



Fort Worth Thunderbirds Radio Control Association Inc. **The Pilot's Log**



Issue 4477, November 2020

Next club meeting: January 1st, 2021, at our flying field

Presidents Corner: by *James Meadows*

The end of 2020 is just around the corner, and it's been a different kind of year for sure. As we wrap up the year, just a few quick reminders of a few things. Its membership renewal time for the club and for the AMA for many of you. Your membership is important to us at the local level and to the AMA on the national level. AMA benefits aside, your membership gives AMA a voice when informing, objecting and negotiating with Government policy makers. It's a fact that! Organization that can show a large membership base can get the attention of our elected officials far easier than smaller organization. You count! Your Thunderbird membership assists us with keeping our world class flying site, maintaining at our high standards, making timely improvements. It's also a great place and organization to just hang out and talk shop to fellow aviation modelers. We value each of you and thank you for being a Fort Worth Thunderbird. If you're not a Fort Worth Thunderbird You Should Be! See Chris for membership information, renewals or visit our website.

Elections, unlike the recent national election, the Fort Worth Thunderbird Officer elections are complete, with the exceptions of Thunderbird of the Year Selections. Ballots for that selection will be forth coming. Returning for another term will be Secretary Mike Schroeder, Treasure Chris Berardi, Vice President Rob Lowe and President James Meadows, the vote was by acclamation at the last meeting. For 2021, we will say good-bye to Ed Kettler as safety officer and welcome Bill Lake to the Safety Officer Role. Ed did an outstanding job, both as the safety officer, and keeping me straight behind the scenes. He will still be around, the field and hobby, but is also concentrating on full scale aviation endeavors. Thanks again Ed. For the board, I want to say thank you for your support and confidence you have given all of us over the years. It is greatly appreciated!

Due to the COVID-19 issues, our annual Holiday celebration is cancelled, but not completely forgotten. After much discussion, the board invites everyone to our BIG Blowout 1 Jan 2021 Black eye Pea event. This event will be a compilation of many events. Details are still being finalized, but here is what I can tell you! The event will be held at the field on the 1 Jan 2021. It will combine aspects of our traditional Black eye Pea event as well as a gift exchange for club members, and a Fly-in and raffle.

The Fly in and raffle will benefit Cancer Awareness and treatment. There will be of \$25.00 landing fee, for the flying activities. Flyers will be provided with 1 ticket, toward the raffle items, and may purchase other tickets to increase their chances of taking home an item. All proceeds from the fly-in and raffle will be donated to a long-time thunderbird member who is battling pancreatic cancer. More information on this event will be provided by special mail outs and postings on the website. Below are two of the items that will be in the raffle.



Great Planes P6E Hawk RTF minus RX, Magnum 52 Four stroke, Extra Cowl



VQ Kitfox RTF minus RX, Electric powered, STOL look out!

If you would like to donate an item for the benefit raffle, please contact Ken Knotts or James Meadows.

Our Next Scheduled meeting/Event will be the Black-eyed Pea event. Please make plans to attend and participate in all activities on the 1ST. It will be a good time for all and will make a difference to others.

Happy holidays, Stay Safe

Vice Presidents Corner: by Rob Lowe

Hello Thunderbirds! I hope this finds you safe and well. It seems like this crazy 2020 just keeps giving and giving - good and bad. Let's start with the not completely what we want...

We are still in search of a location to hold our monthly club meetings. Please know your officers are exploring any and all options we can. Unfortunately, with the COIVD situation continuing to worsen, we are not finding any locations that will accommodate groups at this time. As a result, we had the October meeting at the field and the weather cooperated perfectly. It was a good time and for those of you we missed, I hope to see next time. Please be reminded that we will not have a November meeting due to the holidays and we have also had to cancel the Holiday party we normally hold at the Botanic Gardens. Good news though! We will have a blow out on New Year's Day - January 1st! Details still to be determined, but plans are coming together for an amazing time including an even larger pile of giveaways than we have a normal Christmas party! Make plans now to join us. It will socially distanced but full of fun, giveaways and flying at the best field in the country!

