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MINNEAPOLIS MODELER

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President——Gary Oakins (651) 429-3150 Secretary——Duane McDonnell (763) 557-5752
V. President—John Watkins (763) 525-1701 Treasurer——Denny Sussman (952) 854-0292
Editor——Jack O'Leary (952) 888-0638 E-Mail : olryjhn@aol.com

Coming Events

July 6,2001 : Club Meeting, A N G Museum,Fort Snelling @ 7:30 pm
July 8,2001 : Summer Meet @ Harley's Sod Farm, North Branch, MN
August 3,2001 : Club Meeting, A N G Museum, Fort Snelling @ 7:30 pm
August 12, 2001 : Almost Silent Meet @ Harley's Sod Farm
Sept. 7, 2001 : Club Meeting, A N G Museum, Fort Snelling @ 7:30 pm
Sept. 9, 2001 : Fall Meet @ Harley's Sod Farm, North Branch, MN
October 5,2001 : Club Meeting, A N G Museum, Fort Snelling
October 14, 2001 : " Octoberflug " Meet @ Harley's Sod Farm
November 2, 2001 : Club Meeting, A N G Museum, Ft. Snelling

Minneapolis Model Aero Club
2001 Outdoor Contest Schedule

July 8, 2001 "Summer Meet" -AA- CD Don Monson 651-457-2321

1/2A Gas	Nos Gas (9 sec.)	Embryo Endurance	Pee Wee 30
A Gas	Mulvihill	Coupe d' Hiver	Moffett
BCD Gas	P-30	Catapult Glider	Junior Event
ROW (record attempt)		Jetex	O.T. Rubber (<'46)

August 12, 2001 "Almost Silent Meet" -AA- CD Gary Oakins 651-429-3150

Open Power	1.5*x* Bostonian	Embryo Endurance	HL Glider
NOS Gas Large	Coupe d' Hiver	.020 Replica-1/4A Nos Gas	Junior Event
NOS Gas Small	P-30	Mulvihill	
ROW (record attempt)		Moffett	A/1 -A/2 Glider

September 9, 2001 "Fall Meet" -AA- CD Dale Mendenhall 763-535-2976

1/2A Gas	Classic Gas	P-30	ROW (record attempt)
A Gas	Mulvihill	Pee Wee 30	Catapult Glider
BCD Gas	Coupe d' Hiver	Junior Event	Embryo Endurance
		Moffett	



OAKIE'S ORACLES

Summer flying is in full swing with two contests completed. Summer has always given me more time for airplanes as ice fishing is done. Well, yours truly is now the proud owner of his first fishing boat. This means more fishing and less model flying. Oh well, I love both hobbies. The boat performs great. Terry Taylor and I went fishing Memorial Day, even caught some nice sunfish.

I received a phone call from Bill Vanderbeek who resides in California. We had a very nice chat. He plans to attend our meetings and our contests as business brings him here periodically. Another POWER flyer, great! Bill also expresses a interest in ice fishing.

I received some model items and two trophies for our junior flyers from Ruth Oppegard. I thanked her on behalf of the club. Ruth had a hip replaced last year and had the other one replaced in May. She assured me she feels fine and sounded great on the telephone.

The club expresses its gratitude to Karl Nitardy's family and especially Eric for allowing us to keep Karl's stuff in circulation. Karl had some great engines and kits. Our treasury has grown thanks to the sale of his model items. Thanks again, Eric.

Jorge Triana gave us a look at his new Pistachio model, a Vagabond. It weighs a mere one gram. The model displayed Jorge's usual enviable building ability. It flew for about one minute.

At the May contest Denny Sussman's Firebird, a C powered ship flew out of sight to the north. I assured him he would have a call about the plane when he got home as I talked to Jesus and he assured me the plane would be found. Sure enough, someone called Denny's before he got home. I really didn't bother God as he has many more pressing problems than our models. Denny called that night with the news and said he's starting to believe.

The June Mini FAI and the Spring meet were well attended. The Pres. on Saturdays first flight of his ½ A had a 21/2 min. engine run. I didn't trip the engine timer and because I was in a hurry failed to install my Walston transmitter. A local resident called Sat. night as he found my model two miles downwind. (Denny talked to God Sat afternoon.) On Sunday, my first flight of my A gas plane also had a 21/2 min.engine run. This time the Walston transmitter was in the plane. I was back at launch site in 20 minutes. Pilot error!

Judi and I plan to host a fall party in September. Aaron suggested I have a fish fry. Sorry, impossible to catch enough fish unless I quit work; cannot afford to quit just yet.

Hope to see you all at the meeting or at Harley's flying.

GARY

MMAC Minutes for the May 4th, 2001 Meeting

The meeting was called to order at 2000 hours with President Gary Oakins presiding.
Number in attendance: 25
The minutes of the April 6th, 2001 meeting were read and accepted by the members present.
The Treasurer's report was accepted by the members present.

