SES NEWSLETTER

Issue 31

April 2025

April Newsletter

Club Officers
President: Jonnie Knowles
Vice Pres: Bill Cermak
Secretary: Steve Furman
Treasurer: Mike Millhorn
Committee Chairs
Membership: Bob Smith
Field Mgr.: Mickey Murphy
Mowing Capt.: Joe Hudacky
Chief Safety: Ed Popp
Flight Inst. Carl Dilks/Rick Smith
Web Master: Jon Baker
Newsletter: Tim Mitchell

Inside this Issue

SES Membership Director

Bob Smith
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Important Message from Jonnie:

On Tuesday April 1, 2025 an employee from the transfer station complained about people flying over the transfer station and the trees along Rolling Acers Road.

He said he has seen planes fly over the transfer station on Saturday March 29, 2025 and Tuesday April 1, 2025. He said this is against the law and he would not tell us again. Next time he will call the sheriff's office.

We can loose our flying privileges if this continues. Please keep your planes South of the transfer station, North of the flight station, East of the trees along Rolling Acers Road, and west of the tree line on the East side of the flying field.

Please remember that your actions could jeopardize the entire club.

Thank you.

Southern Eagle Squadron
Lady Lake, Florida
R/C Flying - For Fun

Important Club News

Our April SES General Meeting will be held on April 19, 2025 @ 10am, Recreation Plantation Library Room on the corner of 466 and Rolling Acres.

SES membership renewals are going on now. Easiest way to get your 2025 sticker is come to the meeting. We will take cash, check, or credit card and hand you your 2025 sticker.

To renew your membership click here: www.southerneaglesquadron.com/member-renewals/

Once we receive payment, we will notify you when your membership sticker is ready for pickup on SES field bulletin board.

Field Security—Important!!

If you are the last person to leave the field please make sure the gate to the field is closed and the combination on the lock is rotated not showing the entrance code on the lock. Also if at any time you arrive and the gate is open and there is no one flying, please contact Jonnie Knowles or Bill Cermak.

Pilot Safety Briefing

These rules and procedures established by our club and AMA are for everyone's safety

Required for all new Pilots, New Members and all club members.

These safety rules and procedures established by our club and AMA are for everyone's safety:

1. All pilots must display their Visible Club ID at all times while on the flight line.
2. Pilots on the flight line must be in a flying station for their safety.
3. Pilots must announce takeoff and landing and communicate with other pilots on the flight line each time.
4. Pilots must fly in the direction of the active indicator.
5. Taxiing of aircraft in the pit area is STRICTLY forbidden.
6. No flying over restricted areas or no-fly zones.
7. No flying at any time when the county is cutting the grass.
8. Pilots must fly within the field boundaries.
9. All aircraft must have AMA and owner's information displayed on or in the aircraft.
10. No more than FIVE aircraft are permitted in the air at the same time.

For every aircraft you fly:

Make sure your Name, Phone # and AMA # is displayed on the aircraft.

March 2025 Fun-Fly

The 2025 Fun Fly was held on March 29 for members and their families and guests. Sunny weather and moderate winds created a great turnout to witness the complete mastery of the air demonstrated by the contestants.

THE COMPETITION consisted of:

Spot Landing Event – Winner lands closest to the designated hula-hoop without taxiing.

Loop Event – How many "loop-de-loops" a pilot can perform in one minute.

Timed Loop Event – Fastest time to do two loops at each end of the field and land.

Blackjack – Do a trick, draw a card, repeat. Winner gets closest to 21 without a busted airplane!)

Aviator Extraordinaire Rick Smith swept all the blue ribbons. It was an amazing feat in the face of intense competition.

March 2025 Fun-Fly

March 2025 Fun-Fly

The Winner of each of the Flying competitions: Rick Smith

Member Spotlight

Lanier RC Stinger 10, Glow to Electric Conversion

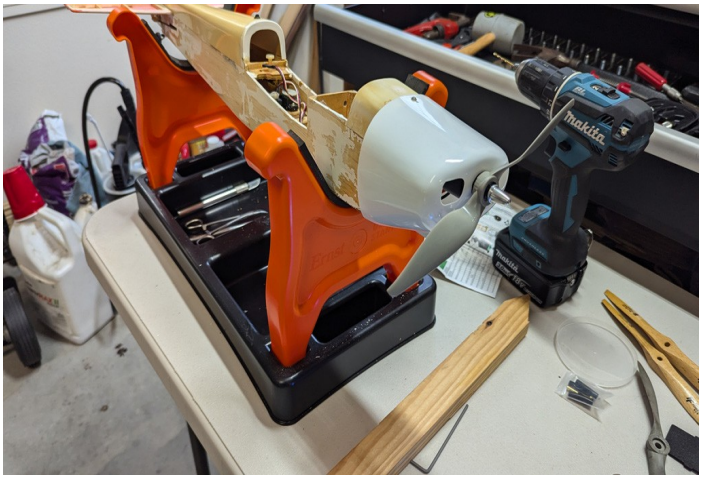
By: Robert Osorio "The Flying Penguin"

I returned to flying on March 2024, after an almost 15 year hiatus. I have found that flying an RC plane is like riding a bike: you never forget how. What required a few months of dedicated flying, was regaining my confidence.