Ok, let's move to something more positive from 2020... Long story and sequence of events put me together recently with a local aviation photographer who is doing some work for the building where I work. He and I hit it

off and when he found out I fly RC planes, he said "I need to connect with you my good friend who is also an avid RC pilot". I didn't think a lot about it, but later that day, he sent an email to me and his friend and a "handshake introduction" between us. His good friend is no other than US Navy Test pilot and NASA Astronaut, Hoot Gibson! Hoot and I have had a great time connecting about all things RC, including a special project he is working on for a very unique US Navy plane. Hoot has texted me videos of his testing and building of this unique plane. Suffice to say, he is a very accomplished scratch builder and willing to take on big challenges. I was pleasantly surprised to see AMA include a recent podcast with Hoot Gibson where he talks about this very project and there is video and lots of background on the details. If you haven't seen it yet, let me highly encourage you to check out this AMA podcast. I know you will find it time well spent. You can find it here:

<https://www.youtube.com/watch?v=MCS0EpmlO54&feature=youtu.be>

That's it for this month. I hope to see you at the field soon! Here is my "virtual Low Pass Salute" to you Thunderbirds!

October 28th Club Meeting Minutes: by Mike Schroeder

Meeting started 6:00pm or 1800 hours. The meeting is being held at Thunderbird field as we still cannot find a place that will take a group over ten and be safe. If anyone knows of a central location meeting place please contact a board member.

Events

Jet EDF event hosted by Tom Blakeney: 18 pilots and there were no crashes to report. We hope to have this

event every year now. Nice raffle with several very nice planes to give away.

TEX Electric Expo: This event was canceled this year and will be back next year

SPA West: Great turn out even though the weather was not always perfect but they were able to get all the rounds in for the competition.

Christmas Party: Unfortunately has been canceled and we will instead have a combined Christmas // New Years Day event at the field. More news to come.

Officers Report

Treasurers Report by Chris Berardi: Chris briefly talked about the renewing of your Thunderbird membership by the end of the year. The gate lock will be changed to a new keyed lock and all renewals will get a new key from Chris. Dues are due January 1, so you need to go to the Thunderbird club website and register and pay using Pay Pal, the preferred way to pay your annual dues.

No other officer's reports.

New Business

Sam Corlett talked a little about the IMAC event in Sherman Texas that he and his son attended. Sam beat his son and Sam Jr came in third in the Freestyle event. Twenty-seven pilots attend the event.

There were several large airplanes donated to the club. These free planes were looking for a new home. Mark Elhers was able to take a few large planes.

Credit to Phil Dunlap for his great videos he has been posting on his You Tube channel. Phillydee

Ed Kettler is retiring from the board and the nomination was made for Bill Lake to be the new Safety Officer. Nomination was made by Mike Schroeder. A motion was made by Ken Knotts to vote on Bill Lake becoming the Safety officer and second by Johnny Hunt. Show of hands and Bill Lake is now the new Safety Officer.

The rest of the officers on the board are willing to serve one more year.

Board meeting talked about asking the CORP for a twenty year lease with the Thunderbird's wanting to do several improvements in the coming years. We need to secure the twenty year lease if we are going to pay for the improvements.

The question was raised if the Thunderbirds are interested in hosting the WAMS Swap meet as WAMS has lost their site to have the event. As of this time there is more to talk about.

Board to install reflectors on our entrance gate as to help members see the gate in the evenings, and I may add during the day.

Meeting ended 6:25 or 1825

Thunderbird Members Attendance

Tab Bowman
Chris Berardi
Sam Corlett
Johnny Hunt
James Meadow
Ray Coats
Ken Knotts
Dennis Niles

Mel Wells
Dave Cinnamon
Phil Dunlap
Rob Lowe
Jeff Opal
Garry Shinlder
Ian Waring
Woody Lake

Bill Lake
Pete Lucas
Chip Kiehlbauch
Tom Benke
Berrie Olson
Bill Boro
Mike Schroeder
Mark Elhers

From the Treasury: by Chris Berardi

No Report this month

Membership Type	Count
Individual	142
Family	13
Associate	8
Life	12
Service & Gift	3
TOTAL	201

Safety: by Ed Kettler

This will be my next to last note as the Safety Officer. It has been a great three years for me to be a club leader and help grow the club. I am thankful for Bill Lake's volunteering to take over the safety officer role, and I know the club will be in great hands.

