

# The Thumb Print.

## Thermal Thumbers of Metro Atlanta Club Charter #1834

Oct/Nov 2009 issue



### HEADS UP

This one is a little late and a bit slim, but such is the case sometimes. Would-be grist for the literary mill might've been the rained out and re-scheduled November contest and the subsequently rained out and canceled December contest. I think we can put the drought worries away. Wash that Cadillac everyday, bro.

Not that we've not been busy, as the submitted photos of works in progress show later in this issue. Let's keep up this level of activity and we can have quite a show and tell at the banquet. Me? I've had way too much free time, and not having sufficient gainful employment at the ready, I've channeled a few more hours in the day toward the workshop. I should have six or seven models to show off. I assume others have been so blessed.

I get a zillion club newsletters. In a recent one I found a wonderful history of Ambroid which is re-printed later in this issue. Check it out, amazing and delightful story.

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President: Pete Brown  
Vice Pres: David Barfield  
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This is it from me for now from here. Show up somewhere with a model to fly. The full calendar of our indoor contest dates follow; we've dates through April.

### TIME TO RENEW

This is the first nag of the year, so I'll keep it mercifully brief. It's renewal time for your club membership. Don't forget you can now pay your dues online through Paypal, just go to [www.thermalthumbers.com](http://www.thermalthumbers.com) and open the tab "Join TTOMA" after there just click on the link and there you can pay. Fast and easy and free for you. You know who you are and you know what to do. Begin looking in the mirror. Our man Diamond Don, treasurer, can be found at 477 Safari Cir./Stone Mountain, GA 30083/404-292-0379/<[donkay7@gmail.com](mailto:donkay7@gmail.com)>.

### BEHIND CLOSED DOORS

Forewarned is forearmed. We've a long line of indoor meets upcoming at the Ward Rec Center. Mark your calendars thusly: Dec. 13, Jan. 10, Feb. 21, March 14, and April 10-11. Note the April date will be the Peach State Indoor Champs, a two-dayer, with two CD's. Peter and Bill are planning major upgrades and throwing in some fresh marketing to make it more of a regional contest.

Also, please note the January meet will feature a club swap meet, so gather up the necessities you no longer need because, as we all know, one man's junk is another man's treasures. It also provides the opportunity for domestic quietude. Here's the key: make a big show of carrying the "junk" out of the house to sell, but be very sneaky about getting the "treasures" you bought back into the house. I'm just trying to help.

We'll also hold the club's election of officers during the December indoor contest because the outdoor November contest was rained out, as was the reset outdoor contest in December. This is important, so show up.

### OUR 2010 MODEL AND EVENT OF THE YEAR

The votes are in and we've new models and events of the year for 2010. Both will be popular and well-contested. The 2010 MOY will be Earl Stahl's Hi-Climber, one of his few duration models. The HC is a very good flier and pretty easy on the eyes. A bit of a "tweener", it slots into the SAM Commercial and Small Rubber Cabin classes and FAC Old Time Rubber Cabin. It probably fits the AMA Moffett spec, but that would be a stretch. With its 30-inch wingspan, you can use a P-30 prop and it'll be OK, but the plan specs a 12-inch freewheeler which would be far superior. I'm guessing any twelve-inch, bal-sa freewheeler will do because the various plans show a little difference in block outline. (Please note: for a legit FAC kanone, the HC has to ROG, which should be no problem with that big prop.)

There are many sources for plans. I'm going to use my old *Model Builder* plan by Al Patterson (#484-OT). You can download a plan from <[theplanpage.com](http://theplanpage.com)>, Earl Stahl section, but it'll be 3 sheets of page size and the wing and stab are reduced. This material is a direct lift from the Aug., 1939 issue of *Air Trails*.

Jim O'Reilly sells a fine CAD plan for \$6.00, plus shipping, available at: <[jimoreillymodelplans](http://jimoreillymodelplans.com)>. Bob Holman sells a short kit along with Jim's CAD plan for \$19.00, plus shipping, available at:

<bhplans.com>. I've bought several Holman short kits over the years and the wood is usually OK. A kit will save some time because the wing, stab, and fin have sexy, curved tips you have to cut out or laminate. (Archivists will note the wing and stab tip outlines, courtesy of Patterson, have a more stylish taper than the round-ish ones, courtesy of O'Reilly. Go figure.)

The EOY in 2010 will be FAC Embryo. This is a great choice for EOY because most of us have them already and we fly it regularly. EOY status will encourage more flying and more kanones will be in the offing. I'll just remind everyone that for a legit FAC kanone, the Embryo rules require a ROG/ROT launch.

### A HELPFUL HINT

I've finished framing up my Hi-Climber (photo following is courtesy of Barf) and it's your basic rubber-powered, old timer model. The only trouble I encountered was building the sides of the fuselage. You'll notice the lower longeron has to bend at sharp radii both at the nose, middle, and aft end, snaking along one end to the other. Not only is this hard to do without breaking a piece of wood hard enough to work well as a longeron, but when unpinned from the board, the longeron will spring back in response to the built-in stresses and your lovely side planform will be ruined. Specifically, the flat, straight, and convenient run of the top longeron will be gone, complicating the handy pinning of the fuselage on its back onto your building board to place the cross members.

Let me pass along this old balsa-butcher's trick. Cut the longeron to length, but before you pin it down, cut the longeron vertically down the middle into 1/16<sup>th</sup> inch thick halves for the length of the bends. You'll find the two pieces of 1/16<sup>th</sup> will bend very easily to a sharper radius, but be sure to slop a lot of glue between the halves beforehand. After everything dries, you'll find the bends are permanent and stress-free. Sweet!

