

The Broken Prop



DECEMBER 2005 EDITION

A MONTHLY NEWSLETTER PUBLISHED BY THE ST. CLAIR COUNTY PROPBUSTERS
A CHARTERED CLUB OF A.M.A. #1762

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Meeting Schedule:

Second Wednesday each month at the Community Center Building, Goodells Park, 6:00 pm.

Please try to attend the meetings if you can. It's a great way to stay in touch with what is going on in your club.

www.SCCPROPBUSTERS.com

President's Perspective

I told you Christmas was right around the corner. And here it is – staring us right in the face. If you haven't done it already, you should be winterizing your airplanes for the season. But don't do them all. Leave one out and ready just in case you get the bug to do some flying and the weather is halfway decent. You may have some other ideas for winterizing but all I do is put each plane on the bench and go through them. Check to make sure everything is secure, make sure the landing gear and tail wheels are straight, and check for loose or cracked joints and things of that nature. Basically a thorough looking over so I don't have to do it in the spring. Then I give them a really good cleaning, put some after-run oil in the motor, spin it a few times and I'm done. Some people may do more, some less, but these few steps have worked for me for the past five years. The best way to develop your technique is to come to the meetings and talk with some of the more expert pilots and get their opinions.

For those of you that like to fly in the winter, you may want to invest in a set of skis to replace your wheels for those snowy days. Last year, Kirk Churchill was selling Lexan skis for, I believe, ten dollars for a .40 size plane. I don't know if he still has any left or if he is still selling them, but you can also get them through most hobby stores.

The November meeting hosted nominations for next year's officers and most of you will be happy to know that all officers will hold their positions through next year. That means no voting required at the December meeting.

The next big event is the Swap meet on January 29th. Check the flier in your newsletter for times and a phone number if you want to reserve a table. We also need your help with passing out the fliers. Please help **your** club have a successful swap meet by passing out or hanging up a flier. If you need more, you can print them off the Propbusters' website.

And of course, for those of you that I didn't see at the meeting on the 14th, have a safe and happy holiday season and a happy new year.

*Hope to see **you** at the meeting!*

EVENTS CALENDAR

December

- 14th - **Propbusters** Club Meeting – 6 pm – Goodells
(Acknowledge 2006 club officers)
31st - **Deadline for 2006 dues Renewal**

January 2006

- 1st - **Port City RC'ers** - New Year's Day Chili Pig
Down and Fun Fly – Muskegon, MI –
www.portcityrc.com
8th - **Detroit Aero Modelers Swap & Shop** –
Livonia – 9 am to 3 pm - \$4 admission
www.detroitaeromodelers.org
22nd - **RCCD** – Swap Meet www.rccd.com or call
Keith Jones (586) 786-1474
29th - **Propbusters** Swap Meet & Pancake Breakfast
- 8 am to 1 pm – Admission \$3

February 2006

- 18th - **The Thunderbirds R/C Club Swap Meet** –
Kalamazoo County Fair Grounds – 10 to 2
Ray Landon (269) 665-4716 or
Keith Shafer (269) 746-5099
19th - **The Flying Aces R/C Swap Meet** –
Flint/Linden MI – 9 to 1 pm.
www.rcflyingaces.com

April 2006

- 7th, 8th & 9th - **The Weak Signals – 52nd R/C
Toledo Expo/Show** – 9 am to 5 pm - \$7
admission. www.toledoshow.com

Financial Report

Beginning Balance **\$1,791.03**

Income

Dues	\$ 350.00
Donation	\$ 12.24
Hat	\$ 13.00
Total Income	<u>\$ 375.24</u>

Expenses

Ed L. – tractor/gas	\$ 27.24
Keith G. – postage	\$ 11.10
SCC Parks – swap room	\$ 140.00
Total Expenses	<u>\$ 178.34</u>

Ending Balance

Checking \$ 1,987.93

Grand Total **\$1,987.93**

2006 Membership New Members

Junior	0
Senior	1
Lifetime	2
Regular	3
Total	6

2005 Membership

Junior	7
Senior	17
Lifetime	2
Regular	38
Total	64

November Meeting

The meeting started at 6:04 pm with 9 members present. Doug/Bill made a motion to accept the amended secretary's report as read by Keith. Doug/Keith made a motion to accept the treasurer's report read by Ed. Doug/Kirk made a motion to pay bills. All motions passed.