CORRESPONDENCE

A motion was made and seconded to send $15.00 to the Minnesota Association of Aero Modelers in response to a letter from MAAM.
A motion was made and seconded to send funds to receive the NFFS Symposium Report for the year 2001.

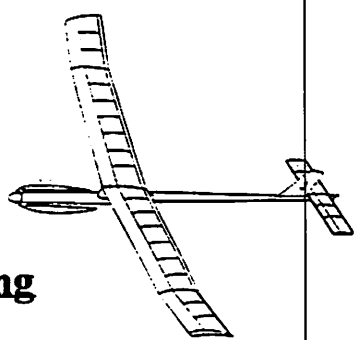
OLD BUSINESS

The total fees for the use of the Burnsville gym was $642.00. The amount included the fun flys/trim sessions and the April 8th competitions.
The club members applaud Jack O'Leary for his arranging the use of the Burnsville gym.
Jim Ladwig reported on the use of the Metrodome for school classes as well as the Xcell Center.

NEW BUSINESS

None

The meeting adjourned at 2030 hours.



MMAC Minutes for the June 1st, 2001 Meeting

The meeting was called to order at 2000 hours with President Gary Oakins presiding.
Number in attendance: 23
The minutes of the May 4th, 2001 meeting were read and accepted by the members present.
The Treasurer's report was given by Denny Sussman and accepted by the members present.

CORRESPONDENCE

The club received Remembering Pearl Harbor hand outs from the 24th Annual Ghost Squadron.
The air show will be held August 4th and 5th, 2001, at Fleming Field Airport, South St. Paul.
The club received the certificate of insurance on the River Centre Excel Energy Touchtone, Energy Place from the Academy of Model Aeronautics.
Correspondence was shared from Mrs. Oppegard, thanking the club for all the thoughtful things done in memory of Bob.

OLD BUSINESS

A short report on Excel Energy School student's use was given.
Thank you to Don Berggren for all the work put into the past three meetings sale of motors, kits, parts and wood.

NEW BUSINESS

A short discussion was held in regards to the next season's indoor site needs.
Gary Oakins initiated a brief discussion on the upcoming 65th anniversary in 2002.
Jim Ladwig presented a short financial report on the Outreach program.

The meeting adjourned at 2025 hours.

Show and Tell by Don Spehn and Dave Edmonson.
The raffle winner was Gorden Dona.

Respectfully submitted,
Duane McDonnell
Secretary

From the editor's desk:

Thoughts while shaving; It's been twenty years since I last served as editor of this esteemed journal. At that time ,one of the hats I wore at work was supervising an in-house printing service. I was fortunate to have a secretary who was most proficient with an IBM Selectric Composing Typewriter, a $4000. unit and state of the art at the time, but which in a modern context is easily outpaced by a $900. computer. The reason I'm relating this is that I purchased my first PC about three weeks ago and I'm trying to learn how to use this infernal machine. It's coming along slowly and I seem to be spending a little less time in a pointless, vituperative dialog with the bloody machine. The most vexing problem is this little bug eyed thing amabob (a paperclip with eyeballs) that keeps tapping on the inside of my screen suggesting that I don't know whatinhell I'm doing and wants to know if it could help. This little condescending bugger doesn't understand how vulnerable he is; one more annoying little tap and I'm going to inflict some major whupass upside his skinny little head with a pool cue. I suspect that this critter is Bill Gates' devil child and it's spying on me.. Ah well!

Letters to the editor

To: Jack O'Leary,Ink stained wretch
From: NFFS Central, (somewhere in the fogbound NW)
Re: Your entry in our annual limerick contest

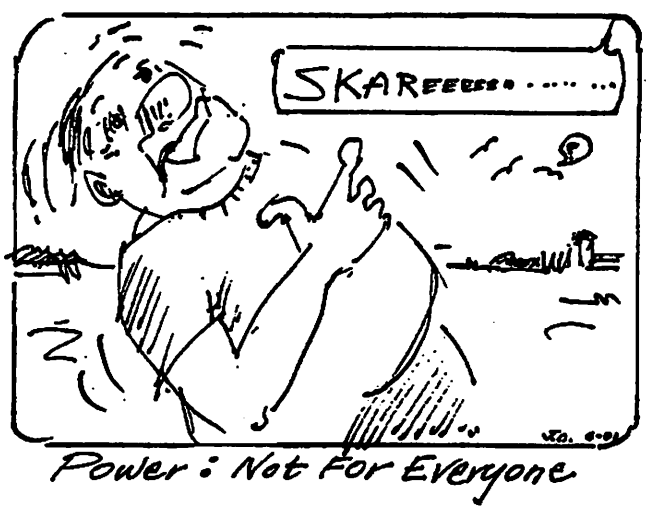
Jack,let me tell you. There were more than a few chuckles here at Niffus GHQ with your amusing entry, However because of the randy nature of the jingle and our sensitivity for our younger readers,we have decided not to publish it. Please be informed ,however, it is our great pleasure to award you the first prize ,a semi-handsome trophy and 22 feet of DT fuse. Our congrats!

