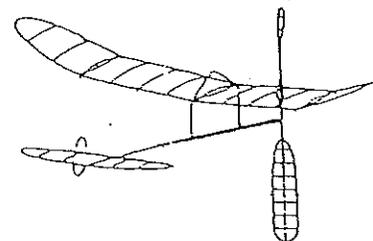


ISSUE # 134  
LATE WINTER  
2012

**INDOOR**  
NEWS and VIEWS



## FROM THE EDITOR'S DESK

We have one more issue of the Indoor News And Views for you with a spiffy Ministick model by Jack Metcalf from the land down under, Australia if you may have forgotten. The model has dihedral in the stab plus a large ventral fin to help control the high torque on these monsters. I would like to build one, but I just finished two of my own design. If you out there build one let me know if it does control the torque, or at least help.

Let's move on to what else we have for three big contests, indoor of course. One in Pontiac, Michigan, the 6<sup>th</sup> of May. Another in Atlanta, Georgia, the 21<sup>st</sup> of April. Lastly we have a big one up in the Kibbie Dome in Moscow, Idaho. This is a five day affair July 6-10. If your fairly close, get to these one or the five day affair. We kind of left out the AMA/NFFS Indoor Nationals, but hope the NFFS Digest and Model Aviation have a big spread for you to gaze upon.

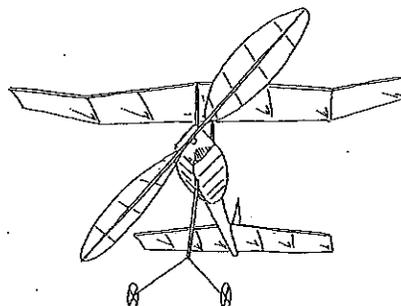
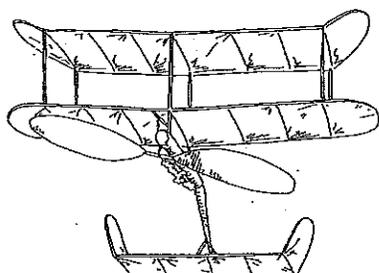
While writing about other publications, they have people that handle different departments and all I got is me and you and sometimes you don't send me anything for INAV. I know you guys are building things, having club Contest, inventing gadgets to help us build things and wind motors, picking out rubber lube and such stuff. Let me know about it and We'll make you reporters for INAV. Don't forget about taking pictures and sending them in. WOW !!

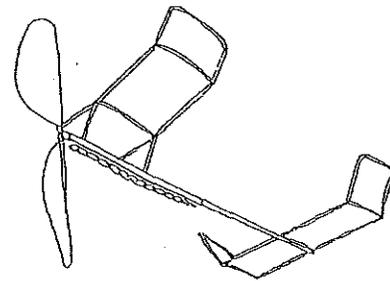
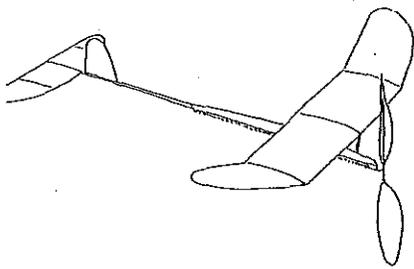
Now let's talk about those nasty Red Xs. If you have a red X on your newsletter if you do not send me renewal check, money order, or cash by when the April/May issue goes, I'll be forced to drop you. Money is tight, gas is high, the Post Office is going to raise the price of stamps again. We are holding our own right now and can still afford to keep putting out the INAV. Since we're on the INAV let's talk about the editor. He's getting older and older. I'm at the 80 year mark and not in the best of shape, I would like to pass this on to a new editor, fairly young person, retired would help, up on computers so you could get INAV on line. The last thing I would want to happen, is for me to croak and INAV lays dead in the water and nobody knows how to pick up the pieces. Think about it folks it's life and this stuff happens.

Last issue I said the pictures were by Norm Furutani, in fact they were by his son Brian Furutani, sorry for the mix up guys as the pictures were first class. For INAV to do color it's expensive, out of our league. INAV also wants to thank Ralph Ray for his work in getting the Tustin site. I hope we can see him again at Johnson City.

One more item, We will run John Barker's articles on Limited Pennyplane until all available for your collection. I will try to run them in sequence, however they are sometimes hard to follow, but it does not affect the text. It's good believe me. Do not get a big head, John.

