



# The THUMB PRINT

Thermal Thumbers Of Metro Atlanta

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**March-April, 2018**

## HEADS UP

Welcome to the second issue of the year. Several members contributed, and it's a pithy one, chockfull of competition rules, contest reports, pending rules considerations, helpful hints and other items of importance. You'll soon find the expected and necessary renewal nag. (Note your editor will begin ragging you about joining the National Free Flight Society next issue. Forewarned is forearmed.) The indoor contest season is well underway and the outdoor season is beginning very soon. The contest schedule follows for those so inclined. Karl Hube forwards a good piece on improving your basic plastic prop, courtesy of the D.C. Maxcutters newsletter.

Time for me to get out of the way. Later, y'all.

## RENEWAL NAG

OK, let's get real here. Spring has sprung, the azaleas and dogwoods are blooming, and MLB is underway. Most of our intrepid Thumbs have re-upped, but as we've come to expect, the recalcitrant few still lag in vigor and commitment. This is your last chance to continue to bask in our communal wonderfulness. It's time to stroke that check on the line that is dotted to Karl "Karats" Hube and mail it to the address indicated. A membership form follows to ease your shameful burden. You know who you are! Eyes on you!

## THINGS TO DO, PLACES TO BE AND PEOPLE TO SEE

You can't say TTOMA doesn't offer you plenty of ways to spend your free time on the weekends. The remainder of the 2018 contest calendar follows. Many opportunities await. We've started the indoor season, and the outdoor season starts this April. The game's afoot.

**April 22:** NGT sod farm, April Fools, CD-Karl Hube

**May 12:** St Luke's, CD-Nick Ray

**May 19-20:** Kudzu Meet, North Carolina, info Jimmy Jordan at [jjordan18@ec.rr.com](mailto:jjordan18@ec.rr.com)

**May 23-28:** USIC Indoor Nats, Rantoul, IL

**May 27:** NGT sod farm, May Daze, CD-Dohrman Crawford

**June 9-10:** NGT sod farm, Chattahoochie Challenge FAC, CDs-Jim Altenbern/Gary Morton

**June 21-25:** Kibbie Dome. Moscow, Washington

**June 23:** St Luke's, CD-Joshua Finn

**July 14:** St Luke's, CD-Bill Gowen

**July 15:** NGT sod farm, Peach State Champs, CD-David Mills

**July 18-21:** FAC Nats, Geneseo, NY

**July 23-27:** USOC Outdoor Nats, Muncie Nats

**Aug. 12:** NGT sod farm, Fizzle While You Sizzle, CD-Graham Selick

**Aug. 18:** St Luke's, CD-Nick Ray  
**Sept. 15:** St Luke's, CD- Joshua Finn  
**Sept. 23:** NGT sod farm, Summers Swan Song, CD-David Barfield  
**Sept. 27-28:** FAC Outdoor Nats, Muncie, IN  
**Oct. 7:** NGT sod farm, Last Fling til Spring. CD-Lee Russell  
**Oct. 20:** St Luke's, CD-Bill Gowen  
**Nov. 4:** NGT sod farm, Turkey Shoot, CD-Gary Baughman  
**Nov. 17:** St Luke's, CD-Nick Ray  
**Dec. 8:** St Luke's, CD-Joshua Finn  
**Jan. 12, 2019:** St. Luke's, CD-Bill Gowen

### **THUMBS ON THE MARCH**

Several Thumbs have made their presence known on the contest trail so far this year. We got off to a good start at the King Orange down in Palm Bay, FL, where Scott Lapraick, Hayden Ashworth, Graham Selick, and Jim Conery did some damage. Well done, sirs.

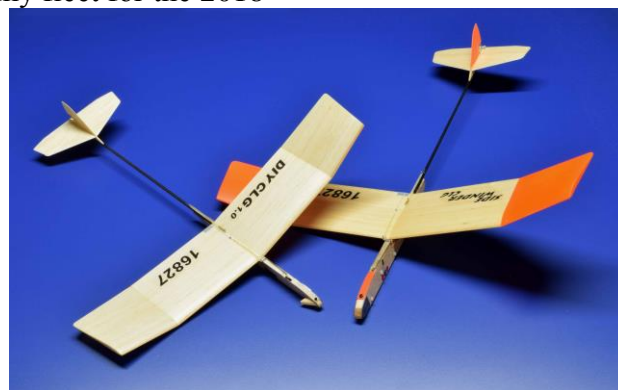
And then there's the F1D World Champs in West Baden, IN, held this past March. A number of Thumbs attended and helped run it. This WC had the odd and unfortunate feature of "weather" in the historic atrium being a factor. The interior atmospheric conditions did seriously affect the flying early in the contest. Apparently, snow and freezing temps outside caused a myriad of problems. Things moderated a lot later in the week, and serious scores were posted eventually. Brett Sanborn (USA) earned first place by wide margins and was followed to the podium by Zoltan Sukosd (HUN) and Corneliu Mangela (ROM). Fellow USA team members Jake Palmer and John Kagan placed fifth and sixth, respectively, and helped earn team gold. Reigning world champ Kang Lee had a woeful week and finished well down the list. (Kang will get 'em next time. Never count him out, and he's probably pissed.)

They held the Jim Richmond F1D Open at West Baden the previous weekend, and it was well attended. The scores reflect the better weather outside. And inside! Josh and Nick placed sixth and eight, respectively. Well done, sirs.

