CURRENT NEWSLETTER

AMA Charter No. 2940

THE DEAD STICK FLYER

Havre de Grace, MD

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www.SwanHarborRC.com

60 members currently

Meeting took place at Wendy's:
987 Beards Hill Rd, Aberdeen, MD 21001
Phone: (443) 327-6706

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ATTENTION:
Our dues will be 50 dollars and a 50 dollar assessment for this year 2015. The assessment will cover cost of new mower and canopy over the Helicopter area.

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Meeting Minutes

Members in attendance: 14 members

New Business:

-County will be rolling the field once it starts to dry out.

-Mower will be purchased next month.

-Weed control will start to be put out starting next week weather permitting.

-Max and Victor gave an update on their B-17 build and how they learned to vaccuform the nose cone.

-Discussed Bob's winter Decathlon build.

-Chris M. was able to get the club a 100 foot conveyor belt to be used as a longer electric runway.

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My Winter Project by:
Bob Bartell

This winter I'm building an RCGUYS Super Decathlon.
I'll be using a DLE 55RA engine and HITEC 5625MG servos rated at 110 oz torque at 4.8 and 131 oz at 6 volts. (That's twice the recommended servo strength)

SPECIFICATIONS:

WING SPAN 98"
LENGTH 63"
WING AREA 1558 sq. in.
FLYING WEIGHT 13-15 lbs.
RECOMMENDED ENGINES
90-160 2-stroke glow
120-270 4-stroke glow
23-40cc gas
REQUIRED 4 channel radio & 6 servos min. 50 oz.in.

The project is on hold because the fuselage was broken when I got it. One call to Dan Speers at RCGUYS and a replacement is on the way. Great service!

While I'm waiting for the new fuselage, I decided to look at all of the hardware to see if I wanted to use anything different.

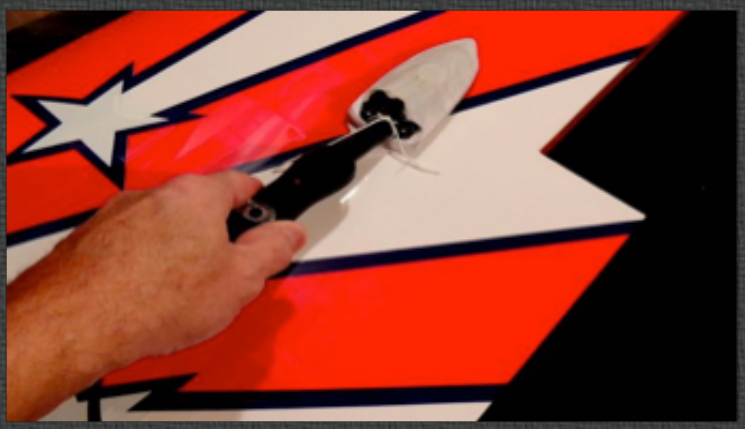
The tires are extremely hard. I imagine that they will transmit the stress of landing to the landing gear instead of absorbing some of the vibration. So, I'll look for some softer tires.

The control set uses a thin control rod with a Z bend on one end and a trumpet style control horn on the other. I will use 4/40 pivots, a turnbuckle, and stronger horns.

All control surfaces use pin style hinges – but they are a little on the small side. I'll use Robart pins instead.

Covering

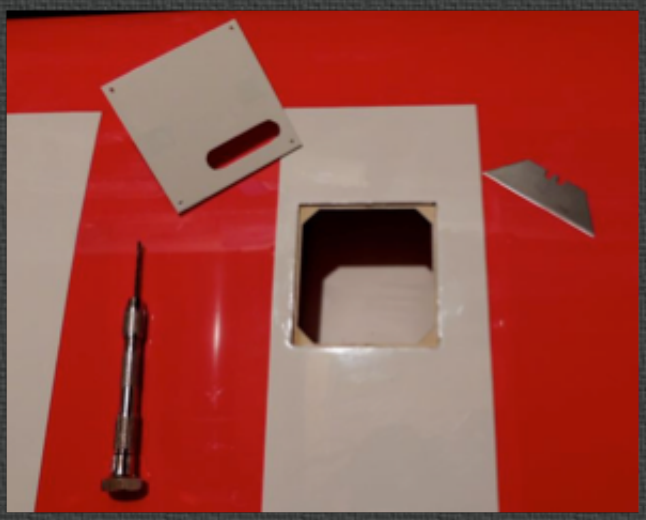
RCGUYS changed to Oracover several years ago and the covering looks good. I went over all of the covering, re-gluing it down to the wood and then I used a heat gun to shrink it. I kept the heat on low because I didn't want to mess up the graphics or striping tape.



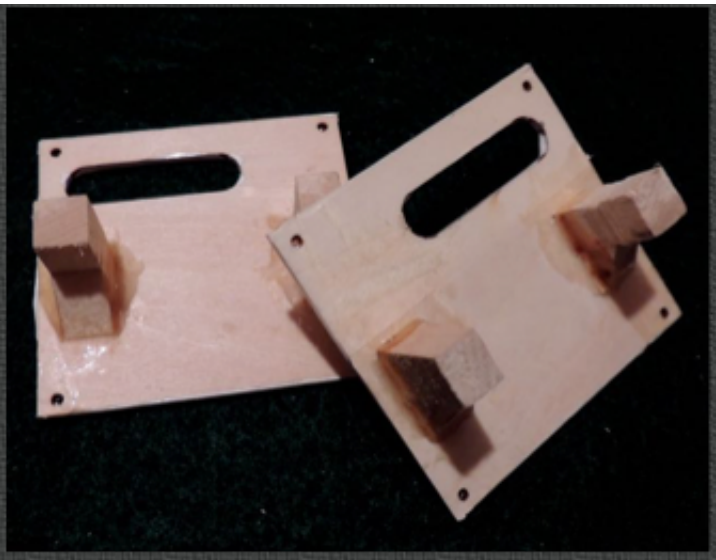
Many of the edges needed tightening.

