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# The Seminole Flyer

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AMA Chartered Club 216, Founded in 1969



A Gold Leader Club for over ten years

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## Next Club Meeting

Wednesday, February 8, 2023

The Wine House  
1355 Market Street

## February Meeting Change

For the February meeting only, we shall be meeting a bit earlier in the month than usual. Jay and Benita will be heading to Alaska in mid-February to assist in the Iditarod race. So, the meeting has been moved up by about one week. The Wine House was not available on Thursday, so we will **meet on Wednesday, February 8, 2023** at the usual time.

## Guest Article

For this month's newsletter I have asked Jimmy Russel from the Knox County RC Club in Knoxville, TN to share his experiences flying electric pattern planes in the Senior Pattern Association. Jimmy flies in the Expert SPA class and has been flying pattern for a number of years. He has become one of our "goto" people when we have questions on setting up an electric pattern plane. To some of our members this will be familiar stuff, but for others this may provide some valuable tips. This article originally appeared in the Jan-Mar 2022 SPA Newsletter which can be found at the SPA web page <https://www.seniorpattern.com>. Note: the nitro fliers in SPA referred to electrics as the "Dark Side" — until they tried them.

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## **Delve into the Dark Side...**

Jimmy Russell

I loved the smell and tinkering with Glow. They say smell is a sense that can bring back strong feelings of nostalgia. When I returned to the hobby after a 10 year hiatus that sweet smell of glow and castor took me back to my teens and my first successes in making a flying machine out of balsa, glue and monokote. Even though Electric and Gas were increasing in popularity I was a glow holdout. When I joined SPA in '15 I was excited to see so many other glow heads. I never had much trouble with keeping one running and only did moderate tinkering and maintenance. Wrote it up to something so fun will take some effort. After all, I still build my planes from that same balsa, glue and covering film.

I fought through a couple recovering jobs and struggled to get the new film to stick to oily wood. Not to mention a new plane that was probably the nicest I'd ever built was already showing wear and oil rot after just one season. I had also begun flying with Warren Oliver (a long time electric flier). I noticed his planes always looked pristine. One day I asked how old his primary SPA plane was. He responded 8 years! I was astounded. It looked brand new, and I had watched him fly it every time we got together that summer. Then and there I decided my next SPA plane would be electric.

So I built my CCK UFO electric (Carolina Custom Kits - The UFO is a Joe Bird design.) I polled all the electric fliers and installed a proven system. This consisted of a Cobra 4130 540kv motor, Talon 90 Esc and 6s 5500 packs. This worked very well and once I got used to the responsiveness of the E power, I really liked it. A lot has been said of throttle management and conserving battery. I flew it just like I did my 4stroke Daddy Rabbit. Half throttle during turnarounds and full when doing maneuvers. I'll try to break down some important aspects I learned.

### **Battery Care**

Lipos are great but they are an investment. Treat them correctly and they can give you over a hundred flights per pack. 4 major rules must be upheld at all times.

1. Don't leave them fully charged. Charge them, then fly or discharge back to storage level.
2. Storage level is around 3.8v per cell. Don't leave them discharged under this either
3. Don't fly the pack till the ESC cuts or the plane gets sluggish. (more than 80% used)
4. Don't let them get hot! Don't leave charged packs in a hot car. Best case pack will puff, worst case you call the fire department.

So I charge a couple packs before I head to the field, and charge others while I'm flying. If a flown pack comes in under or over 3.85v per cell I let the charger bring it back to 3.85 before I leave or soon after I get home. Get a small battery checker. They are handy. All chargers have a storage charge setting. Let it do what it's supposed to.

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## Motor/ESC

I'm not going to explain ohm's law and the relations with Amps, Volts, and Watts. It's simple, google it. This is what works for our 60 size airframes.

Electric motors have max watt and amp rating. That is how much power the motor can handle.

For 60-90 glow power we need a motor that can handle 1400w, 6s, around 60amps. They also have a KV rating. That translates into what RPM the motor is designed to run.

