

The Wright Flyer



Volume 23 Issue 11

AMA #4143

November 2009

Newsletter of the WRIGHT FLYERS R/C Club

Website: www.joeld.net/wfrc

Meeting Highlights

by Leo Davids, WFRC Secretary

On Tuesday, October 13th, the Wright Flyers held the monthly membership meeting at the Monticello Middle School, room 29. This was the first in the series of seven indoor meetings signifying that challenging outdoor flying weather has returned to the upper Midwest.

The meeting was called to order by president Scott Leiferman at 7:11 PM. There were ten members present including three club officers.

Leo Davids reviewed the minutes of the September meeting as published in the October club newsletter. The minutes were approved as published.

There was no treasury report available..

Scott will keep tabs on his acquaintance who has the Lawn Ranger mowing service to see if there will be any interest in quoting for grass mowing the field next season.

Garth Landefeld has contacted the portable toilet service to have them terminate service at the end of October.

Scott Leiferman has found he did not devote very much of his spare time to the RC hobby this past season and so he would like to relinquish the presidency to someone who could be more involved with the club activities.

Tom Springer posed a question about having remote access to weather conditions at the field that could be used to decide whether to make the journey. Designated weather reporting stations in the area of the club field are no closer than Maple Lake, Buffalo or St. Cloud. Joel Dirnberger has checked private reporting internet weather stations for closer source of conditions but found none to date. Without electrical

The next meeting is scheduled for **7:00 PM** on Tuesday, **November 10th**, 2009. It will be held in **Room 29** of the **Monticello Middle School**.

power and broadband, no one had a suggestion for technology that would allow a dedicated weather station at the field which might be remotely accessed.

The meeting was adjourned at 7:48 PM.

There was no show & tell presentations for post-meeting activity. Leo Davids did bring in the bits of RC gear and two aircraft that Hugh Lampert is liquidating in his changeover from glow to electric power. Some props, fuel pumps, engine and radio gear were picked up but a fair amount of gear and both planes were not dealt away at this meeting so may be offered again at future meetings.

For Sale

by Leo Davids, WFRC Secretary

A pair of Balsa USA Swizzle sticks, each complete with Royal 45 nitro glow engines and Airtronics radio gear. Finish is combination of paint and Monokote. One on floats the other on tail dragger gear. \$60 for the float model, and \$40 for the tail dragger. Both models are currently air worthy and



have flown extensively off water and land. Contact Hugh Lampert at 763-263-2601.

Membership Renewals

by Leo Davids, WFRC Secretary

You should have received your renewal notice for AMA which expires at the end of 2009. To continue your AMA without interruption to their magazine and confusion on our club charter renewal with the AMA, you should take care of that by the end of November. As for the Wright Flyers' renewal, we will put the renewal form in your December newsletter or you can get it off the club website (www.joeld.net). Dues are payable by the January club meeting.

WFRC Club Officer Election

by Leo Davids, WFRC Secretary

Club officers (president, vice-president, treasurer, secretary and safety officer) are due to be installed at the December meeting for the 2010 terms. So far there is an opening for president or vice-president. Wayne VanDenBoom is willing to move to president to replace Scott Leiferman who would like to step down after many years of dedicated service in that office. Or Wayne is willing to remain as vice president if someone is interested in taking the president's position. The president's most visible job is chairing the monthly business meetings, but is looked to for general leadership and guidance of the club. Since there are currently no pressing issues with the club operation, breaking in of a new president would be a relatively straightforward process. So if you feel you could serve as either president or vice-president, please let Wayne or Scott know so we can get the slate of officers set for the December meeting.

Upcoming Events

by Leo Davids, WFRC Secretary

MARCEE Metrodome Flying - The first date for flying small electrics under the Metrodome is set for Friday, November 6th, from 6 AM to 2 PM. AMA membership is required. Cost is \$5 to Marcee members, \$10 to everyone else. Hopefully, there will be additional dates through the end of the year. Some dates come in or are changed on short notice so if you are not on the Marcee Yahoo internet group, the best place to check is the website www.marcee.org.

