

January 2023

BCMA



AMA # 2475
Silver Leader Club
@ Kingston Downs

Upcoming:

-1st Annual Chili Bowl Fly-in. Bring your best pot of chili (we have electricity)

**Date Change:
Saturday, January 21th
11AM**

Editor Comments

Some important business of note:

The new Gate code was sent out by Keith on January 5th via email. Stickers were mailed the week after Christmas.

If you don't have your sticker or didn't get the code or if any member knows of **anyone not** receiving emails, please call text or email Keith directly at (845) 216-9003 or keithschevling@gmail.com.

The new club email:
2023-bcma-members@googlegroups.com

Please use this one, and not the old 2022 email.

Perry SWAP Meet !!!!!!!! March 3-4. The biggest SWAP Meet in the South.

2023 Southeastern Model Show (SMS) hosted by Georgia Aircraft Modelers Association, Inc. (GAMA) at the **Fairgrounds & Agricenter** 401 Larry Walker Parkway, Perry, Georgia 31069

The Club reserved 10 tables for the Model Show in Perry. Tables are \$25 each and **we have 8 left**. Members can pay by cash or check to any Club Officer. For PayPal we're still having to charge the processing fee so for renting a table you can **PayPal \$26.41 to ama.charter.2475@gmail.com**

1st Annual Chili Bowl Fly-in

Date Change: Saturday, January 21st

11 AM Weather Permitting

Chili and flying. Sounds like good times to me.

If you would like to participate, we are asking those who can cook a good bowl of chili to bring your best recipe! We will have running electricity at the meeting for crock pots. Let's have us some chili and enjoy some RC flying. Send email to me if you will bring a pot of Chili: roneadams2@gmail.com

President's Corner

We are off to a great start in 2023 and the club ended up with 61 members rejoining. Great news is we also have 3 new member candidates that are either in the application process or will be in January. The club is growing and attracting new members at a good pace that I am excited to see. Also, the 2- tiered club dues structure that we rolled out was very well received (better than expected). We had 52% choose the lower, "I can help out" option, and 48% choose the higher, "I can't help out due to work, health, etc." option.

The Field Maintenance crew is hard at work planning further upgrades and improvements to our awesome flying site. We will be planning a workday soon to cut bushes / trees at the west end of the runway for a clearer approach from the left. Also, we have sowed some winter rye to help with the mud / bare spots that will get us to spring where we can sow additional Bermuda grass on the runway.

Thanks for all of your help and assistance with our club!

Jeff Holland - BCMA President

Puffed Lipo Batteries



If you fly electric, you are eventually going to encounter a puffy Lipo. The question you ask yourself is “what should I do?”

The next question “is it dangerous?”

Yes it is. There are many examples of puffed batteries that start on fire. This should not even be a question.

It doesn't mean that every battery that has puffed out is going to explode, but a higher percentage are dangerous enough that it isn't worth the risk.

What causes the Puffing?

Gas generation in lithium batteries is a normal. Everyday use of the battery will generate gas through a process called electrolyte decomposition. This process occurs even faster if you over discharge a battery or overheat a battery.

A battery is made of three things: anode, cathode, and the electrolyte. The cathode and anode are the positive and electric terminals on your battery. The electrolyte is a chemical inside that allows charged ions to flow from the anode to the cathode during discharge or charging.

As the electrolyte breaks down you end up with lithium and oxygen. This forms lithium oxide. You also will get excess oxygen. This is what causes the battery to swell and oxygen likes to burn.

How to fix a swollen Battery?

Don't. Just Don't. Dispose of it properly and buy a new one.

The proper way to dispose is to discharge it completely. You could put it in a bucket of salt water, or use a light bulb to let it run down. (using a bulb, I recommend a 12V 20 watt halogen bulb. They are easy to solder to attached lead wires and connectors.

After you completely discharge, find the nearest battery recycling drop-off point and take it there.

Tips to avoid a Swollen Battery

Proper charging. Get a quality charger and for safety put the lipo in a lipo charging bag while charging. Another good alternative I bought recently was the Bat-Safe charging case. Motion RC, Amain Hobbies, ebay, are places you can find the Bat Safe.



Don't over-discharge. Quit flying your batteries down to 0%. Figure out the amp draw on your electric motor and calculate a realistic flight time. The single biggest harm to batteries is running the voltage down while flying. I like to land with 20% remaining.

Heat Kills. Don't use batteries while they are hot nor charge them while hot. Give them a little time to cool off.

Proper storage. Don't store batteries in a hot location. Leaving them in the trunk of your car during summer is not smart and an accident waiting to happen. The same goes for leaving them in the garage in the hot summer. Also, I know it's a pain, but each day when done flying, if you will hook that battery up to the charger and charge it to the storage mode voltage, you will prolong the life of your batteries. Leaving unused batteries fully charged until next week is not a good idea. Bring them back down to storage voltage.

Age. Try to label your battery with the date you start to use it. Keeping track of flights on a battery. If you follow the tips in the article, you should expect to get 300 cycles out of your batteries. I do notice a drop off with time. Usually, 2-3 years its time for a new battery.