$KV \times Voltage = \text{unloaded RPM the motor will turn. So a } 540kv \times 22.2v (6s) = 11,988 \text{ unloaded RPM}$

A 540-570kv will turn a 12x10 or 13x8 prop in the mid-10k range. Very much like a 90 class 4 stroke. Here are some motors that work well in 6-8lb planes propped with 12x8 - 13x9 Cobra 4130 540kv, Badass 3530 570kv, Scorpion 4020 540kv, Dualsky 4120 560kv.

We all use an 80-100amp esc. That will give you a buffer which is easier on the esc and will make the system more robust.

Use a flight timer and land when it has expired. I know my systems so I know one or two more maneuvers is ok for my flying style. But until you have a grasp on how much juice is burned during a flight I would use a timer set to 5-7min and gauge the battery after the flight.

There is another big difference with how to set up an electric plane. To make more power you increase the prop size. The motor will try to turn its KV rating no matter what is attached to the front. Don't be surprised if you tach a 12x6 and it turns close to the same RPM as a 13x8. The difference is the bigger prop is making the motor work harder. Which in turn pulls more Amps/Watts. This is where a Watt meter comes in handy. You plug it in between the battery and the esc. You run the throttle to full and it records the max Amps, Watts, and Voltage. With this info you can make sure you aren't maxing out the motor or ESC ratings as well as making sure you are within the SPA 1400W limit.

Converting a built glow plane to Electric?? You ask. A lot of work. You need a tray to mount the battery, a hatch to get said battery in and out, and change the engine mount/cowl area. It takes some building skills. I did it once. I probably won't do it again.

Well there you go. My real world thoughts and what I've learned. I doubt I will ever go back to glow for sport, competition or everyday flying. Now that I've learned how to set them up. I have yet to see a glow plane outperform one of my electrics. All of my E planes can fly for 8min+ too.

YMMV (Your Milliamp use May Vary)

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From upper left: Dirty Birdy motor installation; Dirty Birdy battery installation; Battery tray on a model under construction; Warlock 40 (another Bride design) motor and battery installation.

## Dues are Past Due

If you haven't paid your dues for 2023 and you wish to continue flying, then now is the time to pay them. Our Bylaws call for suspending flying privileges if a member's dues are not paid by the January meeting. I am not the Grinch - just quoting from our Bylaws.



### **Club Meeting News** - Jeff Owens, Secretary

The January meeting was called to order by President Jay Wiggins at 6:57 PM on January 19, 2023 at The Wine House with 13 members and one guest present.

**Member Recognition** - Jay Wiggins: Benita Wiggins for cleaning the signs on the container; Mike Atkinson for organizing the training at our Veterans Day Fun Fly; Chris Mason and Steve McFadden for cooking at the Fun Fly; David Coury, Ed Budzyna, Jim Ogorek, and Mike Atkinson for various set-up and tear-down activities; Mike Atkinson for donating to EZup tents; Ken Kushner for handling the trash detail; Friedrich and Claudia Marsh for hosting the Christmas Party; The Board of Directors for organizing the 2023 activities for the Club; Jeff Owens for being the AMA contact for our FRIA application and for his work as Secretary, Newsletter editor, and webmaster; Sandy Jaffe for appearing in the December issue of Model Aviation.

**Proposed Club Calendar** - the 2023 draft calendar was discussed. No changes were suggested. The calendar will be posted on the web.

The February meeting will be advanced by about one week and will be held at The Wine House on **Wednesday, February 8, 2023**.

**Gate Procedure** - to exit the facility, approach the gate slowly and it will open and then close after you exit. No code is needed to exit.

**Vice President's Report** - David Coury is our new Vice President. Remember to help him by volunteering for set-up and tear-down at our events.

**Secretary's Report** - the December minutes were approved as posted. A brief discussion of the FRIA application process was presented. For details see the December newsletter.

**Treasurer's Report** - the November report was approved as posted. For calendar year 2022 we were \$1088 in the red, mostly due to the unexpectedly high turnout for the Christmas Dinner. Various options for the next Christmas event were discussed.

**Trying and Safety Report** - no safety issues were reported. Training activity is ongoing. There will be four TAG events this year and an application to AMA for another grant will be submitted in February.

