

THRUSTLINES

Indianapolis R/C Modelers Chapter 288

WWW.INDYRCMODELERS.COM

April 2008

The Editors Corner

In early April Tim, Jack and I attended a leadership conference at the AMA Headquarters. It was a good session on how to work with volunteers. We got to meet leaders from several other area clubs and also was able to have a good discussion with the AMA Director and the AMA Education Coordinator.

I was in Evansville this past weekend and was able to spend several hours at the Evansville RC Club's spring picnic. They had a great turnout of planes and great food. Two of the members were flying a pusher electric delta wing that really screamed. There was also a guy flying a 35% YAK on the maiden flight and was hovering it before the end of the first flight. I also attended their club meeting on Monday evening. They have about 125 members and about 35 attended the meeting. The dues are \$50 a year and between the savings and checking they have over \$12,000 in the bank. The meeting included a discussion on various RC activities in the area and a presentation by a full scale pilot (he owns 4 full scale planes including an AT-6) on the in's and out's of formation flying. They ended with show and tell with 7 different planes being shown. They had a special drawing for a gallon of fuel for the show and tell participants.

We have 2 big events coming up in July. On July 18, 19 and 20 we will have a booth at the Fortville "By Air and by Rail" festival (see more details later in this issue) and our 2nd annual "Derby Days Air Show" on Sunday July 27th. We will need all of the club members to help out to make these events a success and help increase our membership.

As the weather gets warmer and we get more people out flying remember that SAFETY is the most important thing at the field. We are responsible to make sure that everyone is flying and acting safely at the field.

Till next month

— Ted Brindle, Editor



Contacts:

President: Tim Mills (317)627-9743

Email: TMills@indy.rr.com

Vice President: Jack Sallade (317)835-4284

Email: jsallade@lightbound.com

Treasurer: Ron Cassell (317) 861-6053

Email: Cassel20@insightbb.com

Secretary: Tim Cansler (317)356-9454

Email: tim.cansler@gmail.com

Field Marshall: Norm Warfield (765)763-6192

Email: norm46@peoplepc.com

Newsletter: Ted Brindle (317)894-2311

Email: iflyrc5@comcast.net

Website: www.indyrcmodelers.com

In this Issue.

Prez Sez

Tips from Jack Sallade

Members Items for sale

Event Announcements

The April Meeting will be held on Monday 5 May at 7 pm.

The Prez Sez

Tim has been under the weather but sent me the following information from last weekend's activities:

The work day went fine, and was attended by the usual guys. We set 5 posts and will do the tops shortly. We also put up a pair of shelter tarps. I'll have to order one more new tarp.

The good news about Sunday is that the weather was fine, Joe Offley had some ribs on the grill, and there was a nice crowd to check out the festivities and do some flying.

The bad news is the after a splendid maiden voyage and equally successful second flight, Herman's magnificent Fokker Tri Plane went in HARD on the third flight. Things were going fine when Herman experienced a complete loss of control.

About 45 minutes later, Jack Sallade maidenized his Edge 540. After a routine take-off, a couple clicks of trim here and there had his bird flying fine. After a while, Jack got comfortable enough to do some basic aerobatics, and had a big smile on his face. On his final landing approach, it seemed his elevators suddenly went to full up, and the plane did a "figure 9" into the turf.

Some last minute input from our Prez Tim

Guys, I'm framing up plans for this year's Community Air Show and here's the direction I'm heading: Our first Community Air Show was an unqualified success, exceeding every goal we had set for it. We put ourselves on the community map, and enhanced our image, and the hobby's image in a big way. This year, we should add one more goal: Allow this to be the club's yearly fund raiser that pays the field rent, and helps increase the treasury to prepare for any other improvements or expenditures the club may have. There are three income producing modules:

1. THE GATE - I'd like to see the gate fee at \$3 per head with children 10 and under free. This price is still CHEAP, and there were several last year that thought this was the price and would not have minded mind paying it.
2. FOOD - There is no doubt we missed an opportunity last year. While we made about \$175 on cold drinks, we would have done very well had we had food.
3. RAFFLE - Actually, I'm thinking of two separate raffles. The first would contain the usual airplane items (trainer kits, radio, etc.) and would be attractive to someone interested in getting into the hobby. The second raffle would be for an item that EVERYONE might be interested in. I'm thinking people would definitely buy a \$5 raffle ticket to take a chance on a 37" LCD Flat Screen Television! Even if we paid full retail for the television, selling 150 raffle tickets pays for it, and then we're in the profit zone. The beauty is that risk of losing money is minimized because we don't have to wait for the Air Show to start selling tickets! By the day of the Air Show, advance ticket sales by club members should have already paid for the TV, and the day of the Air Show brings us HUNDREDS of fresh customers to sell tickets to. It is the driest part of the season, but, if the worst happens and we get rained out, no loss (did I mention that the TV should already be paid for?).

