

# The Wright Flyer



Volume 25 Issue I

AMA #4143

January 2011

Newsletter of the WRIGHT FLYERS R/C Club

Website: [www.joeld.net/wfrc](http://www.joeld.net/wfrc)

## Meeting Highlights

by Leo Davids, WFRC Secretary

On Tuesday, December 14th, the Wright Flyers held the monthly membership meeting at the Monticello Middle School, room #30

The meeting was called to order by vice-president Tom Springer at 7:21 PM. There were 7 people in attendance, including 3 club officers, 2 members, and 2 interested guests.

Perry Dziuk gave a rundown of recent club treasury activity. There was a \$55 membership dues deposit, \$140.46 paid out for newsletter and club ownership of umbrellas. There is a current balance of \$3795.84 in the treasury. There were a total of 38 paid members for 2011.

Tom noted that the Montissippi Field weather station has been off the air for much of the time since late November due to insufficient charging of the battery power by its solar panel. Tom and Roy will be looking at what kind of adjustments or upgrades might be needed to get some better reliability during the cold and dark of winter.

Tom suggested that if there are any breaks in the weather this winter that the club try to get an impromptu gathering at the field to do some winter flying. The county has been keeping the access road plowed so that it should be easy to get in if the opportunity arises.

Tom reminded the thin turnout that we will have some serious discussion at the next meeting about ideas and preferences for adding a paved runway to the Montissippi Field.

Due to the minimal turnout for this meeting ( no quorum) there was no official business brought up for

The next meeting is scheduled for  
**7:00 PM** on Tuesday, **January 11th,**  
2011. It will be held in **Room 29** of the  
**Monticello Middle School.**

discussion or voting such as the installation of officers for 2011.

The meeting was adjourned at 7:52 PM.

## Show & Tell

by Leo Davids, WFRC Secretary

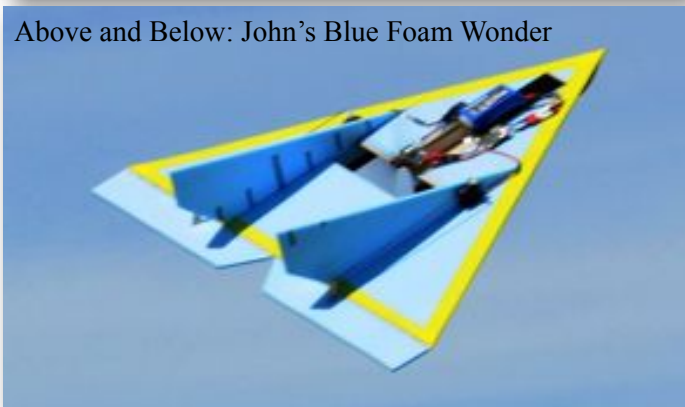
Even with a turnout of just 7 people, there was an aircraft brought in for a presentation by Leo Davids. But for want of material to fill the newsletter, rather than simply report on this as show & tell, we will expand it to a full newsletter article about the evolution of Leo's electric powered foam delta pusher. *See the next article.*

## First Cousin of Blue Foam Wonder

by Leo Davids, WFRC Secretary

This past summer, a small contingent of our WFRC club journeyed to Paynesville for their annual fun fly. One of the activities the host club from Paynesville presented was a combat demo made up of electric powered delta wing foam aircraft. Our club's John Kossieck especially appreciated the design and performance of that particular aircraft enough to track down building details from a Paynesville club member.

As the summer season waned, John was able to build a couple examples of this delta called the Blue Foam



Above and Below: John's Blue Foam Wonder

Wonder and circulated the building information to others in our club. I was quite interested in this aircraft myself based on the great flying capabilities I observed first at Paynesville and subsequently from John's examples. I had already been impressed with the mid engine pusher platform it employed from opportunities I'd had to fly Joel Dirnberger's scratch built foam version of a F22 Raptor.