Internal resistance. Most modern advanced chargers have a way to check the internal resistance of each cell. I typically find a battery to be getting weaker when the range is 20-30mΩ. Try to check your resistance when new and fully charged. Write it on the battery as reference. A new battery should be 10mΩ or less, but again, check when fully charged, but I'm also referencing a quality lipo here too.

I hope these tips help you!

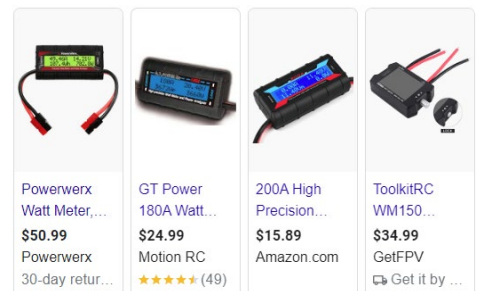
Quick Calculation of Flight times for electrics

If you fly electric and you don't have a WATT Meter...
Maybe you should get a Watt Meter. Why?

Unless you bought a prepackaged setup in your ARF, you need to make sure the electric setup THAT you came up with, is not going to cause a problem.

My ESC has a maximum amp rating. My motor has a maximum amp rating. Am I sure that the setup I threw together is not drawing more amps than my ratings? And wouldn't I like to estimate my flying time without killing my batteries?

Watt Meters. Amazon or your favorite hobby sites, most all have one.



Put your favorite connectors on it and connect it between the ESC and the battery. Charge up your battery to 100%, safely anchor or tie down your plane. Run throttle to 100% with the prop you expect to fly and see what the max amp draw is. Does it exceed your esc or motor rating? Then you have too much prop for your setup.

If max amps is under your rating, then you can use the max amp draw to make some assumptions about your flying time with the battery you are using.

Example at a full throttle testing my motor is pulling 40 amps.
My battery is 5000 mAh.

Let's remember the last article, you want to have 20% of battery remaining. Yellow highlights are your input.

$5000\text{mAh} / 1000(\text{ convert units to Ah}) \times 0.8 (\text{ 80\% battery usage}) \div 40 \text{ amps} \times 60 (\text{ 60 min in a hour}) = 6$
minutes at max throttle.

This is not always 100% accurate, but it gives you a very good starting point for your flight timer with a new airplane, then adjust from there.

For Sale:



Futaba 14SG transmitter and R7008SB receiver.

Nearly new excellent condition. I got it several years ago when I bought a quad copter from someone.

PRICE: \$200.00 or reasonable offer.

I can bring to Kingston Downs field if there is any interest.

James Grebe: jgrebe@cioblueprint.com
972-261-4377

Spektrum Receivers:

AR9350 AS3X - \$70

AR636B- \$40

AR8000 (have 2) - \$35 each

Contact: jaholland35@gmail.com

Seagull Models Nieuport 28 Biplane, 26CC size ARF

- Wingspan: 68.0 in (172.7cm)
- Wing Area:1155.7 sp.in (74.6dm²)
- Weight: 12.8-13.2lbs (5.8-6.0kg)
- Length: 55.0 in (139.8 cm)
- Engine/Motor size: 20-26cc
- Servo: 5 channels 6 servos

I have this ARF new in the box.
Don't have time for it and have a few other projects underway
Could be gas or electric.

New \$489, Selling \$300

Also, if you want make it electric
Eflite Power 160 new (26CC electric power) - New \$172.00 selling \$100

New Esprit Elite 100 amp ESC-
New \$125 Selling \$50

I would be willing to make package deal for all 3.

Contact:

roneadams2@gmail.com



For Sale:

Airpult Plane Restraint – New in Box

The Airpult will restrain up to 99% of all R/C model airplanes from moving forward and backwards during start up, thus preventing those unexpected and unwelcome accidents to yourself and others. Use the standard Airpult for small to medium sized planes- such as the 30cc and 50cc planes. I believe these restraint kits have sold for over \$150, but can be **yours for \$50** and it's new.



Keith Schevling
(845) 216-9003 (call, text or email anytime)
keithschevling@gmail.com



Steel Adjustable Stand from STBLPRODUCTS always inside and never been to the field, unit is **Like New**. The length adjusts from 33" to 52" the cradle height is 36" and the Y cradle widths adjust from 8" to 10" and 10" to 13". I believe this product is discontinued and STBL Products has moved on. **The First \$100 takes it.**



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Reminders

Have an article you want share? Send it in.

Something you want sell? send it in.

Have a new plane? want to share pictures? Send it, tell us what you think about it.

Send me your stuff: roneadams2@gmail.com

Get your Trust # and FAA # to Keith Schevling :
keithschevling@gmail.com

If the club doesn't have a record of your Trust # and FAA# you are going to cause unwanted trouble. Too many of you have not submitted numbers to Keith. Please, let's get this done folks.

TOTAL Members 61		Members with FAA Number	
		YES	NO
56	Adult Members	39	17
5	Youth Members	1	4

TOTAL Members 61		Members with TRUST Number	
		YES	NO
56	Adult Members	31	25
5	Youth Members	1	4

The club has 8 tables remaining for Perry. Please see page 1 for getting a table.

See you at the Field.