The keystone of my tenure is the AED acquisition and continued safety awareness at club meetings and at the field. We have continued to improve the field to make it safer through refreshed marking, new signage and additional safety markings. For example, last weekend James, Rob and I installed reflective tape on the gate at Joe Joplin Road. You will also see new signs being installed in the near future to better define the flight areas.

I think some of you wondered where I was going with my expansion of safety into your personal lives with my topics on cyber security for passwords and phishing, and then my focus on Remote ID for the safety of our great hobby. Safety is a mindset. It involves situational awareness for yourself but the others around you: if you see something, say something.

Blue skies!

Ed

Members

We managed two maiden flights this week. The weather finally cooperated and we managed to get in a maiden flight on Mel's Dauntless. Moderate crosswind and the first two attempts resulted in a ground loop. Third time was the charm and once the Dauntless was trimmed out it flew great. Landing was uneventful. Second flight was even better and Mel got some stick time as well. Having so much fun the flight time got away from us and we came close to depleting the battery capacity (BINGO Fuel). Fortunately we had enough for landing but a go around was questionable. Big smiles all around!

Second maiden flight of the day was on Woody's E-Flight P-39 Aerocobra. Once trimmed the following two flights were uneventful. A super flying airplane. Great day for flying.



Renew your UAS Registration with the FAA!

Your FAA UAS registration is going to expire in the next 30 days. **Renew Now!**

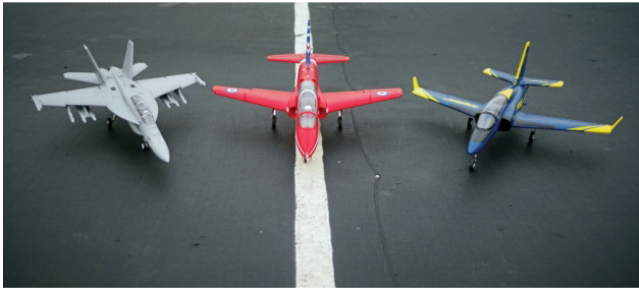
The official website for registration is: <https://faadronezone.faa.gov/>

Getting Started with EDF Jets: by Jon Barnes, August 2019 issue of Model Aviation

Why do pilots typically find themselves interested in flying electric ducted-fan (EDF) model aircraft? Although the reasons vary, many pilots are drawn to the sheer excitement offered by jet models. Most modelers probably start with a more traditional, electric-powered

aircraft with a propeller. Pilots who enjoy flying scaled-down, realistic-looking versions of full-scale aircraft have an abundance of historical, propeller-driven aircraft from which to choose.

Should a pilot wish to fly a scale model based on military aircraft from the middle of the 20th century onward, chances are that the model will be a jet.



Scale, sport, and everything in between! FMS offers a variety of 70 mm and 80 mm jets. (L-R) 70 mm F-18, 80 mm Hawk, and 70 mm ViperJet.

As a pilot's skill set continues to develop, he or she is often drawn to more advanced models that offer greater piloting challenges. Jets are typically faster, higher-performance models that demand more advanced piloting skills.

Near the end of the 20th century, RC modelers who were interested in flying jets had several options. Pilots with deep pockets could satisfy their need for speed with traditional wood or composite-construction models powered by newly available, small aircraft turbines.

Although the wow factor of these turbine-powered models has always been off the charts, the expense of ownership and turbine waiver requirements has generally reserved this type of jet model for a small group of modelers.

Pilots with limited hobby funds who were nonetheless determined to fly jets at the turn of the century could either use a hard-to-find pulse-jet engine or the more commonly employed high-rpm, two-stroke internal-combustion engine driving a multiblade impeller mounted in a shroud.

The latter option required that pilots wring every last bit of performance out of it in order to generate the thrust necessary to get the model down the runway and into the air. Pilots needed patience to tune and retune the finicky, tuned-pipe, header-equipped ducted-fan engines, and the models almost always seemed to reside roughly six blocks deep on the wrong side of the power/performance curve!

Welcome to the 21st Century!

The turn of the century saw several exciting technologies emerge and converge. The result for modelers would prove to be a veritable cocktail of electronic excellence—one that would ultimately lead to affordable, high-performance electric jets for the masses!