Also, spend some quality time on that big, 12-inch prop. Properly carved, it should pull the little Hi-Climber up to great altitude. Be sure to keep sanding until you've thinned the blade airfoil at least down to 3/32 in. at mid-span and 1/16 in. at the tips. Ooh, baby! Feel the breeze!

### THUMBS ON THE MEND

I spoke to Ken a few weeks ago and he's doing fine. His rehab is continuing apace and he's back to normal ranges of motion, pretty much. The only lagging item is his right elbow and they're working on that. Bill Brown bought a Hi-Climber kit and plan from Holman for the both of them and Ken plans to build it. He's still up for fixing some more teeth once the elbow starts to behave like it ought to. I'm not worried. Ken is bull-headed stubborn and that counts for a lot in the re-hab business.

The double-whammy at the Dixon house is working itself out nicely. Brook Sr. is back close to original spec; fortunately, his stroke was mild and the effects not too bad and his re-hab went well. Brook Jr. is able to get back to his workstation part-time and making slow progress towards full-time. They've had an eventful year over there, for sure.

### FINAL FALL FLING CONTEST REPORT

The wind howled all day and we flew the small stuff. It warmed up a little when the sun came out. A lot of models were broken, but none were lost. We had a good turnout considering the bad weather. At least it didn't rain. Clarence Purdy, reporting.

SCAT Jet

Frank Hodson	Saab Viggen	28
David Mills	Yak 15	17
Frank Hodson	F-84	4

JR HLG

Kayla Brown	51
Jessie Brown	39
Matt Brown	23

SR HLG

Liz Brown	69
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CLG

Dohrman Crawford	186
David Mills	126
Karl Hube	85
Al Pardue	46

JR CLG

Kayla Brown	43
Jessie Brown	35
Matt Brown	15

Chattahoochee Challenge

Liz Brown	168
Kayla Brown	159
Jessie Brown	54
Matt Brown	22

Rubber Scale

David Barfield	Comet Taylorcraft	20
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## FAC AT THE 2010 NATS

Lee Campbell just sent out a notice informing us that the FAC slate of events for the next Nats has been expanded to twelve. Also, the word is the judging will be held at the AMA Museum and will be spectator-friendly, as opposed to Uncle Fester's basement used this year.

This is a very good thing. (Why do we even bother with AMA scale? Please advise, world!) Fill in your calendars thusly:

Wednesday	Jimmie Allen Phantom Flash Dime Scale
Thursday	Embryo Golden Age OT Rubber WW II Mass Launch
Friday	Power Scale Rubber Scale Peanut Scale No Cal WW I Mass Launch

## CIRCLE THE WAGONS

Norm Deputy, majordomo of the Southeast Model Show in Perry, dropped me a line to tell me the date for next year is March 5 and 6. Mark your calendar and plan to attend. This is one soiree I never miss and something we in the Peach State can be proud of. Frankly, the world's largest model aviation swap meet is nothing to sneeze at. Over 1000 tables, try to top that, *amigos*. Those heir presumptives in Hershey, PA can kiss my grits.

## GOOD OLD AMBROID

I use a variety of glues in building my models. I usually tack glue with minute tabs of thin CYA, and after the big chunks are intact, I over-glue and fillet everything with Ambroid thinned, as required, with acetone and applied with a brush. It's fast and it works and doesn't weigh much. I've had suspicions, though, the last few years that my Ambroid, even thinned, doesn't penetrate as much as in the past.

A few weeks back, I went looking for some stuff in my mess of a spare bedroom/workshop and came across a dusty box from the old Lidgard estate. (The gift that keeps on giving!) In the box was an old and unopened tube of Ambroid. Being low at the time, I put it to work right then.

The first thing I noticed was its richer amber color and it smelled different, no better or worse, just different. I used it to build my copy of the HHHi-Climber. It so happened that I messed up the first fuselage side (see helpful hint above) and I had to build another. Realizing I was graced with the op-

portunity to run a stress-to-failure test, I went at it. I soon discovered the old Ambroid worked a lot better, penetrating much deeper into the longerons at the cross member joint. It's always a comfort when your paranoid suspicions prove true.

The advance of time doesn't always bring progress. In defense of our friends at Ambroid, the modern EPA regulations probably prohibit the carcinogens that used to work so well at gluing sticks together. (Be sure to read the delightful history of Ambroid that follows.)

## RAINY DAY SPECIAL

Every so often, something comes down the cable that just stuns the idle browser. Talk about black-holes for your leisure time—this is it! The latest *Stick and Tissue* carried the announcement that my old Down Under pen pal, Adrian Bryant, has amassed over 600 plus Aussie free flight plans, spanning seventy-odd years, downloadable via PDF. I jumped on the keyboard, and, it was so. Check it out: <[georgecar.com/affp](http://georgecar.com/affp)>.

We all owe Adrian a debt because, wow, is this a treasure! Over half are rubber-powered; a good portion is gas-powered; and, the remainder trail off into gliders, CO2, and other types. A good portion is from the 1930's, many well into the low end thereof. The vast majority is totally unknown to me, and presumably, will be to you, too. There are so many things that won't get done on time the next few weeks.

