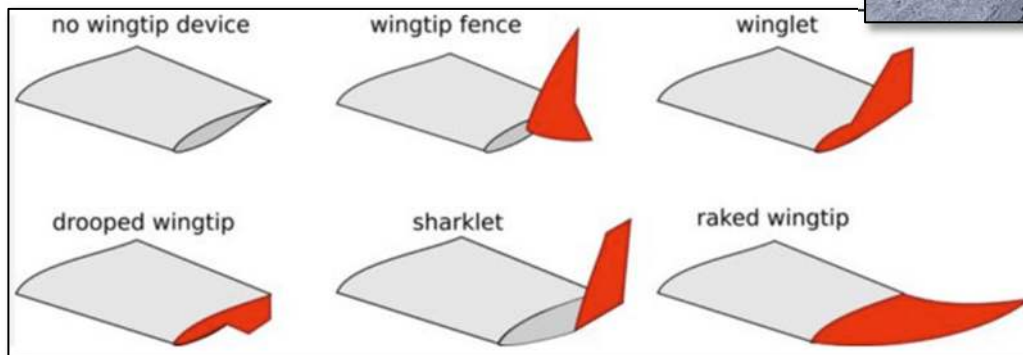


FLIGHTLINE

NEWSLETTER OF THE PALM BEACH RADIO CONTROL ASSOCIATION

Wingtip Devices



AMA Club# 1016

ONE OF THE LARGEST AMA CLUBS IN AMERICA
Spring 2026



The Palm Beach Radio Control Association
Current Board of [Volunteers](#)

John Scaduto President/Webmaster/Newsletter Editor
Tom Severino Vice President
Princeton Rose Treasurer
David Spielman Secretary and Membership Chair
Gary Hoffman Chief Safety Officer
Jon Gerber Chief Training Officer
Seth Sterling Director

Please use the following email address to contact any of the Directors:
pbrca.info@gmail.com

Membership Meeting Dates!
Second Saturday of Every Month
ALL DATES ARE TENTATIVE

<i>April</i>	<i>11th, 2026</i>	<i>9:00 AM at Westervelt Field (new time)</i>
<i>May</i>	<i>9th, 2026</i>	<i>9:00 AM at Westervelt Field (new time)</i>
<i>June</i>	<i>13th, 2026</i>	<i>9:00 AM at Westervelt Field (new time)</i>
<i>July</i>	<i>None</i>	<i>Summer Break</i>
<i>August</i>	<i>None</i>	<i>Summer Break</i>
<i>September</i>	<i>12th, 2026</i>	<i>9:00 AM at Westervelt Field (new time)</i>
<i>October</i>	<i>10th, 2026</i>	<i>9:00 AM at Westervelt Field (new time)</i>
<i>November</i>	<i>14th, 2026</i>	<i>9:00 AM at Westervelt Field (new time)</i>
<i>December</i>	<i>12th, 2026</i>	<i>9:00 AM at Westervelt Field (new time)</i>

*For more information and upcoming events please visit the Calendar page of the
PBRCA Website*

<https://www.palmbeachrc.com/calendar>

A FRIA approved club (FAA-Recognized Identification Area)



John Scaduto

President/Webmaster/Newsletter Editor

Volunteer Recognition

The future of our club depends on the active participation of every member. With that in mind, I'd like to take a moment to recognize a few individuals who have each contributed in meaningful ways to our shared success. If you haven't had the chance to meet them yet, I encourage you to ask around, introduce yourself, and when you do, thank them for all they do to support our club—and you, its members.

In no particular order and for various contributions:

Glenn Gelatt
Wes Baker
Don Culp
Dave Dutton
Dave Lockhart
Wayne Knight
Nick Spagnuolo
John Tice
Louis Cadavid
Jules Harper

A special thank-you also goes to John Alaimo. John enjoys 3D printing and, entirely on his own initiative, began making airplane stands from a variety of polymers. He donates both his time and personal funds—approximately \$600 as of this writing—simply because he wants to support the club's success. Thank you, John, for your generosity and dedication.

Another contributor of note is Jules Harper, whom many of you know as “the man who is always selling his book.” A former Naval Aviator, Jules authored *Flying Warrior*, available on Amazon. For every copy sold, whether at the field or online, he donates a portion of the proceeds to the club. He doesn't have to do that, but he does, purely out of goodwill and commitment to our shared passion. Thank you Jules.

Of course, there are others who quietly donate time, effort, or resources without mention here. That spirit of giving and cooperation is what makes our club truly exceptional. Thank you to everyone, you know who you are. If you know of someone I've overlooked, please let me know so I can recognize them in the future.

Finally, I'd like to contrast all this goodwill with a reminder: our continued success depends on unity and cooperation, not division or negativity. Let's avoid the influence of those who choose to criticize or resist rather than contribute. When speaking with one another, or with potential new members, let's refrain from airing grievances or focusing on past shortcomings. Instead, let's highlight the many positives: how technology is making flight more accessible than ever, how our club offers a dedicated flying site, and how joining connects new members with experienced pilots eager to help. Together, let's keep our focus on what lifts us all higher.



The TRUST Test – Mandatory by FAA

While not a requirement to be a member of PBRCA or to obtain an Airfield Pass, it is highly recommended by PBRCA that everyone who flies RC aircraft take and pass the TRUST test. Should it ever come to it, you are now required to show proof of passing the TRUST test to law enforcement or FAA representative if they ask.

Why Every Pilot Needs the TRUST Test

As we continue to welcome new members and enjoy another great season at the field, I want to take a moment to highlight something that affects every one of us who flies here: the TRUST test. Many of you have already completed it, but it's important that we all understand *what* it is and *why* it matters to our club and to the future of RC aviation.

The TRUST test, short for The Recreational UAS Safety Test, is the FAA's required safety and knowledge test for all recreational flyers in the United States. That includes every RC airplane pilot, whether you're flying a foam trainer, a giant-scale warbird, or anything in between. The test is free, online, and takes only a short time to complete, but it plays a big role in keeping our hobby safe and recognized at the national level.

Even though many of us have been flying for years, the airspace we share has changed dramatically. The TRUST test ensures that every recreational pilot understands the basic rules that keep us operating safely—things like airspace awareness, temporary flight restrictions, visual line-of-sight requirements, and the responsibilities we have when flying in public spaces. These aren't just guidelines; they're part of the FAA's framework for recreational flight.

For our club, TRUST compliance is more than a legal requirement. It demonstrates that we are a responsible, safety-minded community. When we show that our members are educated and up-to-date with FAA rules, it strengthens our relationship with Palm Beach County Parks & Recreation and helps protect our flying site. It also supports the broader model aviation community by showing that RC pilots are committed to safe and informed flying.

If you haven't taken the TRUST test yet, I encourage you to do so. It's quick, it's easy, and you'll walk away with a better understanding of the rules that keep our field open and our hobby thriving. Once you complete it, remember to keep your certificate with you whenever you fly.

Thank you to everyone who continues to support our club, follows our safety guidelines, and helps make our field a welcoming place for pilots of all experience levels. Together, we're ensuring that RC flying remains a safe, enjoyable, and long-lasting part of our community.

Again, while passing the TRUST test is highly recommended by the club, it is not a requirement to join or get an Airfield Pass.

See the end of this newsletter and in the Regular Features section for more information on where to go to take the TRUST test.

Here's hoping for fewer TFRs and light winds!
John



Tom Severino

Vice President

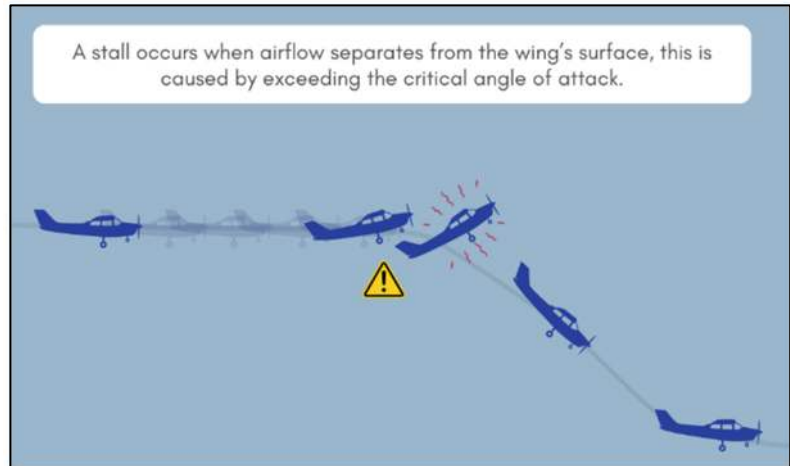
Factors Affecting Stall Speed

Factors Affecting Stall Speed

Stall speed is one of the most important concepts in aviation because it defines the minimum speed at which an aircraft can maintain controlled, level flight. Stall speed is not fixed—it varies continuously based on several aerodynamic and operational factors; it is a dynamic value influenced by weight, load factor, configuration, and more. Understanding these factors can better help in anticipating how your aircraft will behave in different conditions.

