



The THUMB PRINT
Thermal Thumbers Of Metro Atlanta

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Jan.-Feb., 2019

HEADS UP

Welcome to the first issue of the year. We begin the year with a good issue, chockfull of materials from the membership, a solid group effort. Thanks go to Dohrman Crawford, Frank Perkins, Josh Finn and David Barfield. A large number of modeling swap meets and other events in our area during March are pimped with some enthusiasm, so make plans to attend. March needn't be a slow month, and you won't regret it. The year's first two indoor contest reports follow. Our annual banquet this past January is given a full recounting along with a photo collage. Sorry, if you didn't attend, you snoozed and you loosed.

Unfortunately, our old TTOMA flying buddy John Barker passed at the grand, old age of 92 years old. His son David provides a fine obituary, and it's a fine telling of John's long and good life. John will be missed.

Be sure to look over the formal call for papers for the 2019 NFFS Symposium that closes this issue. It's under the able editorship of my good friend Rick Pangell. He's a seasoned Free Flight scribe and past Sympo editor, so his rendition will be a good one. Those wishing to be a part of this effort should contact him as instructed. It's the premier technical Free Flight publication on planet Earth—look it up!

That's it from me from here for now and time for me to get to get out of the way. Ciao, y'all!

FIRST RENEWAL NAG

As this is the first issue of the year, we'll keep the nagging to a minimum. Regardless, it's still time to step up and renew your club membership. Enough said. The membership form follows, so fill it out as indicated, stroke that check, signed on the line that is dotted, and mail it to Karl "Karats" Hube at the address indicated. You know who you are. Eyes on you!

THINGS TO DO, PLACES TO BE, PEOPLE TO SEE

The full schedule for 2019 is as follows, so mark your calendars thusly. We're advised there's still some waffling in the space-time continuum at St. Lukes, so keep an eye open for changes in the next issue. You can't say the club doesn't give you plenty of excuses to leave the house. So, glue some sticks together and show up somewhere with a model airplane!

March 1-2: Southeast Model Show, Georgia State Fairgrounds, Perry, GA

March 9: Atlanta IPMS annual contest and trade show, Marietta, GA

March 16: indoor contest, St. Lukes

March 16-17: Model Train Show, Cobb Galleria Centre, Marietta, GA.

March 19-21: FMA KOI/FAC Winter contest, Palm Bay, FL

April 6: indoor contest, St. Lukes

April 28: outdoor contest, NGA Turf Farm, April Fools

May 19: outdoor contest. NGA Turf Farm, May Daze
 May 25: indoor contest, St. Lukes
 May 30-June 2: AMA Indoor Nats, Round Valley Dome, Eager, AZ
 June 22-23: outdoor contest, NGA Turf Farm, Chattahoochee Challenge
 June 29: indoor contest, St. Lukes
 July 20: indoor contest, St. Lukes
 July 21: outdoor contest. NGA Turf Farm, Southern Fried Fiesta
 Aug. 5-9: AMA Outdoor Nats, Muncie, IN
 Aug. 18: outdoor contest, NGA Turf Farm, Fizzle while you Sizzle
 Aug. 24: indoor contest, St. Lukes
 Sept. 14: indoor contest, St. Lukes
 Sept. 22: outdoor contest, NGA Turf Farm, Summer Swan Song
 Oct. 5: indoor contest, St. Lukes
 Oct. 6: outdoor contest, NGA Turf Farm, Last Fling til Spring
 Nov. 3 outdoor contest, NGA Turf Farm, Turkey Shoot
 Nov. 9: indoor contest, St. Lukes
 Dec. 7: indoor contest, St. Lukes
 Jan. 18: indoor contest, St. Lukes
 Jan. 25: TTOMA annual banquet

THUMBS IN REMEMBRANCE

I was going through the last box of Frank Hodson's estate recently and ran across a video he made during the club's 2002 annual banquet. It wasn't long before I put it into my VHS player (yes, I still have several) and gave it a viewing. It was quite an experience: part sadness, part joy and part spooky. I thought the membership would like a look, so I brought it all to the banquet and put it on view. I think their reactions were the same as mine. Sometime that night David Barfield and I remarked how many are no longer with us. After a slow and careful viewing, here's the list of those dearly departed therein. R.I.P.

Frank Hodson
 Margaret and John Barker
 George and Paul Perryman
 Don Brown

Fritz Mueller (presumably)
 Jannie and Linwood Cochran
 Walt Rozelle
 Ray Cudworth

REST IN PEACE, OLD FRIEND

The Thermal Thumbers saw the loss of an old friend in the recent passing of John Barker. His son David was kind enough to provide the following obituary. John will be missed.