We discussed the further progress of the shed. We also decided to wait until spring to finish the replacement of the mower blades.

Swap Meet. The room has been reserved. Doug will bring coffee makers and Ed London/Kirk C will handle the cooking.

Doug/Al made a motion to spend \$150 for an airplane kit for the swap. Sheila will talk to Pastime to see about getting donations.

Ed L. will pick up the food. Gary will verify if we have raffle tickets and will handle putting up the road signs and he will follow-up on hand stamp availability.

Sheila is taking care of table reservations.

Ed O. will be in charge of swap setup the night before and will call the park to check on access.

Our port-a-john will get salted to make it ready for the winter.

Nominations.

Ed/Al made a motion to keep the same officers as no one else wanted to run. Motion passed.

Gary - President

Doug - Vice President

Ed - Treasurer

Keith - Secretary/Editor/Website

We discussed the training program and what was necessary to get "pilot" status. Gary empowered Ed L. the power to deem a newly trained member as having "pilot" status.

We have 11 hats left. If anyone would like to purchase one they can contact Sheila.

Doug/Al voted to end meeting at 7:13 pm.

2006 Membership

It's almost too late to **renew your membership**. Dues are due from September 1st to December 31 for 2006. If you renew now, you can avoid the **\$10 late fee** for all those members who renew after December 31st.

So far 51% of the members have renewed.

Aspire Hanger 9, 2 Meter electric sail plane.
Excellent condition – ready to fly. Hitec Focus 3
radio (3 channel), batter, charger. \$200.00
Call Ed (810) 367-6367

Keller Lark OS 108 2 stroke, 537 servos
1100 mah Battery pack, switch harness \$400
120 Stinger Airframe \$100
Edge 540 – Hangar 9 ARF ¼ scale new \$200
JR Quatro 4 channel NIB \$125
Various transmitters

Wanted Lucky Stick 40 wing

Ray Dart 326-0929

Grant's custom Aircraft

PBY 5-1 Catalina

106" Wing, 1/12th scale, 1270 Sq In, 23 lbs
64" length .60 2-Cycle 3 surfaces & Motor
Servo, Motor .90 4-Cycle, Landing Gear Valve
Servo, Float Valve Servo.

Grumman G-44 Widgeon

80" Wing, 1/5th scale, 15 Sq Ft, 24 lbs,
60" length .60 2-Cycle 3 Control Surfaces & Motor
Servo, Motor .90 4-Cycle Servo, Landing
Gear Valve Servo, Float Valve Servo.

Republic Seabee

70" Wing, 630 Sq In, 8 lbs, 48" length, .40 2-Cycle 4
Control Surfaces

Contact: Mike Grant at (810) 329-6406

Battery Bunker



Kevin Kelley kevinkelleyart@yahoo.com
(760) 247-6980 or P.O. Box 400506 Hesperia CA 92340
www.batterybunker.net

\$18.00 + \$7.00 S&H for the small container
3.25" ID by 5" deep (will hold a 5" long battery easily)

The Battery Bunker is hand made of high-fired stoneware. It is extremely strong and capable of withstanding temperatures well over 2000 degrees. It is designed to contain the fire and after burn of a LiPo battery mishap. The loose fitting lid locks down to contain the fire and allows the smoke to vent around the lid and wire slot.

Tamiya TB-02R Shaft drive 4-wheel drive car.



These run \$299 at Tower Hobbies; I paid \$250 plus these additional items:

Aluminum hop-ups that were not included in the kit are:

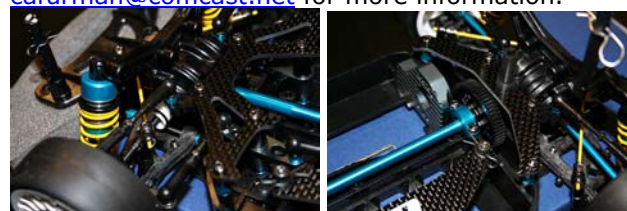
Tamiya Aluminum Steering Rack - \$28
TB EVO III Front Reinforced Diff - \$23
Tamiya SSG Carbon Center Plate - \$10

ALL FOR **\$190!** – That's over \$110 off!

It has only been run about 2-3 weeks; just like new!