Hayden and Graham weren't done with their far-flung contest work. They dropped in on the some of the Fab Feb action in California, and Hayden had a blast. Indications now are that young Hayden will make the USA's World Championship team in F1P. Southern Free Flighters and those frequenting the Muncie Nats are very familiar with Hayden's precocious mastery of gas power. No doubt, the west coasters got an eyeful of same. Well done, young man.

### **THUMBS AT THE WORKBENCH**

Frank Perkins is continuing to develop his lineage of catapult gliders. He provided the following photo of his newest two, along with a note of elaboration. They're a departure from his usual practice, as he goes on to explain. Quoting Frank, "I've added two CLG models to my fleet for the 2018 flying season. The new "DIY" CLG models are a scale down of my battle tank, 17.5-inch "Sidewinder" CLG design, with about 85% the wing area and about 75% of the weight. After flying several 12-inch BTV models, I'm thinking something in between the very high launching, 12-inch gliders, and the nicely gliding Sidewinders may be the sweet spot trade-off between launch height and glide performance. Now, if the rain/wind would stop long enough to get in some test flying in . . ."



Karl Hube chimed in shortly and offered the following. Quoting Karl, "I think you are homing in on a good spot at around 14-inch span. That's where I am now, and I've actually disassembled a couple of CLGs with good wings and modified them. The wing tips were sawed off with a fine-toothed dovetail saw and reset

at a lower angle to reduce the lateral stability so they'll roll out reliably. With the extra dihedral, they wanted to stay on their backs at the top of the shot and loose altitude. I didn't fully appreciate the catapult rubber issue until I started looking at the British and Australian rules and flight scores. It looks like "less is more" when you know how to use it! I, too, keep looking outside hoping for a weather break for a trip to the local park to fly."

(I'm reminded of a conversation I had a long time ago with Joe Mekina, designer of the "Straight Up" CLG. He told me that the plan in the Campbell kit had a major error. Namely, the dihedral setting for the outer wing panels was given in error as 1/4 inch too high. I modified one of mine soon after, and the transition and roll-out was much improved. All the rest were soon changed, too. Clearly, too much stability in roll is a bad thing, amplifying Karl's comments.)

As far as your editor's CLG program for 2018, mine is going in another direction. My box of old, battle-worn Straight Up gliders is reduced to debris, and it's time to bring down the curtain on those vets. While shamelessly copying the general layout of same, I'm designing a new replacement fleet. Specifically, I'm substituting parabolic planforms for all the sharp corners and straight lines. Parabolas are easy to draw and offer a lovely curve with more area at the tips than the more widely praised ellipse. As drawn, the wings have significantly more area than the Straight Ups with only a modest increase in span and mean chord. I'm using the lightest wood I have, and the wing loading will be much less, so the glide ratio should be better. With only a modest span increase, the climb should only be slightly affected, but hopefully, the lower drag of everything will further counter this. We'll see how my fuzzy, right-brained logic works against these professional engineer-types. Time and the clock will tell . . .

## THUMBS IN PRINT

The latest *FAC News* is out, and we're proud to observe Dohrman Crawford's portrait of Dave Stott's "Pugnacious Pursuit" graces its cover. Readers will recall said artwork being highlighted in the last issue of your humble rag. Who knew we had that much class?

## RADIATING CLASS AND GUMPTION

We've had the great pleasure of getting to know Irving Cholfin, as he's visited us at St. Lukes regularly the last year. At a spry 97 years of age, he's an example to us all. Long retired, he's currently living at the Zaban Tower up the road from me on Howell Mill Rd. I've visited a few times. He's a good story teller and speaks often of his military service in WW II and the Korean War. He served in the Army Air Corp and later Air Force in aircraft maintenance, primarily as an engine builder and one-stop overhauler of the whirly bits. He ended his service as a crew chief and one of a select group doing the early debugging of the Cessna Birddog after its entering field service in Korea.

He began building model while in elementary school, and he continues today. About ninety years cutting balsa, he's an example to us all. Well done, sir.



## SO IT IS WRITTEN

The Treasure Trove section from a recent issue dealt with three, obscure designs from the WW II years that were eligible for both SAM (Small OT Rubber) and FAC (Old Time Rubber) competition. Unbeknownst to me, many of my comments on same didn't reflect the recent changes in the FAC rules. Gary Morton was kind enough to bring these changes to your editor's attention. Ergo, they're reprinted below, being lifted without shame from the FAC 2018 rulebook.

The relevant point, therein, is the new revisions don't just limit these designs to a 36-inch wing span, per se. Rather, there are wing area provisos that might make them eligible even if they exceed this wing span. Bottom line: projected wing areas need to be calculated as a final determination. So, cipher away and adjudicate thusly, y'all.

## V-2.0 OLD TIME RUBBER STICK & OLD TIME RUBBER FUSELAGE

FAC style competition for Old Time endurance and sport models designed, kitted, or plan published before January 1, 1946.

### A. OLD TIME RUBBER STICK

1. Model design must NOT show takeoff or landing gear (including retractable or drop-off-gear) and motor must be enclosed within the fuselage.
2. Launch technique: hand.

### B. OLD TIME RUBBER FUSELAGE

1. Model design MUST show takeoff or landing gear, and motor must be enclosed within the fuselage.
2. Launch technique: unassisted ROG.