Editors response: Well I'll be a nitro swilling pylon flyer! Here for the edification of our mature subscribers is the poem in its entirety:
Here I sit with pen in hand
Next to my plane with rubber bands
No timer to tweak, no lines to hitch
Just wind the crap out of that S of a B***h.**

Our esteemed prez,Gary thanked Joe for many great years of service as the N/L editor , and I thank him as well. Joe will be going to the Muncie Nats and will be receiving a commendation for doing well in the National Cup Points Rubber competition last year. He'll be picking up Gary Oakins Power commendation as well. Congrats to both of you!

As newsletter editor, clubsters, I'll do my best to keep the publication current, interesting and the publication of the official record.. I'll need your contributions: plans, work shop tips, quasi scientific articles, accounts of distant contests, diatribes about whatever, Ole & Lena jokes, etc. , etc. Our contributor this issue is Aaron Petersen with an informative article on scanning and printing tissue for No-Cals. Everyone who saw Aaron's Hawker Typhoon at the indoor contest was impressed! Flew as well as it looked too! For added measure I resurrected an article which I wrote back in the early eighties regarding Pennyplane props.

Jack O'Leary, MMAC Editor
11425 Kell Circle
Bloomington, MN 55437 Email: olryjhn@aol.com



The May Memorial Meet

Our kick-off contest in May presented the flyers with the usual war of attrition scenario. At the outset the winds, out of the south, were brisk, but flyable. We gathered at our somewhat usual spot, east of Jeffrey, near the power lines. Gary O. had prepared a bulletin board with photos of our fallen comrades. In spite of the wind, some good times were recorded. Herman maxed out in Embryo and Warren R. in P-30. As the day wore on the wind velocity steadily increased and most of us having anticipated this, got our flights in early. Most contest reportage throughout the years has the same elements, the obligatory weather report,(accomplished) who had spectacular good fortune, (Denny Sussman recovering his OOS flight of his "C" job, the plane landing in someone's yard in Harris, four miles distant) and who had spectacular bad luck. In this case it was Dave Edmonson , whose "A" ship made a humongus half loop and buried itself with some parts floating merrily downwind. Guys wreck planes all the time, what made this notable, was the fact that everyone had quit early and had assembled in audience fashion, in a critiquing mode, beverage in hand. To Dave's credit he had the plane repaired and presented it at "show & tell", two weeks later. We introduced "Moffett" into our contest schedule for the first time and Aaron P. ,being the only contestant, won the darn thing with a "Flying Aces Moth". Our illustrious C.D., Jim Ladwig, did his usual conscientious job, and also made a fashion statement. His wife and sweetheart, Ruth found some shirt buttons in a dry goods store which looked like, believe it or not, little bleached out Gee Bees. These kinds of things tickle me. How do they get started ? Three suits sitting around a conference table pondering what the next "bigee" will be? Maybe a button like a 1936 Chrysler "Airflow", No lets go with the lil white Gee Bees. Mercy!

½ A Gas

Place	Contestant	Flight Scores			Total
1.	Dave Edmonson	42	66	43	151
2.	Gary Oakins	71	–	–	71
3.	Tim Johnson	45	–	–	45

.020 Replica / ¼ A Nos Gas

Place	Contestant	Flight Scores			Total
1.	Sid Jepson	115	87	120	322
2.	Tim Johnson	56	30	—	86

Embryo Endurance

Place	Contestant	Flight Scores			Total
1.	Herman Fessler	120	120	120+9	369
2.	Jim Jorgensen	53	40	62	155

Cat Glide

Place	Contestant	Flight Scores						Total
1.	Dave Edmonson	31	24	38	116	28	35	189
2.	Herman Fessler	36	29	97	17	22	46	178
3.	Warren Ringlien	26	32	30	31	02	34	97
4.	Dick Diers	13	17	24	08	11	–	54
5.	Don Berggren	14	15	21	15	04	–	50
6.	Tim Johnson	10	07	12	12	03	18	46

Moffett

Place	Contestant	Flight Scores			Total
1.	Aaron Petersen	107	120	69	276

P – 30

Place	Contestant	Flight Scores			Total
1.	Warren Ringlien	120	120	120	360
2.	Joe Huettl	120	94	120	334
3.	Tim Johnson	120	117	75	312
4.	Aaron Petersen	86	84	120	290
5.	Herman Fessler	56	107	96	259
6.	Bob Kumferman	69	43	35	147

Mulvihill

Place	Contestant	Flight Scores			Total
1.	Jack O'Leary	120	129	120 +160	520
2.	Warren Ringlien	120	120	69	309