## DIFFERENT STROKES, DIFFERENT FOLKS

The city's model railroad fraternity had their annual trade show, swap meet, and bonding exercise just prior to Thanksgiving, and as usual, your trusty correspondent attended. Our city is, was, and will ever be a big railroad town and that's the reason for the size of the crowd. I always feel like a stranger in a strange land because this vibrant corner of the modeling world is a universe unto itself, providing plenty of ammo for perspective on what we do.

There was the usual barn load of things for sell, the bulk at what appears to be at very reasonable prices. However, the truly rare and collectible items are another matter entirely. These guys do spend some the cash. I think we can all blame our mothers for throwing out all our boyhood treasures, thereby jacking up the rarity of model railroading items from the fifties. (Be sure to nag your mama over Christmas. I always do. It's about more than just those baseball cards.)

One unique contrast our hobby and sport offers with model railroading is the relative absence of scratch or kit building and detailing of the actual rolling stock. None of these gatherings have contests and judging. In fairness, they do go nuts building amazing layouts and scale fidelity is big there and they do go on and on about which manufacturer's wares offer the greatest scale authenticity, a big factor in collectibility.

One truly odd thing is the division of the hobby into gauges or scales. One must commit early and not stray along the way. You see, the dozen or so local clubs are all based on activities of one gauge only for the most part and there's little crossover. All have their adherents and they seem quite happy with their segregated lot. One amusing trend to these myopic eyes, your preference in gauge can move up in size once your eyes start to go—those little wheels get harder and harder to get on the tracks.

## CHRISTMAS ON THE SHELF

Free Flight Quarterly has introduced a new soft cover book for sale, this one a compilation of the articles by Jean Wantzenriether on model aerodynamics. The articles span about thirty years of publications in international magazines such as *Vol Libre*, *Thermiksense*, and the NFFS Sympo. Jean's main interest is the performance of rubber-powered models and trimming them for maximum performance, highlighting the differences between auto-surfaces and locked-down schemes. Power models and gliders are also covered.

Jean is one of the fathers of the PGI/TOP school of design and trimming and this is given in-depth treatment. I found it fascinating, but at first counter-intuitive. After sufficient and forced immersion, though, much of PGI/TOP became logical enough, promising maximum performance without the use of autosurfaces and allied gadgetry and all the weight and complexity.

Those numerically inclined will find it a delight, encompassing eighty-odd pages of highly technical text, awash with graphs and formulae. (I should know because I proofed the whole thing; boy, did my right brain hurt!) I don't know the price at the moment, but Chris Stoddart can give you're the details, <chris.stoddart@gmail.com>.

While you're checking that out, ask Chris about the second edition of the Coupe book, a truly marvelous read, chock full of goodies. Sergio tells me the second edition is about sold out, so now's the time, buddreau.

## THE RULES, THEY ARE A-CHANGIN'

There are big changes on the SAM front. Per the recent vote by the membership, and beginning in 2010, we can fly the old timer models of our deceased brethren in SAM competition. About time, in this writer's view. The way the artifacts of a lifetime's handicraft have been left to languish in basements and closets, lonely and unused, over the past many decades has been a crying shame. No longer.

The Perryman family has been looking for the right way to distribute the remainder of George's modeling estate (frankly just models and trophies at this point!) and this news will be an encouraging factor in their happy dispersal to his OFB's. I'll be getting with the family soon as to the details, so keep your eyes peeled for that announcement. The last time I talked to Mrs. Perryman, she and Steve were looking at us gathering over at the home place and their handing them out there. There are, I'm guessing, all or part of thirty to forty models over there. Many are old timers. Steve is keeping a few as mementoes and a few are going to museums; the rest is up for grabs and need new homes and flying

careers. Be advised that to fly them legality you need to do the required notation rigmarole on the wing. Once that's done, you can have at it.

Bear this in mind, my fellow Thumbs: stalking onto distant flying fields with George's old flying iron will strike fear and loathing into the hearts and minds of our foes. Be that as it may. God's mercy on those poor wretches. One more thing, my brothers—the SAM Champs next year is in Muncie. I bet our OFB George would be thrilled about his old models getting some more air time.

#### NEXT ISSUE

Look for the final details of the annual banquet. Send me some stuff! Don't make me work that hard. Photos, plans, errant effluence of prose, whatever. Ciao, y'all.

TTOMA would like THANK the following retailers for being  
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Campbell's Custom Kits is a Commercial friend of TTOMA  
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Tail Spin Aviation is a Commercial friend of TTOMA  
[www.tailspinaviation.com](http://www.tailspinaviation.com)

# Thank You



## OCTOBER MEETING MINUTES

October meeting of TTOMA was held at the North Georgia Sod Farm during the regular monthly flying session. Pete Brown called the meeting to order at 1:05 PM with eleven members present.

### **Treasurer's Report**

Don Brown's report showed that the Treasury had a balance of \$XXXX.XX at the beginning of the reporting period on August 15, 2009. Since that time, there has been entry fee income from both outdoor and indoor meets that totaled \$317.00. During the same period, the expenses consisted of Ward Center rental fees for 2010 up through the Peach State meet in April and AMA sanctions for those meets. Total expenses were \$200.00.

### **Old Business**

Stephanie Brown announced the cost for creating TTOMA caps with logos. There is a one-time setup charge of \$95.00 and then each cap is expected to cost \$10.00 to \$12.00. No action was taken on this quotation.

### **New Business**

Based on Internet votes cast by the membership, the 2010 Model of the Year will be Earl Stahl's Hi-Climber and the Event Of The Year will FAC Embryo. Plans for the Hi-Climber will be added to the TTOMA Web site. Plans are also available on <theplanpage.com>.