I only fly electrics now, and while I have the usual stable of newer electric 'foamies' in my garage, I decided that it would be fun to convert some of my old balsa glow-fuel planes to electric, and try to reconnect with that earlier stage of my hobby. There's something about a balsa plane that just looks and feels so much nicer than a foam plane.

This is my second glow fuel to electric conversion (my first was a 30 year old Great Planes ElectriCub). For this project I turned to my old Lanier RC Stinger 10. This plane is 22+ years old, and I remember this being a handful to fly back in the day, with a .15 glow engine. It's very agile and short-coupled. Just the sort of thing I used to love to fly as a challenge 15 years ago.

My old glow planes have been sitting in storage in a shed on my property, neglected for 15 years, So first, I needed to remove 15 years of grime, and a lot of deteriorated film covering. This plane was originally covered in Ultracoat instead of Monokote film, and Ultracoat doesn't hold up as well over time, especially when engine exhaust oil gets under it. Over two decades, the clear layer of the film has detached from the color layer on the fuselage (especially behind the muffler), and



from the tops of the horizontal stabilizer.

To select a power plant, I went to Innov8tive Designs' website, and used their excellent glow to electric conversion chart to select a motor. I settled on a .15 glow-

equivalent Cobra C-2217/12 Brushless Motor, Kv=1550, 300 watts, max 30 amps, and their matching Cobra 33A ESC. I went with a 3S 1300 mAH battery, since I already had four of them I used in other planes, and there was not enough room for a 2200 mAH pack.

Be aware that Innov@tive sells their ESCs without connectors, and just tinned leads. You are expected to solder them on yourself. You need to buy the male battery connector you expect to use, but the motor comes with female bullet connectors and heat shrink tubing. If you don't know how to solder, or how to solder WELL (the last thing you want is a brittle cold-solder joint to

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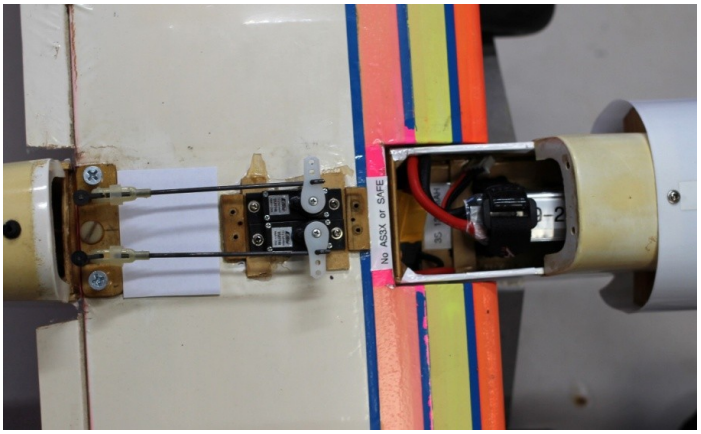
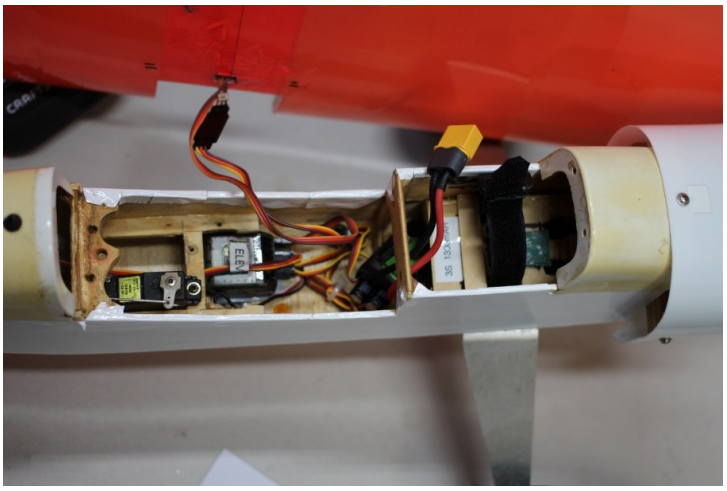
break in-flight), then I highly recommend you find someone at your club to help you, who is good at soldering. It's very easy to make a poor solder connection, and it's VERY easy to melt a battery connector while soldering to it. Pro tip: Plug a female battery connector into the male connector, or clamp a hemostat to the pin while soldering. This will act as a heat sink and help prevent the connector from melting. Also, always use the lowest heat setting you can. I like to use a Portasol butane soldering iron, at the lowest temperature set-



ting. I would avoid soldering GUNS as they are generally too hot for this kind of work.