B - C - D Gas

Place	Contestant	Flight Scores			Total
1.	Denny Sussman	99	120	120	339

Nostalgia Gas

Place	Contestant	Flight Scores			Total
1.	Tim Johnson	69	79	120	268
2.	Dave Edmonson	50			50

Pee Wee 30

Place	Contestant	Flight Scores	Total
1.	Dave Edmonson	45/18*100=250	250

A Gas

Place	Contestant	Flight Scores			Total
1.	Gary Oakins	120	120	120	360
2.	Bob Kumferman	101	120	—	221

2001 Final Indoor Points
(Only one contest held)

1.	Gordon Dona	39
2.	Jorge Triana	29
3.	Hank Liljequist	23
	Leon Wolf	23
4.	Dave Edmonson	14
	Jack O'Leary	14
	Floyd Richards	14
5.	Aaron Petersen	13
6.	Warren Ringlien	12
7.	Larry Dona	11
8.	Tim Johnson	9
9.	Greg Thomas	8
10.	Don Spehn	7
11.	Jeff Ringlien	4
12.	Dennis Mills	3
13.	Don Berggren	2
	Bob Griffiths	2
	Jerry Jagerson	2
14.	Jim Ladwig	1
	Junior—Andrew Bergeson	1

The Mini F.A. I. Meet
June 2, 2001

We've been there before haven't we? The two days preceding the contest the weather is ideal. Seventy two degrees F. and winds from the south, light and variable. Then the front comes through; the wind does a 180 and gets into the 15 mph plus range. The temp drops 20 degrees. Just great! This will keep the sissies away. The spectacular event at this meet was Oakie's timer (or operator) malfunction . Wind and weather necessitated a 90 second max. Bummer!

Coupe D'Hiver

Place	Contestant	Flight Scores			Total
1.	Joe Huettl	90	90	90	270
2.	Warren Ringlien	90	90	12	192

Mini FAI - 1/2

Place	Contestant	Flight Scores					Total
1.	Denny Sussman	90	90	53	75	90	398
2.	Tim Johnson	55	80	90	90	49	364
3.	Gordon Dona	18	90	67	90	90	355
4.	Dave Edmonson	90	67	57	55	33	302

Mini FAI - A1

Place	Contestant	Flight Scores					Total
1.	Gordon Dona	-	-	-	-	32	32

Mini FAI - HLG

Place	Contestant	Flight Scores					Total
1.	Dave Edmonson	05	61	50	40	33	189
2.	Gordon Dona	90	20	27	24	26	187
3.	Warren Ringlien	39	15	10	42	25	131
4.	Don Spehn	22	17	28	13	13	93
5.	Tim Johnson	13	07	18	26	18	82

Mini FAI - P30

Place	Contestant	Flight Scores					Total
1.	Jim Jorgensen	75	41	67	44	90	317
2.	Warren Ringlien	90	14	36	90	85	315
3.	Joe Huettl	86	90	90	–	–	266
4.	Don Berggren	72	43	57	04	39	215
5.	Dave Edmonson	56	03	65	25	53	202
6.	Tim Johnson	90	–	–	–	–	90
6.	Herman Fessler	90	–	–	–	–	90

The Spring Meet
June 3, 2001

The next day dawns. The weather is about the same but the wind isn't quite as fierce. We set up our launch point at the same point, off of 410th street but an occasional wind from the east carries the planes into the woods. Those unfortunate souls who shagged their planes into the woods emerged picking wood ticks. Our illustrious prez did it again: had a "run on" engine malfunction and the engine droned on and on. This time he had his Walston unit onboard and had no problem finding the plane.

The Mulvihill boys, Gordon D., Joe H. and myself provided a little drama at the close of the contest. Having maxed out, and because the wind had shifted from the east, we decided that a time target of two minutes, plus or minus, would keep us out the woods and decide the winner. It wasn't a mass launch ,and Gordo launched slightly after Joe & I, into better air. Congrats, Gordon!!

Embryo Endurance

Place	Contestant	Flight Scores			Total
1.	Jim Jorgensen	88	56	67	211
2.	Dave Edmonson	26	90	59	175
3.	Duane Mc Donnell	34	47	89	170

Classic Gas

Place	Contestant	Flight Scores			Total
1.	Ray Neaman	120	120	120	360
2.	Don Spehn	78	120	120	318
3.	Dave Edmonson	120	120	62	302
4.	Tim Johnson	50	95	81	226

.020 Replica & ¼ Nos Gas

Place	Contestant	Flight Scores			Total
1.	Gordon Dona	99	120	112	331
2.	Dave Edmonson	48	120	120	288
3.	Gary Oaakins	120	80	74	274

A Gas

Place	Contestant	Flight Scores			Total
1.	Tim Johnson	111	111	120	342
2.	Gordon Dona	120	120	97	337
3.	Gary Oakins	120	80	65	265
4.	Dave Edmonson	55	47	94	196
5.	Don Spehn	66	71		137