### C. Wing Span/Area (both events)

1. Maximum wing span is 36 in. projected OR maximum wing area is 150 sq. in.
2. If original model had wing span greater than 36 in. projected or area greater than 150 sq. in., the design may be reduced to fit this requirement; the structure must stay the same, but wood sizes may be reduced proportionally.
3. Where a design's wingspan is less than 36 in. projected but wing area is greater than 150 sq. in., the design will be allowed unmodified; such designs may NOT be scaled up to 36 in. wingspan, however.

D. Old Time Rubber Stick and Old Time Rubber Fuselage events may be combined at the CD's discretion. In such a case, all models will be hand launched.

## SO IT MIGHT BE WRITTEN

We're at the beginning of the AMA Free Flight rules change cycle and our contest board rep, Gary Baughman, sends along the following list of proposals for your review and comment. Quoting Gary,

"Fellow Free Flighters in District V,

"As your representative on the Free Flight Contest Board I need your feedback on the proposals currently before the board so that I might accurately represent your views in the casting of my votes. The process goes like this. There are three rounds of voting. The first round is to filter out those proposals that deserve additional consideration in the Cross-Proposal phase. Those proposals not moved forward will be rejected in this first round of voting. The votes must be in to AMA by the first of May. In addition to these proposals, there are two Indoor proposals, and your feedback on them needs to go to Bill Gowen who is your District V indoor board member.

"The proposals I need your feedback on are as follows and the full text of the proposals can be found on the AMA web at <http://www.modelaircraft.org/events/ruleproposals/outdoorFF.aspx>

OFF19-03 Submitted by Jerry Murphy. This proposal would sunset those events no longer being flown in general Free Flight competition. When they are flown they have been reduces to being participation award events. Events will be removed based on the number of Nats entries. The reason for basing the criteria on the Nats is there are no records on events outside of the Nats.

OFF19-06 Submitted by Don DeLoach. This proposal will define the CLG as a solid handle with a maximum length of the rubber to be 9 inches.

OFF19-07 Submitted by Aram Schlosberg. This proposal increases the fly-off max times for E-36, A Electric and B Electric

OFF19-08 Submitted by Aram Schlosberg. This proposal will add the requirement of a measurement of static wattage to determine the motor run time for E-36. Please refer to the full text of these proposals on the AMA web.

OFF19-09 Submitted by Aram Schlosberg. This proposal will add an autorudder to E-36 to improve trimming.

OFF19-10 Submitted by Bob Miller. This proposal will remove the limit of models allowed.

“In addition to these Free Flight proposals, there are three proposals that effect the AMA General Rules. The full text of these is available on the AMA web at:

[http://www.modelaircraft.org/events/ruleproposals/Rules\\_change\\_proposals\\_general.aspx](http://www.modelaircraft.org/events/ruleproposals/Rules_change_proposals_general.aspx)

Gen19-01 Submitted by Jerry Murphy. This proposal will do away with the practice of setting AMA national records in events not flown. This applies in cases where a limited performance class is flown and the recorded score also exceeds that of the higher performance class. An example would be where a flyer sets a new record in Classic Gas and that record is also greater than the current record in AMA Gas even though the flyer did not fly AMA Gas. This is current practice in Indoor.

Gen19-02 Submitted by Don Slusarczyk. This proposal will retrain the current practice of setting multiple records at the discretion of the specific Contest Board.

Gen19-03 Submitted by Don DeLoach. This proposal will allow the setting of records in events sanctioned as AMA Record Trials with the same requirements as those of AMA Sanctioned contests.

“So, here is your homework. Review these proposals, talk about them with your flying buddies and email your inputs and concerns to me. Forward this email to your other flying friends in District V.”

Sincerely,

Gary Baughman  
District V, AMA FF Contest Board Representative  
gjbman@bellsouth.net

## **GATHERING OF THE TRIBES**

A number of Thumbs attended the umpteenth Southeast Model Show down in Perry this March. As we've come to expect, GAMA did a great job. I attended Friday, and the crowd seemed as big as last year's. I heard the table count was up a little, GAMA having found a better way to arrange the tables.

Josh and Hope Finn, Dan Crews, David Barfield, Scott Lapraick and Graham Webster all had tables. Your editor and Scott McGowin were the only ones without anything to sell, as far as Friday went. Ergo, the local capitalists were out in force. Most of us bought a little of this or that, but my prize was a two-volume copy of the P-51D service manuals for ten bucks. Josh bought the four-volume set for the B-17G for another ten bucks. Both fascinating things to thumb through, rest assured.

After some reflection I stumbled upon this bit of profundity. Not only were many thousands of the mighty P-51Ds and B17-Gs built and many, many times more of other aircraft, but we had hundreds of thousands,



perhaps a few million people throughout the USA that could design these aircraft and dozens of others, fabricate and assemble all the parts, plus repair and maintain the USA's massive airborne fleet of the time. Millions?! I dare say we'd come up a bit short of same at the present time. Maybe we could cross-train some of our laptop jockeys and financial types, if we had to . . . . .

Not that it'll deter me next year, but I found very little in the way of Free Flight nuggets. Barfield sold a ton of FF kits, and he had the genre pretty much to himself. He has a big pile of goodies left. Those wanting to start a taller stack at home might want to call him and inquire. It's quite a haul.