With the arrival of the higher-power density and delivery capabilities of LiPo batteries (replacing NiCd and NiMH cells), brushless DC motors, and ESCs (that

signaled the end of heavier, less-powerful, brushed DC motors), electric-powered RC aircraft entered a new millennium.

The amazing capabilities of these new technologies are showcased in EDF-powered jets. Although foam-composition models had been available for decades, the 21st century saw designers and manufacturers create a level of quality and detail that was lacking in earlier iterations of foam-based models.

Fast forward to the last 5 years or so and EDF enthusiasts have been living their best lives! High-quality, mainly foam-composition EDF jets have been released at a wallet-destroying rate. A relentless stream of EDF jets, in a variety of sizes and prices, have been released by the likes of Freewing (distributed in North America and Europe by Motion RC), E-flite (distributed by Horizon Hobby), FMS (distributed in North America by Horizon Hobby), HobbyKing, and more. Many models are offered in almost 100% turn-key plug-and fly (PNF) configurations, with pilots only needing to supply a radio system and a flight battery, and spend an hour or two assembling them.



From small to large, EDF pilots who are interested in exploring a twin can opt for the E-flite UMX 28mm A-10, the FMS 70mm A-10, or an even larger 80 mm A-10 from Freewing (not pictured) that can be upgraded to a 90 mm power system!

Because many pilots enjoy sourcing even higher-performance EDF power systems, ARF or kit-only versions are sometimes available. These versions typically omit the fan and ESC, allowing pilots to provide and install their own choice of power system. In the last decade, EDF impeller technology has evolved from the original four and five blade rotors known for their ability to generate unpleasant, ear-piercing banshee shrieks when at full rpm to higher blade count rotors capable of emitting lush, turbine like acoustics.

Although most EDF jets fall into the scale category, pilots can also select from a number of fantasy-based sport jets. This sport category of EDF jets is typically free from adherence to any level of scale fidelity and they are often engineered to achieve all-out speed and performance.



A scale jet dressed out in a pseudo military color scheme. With receiver-embedded AS3X and SAFE technologies, the E-flite 70mm Viper qualifies as a good first EDF jet.

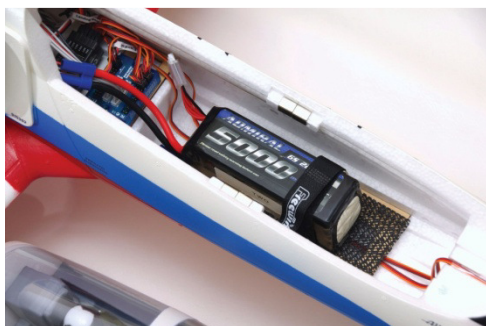


The Flex Innovations 90mm FlexJet has an amazingly wide flight envelope. The included Aura 8 flight controller, with its preprogrammed flight modes, helps EDF pilots who have a variety of skill levels ease into 90 mm EDF jet ownership.

Pilots have a variety of EDF sizes and shapes from which to choose. Let's take a closer look at some of them.

28 mm to 68 mm

The smallest EDF-powered jet models that are currently available in the mass-produced market are the UMX series of micro-size EDF models from Horizon Hobby. These small jets are powered by 28 mm diameter EDF fans that utilize low blade count rotors and high-Kv brushless in-runner motors. The type and variety of UMX-size jets distributed by Horizon Hobby has varied through the years. EDF pilots who are interested in starting small can choose between a MiG-15 and a twin EDF-powered A-10 Warthog.



EDF jets perform best when using high-quality, high discharge-rating LiPo batteries. Pilots interested in

flying 70 mm, 80 mm, and 90 mm EDF jets should buy six-cell 3,200 mAh and larger battery packs.

Both models are available in BNF kits, which mean that a pilot only needs to supply an appropriate size and capacity two-cell flight battery and a Spektrum compatible transmitter. With respective flying weights of 3.75 ounces and 5.9 ounces, these feather light models would appear to be best flown on calm days. Thanks to gyro stabilization technologies (AS3X and SAFE) embedded in the included receivers, these tiny jets fly like much larger models and can even be flown on breezy days.

