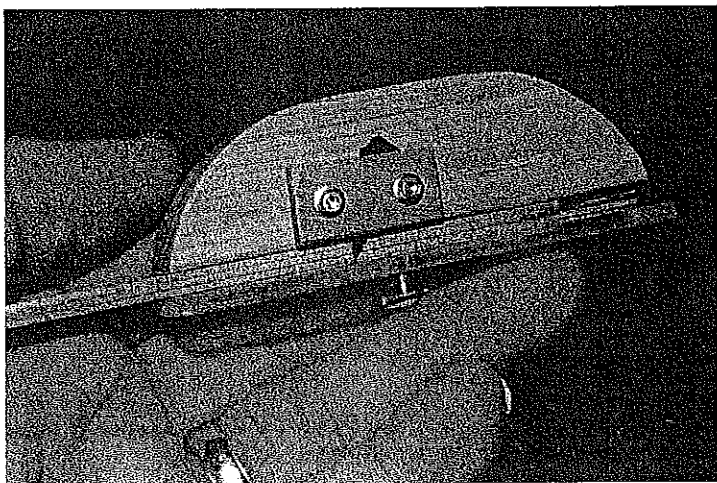


**MARK BENNETT
#4 MAN ON FID (WC)
OPEN TEAM**

GARDNER-STYLE Balsa Stripper

Dennis Tyson

Dennis sent in a few pictures of his Gardner-style stripper that he built. Pictures should make it self-explanatory if you want to build one of these great tools.



INDOOR

NEWS and VIEWS

ABRAM VAN DOVER, EDITOR
112 TILLERSON DR
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EARLY FALL
2011



USA FIRST-CLASS FOREVER



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Indoor News and Views

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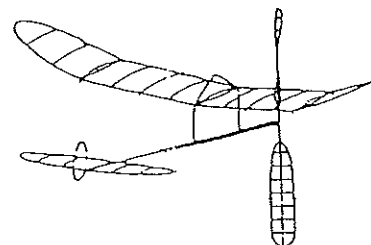
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112 Tillerson Dr
Newport News, VA
23602

**Make all checks to
Abram Van Dover**

ISSUE #132
FALL
2011

INDOOR

NEWS and VIEWS



FROM THE EDITOR'S DESK

Issue #132 looks like we have a lot of good info for you plus some products you may find handy and or interesting. Right off the bat we have the big shoot out in California, in the big blimp hangar in Tustin. The first record trials in November, 26, 27 & 28. Three days of non stop indoor flying for all types of indoor models, see the add on the next page. Then to top it all off, there is the December extravaganza, 26, 27, 28, 29 & 30. I have a feeling Ralph Ray is behind this with Stan Buddenbohm right on his heels. Something about a two minute Catapult glider flight. If you're an indoor flier and can get to Tustin, this is where you want to be. It's record setting time.

Our next hot item can help you to set some records. It's a new revolutionary winder. It has a chain that drives the winder shaft. It is very smooth, is 20 to 1 and is very affordable. Just the thing for Christmas. It is the brainchild of Art Holtzmann, who has put much R&D time into the product and now gives us another choice in winders.

This next item gives you another chance to use your new gear driven winder. It's the International Postal Contest for EZ-Bs and A-6s. The Brainbusters have decided to run this contest at least one more time. It runs 1 January to 31 March 2012, so you have oddles of chances to use your new winder and fly indoors. See how we can help you do things.