Remember, any condition that requires the wing to produce more lift will increase stall speed.

A stall occurs when the wing exceeds its critical angle of attack, causing a sudden reduction in lift. Stall speed, therefore, is the minimum air speed at which the wing can produce enough lift to support the aircraft's weight under specific conditions.



Aircraft Weight

Weight is one of the most significant factors affecting stall speed, but with RC aircraft less so as we are not generally carrying much payload.

- Higher weight = higher stall speed
- Lower weight = lower stall speed

As weight increases, the wing must produce more lift to support the aircraft. Since lift depends on air speed (among other factors), the aircraft must fly faster to avoid stalling.

Load Factor (G-Forces)

Load factor refers to the ratio of lift to weight and increases during maneuvers such as turns or pull-ups, this is where most of our stall and spin in occur.

- Higher load factor = higher stall speed

In a steep turn, the wings must produce more lift than in straight-and-level flight. This effectively increases the “apparent weight” of the aircraft.

- Stall speed increases dramatically as the load factor increases, steep bank, slow speed, and pulling back on the elevator. This is why accelerated stalls can occur at speeds well above normal stall speed.



Wing Configuration (Flaps)

Flaps increase the wing's coefficient of lift (C_L).

- Flaps extended = lower stall speed
- Flaps retracted = higher stall speed

Flaps increase the camber (curvature) of the wing, flaps allow the wing to generate more lift at lower speeds, but also increases drag, so there is a trade-off between lift and performance.

Bank Angle

Closely related to load factor, bank angle directly affects stall speed in turns, the steeper the bank, the higher the stall speed.

- 30° bank → slight increase
- 45° bank → noticeable increase
- 60° bank → stall speed increases dramatically

This is why pilots must increase air speed in steep turns to maintain a safe margin above stall.

Center of Gravity (CG)

The aircraft's center of gravity affects how much lift the wing must produce, a forward CG will result in a higher stall speed while an aft CG will give a lower stall speed but makes the aircraft much less stable. A forward CG requires more downward force from the tail, which in turn requires the wings to generate more lift—raising stall speed. An aft CG reduces this requirement but can make stall recovery more difficult and dangerous

Power (Thrust Effects)

Engine power can influence stall characteristics, especially in propeller-driven aircraft. Power affects airflow over the wings (especially near the root) and changes pitching moments. In some aircraft, adding power delays the stall and improves controllability

- Increased power can reduce stall speed
- Reduced power can increase stall speed

Aircraft Design and Wing Shape

Different aircraft have different inherent stall characteristics based on design such as shape, aspect ratio and wing loading. High-wing trainers typically have gentle, predictable stalls, while swept-wing jets may have higher stall speeds and more abrupt behavior.



Princeton Rose

Treasurer

2026 Off to a Great Start

Hard to believe we are already three months into 2026. I am pleased to report that the Club's finances remain stable and strong, with operating expenses continuing to track in line with expectations.

Thank you for your strong support of the Club's transition to a calendar-year membership cycle. Effective January 1, 2026, membership now runs from January 1 through December 31 for all members. Many of you made your prorated payments during the 30-day Grace Period that ended January 31. As a reminder, because some members hold two-year memberships, the transition will occur over a two-year period, with all memberships fully aligned to the calendar year by January 1, 2027.

Both of our major early-season events – the **2026 3D Over the Glades** and the **2026 Swap Meet** – were successful. Combined net revenue from these events slightly exceeded 2025 results, driven primarily by stronger Swap Meet performance. This continues to validate the operating model adopted for the event in 2022. The funds generated from these activities provide additional flexibility as we execute our capital improvement plan.



Current priority projects include **runway restoration** and **press box refurbishment**. The press box project will involve replacing worn floor and wall sections as well as installing new shelving and storage to improve functionality.

To further enhance the security and safety of our flying sites, we recently installed two additional Blink cameras and implemented 24/7 recording across all seven cameras. Over the next twelve months, we will evaluate the system's performance to determine whether it meets our long-term needs.

All this to say—we are off and running for 2026.

Happy flying and continue enjoying this awesome hobby!
Princeton



David Spielman

Secretary and Membership Chair

Spring 2026 Membership Report

Membership is up from previous years, that's great news. There are now over 300 members in the club, up from about 270 this time last year. What's different? People are starting to appreciate all the great things our club and airfields provide. Also, we now require all RC pilots to be members of PBRCA or hold an annual airfield pass. More people in the club means we have more influence with the AMA and the Palm Beach Parks Department. We also bring in more money that we plan to use to maintain the flying site. That will keep the great experience we have for years to come.

We have finished the 2026 prorated membership renewals. Many of our members participated in this program and brought their partial year membership to a full year, expiring December 31, 2026. A few of the members did not take part in the program and will have to renew at the full membership rate as their membership expires. That's not a bad thing since more than a few of the members want to find ways to donate to the field improvement plans. Dues stand at \$50 for the calendar year, a rate unchanged from last year.

TFRs or temporary flight restrictions have been a nuisance since November when the weather up north became chilly and the President started coming to his winter residence. We think visits and subsequent shutdowns will lessen as April approaches and the President's other residence becomes more appealing. We on the board speculate that the occurrence of TFRs has caused our membership rate to be lower than in previous years. As summer approaches, let's hope that pilots get to experience the great facilities we have in Delray Beach Regional Park. It really is a great thing to have a 600-foot paved and a grass runway right next to it, well worth \$50 a year.

Important membership news

The prorated period for renewing is over, but PBRCA membership dues is still a bargain.

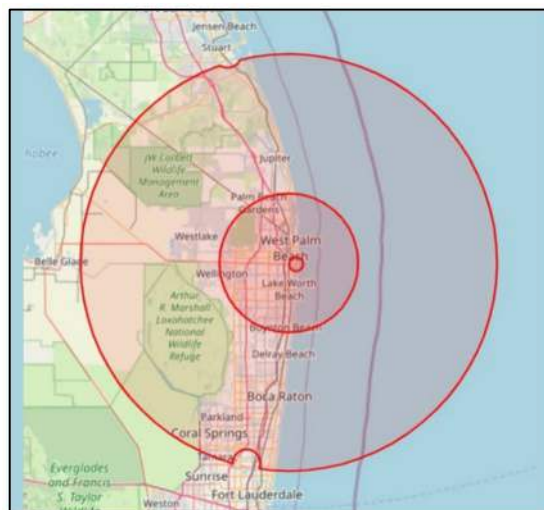
Check your membership card and if your expiration date is any time before the end of November, renew now and avoid a lapse in membership.

When compared with other clubs, both near and far up north, we have some of the lowest dues and between April and November, we have the most flying time.

Having side by side paved and grass runways is awesome. Warbirds, racers, sport planes, EDF, turbine, heli and some multi-rotor are welcome. Sorry, we don't have a drone race course.

Why wait, renew now! Go to <https://www.palmbeachrc.com/join-or-renew>

Fly Safe,
David Spielman
Membership Secretary and Club Contact
PBRCA Secretary



Gary Hoffman

Chief Safety Officer

PBRCA Safety briefing Spring 2026

For those that do not know, when the FAA announces a NOTAM/TFR (Notice to Airmen/ Temporary Flight Restriction) it is not a suggestion, it is mandatory.

We are all AMA members and get the notices from the FAA. We do not need to like it, but we do have to do it, and that means everyone!

It applies to every aircraft, model, drone or full-scale aircraft and the fines and penalties can be quite severe. And this means all aircraft, zero exceptions!!

The hourly rate for an F-16 is tens of thousands of dollars per hour and is absolutely non-negotiable.

When the President is at Mar-A-Lago, there is a 30-mile exclusion zone, and even when he is not in residence there, there is a 1.0-mile exclusion zone. The distance from Mar-A-Lago to PBRCA is about 19 miles (as the crow flies).

Everyone needs to know this, and there is no excuse for not knowing, even General Aviation aircraft MUST comply. Unbelievable as it may seem, some people in private aircraft continue to violate this, even now, after a year!