"John Barker was born in 1926 in Surbiton, England, the youngest of four brothers. He learned to play chess from his father and learned to build and fly model airplanes from his older brothers. At the beginning of World War II, he was evacuated from the London area to the town of Spalding, about 100 miles to the north. He joined Hawker Aircraft after High School in 1942 where he worked in the drawing department to help build the Hawker Hurricane fighter plane for the Royal Air Force during World War Two. He went to night school and earned his Master's degree in Engineering from Kingston Tech in 1950. While earning his degree, he became a Flight Test Engineer at Hawker Aircraft. John was elected into the Royal Aeronautical Society in 1954. John met the love of his life, Norah Margaret Barker at St. Andrew's Church in Surbiton, England at Youth Fellowship and were married in 1950. With gas still being rationed after the war, John's primary mode of transportation was his BSA Motorcycle. John took many a trip down to the seaside, with Margaret on the backseat. After three children (Elizabeth, Shelagh, and David) arrived, John owned a series on Minis which were just big enough to hold his entire family, as long as you strapped the suitcases on the outside.

"John continued to work for Hawker through the 1950s and 1960s. He was instrumental in the development of ground and flight test for the P.1127 Harrier vertical takeoff and landing (VTOL) jump jet and several other Hawker fighter planes. In 1967 he took a job with Lockheed and immigrated with his family to Marietta,

Georgia, USA to work on the Flight Test program for the world's largest plane, the C-5A Galaxy. At Lockheed he worked on many aircraft testing programs including the C-141, C-130, F-117, C-5B, various UAVs, S-3, and prototypes for the F-22. John also earned his private pilot's license and flew full-size gliders including his favorite Ka-8 at Monroe, Georgia. After retiring in 1990, John rekindled his passion for designing, building, and flying indoor and outdoor model aircraft. He and Margaret traveled extensively, taking yearly trips back to England to visit friends and family. They also loved to travel to attend indoor model airplanes contests across the Southeastern United States. John and Margaret took Thursday adventures to different spots all over Georgia including Red Top Mountain, Acworth Lake and "Honey Runs" to the North Georgia Mountains.

"John and Margaret were both active members of St. James Church in Marietta for over 45 years. He served for many years as Acolyte Master, was elected to several terms on the Vestry, and volunteered to help every week with the financial systems at the church office. John was always in the mood for a good cup of tea, a nice Shepard's pie, a game of chess, or any conversations involving aircraft. One of his passions was utilizing his engineering knowledge to build things or come up with unique repair solutions. John was a teacher by nature and enjoyed passing on his wisdom through humorous stories and offers of advice. Anyone who was around him knew how much he appreciated the company of others.

"John was preceded in death by his loving wife, Norah Margaret Barker, who passed away just six weeks earlier on November 14, 2018. John is survived by three children, daughters, Elizabeth Barker Welch and her husband John of Dothan, AL, Shelagh Barker Glazier and husband Steve of Texas; son, David John Barker and his wife Lisa of Roswell, GA; grandchildren, Kathryn Anne Howell and her husband David, Christopher David Glazier and his fiancé Kathryn Steele, Rebecca Anne Pillow and her husband Robert, Andrew Alexander Prillaman and his wife Kim, and Andrew John Welch; great grandchildren Grady and Ryland Howell, James Pillow; and beloved English and Scottish relations. He was a devoted husband, father, grandfather, and great-grandfather."



John Barker, R.I.P.
1926-2018

ANNUAL BANQUET: EATING TOGETHER, STAYING TOGETHER

This year's rendition didn't disappoint. Thirty-one Thumbs and their guests attended, and a good time had by all. There were no weather adventures, and the food was just fine. (My chicken alfredo with spinach and chocolate mousse something-or-other was delightful. The trout looked pretty good, too.) Everything was set up and waiting on us, and everything arrived on time. All things considered, Petite Violette did a good job.

The awards ceremony offered the usual suspects and a few surprises. The Bob Baker OT Award was won again by Hope Finn by means of a late year surge with her indomitable Phantom Flash. (The late surge was necessary because she was constructing a human being most of the year—a doctor's excuse.) Said late surge also helped her snag the club's Event of the Year Award. Dohrman Crawford made a few trips to the podium, too, winning the Scale High Point Award going away and the SCat Jet Trophy by another wide margin. Joe Ryan won the Scramble Trophy, his first walk to the podium at our banquet. Well done, sirs and madame.

Nick Ray introduced a new award, the Order of the Rainbow Unicorn High Point Award. It accumulates all the points awarded thereby during the year's indoor contests. Henceforth, the winner is required and/or given the privilege to wear the Unicorn as a badge of honor the remainder of the evening. Josh Finn was the lucky one this year, as the collage shows. On him, it looks good.

The George Perryman Perpetual High Point Trophy took some real flying to win it this year. Twenty-three members took part; that's half the membership. I doubt if there's many clubs out there that can boast that amount of actual flying. We're not the typical squadron of lounge chairs. Well done, everybody. Four podium spots and plaques made sense, given the point array, and are as follows: Dohrman Crawford-first (101.5 pts.),



collage by David Barfield

Josh Finn-second (89), Hope Finn-third (65) and Nick Ray-fourth (46). These numbers are pretty good, but we must remember that the all-time record was set by the late George Perryman with a score of 202 in 2002. Clearly, there's room to elevate our game, and it'll take some doing.

