

# The Wright Flyer



Volume 25 Issue 9

AMA #4143

September 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, August 9th, the Wright Flyers held the monthly membership meeting at the Montissippi Park Flying Field. This was the fourth outdoor meeting of the season.

The meeting was called to order at 7:20 PM by club president Wayne VanDenBoom. There were 4 officers and 5 members present. A guest, Clair Madsen of Becker came to the meeting and joined the club.

The Secretary read meeting minutes and they were approved as read.

The treasury report was given by Perry Dziuk. The following expenditure was noted, \$76.84 for monthly portable toilet rental. The current treasury balance is \$4569.56.

Jeff Nelson will make the arrangements to reserve the room for the monthly meetings starting in October at the Monticello Middle School.

Wayne VanDenBoom proposed a second club picnic-fly for the season. A date of September 17th was set and Wayne offered to do the food. Garth Landefeld will see if he can fashion some simple flying "exercises" for the event to give all pilots some kind of a challenge to win some prizes. There will also be raffle drawings for cash certificates. Rob Cherry will supply a PA system as he did for the July picnic.

The meeting was adjourned at at 7:55 PM.

## Upcoming Events

**Hardwood Range Open House** - The Volk Field National Guard base is holding their annual open house at the field in Necedah, Wisconsin, on Friday,

The next meeting is scheduled for **7:00 PM** on Tuesday, **September 13th**, 2011. It will be held at the Montissippi Flying Field.

September 9th, starting at 8 AM . Some aerial practice bombing exercises and other pyrotechnics are part of the program.

**ACRC Electric-Fly** - The Anoka County RC Club is hosting their annual open electric fly on Saturday, September 10th, starting at 9 AM. There is no landing fee and AMA is required to fly.

**EAA Fly-in Dinner** - The Maple Lake EAA Chapter is holding their 25th annual pork chop dinner at the Maple Lake Airport on Sunday, September 11th, starting at 11:30 AM. Along with the dinner, there are airplane rides available, door prizes and a prop clock raffle. The WFRC Club is invited to display R/C aircraft in the hanger where the dinner is served.

**WFRC Club Picnic-fly** - The club is hosting a picnic for the members and family on Saturday, September 17th. The rain date is Sunday September 18th. The club will supply dogs and burgers. There will be a prize drawing for those attending. Usual start of flying is 10 AM with lunch served at noon.

## Ultimate Water Plane?

by Leo Davids, WFRC Secretary

My brother Dan is always searching for the unusual and so came across a unique plane that is kitted by

Model Aero. This plane evolved from their basic AeroCat twin boom pusher prop land plane that was then transformed into their Aqua Cat water plane through association with the Polaris Delta Wing. These are all kits produced by Model Aero. Both the Aqua Cat and Polaris have tail mounted tractor prop power with a boat hull fuselage. For some reason, Scott Detray of Model Aero thought it would be cool to take the Aqua Cat and substitute an EDF for power, calling it his Aqua Jet. Of course my brother thought it would be cool to build and fly an Aqua Jet. I wasn't really that excited about it, but he prevailed on me to build one.



AeroCat



Aqua Cat



Polaris Delta Wing

The basic construction of the Aqua Jet is laser cut Depron flat foam. The majority of its pieces are 6 mm thick but some is 3 mm. The recommended EDF power unit is an RC Lander 68 mm fan with a 4370KV brushless inrunner motor. With a 3s LiPo battery, the

unit will draw about 600 watts at full throttle.

I had previously built five aircraft from Depron foam including one other Model Aero kit (Cessna 310) and find it to be a great material to work with. The kit construction was fairly well engineered but I still managed to incorporate about a dozen significant modifications to suit my vision of what the plane should be. Some of these included:

- going to dual aileron servos
- more substantial EDF pylon mount
- dual access hatches for the fuselage
- additional CF reinforcement for the wings
- a thinner balsa laminated center fin

I also opted to fashion flow-through air cooling of the battery and ESC with a nose scoop and tail exhaust duct. And based on some experience flying a friend's Polaris off water, I added a sub-fin to the standard rudder for more positive water handling.

