



Glitch Busters

December 2016



FREEZE FLY
January 1, 2017

NEXT MEETING
December 6 at 7:00 PM
at the Newark Senior Center

AMA #197

FROM THE PRESIDENT

Notes from the November Board meeting:

Plans for the annual club auction are being finalized. We are looking to hold the event in January. Possible locations are the Newark Senior Center and St Marks Church.



We are looking at the possibility of holding some club meetings on Saturdays at the field, so that people who can not make Tuesday evenings because of work can attend.

We discussed having an open house next Spring to showcase multi-copters (drones). The idea is to show the public what drones are and how we fly them. We could demonstrate quad racing, explain the FAA rules, etc. We welcome ideas and suggestions.

Safety at the club field is everyone's business. Our Safety Officer can not be at the field all the time. We need club members who spend a lot of time at the field to volunteer to help with safety. We are looking for up to four people to handle week days and another four for weekends. If you are interested in helping, please contact Fred.

It is past time to close the pavilion. We need to get new plastic. Once that is done we will set a date.

Speaking of the pavilion, don't forget the Freeze Fly. It will be held on New Year's Day. The club will provide hot dogs, hamburgers, sodas and water. You are welcome to bring additional entrees, salads, desserts, etc.

Last but not least, we still need a club Secretary. Club members are encouraged to consider taking this important position.

FROM THE EDITOR

This is a short newsletter this month. Due to a combination of bad weather and illness we have only been to the field a couple times in over six weeks. That translates into no recent photos. Hopefully we can get a lot of pictures taken at the Freeze Fly. Bring your newest, bestest planes so we can photograph them.

Thrust Testing

I've been using my time at home to work on the electronics and programming for a thrust test system I'm building. The plan is to have a test stand to test small to medium-large size electric motors that generate thrust from a couple ounces to about 10 pounds. The system will also include a rig to test thrust on larger motors that are already mounted on a plane. This rig will measure anywhere from a few pounds of thrust up to a little over 40 pounds. In internal combustion motor terms the rig will measure thrust from .46 size nitro motors up to 60cc gassers. We already have a couple of electrics that are the equivalent of 30cc gassers, and are debating getting one that generates the thrust of a 60cc motor.

The system will record thrust, current, voltage, power in watts, rpm, and percent throttle. The test stand will have a full color lcd display mounted on the unit. The rig for larger motors will display the data wirelessly on phones, tablets, etc. The whole system is automated. Once the start button is pressed the motor will advance from off to full throttle and back in as many steps and for as long as desired. There is also an emergency STOP button just in case. In addition to being displayed, the data will be recorded on an SD card for later use in a spread sheet.

You may be thinking that the test stand is just some techie thing. Well in all honestly I guess it is, but it is also dead useful. The data from testing can be used to pick the best prop for your application weather you want speed, unlimited vertical, or longest flying time. The data will show you if a given prop pulls too much power and risks burning up the ESC. You can even use the data to figure a safe flight time an a given battery. Picking the right prop is my number 1 reason for thrust testing.

If you fly nitro or gassers a thrust test stand can still be useful. If you want to pick the best prop or have wondered if there is any difference in performance in prop brands, thrust testing will give you the answer. Since you have no need for any of the electric motor related stuff, a stripped down version of the test unit is really easy to build. Best of all it is portable. You can take it to the field, strap the unit to a fixed object (like a fence post or airplane tie down stake), attach the other end to the tail of a plane and you are ready to test.

Well friends how much do you think all this costs, \$59.99, \$49.99? Nope. For a limited time only this gem can be yours for the low low price of just \$9.99! I'm just joking folks. Since I have yet to even finish constructing the prototype, I can't tell you what it will cost to build. The thrust only unit that transmits to a phone shouldn't cost more than \$20 to make. The automated stand will most likely cost me around \$50, not including the sensors which I borrowed from my planes. Figure \$100 to start from scratch. That sounds like a lot, but the sensors can go in planes when not used for testing.

Well what do you think? Send me an email and let me know.
Roger

NOVEMBER MEETING MINUTES

John Kirchstein called the meeting to order at 7:03 P.M.

New Members or Guests

Donna Svinis, guests, attended the meeting to inquire about flying RC. As a teacher in PA, she is interested in offering an aviation lesson and has built a flying wing, which she wants to present to the class as the project. Looking for feedback and assistance.

Treasurer Report

Presented by PJ McClurg. Membership currently sits at 173.

Minutes

Rick Scott read October meeting minutes.

All Business:

- **Swap Meet:** Mark Weiss reported that the club swap meet will be held in January, either the second or third Saturday, awaiting schedule confirmation from the Newark Senior Center. More information to come.
- **WOD 2017** will be held July 10th through the 15th.
- Trees at the field have been trimmed.
- **Nominations:** Nominations for the soon to be vacated positions, President and Secretary, are open. Current nominees are:
 - President nominations: Freddie Butts and Dick Stewart

✈ Secretary nominations: NONE.

✈ Are there any additional nominations? None presented. Election was held. Freddie Butts won the election and will be the club president for the next two years.

✈ Show and tell: Jim Schlapfer discussed his Sure Flight P40 Warhawk kit, a molded foam kit converted to electric.

✈ Freddie gave his acceptance speech.

Meeting was adjourned 7:28 P.M.

BOB'S CORNER - by Bob Smith

I took a few photos of Election day at the field.

Weather cooperated very nicely and the temperature soared up to 68°. It was windy at times but didn't deter this group of fliers. The field ran the gamut from ducted fans, gas, nitro and electrics. Lots of planes in the air, some decided to exit the air on their own without the pilot's permission, and lots of fun.

Weather was so nice I broke out the charcoal grill and cooked hot dogs and hot sausages. Funny how that wafting charcoal smell draws the curious to see what's cooking. There was plenty for all.



Finished the ¼ scale Ultimate Bipe and installed the Saito 150 four stroker. I took it to the field for its maiden flight, maiden for me since it was given to me and repaired in my hangar, and it took to the air like it belonged there. Smooth take off, a little left rudder and minimal trimming had it purring right along. I left the cowling off in case I had to adjust anything and sure enough I had an issue with the EZ connector to the motor. That is all straightened out now and the cowling will be affixed shortly. Photos show the Bipe prior to its maiden flight. By the way, it came back looking like that too ! ☺

Nitro Fuel Purchase

I mentioned in my last column about buying bulk nitro fuel from a manufacturer. If you are interested in buying fuel for now or next summer contact me and we'll order it in January. We're looking to get a minimum 100-gallon order (25 cases) so the savings would be appreciable. So far we have about 12 cases in the works. It will be a pre-pay order only.

Training Update

There is a trend now that appears to be different than in the past regarding learning to fly. When someone asks about learning to fly, I take their email address, introduce myself and send them electronically our Student Handbook and Field Rules and tell the prospective student when an instructor is available. What I am seeing is people are buying Apprentice aircraft and small electrics and only want instruction on how to fly their plane. This is counter intuitive to what Delaware RC expects from new pilots. We expect a new pilot to know the field rules, fly with a buddy box and a competent instructor, and competencies met as the student progresses through the lesson plan and finally a dead stick landing to obtain their solo status. Suggestions on how to deal with this new method of instruction are welcome.

Merry Christmas to all and I hope Santa puts anything that can fly under your Christmas tree.



Glitch Busters

is a monthly publication of the Delaware R/C Club:

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