Please think about some of the stuff I've written above, this is a one man operation except when the INAV needs folding, taping, labeling and stamping, then my club members from the Brainbusters help. Contact me at [vandover@cox.net](mailto:vandover@cox.net). We have the INAV down to 10 pages and a bi-monthly schedule.





## 2012 KIBBIE DOME ANNUAL

University of Idaho, Moscow, Idaho  
July 6-10, 2012

All official AMA Indoor Events can be flown all 5 days  
Additionally: Wally Miller ½ A

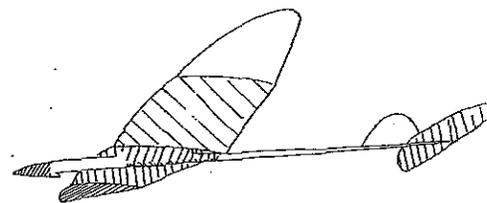
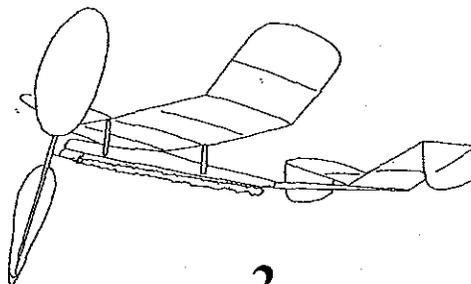
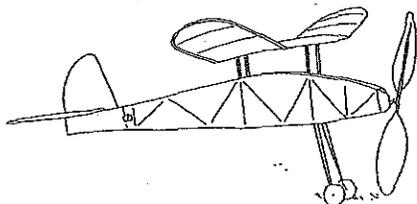
No R. C. Electric Powered models allowed  
Electric Free Flight limited to 30 grams max weight  
Entry Fees: Senior & Open contestants: \$200.00  
Junior contestants: \$100.00

Table & 2 chairs included in entry fee  
\$40 late fee after May 25, 2012

July 5, 2012, early arrivals can set up tables and  
Chairs and prepare for next day's events  
No flying allowed July 5, 2012

Send entry fee and AMA number to:

Emil Schutzel  
17 Compton Court  
Prairie Village KS 66208



## PEACH STATE INDOOR CHAMPS

“America’s Flyingest Indoor Contest”

April 21, 2012

Great Hall, St. Lukes Presbyterian Church  
Dunwoody, GA

The Thermal Thumbers of Metro Atlanta are hosting our twenty-first annual state indoor free flight championship. We invite all AMA members, family, and friends to come and join the fun. The public is invited, but only AMA members can fly, so bring your AMA card. However, kids with indoor free flight models who attend can fly; we’ll provide a complimentary AMA membership.

The contest is sanctioned by the AMA and all events, except as noted, will be flown per the AMA rule book as Class A and Category I. Registration and official flying begins at 9:00 am. The building must be clean and clear at 9:00 pm. Lightweights will be segregated from the heavyweights per the flight schedule. Mass launch events will be flown sudden death with no kanones. (F1D event serves as regional qualifier.)

### AMA: Easy B

Ltd. Pennyplane (J, SO)  
Mini Stick  
IHLG (J,SO)  
Standard Catapult Glider  
Unlimited Catapult Glider  
Bostonian (J,SO)  
F1L  
F1D—regional qualifier  
35 cm  
Helicopter  
A-6

### TTOMA: Chattahoochee Challenge

Hangar Rat  
Sudden Death Mass Launches  
Hangar Rat  
WW I  
WW II  
Racer  
Civilian  
Phantom Flash