Questions?

Please call (586) 219-7480 or email
cafurman@comcast.net for more information.



So You're going to use Lithium Polymer Batteries?

Please be very, very careful

I came home from work the evening of Wednesday November 9th, 2005 around 4:30 pm, pulled into my garage and upon getting out of my car, I decided to cycle and charge some R/C NiCad batteries, while also charging some Lithium Polymers (or LiPos). I plugged in my Astroflight Model 115D peak charger and connected a 6 cell 1800maH Duratrax Piranha pack to it and placed it on trickle charge. I then took my LiPo packs out from my ceramic storage container (similar to a medium flower pot) and placed them on my bench top. I then powered on the 12V regulated power supply which was connected to the Astroflight Model 109 LiPo charger (purchased 2 months prior), connected one of the 1500maH 3-cell Kokam packs to the charging leads and placed the pack into the ceramic container. I watched as the charger recognized the 3-cell pack. I then proceeded to line up the other LiPo packs on the bench while also observing the charger as it initially analyzed the LiPo pack (it usually takes 3 minutes, according to the manual). After this 3 minute period, I heard the charger then go into its normal charging mode (it beeps once). I also noticed that the charger was charging at a 1300mA rate and I was about to set it to 1500mA (1C) but did not (a little lower can't hurt I thought). I then left the garage and went upstairs where I set up my laptop on the breakfast nook table. I got something to drink and seated myself at the table with my laptop (I had some work to do.... still).

Around 20 minutes later, I all of a sudden heard my garage door unexpectedly open, which was directly below from where I was seated. "Hmmm", I thought, "the only time I hear this open is when my girlfriend comes in", as she has a remote for it. But hmmm... I thought... "She's usually still working at this time". 5-6 seconds after hearing the garage door open, I then heard my smoke detector going off downstairs (directly outside the door leading into the garage). I momentarily thought... "Could my girlfriend be messing with my head?"... "But why would she be holding in the fire alarm test button?" I thought. A second later, I heard a pop and a snap from downstairs and I immediately launched myself out of my seat and ran down the stairs. Upon coming to the door leading to the garage (which was ajar), I saw a wall of FLAMES! The only image I really remember is my entire R/C airplane wing rack (made from PVC covered with foam, holding 4 wings), engulfed in one big flame, wings and all! I quickly went into fire fighting mode and knew exactly where I placed a new fire extinguisher that I had recently purchased (2 weeks prior). Lucky for me, it was 4 feet away. I grabbed it and remember struggling with the safety pin a bit before I could engage it. I then emptied the entire fire extinguisher onto the now ever growing fire and was very lucky to put most of it out. As soon as the extinguisher emptied, more flames began to develop. The next fire extinguisher I remember having is one for my kitchen. I "flew" up the stairs, grabbed the extinguisher from the counter and as I was running down the stairs, got it all ready (still struggling with the darn safety pin) and upon entering the garage, emptied this second extinguisher onto the fire. By the time it took me to run upstairs and get back down (15 seconds most), the fire continued to quickly spread along the back wall, engulfing all the airplanes (foam and balsa) I had hanging from their holders attached to the wall, including 3 airplanes I had in a PVC rack (similar to the wing rack). I managed to knock the fire down completely this time but had some embers still burning. I ran out the opened garage door and quickly turned on the garden hose and began to spray down the smoldering fire.

As soon as I started spraying, I heard my neighbor yelling, "Tom, is everything OK?" I answered "NO Joe...Call the Fire".... I should have said "Fire Department" but I think I was so out of breath I couldn't. Nevertheless, he understood, relayed this to his wife and came up the driveway to help out. I handed him the hose and said "Joe, I'm running upstairs to grab another extinguisher and be sure there is no fire upstairs". After getting the extinguisher, I checked the walls, the floor, and even went out on the upper deck to check the exterior... all looked ok. I ran back down and met Joe and the fire looked like it was all out. About 30 seconds later, the fire engines began rolling down the street.