Nominations for the 2010 TTOMA officers were discussed. All current officers agreed to serve another term and the membership voted to accept a continuation of the current staff.

Dohrman Crawford announced that he is preparing the 2010 outdoor flying schedule and was open to any fresh suggestions. Frank asked if the current schedule of two two-day contests in June and September is enough. The membership discussion indicated that no addition two-day contests should be added. It was generally believed that the same schedule as used in 2009 should be planned for 2010.

Frank proposed a change in the point scoring used for the TTOMA High-Point Award. He made a motion that a flyer be awarded one point for entering an event, plus one point for every competitor defeated. Whit Russell gave a second to the motion and the membership voted in favor of the change.

David Mills reported that SAM rules have been changed to allow a deceased person's models to be flown in competition. David said that there would be some of George Perryman's models available and that he will obtain an inventory of what is available.

Frank pointed out that the 2010 FAC Dime Scale rules contain some changes. He advised that FAC flyers check the FAC web site for the new rules before the 2010 season begins.

Pete and Stephanie introduced the idea of Model of the Year and an Event of the Year for indoor flying. No detailed discussion was held on the subject, but this will be a future subject for consideration.

There being no further business, Pete adjourned the meeting at 2:00PM.

Karl Hube, secretary, reporting.

## More than you needed to know about good old Ambroid.

Before Ambroid glue, you patched the birch bark or canvas on your canoe with spruce gum. It was an art and an ordeal. You gathered dried knots of pitch from spruce or pine trees. These were nurtured with patience from the trees by creating gumming notches. You harvested the knots and took them on trip with you. When you sprung a leak you started up a fire and rendered them with fat. The gum was applied while still hot. And if you didn't get your mix just right! In 1900 the canvas canoe was on the cusp of revolutionizing canoeing and launching the canoe-building industry. Charles Seavern, president of Howe & French, Inc. a Boston chemical company, was an ardent trout fisherman and canoeist. He was more than familiar with the time-consuming, messy gumming process from his Maine fishing trips in birch bark canoes.

Howe & French processed used tortoise-shell glasses to recover camphor. The leftover celluloid was burned. Celluloid had made its debut as the first plastic. It was little more than cellulose, obtained from plants such as cotton, and camphor, the plasticizer. As plastic was waterproof, it occurred to Seavern that a replacement for gum could be made from this waste. No more pitch gathering. No more fires. No more rendering. Just open a tin can and apply. It might have some color problems but the bottom of a birchbark canoe was not a designer's paradise. And since his company had waste celluloid to burn, the price of the raw material couldn't be beat.

With testing, Seavern found that his glue exceeded his original hopes as an adhesive, not only for birch bark, but the new canvas canoes as well. It was fast-drying, flexible, strong and above all, waterproof — as the packaging would later boast. Two words, amber (its color) and celluloid were combined to create the brand name Ambroid.

The liquid plastic was sold in small, round tins to sporting-goods outlets and in larger one-gallon cans to canoe-repair shops. Old Town Canoe Company became one of the first customers of the Ambroid Company, apparently even for a time, providing a tube with each canvas canoe sold. Old Town still sells Ambroid in its Wood/Canvas Repair Kit. Hudson's Bay Company became another early customer, selling large quantities across Canada through its posts and inland stores to hunters, trappers, surveyors, prospectors and natives. Ambroid is still sold by the successor, The North West Company, which operates the inland stores.

Old-time builders swear by the stuff for patching canvas. "I had an old canoe come into my shop with a complete double bottom of canvas glued on with Ambroid," says Rollin Thurlow, of Northwoods Canoe Co. in Maine.

The reconstituted tortoise-shell glasses did not immediately go into lead tubes because the lead caused the cement to gel. Citric acid was eventually added as a preventive. With the adoption of the tube, it replaced tin cans on canoe trips. Old-timers have told the Ambroid Company that it lasts for decades in the tubes. (Today, lead tubes have been replaced for safety and health with annealed-aluminum tubes.)

**Old-timer's Tip:** Makes a great fire starter on wet days.

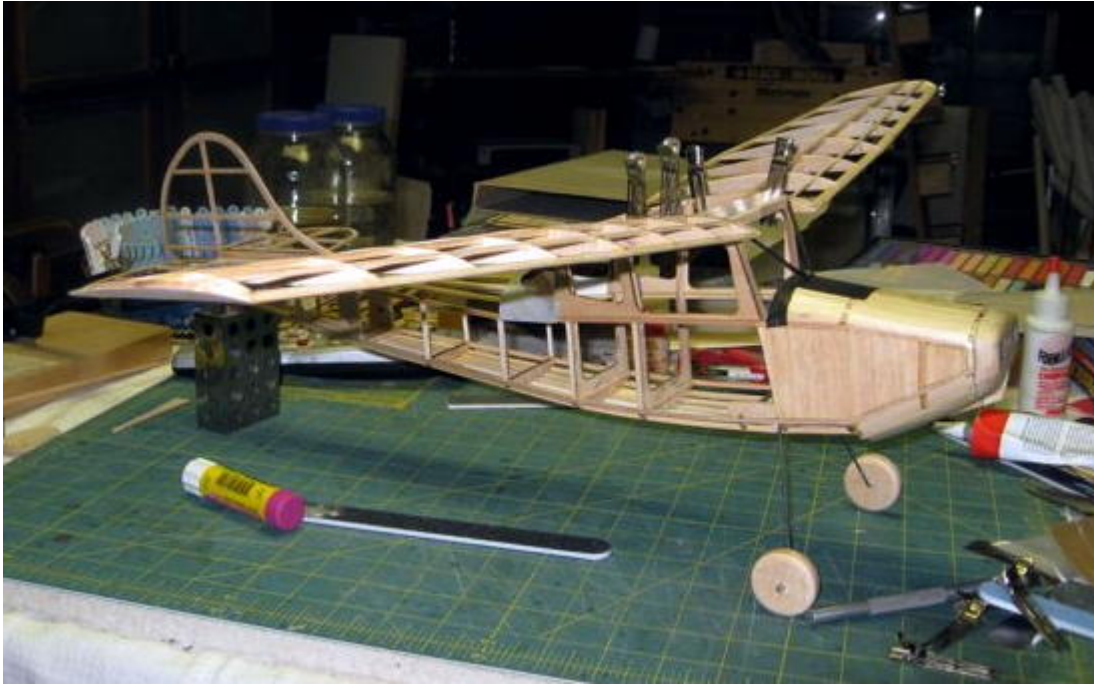
Not only was the amber liquid one of the world's first plastic glues (chemists like to point out it is not a glue but a cement), but it became one of the most widely-known brand names in the wood-canvas canoe industry. You didn't leave home without it. Its ease of use revolutionized repairs and must have helped accelerate the popularity of the canvas canoe.