### FAC: Dime Scale

Peanut Scale  
Rubber Scale  
No-Cal  
Embryo  
Phantom Flash

Contest Director: David Mills, 404-509-4209, davidmillsatl@gmail.com

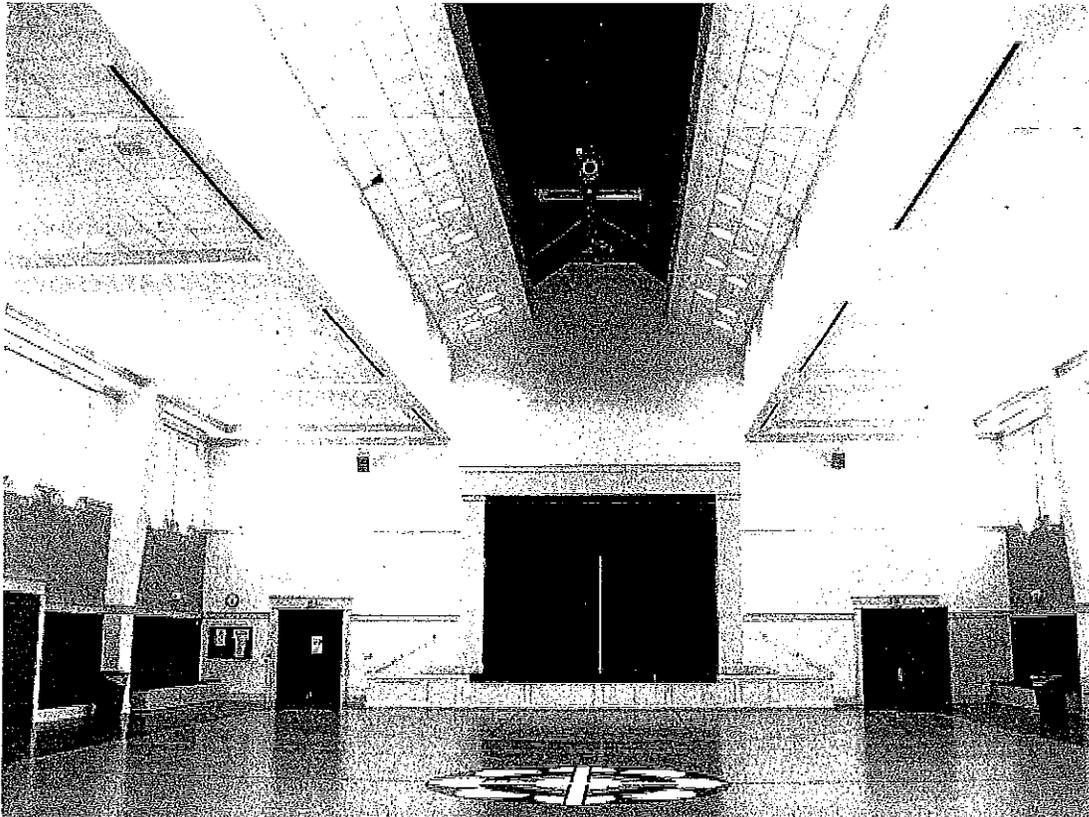
Fees: The adult (open) fee will be \$10.00 for unlimited events. The youth (senior and junior) fee will be \$1.00 for unlimited events. Test and fun fliers will be charged \$10.00. Adult fliers are required to bring a kit or equivalent as an additional entry fee, to be distributed as prizes.

Directions: The flying site can be accessed from either the Hwy. 400/Abernathy Rd. exit or I-285/Ashford Dunwoody Rd. exit. The church is on Mt. Vernon Hwy. about one mile east of Ashford Dunwoody Rd. The Great Hall is at the extreme opposite (NE) corner of the property. A map is available at <thermalthumbers.com>

## FLYING SCHEDULE

9:00 am registration  
9:00-10:30 am lightweights  
10:30-noon heavyweights  
10:30 am Hangar Rat mass launch  
11:00 am WW I mass launch  
high noon WW II mass launch  
12:00-1:00 pm anything goes  
1:00-2:00 pm heavyweights  
2:00 pm Racer mass launch  
2:00-3:00 pm lightweights  
3:00 pm Civilian mass launch  
3:00-4:00 anything goes  
4:00 pm Phantom Flash mass launch  
4:00-6:00 lightweights  
6:00-9:00 anything goes, defer to lightweights  
9: pm building clean and cleared

Flying heavyweight models (No-Cal or heavier) in lightweight periods always requires CD's permission prior to winding and/or launch. Flying lightweight models during heavyweight time periods is at flier's risk. Sometimes special consideration given, but CD's word is final.