The fire fighters proceeded to knock down the sheet rock to be certain the fire had not spread, tearing half the wall and part of the ceiling down. They then investigated the cause (for around 45 minutes) and came to the initial conclusion that it was a general electrical fire. I myself am almost certain it was from the LiPo pack exploding (for what reason, I do not know). This was a fairly new pack (1/2 yr old, 20 cycles if that) and the charger being used is supposedly "state-of-the-art". I had placed the battery pack into the "flower pot" but did not place the cover over it (as I always use to do but had been slacking). I believe the battery explosion (i.e. fire ball) lit the wings on fire and this spread rapidly to the other planes and wings that were hanging. Nevertheless, one thing you should not do is charge these anywhere near flammable materials... especially balsa, Monokote and foam! Please be sure you always STORE, CHARGE and TRANSPORT (yes, all 3) Lithium Polymer batteries in a safe, fireproof container that is "fully" contained (i.e. a lid, cover, etc...).

Oh, and in case you are wondering why the garage door opened by itself, it appears that the fire and heat generated along the ceiling must have melted the bell wire, triggering the garage door opener. Although this might sound good in that the smoke would leave the garage, in fact, the wind fueled the fire and blew smoke and soot into my house since the door between the garage and interior was left open. Boo. Heck, I still have my health, and luckily, even my house! Everything else is replaceable. This has been a very humbling experience, as I'm an electrical engineer who usually puts safety first. It goes to show you that this type of accident can happen to any one.

And one last safety note... Please be sure you have at least a couple of fire extinguishers in your house and be sure they are checked often! (Actually, practicing with them is a good idea too, simply to familiarize yourself with its operation). They could definitely save your house, if not your life. If I did not have these, my house certainly would have burned down!

So, if you really have to use Lithium Polymer batteries, be sure you are very, very safe! Do not become complacent like I did. LITHIUM POLYMER BATTERIES ARE INDEED VERY DANGEROUS!

If you think I am telling this story to scare people,... that indeed is the intention and hopefully my unfortunate experience can stop other potential accidents. Do not use Lithium Polymer batteries if you do not plan to be very very cautious.

(Continues on next page)

Additional Notes

Regarding the Astroflight charging operation, I did not see if when in stage 2, it was still recognizing the 3-cell pack. I only noticed the current was 1300maH. Also, I do not know if the pack was already fully charged or not. If I were to guess, I would think it was depleted, as it was one of my newer packs I had been testing. I have been charging LiPos for years now (been using them for 4+ years) and never had an incident, not even a warm or puffy pack. I have been using the Triton charger with temp probe and all and never had a pack heat up or damaged in any way. My demise was not covering the pot. I would hate to think it was the charger but I know others say there had been 4-5 LiPo fire incidents so far this year that included the AF 109. I passed up the AF 109 many times because I did not like the auto-cell detect feature; I like to be in control. I started using 6s2p packs in my larger planes and needed a charger that would handle this capacity; hence I splurged for the AF 109.

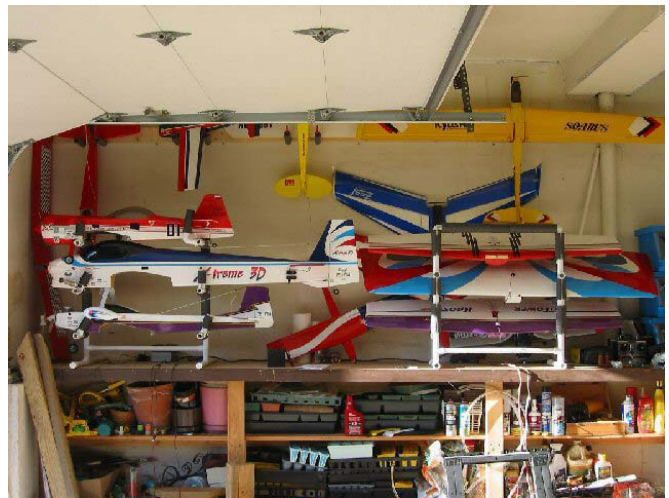
The reason I am leaning towards a LiPo fire is because the pot contained the "burned-beyond-recognition" Kokam pack following the fire. It was located towards the back of the bench where nothing (at least it seemed) could have fallen into the pot to set it ablaze, in fact, the only thing left in the pot was the charred LiPo, including its Deans connector and wires. My other demise was leaving the other LiPo packs on the workbench. These (at least 4 from what I could see) caught fire after molten plane had fallen down onto them. I also know a few Li-Ion cells I had laying around also exploded as later I found two charred, empty metal cans clear across the garage floor.