The original Ambroid, marketed as Original Liquid Cement, is still popular with hobbyists who use it on wood models because it bonds so well to porous materials. It is widely available at hobby shops. Though sales of Ambroid to canoeists have fallen with the decline in wood-canvas canoe use over the past three decades, the first commercial canvas cement is still holding on patches and outshining today's high-tech glues.



# Works in progress

Dohrman's Cessna Birddog

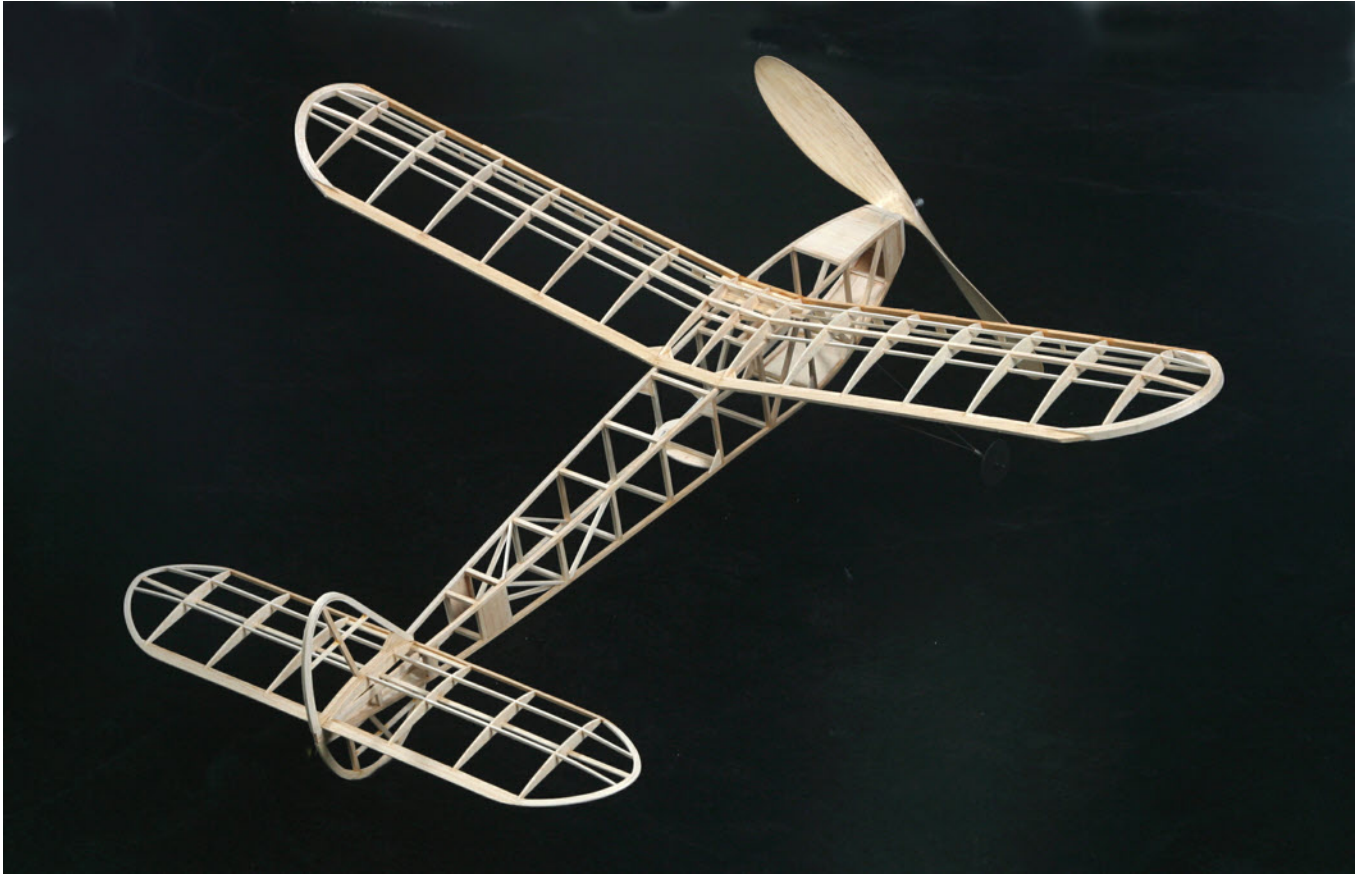


Gary's Avenger





# David M's Hi-Climber



# David B's Zero



## TTOMA Challenge Indoor Contest Nov. 8<sup>th</sup> 2009

Who would figure, it would be an absolutely beautiful day outside and we choose to fly indoor! Weather aside the turnout was good and lots of flights were put in. A lot of new and resurrected penny planes filled the airspace. Morning hours saw most fine-tuning their penny planes getting them ready for the mass launch. The mass launch itself was actually a blast! For once everyone could launch and actually step back to the sidelines and enjoy all the planes up at once. Fears of mid air crashes didn't happen, many of the planes spent their time bouncing around the girders. Out of the 5 planes launched, John Barker's plane was victorious. There never seemed to be any moments when there weren't planes in the air.

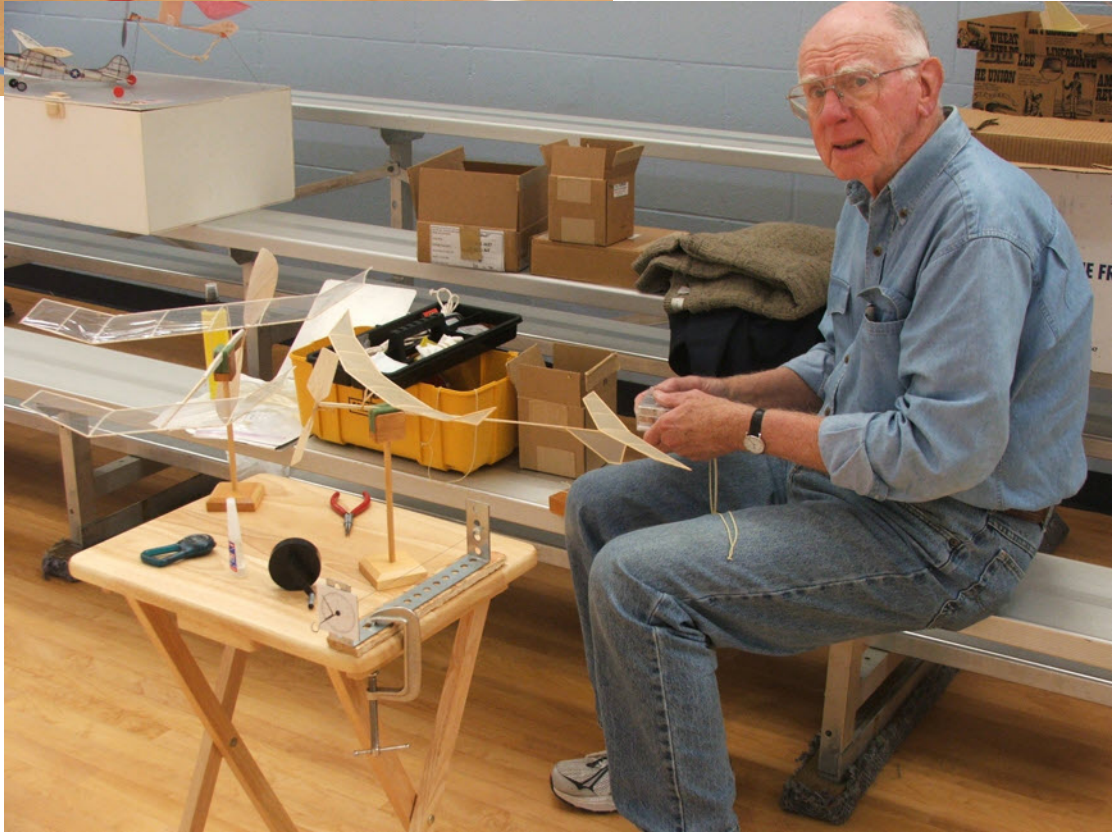
We had the judging for leg 1 of the TTOMA Challenge Bostonians and the indoor flights were put in. John Barker again put in the longest flights, but not far behind him was Jessica Brown with her pink Boston Butt Flying Pig. Unfortunately the second leg of the challenge was rained out twice and we will have to wait for 2010 to rechallenge the contestants and find a winner.