SAFE mode offers less-experienced pilots the benefit of pitch and bank angle limitations, which can help mitigate the tendency to over control a model. Another tangible benefit of the embedded technologies is that should a pilot lose orientation or become confused, a panic mode recovery option will level the model's wing and give the pilot time to regain control!

Aircraft in this size and class typically include removable fixed gear for rise-off-ground-style departures and arrivals. A second option is to remove the fixed gear, hand launch the jet, and recover it by belly landing it in the grass. These micro jets offer an attractive and affordable way for pilots to test the EDF jet waters.

Nearly a decade ago, a diverse series of 50 mm sport-scale EDF jets from Sky Angel fairly ruled the sky. Although the included fan was not necessarily known for its power or thrust, the jets, when flown on the stock configuration, were lightly loaded. The Sky Angel 50 mm hangar originally included the F-86, F-16, F-18, A-4, L-39, Hawk, T-33, F-35, F-22, and others.

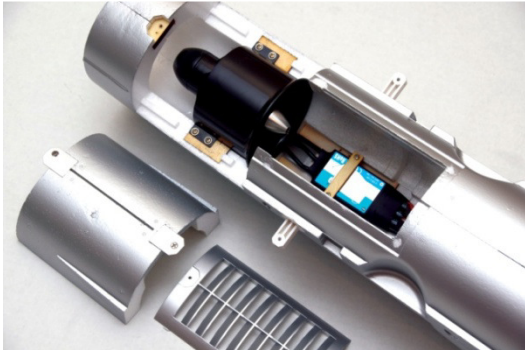
Many pilots have found these smaller jets to be a great platform into which they can install more modern, higher-performance 50 mm EDF power systems. Although not as popular or widely available as they once were, the smaller jets can still be found at several online retailers. Those in the US, who are interested in exploring the once-popular series, might want to check out Banana Hobby. Several overseas online hobby shops are also known to stock a limited selection of these foamie jets.

Moving up in size, an expanding series of 64 mm scale jets has been released by Freewing during the past year or two. Based on lesser-modeled aircraft, these 64 mm EDF-powered jets are distributed by Motion RC. Available models include the F-105 Thunderchief, the F-8 Crusader, and the fairly obscure Lippisch P.15.

Additional legacy models are available and multiple new ones are reported to be coming soon. These might be attractive to EDF pilots because they fly on three and four-cell LiPo battery packs. Pilots bitten by the speed

bug should opt for the little Lippisch. Its stock 64 mm power system, when flown on a three-cell battery, transforms this little flying wing into a speedy jet! Swap out the stock power system for a four-cell-based EDF, and the Lippisch can gain a pilot admission into the 100-mph club!

Another recent offering that utilizes a 64 mm EDF power system is E-flite's camouflage blue and grayschemed F-15. The fan used in this model offers a higher blade count than the Freewing 64 mm jets, resulting in more pleasing acoustics.



The heart of the beast! When assembling a new EDF PNF kit, make sure to inspect the motor-to-ESC connections. It is usually a good idea to secure the connections with electrical or 3M Blenderm tape.

Embedded stabilization technology allows inexperienced jet pilots to acclimate to flying an EDF jet. Like most of the EDF models of this size and in this class, these aircraft feature removable, fixed, tricycle landing gear. The smaller size typically precludes them coming equipped with retractable landing gear.

70 mm to 80 mm

Moving into the larger 70 mm and 80 mm EDF powered jets, pilots can expect models with enhanced functionality and additional attractive features. The caveat that must be mentioned at this juncture is that models in this size and class are nearly always powered by six-cell power systems. This can require pilots who are accustomed to using smaller batteries to commit to buying and building an inventory of six-cell packs.

Most 70 mm and 80 mm EDF-powered jets that are manufactured these days feature electric retractable landing gear, flaps, factory-installed lighting systems, and other enhancements. The larger size of these jets permits manufacturers to create a higher level of detail in the molds and use supplemental plastic composition parts. Because bigger flies better, these larger jets are less susceptible to poor weather conditions and wind.

