Fort Worth Thunderbirds
Radio Control Association Inc.

The Pilot's Log

Issue, 4484 June 2021

Next club meeting: June 28th, 2021, 6:30 pm, Thunderbird Field

Presidents Corner: *by James Meadows*

Looks like we finally made it to summer and those 100-degree days. Of course, in true Texas weather style, we threw in some monster rains, high winds, and hail. So much rain that we had to initiate the flood response team to empty the shed and move things to higher ground. I want to thank that team for their quick response, use of trailers, vehicles, and in some instances, use of drier facilitates. This condition also prompted the closure of the Mustang Park Gate, and the only operational gate, for members only, is the Bear Creek Gate entrance. When this condition changes, the club will notify you as soon as possible.

Despite an early morning wind storm and a bone soaking thunderstorm on 12 June 2021, a dozen or so Thunderbirds found their way to the North Dallas RC Club to participate in their Warbird event. While the event was planned, the fact that so many Thunderbirds attend, was a pleasant surprise. So much so the event coordinator allowed us to have a Thunderbird Photo taken. It was good to see everyone and to share the sky with you, and the mud. LOL. Thanks to the North Dallas RC Club for your hospitality and putting on a great event.

Speaking of events! Our 4th of July event is just around the corner. Hopefully you have already made plans to attend. Official Start time for activities will be 9 am, with fun fly events planned, and lunch served at 1200 noon. As in years past, if you have some items you want to sale, swap or give away you can display your items in the parking lot area. Due to the gate issue, members and their guest should enter thru the Bear Creek Gate and lock the gate after entry. This gate will not be monitored, and must be locked after entry! Fun fly events will include, climb and glide, spot landing, balloon drop, and burst. Open flying will also be permitted. This is a no charge event. Hope to see you there.

August 8 is our scheduled Float Fly, on the shores of Lake Worth, at Camp Joy Park, dust off the floats, and make plans to attend.

Enjoy the weather, drink plenty of water, and enjoy the start of the summer with family, Friends and the Thunderbirds.

Vice Presidents Corner: *by Rob Lowe*

Hello Thunderbirds! I hope you are "warming up" to the hotter temps and flying a lot! Speaking of flying, the normal entry route into our field has been closed for awhile due to Lake Benbrook flooding. Thanks for your diligence on locking the gates as required, driving EXTRA SLOW and ensuring the locks are always "Lock to Lock to Lock" so everyone can get thru the gates. Remember, when we are in the semi-closed situation, it is members only with a key thru the back gate. If you let anyone in with you, they are your guest and you are responsible for them the entire time they are within the campgrounds and at the field.

What's in a sign? Signs sometimes lose their meaning when conditions change. Check out this photo of our field and recent flooding. Makes me wonder if the back of the sign says "No Parking Lot Access" but the lake ignored it? Ha!

Speaking of ignoring signs...signs often are used to communicate information and often remind us of requirements or rules. They often are reminders of safety protocols or procedures. Speed Limit signs on a highway are a good example. We also have safety related signs at our field and like speed limit signs, it seems we sometimes choose to ignore or willfully don't comply with the rule the sign represents. For example, at our field engine running (gas/nitro/electric) is NOT ALLOWED in the pit area. This includes ARMING your ESC on an electric. To help us remember this vital safety rule, we have a number of signs and a huge line painted on the ground demarking the "No Engine Run" line.

Unfortunately, recently there has been a rash of folks taxing into/out of the pits ignoring the rule and signage. This behavior puts everyone in danger of serious injury. It seems that instances I've witnessed personally were just laziness to avoid carrying or pulling a plane beyond the line to start the engine. They are also bad habits as well as setting poor examples. In one case an electric plane was set on the ground by a picnic table and began taxiing with the aircraft just a few feet from, and pointed directly at, another modeler. The pilot taxied around the person who did not flinch...all of which indicates both were comfortable with or at least used to this prohibited behavior.