## Some highlights of the Indoor TTOMA Challenge



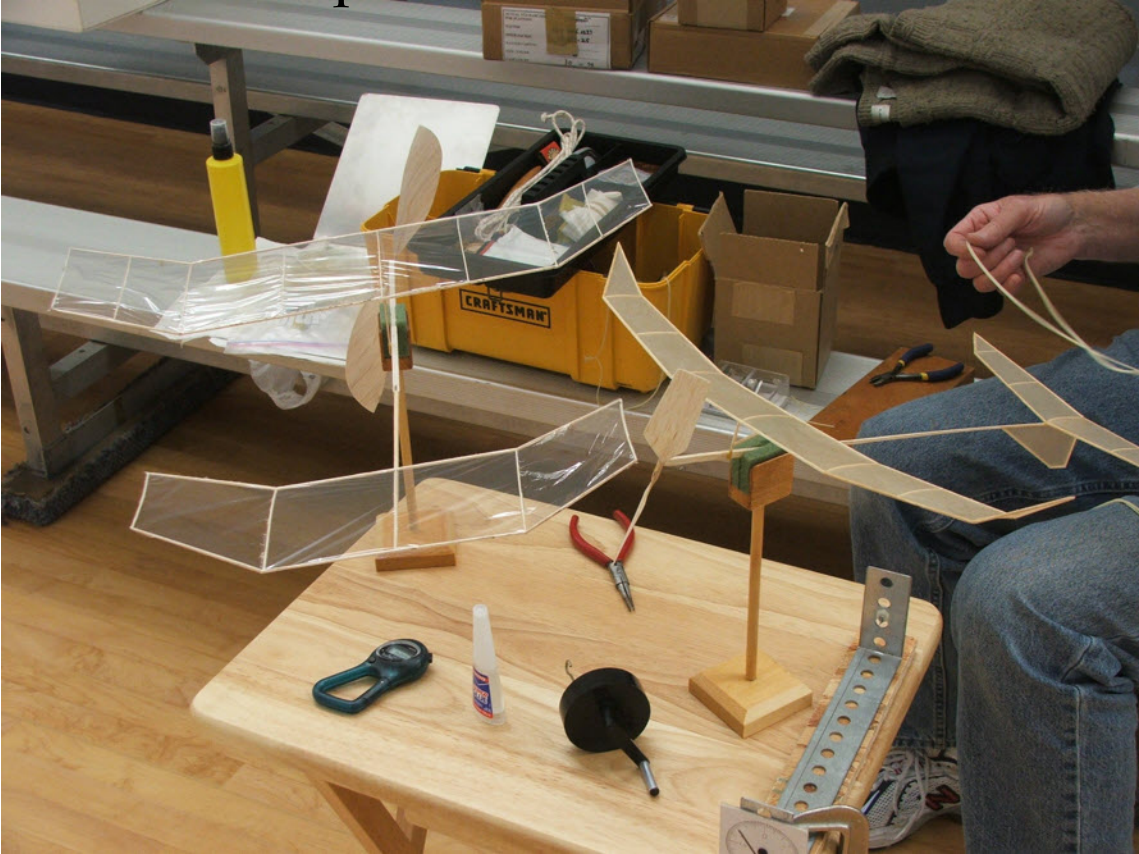
Karl with his first Penny Plane. Dohrm