The reason the firefighters were thinking it started in another location (i.e. power strip, cords, etc.) is because this is where they saw the most "melted ooze" on the bench and the most charring on the wall. What they did not know is that I had many foam and plastic planes (Zagis, Gliders, etc...) hanging on the wall just above that spot (4 feet to the left from where the LiPo/charger was). The first picture sort of shows this. I tried telling them this but... oh well, they have their job to do. Another important thing I did not mention is that the fire fighters were "dumb-struck" when I mentioned Lithium Polymer batteries. That night they were recklessly throwing them around in my garage and I went ballistic (no pun intended). After informing them of my concerns, they promptly disposed them in a fireproof can they had. I think most fire departments need to be educated on the safety of such batteries... and I plan to work on this soon along with AMA.

Regardless what caused the fire; the object of this webpage is to make people aware of potential dangers when charging LiPos. Complacency is what bit me on the butt and many people I know are utterly flabbergasted because they know how safe and particular I can be. Don't get me wrong; I still plan to use LiPos. In fact I just got in 2 new 6s2p 4200maH packs and they are safely stored in a new fireproof safe recently purchased (in fact, I got 2). Everyone just needs to be reminded how much "safer" you really need to be.

Wow, what a wake-up call!

This story was found at www.laureanno.com/RC/fire-pics.htm
You may think it was caused by the electrical wiring, or by incorrect battery charging. I suggest taking from this story a lesson about charging LiPos and get a Battery Bunker or some other high temperature container in which the battery can be sealed while charging. Oh, and charge outdoors when possible.



Before...



After...



Astroflight 109 & exploded LiPos



What's left of my 28 yr old Goldberg Falcon 56 wing (my first trainer!)



What's left of 4 wings... pretty much ash

Indoor Flying

Ed Olszewski

The Birchwood Sports Dome in Port Huron has changed hands this year, it is now owned by Shawn Burr and Jon Finstrom. They have retained Steve Drake as manager. The new owners have changed focus of the dome from golf, to team sports. However, this does not mean that they plan to leave indoor flying "out in the cold" - I guess we can take that literally. The management would like to see about a dozen paid pilots each fly date. Spectators are free-so come and check it out.

When entering the dome area, the changes are evident immediately. The large open area has been converted to a roller blade hockey rink, no - it is not ice. The back of the rink is about where "The Wire" used to be. The smaller area left over behind the rink is open, and may be used for flying also - we now have two areas to fly in. The screened batting cages off each side are removed, giving more room to the right and left. With the screen removed from in front of the balcony, the flight line is now further back than we used to have it. The flight "wall" is now where the tees used to be. In short, there is about the same amount of actual flight area, the brighter area makes it look smaller though, but that is just an illusion.

Make no mistake about it; indoor flying is "different". To the un-initiated the walls seem intimidating at first. For those outdoor pilots who are accustomed to flying where the only boundary they have is how far you can see in the big blue yonder, this is a real eye opener. But the fundamentals and physics remain the same as most anywhere "turn before you hit something, and every thing in between becomes easy". In no time, the flying area seems much bigger than you first thought.

A small, light, agile plane is a must. For their durability and ease of repair, foam constructed aircraft are an excellent choice. Spare parts, glue tape, and possibly a spare airframe will make the evening more enjoyable with less repair time and more fly time.

With a couple extra lithium polymer batteries and a charger, you are in the air for the evening. Yes, there are obstacles (most notably walls) to encounter, or because of the limited space, the occasional encounter of the "midair collision type" are not altogether impossible. With the light airframes, most often little damage is done, and surprisingly often a good pilot will keep his craft in the air. Along with being fun, you will become a better R/C pilot.

There are no scheduled fly dates for December. January fly dates will be announced as they become available. The management of the dome will keep scheduling dates as long as there is enough interest. As the renovation proceeds to the dome, refreshments will be available at the snack bar.

The cost to fly for the evening: 15 bucks per pilot.

It's the cheapest warm place to fly-this side of a ticket to Florida. Spectators are free. For more info contact the Birchwood Sports Dome @ (810) 385-3663

Outdoor Flying



Winter hasn't started yet and we've already had two good snowstorms. Ed has some proof that there's still plenty of flying time left. It's time to break out the skis, very tiny ones, for your airplane and head out to the field.