We also presented the elected club officer slate for 2019: Jim Altenbern-President, David Barfield-Veep and Karl "Karats" Hube-Secretary/Treasurer. No one offered to take over the club newsletter editorship, so your loyal subaltern will remain in that capacity.

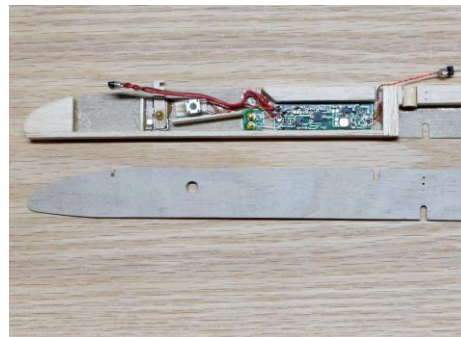
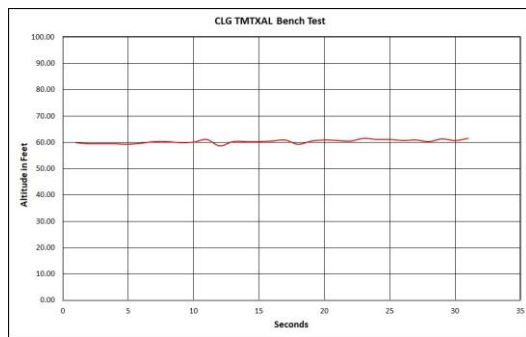
David Barfield provides a photo collage that features all the action. Many thanks to everyone who had a part in organizing this soiree, including but not limited to Dohrman for the restaurant arrangements, David Barfield for the trophies and Jim Altenbern for the prizes. Let's do it again next year.

A THUMBS AT THE BENCH

This just in from Frank Perkins, "After several days of testing I think I've got the CLG timer and timer/tracker software stable with the altimeter function added. Now it's timer/altimeter and timer/tracker/altimeter capable software.. The attached chart is from a recent bench test. Hardware wise, adding the altimeter will add about 0.25 gm to the weights discussed in my article in FFQ issue 64. It looks like the timer/altimeter version will fit in the 12-inch Cleveland Dart OTHLG, as shown in that photo. The control button will have to be moved to the location shown in the DIY CLG fuselage guts photo also attached. It's a better location anyway.

"The next challenge is to get the altimeter data safely and easily out of the glider during field testing and contest conditions. I believe I can get this done with an optical link using one of the glider's LEDs to blink out the data. So, I've got to do an optical receiver to USB gadget to finish the project. The altimeter data comes out in comma-separated-variable (CSV) format which can be read directly by Excel and numerous other programs. If I can get all this going, I'll try to recruit a couple of brave TTOMA sportsman, etc., to give this stuff a try in other small models like Embryo's, with the intent of doing a Sympo article for the 2020 issue. No charge, no warranty!

"It's a rainy night in Tuscaloosa, and I imagine it's heading your way soon. Thermals, Frank."



THUMBS GIFTED

This just in from Dohrman, "I was given this lighter, and it works like a charm. It glows red hot and is very focused where you want it." The man knows from whence he speaks. Heck, I've seen him set afire quite a few models, usually in spectacular fashion. It should be easy to find in the higher end gift shops and the interwebs.



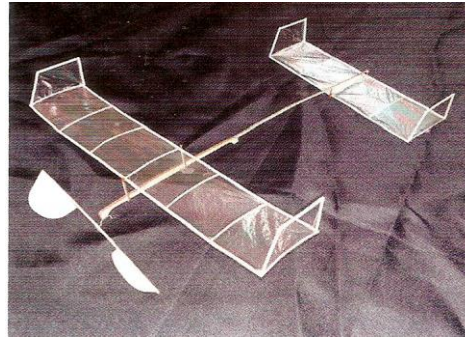
IT'S THE LIT ELECTRIC PLASMA DUAL ARC LIGHTER- NEW 2017 DESIGN FOR PIPES, CIGARS, CIGARETTES & MORE - WINDPROOF TECHNOLOGY - USB Rechargeable - Gift Box and...

THUMBS BETROTHED

One of the pleasant surprises at the banquet was the appearance of Robert Marier who brought his fiancée, Brooke Dorris of Emerson, GA. She's quite the catch. Way to go, Robert! Their wedding is set for September. Best wishes for these two, fine young people. They do grow up don't they?