### **CROSSTIE WALKING**

I've attended the annual, mid-March model railroad trade show and swap meet at the Marietta Galleria for many years. Once again, as I've come to expect, it didn't disappoint. Of course, I'm highly partisan in this regard because I grew up in a railroad family of the Seaboard Air Line/Seaboard Coast Line/CSX stripe. Model railroading is huge in this country, and especially in Atlanta, one of the major and most vital railroad hubs in the USA. People rave about the importance of Atlanta in terms of aviation, but the truth is railroading dwarfs it by a massive margin. The huge participation in model railroading locally is a direct result of this, and the public is the beneficiary in this and the full-size example. Frankly, local civil aviation is just a piker in comparison—harsh words, flyboys, but true.

There's much to choose from in this hobby, and it's organized in an intriguing way. Like us, most active railroad modelers are local club members. Unlike us, the magazine racks are thick with pulp, and the web is extraordinarily well invested, too. Likewise, the worldwide retail market and the secondary market trailing behind are massive and amounts to gazillion of dollars annually, too. One odd thing, though. The hobby is highly Balkanized in terms of scale. Early on, believers commit to a specific scale, and their life course therein is largely determined, seldom venturing into smaller or larger sizes. Some flirt or cheat with other "scales", but most remain monogamous after settling in. (Free Flighters aren't the only oddballs, my brothers.)

The photos below illustrate the typically big, model railroading crowd, and please bear in mind that this is merely one of several gatherings a year in metro Atlanta. Also, I'd like all of you to notice how many kids are in the room, usually in the company of old farts like us. In terms of marketing, this is like falling off a log. Tasty retail stuff all over the place and several huge layouts set up and running—good grief! Model railroading has a great future, and there's little to fret over. We can learn a few things from these people.



### **HELPFUL HINTS**

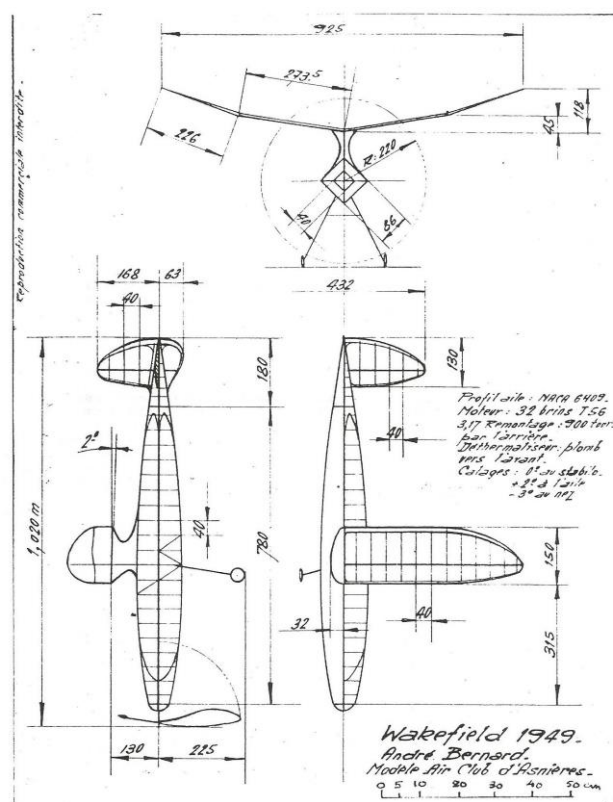
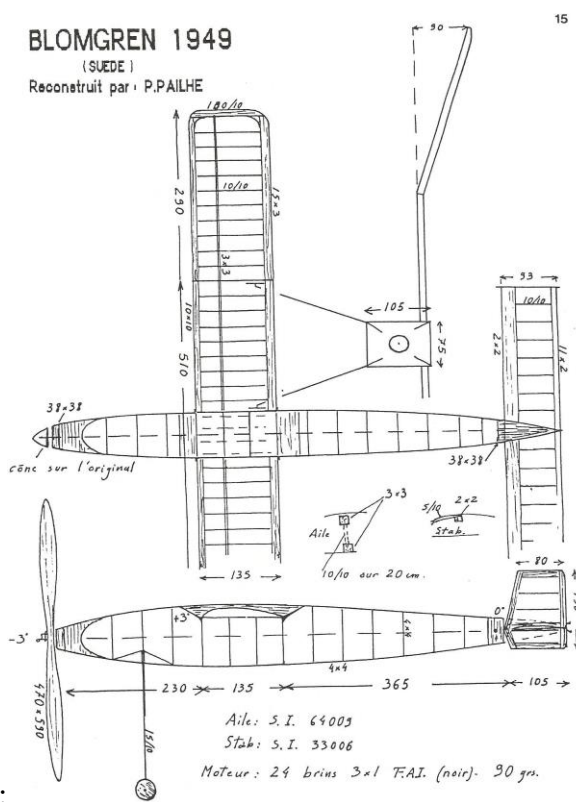
I decided to build some scale kits this year for FAC enjoyment, and I pulled out an old Flyline kit of the He 100D for WW II Mass Launch. The kit was in pretty good shape, considering its age. However, the decals weren't, but I recalled an old bit of wisdom from the plastic modeling magazines. They recommend taping the decal sheet flat on the piece of cardboard and keeping it on your dashboard for a few days. Well, I did and was pleasantly surprised at the results. The sun did wonders, and the yellowing was gone. They also

recommend spraying a mist coat of clear flat lacquer on the sheet and letting it dry before using. This is promised to lessen of the likelihood of the old decals breaking up upon application.