<https://youtu.be/moS7-87A-W8?si=6oXCSZtsqDoNU7YG>

The AMA sends out emails for every area letting you know, and if you are not on the mailing list, please check before flying ANYTHING!

Best Regards,
Gary Hoffman
PBRCA Safety Director



Jon Gerber
Chief Training Officer

Seth Sterling
Director

The 2026 Swap Meet

Palm Beach Radio Control Association
ANNUAL SWAP MEET

“When enthusiasts or collectors gather to buy, sell, or exchange items”, describes a typical Swap Meet, and that is clearly what occurred on March 22nd. Whether you came out to search for something in particular or just search for anything at a bargain price, there was lots to choose from.

For some, success may have come in finding your next plane, still “new-in-the-box”, or maybe just clearing out unwanted items in hopes of making room for your next project. There were both new and used planes, helicopters, drones for sale, along with a huge variety of accessories, chargers, transmitters and receivers, servos and connectors, and tools.

There were well over 40 vendors located from one end of the field to the other end, and cars continuously filled both parking lots to capacity and even onto the road leading to the field. Vendors came from both up north and south, from northeast Florida all the way south to Miami.

Vendors started arriving before sunrise and buyers were busy by 8:30. The weather was perfect with sunny skies, comfortable temperatures, and low humidity! Refreshments were available for purchase, and even though a TFR was in effect, we were able to obtain a waiver to allow us to open all our fields for flying at noon when the Swap Meet ended.

All of our annual events are important sources of revenue for our club’s operations throughout the year, and the Swap Meet was very successful in that regard as well, netting over \$1800, which was about \$400 more than the year before. And in addition to the money that was raised, we also benefited from the excellent exposure we got.

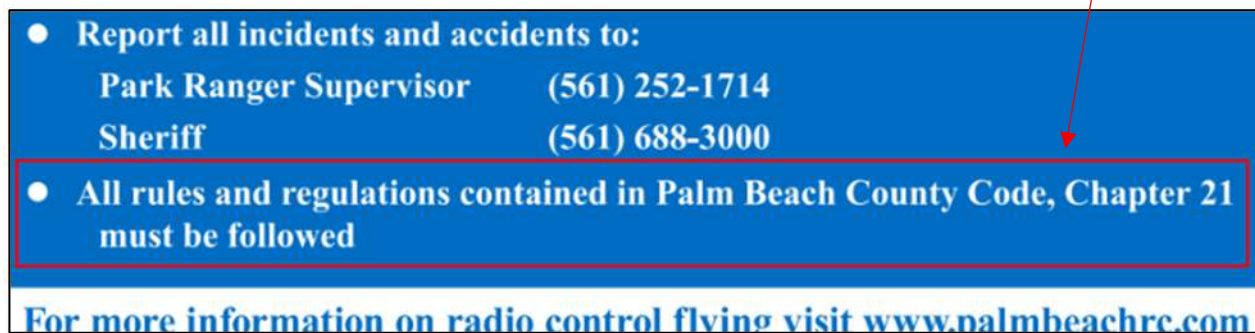
Many visitors from other clubs have been so impressed with our field and the way we are organized and friendly that it’s not unusual for us to gain new members as a result, and we gained at least 3 new members on the spot that day!



FEATURE ARTICLES

Chapter 21!!

This article falls into the category of “FYI” and updates the article published in our Winter 2022 Newsletter. In West Delray Regional Park there are three signs listing the requirements and rules for using the R.C. flying Sites operated by PBRCA: one posted at the heli flying site, one at the fixed-wing flying site (by the runway), and the other at the drone (hover) flying site. Note the requirement for users of the sites to **have proof of AMA insurance and either a PBRCA Airfield Pass or a PBRCA Membership Card, and that all rules and regulations contained in Palm Beach County Code, Chapter 21, must be followed.**



So, what is Chapter 21?

Chapter 21 of the Palm Beach County Code¹ provides the framework for operating Palm Beach County parks in accordance with Florida state law.² The framework is established by Sections 17, 35, 38, and 40 of the ordinances. Section 21-17 vests all powers, duties and authorities relating to the operation of the parks in the Director of Parks and Recreation. Section 21-35 outlines park usage and 21-35 (e) states.... “No person shall conduct an activity within a county park that is prohibited, restricted, or regulated by posted signage.” Section 21-38 gives the director authority to develop permitting systems and related rules and regulations for the use of park facilities. Finally, Section 21-40 (b) limits remote-controlled airplanes, helicopters, drones, and other aerial vehicles to designated areas consistent with FAA regulations and Florida Statutes. Also, remote-controlled aerial apparatus must not fly over people or harm wildlife.



You can find information on RC aircraft flying activity at West Delray Regional Park on the Palm Beach County Parks & Recreation website under West Delray Regional Park at the following URL:
<https://discover.pbcgov.org/parks/Locations/West-Delray-Regional.aspx>.

In the park, remote-controlled airplanes, helicopters, drones, and other aerial vehicles are restricted to the “radio-controlled airplane field” and the “radio-controlled helicopter field” and operators “must be insured members of the Academy of Model Aeronautics.” All flying sites are covered by permit³ as noted on the Parks & Recreation website under “Radio Controlled Fun” at the following URL:
<https://discover.pbcgov.org/parks/Amenities/Radio-Controlled.aspx>.

Happy and safe flying!
Princeton

¹ Palm Beach County, Florida - Code of Ordinances Chapter 21 - PARKS AND RECREATION, provides the framework for the operation of the Palm Beach County Parks and Recreation system.

² Title XI, Section 125.01(f), Florida Statutes, grants Palm Beach County the power to provide parks, preserves, playgrounds, recreation areas and other recreational facilities for the welfare of its citizens.

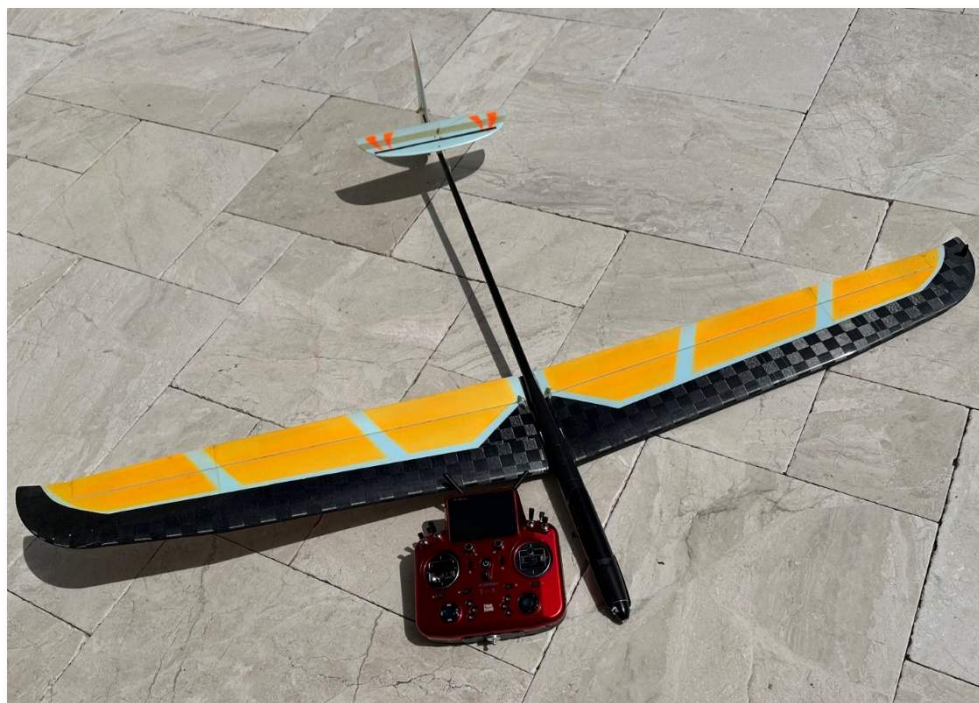
³ A “Special Use Permit” was negotiated with PBRCA when the park opened in 2007 and the permit was updated in February 2026.



How to convert a Discus Launch Glider (DLG) to motorized F5K glider

David Spielman

RC auctions are always a great time, loads of planes at bargain prices. In November 2019, on Thanksgiving weekend my old club had what would turn out to be their last in person auction. RC pilots would drive a long way to get there because the club was well known for sailplanes and a good turn-out. One pilot even drove all the way from Vermont to Massachusetts in the snow with a car full of DLGs (Discus Launch Gliders) and larger sailplanes. That day I won a bid for one of over half a dozen Predator DLGs. Mine was almost built, brand new, never flown. Set up for discus launch with a ready to fly weight of 9.3 ounces. This was the deal of the day.