I have ventured into safety compliance and don't mean to get into Bill Lake's swim lane as safety officer, but rather to support his fantastic message of following safety rules. Unfortunately most safety related rules in aviation are paid for in blood. With our lack of compliance at our field, we seem intent on adding to the injury potential. The good news is this is easily prevented and <u>EVERY ONE OF US IS RESPONSIBLE FOR SAFE OPERATIONS AT OUR FIELD</u>. If you see

unsafe actions, don't ignore it and hope an officer will see it. Please respectfully and politely remind your fellow pilots of the correct process. Safety is everyone's job and we are all at risk of serious injury or worse. Selective compliance with safety rules is unacceptable.

Thanks for paying attention to the signs and the message they are reminding you of. Thanks for making our club and field the best in the country!

Until next time, here is my virtual "Low Pass Salute" to you, Thunderbirds!

May 2021 Meeting Minutes: *by Mike Schroeder*

Club meeting on May 24 was canceled due to rain at the field. Therefore, there were no minutes to report.

If you are new to the club, coming from another RC club or new to the hobby of RC flying, the Thunderbird Club welcomes you to our great Thunderbird Field. This club has been a great place to fly since 1962 and has always been somewhere on Corp of Engineer (COE) along Benbrook Lake.

Our dues are very low; our field is well maintained; and is one of the best in at least a five state area. Our membership is relatively large with nearly two hundred members, all paying dues for this great place to fly.

If you are a relatively new member, please take the time to learn about the Thunderbird Club, as there are many members, past and present, who have put in lots of time to get this club to where it is now. The Club leases the airfield from the COE and does so in accordance with the requirements of that lease. Many of our rules are driven by COE, as well as AMA rules and requirements.

Many times while I am out at the field, I learn of a person who was a past president or club officer and what they had to do to develop trusting relationships with the COE, park personnel and new and old members as the club grew. I know from firsthand experience how much work our current officers put in for the benefit of the membership. But they cannot do it alone. If you can give of your time to volunteer, please do so as this is a completely volunteer run club and help is always needed. There are no paid employees for any of the tasks.

This brings me to the point that just paying a very low annual dues fee and then getting a gate key with nothing else to do to join does not mean that it can be the wild, wild west. Club members and RC guests must follow all AMA rules, local Thunderbird Field rules, and multiple Corp of Engineers (landlord) rules. To be honest, most are simply common sense rules to protect people, property and natural resources.

Please read and understand the rules so the Thunderbird Club (your club) can exist another fifty-nine years. If there is something you do not understand, ask any board members. There is probably a good and logical answer to the "why" question.
We all want to enjoy our time at the field and whether they are board members or members at large; no one wants to have to play sheriff to ensure compliance with the rules. But it is a responsibility that comes with membership to make sure we can continue flying at this outstanding location and to give the next generation of young boys and girls a chance to see what the adult kid in you loves about this hobby. It is pretty cool being a grown up playing with really cool toys.

In closing, I want to bring up a safety rule (yes, it is a rule; not an option) - that if you are flying a fixed wing plane, you must be in the pilots' box with the other pilots. Just like a real plane, the pilots are talking on their headsets letting a controller and/or other pilots know what is going on as they fly. We as RC pilots need to communicate to let the other pilots know what your intentions are as we fly at Thunderbird Field.
Be safe and thanks for being a responsible and involved Thunderbird member.

Treasurer Report: ***by Chris Berardi***

See Attachment A

Safety article for newsletter: ***by Bill Lake***

June is AMA Safety Month.
That said, I like to believe every month is a FW Thunderbirds' Safety Month. This month I chose to discuss a short bit on personal safety and a bit more on your airplane's safety. You may have noticed that it is rather hot lately. A few things to consider: (1) Drink water. Drink more water. (2) Consider wearing a wide brimmed hat to keep the sun off your noggin, ears and neck. (3) Use sunscreen and reapply after 2-3 hours. (4) Keep an eye on your flying buds. Each summer we have experienced negative effects from too much sun and heat.