just arriving.







Karl's nice planes.

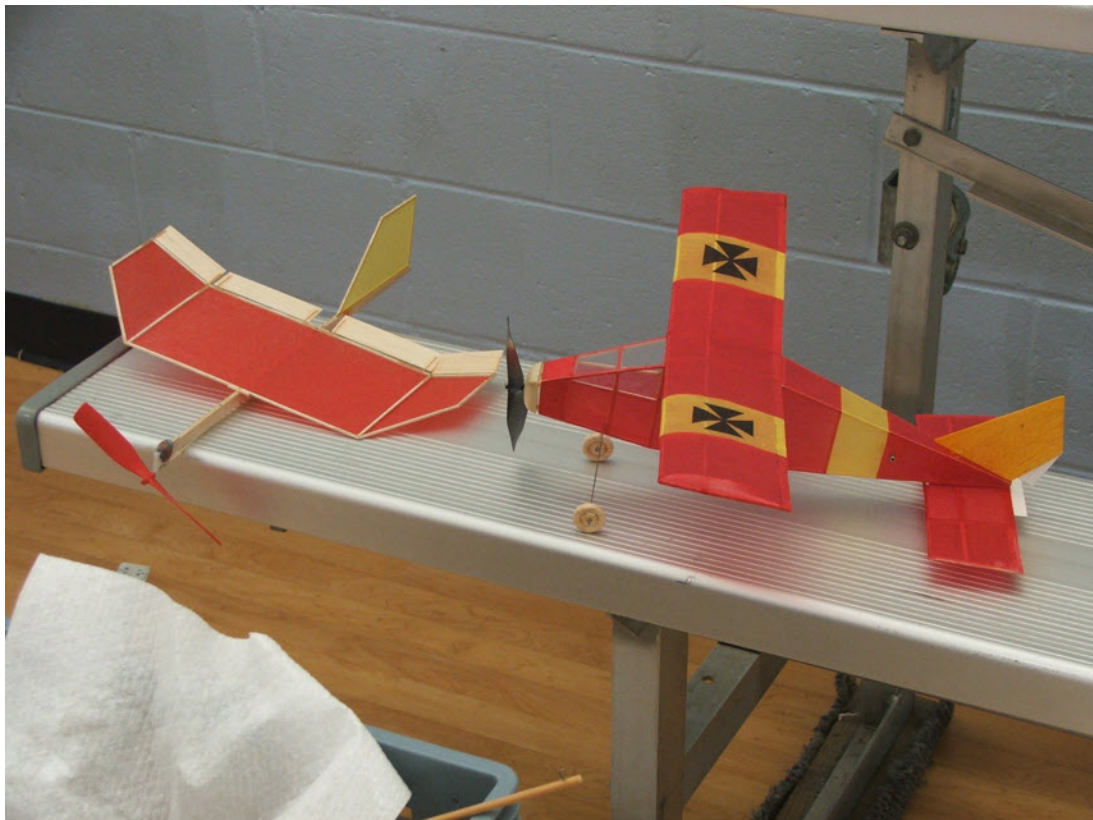
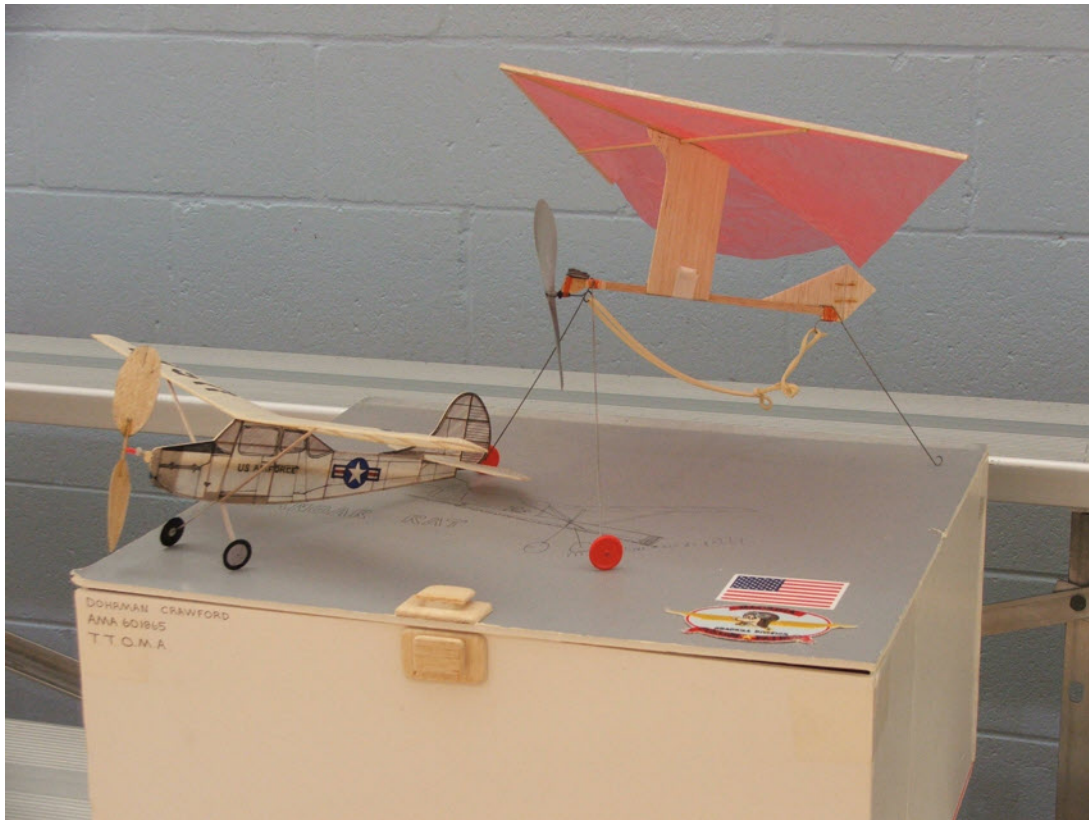