**Field Report** - the county will be asked to mow the runway. If it is too early for them, then the club will do it.

**Parking** - remember to leave space in the center for cars to access the lot. It was suggested that two spaces by the east fence be reserved for trucks with large trailers.

There were no additional items of Old or New Business. The meeting was adjourned at 8:00 PM.

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**Seminole RC Club**

Financial Statement for  
December 1 through December 31, 2022

**Accounts**

Centennial Bank Checking	\$3,310.50
Centennial Bank Savings	\$4,100.77
PayPal	\$348.36
Cash on Hand	\$200.00
<b>Total Available Funds at End of Month</b>	<b>\$7,959.63</b>

Income		Expenses	
Membership Dues (2023)	\$2,085.00	Event Expenses: Food & Drinks	\$1,924.00
Merchandise Sales		Merchandise Purchase	
Event Sales: Food & Drinks*		Donations	\$2,000.00**
Event Sales:		Awards	
Interest: Savings	\$2.26	Field: Improvements	
Contributions*	\$620.00	Field: Maintenance	
Other Income		Field: Lease	
		Equipment	
		Mower: Maintenance	
		Mower: Fuel	
		Fees: AMA	
		Fees: State of Florida	
		Fees: Bank	
		Fees: PayPal	\$35.81
		Business Expenses – internet renewal	\$50.16
		Insurance: AMA	
		Miscellaneous	
		Utilities: Electric	\$42.44
		TAG Event: Food & Drinks	
<b>Total Income</b>	<b>\$2,707.26</b>	<b>Total Expenses</b>	<b>\$4052.41</b>
<b>This Month's Net Cash Flow</b>	<b>-\$1,345.15</b>		

\*Veterans Day Anonymous Match plus \$500 contribution from Sam Varn for club holiday dinner

\*\*Donation to Children's Miracle Network

We had 92 flying members at the end of December. In addition, there were 19 associate members.

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## The Seminole R/C Club Tallahassee, FL

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### Officers

<b>President</b>	Jay Wiggins ( <a href="mailto:moonangelb@gmail.com">moonangelb@gmail.com</a> )
<b>Vice-President</b>	David Coury ( <a href="mailto:ddcoury@gmail.com">ddcoury@gmail.com</a> )
<b>Secretary</b>	Jeff Owens ( <a href="mailto:jfolso@comcast.net">jfolso@comcast.net</a> )
<b>Treasurer</b>	Marcy Driscoll ( <a href="mailto:mdriscoll@fsu.edu">mdriscoll@fsu.edu</a> )
<b>Field Safety Officer</b>	Mike Atkinson ( <a href="mailto:nexnbax1@comcast.net">nexnbax1@comcast.net</a> )
<b>Field Marshall</b>	Gordie Meade ( <a href="mailto:lmeade@fsu.edu">lmeade@fsu.edu</a> )
<b>Training Coordinator</b>	Mike Atkinson ( <a href="mailto:nexnbax1@comcast.net">nexnbax1@comcast.net</a> )

### Media Managers

<b>Webmaster</b>	Jeff Owens ( <a href="mailto:jfolso@comcast.net">jfolso@comcast.net</a> )
<b>Newsletter Editor</b>	Jeff Owens ( <a href="mailto:jfolso@comcast.net">jfolso@comcast.net</a> )

### Flight Training

Primary flight training is available by appointment on Saturdays from 10:00 AM until 2:00 PM when the weather is nice and not too breezy. Contact the Training Coordinator or one of the instructors to make an appointment:

Geoff Lawrence 850-591-6879

Jeff Owens 850-545-7482

Jim Ogorek 850-766-2477

Mike Atkinson (Tuesday only) 850-251-2694

Troy Emmett (Large Aircraft) 770-546-6199

### Field Hours

**All Aircraft:** 30 minutes before sunrise until 30 minutes after sunset 7 days/week

**Please note:** Although restrictions have been removed on flying hours for fueled planes, this is on a trial basis until further notice from Leon County. All gassers and nitros must have a suitable muffler.

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