The Predator DLG came with the requisite parts. It included four Dymond D47 analogue servos, pull-pull string, ballast weights, and everything needed to finish the model. Construction for the 60" wing was a D-box design with a vacuum bagged carbon and fiberglass mix over a foam core. The fuselage was carbon fiber and fiberglass. It took me some time to do research and find instructions for this 2012 model and to finish the build. The weight was pretty good at 9.3 ounces, but not up to today's super lightweight standards. For about \$100, it was great.

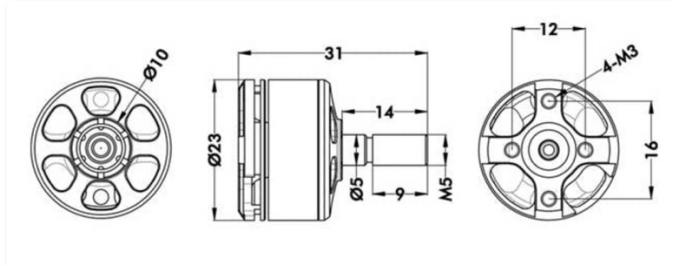
The plane was flown a few times just by hand tossing to check controls and balance... and then the Covid-19 lock down happened. A few years passed, batteries got old, my wife and I moved to sunny Florida and my new club's field that I fly at now is full of power planes, jets and EDFs, so not at all DLG friendly.

I decided that a plane can only look pretty in your garage for only so long and that time came to an end. This plane needed a motor or a new owner, so a motor it was. I listened to all of my old club zoom meetings and members showing off the latest greatest 1M DLG features. One source was www.flightcomp.com, a US sailplane shop. Another vendor I've used as a resource was www.hyperflight.com who carries many high-quality sailplane parts. The closure of the import duty loophole made [Hyperflight](http://www.hyperflight.com) much more expensive. These vendors lead me to www.Armsoar.com, another US company, which makes some super lightweight powertrains (Motor/esc sets).

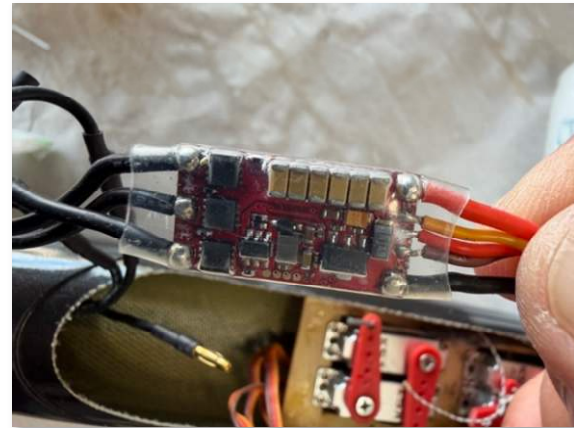
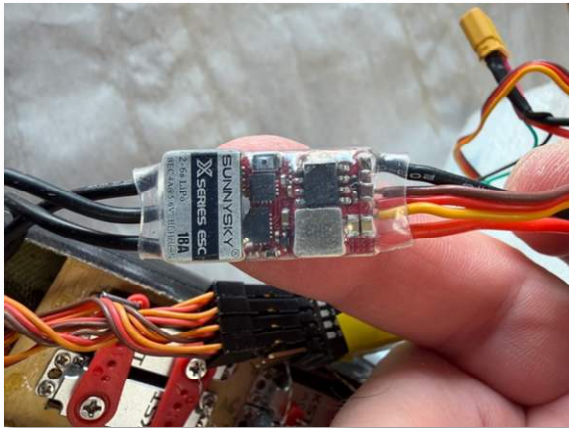
For you engineers out there who rely on dimensional drawings for everything, this isn't it! It's more of a buy and measure. I was lucky and found the right parts on the first try. My criteria included fit, weight, price and shipping. Staying stateside had a big benefit. To make sure I didn't blow it and order the wrong parts, I



ordered the motor mount, spinner and prop and measured them before the motor selection. I selected the CCM products mount and spinner. Super light and made to work with the T-motor F30. Surely, I could find a T-motor to fit this. HA!! Forget about it. The measurements from the mount helped me find an alternative. Believe it or not, the Flight Test Radial 1806-2280 was the right fit. I found the dimensional drawings at an Australian web site. Length, mounting pattern, motor shaft and appearance matched the T-Motor. It was a perfect match with the exception of two of mounting holes that would need mods.



Flight Test's Australian distributor had drawings



A great little speed controller that fit this plane perfectly is from Sunny Sky. The X18A esc is a BLHeli_S protocol tiny, 18-amp controller. You need full break setting even with an elastic hold down on the prop. Without the break on, the prop pinwheels and slows the plane during gliding. The esc break needs to be programmed using BLHeli suite because the transmitter throttle stick position programming doesn't work with this ESC. Programming is a story in last quarter's club newsletter

We've got the power train, motor mount, motor, spinner and folding prop. Time to modify and fit the new parts. First, I elongated the two holes in the mount so I could use four flat head mounting screws. A bit of adjustment with a tiny flat file and I was done. I did a little at a time to avoid removing too much metal. I checked the fit of the motor and shaved away bumps that interfered. A #11 X-Acto blade worked well for this.

Point of no return: I needed to cut the nose off the fuselage so that the motor mount can be pushed in, to rest on the motor mount flange. It's barely a flange, just a little ridge. The fuselage isn't round, but I made it round just by pushing in the motor mount. I also needed to aim the motor down by about 2 degrees.



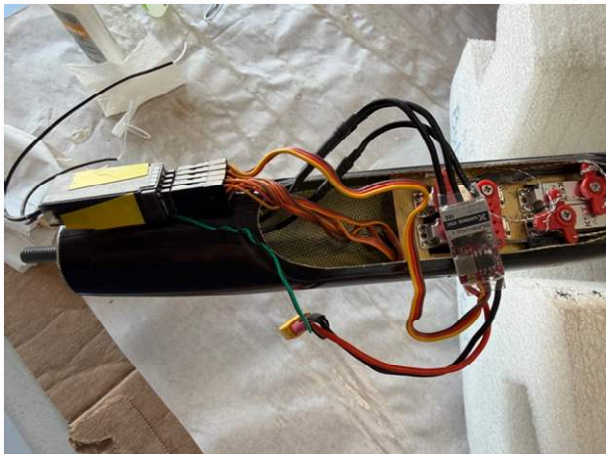
Marking fuselage with a pencil and using blue tape to mask helped me measure the motor offset. Using a Dremel tool abrasive disk, I cut the nose off but left extra length so I could come back with a good bench sander to get the diameter and angle just right. I did fit checks to test the assembly several times until it was perfect. Well, nothing is ever perfect, so almost perfect.

I fit the motor in the mount and marked the mount and fuselage so that the wires came out where they would work best. After the fit check several times to feed my inner OCD, I removed the motor and glued the mount in place with some good sticky filled epoxy. I used West Systems G-flex filled epoxy. It needs to be thick to limit running all over the mount and fuselage. Don't use 5-minute epoxy. Epoxy filler and a high temp epoxy is a good idea because motors will heat the glue joint. I had G-Flex so that's what I used.

Now that the mount is permanently in place with no drips that I couldn't remove with the scrape of a #11 blade, I went ahead and installed the motor. It's a tight fit to get the screws in from the inside of the fuselage so patience was needed, also tweezers and magnetizer for my screwdriver.

A \$5 magnetizer/demagnetizer is a great addition to your toolbox

Note: if you are passionate about weight, then this is a good time to cut wires short. I checked to make sure the XT30 connector fit through the motor mount and it did. By soldering the motor leads directly to the ESC I eliminated connectors and inches of wire. In my build, I had not cut the wires short yet, and the battery fits, the plane balances and still flies great.