Great Hall at St Lukes Presbyterian Church, Dunwoody, GA

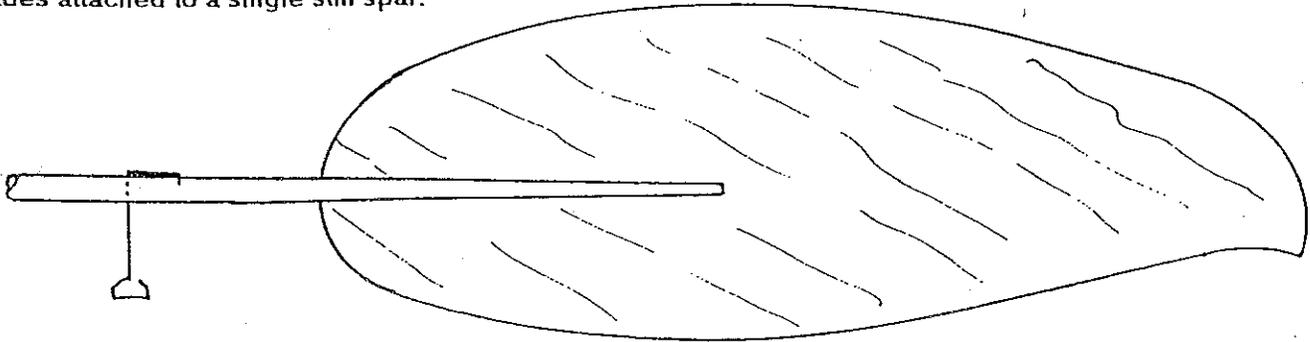


INTRODUCTION

If you read Parts 1 thru 3, you may already have built and covered the airframe and perhaps had some fun with test glides of a Limited (Novice) Pennyplane. However to get that model to the roof of the local school gym, or tangle with the roof at E.T.S.U. in Johnson City, you need a propeller and rubber band motor. For the novice to indoor free flight these easily can be the most neglected items. Volumes could be written about them, but we only have enough space to touch on some of the basic principals to get started. If you get hooked on indoor duration flying, the rubber motor can get quite expensive because you will need a rubber stripper, a winder with counter, and one or two torquemeters. However lets start with the propeller.

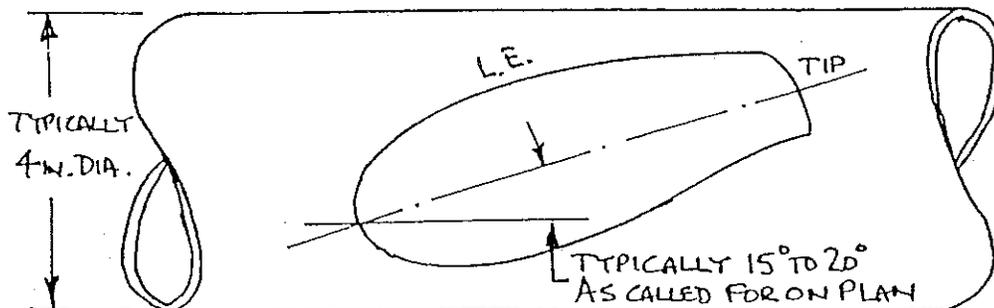
PROPELLER BASICS

Your plan will give you a good idea of the propeller construction. It will have thin molded light sheet blades attached to a single stiff spar.