Richard getting ready to fly.





# Dohrm's fleet



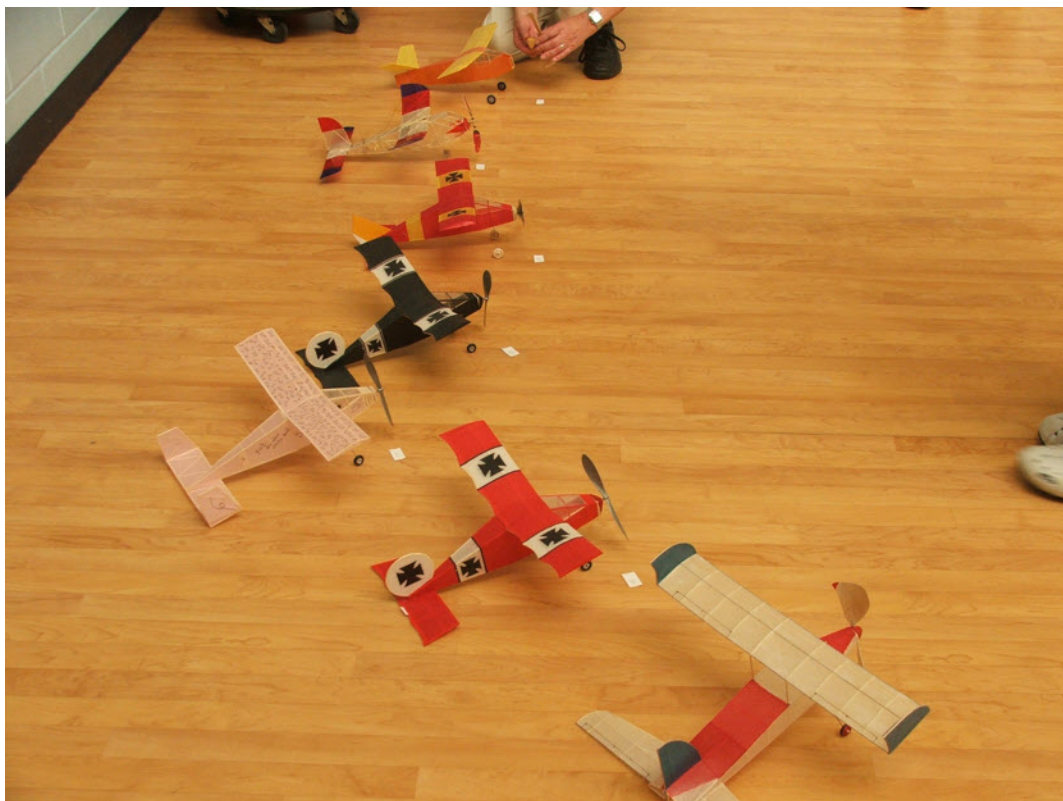
John Barker, Michaela Brown and Elizabeth Brown getting ready for the mass launch of Penny Planes.





Penny Planes away.....





Bostonians ready for charisma judging