All up weight, with battery, came out to 34 ounces, and motor thrust is around 49 ounces, so yeah, climbs are unlimited. With the 9x5E APC prop I chose (tached at 12,000 RPM), I get 6 minutes of flight time (5 minutes on the timer for safety). I've actually gone 6 ½ minutes easy, even doing a lot of aerobatics, before the low voltage alert goes off.

Innov8tive Designs also makes some very cool 3D printed motor mounts. They come in various lengths, and come with 1, 2 and 3mm shims, so you can tweak the mount length to your liking. Since electric motors are shorter than the equivalent glow engine, you usually have to either mount the motor on standoffs (works okay for small, low power motors) or build a plywood box on the firewall to mount the motor to. These motor mounts make installation much easier.



The mounts are very strong. There is a warning, on the website, and in the packaging, that the PETG plastic used to make these mounts, will deform at temperatures over 170 degrees. This is normally not an issue under most situations, but they strongly advise you not to leave a plane in a hot car in the middle of summer,

as temps in the south, like here in Florida, can get pretty high in a sealed car parked in the sun. As Innov@tive says on their website: "Treat your aircraft with the same care you would with your kids or your dog, don't leave them locked up inside a hot car!"

I added 2 degrees of right thrust by shimming the motor mount with washers. This was not necessary with the original glow engine, but very much so with elec-

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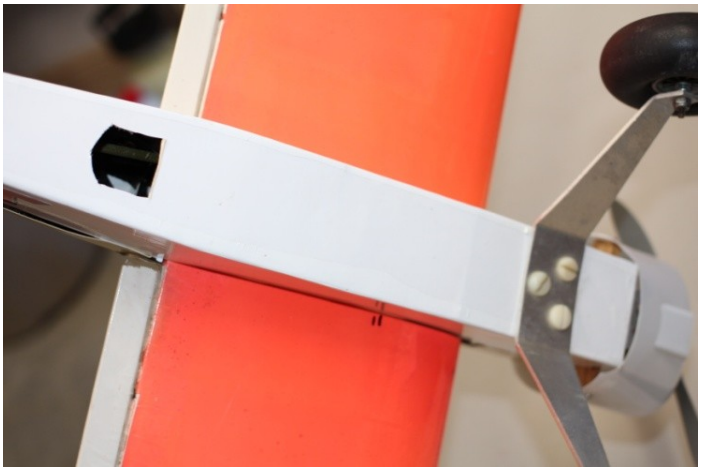
tric. Electric motors often have more prop torque than their glow counterparts. My first flight with this plane, after the conversion, was without any right thrust, and it was pulling hard to the left with even low throttle takeoffs, and it had a very strong left pull in vertical climbs. The 2 degrees of right thrust took care of that.

As with most glow to electric conversions, the CG required the battery to be as far forward as possible. I located the battery right up against the rear of the firewall, and build a battery tray, with the ESC located underneath the tray. After using a dremel tool to remove 1-1/2 ounces of lead from inside of the tail, which was used to counter the weight of the original glow engine, I had to add 3 ounces of weight to the nose to get it on the CG.

Since there wasn't much room, I went with a basic 6 channel radio, with no SAFE or AS3X.

This plane originally had a single standard servo for ailerons, but I swapped that out for two micro servos, and added flapperons to help with landings, as this thing tends to come in hot and use the whole runway. I also felt there was too much slop in the elevator pushrod, and this plane is VERY elevator trim sensitive, so I opted for installing a micro servo in the tail for the elevator.



Something you need to remember, when converting a glow plane to electric, is to cut an air intake hole in the firewall (in this case, the existing 3/4-inch hole for the fuel lines was more than large enough), and an exhaust hole on the bottom of the fuselage, behind the wing, to allow air to flow over the ESC and battery, to keep them cool. The air intake hole also doubles as a pass-through for the motor wires.