Mulvihill

Place	Contestant	Flight Scores			Total
1.	Gordon Dona	120	120	120	360 + 146*
2.	Jack O'Leary	120	120	120	360 + 90*
3.	Joe Huettl	120	120	120	360 + 77*
4.	Bob Kumferman	120	120	120	360
5.	Warren Ringlien	120	120	102	342
6.	Dave Edmonson	98	78	120	286
7.	Jim Jorgensen	101	120	51	272

*(placing determined by two minute time target , Kumferman departed)

C - D Gas

Place	Contestant	Flight Scores			Total
1.	Denny Sussman	120	120	120	360
	Gary Oakins		DNF		

Moffett

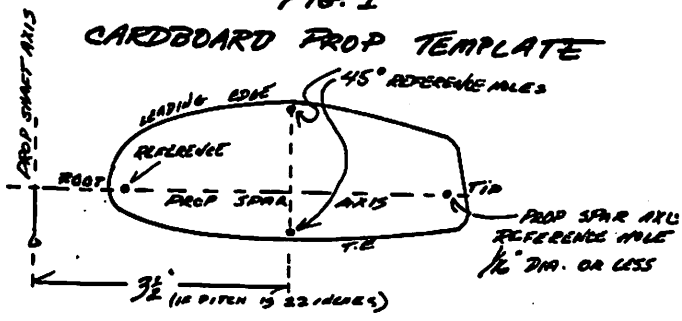
Place	Contestant	Flight Scores			Total
1.	Jim Jorgensen	44	120	67	191
2.	Jack O'Leary	01	—	—	01
3.	Joe Huettl		DNF		

PENNYPLANE PROPS

Novice pennyplane props are governed by rule which limits their diameter to 12 inches. The chord of the prop is usually a generous 1.5 to 2 inches. Pitch ranges from 20 to 26 inches. Generally the prop axis is positioned from .55 to .7 chord to increase flare in the power burst resulting in a less vigorous climb to cruise altitude.

Let's make a pennyplane prop. Carefully select 1/32", C-grain stock, about 5 to 7 lb. per cu. ft. Cut the prop blades to shape using a cardboard template which has 1/16 dia. reference holes to mark the prop spar axis and the 45 degree pitch angle reference line. If you determine that you want a 22 inch pitch prop these 45 degree reference holes will be 3.5 inches from the prop shaft axis. See Fig. 1.

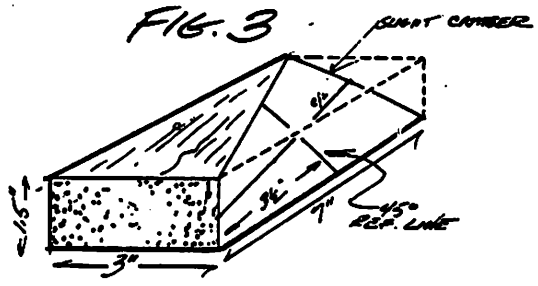
FIG. 1



Stack the blades and sand perimeter to get identical blades shape, then lay flat and sand to get a blade root thickness about '030" tapering to approx. .010" at the tip. Now reposition the cardboard template over the blades and using a fine felt tip pen or very soft pencil, mark through the template to establish your prop axis and 45 degree angle reference points on the backside. Now connect the points with a light line.

Okay, still with me? Now we select an appropriate prop pitch forming fixture, i.e., a pre-carved block of your selected pitch. I'll stick with 22" for the purposes of this article, here are the dimensions, Fig. 3. Or if you choose, you can get excellent results with a can or jug formed prop about which much has been published (Linstrum, Meuser et all) or a J. Jones fiberglass prop form (my preference) which are available in many pitches.

FIG. 3



22" PITCH PROP FORM

Jim Jones has an excellent article in the August 80, M.A.N. which provides all the necessary info. on carving helical pitch prop forming blocks.

Prepare your pitch forming block by giving it about four coats of dope and tracing the prop axis, the 45 degree reference lines and the prop outline in the correct position. I go a step further and contact cement (3M Sprament, now under a new name, 3M Craft Mount) Glad Wrap material on top of the doped surface.

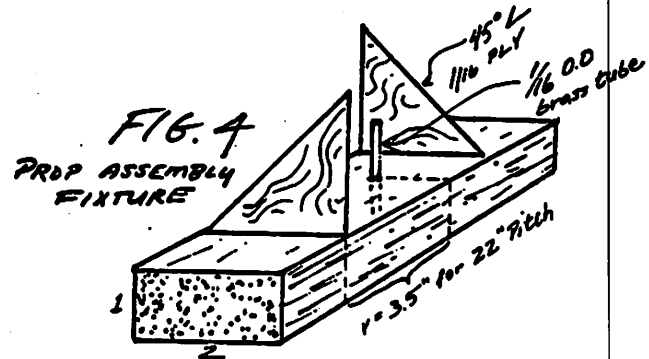
Now soak your blades in hot water for 10 to 15 minutes and lay up on the form by strapping with dressmaker's elastic tape or some old ¼" gum band. Protect the top of the blades with blotter material which you have cut slightly oversize to the prop blade template. I generally make two props at a time, so I lay up four blades on the pitch forming block. If you're making EZB props put an intervening layer of jap tissue between the blades which will facilitate separating them after the blades are oven cured.