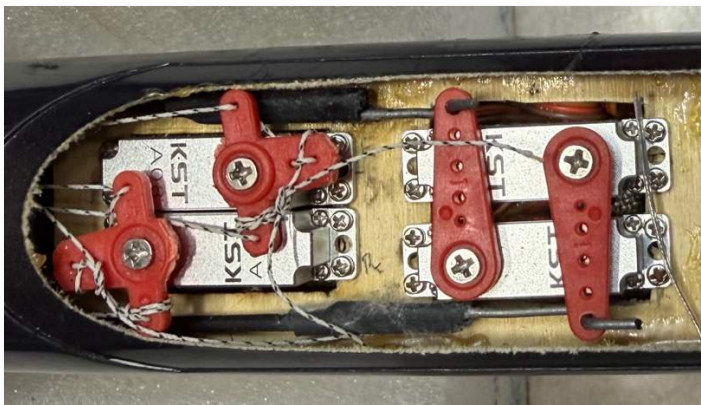


Let's remove excess wire and connectors. 3 inches of motor leads, 3 connector sets and servo wire yield almost a quarter ounce of weight savings.

The receiver and transmitter: I'm using an FRSky X18se transmitter with a TW Pro module so I can use a TW GR6 receiver. The receiver is tiny and very capable. I'm also using an F5K model template published by Mike Shellium. It's complex, but easy enough to use. Calibration is time consuming though.

The go to servo for DLGs when this plane was new was the Dymond D47. That comes with a little warning. Be careful with the plastic gears and don't move the control surfaces manually. I found out why and was down to three servos and maybe two if you count that I stripped the top screw on servo number three. The new go to servo is the KST A08. It's digital and metal gear and stronger than the Dymond. The plywood servo platform needed a little modification and the four new shiny servos fit great. I still shouldn't move the servo arms, but there is a little more forgiveness for clumsy handling.





The new digital servos fit great and offer tighter control than the original. The new spinner and prop 8.1 grams



You can see that the shorter motor leads still leave room for connecting the battery. With the battery in place the motor compartment is good and snug, so the battery won't shift.



The motor mount gives a perfect fit with little room to spare for the motor. It fits soooo well. Once installed, the finished motor assembly looks perfect.





With the 7x4 prop open, the motor really has traction. A surgical mask elastic ear band makes a great return spring for the prop. The white elastic is looped on the prop yoke to hold them against the fuselage.




We are done with the build. The all up the ready to fly weight was 11.0 ounces. This is a 1.7-ounce increase over the original 9.3-ounce pure glider version. Let's just call the added weight "ballast" for windy days. Also, I did not have a scale by my side while building, and that makes a big difference.

So, did the added weight hurt my ability to glide and have fun? Not a bit! I was in awe of how well it flew, so exciting. So much power, your shoulder will be thanking you. The plane could go vertical under power and glide around with awesome control.

Here's what you need to get to do the build the way I did.

Parts required:

- Motor mount- CCM 25mm F5K
- Spinner- M5 screw on CCM 25mm F5K
- Prop- 7x4 CCM F5K slim carbon
- Motor- Flight Test Radial 1806-2280kv
- ESC- Sunny Sky X18A BLHeli_S
- Servos- KST A08 V6
- Battery- LiPo 2S 550mah 95c with XT30 connector for 8-minute flights with at least four climb outs
- Receiver- FRSky TW GR6 six channel receiver with altimeter

	CCM F5K Slim Carbon Folding Props × 1 7x4 F5K	\$17.99
	CCM 25MM F5K Spinner × 1 Plastic Cone, 5mm	\$29.99
	CCM 25mm F5K CNC Motor Mount (T-Motor) × 1	\$22.99



**FT Radial 1806
2280kv Brushless
Motor v.2**

**SunnySky X 18A
Airplane ESC 2-6S
4A BEC BLHeli_S**
by SunnySky






Other vendors:

Armsoar at www.armsoar.com has some great looking powertrains, but they don't fit the hole pattern of the mount that's available. I would have used one of these power trains if it fit the mount.

Mike's Ethos Hangar <https://rc-soar.com/ethos/support/> has a free download of his excellent F5K Ethos based transmitter template.

What was the weight cost of adding a motor and changing servos?

- 9.2 grams increase for KST servos
- 8.1 grams for the spinner, prop and elastic
- 20 grams for motor
- 3 grams for motor mount
- 12 grams for changing to a lighter LiPo battery

=28.3 total gram or 1 oz increase



AMA Leader Clubs

Were you aware that we, the Palm Beach Radio Control Association (PBRCA), is an AMA "Leader Club?" Not only are we a Leader Club, but we're a GOLD Leader Club.



What is a Leader Club? Here's an explanation by Lawrence Tougas as seen in the August 2019 issue of Model Aviation.

At last year's AMA Expo West, Phoenix-area Associate Vice President Jim Mohan gave a great presentation about the value of being a Leader Club. I asked Jim to write a column about the subject. Please take a moment to consider having your club become a Leader Club, and if it is one already, well done.

Jim wrote: Whether in business, sports, hobbies or many other aspects of life, a way of determining one's level of achievement is to measure it against a standard. Standards allow us to see firsthand how we stack up. Because we are measuring against a standard and not just a relative ranking among a group, we can be assured we really are doing things right and engaging in the behaviors or management practices that are characteristics of the best of the best.

When it comes to AMA chartered model airplane clubs, that standard is set forth in the AMA Leader Club program. One of the things that has surprised me is the small number of clubs that have applied for Leader Club status. The surprise comes from the fact that the standards are common-sense requirements that most well-run model clubs already meet. For those clubs that don't meet the requirements, it's likely that only small changes or additions would be necessary to qualify.

At my last count, using information from AMA Headquarters, only roughly 6% of AMA chartered clubs claim Leader Club status. As of late last year, District X had 272 clubs, but only 17 were Leader Clubs. There are three levels of Leader Clubs: Bronze, Silver, and Gold. To become a Leader Club, the club must meet six basic requirements; it achieves Bronze, Silver, or Gold Level recognition based on how many of the elective requirements it meets.



Please note that the district vice president can waive one of the six requirements and those electives that simply don't apply to your club, such as noise requirements for a Soaring club. It won't count against you, so, why bother?

Probably the most important advantage of your club being an AMA Leader Club is **you have confidence that your club is doing the right things in the right way.** The standards and electives help ensure that your club is operating using what are often referred to as "best practices." AMA will provide your club with a nice plaque for you to display and Leader Club hatpins for all members in your club. Pins come in the color of the level for which you qualify—Gold Leader Clubs get gold pins, etc.



Additionally, clubs that maintain Gold Level status for five years get five-year patches for club members to wear proudly on their club jackets or vests. Longevity patches are awarded at five-year intervals. So how about cash awards? Well, your Leader Club status gives you a leg up in the scoring of Flying Site Development Improvement grants. Grant scoring is done in four categories, including "Is your club a Leader Club." Each category receives 25 out of 100 total points and since being a Leader Club is a yes or no question, non-Leader Club applicants forfeit 25% of the total score. Ouch! That's like turning in a school term paper knowing the best grade you'll get is a C.

I've helped score grant applications for the past two years and I was shocked at the number of applications submitted by non-Leader Club applicants. In those years where the grant funds available are less than the requests submitted, you'll want to get every point you can to win.

You'll need to recertify your Leader Club status each year, or in some cases, demonstrate that you now qualify for a higher-level award. My sense is that some clubs that had been Leader Clubs in the past have fallen off the list because newly elected club officers might not have been aware of the program's requirements.

Thank you for this information, Jim. I encourage all clubs to take advantage of these best practices to make their clubs the "leaders of the pack."

Check out the Leader Club topic on the AMA's website at <http://www.modelaircraft.org/clubs/recognition-rewards/ama-leader-clubs>.

As of 4/1/2026 current requirements for the Leader Club Program are as follows.

1. Clubs must have been chartered by AMA for a minimum of five years.
2. Club membership must be open to all AMA members and not limited to a certain number.
3. Clubs must develop and post Safety and Operational Rules at their flying sites.
4. Clubs must file a copy of Safety and Operational Rules at AMA Headquarters.
5. A club's flying field must have separate areas for fliers and spectators, clearly marked as such.
6. The AMA Safety Code must be posted and visible at the club field.



F3K, F5J, F3B, what does it all mean?

F.A.I. Nomenclature Explained

If you've been in the hobby for any period of time, chances are you've heard someone talking about flying in a three-letter contest like F3K, F5B, etc. You may have wondered what those letters meant but were too afraid to ask. Well here's a simple explanation to help you understand it. The F.A.I. or Federation Aeronautique Internationale is the governing organization for all things aviation in the world, and they set up these designations. They are as follows:

First letter

F - Means model aircraft.

Second Number

3 - Means Radio Control

4 - Means Scale

5 - Means Electric

Third Letter

These you need to combine with the second character as they can mean different things based on the type.