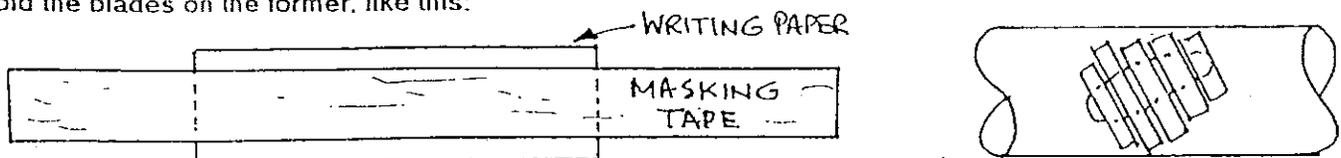


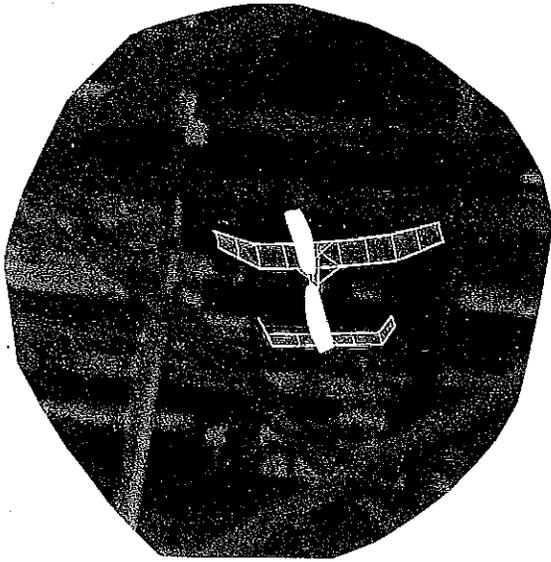
**The Bare Blade.** This will usually be made from 5 to 6 lb. C grain balsa. The grain may be shown straight or on the diagonal. The blades must be cut from the sheet so as to give a good stiffness match. Blades are usually sanded to taper in thickness, typically from about 1/32in. at the root to perhaps half that at the tip. For sanding this thin, you must set the blade on a very flat surface (I use a 12in. square tile) and the sandpaper must be glued to a very flat block such as a piece of 1/2in. sheet balsa. It is important to match the blades for thickness and weight. The spring scale and a micrometer will help.

**Molding The Blade Twist.** Theoretically the optimum blade twist is for helical pitch which requires a carved

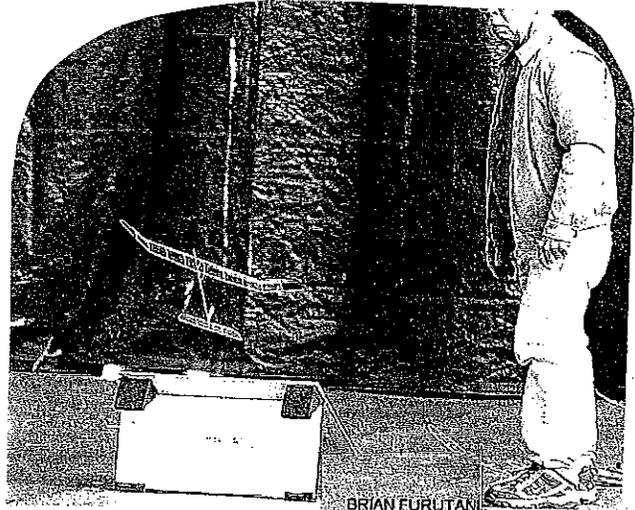


block former, but we will use a simpler and quite good method which involves setting the blade at an angle on a cylindrical surface. This method also induces an airfoil section to the blade. You need a smooth can, bottle or pipe of 4 in. dia. or as indicated on your plan. If the item you find is not quite the right diameter then the angle must be changed. The bigger the diameter the steeper the angle. Mark this angle on the former, twice, 180 deg. apart, together with blade outlines. Mark the spar lines on the blades, tip to tip. Prepare about 12 strips to hold the blades on the former, like this:

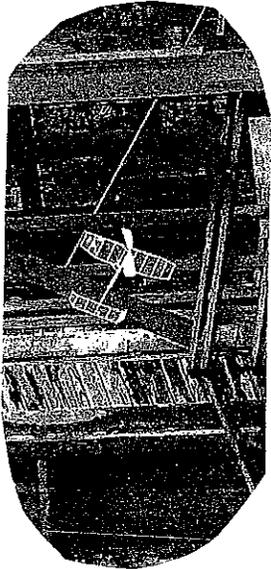




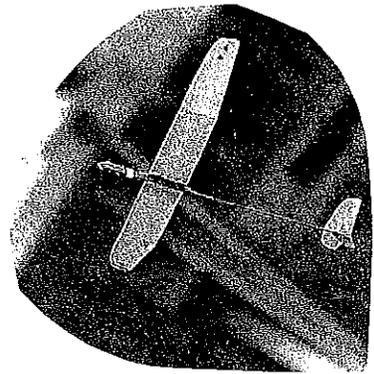
**MORE TUSTIN  
PICS 2011**



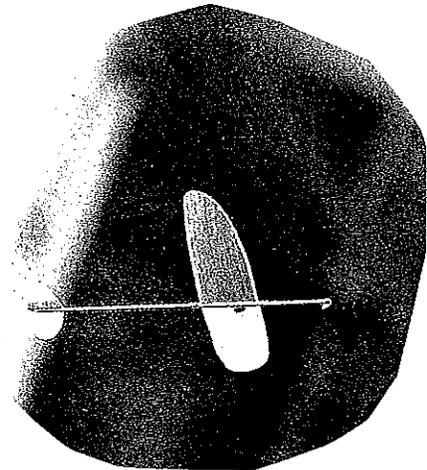
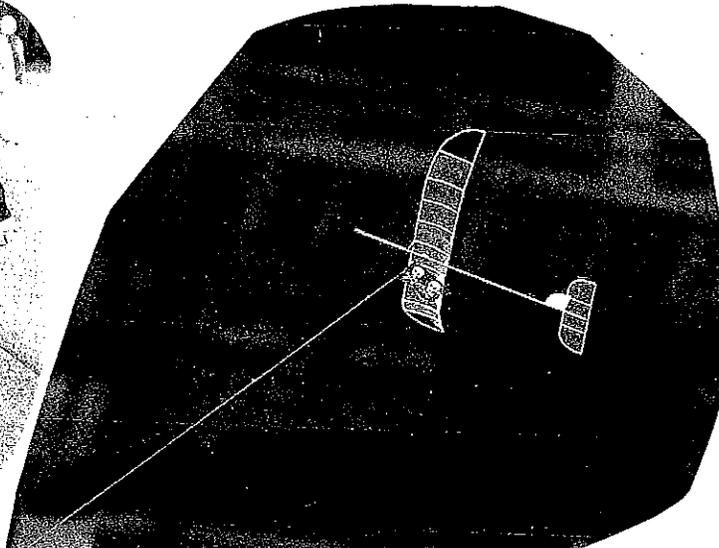
BRIAN FURUTANI

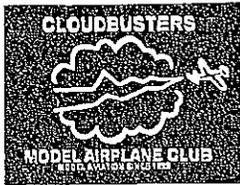
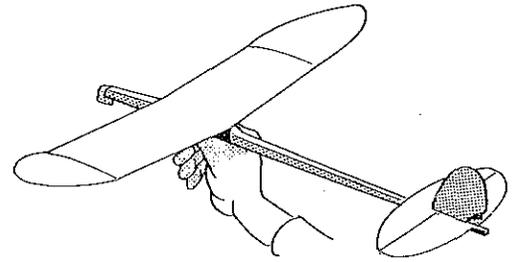
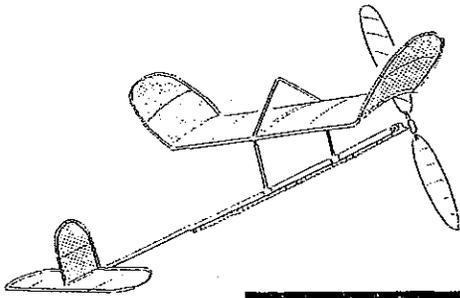


**UNKOWN STAN RALPH RAY  
BUDDENBOHM**



BRIAN FURUTANI





The Cloudbusters & The Balsa-Bugs  
 In conjunction with  
 The Michigan Indoor Aircraft Association  
 Present  
 The 2012



# Indoor Fling



Michigan Indoor Aircraft Association  
 A. M. A. Charter Club 5084

An AMA Sanctioned Class AAA Contest  
 AMA Category III Ceiling

Sunday, May 6, 2012  
 Ultimate Soccer Arena

867 South Blvd E, (20 Mile Rd) Pontiac MI

**Entry Fees:**

\$30.<sup>00</sup> post marked by April 20  
 \$35.<sup>00</sup> at door

Special Entry Fees { Junior Entrants  
 Science Olympiad  
 Phantom Flash for Beginners

**Spectators - FREE!**

Send Check or Money order to  
 Dan Olah  
 25436 Wareham Drive  
 Huntington Woods MI 48070

Contest Director  
 Dan Olah 248-542-8144  
 danielolah@wowway.com  
 Event Managers

FAC- Mike Welshans 248-545-7601  
 Mbwelshans@aol.com  
 AMA - Paul Crowley 586-294-1236  
 usa2298@comcast.net

**Flying**

**9:00AM- 5:00PM\***

Flying Floor split in half.