The event itself will receive the minor tweaking it needs, following some of the suggestions made after last year's show. We had a great show last year, and plans are afoot to have it be even better this year (can you say possible hot air balloon takeoff, more full scale plane fly-bys, more quality scale plane demos etc!). Our event promotion will continue to be aggressive, with road side signage a week prior to the event, advance newspaper articles, etc. We'll continue our mutually beneficial relationship with the Morristown Derby Days Event Weekend, having our club display set up at the midway, and our club "float" standing tall during the parade. We've got an excellent opportunity to be great ambassadors for our hobby and our club. We also have an excellent opportunity to have this event be beneficial to our club. Since it is a club benefit, I'm expecting MAXIMUM club member participation for this event. Tim Mills

By Air and by Rail Event

July 18-20

Mount Vernon Intermediate School

8414 N 200 W, Fortville, IN 46040

Friday - July 18 5pm to 9pm

Saturday - July 19 9am to 9pm

Sunday - July 20 11am to 3pm

Tim, Jack and Ted met with the coordinators of the Fortville Festival "By Air and by Rail" and have arranged for our club to have a featured booth at this event. This is a 3 day event with lots of activities including a very large Lego layout, model trains of all kinds, Hot Air Balloons and many food booths. We were invited to participate this year and will have an area in the **Air Conditioned** Lego room where we can put some planes on display and also run a couple of flight simulators. We will also be having flight demos outside using various electric planes and Helos weather permitting. This is the week before our Derby Days Air Show so we will be promoting that air show and looking to interest some new members in joining the club. Since this is a 3 day event we will need a lot of support from club members to man the booth and to fly the electrics during the 3 days. If you are can spend some time to support his effort for the club please contact Tim Mills. You can get more information on the event at the following site: <http://www.byairbyrail.com/>

Derby Days

July 25-27

Our 2nd annual Derby Days Air Show will be on Sunday July 27th and we will again participate in the activities around the school on Friday the 25th and the Parade on Saturday the 26th. Please plan on participating in that great event. More details to come soon.

Tip: Socks for your covering iron

By Jack Sallade

Even if you do not “build from a kit” but chose to assemble ARFs, you will find a covering iron to be a worthwhile tool for keeping the covering on your favorite airplane looking nice and just plain attached! There are at least a couple of different models available but I prefer the Coverite™ iron. This iron has a nice shape for reaching into hard to reach areas and the thermostat is in the handle, which lends itself to this tip. When using a covering iron it is easy to scratch the covering material you are working on. In order to avoid this, the manufacturer sells a sock to protect the finish of your model. It looks like this:



The only issue with these that I've found is that you go through quite a few in a short period. Aside from the tendency for the pointed portions of the iron to wear through, there is also the color that will smear onto the sock when working near the edges of the covering material. Once this happens it will often smear onto other colors of covering and can be somewhat of a mess. Though Acetone will typically clean the smeared color from your airplane, it just adds another step to the building/covering process and requires you keep on hand yet another hazardous and odious substance. Preferably you would change the sock often but this requires you have several on hand and remove and replace them frequently. This is tedious and expensive.