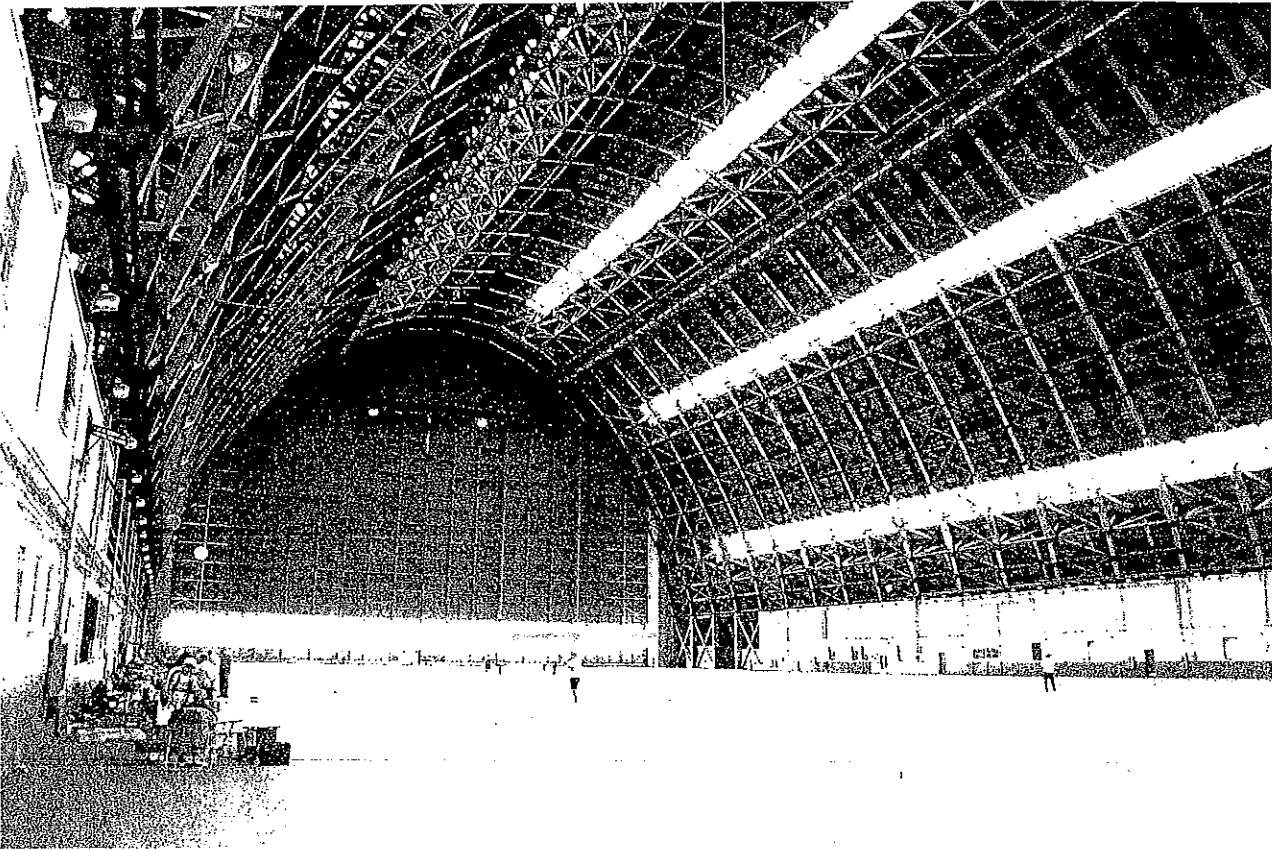
On this next item I have to apologize to Brett Sanborn for not recognizing his record setting flight at Lakehurst at the USA F1D team selection finals. Brett's 38 minutes & 36 seconds, thereby besting John Kagan's record. Brett and John are 1 & 2 on the USA F1D Team.

We still have more. Observe The European F1D times at their Championship Contest. They compare with us and when we're on their turf it's tougher than at home. Our guys have the stuff to beat them and they can do it with our support. When the time comes for donations, chip in as best you can, The AMA cannot pay all costs we need to help as well. Big hint

More yet: I have put expiration dates on about 99% of our subscription base and red Xs on a lot of newsletters. If you feel I have cheated you, (my words) please call or E-mail me and we'll work it out. E-mail VanDover@cox.net Tel 1-757-877-2830. Thank you.