### TREASURE TROVE

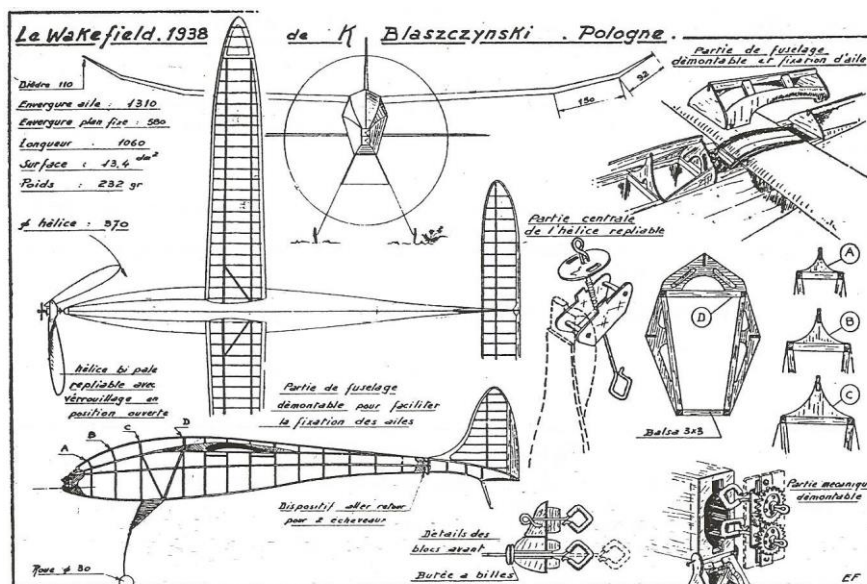
This issue's trove is courtesy of Josh Finn. Like your editor, he's a tad fascinated with old designs from Europe and elsewhere. The three old timer Wakefields plans that follow are part of a forwarded lot that caught this writer's eye. All offer some intriguing features.

Note that the first two were published prior to 1950 and can be slotted into both the SAM ranks, as well as the NFFS NosRub category. The first is the Blomgren 1949 Wakefield and presumably Swedish. It's a lovely model, well-proportioned and lightly drawn. The freewheeling prop offers the only consternation; otherwise, nothing offends. The second entry, the Bernard 1949 Wakefield is nothing short of gorgeous and French presumably. I'm a sucker for diamond fuselages and elliptic-ish planforms, so I jumped on this one's bandwagon at first sight. It's a real looker. Not a single stick is out-of-place and doesn't do good work. Very lightly drawn, this one won't weigh much. Areas, moments and airfoils oblige. The one-bladed folder should churn the atmosphere just fine. Both of these birds should fly and look good doing it.



The third design is worth a serious look by anyone who delves into the fine print. The Blaszczyński 1938 Wakefield is a real eyeful, and much is there to entice and intrigue. (Many a loving jab has targeted the noble people of Poland over the consonant-to-vowel ratio in their family names. By any count, this one is an all-time contender.) Let's start with the basic look of this beauty. If there's a more artistic rendition of a pre-WW II Wakefield, I've not seen it. One thing is for sure—Mr. Blaszczyński liked cutting sticks. Good grief! Getting down to specifics and for starters, this might be the most complicated fuselage of the entire era. The enumerations based on the pass-through wing and twin motors brought forth a six-sided cross-section, no less. Further, how many six-panel wings do we see among the fleet of the time? Not many, but there it sits. Let's joyfully heap the complexities of all the gearing and the aggravation of the low-slung stab DT onto the abundant man-hour requirements. Having said all of this, nothing will offend the air, save the lovely, pointed wing and stab tips. Surely, a measure of tip loss will ensue. Our modern era's blast tube/DT provisions will cure the near-fatal flaw of the dire pinch at the rear motor's gearbox. The airfoils are delineated by only a

smudge, so interpretations may be subject to some beneficial slippage, no doubt. After an eternity in the workshop, this bird will fly and look fabulous doing it.



## MAKING A LIST

Here's where we stand so far. Note only indoor results are featured, and the outdoor season starts soon. The game's afoot.

Josh Finn	38	Dan Crews	7
Hope Finn	32	Bill Gowen	7
Dohrman Crawford	19	Joe Ryan	4
Nick Ray	12	Jim Conery	3
Richard Schneider	11	Lee Russell	3
Karl Hube	9		

## NEXT ISSUE

Look for something in late June after our two-day FAC contest. Expect a report on this and the indoor Nats, as well as a number of additional from Raeford, NC, St. Lukes and the sod farm. No doubt the high point standings might be shuffled a tad after the infusion of some outdoor scores, so stay tuned.

As always, sent me all your articles, photos, plans rants and raves. Don't make me work too work. Later, y'all!

## March Indoor Contest Report

Saturday at St Luke's was a good time. Many of the fliers remarked on what a good contest it was. The inaugural Rat Rally was well-attended. Eight fliers made Hangar Rats, Jim Conery showed up with two! What really happened was a fun indoor contest with many flights of all kinds. Most flying was done by Rat fliers thirsting for a chance to win one of the coveted prizes, kits from Volare. The Hangar Rat Mass Launch was a great success, which almost includes the video, said video being marred by an intemperate discussion of various low places frequented by our editor. Three delicate souls within earshot fainted.

(Our editor David Mills made bold claims about his Rat, with John Wayne as the pilot, but only produced a small replica of a Rat. It appeared to be made of pasta. Waving it around like a man possessed by devils, he made noisy engine sounds, and frightened several visitors, who hid behind the curtains on the stage. He did not, however, fly it as he had to leave quickly to evade the police.)