I had heard of folks using baby socks in this capacity and went in search of some likely candidates I thought might fix the issue. I found a variety of socks for less than \$5 at the local Dollar General store and bought a couple of likely candidates. I tried a couple different types and settled on the ones shown here:

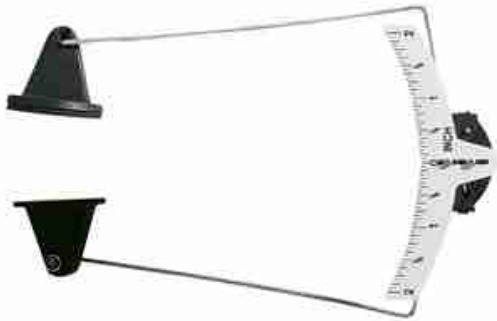


These are 9-18mo infant size and come 5 pair to the package. They are 82% cotton, 17% Nylon and 1% Lycra. So far I've found this blend to be fairly impervious to the heat. They don't stick to the iron and by rolling the crew portion of the sock you can tension the material up sufficiently on the iron to keep it from moving around on the iron. These particular socks are thin enough that they don't appear to insulate the iron to much (it appears I'm losing maybe 25 degrees compared to what the indicator is set for). All in all, it ends up fitting fairly nicely. Here it is installed on my Iron:

Tip: Measuring control surface deflection in degrees??

By Jack Sallade

One of the tools I use just about every time I put together a new airplane is my deflection meter. There are a couple different models available but the one I have is fairly simple and looks like this:



It's fairly easy to use. You simply slip the assembly over the surface to be measured with the little pylons over a sheeted section or directly on the rib of the fixed surface. Position it so that the curved "ruler" portion is close but not touching the trailing edge of the control surface and move the pylons fore and aft a bit relative to each other until the control surface is pointing to the 0 at the center and then use the radio to deflect the surface fully and read the deflection in inches. The opposite side measures in millimeters so, if the manufacturer of your airplane uses metric, you are still in good shape.

The challenge for me came when I was finishing up my recent project and the specification for deflection was in degrees! 1" of deflection I can measure, but how much is 22 degrees?! I found a protractor and tried to measure with that but it was difficult at best and involved about 4 hands to do the measurement. I knew there was a mathematical solution involving triangles and trigonometry and fairly quickly located it in one of my old college text books. There were two drawbacks to that solution however.

First, it required you to have a table of trigonometric functions available and I had to revive a lot of brain cells to remember how to use them. Second, it seemed to me to be imprecise since it was a solution for finding the size of the "opposite" side of a triangle with a certain degree angle which is not precisely what we are doing here. The path the trailing edge of a control surface on an airplane makes is actually is an arc, not a straight line! That is what the deflection meter is made to measure the length of right? Else it would be a straight ruler and not curved. So back to the books for something more precise and that hopefully doesn't take a reference library to accomplish!

Finally, in one of those dusty tomes on my shelf, I found something promising.

$$s=r\theta$$

It was a formula that would calculate the length of an arc (the value s) by doing some simple multiplication of the radius of the circle (the value r) and the angle measured in radians (... Now what the heck is a radian?? Luckily, on the following page of the text was an explanation that ended with the information that a radian is equal to 57.3 degrees... After only a few miscues I finally arrived at this:

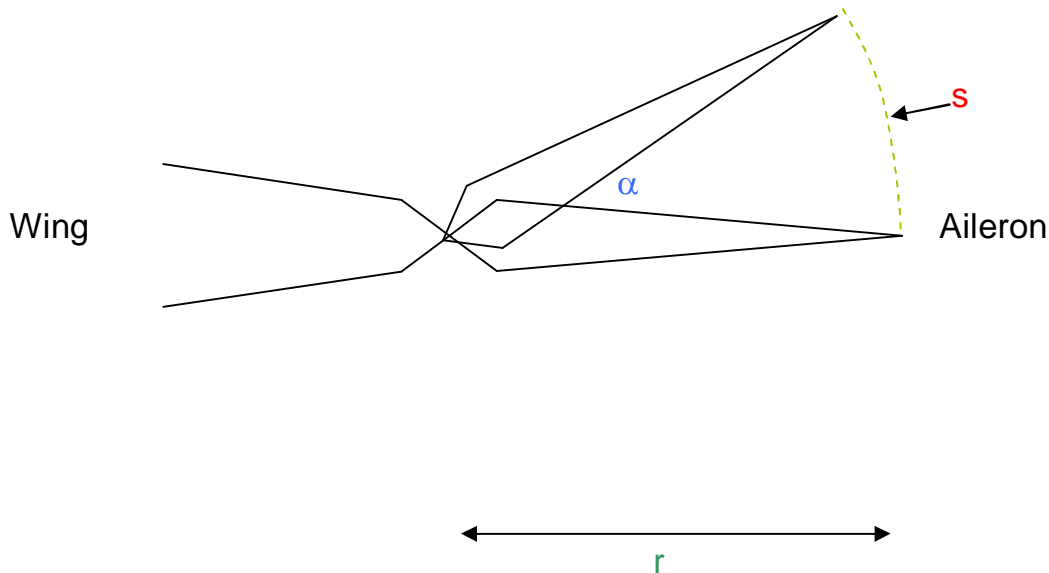
$$s=r\alpha/57.3$$

Where s equals the deflection of the surface

r equals the length of the surface from hinge line to trailing edge

And α equals the angle of deflection in degrees

Here is a picture to help explain:



So for my 28% Edge with a 5" aileron the manufacturer recommends 16 degrees at low rate and 23 degrees for high.

To calculate for low rates the formula looks like this:

$$s=5*16/57.3$$

$$s=80/57.3$$

$$s=1.39''$$

So for low rates - 16 degrees deflection is approximately 1 and 3/8ths inches (1.375").

To calculate for high rates:

$$s=5*23/57.3$$

$$s=115/47.3$$

$$s=2.01''$$

So for high rates – 23 degrees deflection is approximately 2 inches.

I hope this has helped you to better understand how to set up your control surface throws when the deflection is specified in degrees and you need to measure in inches. Feel free to email me at jsallade@lightbound.com with any questions or to run your calculations by me if you are unsure. This could easily be made into an Excel spreadsheet and I'd be happy to share that as well if needed.



Is that a BIG airplane or what—Steve and Herman prior to first flight



Our Prez, Tim Mill doing some formation flying at the 2007 Derby Days Parade. Note he is the wing man—not the leader!!!

Members items for sale

For Sale

I need to make some hangar space for some new aircraft so I am selling several of my IMAA Giant Scale planes. Air Flair **Sundancer 80** with an OS91 4 stroke, a **Senior Telemaster** with a Saito 91, and a Giant Scale Sport plane. I also have a Giant Scale Trainer hanging in Hobby RC. It is a "**Ryan's Rebel**". This is a stick type plane—it is new—never flown. It would fly well on a 120 4 stroke or a Zenoah G26 or G38. This would be a great everyday flyer for an IMAA size plane. If you are interested in getting into IMAA Giant scale give me a call—these are all good first time planes for getting into flying larger planes.

Ted Brindle 894-2311

If anyone out there is looking for some ready to go intermediate aerobats for next summer (at a budget price), maybe I have the planes for you. I am selling a ARF Hobbico Extra, 58in, Supertiger .60, with an older Futaba 6ch conquest system (FM, ch40). Plane, radio, and engine must go together, ready to go. I just ran the engine this summer and it runs fine. You can have it all for \$120. I have moved on to gasers, electrics, and helis. I am also selling a smaller 0.20 size pattern type ship, not sure what exactly it is, like a miniature Kaos. It doesn't have a radio but does come with an OS .20 engine that is like new. Has a little bit of minor hangar rash that would take about 1 evening to fix. Otherwise in very good shape. Yours for \$50. thanks, Dan Davis, cell 317 410-5211 email ddavis72@yahoo.com

Mike Bealmear has a JSM Genesis 3D Electric ARF NIB for sale. \$90.00 Really nice little plane. Exact same thing as the Horizon Hobbies Prodigy <http://www.horizonhobby.com/Products/Default.aspx?ProdID=FLNPRO0007> You can call Mike at 812-350-7793 or email him at bealmearm@comcast.net

**FOR SALE
LASER 3D**



Laser 3D w/ Manual

OS 50 SX Ringed w/Manual

3 Tower High Torque Servos

3 Futaba Servos

Switch Harness, 4-40 Linkage, Pull-Pull Rudder

58" Wing with 1006 Sq. inch wing area

5 ¾ Pounds

Add Receiver and Battery to fly

\$320.00

Vern Doty 335-2049



Indianapolis RC Modelers Editor
Ted Brindle
12215 Sunrise Drive
Indianapolis IN 46229

Coming Events

Fortville "By Air and by Rail" Show — 18-20 July

Derby Day's Air Show — 27 July

Dawn Patrol—AMA Site — Muncie — 22-24 Aug

Indianapolis Air Show — Mt. Comfort Airport 22-24 Aug

IMAA Chapter 48 flyin—Elwood, IN 20 Sept