THUMBS IN THE MARKETPLACE

Josh just announced the latest product from Josh Finn. This time it's a new A-6 kit, the "Intruder". As Josh describes, "Intruder is the first of a new series of state-of-art indoor Free Flight competition kits. It is the finest kit ever offered for the AMA's A-6 contest category, featuring the finest hand selected wood, assembly jigs and lightweight plastic covering film. Built with care, it's capable of challenging the highest levels of competition. Hope Finn's prototype Intruder posted a 5-minute flight on its first flying session under a 23-foot ceiling. Includes materials sufficient to build three models and pre-stripped Tan SS rubber. Tools/materials required: rubber lubricant, winder, needle nose pliers/wire cutters, glue, 3M77 spray adhesive, Vaseline, razor blades, sandpaper, ruler and scissors. Contact: <http://jhaerospace.com>"



SAME CHURCH, DIFFERENT PEW

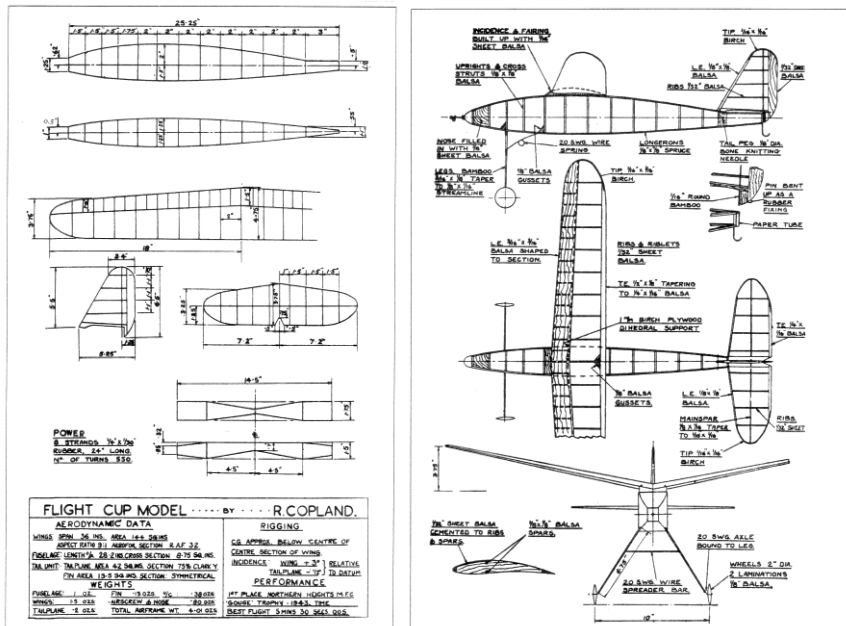
We sometimes forget just how blessed we are to be living the Heart of the Deep South. (Those that argue with this accolade can kiss my grits!) Some of the many benefits are the opportunities to attend a variety of trade shows and swap meets dealing with a wide range of hobby modeling. Among the many each year, three, big annual events are come a-calling. The first is the Southeast Model Show, the world's largest model trade show and swap meet down at the Georgia Fairgrounds in Perry, GA. The flyer is in the previous newsletter, so make plans to attend March 1-2. You won't regret it. This event is so well known that I don't need to elaborate too much. Personally, I've always found Friday the best day to attend. Josh Finn says he and Hope will be set up at their usual place, and it makes a good place to HQ while there. Bring some cash and have a good time. It ain't hard. (BTW, Josh says the Joe Nail thing is bigger, but I choose not to believe him.)

Every year the area's collective of model railroading enthusiasts have a number of trade shows and swap meets. My favorite is the annual Model Train Show held at the Cobb Galleria Centre every year. This is a real hoot and doesn't cost squat to attend. It's a great diversion, so mark your calendars for March 16-17. Me, I'm a model railroad fan. I had little choice growing up. My father was a railroad engineer and his brothers employed in other aspects of the business. Ergo, I'm an easy sell. There's a lot to see and occasionally to buy. The hobby of model railroading is huge nationally, and especially so in Atlanta. Many of you may not know it, but we're settled amidst one of the biggest railroad networks in the world. Frankly, the dollars the railroads bring into our city and regional dwarfs the more glamorous civil aviation contribution. Civil aviation flies around meat sacks and luggage; railroads ship everything else. Look it up! (Also, you might not want to make disparaging remarks about labor unions while there. You might get a calloused hand upside the head. Class struggle takes many forms.) A quick and clever google will serve up the details.