A great time had by all. I hope more of you will glue some sticks and come out to the next indoor contest. Build a Peanut, Rat or a No-Cal Scale. It was a lot of laughs and fun this time at St Luke's. Let's do it again. Here are the results, respectfully submitted, Dohrman Crawford, cub reporter.

Hangar Rat Mass Launch

Josh Finn  
 Dohrm Crawford  
 Karl Hube  
 Hope Finn  
 Richard Schneider  
 Jim Conery  
 Doug DeMasie+Joe Ryan (DNF, blowed up good!)

A-6  
 Hope Finn 3:18  
 Josh Finn 2:35

Mini Stick  
 Nick Ray 8:23 new state record?  
 Josh Finn 6:38  
 Hope Finn 6:20  
 Lee Russell 3:42

Hangar Rat (2 of 5)

Dohrman Crawford 5:32  
 Joshua Finn 4:27  
 Joe Ryan 4:10  
 Karl Hube 3:47  
 Jim Conery 3:43  
 Hope Finn 3:25

Phantom Flash (total 3)  
 Hope Finn 6:53 Kanone worthy!  
 Josh Finn 6:09  
 Dan Crews 1:10

F1R

Josh Finn 26:29

Peanut Scale

Richard Schneider 1:40  
 Dohrman Crawford 0:40



**April Indoor Contest Report**

Seven TTOMA fliers gathered in the Great Hall for a day of flying shenanigans. David and Lou also showed up for some fellowship and such. Despite cool temperatures and rainy weather, the air was smooth. By afternoon it turned absolutely excellent with almost no turbulence whatsoever. Bill Gowen brought a special treat—an indoor glider build by hand launch maestro Mitsuru Ishii. The wings feature an absolutely satin finish. No Buddenbohm airfoils, either. This thing has an incredible undercambered airfoil, sanded absolutely perfectly. Bill spent the day testing his A-6 and Limited Pennyplane for Kent. They flew beautifully, as always.

Yours truly had his Open Pennyplane its first public outing and had several nice flights, one only 2 seconds short of the state record. I went for a little more and managed to mess up two flights, but on the second one, I re-launched and flew almost as long on the re-launch as my previous best of the day. Hmmm... well, I wound it again and asked Dan and Nick to time it as a record attempt, not quite

making the USA record of 16:18. But, 14:57 is a new high water mark for TTOMA. Pretty shocking to a guy who's never done exceptionally well at Pennyplane, and even more shocking for an airplane made of spare parts on its first serious outing.

Richard flew his scale models and put up some very pretty flights. Dohrman put up a good time in Hangar Rat but absolutely decimated the airplane when his motor exploded while winding, and that opened the gates for Hope to take the win. Dan spent most of the day trimming his new Hangar Rat and put up two excellent flights toward the end of the day. Another trimming session and he'll be in the running. Hope had just enough time left in her flying to get in two flights in Phantom Flash. Dan's and mine were buzzer beaters, so we didn't stand a chance of catching up. Nick Ray spent his day testing a new Ministick but went back to last month's insane curved wing model at the end to put up a strong flight over 9 minutes. Richard also entertained us with his new Chattahoochie Challenge model and put up many excellent flights. If you've never seen one of these all-sheet wonders, you really should check them out. They fly surprisingly slowly. See y'all next time! CD Josh Finn reporting.

#### Limited Pennyplane

Bill Gowen 6:05 85.40% state rec.  
Hope Finn 5:06  
Josh Finn 4:44

#### Unlimited CLG

Bill Gowen 0:34

#### Ministick

Nick Ray 9:13 92.00%

#### Hand Launch Stick.

Josh Finn 33:39 97.70%

#### Open Pennyplane

Josh Finn 12:15 99.70%

#### A-6

Bill Gowen 5:27 69.10%  
Josh Finn 3:50

#### Phantom Flash

Hope Finn 292  
Josh Finn 121

Dan Crews 74

#### Hangar Rat

Hope Finn 206 55.06%  
Josh Finn 177  
Dohrman Crawford 171  
Dan Crews 149

#### No Cal Scale

Richard Schneider Clipped J-3 Cub 189

#### Chattahoochee Challenge

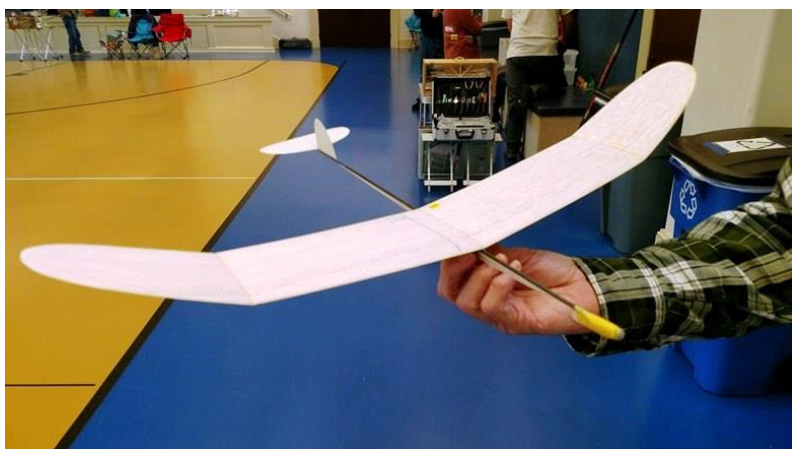
Richard Schneider 2:08 64.30%

#### Peanut Scale

Richard Schneider Nesmith Cougar 0:21

#### April Unicorn Awards

1. Josh Finn
2. Nick Ray
3. Bill Gowen
4. Richard Schneider



# 2018 TTOMA CHATTAHOOCHEE CHALLENGE

June 9th and 10th at the N GA Turf Farm Field  
Sponsored by TTOMA and the FAC Phantom Squadron  
Whitesburg, GA