More again. Not so good news. East Tennessee State University has installed 10 banners by the scoreboard in their Minidome. It will really hurt our indoor flying. We have dedicated people that are trying to remove these and then put them back up after our Indoor Nationals in May. It will cost us money, I don't think the AMA can help us. There are no suitable sites we can afford in the USA that we know of. The ball is in our court. Ideas? Contact me as above

How would you like to fly at this beautiful site?



Indoor flying and record trials at the world famous Tustin, California MCAS Blimp Hangar during the Thanksgiving and Christmas Holidays. We have reserved the hangar November 26,27, and 28. Plus December 26, 27,28, 29 and 30.

E-mail ralphray@earthlink.net with your chosen dates.

Cost will vary from \$20.00 to \$50.00 per day depending on sponsorship and participants. You can call Ralph at 1-619-504-2661

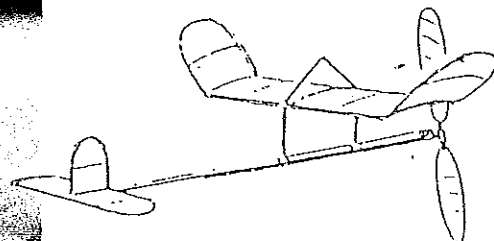
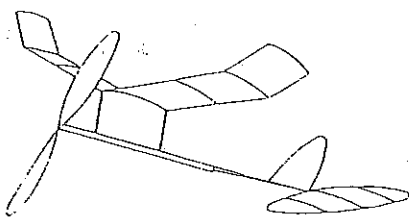
The floor of this Cat 4 site is 167 ft high, and approx. 300X600 ft.

Reasonably priced motels and dining nearby. 15 minutes from Orange Country Airport, the Pacific Ocean and Disneyland.

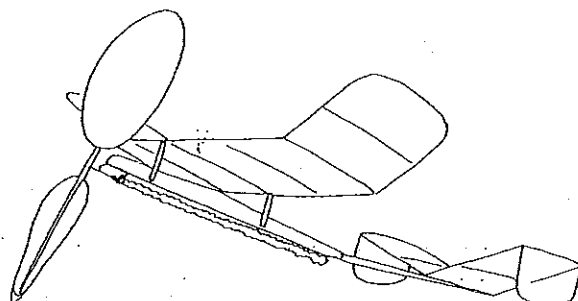
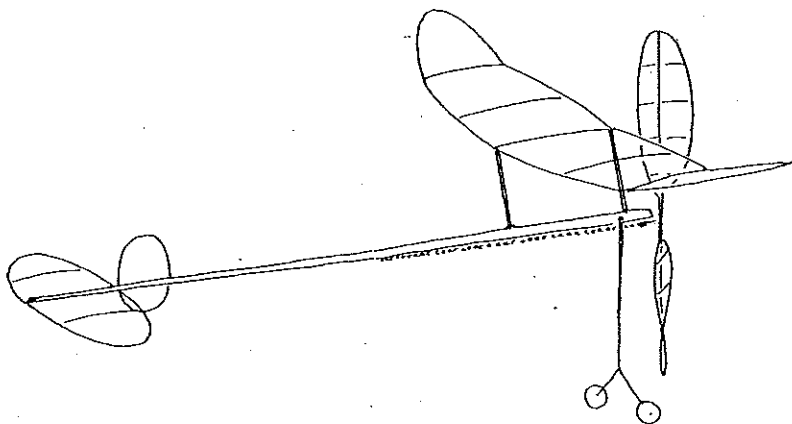
After many requests Stan is kiting the Lit'l Sweep standard indoor catapult glider, holder of many records. Also he has agreed to kit an unlimited indoor catapult of up to 18" span. These gliders have balsa fuselages, no carbon, the wings remove for incidence adjustment and easy transportation. Lit'l Sweep can already be found in Stan's catalog seen on the website discussid. They are selling for an introductory price of \$20 and \$25 plus plans and shipping.