There is an astonishing variety of mainly foam-composition jets that are available in this size and class. A quick summary of some of the latest releases includes the E-flite 70mm Viper Jet and 80mm F-4 Phantom; the

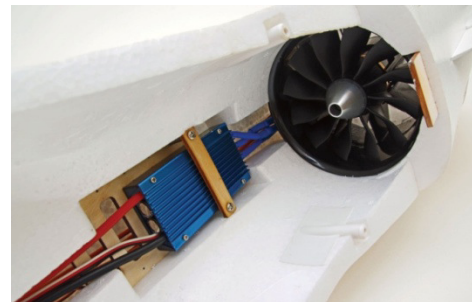
Freewing F-35 70mm and L-39 80mm Albatros; the FMS 80mm Futura and 70mm Avanti; and the HobbyKing 70mm SkySword.

Pilots who want a good, entry-level 70 mm jet might want to check out the Viper. Its embedded gyro stabilization technologies (Spektrum AS3X and SAFE) allow fliers to progressively hone their EDF skills. Those with more experience and who are attracted to scale jets will have a tough time deciding between the Phantom, the L-39, and the F-35! All three have a high level of scale realism, are feature rich, and include high-performance, high blade count fans.

A variety of sport jets are available in this class. FMS offers pilots a choice of either 70 mm or 80 mm sport jets with its Avanti and Futura models. These aircraft offer triple-digit speeds and beyond. One of the slickest fantasy-schemed sport jets currently available is the SkySword. This stiletto-shaped jet looks like it came straight out of a science fiction movie! Available in either a neon pink or canary yellow color scheme, the SkySword is perfect for those who are attracted to unconventional-looking models.

90 mm and Larger

Jets powered by 90 mm and larger fans are the *crème de la crème* of the EDF jet world. Their larger size allows manufacturers to achieve the highest levels of scale detail and realism possible in the EPO foam manufacturing process. Most of the models in this larger class are powered by 90 mm EDFs, although there are a few 105 mm and 120 mm (and maybe even larger) mass-produced EDF jets available.



High blade count EDF power systems are generally standard equipment on the latest generation of EDF jet kits.



A close-up of the impeller used in a typical EDF unit. Although high blade count fans create a larger net current load than lower blade count fans, their turbinelike acoustics and in-flight performance are hard to beat!

Although most of these larger EDF jets utilize six cell power systems, manufacturers often make a higher 8S power system-equipped version that is available for pilots who place an absolute premium on performance. Pilots might need to go with a higher channel-count receiver to fully take advantage of the features included with some of these big jets.

Another development that is taking the scale realism of these larger EDF jets to an even higher level is 3D-printed parts. Motion RC has been developing and sharing the files so that pilots can print incredibly detailed 3D cockpits and other assorted scale goodies.

Although it has been available for a few years, the Freewing Super Scale 90mm T-45 Hawk stands out as what manufacturers are capable of achieving. This gorgeous red and white U.S. Navy-schemed jet includes leading edge slats, speed brakes, sequenced gear doors, and a full set of LED navigation lights and strobes. The sight and sound of this supremely scale jet is what EDF jets are all about!

Another notable 90 mm jet is the Flex Innovations FlexJet. Although it looks like a modern military jet trainer, this model is actually a fantasy-schemed sport jet. The FlexJet, which was recently made available in a vectored-thrust variant, boasts and benefits from an included, preprogrammed Aura 8 stabilization system. Pilots only need to configure the transmitter to select between the available three or four preprogrammed modes.

Every nuance of this 90 mm jet's in-flight performance envelope has been vetted and explored by Flex Innovations team of world-class pilots, with the resulting embedded in the Aura 8.

Pilots who are looking for the ultimate in a large, high-performance, high-power sport jet even those who are newer to the genre will find the Aura 8-equipped FlexJet amazingly easy to fly in the tamed down flight mode. As pilots gain proficiency, they can progress to more advanced flight modes and unlock this model's full potential.

Piloting Skillset Required

As compared with flying propeller-driven aircraft, pilots will always need to stay ahead of their EDF powered models. Although propeller-driven models typically respond almost instantly to any increase in throttle, EDF-powered jets have a slight lag in response to the throttle.

Additionally, newer jet pilots should always remember to pull the throttle stick back to a moderate, midstick position after taking off. Leaving the throttle wide open will result in many jets screaming across the sky at triple-digit speeds and taking on an almost indistinguishable silhouette in mere seconds.