With water, respray the blades which are strapped to the pitch forming block and place in a 180 degree—200 degree F. oven for an hour. For the energy conscious, I've found that an electric fry pan works equally as well if you raise the "stuff" on a trivet. Let the blades cool down completely before unstrapping, and separating the blades from one another.

Select some tough, springy 8—10 lb., 3/32 sq. stock for the prop spar. Sand to a round cross section which tapers from .08" root to approx. .02" diameter at the tips. Bob Meuser had a neat method of achieving a tapered round spar which he reported in his "No Noncents" pennyplane article about three years ago in "Model Aviation". Match the two prop spars for flex, weight and size. The prop spar should extend to ½ to 2/3's along the prop spar axis. Attach the prop blades to each of the prop spars with the glue of your choice. With pennyplane, because of the liberal weight rule, glue choice is not particularly important. In EZB, however, because minimum weight is crucial, I'd stick to Micro X products or acetone thinned Ambroid.

Construct a prop assembly fixture as per Fig. 4.

FIG. 4



Make a number of jap tissue hubs by selecting the correct size music wire (generally 3/32" dia. for pennyplane). After polishing so no burrs remain on the cut end, rub the music wire with wax paper or silicone treated release paper (which works better). Cut strips of jap tissue approximately 3/4" wide by 1¼" long. Moisten the short end of the tissue and wrap around (once) the music wire. Carefully apply thinned cement to the tissue and roll the music wire between your fingers, applying more cement as needed. Take care not to get cement on the music wire which will make it difficult, if not impossible, to remove from the tube. Let the tube set up on the music wire for 30 seconds or so and push the tube off the end of the music wire. Let dry completely before cutting to length (about .75") 2 hours to overnight. You'll find that you'll goof the first five tubes but by the end of the evening you'll be making them like a pro.

Pre-shape the music wire prop shaft so the wrap around portion matches the O.D. of the paper hub. Do not form the rubber hook at this time.

We are now ready to assemble and complete the prop. Take the two prop blades with spars attached. Trim the prop spar at the root so that they will join at the center. Position the prop shaft over the tissue tube but do not glue at this time. Insert prop shaft into tube in fixture. Push (should be a moderately tight fit) both prop spars into the tissue tube hub and twist the blades so that the 45 degree L reference lines coincide exactly with the 45 degree L plywood reference plates on the fixture. Now, tack glue the blades at the 45 degree L plates and carefully hot stuff the prop shaft and prop spars to the paper hub. Cut away the tack glue areas and free prop from the fixture. Now form the reverse "S" rubber hook and your prop is complete. See figure 5.

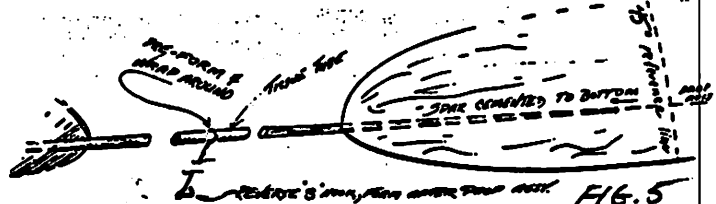


FIG. 5

I hope this article encourages fellow club members to get into pennyplane. Our participation has stagnated to where only three of us are flying P plane at the indoor meets. Making indoor props is relatively simple after you've tooled up to do the job. Took me a week to write this damn article but I can knock out a half dozen P. plane props in an evening with ease. J.D.

Computerized Fun-Fly NoCals

by Aaron Petersen

Some years back I read in one of the model magazines about someone who produced custom covering for NoCals by scanning colored 3-view drawings, processing them through his computer and printing them out on tissue. The accompanying photos were impressive. At the time I had none of the needed equipment. But in Dec 1999 I finally broke down and got an iMac computer and a Deskjet 812C printer. With the invaluable aid of my teenage son I gradually (sort of) figured out how to ride those two bucking broncos. In Dec 2000 I procured an Epson 1240U scanner, and I got onto the NoCal thing right smart quick.