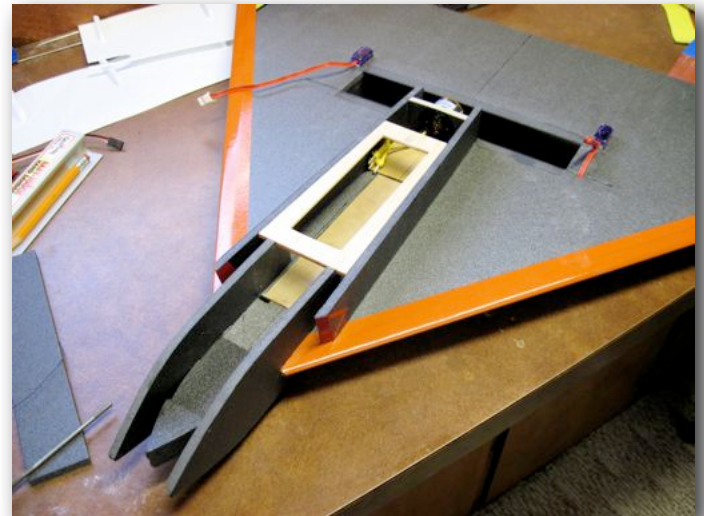
Joel Dirnberger's F22 Raptor

My building stock of foam, unlike John's, was not dominated by blue foam but by Depron foam so that was my first deviation from the design. Other than the

color and cost that, in and of itself, is not noteworthy. However, John's two iterations of the Blue Foam Wonder yielded some other modifications that I adopted, such as relocating the motor slightly above the wing center, reducing the vertical fin sizes and simplifying the under-wing skids.

Joel's influence came with regards to a fuselage. His Raptor was based on a profile fuselage design but he expanded it to 3D. The Blue Foam Wonder didn't even sport a fuselage of any kind. But being a tidy person by nature, I wanted the power and control components concealed as much as possible. So a fuselage was born. I copied a feature on a previous foam plane I built (Saab Gripen) which used "stepped" fuselage sides to create air intakes for cooling the ESC, battery and aft mounted motor.

Having already stepped over the line by using that "expensive" Depron foam, I threw material cost to the wind by switching from simple wood to exotic carbon fiber for the various reinforcing elements of the wing, prop slot and skids.



I also took some of the leading edge sweep out of the wing so it would end in flat rather than pointed tips. This allowed me to attach pieces of CF arrow shaft onto the tips to protect them and the elevons. Of course it doesn't hurt that these tip tubes add an illusion of weapon launching tubes. The rest of the arrow shaft served as rugged edges for the bottoms of the under-wing skids. Among various cosmetic touches, the fins are canted slightly outward as would be found on many full scale twin-fin military aircraft of late.

To tone down this delta's inherent gray stealthiness, I got out my colored packaging tape and set to work on a trim scheme that could double in a pinch as a slow-moving-vehicle sign. The other important goal of

the taping job was to enhance the durability of the foam.

For power, I selected an out-runner motor with a 1400 KV from BP Hobbies that has a nominal 150 watt power rating. I found it draws about 140 watts swinging a GWS 8x4 HD prop. I use a 3s-1000 mah LiPoly battery and the AUW of the plane is 13 ounces.

Initial flights have been made in the Metrodome where I could leisurely navigate around the field at ¼ to ½ throttle. A quick blip to full throttle would shoot it to the dome roof in a heart beat (when the Metrodome had a roof!). In the confines of the Metrodome, 7-8 minute flights were barely using half of the battery capacity. In a more open venue with a good “hair-on-fire” pilot at the controls, I'm sure that the 1000 mah battery could be effectively discharged in 5-6 minutes.

Even with a simple 2-servo elevon control, the plane is extremely aerobatic and will readily go wherever you want to point it. As Joel has demonstrated time and again with the mid-engine pusher on his Raptor, this configuration is unparalleled for pure control response in all flight conditions (with the possible exception of recent advances in thrust vectoring EDF nozzles).



With the abrupt end to the Metrodome flying season, my Depron Foam Wonder will just have to wait for a break in the winter weather to take to the air over the snow or ice on Big Lake.

## Important WFRM Club Business- Proposals for Hard Surface Runway

*by Leo Davids, WFRM Secretary*

Our president, at the urging of some of the members has designated a new business topic for the January meeting. The floor will be opened for a presentation and discussion of a project to install a hard surface runway at the Montissippi Field. The notice of this discussion is being posted in the

newsletter to give all the members time to consider their feelings on such a proposal as it is a major undertaking to determine the feasibility, estimate cost and garner required support from the membership. Motions for further activity to facilitate a hard surface runway project could be made and voted on at the January meeting. If you have opinions, please attend the meeting or make your position known to a club officer.