3A - Aerobatics

3B - Multi Task Gliders

3C - Helicopters

3D - Pylon Racing

3F - Slope Soaring

3H - Cross Country Soaring

3J - Thermal Duration Gliders

3K - Hand Launch Gliders

3M - Large Powered Aerobatics

3N - Helicopter Freestyle

3P - Indoor Powered Aerobatics

3Q - Aerotow Gliders

3R - Pylon Racing Limited Technology

3S - Aerobatic Jet Models

3T - Pylon Racing Controlled Technology

4A - Free Flight Power

4B - Control Line

4C - Radio Control

4D - Indoor Free Flight Rubber Powered

4E - Indoor Free Flight CO2 Powered

4F - Peanut Free Flight

4G - Radio Control Large Models

4H - Radio Control Stand-Off

4J - Radio Control Team

4K - Radio Control Scale Helicopters

5A - Aerobatics

5B - Motor gliders Multitask

5D - Pylon Racing

5E - Solar

5F - 4 Cell Motor Gliders

5G - Big Gliders

5H - Open Electric Motor Glider

5J - Electric Motor Glider Thermal Duration

5K - Electric Indoor Racing



Club member, **Bob Goldstien**, thought some of us might miss flying in freezing temperatures “Up North” so he sent on some photos from Jefferson, Maryland that include some friends and a brief discussion. Thanks Bob.

“I had a unique day at Jefferson today. Despite the wind averaging 25 mph with gusts over 30, the lift was excellent and remained smooth rather than becoming blown out or bumpy. The temperature even cooperated nicely and remained nicely in the 30s and 40s.”



“The most notable part of the day was watching the storm fronts stack up and move through the valley in front of us. We watched as the town of Jefferson was occasionally obscured by the passing weather. Although the temperature was above freezing and we were concerned about rain, we were greeted by snow and tiny sleet. If you look closely at the attached pictures, you can see the small white sleet that fell and the snow falling.”



Jules Harper is one of the club's flying instructors. He does a great job and really makes new pilots feel special. Here are some of PBRCA's latest pilots who've earned their solo wings or have hopped back into the left pilot seat for a refresher. Nice work, everyone. Thanks, Jules.



Why PBRCA Operates Under a Special Use Permit

As many of you know, our flying field operates under a **Special Use Permit** issued by the Palm Beach County Parks & Recreation Department. While it may sound like just another layer of paperwork, this permit is actually the foundation that allows PBRCA to enjoy a safe, stable, and long-term home within the county park system.

A Special Use Permit is an authorization required for activities, events, or temporary uses within county parks that go beyond normal, everyday park use. It ensures that the activity is safe, compatible with the park environment, and compliant with county regulations. For most park visitors, a picnic or a walk doesn't require anything special, but operating radio-controlled aircraft certainly does. Our hobby involves designated airspace, safety zones, flight operations, and equipment that must be managed responsibly. The permit is what makes that possible.

For Palm Beach County, the permit process helps ensure that any specialized activity, like ours, meets zoning, safety, and environmental standards. That means the county reviews our field layout, flight boundaries, parking areas, and operational practices to confirm that everything is appropriate for the location. It also ensures coordination with other agencies such as Fire Rescue, the Building Department, and Code Enforcement when needed.

For PBRCA, the benefits are significant. The permit gives us:

- Official recognition as an approved activity within the park
- (Hopefully) long-term stability for our flying site
- Clear operating guidelines that protect both members and the public
- A cooperative relationship with county officials who understand our needs

In short, the Special Use Permit is what allows us to fly legally, safely, and confidently. It demonstrates that our club is committed to responsible operation and that we meet the standards expected by the county.

As we continue to grow and welcome new members, it's important for everyone to understand the role this permit plays. It's more than a formality, it's the agreement that keeps our field open, our hobby thriving, and our club recognized as a responsible partner in the community.

The County recently renewed the club's Special Use Permit and if you'd like to read it for yourself, please click the link that follows: [PBRCA's Special Use Permit](#).



The Powerplant Dilemma- Choose the right one for your project Model Airplane News



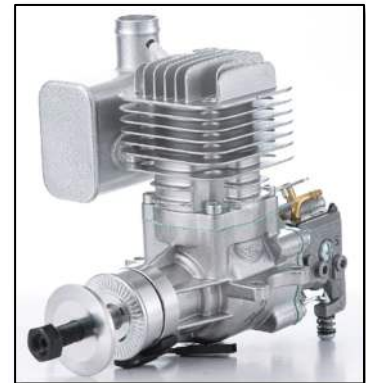
Every RC airplane builder eventually faces The Powerplant Dilemma. You've got your airframe in the shop—maybe it's a sleek sport flier, a warbird dripping with scale detail, or a towering aerobatic machine—and now comes the big decision: What's going to make it fly? Gas? Glow? Or electric? It's a question as old as the hobby's transition from rubber-band powered stick models to screaming nitro-fueled racers. And like any good debate, each option has its loyal fans, colorful war stories, and a list of pros and cons that can fill a hangar. The "right" answer depends on your airplane, your flying style, your budget, and sometimes even your nose—

because yes, some powerplants smell better than others.

Let's break down each option from a technical perspective, so you can choose the right gas or glow engine or electric motor for your next RC project with confidence.

Gas Engines

Gas-powered RC engines—burning regular pump gasoline mixed with oil—are the go-to choice for large-scale and giant-scale airplanes. Typically starting around 20cc displacement and going well past 200cc for twin-cylinder monsters, these engines are closer to chainsaw or paramotor engines than their glow-fueled cousins.



Key Technical Traits

- Fuel: Regular unleaded gasoline with 2-stroke oil (often at a 32:1–50:1 ratio)
- Ignition: Electronic ignition systems powered by a dedicated battery pack
- Starting Method: Choke and flip (or starter)
- Size Range: 20cc up to 200cc+

Drawbacks

- Weight: Heavier than glow or electric systems, requiring a sturdy airframe.
- Vibration: Gas engines shake—badly if not balanced—requiring vibration isolated mounts and Loctite on every bolt.
- Break-In Period: Gas engines need careful tuning and gentle running-in for the first few tanks.
- Complexity: Separate ignition system, fuel system with proper filtration, and sometimes a baffled cowling for cooling.

Best For

Giant-scale aerobatics, large warbirds, heavy multi-engine bombers, and any project where running cost and endurance are key.



Advantages of Gas

- Fuel Economy & Availability: Gasoline is far cheaper and more readily available than glow fuel. A gallon of mixed gas can power hours of flying.
- Torque & Thrust: Gas engines produce massive low-end torque—ideal for swinging large-diameter props needed by big, draggy airframes.
- Longevity: With proper care, a gas engine can last for decades. Electronic ignition offers consistent timing, smoother operation, and easy starting.
- Sound & Scale Presence: The deep, throaty note of a gas engine turning a 26-inch prop just feels right for many scale warbirds and aerobatic planes.

Glow Engines

The sound of a glow engine—high-pitched, raw, and urgent—is the soundtrack of RC flying from the 1970s through the early 2000s. Powered by methanol-based glow fuel (with nitromethane for power and castor/synthetic oil for lubrication), these 2-stroke and 4-stroke engines once dominated everything from park flyers to pattern ships.



Key Technical Traits

- Fuel: Methanol with nitro (0–30%) and lubricating oil (8–20%).
- Ignition: Self-ignition via a heated glow plug, kept hot by combustion after startup.
- Size Range: 0.10ci (~1.5cc) to over 2.0ci (~33cc).
- Starting Method: Electric starter or hand flip with glow driver connected.
- Size Variety: Available in tiny sizes for small models up to serious displacement for 1/4 scale.

Drawbacks

- Fuel Cost: Glow fuel is expensive compared to gasoline—often \$20 to \$30 per gallon.
- Run Time: Fuel tanks are smaller and fuel consumption higher than gas engines, meaning shorter flights.
- Mess: Castor/synthetic oil exhaust residue coats your airplane after every flight.
- Tuning Sensitivity: Glow carbs can be finicky, especially with temperature and humidity changes.

Best For

Medium-scale sport models, aerobatic planes under 80 inches, classic pattern planes, and projects where nostalgia or a specific sound is part of the charm.

Advantages

- Power-to-Weight Ratio: Glow engines pack impressive power into relatively small sizes.
- Simple Ignition: No separate ignition system—just a glow plug and a glow driver for starting.
- Tradition & Feel: The sharp crackle of a glow 2-stroke or the throaty burble of a glow 4-stroke is pure nostalgia for many pilots.