South End for FAC - North End for AMA\*

**AMA EVENTS**

Standard Cat Glider*	218
Unlimited Cat Glider*	219
Hand Launched Glider*	212
Manhattan Cabin	205
Limited Penny Plane	208
Penny Plane	207
Bostonian	215
F1L Easy B	217
Mini Stick + MS ML	220
Inter Stick	202
F1D (no rounds)	203

\* Glider flown only 9:00 AM - 10:30 AM  
 at the same end as scale

**PHANTOM FLASH FOR BEGINNERS**  
 Phantom Flash kits Available at

Prop Shop Hobbies, Inc. - "Your Complete Model Shop"  
 23326 Van Dyke Ave, Warren, MI 48089  
 586-757-7160 propshophobbies.com

Carlton Hobbies - "We make hobbies affordable."  
 8194 Conley Lake Road  
 White Lake, MI 48386  
 248-360-1910 carltonhobbies.com

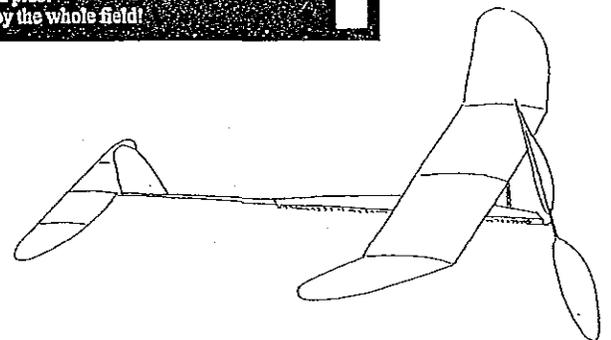
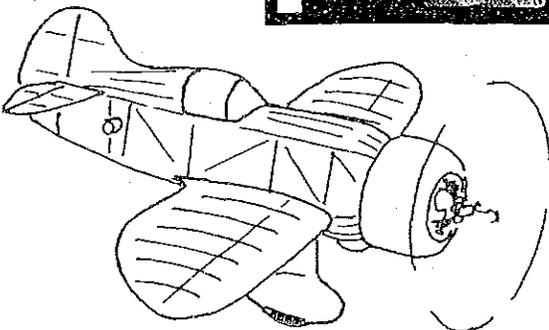
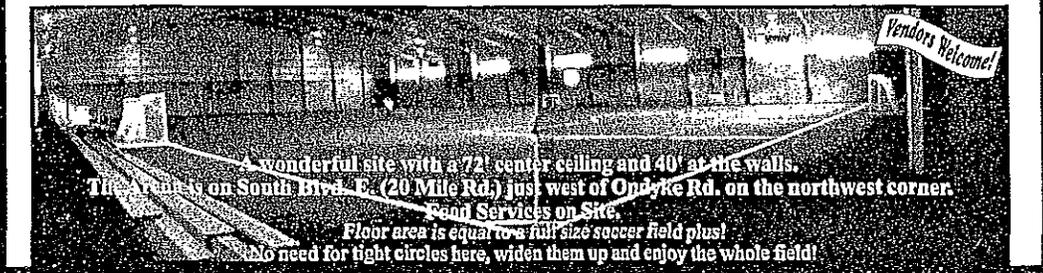
Flight Line Hobbies  
 11925 Lancer Rd, Lake Orion, MI 48360  
 248-814-8359 www.flightlinehobbies.com

or direct from the manufacturer  
 Retro RC - Vintage & Retro Model Airplane Kits  
 PO Box 193 Keego Harbor, MI 48320  
 248-212-9666 - retro.rc.us.com

**FAC EVENTS**

- 1 FAC Peanut Scale
  - 2 FAC Scale
  - 7 FAC Golden Age
  - 16 FAC Dime Scale
  - 17 FAC No Cai
  - 18 FAC Phantom Flash
  - 19 FAC Embryo
  - 20 FAC Jet Cat Glider
  - 25 FAC WW-I ML
  - 26 FAC WW-II ML
  - 29 FAC 1/2 Size Wakefield
- All FAC Events flown to 2012 FAC Rules

See Registration Form for map to site and details of events.





# INDOOR

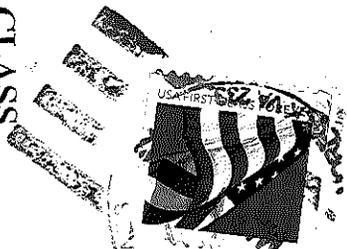
NEWS and VIEWS

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NEWPORT NEWS, VA  
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ISSUE # 134  
LATE WINTER  
2012



FIRST CLASS



## INAV

Indoor News and Views

Yes!

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

\_\_\_ 2 years @ \$30.00 U.S., \$38.00 Canada

Name \_\_\_\_\_

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Send a Sample Copy to a Friend???

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