Saturday  
8:00-5:00

FAC Rubber Scale\*  
Jimmy Allen  
Simplified Scale  
Jet Catapult Scale  
Embryo  
No-Cal Scale  
Old Time Rubber Fuselage/ Old Time  
Rubber Stick combined  
WW I Mass Launch  
Golden Age Mass Launch  
Catapult Glider  
Hi Start Scale Glider

Sunday  
8:00-3:00

FAC Rubber Scale\*  
GHQ Peanut Scale  
2 Bit + 1  
Dime Scale  
P-30  
NBM Embryo\*\*  
W II Mass Launch  
Racers Mass launch  
Blue Ridge Special  
Hi-Start Duration Glider

RULES: All events with maxes will be flown to 2-minute maxes. The rest will follow FAC rules. Any weather related changes will be distributed to all flyers at the beginning of each day.

All fly-offs will be mass launches.

FAC Scale and GHQ Peanut Scale flight times will be the average of three flights.

WW I and Racers Mass Launch will be at 11:00 am. Golden Age and WW II Mass Launch will be at 1:00 pm.

Models that qualify for both Jimmy Allen and 2 Bit + 1 may be flown in either event but not both.

\*FAC Scale judging will be done on both days between 9:00 and 12:00.

\*\*NBM Embryo is for contestants who have not yet earned their Blue Max.

AWARDS: Recognition Awards to third place with prizes based on each contestant's total score.

ENTRY FEE: \$10.00 for each day that you fly.

CONTEST DIRECTOR: Jim Altenbern (jaltenbern0705@charter.net) with help from Gary Morton (gmorton@centurytel.net)

DIRECTIONS to the North Georgia Turf Farm can be found on TTOMA website: [thermalthumbers.com](http://thermalthumbers.com)



# KUDZU SPRING CLASSIC MAY 19-20 , 2018

## RAEFORD, NC

### Saturday May 19

#### **Mass Launch:**

WWI

Navy Scale-Pat Daily Memorial Launch\*

Mod Civil / Mod Mil Comb.

Spanish Fly^

#### **Judged / Timed:**

Embryo

FAC Jet Catapult

Dime Scale

Simplified Scale

FAC Peanut

No Cal

#### **AMA Events:**

Hi-Start Glider (Non-Scale)

AMA Catapult Glider

AMA P-30 Rubber

#### **End of Day**

Flying Horde Mss Launch (NBM)

### Sunday May 20

#### **Mass Launch:**

WWII

Combined Racers

GA Multiwing / GA Single Wing Comb.

US Air Mail Commemorative <

#### **Judged / Timed:**

2 Bit +1 OTR

Low Wing Mil. Trainer

FAC Rubber Scale

Phantom Flash

FAC Scale Hi Start Glider

Blue Ridge Special (NBM)

#### **AMA Events:**

NFFS E-20 Electric

AMA 14 Gram Bostonian

SAM Twin Pusher Mass Launch

#### **End of Day**

Simplified Scale Mass Launch (NBM)

\* Any Navy aircraft, any era / nationality

^ Any aircraft that saw service in the Spanish Civil War

< Any US Air Mail aircraft operating 5/15/1918— 12/31/1933

NBM= events for Non Blue Max holders only, and only if enough

NBM competitors are present

#### **Flying Horde / Simplified Scale Mass Launches**

Any rubber powered model airplane

Winner gets to select a prize:

One year FAC Membership, or One year NFFS Membership, or one pound 1/8 FAI SS Rubber or a copy of Don Srull's book

"Cover Art from MaxFax"

#### **FAC events**

Stew Meyers [stew.meyers@verizon.net](mailto:stew.meyers@verizon.net)

Dave Mitchell [davedge@me.com](mailto:davedge@me.com)

#### **AMA events**— John Diebolt

[jdiebolt@mindspring.com](mailto:jdiebolt@mindspring.com) 919-467-1025

For more information: [www.dcmxecuter.org](http://www.dcmxecuter.org)

Google map to field: <http://goo.gl/maps/vc3R>

Take US-401 / Raeford Rd. WEST out of Fayetteville. After the Food Lion shopping center on your left, US-401 divides; bear LEFT (south) on to US-401 Bus. Go 2.6 miles, turn LEFT at Oakdale Gin Rd. Go .4 miles, turn LEFT at Ratley St. Ratley makes a 90 degree bend to the left; at this point the field and dirt access road is on your right.

**Bring your own lunch**

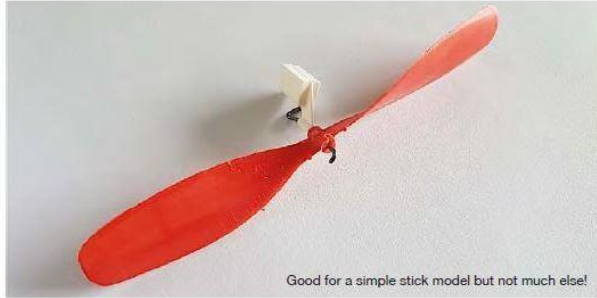


**The front end - Mike Mulholland**

How often do we see good models let down by inferior nose hardware? It's a well-worn theme with me that the heart and soul of a rubber-powered model is contained within the first 2 inches, and yet it frequently seems as if the builder either lost interest at that point or was so desperate to get flying that a quick flick of the wrist to put a 90 degree bend in the prop shaft was all it got!