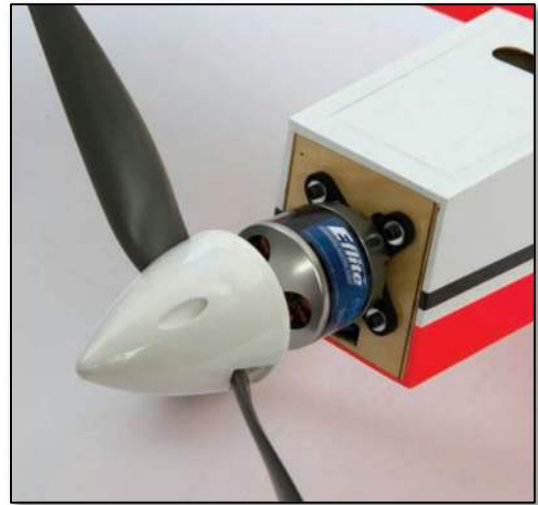


Electric Power

Electric propulsion in RC airplanes has gone from being the quiet, underpowered underdog of the 1990s to the dominant power source for small to mid-size models today. Thanks to brushless motors, high-C LiPo batteries, and efficient speed controls, electric power systems can rival or exceed the performance of glow and even smaller gas engines—with none of the noise or mess.

Key Technical Traits

- Power Source: Lithium Polymer (LiPo) batteries, sized in cell count (voltage) and capacity (mAh).
- Motor Type: Brushless outrunner (most common) or inrunner.
- Control: Electronic Speed Control (ESC) regulates motor RPM.
- Size Range: Suitable for everything from 1-ounce indoor micro planes to 30pound giant scale models.



Drawbacks

- Flight Time: Most setups offer 5 to 10 minutes at full power without large battery packs.
- Upfront Cost: High-quality motors, ESCs, and batteries can rival the price of a gas setup.
- Battery Management: LiPos require careful charging, storage, and handling to prevent fire risk.
- Weight Penalty for Large Models: Scaling up to giant-scale requires massive, expensive battery packs.

Advantages

- Ease of Use: Push throttle forward, airplane flies. No tuning, no fuel mixing, no hand starting.
- Clean Operation: No exhaust residue, no fuel smell, minimal maintenance.
- Instant Torque: Brushless motors deliver full power instantly, great for aerobatics and 3D flight.
- Quiet Flight: Lower noise means more flying locations and less neighbor irritation.
- Reliability: Fewer moving parts than IC engines, reducing mechanical failure risk.

Best For

Park fliers, electric ducted-fan (EDF) jets, pattern planes, scale models under 30 pounds, and pilots who want maximum convenience and minimal mess.

Bottom Line

There's a certain magic in every RC power system: the gurgle of a big gas twin on the start line, the high-strung scream of a glow engine reaching peak RPM, or the eerie silence of an electric warbird knifing through the sky, all have their place in this hobby.

The truth is, the "best" powerplant isn't universal. It's the one that puts the biggest grin on your face when you taxi out and open the throttle. Some pilots love the hands-on, oily-finger satisfaction of a well-tuned glow or gas engine. Others prefer the push-button predictability of electric. And many seasoned fliers enjoy having all three in the hangar, picking the perfect power system for each project.

So next time you're staring at that empty firewall, remember you're not just choosing an engine or motor, you're choosing the personality of your airplane. Make it a good one.



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Saturday, May 16th, 2026
Member Appreciation Day -
Fun Fly and BBQ

Details, when available, will be posted to palmbeachrc.com



REGULAR FEATURES

The Recreational UAS Safety Test (TRUST)

What is TRUST?

The law requires that all recreational flyers pass an aeronautical knowledge and safety test and provide proof of passage if asked by law enforcement or FAA personnel. The Recreational UAS Safety Test (TRUST) was developed to meet this requirement.



TRUST provides education and testing on important safety and regulatory information. If you fly your drone recreationally under the [Exception for Recreational Flyers](#), you must pass the test before you fly.

TRUST was developed in collaboration with drone stakeholders to determine content, and how it would be administered. Since

June 2021, we have worked with a group of [approved Test Administrators](#) to provide TRUST as an online test. We in the FAA provide the TRUST content to the approved test administrators who, in turn, provide the online test to you, the recreational flyer.

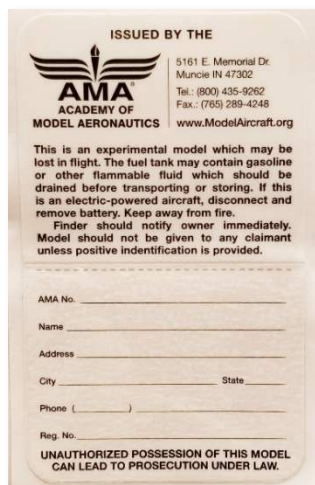
Renew your AMA before it expires!

<https://www.modelaircraft.org/membership/enroll>



Renew your PRBCA club membership before it expires!

<https://www.palmbeachrc.com/join-or-renew>



To help you comply with the AMA/FAA regulations of having identification on all your airframes, the AMA sells stickers that can help.

This adhesive-backed label has fuel-proof adhesive and space on the bottom for your name and address. A clear plastic flap seals over your information to protect it. One of these stickers on or in your model complies with the Safety Code requirements for identification and will help recover the model if it is lost. 10 labels per pack. Id labels measure 2.125" x 3.5".

Item: 5084 Airplane ID Label 10Pk \$3.99 as of today 4/1/2026

Click the link below to get to the respective web page on the AMA site:

https://shop.modelaircraft.org/product/5084-airplane-id-label-10pk/398?cp=true&sa=false&sbp=false&q=false&category_id=16



You **MUST** have a current AMA membership card and PBRCA membership or Airfield Pass to fly at Westervelt Field. **This is a requirement of the Palm Beach County Parks & Recreation Department.**

Also, please note that we will not create your PBRCA membership or Airfield Pass card unless you have a current AMA membership card. The Club Membership form and Airfield Pass information is available on the PBRCA web site, www.palmbeachrc.com or at the field in the press box.


Club E-mail Notifications

You should be receiving e-mail notifications for the monthly general membership meetings and semi-annual newsletter publication. If you are not receiving our e-mails, please let David know your e-mail address and we will update our records (David's email: pbrca.info@gmail.com. If you want your name & phone number removed from our website list, also contact David at: pbrca.info@gmail.com.

FAA sUAS REGISTRATION

All sUAS (small Unmanned Aircraft Systems - (0.55 lbs. up to 55 lbs.) pilots must register with the FAA. Furthermore, once registered, you are required to affix your assigned FAA Registration number to the 'exterior' of **every** aircraft you fly. For more information and registration online go to: <https://faadronezone.faa.gov/#/>

SAFETY FIRST!