TCRC Auction - The Twin Cities RC Club's 34th annual auction will be held on Saturday, February 6th, 2010 at the Cross Point Church in Bloomington. With the new venue they settled into last year, this auction

should be the premiere event of the 2010 RC model season. Check on their web site at www.tcrconline.com for more details.

Hints for Airplane Set Up

by Richard Lindberg, Rocky Mountain Flying Machine Albuquerque, NM

1. Alignment of wing.
2. Incidence of wing.
3. Alignment of stabilizer.
4. Incidence of stabilizer.
5. Engine thrust line; all directions. Is it correct?
6. Ailerons: TE aligned with wing TE. Straight.
7. Elevators 1: TE aligned with chord line of stabilizer.
8. Elevators 2: TE aligned with each other.
9. Rudder: aligned with fuselage centerline.
10. Control travels 1: same both directions on all surfaces.
11. Control travels 2: balanced aileron and elevator throws. *
12. Radio: exponential on aileron, elevator, rudder; at least 25% to start.
13. CG: (static) set per the manufacturer, your experience, then forward at least 1/4 inch. *
14. Landing gear: check every piece; align wheel track.
15. Control system: check every piece; Loctite, glue, tighten as needed, then check again.
16. Canopy, belly pan, cowl, propeller, spinner, tail wheel: check every screw, washer, nut, bolt, latch. They have to work here to work there.
17. Tank plumbing: tank tubes, lines, clunks, tees, check valves, plugs.
18. CG: see step 13. Write down someplace.
19. Control movements: correct directions and amounts. Write down.
20. Battery check: Check battery!
21. If transmitter permits, "copy" this airplane to another, save with a version name, and keep it there unchanged. It is your original, in case you program yourself into an unflappable condition.

The items marked * are based on my personal experience and are my preferences. I like a balanced feel to elevator and aileron, hence the setup I listed. Same for exponential. In most control systems we use these days, you need about 25% or so to get to the "linear" travel point on the system you have. So, if you set 30% exponential, remember it's only 5% "real" exponential. The reason I recommend the forward CG is that many fliers mistakenly set the CG on their airplanes too far aft. Until you have personally tried a slight forward CG (like suggested above) you won't

believe how much better your airplane will fly. Trust me on this; try it, you'll like it.

By the way: item 20. Everything associated with your airborne and transmitter batteries needs to be checked by you at least twice, then your spouse or significant other, then whoever is at the field when you put the thing together. Trust me.

Now, this is not a comprehensive trimming chart, but it is a handy reference checklist for that new airplane you're either building or preparing to haul to the field.

Also, if you aren't already in the habit of writing down your particular airplane setup, begin now. Knowing where you started from makes things a lot easier when you are at the field tweaking everything. And don't forget to date your lists. The important idea is to keep a record of where you are, so you can more easily figure out where you went.

Soldering Clinic

by Vincent P. Lipton, Anoka County RC Club, Coon Rapids, MN

The following guidelines will help you achieve good, reliable solder joints, and will hopefully encourage you to be more adventurous with your model's on-board control systems.

Rule One: Use a small soldering iron for small jobs (small wires and connectors) and a large iron for large jobs (landing gear wire, tinplate, music wire, etc.). In a pinch, you can wrap a piece of thick copper wire tightly around the tip of your "blunderbuss," extending the copper wire tip about 1/2 inch beyond the tip of the oversize soldering iron or gun, thereby creating a small iron. Be sure to run the solder around the contact region between the big tip and the coil of wire, to make a good thermal contact.

Rule Two: A good solder joint is usually made from the standard 60/40 blend of lead and tin. If this alloy is allowed to oxidize by being overheated, or heated for too long, the binding properties of the solder degrade seriously. Don't use solder that has been sitting molten on the iron tip for more than five seconds. Wipe it all off. Discarded solder blobs are useless; don't save them. Always use fresh solder.

Rule Three: Keep a piece of dampened (not soaked) sponge nearby to clean oxidized solder off the iron tip. This must be a natural sponge, not one made from foam or plastic (which melts). You'll find the green Scotch-Brite kitchen pads ideal. Clean off your soldering iron tip on this just before you make any solder joint. The tip of your iron should look bright and shiny just before you apply it. Oxidized solder

looks dull and grainy. Get rid of it! I find that I discard 70% of my solder by cleaning it off and replenishing it with fresh, but it's well worth it.