Bring them to the Tustin Blimp Hangar events for coaching by Ralph Ray or Stan. (National Champions and Record Holders)

Also, the Super #11 Knife blades are still available: 10 blades for \$10 plus priority shipping (\$5 for any amount), or they can ride for free if you order something else from Stan.

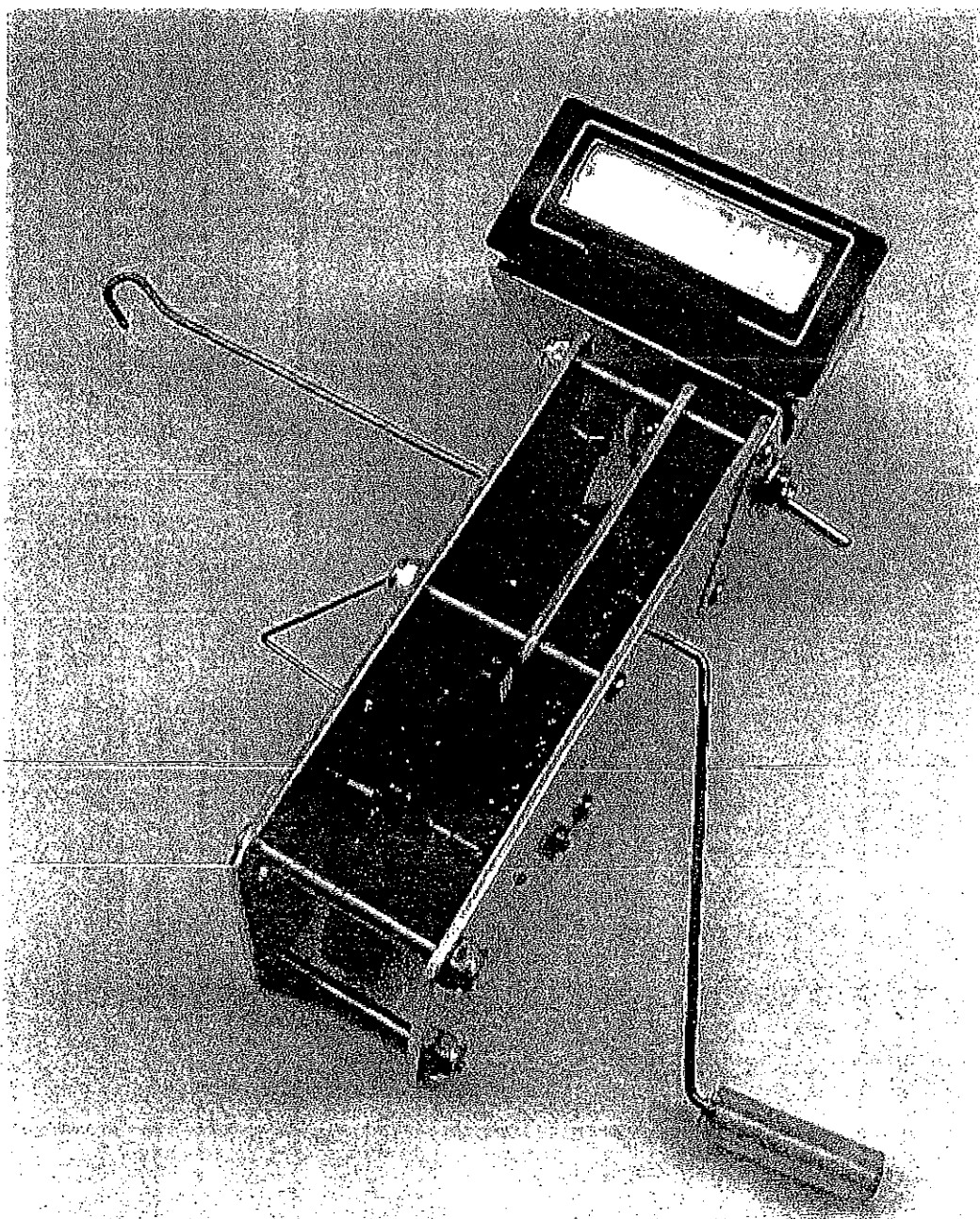
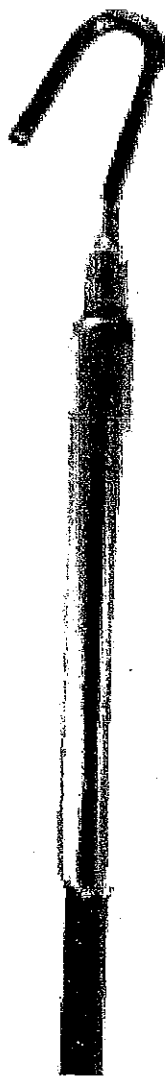