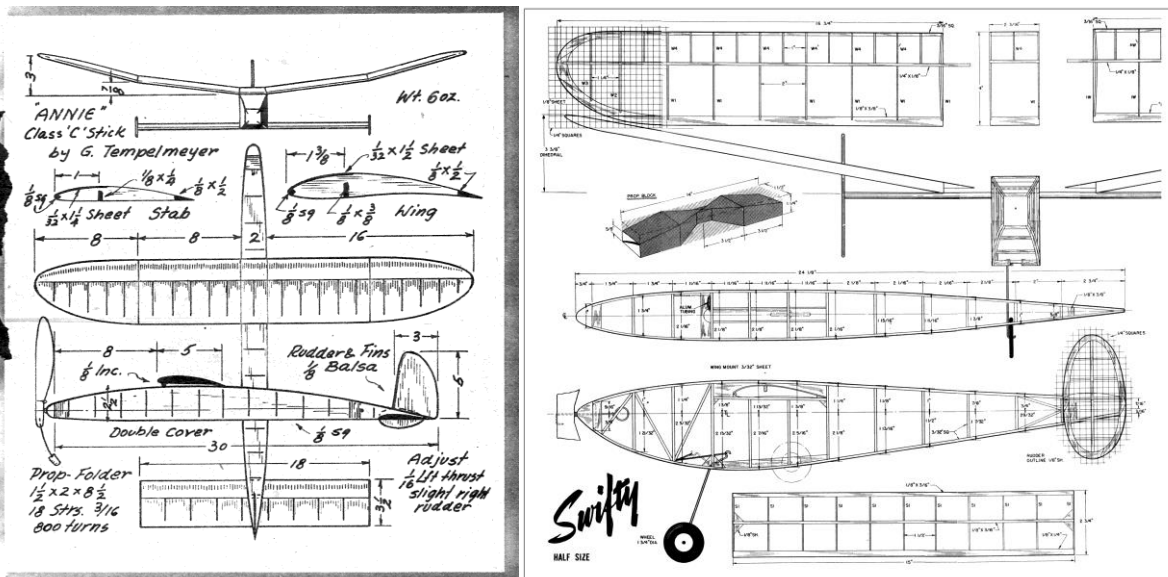
Last and by no means least is the Atlanta IPMS's annual contest and swap meet. Yes, we're talking about plastic models, and this one is a real treat. Make plans to attend March 9, and it doesn't cost much. Look for the Lockheed Union Hall on South Marietta Parkway, just west of Cobb Parkway. The facility is quite large and half is devoted to their contest, which is amazing. The quality and variety of the models on display is nothing short of stunning and real eye candy. (I can't image the time that's spent on these models. Good grief!) The other half is devoted to a large swap meet. If you're looking for a plastic kit, this is the place to be. The deals are abundant and well short of retail prices. You think Free Flighters hoard kits? You've no idea what these guys are capable of. Also, the crowd is always huge and offers a lot of fun if you mix and mingle. A quick and clever google will serve up the details.

TREASURE TROVE

I saw this delightful nugget in the October, 2018 *Free Flight Quarterly*, so pay heed to Great Britain's Bob Copland's "Flight Cup Model" found therein from the early forties. Affirmed flown in 1943, it slots nicely into a variety of SAM, NFFS and FAC categories. The fine print testifies the wing span is 36 inches and area, 144 squinches. The airfoils oblige with the wing's RAF 32 and the stab's 75% Clark Y. The 14.5-inch prop is a definite winner, and as no further details are given, it's a freewheeler, presumably. DT provision is a no-brainer. An empty weight of 4 ounces is given, although it appears to be lightly drawn. No doubt, this can be reduced considerably with modern techniques. This bird will fly and look good doing it. I've never seen one built or flown this side of the pond, so take the point if inclined.



The "Annie", G. Tempelmeyer's Class C Stick rubber job from the October, 1949 *Air Trails Pictorial* shows a definite "New Gollywock" influence, and no doubt, it'll fly. However, there're a few important changes from Wally Simmers's masterpiece. Both the wing and stab has sheeted leading edges (ala the akin "Dynamoe"), and the prop is a single-bladed folder with an increased 17.0-inch radius. Also, the fin has a different but pleasing shape, but unfortunately, the stab is under-slung and will offer DT challenges, ala the "FUBAR" gassie. Frankly, unless you're of Prussian abstraction, you might want to stick with the Wally's original.



Last and certainly not least, we present the Jack Sturtevant “Swiftly” from the May, 1945 *Air Trails*. I have to admit: I’m often stirred to one degree or another by a real cutie pie of a rubber-powered cabin job. Well, this number really “melts my butter”, delving into the Southern colloquial. Yes, it’s a looker and ought to fly pretty well, too. Areas and moments are just where they need to be. The accompanying parts sheet shows the airfoils oblige, the wing being Eiffel 400-ish and thinned for good measure. The prop is an able freewheeler (with added gadgetry) and should churn the air just fine. Lightly drawn, it should build light, and DT provision, a snap. Rare among its kin, it features a retracting landing gear, easing its way aloft and later around. The twin fins are easy on the eyes, a personal weakness. Its 1945 publish date, 35.69-inch flat wing span and projected wing area just north of 140-squinces means it’s eligible for all manner of SAM, NFFS and FAC distractions. The wing’s V-dihedral and pass-thru arrangement doesn’t bother me. This one is a no-risk venture, and I’ve never seen one build and flown—start a revival!

WHODATHUNKIT?

