Here we go with another Indoor News And Views # 133 to be exact and we have a few favors to ask our subscribers. To have an interesting newsletter we need new and recent information, upcoming events, plans, photos and results of contest, even down to club level. People want to know what's going on and what are people doing new. I cannot make it up. It comes from our subscribers. For this issue, I have had to dip into some old Newsletters, one is a Limited Pennyplane by Warren Williams. It has lots of good building instructions, accurate dimensions for wood and rubber motor sizes to boot. The model has done over 16 minutes in 1996 in a Cat I site. I see no reason that in the right hands with good rubber the model could do 20 minutes. The model is ideal for beginners and with minimum supervision they can build a decent flying model.

To assist the beginner and his mentor, we have an excellent booklet with drawings and text by John Barker, That Englishmen from Atlanta, GA and the Thermal Thumbers. We will present in this newsletter only one page and that's on making and using a jig for wings and stabs. This jig can be made in any size from Ministick to F1D. You can talk all day, but show the fledging model builder this drawing and he can and will increase his/her enthusiasm two fold and you will not have to talk all day. Try it you will like it.

Also in this issue we have subscriber, Jake Plumber selling prop blocks carved out of balsa in various pitches, For twenty bucks, part of the money will be donated back to help the JR. teams. Now there is a deal that will be hard to beat.

Now we have a bit of good news for you folks that plan to attend the Indoor Nationals in Johnson City. The school has been required to put up 10 large banners each one representing a school in ETSUs Conference. Well the school contacted the outfit that put it up and they said they would take it down for the five days of our contest and then put it back up for $1,300. This would also include the wire that holds the banners up. To add frosting to the cake, the AMA will pay this $1,300 for this year. It will fall on NFFS next year. Now you know why we have this join NFFS flyer in this issue. NFSS does a lot for us that you do not even know about. We need new members to keep this great hobby of ours going. Yes I am a member.

You may notice a lot of red Xs on this issue of the Newsletters and your expiration date on the address labels. We have had a good wave of subscribers renewing, this helps me in knowing that you do want to receive the newsletter. I also want you to have a part in publishing it by sending me plans news and stuff. Also feel free to contact me if you feel my expiration dates are wrong or I haven't put your check in the bank yet. With a staff of one things slip. We are improving, I hate to say I all the time. I do have modeling friends that help me with the mailing.

Our last bit of the newsletter is pictures from the Tustin extravaganza over Thanksgiving and Christmas New Years holidays. Please notice how the U Control and indoor RC guys joined in on the festivities. Imagine electric U Control, not much noise and no greasy kid stuff. We want to thank Ralph Ray, Norm Furutani and Pete R. for these pictures. I'm sure others were involved but I do not know who.

Australian subscriber Jack Metcalf reports that Tim Haywood-Brown is now a member of the Australian F1 D team. Congrats to Tim, he is also a subscriber. Thanks Jack.
FOR SALE PROP BLOCKS AND PART OF THE MONEY GOES TO THE JR FF TEAM.

Precision cut helical prop blocks are now for sale. I'm offering pitches from 15" to 36" in 1" increments. The usable block width varies from 2" to 2.75" along the 10" length. The blocks are sold as cut and will require light sanding (the block in the front of the picture was sanded with 320 grit, the other 2 are unsanded). Price is $20 which includes shipping in the US. Contact me for international shipping. $5 from each block sold will be donated to the junior fund.

I'm accepting payment through PayPal at questions. Feel free to email me if you have any

Jake [82.jake@gmail.com]

E-MAIL FROM ART HOLTZMAN ON HIS GREAT WINDER, PLEASE READ IF YOU DO NOT HAVE EVEN HAVE ONE OF HIS WINDERS YOU WILL LEARN SOMETHING

Gentlemen...

It's just come to my attention that Lexan, which is what most of the winders are made of, is incompatible with Acetone, which many of us carry in our field boxes. In a confrontation, Acetone always wins. If you carry acetone, or an acetone containing compound (like lacquer thinner) to the site with you, keep it separated from your winder. Thanks,

Art. = Art Holtzman [upwind120@gmail.com]
WING = 1/16 X 1/16 TAPER TIPS TO 1/32 6# A STOCK 
RIBS = 1/32 6# C STOCK 
WING POSTS .060 ROUND 6# STOCK

MOTOR STICK = 3/16 X 5/16 X 10 8# A STOCK

CG @ 75%

2 DEGREE DOWN
2 DEGREE LEFT

MOTOR .075 X 15.5
2550 TURNS

STAB = 1/16 X 1/16 TAPER TIPS TO 1/32 6# A STOCK 
RIBS = 1/32 6# C STOCK

DIHEDRAL BREAK

DIHEDRAL 2" EACH TIP

WEIGHTS:
WING .028
PROP .030
REST .052
TOTAL .110

PROP BLADES = .028 6# C STOCK
HUB = 3/32 7'
TAPER TO 1/32 ROUND
HOOK = .020 WIRE

PROP BLADES ARE FORMED WET ON 
A 5' DIA VENT PIPE AT A 17 DEGREE ANGLE

OPEN LIMITED PENNYPLANE
"SKIPPER"
CAT.1 RECORD 16:14
JUNE 17th 1996
by WARREN WILLIAMS

DRAWN BY STEVE GARDNER
This article is intended for those who have never built a duration type indoor plane, are convinced that they can't, but don't realize that, with a little help, they CAN.