Pictured next door we have Ralph Ray and his beautiful wife Michelle. Also pictured is the catapult glider, Lit'l Sweep Unlimited Cat Glider, holder of many records. Buy it !!!



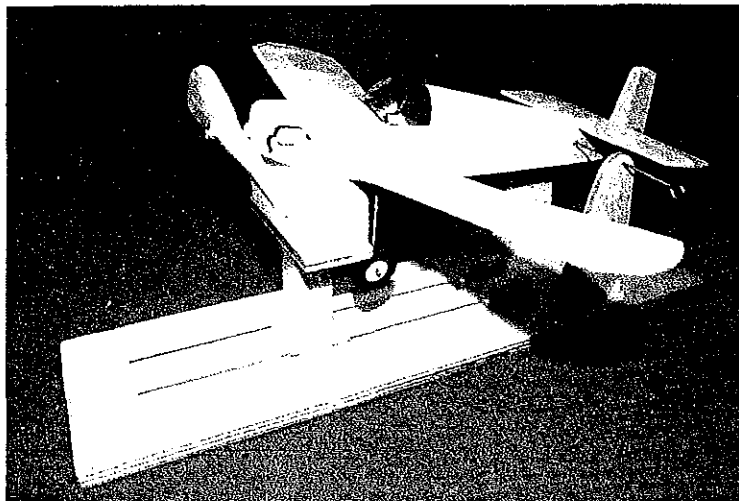
ART HOLTZMAN'S CHAIN OPERATED 20 TO 1 WINDER FOR INDOOR RUBBER POWERED MODELS

Looking for a winder for your indoor rubber powered models? Need a smooth one with a winds counter? This is the one for you. It is not only smooth, but will last for a good many years and be just about maintenance free. Keep it clean and oil it once a year and very little at that. This is a winder that has gone through much research and development and many modifications. The price? , \$130 including postage, \$3.00 for overseas Plus a 6% exchange rate. You can contact Art at upwind120@gmail.com for any particulars. You can have a 1/32 winding hook or the 1/16 one. It seems that some people use the small O rings and them and the 1/16 th hooks do not get along. Check with Art if you want a different one. Below are some pictures of our winder and the small hook magnified of course Gears or chains, chains for me.



A WORTHY CAUSE

The Tyson family is selling a dandy FAC-type stooge to defray the costs of sending the 2012 USA Indoor World Champ Team overseas to defend our national honor. A picture follows. It looks like it would work just fine, just the right size for smaller models. The cost is \$30 or \$35, postpaid, I forget which. Get yours today. Contact the Tyson's at: Ddtyson@peoplepc.com



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LOOK ME UP

2012 INTERNATIONAL INDOOR POSTAL CONTEST MINISTICK & A-6

Welcome back to the annual International Indoor Postal Contest for Ministick and A-6. Last year I said the Brainbusters would not do it any more. Change 2, We changed our minds. We will host the 2012 contest. As before, the two events will be flown between 1 January and 31 March 2012. Individuals may fly as many time as they like, in as many sites as they can, in the 3 month period. However, only their highest score will count towards winning in their respective events. All scores will be mailed or sent by E-mail to the address below. We will not have a web site and will not divide flyers into various groups. Scores will be published in the Brainbuster Newsletter as available. Also in the February/March Indoor News and Views of 2012. All final scores will mailed to entrants that are not subscribers of INAV. Trophies will be awarded to third place in both Ministick and A-6. All scores forwarded to the Brainbusters will contain all the information on the attached score sheet. Both sets of event rules are included.