How many of us have bought an old scale kit, and once looked over closely at home, found the canopy or some other part a mess, hopelessly damaged. Well, being very experienced in this dilemma, I’ve long since inspected everything before my hard-earned dollars leave my pockets.

Such was the case when I spied a fresh 17.5 inch wingspan P-51D kit by Guillow (#905) at my local Goodwill for a couple of bucks. Long story short, I quickly inspected it and found everything OK. Score! Later that evening, I visited my corner place to share several hours of college football with the usual suspects. Apparently, upon returning home, I was fatigued from my labors and fell asleep on the couch, after looking the kit over really good. I awoke before dawn and arose from the sofa to take care of a few matters, but sadly wasn’t cognizant of where I placed the kit. I then got into bed to resume my restorative slumber.

Imagine my surprise the next morning when I discovered a well-squished Guillow kit in the middle of the floor near the sofa. A quick inspection of the contents revealed a flattened canopy. Waxing philosophical, I saw the decals were still good and the die-crunched parts would make good templates.

Still, the problem of the canopy remained. I got the bright idea of blowing it out to make the work of making a vacuum form mold easier. My old, reliable heat gun was revved up and aimed at the canopy which I was holding upside down, gravity forecasted as my friend. Cautious, I started slowly. Much to my surprise, the canopy began to bow out toward its basic original dimensions, and the white glazed spots started to clear up. Still cautious, I kept at it, amazed at the spectacle. Most of the ugliness simply disappeared, and after some poking and prodding, the improvements kept coming. Eventually, I stopped, satisfied with the miraculous results.

I suggest everybody give this a try. Just remember where you put things, especially if you’re a sporting fellow!

FACTS OF LIFE

I’m pretty sure I found the following “Four Forces” diagram somewhere in the past and published it in this humble rag. If not, it’s about time. It says so much, and no update is necessary, except I would add the insurance companies to the FAA’s loving embrace. (Really, you can’t blame everything on the government. Class struggle takes many forms.)



HANDY HINT

This blurb just in from Dohrman Crawford. It offers a good technique for one of the annoying, last minute construction issues. We've all been there. Thanks, Dohrm.

EASY WING FILLETS

by Mike Nassise

As published in the July/August 2005 issue of Tailspin, Journal of the Bay State F.A.C. Squadron's Pilgrim Flyers

I have used this method of making wing fillets on the last two models (Heinkel He-100D and Fiat G.55) that I've built and it worked extremely well. In fact, not only did it produce very nice results, but the effort involved was much less than I normally have expended to do the job. I am not, however, the one who originated this technique. I first read about it in a piece by Tony Peters in Flying Models and I believe he should be given credit for it. Here's what's involved.

Instead of trying to make fillets using bond paper and colored tissue as I have done in the past, I followed Tony's suggestion of using tracing paper (artist quality) in place of the bond. Two things become readily apparent when you do this. The first is that the tracing paper is much lighter than bond paper, and it can be more easily "formed" into the curved shape of a fillet. The second is the color of the tracing paper does not show through the tissue the way the color of the bond paper does. It's virtually invisible underneath. Both points are significant advantages.

To make wing fillets in this fashion, you must first layer together a piece of tracing paper and a piece of appropriately colored tissue. I like to use permanent glue stick (UHU) to quickly and easily bond them together. Then, using a card stock template of the desired fillet, draw the shape on the tracing paper side of your laminate. Remember, you will need both right side and left-side fillets. Now, cut out your fillets with a pair of sharp scissors and you're ready to mount them on your airplane.

Again, a permanent glue stick is used to attach the fillets in position. Use your fingers to "form" and smooth each fillet into the wing/fuselage junction. If things don't go your liking, a little isopropyl alcohol put on with a brush will allow you to lift up a fillet and try again. (*Ed Note: If you use fresh denatured alcohol, you won't get wrinkling of the tissue caused by the water in the isopropyl.*) The fillets can then be doped or given a coat of clear Krylon to finish them up. There you have it, a fast and easy way to do a job that can often be quite frustrating. Give it a try, sticksters. I think you'll like the results you get.

THE FINAL ACCOUNTING

The results for the top spots in TTOMA's high point tourney were announced at the annual banquet and those awards given. Well, the total results follow, and the membership can see how everything came out. Looking beyond the individual results, several important points can be made. First, we had twenty-three members make official flights last year. Several more flew models just for the fun and joy of it. This is well over half of the membership, and something of which we can be proud. Second, the individual numbers are up from last year by a serious margin, especially among the busiest fliers. Basically, we flew more, and presumably built more, too—a very good thing. Third, we're a very balanced group in terms of actual practice, a few exclusively either indoor or outdoor, but most a mix of the two. So, speaking only for myself, I'm counting it a year well-spent. We can always do better, though. I intend to be more active in 2019, and I hope others are, too. Let's face it: building and flying models airplanes with your fiends is what this hobby is all about. The game's afoot.