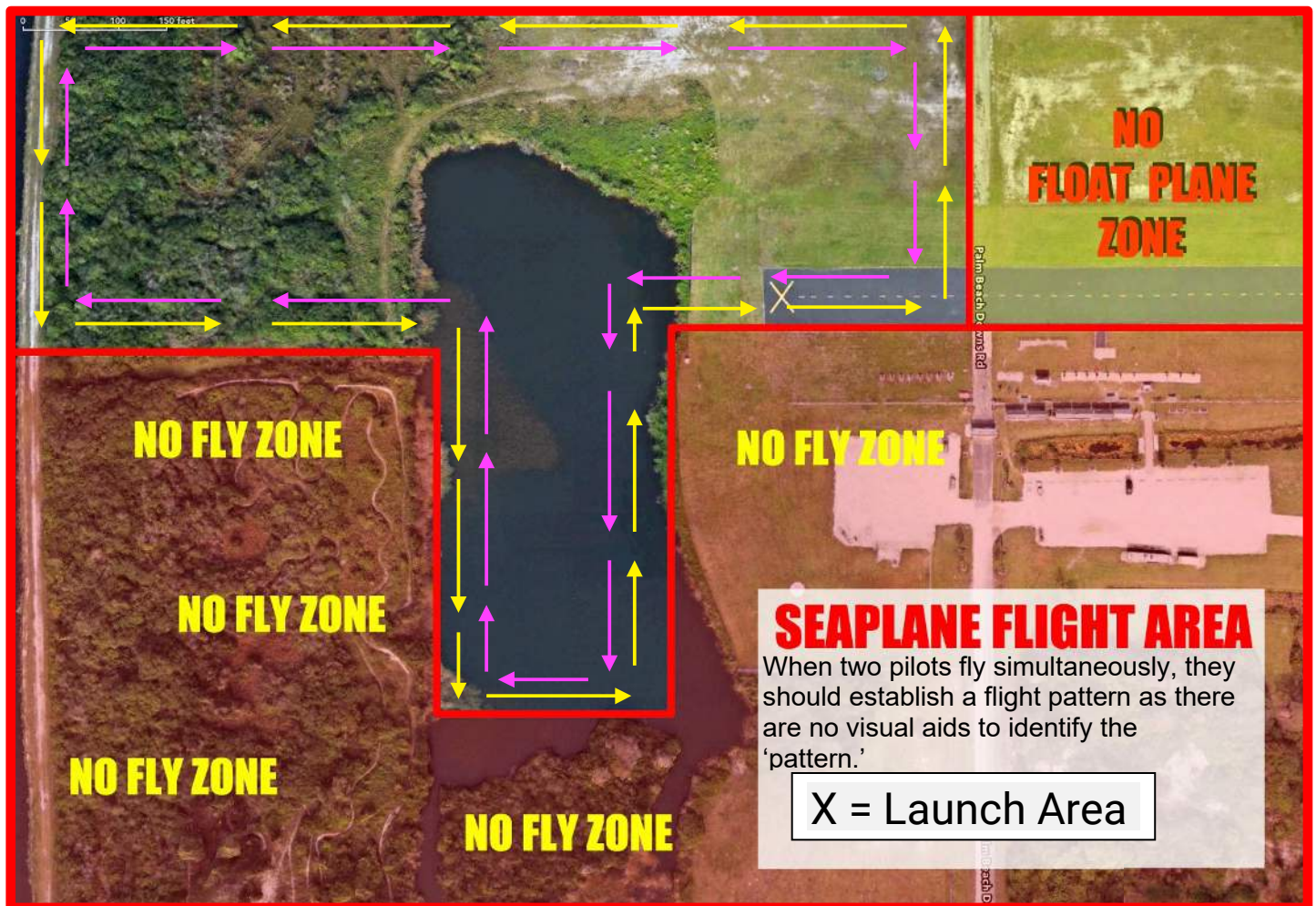
As the park gets more and more popular, we are going to see more and more patrols by the Sheriff's Department. The park speed limit is 25 mph and stop signs mean STOP! Don't risk an expensive ticket by becoming complacent. Also, watch for the Frisbee Golf guys. That group seems to be getting more and more active.

Click this link for the Club Safety Rules: [Flight Safety Rules](#)



Float-plane Flight Area

The membership has approved the proposed rules for flying off 'West Lake' in April 2018. The



changes and additions are now incorporated into our Safety Rules.

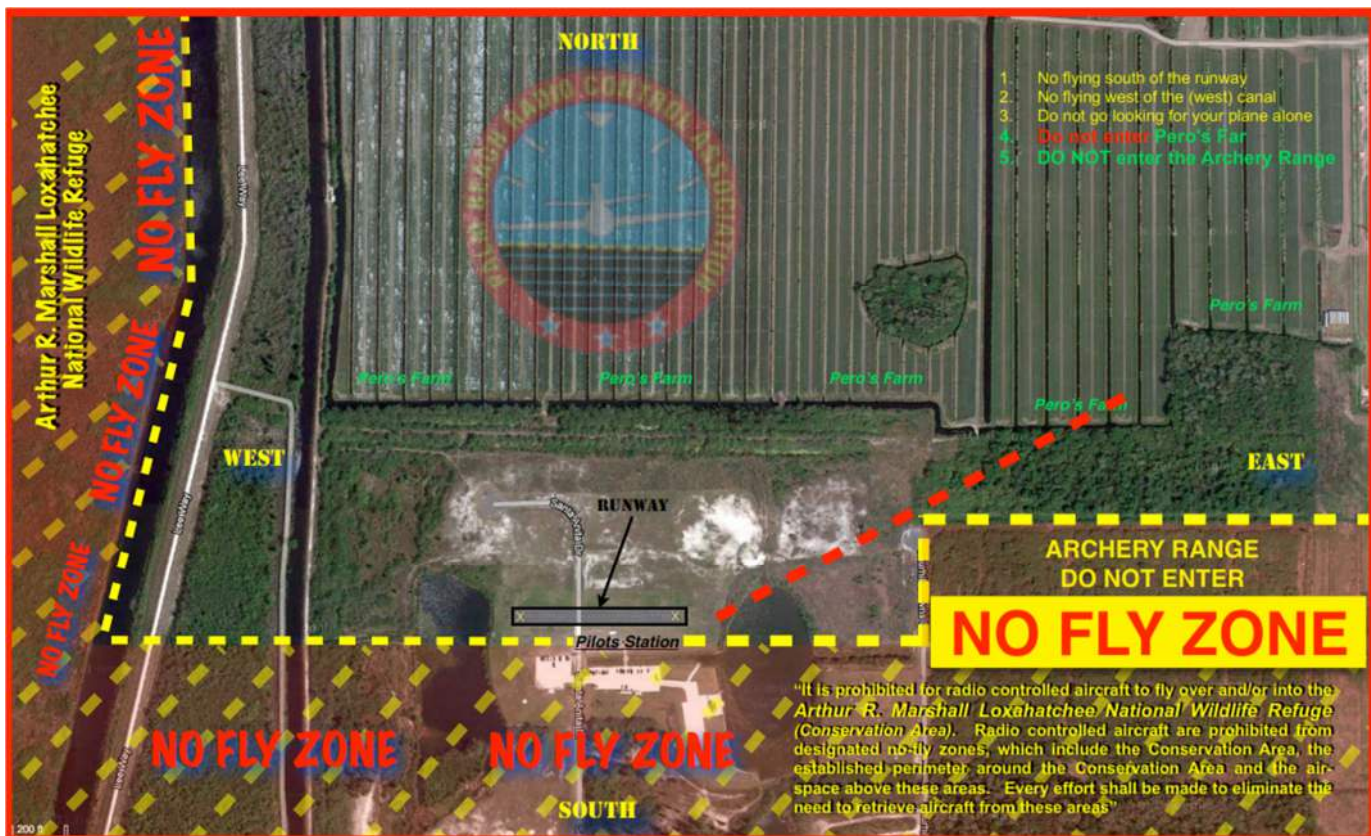
The revised safety rules and the map have been posted on the window of the press box and on our website, and can be accessed at:

[Flight Safety Rules](#)



Land-based Flight Area

Palm Beach County has previously established "flying" boundaries and we need to adhere to those restrictions. This is an aerial map showing the boundary lines for West and South flying, and it is also posted in the bulletin board located at the "impound." Our club has already been warned about flying over the Everglades by a Federal Wildlife Officer. You must fly within the designated boundaries!



PBRCA Battery Charging Station (Operating Principles)

Note that for fire safety concerns, all battery charging must be done outside of the Press Box and at the charging station. It is against Club Policy to use the 110-volt AC power strip inside the Press Box for charging batteries inside the Press Box.

For the best charging experience while using our DC-volt charging stations, users should keep the following Operating Principles in mind:

- Plan on connecting your battery chargers to the 4mm banana plug connectors on the DC Power Strips, using connecting wires ideally 24" long with banana tip plugs.
- To protect the DC Power Strips from fire, battery chargers and batteries should be placed on the wire shelf below the metal boxes that house the DC Power Strips. Please avoid placing items in the metal boxes.
- Battery charging must only be performed when the Smart Batter Monitor shows the charging system's voltage above 12 volts. For example, in the screenshot



the system is reporting 14.1 volts, so charging would be safe since it's above the minimum 12 volts.



- Users must charge their batteries within the following operating parameters of the DC Power Strips:
 - the maximum output current for each position is 24 Amps, **AND**
 - the total maximum current is 50 Amps.
- Multiple users charging at the same time should coordinate among themselves to stay within the operating parameters of each charging station to avoid overloading the system.
- For safety and convenience, the charging stations are equipped with resettable circuit breakers. In the event a circuit breaker is tripped, first locate, and correct the offending connection(s) and then reset the circuit breaker.

Happy and safe charging!





TRUST

HAVE YOU TAKEN IT!?

(THE RECREATIONAL UAS SAFETY TEST)

YOU SHOULD.

<https://trust.modelaircraft.org/>



CLUB MERCH

Hats and shirts are available
for online ordering!



Pick your size and color and have it delivered to

SEWBUSY.COM

your door!