SEND YOUR RESULTS TO:

BRAINBUSTERS

112 Tillerson Dr
Newport News, VA

23602 USA

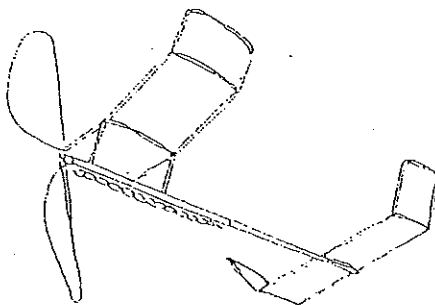
E-MAIL vandover@cox.net

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 plus 46 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 received.

* Example:

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

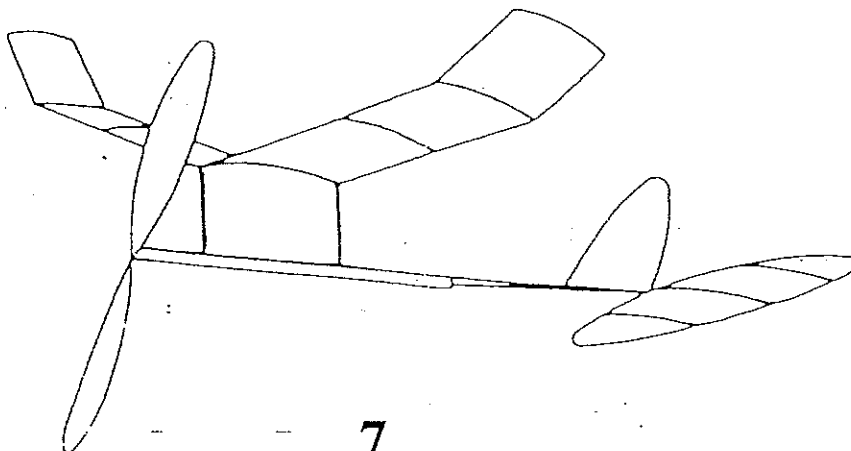
*Note That the official normalized times will not be available until the contest is completed

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
 112 Tillerson Dr
 Newport News, Va
 23602
 USA