You need good, fair-sized color 3-views. I have two fine books that I work from. One is "Aircraft of World War II" by Bill Gunston, Crescent Books, NY, 1980. The airbrushed artwork is by various Italian artists. The second book is "Complete Book of World War II Combat Aircraft," by Angelucci, Matricardi, and Pinto, White Star, 1988, Italy. Again the artwork (by Pierluigi Pinto) is high-quality airbrush. I bought this book in Feb 2001 at Borders for $20. It has 416 oversize pages, and my count of practical NoCal subjects in it is 77, mostly single-engine fighters. As far as I can tell, the lines and colors are accurate in both books, and the 3-views are the right size to scan easily and well.

I scan the drawings as color photos at fairly high resolution, dividing into sections as necessary. My scanner comes with Photoshop LE software that is loaded into the computer. It has various tools that allow you to achieve exactly whatever size you need, and you can alter or enhance the colors however you wish. The only hitch is that on a side-view, of course, you see the wing dihedraled up, so you need to obliterate that and re-paint the colors so that it appears as if you are looking at the side of the body only. The tools allow you to do this, but it takes some practice, and each plane is different. Also, it's good to make the wing coverings a bit oversize, to fit over the curved top surface properly.

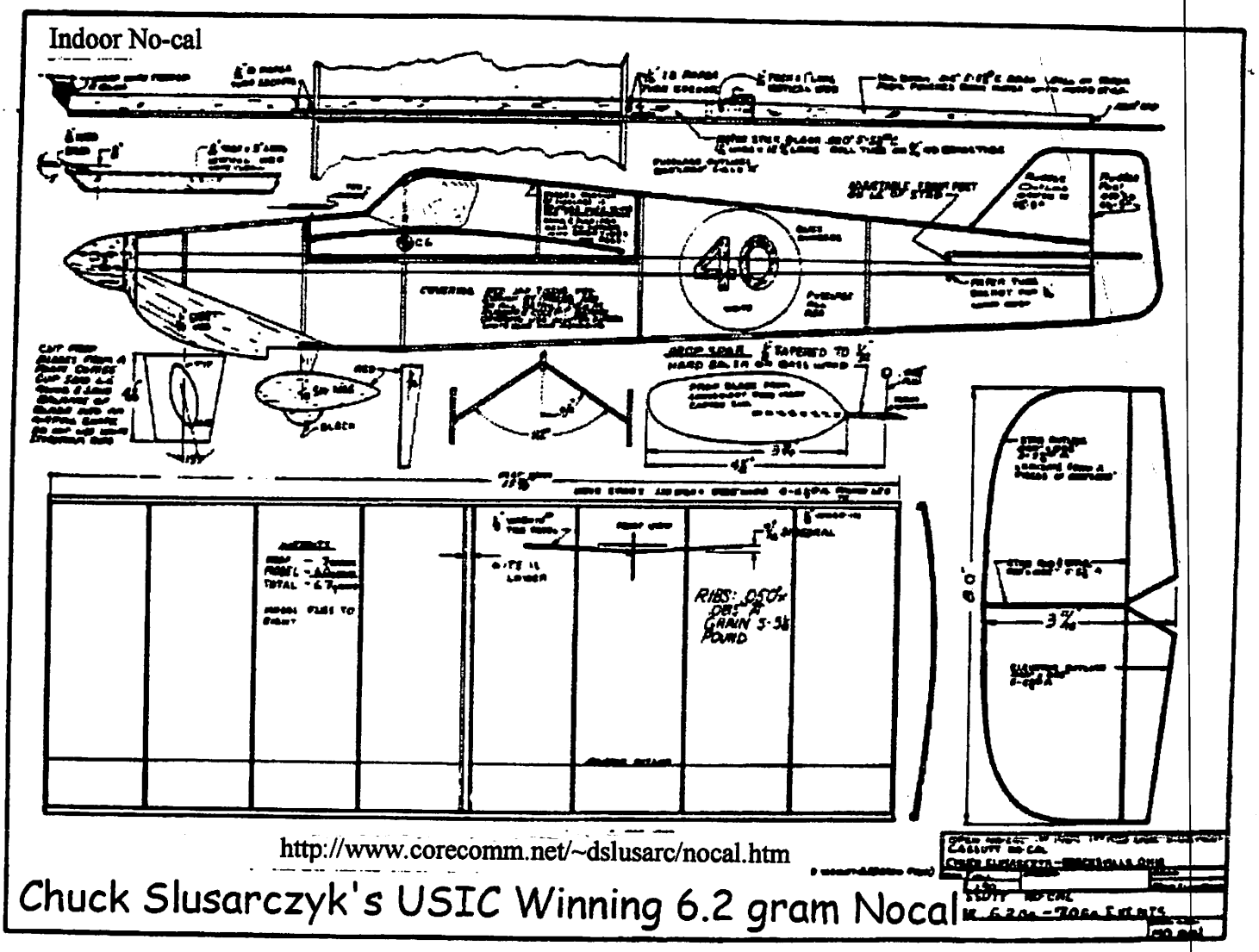
Use the Photoshop Glowing Edges and Invert tools (or the equivalent) to make an outline-only "construction plan." Erase any residual colors from it and print it out on plain paper. Then pencil in structure as you see fit. Rub a wing plan with cooking oil, and you have a visible plan on each side of the paper, right and left -- identical. (P.S. Enlarge the stab!)