Dohrman Crawford 101.5
 Joshua Finn 89
 Hope Finn 65
 Nick Ray 46
 Karl Hube 37.5
 Richard Schneider 34
 Joe Ryan 32.5
 Jim Altenbern 29

James Martin 27
 Doug Demasie 27
 David Barfield 25
 Jim Conery 20
 Bill Gowen 19
 Jimmy Jordan 15
 Gary Baughman 12
 Matthew Canady 11

Lee Russell 10
 Dan Crews 9
 Gary Morton 7.5
 David Mills 7
 Dana Russell 6
 Todd Russell 4
 Caleb Finn 1

NEXT ISSUE

Look for something in early April. Expect full reportage on the indoor contests in the interim and all the area swap meets in the interim. Also, brace yourselves for a full pimping of the upcoming outdoor season, and the full contest schedule for the remainder of the year should be etched in stone by them. Maybe we'll have the flyer for June's Chattahoochee Challenge.

As always, I beseech the multitudes for anything in the way of articles, plans, photos, rants and raves. Don't make me work too work! Ciao, y'all!

2019 TTOMA MEMBERSHIP FORM

Name _____ AMA # _____

Address _____

State and Zip Code _____ Other Family Members and AMA # _____

Telephone _____ E-mail _____

\$20.00/yr. for adults and other adult family members in same household. No charge all aged 19 yrs. old or less. Send check, payable to TTOMA, to Karl "Karats" Hube/104 Smith Forest Lane/ Alpharetta, GA 30004/770-886-0604.

<p>NFFS MEMBERSHIP & RENEWAL APPLICATION</p> <p>Mail to: NFFS Membership Office P.O. Box 74 Grosse Ile, MI 48138 USA</p> <p>Dues include a mandatory \$0.50 per year for NFFS membership.</p>		<p>Make checks payable in U.S. dollars to: National Free Flight Society</p>
<p>U.S. memberships (Age 19 & over)</p> <p><input type="checkbox"/> 2 years \$58.00 (\$18.00 Youth)</p> <p><input type="checkbox"/> 1 year \$30.00 (\$10.00 Youth)</p> <p>Youth: Age 18 & under as of July 1 of the current year.</p> <p><input type="checkbox"/> Check here if you desire <i>Digest</i> delivery via email. This saves valuable funds on printing/mailing, and you get your <i>Digest</i> about 3 weeks sooner. As a bonus, the electronic version contains exclusive content in each issue.</p>		<p>All Non-US Residents</p> <p><input type="checkbox"/> 2 years \$58.00</p> <p><input type="checkbox"/> 1 year \$30.00</p> <p>NOTE: Current international members will continue to receive printed <i>Digest</i> until membership runs out. Effective with May/June 2012 issues, all new/renewal international memberships will receive <i>Digest</i> electronically.</p>
<p>Life Membership</p> <p>U.S. Residents <input type="checkbox"/> \$500.00</p> <p>Non-U.S. Residents <input type="checkbox"/> \$550.00</p>		<p>First-Time or Lapsed (more than 1 year) Domestic Members</p> <p><input type="checkbox"/> 2 Years for \$29 <input type="checkbox"/> 2 Years Youth for \$9 <input type="checkbox"/> International \$37.50</p> <p>Offer expires very soon...take advantage before it's gone.</p>
<p>★ NFFS Foundation Donation ★</p> <p><input type="checkbox"/> Silver \$75 <input type="checkbox"/> Gold \$125 <input type="checkbox"/> Platinum \$250 or more \$ _____</p> <p>To help reduce expenses maintaining NFFS records, PLEASE renew for at least two years. Thank you!</p>		
<p>Check appropriate boxes below:</p> <p>New Member <input type="checkbox"/> Renewal <input type="checkbox"/> Address Change <input type="checkbox"/> Donation <input type="checkbox"/></p> <p>Amount: \$ _____ Current expiration date: Mo.-Yr. _____</p>		
<p>PLEASE PRINT VERY CLEARLY</p> <p>Name: _____</p> <p>Address: _____ AMA#: _____</p> <p>City, State: _____ Zip: _____</p> <p>Telephone: _____</p> <p>Email Address: _____</p> <p>Send all renewals, address changes, applications, and membership questions to the Membership Office, email: <martinr362@aol.com></p>		
<p>Please go to www.freeflight.org for credit card renewals.</p>		

Contest report
TTOMA Indoor Contest
St. Lukes
January 5, 2019

Ten fliers registered for the 1/05/2019 contest and recorded 58 official flights. Here are the complete flight times:

Hand Launch Stick

Joshua Finn 35:12

F1L

Lee Russell 4:03, 6:26

UCLG

Joshua Finn 20.6, 2.5, 18.1, 4.2, 24.5 (45.1 total of 2)

Hope Finn 18.3, 13.8, 17.5, 15.5, 18.5, 19.7 (38.3 total of 2)