I never had an engine cowl for this plane before, but I got lucky and found one on Amazon for $5, that was intended for a HobbyZone Super Cub. It fit perfectly and really improves the looks. The cockpit and top of the rear fuselage are made of ABS plastic that has yellowed and cracked a bit over the years. Someday, I may get around to removing them for priming and painting, but I actually like the aged looks. It gives the plane some character.

Battery access is a real problem for most glow to electric conversions. If you can't somehow cut a hatch, then you may be forced to remove the wing every time you want to change the battery. In this case, I got lucky, because the Stinger has a center mounted wing, and removable cockpit that gives access to the battery tray.

The cockpit has some dowels in front to hold it in place, and originally had two screws holding the back in place. I took some inspiration from the e-Flite T-28 Trojan I own, that uses magnets to hold

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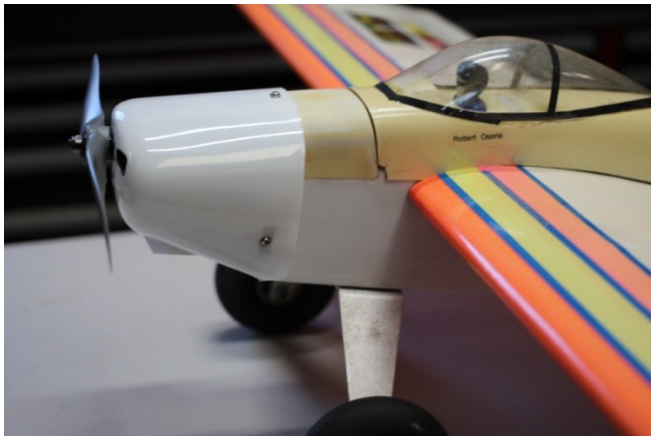
down it's cockpit. So I went to Home Depot and purchased a pack of 3/8-inch diameter disc, Neodymium rare-earth magnets. Some YouTube videos I found, suggested using screws opposite the magnets, and this worked well. Two flat head screws are in the wing, and I epoxied two magnets to the inside of the cowl opposite them (CA will not stick to a Neodymium magnet!) using some styrofoam to make a mount for the magnets. I adjusted each screw height so it just touches it's magnet (you'll hear a distinct "click" when attaching the canopy, when it's right). It's easy to set the correct height by just turning the screw left or right a bit, and the hold of the magnets is very strong.

I re-covered the fuselage and tail feathers with some white Monokote film, added a couple of stickers, and also replaced the old tires with larger, less bouncy ones.

The Stinger 10 is just as fun to fly now with an electric motor, as it was with a glow engine 15 years ago. It's very fast, and very aerobatic. Snaprolls are fast and crisp. Knife edges are no problem, and as I said previously, vertical climb is unlimited. I have thoroughly enjoyed this electric conversion, and enjoy flying this plane again in it's new life as an electric.

I hope this has inspired some of you to consider doing your own electric conversion. It's not hard and there's a wealth of information on the Internet to help you, as well as fellow club members.



When considering a motor/ESC combo, I can highly recommend Innov@tive Designs website. They have a chart on their main page that shows motor recommendations for equivalent glow engines, and for each motor they recommend, they have a propeller chart that will help you pick the right prop for it.

Southern Eagle Squadron
Lady Lake, Florida
R/C Flying - For Fun

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The Southern Eagle Squadron is an AMA Chartered Radio Controlled Flying Club. Our field is located in the North Central Florida town of Lady Lake, adjacent to The Villages.

The history of the Southern Eagle Squadron [SES] dates back to the mid 1970's. SES is an active club with membership in excess of 100. The club leadership continuously arranges various events throughout the year including Club Meetings, Swap Meets, Social Gatherings (otherwise known as Food/Fly days), Fly-ins, and Family Days. SES cooperates with other local clubs in event planning as well.

Learn How To Fly Program

We have a "Fly Before You Buy" program which is offered by Southern Eagle Squadron members. We offer **introductory no cost training flights** to individuals who are curious about RC model flying.
For those starting out, the purchase of a trainer airplane system, membership in the club and the required Academy of Model Aeronautics membership could total over $500. Before you make that investment, you can **fly an SES trainer airplane with the assistance of an SES Instructor at no cost!**
Through the use of a student held "buddy box" controller, the instructor can allow the student full control of the airplane and allow them to get a genuine feel for the experience. When needed the instructor can take control back with the flick of a switch on his controller and the flight continues.

If you are interested or have further questions, contact us and we'll coordinate time with a SES Instructor to meet you at the field so you can "FLY-BEFORE -YOU-BUY."

FLYING IS FUN!

WE CAN SHOW YOU HOW!