Aileron Servos

The aileron servos are hidden under hatch covers. The covering had to be removed and the edges resealed before test fitting the covers. A little sanding was needed.



The hatch covers have a built in servo mount but it didn't allow enough room for my servos. So I removed the blocks and repositioned them with epoxy.



I used 24” heavy duty servo extensions (22 awg wire) and secured them with Shrink tubing.

The assembled aileron servo and hatch door ready to be installed. I just noticed in the picture that there is a crack in one of the blocks ! Looks like I’m not with this part yet.

I used to have trouble with aileron wires disappearing. Then you have to shake

and dance to get them back again. I fixed the problem by making wire keepers for them. I use a piece of ¼ " foam and cut it just larger than the round hole in the end of the wing. Then, put small slit in the middle of it.

Feed the servo wire thru the slit and then glue the wire keeper to the inside of the hole.

I usually offset the wire keeper creating a small opening where I can insert the end of the wire for safe keeping when transporting.
I'm sure that these wire keepers also prevent the wires from chaffing on the wood.

The aileron servos have been installed and the ailerons have been hinged using Robart pin hinge points. Even though I used gun oil on the brass part of the hinge point and cleaned up the overflow epoxy, the hinges were still very stiff. Eventually they loosened up. I suspect that in cleaning off the overflow epoxy with alcohol and a cloth, I got some alcohol into the brass hinge.

Next, I made up the control arms using 4-40 ball links, .095 wire rods, and a soldered connector. The supplied rods were so thin that I don't see how they wouldn't bend under a load. So I used .095 rods. I may still replace all of this with titanium turnbuckles.

They are more solid and much easier to adjust.

I leveled the top of the platform and used epoxy for the stab. It cured overnight so the joint should be very tight.

All of the remaining pin hinges were installed using Gorilla Glue because it will expand as it dries and fill any holes or gaps.

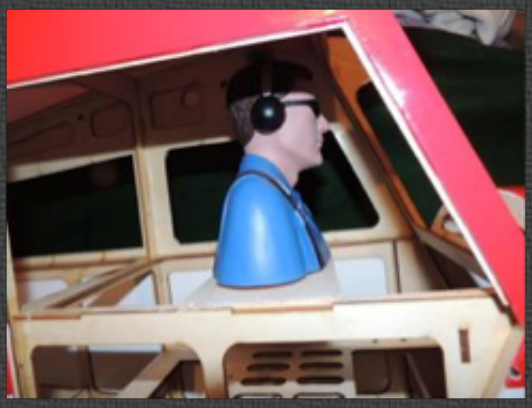
I started to apply CA to all of the joints. Besides having limited space for my hands, I found that I was chasing the fuse all around the work bench because the bottom of the fuse is rounded and it won't hold still. So I installed the main gear,

without the wheels, to make more sturdy.
Then I finished the job of re-gluing the joints.

The covering that was over the windows was removed to give me better access to the interior. I think that installing the windows will have to be one of the last tasks that I do.

I fashioned a dashboard to fit but I think I will not install it until I figure out what the dash panel will look like. I have a picture of a full sized Super Decathlon instrument cluster and I was going to shrink it, print it, and glue it to the dash. However, the shape of the dash in my plane is not to scale; mine is rounded and the full size cluster is rectangular. So, I will have some more work to do on this task.

I'm going to have to create a platform for Captain Fred to sit on. The poor man must have been injured in the war because he doesn't have any legs!

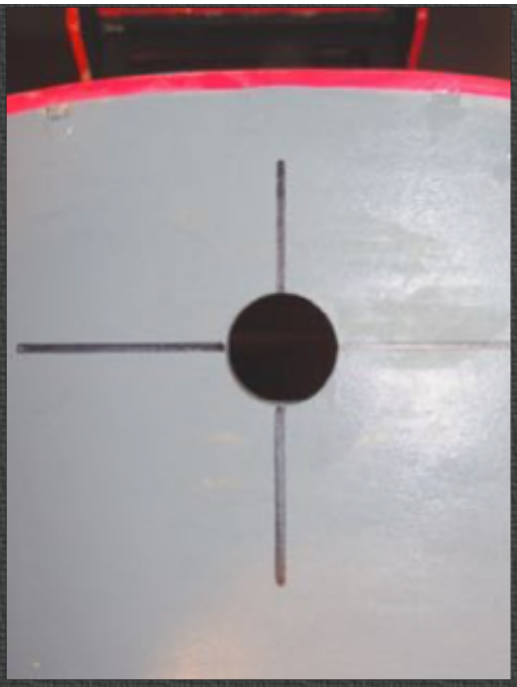


The windows are not clear; they are a smoky color. On a sunny day you will be able to see the inside of the cabin. So I painted all of the wood that will show.

I used epoxy to install the fin. I like to let epoxy cure overnight.

It's starting to look like a plane!
Time to mount the engine. The fused was attached to my workbench so I could work on it. This step should be completed before the elevator and rudder surfaces are attached with hinges so that the fuse can sit upright.

The directions show how to find the exact center for the thrust line. I marked the lines so I could drill the mounting holes correctly. The prop shaft must be aligned with the predrilled hole in the firewall.



The DLE 55RA engine.
I covered the choke and the spark plug openings to keep out the dust.

I drilled slightly oversized holes and the bolts aligned properly. The only problem I had was getting my hands into the fuse.