Bill Gowen 4.3, 8.7, 3.8, 7.0, 4.5, 7.8, 7.1, 18.1, 4.4 (26.8 total of 2)

Mini-stick

Nick Ray 6:19, 5:25, 7:48, 6:15, 9:44

Dime Scale

Richard Schneider 33, 31, 40

Chattahoochee Challenge

Richard Schneider 1:52, 2:18, 0:55, 0:57, 1:13

No-cal

Richard Schneider 1:10, 1:12, 1:25 (3:47 total of 3)

Hope Finn 1:01, 1:30, 1:54 (4:25 total of 3)

Josh Finn 1:03, 0:22, 1:32 (2:57 total of 3)

Hangar Rat

Dohrman Crawford 2:51, 2:36 (5:27 total of 2)

A6

Hope Finn 5:35, 1:36, 5:24, 5:43

Lee Russell 3:33

Dan C. 0:48, 2:08, 1:46

Phantom Flash

Hope Finn 2:08, 1:37, 2:05

February Indoor Contest Report

The February indoor contest was well attended with seven participants. Team Finn was notably absent. No records were set, but the air was pretty good for a winter game. Dohrm Crawford took home the big unicorn with a pair of Hangar Rat flights. Respectfully submitted by Nick Ray, CD.

Order of the Rainbow Unicorn

Dohrm Crawford
Nick Ray
Lee Russell
Richard Schneider

F1M
Lee Russell 11:17

F1L
Bill Gowen 15:39

No-Cal Scale

Richard Schneider Clipped Cub 224
Doug Demasie Goat 94

Ministick
Nick Ray 8:40

Hangar Rat

Dohrm Crawford 238+2:41=5:19

Dime Scale
Richard Schneider F. Stratoplane 122

Peanut Scale

Dohrm Crawford BD4 161
Richard Schneider 48

Chattahoochee Challenge
Richard Schneider 2: 14



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March 19th, 20th, and 21st 2019
Palm Bay, Florida

64th

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20 - AMA Events	8 - FAI Events
11 - Old Time Events	8 - NOSEvents
14 - FAC Events*	

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NFFS 2019 CALL FOR PAPERS

Model aircraft have evolved for centuries and it is not just a USA thing. First there were basic gliders, then elastic bands, ignition motors, glow engines, new construction methods, new adhesive and finishing materials, you name it. With each technological advance we Free-Flighters have embraced new technologies, leading us to changes we only imagined, and in many cases didn't expect! Many factors influence the evolution of our aircraft and the way we operate them, though--not simply technological ones.

We now have over 50 years of NFFS Symposia under our belt and during this time we've seen and documented much of the changing Free Flight landscape. As we kick off another year, the persistent question remains...*not what is the future of Free Flight, but what will Free Flight look like in the future?* So--with one view to the past and the other looking forward, we'd like to offer a theme for the 2019 Symposium:

Evolution in Free Flight - The Need of Invention

While we'd much prefer to hear your thoughts on this theme, we offer a few teasers or ideas for you to ponder, in no particular order:

- **Articles we are looking for want to have a premise, not just a presentation. Why is your article/model created? Where will your technology take model aircraft? Need spurns invention. How have we ridden that fine line between max performance and practicality?**
- Evolution of any particular aspect of free flight aircraft airfoils, aerodynamics, engines, propulsion, timing & control devices, composite materials, e.g. why did the introduction of carbon fiber influence your designs--or electric motors and systems.
- Rules, technical implications of rule changes at any level... FAI, AMA, Indoor:
 - Our most stable rules--what are they and why have they remained successful? What are the fundamental attributes of a great competition rule?
 - What rule changes might we be on the verge of making? What pressures are there on our present rules--which may really be, **what has become of our airplanes and events and** what will become of our airplanes as rule changes are implemented?
- Entry & Exit of Free Flighters into and out of the hobby. Where do they come from? Where do they go? What attracts them? What dismays them? What converts spectators into passionate participants? Your successes and failures pursuant to getting new flyers? (*suggests data survey?*)

Put your imagination to work and submit a topic you wish to pursue for inclusion in the 2019 NFFS Symposium. If similar topics are received, we will make an effort to put those authors together for a collaborative article. If you've been kicking around an idea for an article that doesn't quite match this theme (for instance, a purely technical article on construction or aerodynamics), submit it anyway! Maybe with the addition of a little context, it could very possibly find a home in the 2019 National Free Flight Symposium.

Submit a synopsis of your proposed article with title and/or idea, preferably with an outline of your topic and what your article will be about as soon as possible to:

Rick Pangell, Your 2019 Symposium Editor
6994 So. Prescott St., Littleton, CO 80120
Phone: 303-798-2188

Or e-mail: themaxout@aol.com

The preferable format would be electronic in Microsoft Word format.
Email is a wonderful method of contact.