The high blade count EDF power systems used in the current generation of EDF jets can pull a lot of current from a flight battery. Although the actual flight length is ultimately dependent upon a pilot's throttle usage, the flight durations of EDF-powered jets tend to be shorter when compared with those of their propeller-driven cousins.



The scale and realistic appearance of the Motion RC distributed Freewing Super Scale 90mm T-45 Goshawk is gorgeous!

Pilots who use the transmitter countdown timer feature should start with a 3 to 5 minute time and adjust it as they gain familiarity. Good-quality, high discharge rate LiPo batteries are suggested. Fliers should be cautious of the intense, maximum C rating that many LiPo manufacturers have claimed maximum discharge ratings of 100 and higher are sketchy at best. Quality, name-brand 40C LiPo batteries should be adequate and will generate good results when used in EDF jets.

When it's time to land, the most important thing to remember is to carry a little speed because EDF jets typically react slowly to throttle increases. It is best to understand the model's stall speed before attempting the first landing.

Conclusion

The sky is truly the limit when it comes to EDF jets, and there has never been a better time to be an EDF enthusiast. We're past the halfway point of 2019, and an impressive number of new products have already been released! An 80mm Havoc sport jet from E-flite claims to be good for 10-plus-minute flights and top speeds of 140 mph. A 90mm F-22 Raptor from Freewing and Motion RC, with a Blue Angel-schemed 90mm F-18C hot on its tail, are in the prerelease ordering phase.

With the explosion in 3D printing technology, some pilots have even designed aircraft that can be printed. EDF enthusiasts with access to a larger, table-equipped 3D printer might want to check out the 3D-printed 120 mm L-39 by RCGroups user Lynxman (search on RCGroups for 120 mm 3D printed L39)!

Pilots who enjoy installing higher-performance EDF power systems in their jets might want to connect with Gary at EffluxRC. He has been in the business of providing EDF power systems for many years and can knowledgeably suggest upgrades to many of the jets that are currently available.

Finally, many pilots prefer a unique model—one that does not look like every other jet. The easiest way to create a custom graphics scheme for any EDF jet available is to grab some quality custom vinyl graphics from Callie Graphics. Callie knows how to scale artwork to fit on any size and class of models and the results are always stunning.



The new Motion RC/Freewing 70mm F-35 Lightning II Version 3. The Version 3 moniker illustrates how some manufacturers periodically update a popular jet model to further enhance its scale realism and more fully take advantage of advances in EDF power systems and electronics.

TOYS for TOTS

The FW Thunderbirds will have a box out at our field this Saturday and again on the 12 Dec. Donations can also be made directly to the Marine Toys for Tots via their website and thru Amazon.

Marine Website: <https://www.marinetoysoftots>



THUNDERBIRD TENTATIVE 2020-2021 CALENDAR

November

Toys for Tots

December

Club Christmas Party

CANCELLED

2021 Events

January 1

Blow Out Extravaganza Fly In

Club Officers

April 24

SPA

Ken Knotts & Gary Alphin

WWW.FWTHUNDERBIRDS.ORG

POSITION	BOARD MEMBER	CONTACT EMAIL
President	James Meadows	president@fwthunderbirds.org
Vice President	Rob Lowe	vicepresident@fwthunderbirds.org
Secretary	Mike Schroeder	secretary@fwthunderbirds.org
Treasurer	Chris Berardi	treasurer@fwthunderbirds.org
Safety Officer	Ed Kettler	safetycoordinator@fwthunderbirds.org

Club Officers 2020



Pres: James Meadows VP: Rob Lowe Sec: Mike Schroeder Safety: Ed Kettler Treas: Chris Berardi