## Upcoming Events

**MAAC Swap Meet** - The tenth annual Don Bentfield Memorial swap meet is being held on Saturday, January 22nd, at the B-Dale Club located at 2100 North Dale St., in Roseville. It runs from 9 am to 1 pm. There are no admission or table fees. Refreshments will be available and a raffle will be held.

**Twin City Radio Controllers Auction** - The 35th Annual Auction will be held at Cross Point Church in Bloomington on Saturday, February 12th. Mark your calendars now so that you won't miss the largest RC Aircraft auction in the Midwest. There is a forum started on RC Universe at:

[http://www.rcuniverse.com/forum/m\\_10142053/tm.htm](http://www.rcuniverse.com/forum/m_10142053/tm.htm) where photos of items that will be auctioned can be posted and viewed. Advanced seller registration is now open by visiting the TCRC web site at: [http://www.tcrconline.com/pages/auction\\_seller\\_registration.htm](http://www.tcrconline.com/pages/auction_seller_registration.htm)

## Time to Renew Memberships

*by Leo Davids, WFRM Secretary*

We got a few club membership renewals in the mail before the December meeting. If you are going to renew at the January meeting, please fill out and bring an application with. They were included with your December newsletter. For those that get the newsletter by email, another application copy will be attached to the January newsletter email.

We really don't need to have accurate frequency information on an application with the advent of 2.4 GHz radios. We are no longer keeping track of the distribution of 72 MHz frequencies. This presumes that anyone getting a new radio will be going 2.4 GHz, thus there is no benefit in knowing who or how many people are on given a 72 MHz frequency.

## Tips and Tricks

*From the Rocky Mountain Modelers, Ft. Collins, CO Newsletter*

### Installing landing gear

When installing landing gear onto the fuselage with



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plastic or nylon bolts, place a thin 1/16-thick sheet of light plywood or balsa between the aluminum gear and the bottom of the fuse. This way, if by chance you land hard and shear the plastic screws, you have a better chance of getting a grip on a section of the broken plastic for easier removal. *[Tech editor's note: Possibly. But better would be to heat the tip of a screw driver in a butane torch and push the hot screwdriver into the broken bolt, it will make a very nice screwdriver slot.]*

### Wire bending

When bending identical parts from small gauge wire, tape the wires together and bend both simultaneously.

### Radial engine cowling

Some two-liter soda bottles have a black plastic reinforcement on the bottom. This piece makes an excellent radial engine cowling for your next project. *[Tech editor's note: The rest of the bottle can be used for*

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## 2011 Club Officers

Pres ..... Wayne Van Den Boom ..... 763-443-4440  
VP..... Tom Springer ..... 612-221-4087  
Treasurer .... Perry Dzuik ..... 763-477-6865  
Secretary .... Leo Davids ..... 763-263-3577  
Safety Off ... Garth Landefeld ..... 763-497-5828  
News Ed ..... Jean Davids ..... 763-263-3577

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## Café Express

Want club logo apparel & other items? Shop here:  
<http://www.cafepress.com/wrightflyersrc>.

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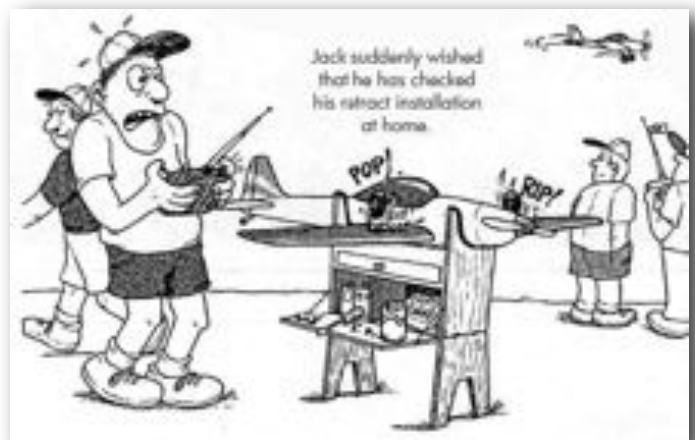
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If you have news or ideas for articles you would like to see, you can email me at [jedweb@charter.net](mailto:jedweb@charter.net) or call me at 763-263-3577. Jean Davids

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*canopies and emptying the bottle first can be fun, too.]*  
—Jim Trump, Corvallis, Oregon



*From the 1995 Warped Wings Calendar by Bob Zimmerman*