Rule Four: Always use resin-cored solder. You should never need liquid or paste acid-flux if you prepare your work correctly. The resin core melts when you apply solder to the job and acts as a cleaning and flow agent so the solder will bind properly.

Rule Five: Use only enough solder to bind the two objects together. Extra solder does nothing to increase strength, but only adds weight.

Rule Six: Always tin both parts before joining together. Tinning means heating the areas to be joined, applying solder to the junction of the hot tip and the part, and ensuring that the part is evenly coated with a good, shiny film of solder.

Joining Electrical Wires

1. Strip off 3/32- to 1/8-inch of insulation.
2. Tin the wire so it looks uniform and shiny.
3. If the solder "drags" and looks dull and grainy, apply the iron again, apply more solder, and clean off the excess.
4. Slide a piece of heat shrink tubing approximately double the wire diameter and about 3/8-inch long over one of the wires.
5. Lay the two tinned ends side by side.
6. Heat briefly with the iron so they flow together.
7. Slide the heat shrink tubing over the joint and heat with your heat gun or the barrel of your soldering iron. Once it cools, pull on the wires to make sure the joint holds.

Joining Steel Wire

1. Prepare the joining surfaces by thoroughly sanding them with sandpaper. This provides a good surface for the solder to stick. Treating each piece separately, heat the contact area with the iron and apply solder. Rub the tip all over the contact area, while applying fresh solder and flicking off oxidized solder, until the contact area is shiny and well tinned. While the steel wire is still hot and the surface solder is still molten, quickly wipe off the solder with a dry cloth. You'll notice a different color between the rest of the steel wire and the tinned surface indicating that solder has penetrated the wire surface and has prepared the contact area for binding.
2. Place the two tinned areas together and wrap with fine copper wire. Strands taken from multi-strand heavy electrical cable is ideal, but have the strands ready for use before you start. After wrapping tightly, twist the ends of the binding wire together



In This Issue

- ✓ Meeting Highlights
- ✓ For Sale
- ✓ Membership Renewal
- ✓ WFRC Club Officer Election
- ✓ Upcoming Events
- ✓ Hints for Airplane Set Up
- ✓ Soldering Clinic
- ✓ Tips & Tricks

(so they don't unwrap). Heat the whole joint with the iron and apply fresh solder. Because you pre-tinned the steel wires, you'll find that solder will readily flow into the joint and adhere properly to the surfaces. Any time you see convex blobs of solder you can bet the joint has not soldered properly. Apply more heat, flick off the old solder, and apply fresh.

Tips & Tricks

Wires

Get a hold of a junk VCR and take it apart. Quite often there are a lot of wire harnesses in it. While the wire is other colors, as well as black and red, it is high quality and works very well for RC hookups.

Lite Ply Replacement

My favorite material is "doorskins" to use in place of Lite Ply. You can purchase these at your local building supply company for around 5 bucks. The

2009 Club Officers

Pres.....	Scott Leiferman.....	763-245-2859
VP.....	Wayne Van Den Boom.....	763-443-4440
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 or call me at 763-263-3577. Jean Davids

sheets are 36-inches wide by 80-inches high and about 1/8-inch thick. I have used this in place of Lite Ply in fuselage sides, hatches, landing gear mounts, servo mounts, etc., and have never had a failure.

Plywood on the cheap

Also along those lines, cabinet makers have birch- and oakfaced ply pieces in different sizes 1/4-inches thick, that they will sell to you for a reasonable price. I use these for firewalls, gear mounts in bigger airplanes, and you can double them up to make firewalls for gas engines.

Hardwood

For spars, I use 1/4 x 8 feet poplar or maple. One board can be carefully cut in a table saw with a fine blade (be safe when you use power tools). You can cut these in 1/4 x 3/8, 1/4 x 1/2, etc. and make enough sticks to last for years!

—*all from the First State R/C Club, Wilmington, Delaware*