Indoor Postal Contest Results Form

BRAINBUSTERS
112 TILLERSON DR
NEWPORT NEWS, VA
23602 USA

Club Name _____

Date of Contest ____ / ____ / ____ Site Name _____

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

Contestant Name	Address	Time in Seconds	Timer Initials

EUROPEAN INDOOR F1D CHAMPIONSHIPS

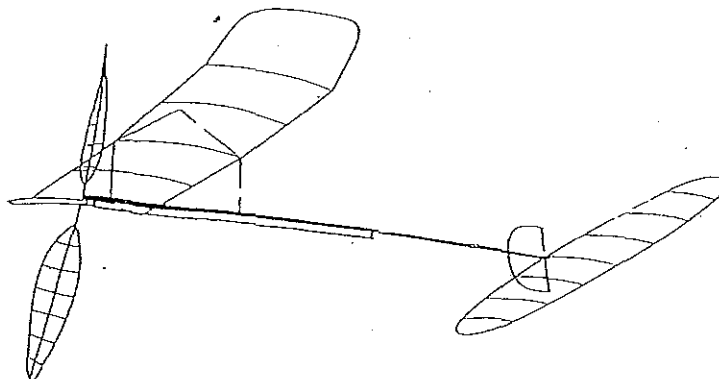
F1D

FAI European Championship F1D 2011

Name	FAI Lic	Country	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Best	2nd Best	Total	Place
TREGER Ivan	SVK 1001	SVK	36:40	37:15	33:06	37:08	32:51	38:01	38:01	37:15	75:16	1
SCHRAMM Lutz	GER-2196	GER	33:09	32:47	34:05	34:05	34:32	35:52	35:52	34:32	70:24	2
SUKOSD Zoltan	HUN-0321	HUN	32:18	32:41	34:31	35:12	33:14	32:44	35:12	34:31	69:43	3
KAPLAN Mikita	CZE 1016	CZE	30:39	31:55	12:48	33:51	0:00	31:50	33:51	31:55	65:46	4
REE Andras	HUN-0030	HUN	1:12	28:52	32:59	32:10	12:38	32:42	32:59	32:42	65:41	5
BARBERIS Didier	FRA 551	FRA	32:30	32:22	32:48	30:57	32:46	31:28	32:48	32:46	65:34	6
ORSOVAI Dezso	HUN-0027	HUN	16:50	19:50	32:46	32:41	32:17	32:32	32:46	32:41	65:27	7
NICOARA Vasile	ROU 134	ROU	18:22	23:55	26:09	32:34	10:09	32:12	32:34	32:12	64:46	8
BUNDESEN Uwe	GER-2192	GER	28:33	32:04	29:01	30:14	28:35	32:26	32:26	32:04	64:30	9
MARILIER Thierry	FRA 971	FRA	27:05	30:28	29:57	32:05	29:30	32:12	32:12	32:05	64:17	10
MIDIĆ Slobodan	F-101	SRB	18:49	17:42	8:34	31:45	31:56	14:50	31:56	31:45	63:41	11
POPA Aurel	ROU 135	ROU	1:42	19:20	31:03	31:22	27:12	30:57	31:22	31:03	62:25	12
MARKIEWICZ Jerzy	POL-53	POL	5:57	9:52	10:01	31:17	10:04	30:59	31:17	30:59	62:16	13
CHAMPION Robert	FRA 339	FRA	30:30	30:06	30:22	29:48	29:03	28:52	30:30	30:22	60:52	14
CIAPALA Edward	POL-203	POL	30:16	29:21	28:51	29:47	14:24	15:52	30:16	29:47	60:03	15
STRAKA Jaroslav	CZE 1279	CZE	25:49	1:22	24:12	30:00	21:54	29:55	30:00	29:55	59:55	16
MOMOT Tomasz	POL-4949	POL	30:06	29:01	1:05	0:41	3:13	22:43	30:06	29:01	59:07	17
KAPLANOVA Klara	CZE 1017	CZE	27:07	28:23	26:29	26:42	29:32	28:30	29:32	28:30	58:02	18
SCHOENFELDER Karl	GER-3252	GER	20:36	27:14	27:08	27:47	25:29	17:39	27:47	27:14	55:01	19
LINKOSALO Tapio	FIN-2500	FIN	24:48	24:59	25:37	25:30	24:49	24:14	25:37	25:30	51:07	20
LEFEVER Geoffrey	GBR 005484	GBR	0:00	11:45	24:46	9:09	8:55	24:21	24:46	24:21	49:07	21
LAĆIMIĆ Lazar	F-138	SRB	9:50	24:29	21:28	21:00	0:00	0:00	24:29	21:28	45:57	22
MORAR Aurel	ROU 605	ROU	19:17	22:53	18:13	9:45	1:07	0:10	22:53	19:17	42:10	23

FAI European Championship F1D 2011 Team results

Country	Total	Place
HUNGARY	200:19	1
FRANCE	190:43	2
GERMANY	189:55	3
CEZCH REPUBLIC	183:43	4
POLAND	181:26	5
ROMANIA	169:21	6
SERBIA	109:38	7
SLOVAKIA	75:16	8
FINLAND	51:07	9
GREAT BRITAIN	49:07	10



INDOOR

NEWS and VIEWS

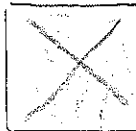
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