Where to start? My preference is the Limited Pennyplane (Most of my friends still call it a Novice Pennyplane, and so do I). get a plan of a successful plane e.g. Banks Pennyplane or copy a model of a club member. If you don't have a building board try a piece of plain ceiling tile. Buy sharp dressmaker pins. You need some good quality cardboard for templates; I bought a sheet of picture matt material from Michaels, a local general handicraft store that also frames pictures. Any light color is O.K.

The Wing.

Draw and cut out the wing outline template. It will look something like this:

![Diagram of wing outline template]

Dimension A is important. The completed wing must not exceed 5.0 inch chord. Let's assume that the L.E. and T.E. are 1/16 sq. (medium). Lightly sanded assume .06 in.

Make Dimension A = 5.00 - .06 - .06 - .04 = 4.84 in.

The .04 is insurance against exceeding 5.00 in. finished chord. The spar is to stop the d--- ribs falling over and to stiffen the template.

Draw and cut out the wing rib template. Mine look like this:

![Diagram of wing rib template]

The two marks are the ends of the completed rib.

Make dimension B a hair more than dimension A.

Ribs. Get your rib material, probably 1/32 medium light sheet, and cut a piece length B (a hair more than A) off the end of the sheet. Both ends of this cut must be clean cuts. Use the template and a sharp razor blade (not a balsa knife) to slice off ribs that look like this:

![Diagram of wing rib slicing]

Eye ball the 1/16 in.

Some ribs may be deeper than others. Save these for the dihedral joint and center ribs.

Assembling the wing. Put the usual wax paper etc. on the board and pin the wing template securely down on top of it. Make sure that the board is flat. Find some old medium soft 1/8 x 1/16 strip. Cut off a zillion little blocks about 3/16 in. long. Use these with pins to fasten the L.E. and T.E. against the template like this:

![Diagram of wing assembly]

Do NOT push the pins thru the structure OR against one side of it.
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LOOK ME UP
The National Free Flight Society Needs Your Support

We are asking our subscribers to join and support the NFFS. The NFFS is instrumental in obtaining the Johnson City site for the Indoor National Championships. The NFFS also supports indoor free flight with coverage in their magazine. In recent months the NFFS has had increasing costs which need to be covered so that they can continue to champion our cause. If you are not a subscriber to the NFFS magazine, we encourage you to subscribe. If you are already a subscriber, consider making a donation to help this worthwhile organization. Clubs can get involved and really make a difference.

NFFS MEMBERSHIP & RENEWAL APPLICATION

Mail to: NFFS Membership Office
118 Gentry Circle
Lafayette, LA 70508-6326
USA

Make checks payable in U.S. dollars to:
National Free Flight Society

Dues include a mandatory $.50 per year for NFFS membership.

| US Residents (Age 19 & over) | 2 years $58.00 | 1 year $30.00 |
| Youth Membership (U.S. only) | 2 years $18.00 | 1 year $10.00 |
| Age 18 & under as of July 1 of the current year | Copy of birth certificate required for new memberships. |
| All Non-U.S. Residents | 2 years $75.00 | 1 year $40.00 |
| Life Membership | US Residents | $500.00 |
| | Non-US Residents | $550.00 |

First Time or Lapsed (more than 1 year) Members
- □ 2 years for $29
- □ 2 years Youth for $9
- □ International $37.50
- Offer expires Jan. 1, 2013

★ NFFS Foundation Donation ★
- □ Silver - $75
- □ Gold - $125
- □ Platinum - $250 or more $

To help reduce expenses maintaining NFFS records, PLEASE renew for at least 2 years. Thank you!

Check boxes to what applies:
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- Donation

Amount: $ ______ Current expiration date: Mo. - Ya. ______

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Send all renewals, address changes, applications, and membership questions to the Membership Office.
E-mail: carl.bakay@yahoo.com

Please go to www.freeflight.org for credit card renewals

6
After seeing a jig for mounting a nose bearing in an F1M construction article by Derek Richards, I decided to make a couple, to cover all the types of models that my partner and I make. The one in the article was made of balsa but I decided to have a go at making them of aluminium alloy. Due to my less than proficient skills with a milling machine these two came out at 2.6 and 2.8 degrees, I was aiming for 2.5 and 3.0. My previous method of mounting nose bearings were less accurate I am sure.

Rodney O'Neill
INAV
Indoor News and Views

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Sign me up for ___ 1 year @ $15.00 U.S., $19.00 Canada
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