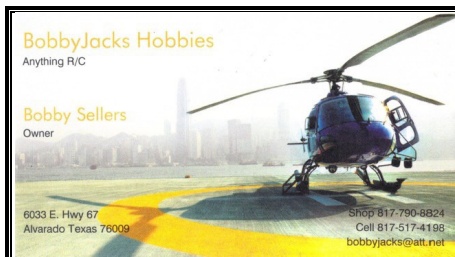
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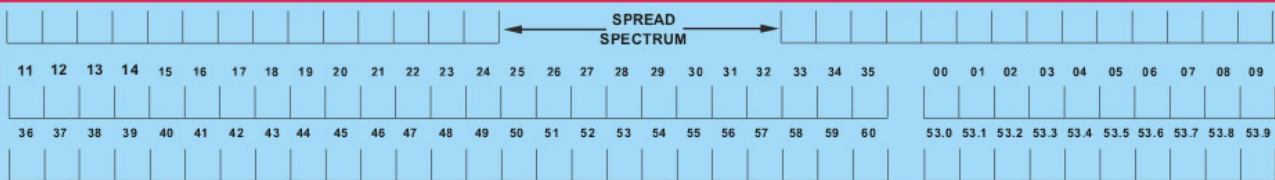


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jtshobby@yahoo.com



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6033 E. HWY 67 Alvarado TX 76009
bobbyjacks@att.net

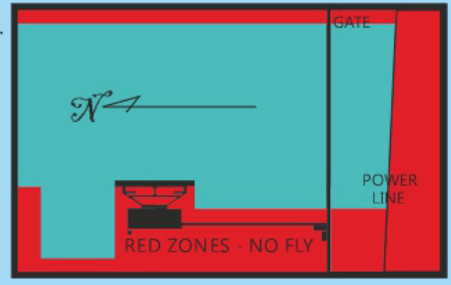
Electric Fly-in 2012 and 2014



CURRENT AMA CARDS ONLY. NO OTHER CARD IS ACCEPTABLE.

THIS FIELD IS LEASED BY, MAINTAINED BY, AND ITS CONSTRUCTION FUNDING WAS SECURED BY
THE FORT WORTH THUNDERBIRDS RADIO CONTROL ASSOCIATION
 ALL AMA, CORPS OF ENGINEERS AND THE FOLLOWING RULES APPLY TO EVERYONE FLYING HERE.

1. Neither the Thunderbirds nor the Corps of Engineers is responsible for accident or injury.
2. Place your AMA card in the proper slot above before turning transmitter on.
3. All engines must have effective mufflers.
5. Fly from the station nearest the downwind end of the runway. In case of a crosswind the first pilot to fly will select the station.
6. Aircraft must follow the takeoff and landing pattern in effect.
7. Landing aircraft have the right-of-way over aircraft taking off.
8. Running aircraft shall not be left unattended.
9. No more than 5 pilots shall fly in each designated zone at one time.
10. LMA rules are posted in the bulletin board



**Academy of Model Aeronautics
National Model Aircraft Safety Code**

Effective January 1, 2018

A model aircraft is a non-human-carrying device capable of sustained flight within visual line of sight of the pilot or spotter(s). It may not exceed limitations of this code and is intended exclusively for sport, recreation, education and/or competition. All model flights must be conducted in accordance with this safety code and related AMA guidelines, any additional rules specific to the flying site, as well as all applicable laws and regulations.

As an AMA member I agree:

- I will not fly a model aircraft in a careless or reckless manner.
- I will not interfere with and will yield the right of way to all human-carrying aircraft using AMA's *See and Avoid Guidance* and a spotter when appropriate.
- I will not operate any model aircraft while I am under the influence of alcohol or any drug that could adversely affect my ability to safely control the model.
- I will avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- I will fly Free Flight (FF) and Control Line (CL) models in compliance with AMA's safety programming.
- I will maintain visual contact of an RC model aircraft without enhancement other than corrective lenses prescribed to me. When using an advanced flight system, such as an autopilot, or flying First-Person View (FPV), I will comply with AMA's Advanced Flight System programming.
- I will only fly models weighing more than 55 pounds, including fuel, if certified through AMA's Large Model Airplane Program.
- I will only fly a turbine-powered model aircraft in compliance with AMA's Gas Turbine Program.
- I will not fly a powered model outdoors closer than 25 feet to any individual, except for myself or my helper(s) located at the flightline, unless I am taking off and landing, or as otherwise provided in AMA's *Competition Regulation*.
- I will use an established safety line to separate all model aircraft operations from spectators and bystanders.

For a complete copy of AMA's Safety Handbook please visit:
www.modelaircraft.org/files/100.pdf