I should devote a few words to justifying my assertion about being the heart and soul of a rubber model. Starting from the front your nose assembly incorporates your propeller, your prop shaft and free-wheel system, your prop shaft bearing and / or thrust bearing, hopefully your all-important side and down thrust adjustments, and at the other end of the shaft, the hook. The nose block and plug, and the facing surface on the fuselage are also important factors in achieving success.

I will be covering some of the techniques that I use in a series of articles in Slipstream. While there are other ways of doing things and all modellers have their preferences, the methods I will cover are tried and true, uncontroversial, and a very good starting point for anyone wanting to improve the performance and reliability of their models.



Good for a simple stick model but not much else!

**The Propeller**

These days most rubber powered models up to around 30" wingspan tend to feature commercially produced plastic props of between 5" and 9.5" diameter. As a rule, today's plastic props are a very good option. Experts will 'heat and tweak' to re-pitch them for optimum performance but for most of us this is unnecessary. There are, however, two essential things and one highly desirable thing that should be done to plastic props:

**Balancing:** Out-of-balance props result in vibration which in turn results in reduced power output at the prop and unnecessary wear on all components and glue joints.

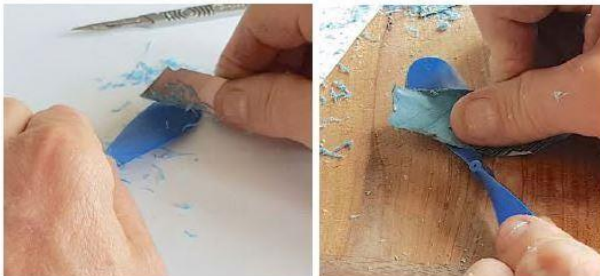
As moulded, your prop will be close to but not perfect. Balancing, for the speeds that these props turn is a simple process of scraping the heavier blade with a knife until it will

prop as I am not touching the undercamber. Scrape from the hub out to the tips, checking for balance as you go.

How far you go depends on what sort of model and where it will be flown. A plastic Peanut prop weighs around 2g, which is between 25%-33% of the weight of the model if you build light. I scrape these down to 0.6g. You can go down to paper-thin for an indoor model. For outdoors leave some strength but take maybe 30% of the weight off.

You can get a very good result just with scraping but I finish my blades with a bit of 800 grit and then 1500 grit wet and dry used with light oil.

While you're at it take time to trim off all the flash and rubbish around the hub and the little freewheel helix (there are better ways to achieve a freewheel!).



Working from the hub to the tips, scrape the blades evenly checking for balance as you go.

Finish with 800 - 1500 grit wet and dry



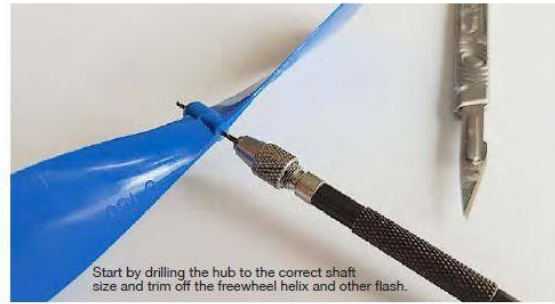
And here's one I prepared earlier! This is a standard 150mm Union prop which started at 3.2g and finished at 1.6g. You can go a lot lighter for indoor.

spin on the shaft and stop anywhere without a heavier blade going to the bottom. Check your specific competition rules on this as some classes (such as P30) specify that you have to add weight to the lighter blade - I guess that this is insurance against 'over-enthusiastic' balancing!

**Matching the shaft diameter to the hub.** The worm-dangling-in-a-rubbish bin approach does not work! The shaft should be as close a fit in the hub as possible without binding. Any slop in the hub translates to unreliable thrust adjustments and the prop not tracking properly. It is well worth buying a selection of correct-sized drills from an engineering supplier (not your local hardware shop) so that you can drill the hub to match the wire.

If the prop hole is already oversize then go to the next size up wire - in fact if you find that the hole is already oversize that's a big clue about the wire you're using!

If you are drilling out a hub it is important to ensure that the hole remains straight. Short of setting the prop up accurately in a jig you can generally get away with increasing the diameter progressively in two or more stages and drilling through to half way from each side.



Start by drilling the hub to the correct shaft size and trim off the freewheel helix and other flash.

**Lightening.** In the absence of any class-specific rules around modifications to standard commercially available items, lightening plastic props is highly desirable. Plastic props are heavy. A heavier prop uses heavier rubber to turn it and necessarily creates a greater torque reaction. Since dealing with torque is one of the challenges of trimming a rubber model, reducing it is a good thing. If you need nose weight there are better ways to get it, such as a better nose bearing, or a harder nose plug and a plywood facing etc.

Lightening a plastic prop is just an extension of the balancing process - but you keep going until a desirable weight is reached. The best tool for the job I have found is a whole Stanley knife blade used without the handle. I scrape the front of the blades rather than the rear as it means I can use a straight blade, and I preserve the aerodynamics of the

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