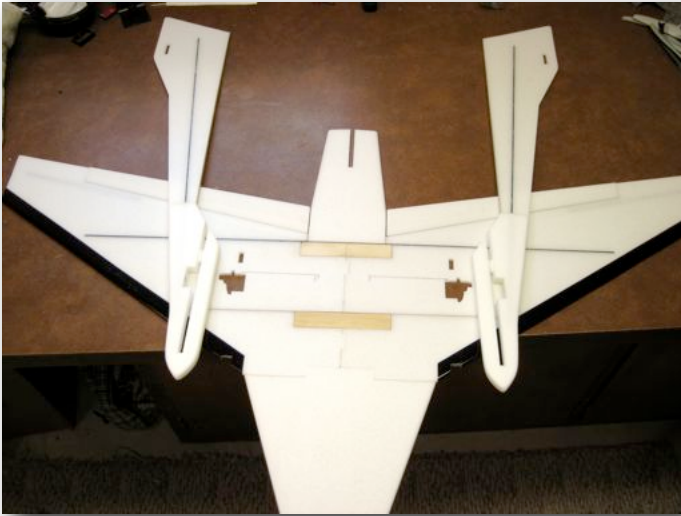


Book Tape

The kit came with a vinyl decal set that was of very nice quality but challenging to apply for the canopy effect on the fuselage. I added some packaging tape for the wing and stab leading edges and some black acrylic craft paint for the booms. The fuselage bottom is covered with some 3M Book Tape to make for a more rugged hull back to the step. The Book Tape is about a mil thicker than packaging tape.



I initially chose to go with a 3300 mah battery to feed its high wattage EDF so that I would have more of a chance to get at least 6 minute flights. However, the EDF unit is already quite heavy and the battery brought the total weight to nearly 37 ounces. I had modified the battery floor in the fuselage during the build to get the battery aft far enough to get the CG right but it still turned out to be about 1/2" ahead of the recommended CG.



Initial flights confirmed that the plane was nose heavy both by the amount of up trim it took for level flight plus a lot of up elevator needed to get through a banked turn. Otherwise, the handling and speed were impressive for water plane, especially with the added jet sound and look. Most of my flights were 6-7 minutes and the plane was generally pleasant to fly with throttle management that was drawing an estimate of 250-300 watts.

Since I was using only about 70% of the 3300 mah pack capacity, I gambled and got some 2800 mah packs which reduced weight by 2.25 ounces. With the lighter weight packs, I could get the CG back where it was suppose to be. It was amazing how much this helped the flying. I was able to back out all the up trim in the elevator and get around a banked turn with much lighter application of up elevator. The plane now flew agilely down to 1/2 throttle and I was able to fly more aerobatics without using any more amp-hour capacity than I had on the larger battery.



I still need to explore the plane's flight envelope to get it dialed in for everyday flying, but we do have two videos of the plane flying posted on You Tube thanks to Jean's efforts. You can view her posted videos on her new youtube channel (jeldavids). Specific links are shown below. Hope you enjoy the videos.

<http://www.youtube.com/user/jeldavids#g/u>.

There are two classifications of videos here. Those marked with 'smaller' or 'sm' in the title are smaller versions that should play better on slow internet connections. The rest are medium or large in size.

The video of the Aqua Jet flown in August is at:

<http://www.youtube.com/user/jeldavids#p/u/12/nTHy3HZqZus>

The September video of the Aqua Jet is at:

[http://www.youtube.com/user/jeldavids#p/u/1/i6xuO\\_EEggU](http://www.youtube.com/user/jeldavids#p/u/1/i6xuO_EEggU).

Hope you enjoy the videos.



---

## In This Issue

---

- ✓ Meeting Highlights
  - ✓ Upcoming Events
  - ✓ Ultimate Water Plane?
- 

---

### 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

---

### Café Express

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

---

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

---