Once you get what you want for all views, lightly spray one side of a sheet of white tissue (Japanese or domestic) with a low-tack spray cement such as Elmer's (don't use 3M 77 for this!). Position it on a sheet of plain paper, adhere it, and smooth out all bubbles and wrinkles. Then place it properly in the printer feed tray, set to Best Quality and Print. Carefully peel the printed tissue off the paper and let it dry a while. Then iron it smooth with a hot iron between several sheets of paper.

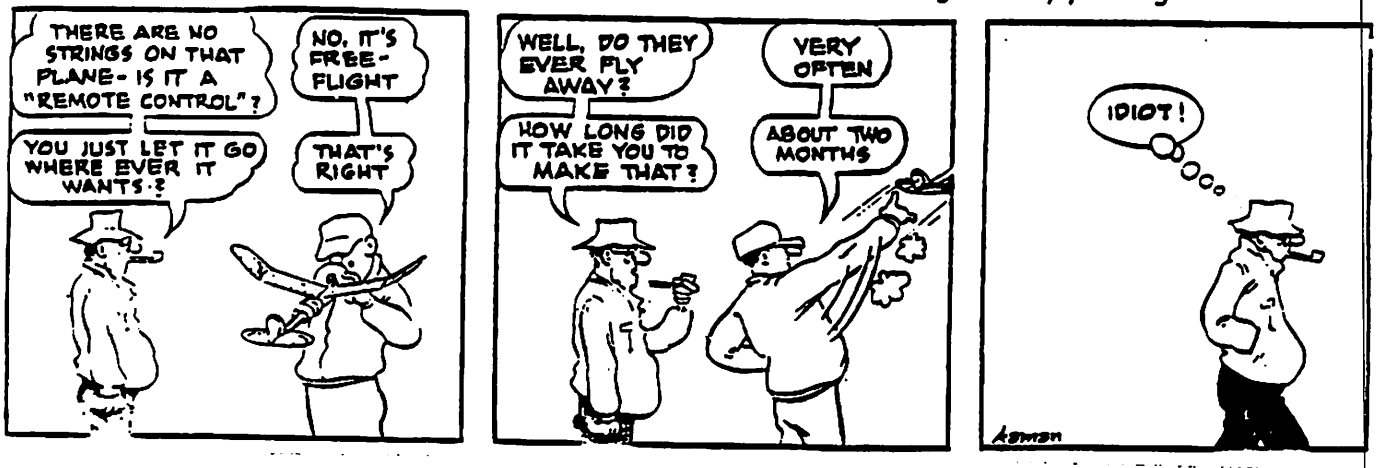
Spray the balsa framework with 3M 77. Lay tissue printed side down on a clean flat surface, *carefully* position the sticky frame over it, and join the two as neatly as possible. Trim edges. When the entire ship is assembled, spray it once on all sides with Krylon Satin Clear Acrylic. The colored ink is not waterproof. The Krylon protects it and also inhibits tissue shrinkage.

Use whatever motorstick/prop/rubber and trimming arrangements that work for you. I do advise you to make the nose bearing strong so that the thrust line does not easily change on you (no 1/32 aluminum sheet here!). I will be honest -- trimming a low-wing NoCal and keeping it in trim is tricky at times. But it can be done, and these computerized guys look very very nice circling in the sunset, dude.

THANKS CHUCK, FOR THE PLAN FROM YOUR WEBSITE.



Ed. Note: My favorite free flight related cartoon. NFFS Digest many years ago.



News Flash : Congratulations go to **Gordon Dona**, who garnered 39 points to win the high point trophy while **Jorge Triana** came in second with 29 points. Gordon repeated this high point effort in Albany,Oregon on Apr.28th where the Willamette Modelers host a two day meet for the folks in the Pacific Northwest. Following dinner after the first day's flying (Saturday) ,these fog-bound rib slicers gather for a show and tell symposium. Neat idea! Gordon tells me that the Albany gym is very similar in size and height to the Burnsville site.This meet is CD'd by Hall of Famer, John Lenderman. .



If you haven't paid your dues or renewed your subscription, rib-slicer, THIS IS YOUR LAST ISSUE

The Minneapolis Modeler
11425 Kell Circle
Bloomington, MN 55437

October 14, 2001	"Octoberflug"	-AA-	CD Dave Braun 651-457-2264
1/2A Gas	NOS Gas	O.T. Rubber (<'46)	P-30
A Gas	ROW (record attempt)	Pee Wee 30	Moffitt
B Gas	.020 Replica-1/4A Nos Gas	HL Glider	Mulvihill
CD Gas	Embryo Endurance	Coupe d' Hiver	Junior Event

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