Now, about the airplane … and the pilot. It falls in the category of "What if?" How prepared are you for the unexpected? What if your airplane experiences an engine failure halfway down the runway? Do you have a plan? Abort? Swing around for an engine out approach? Is there a point at which your decision will go one way or the other? Do you get airborne quickly or do you gain additional speed on the runway to have a viable recovery option from the air? What if you experience an engine failure in the pattern? Do you practice engine out approaches from various positions in the pattern? What if you did? Would you be better prepared for the inevitable need to do one for real? What if you made a less than ideal approach for landing (hard to imagine, right?) Do you have a decision point for continuing a bad approach versus going around for a better setup? Do you allow for enough fuel or electric power to accommodate for a missed approach and go around? What if you didn't? How safe is that … for the airplane's survival and the safety of persons on the ground?

Check out the attached video, knowing that would never be you, but ask yourself how well prepared are you to handle a bad situation when it arises? What if you had a plan ahead of time? When in doubt, go around.

https://www.youtube.com/watch?v=lr5d3sGxSXQ

Besides having a long tail moment, it's smart to start with a plane that can fly stable and low speeds until you get used to taking off and landing on the water.

If you're looking for the quickest and easiest route, E-Flight offers a set of floats that will fit their 25 size high winged park flyers which make perfect RC float planes once you master the basics of flight. These floats are made specifically for these planes and are a breeze to install even if you are completely new to water flight.

Float Plane Fundamentals

Converting your favorite model to an RC float plane can be a lot of fun. It can also lead to a lot of frustration and wasted money if you "dive" in without doing your homework. Ref Web Site: http://www.hooked-on-rc-airplanes.com/rc-float-plane.html

What makes a Good Float Plane?

RC airplane floats don't have the friction of the wheels to keep the airplane from rotating or moving sideways. A short and stubby airplane will basically spin around wherever it wants…
The tail moment of a longer plane's vertical fin will keep the plane turned towards the wind in the same way a weather vane points toward the wind. When flying from the ground you have to look at the wind sock to determine which way to take off. A good RC float plane IS a wind sock!

Size is important too, the bigger and heavier your plane is the better it will handle wind and ripples on the water. This is definitely something to keep in mind if you plane to fly from a large lake where waves may be an issue…

You're trusty old high wing trainer makes a perfect RC float plane. Adding floats to larger planes is not quite as straight forward as slapping a set of E-Flite floats on an E-flite plane.

But no worries, we're about to get into the details of choosing and installing your own floats.

What Floats to Use?

Have you decided on a plane? Good, the next step is finding the perfect set of floats for it...

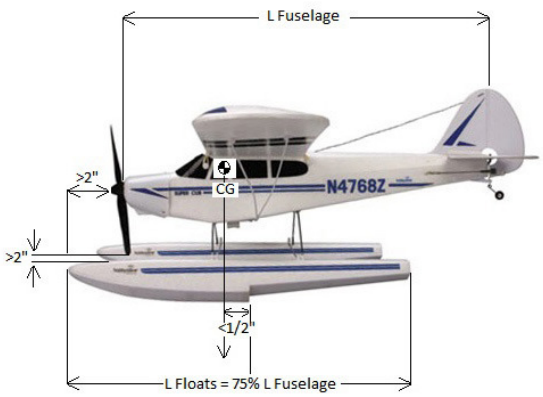
Before we talk about the size of the floats, you need to determine what type of float you want to use. You can buy ABS plastic, balsa built, or foam core. This choice is yours. This article on RC airplane floats brakes down the pros and cons of each type.

What Size Floats?

Some floats specify that they're good for a certain about of weight. Others like these Hangar 9 40-Size Wood Floats are made for planes with a specific engine size.

More than likely you'll be able to find a set of commercial floats that will come pretty close to this critical dimension. It doesn't have to be exact, but it does need to be pretty close.
If you can't find a set with the length you need, no worries. Just make your own set of foam core floats.

Critical Aspects of Installation



Installing the floats... Ah, this is where most of the problems occur if you don't know what you're doing...

There are several things at play that must be "fine tuned" for your RC float plane to have the correct angle of attack

for creating lift once the plane is up on the step skimming across the water...

Center of Gravity

The first thing you need to do is locate the center of gravity of your airplane. It's best to make sure the CG is set the original specifications set forth in the manual.

Tip

Make sure the plane is balanced before you install the floats. After the floats are installed, balance the plane again by adding weight to the floats, not the airplane. This way the plane will still be balanced should you decide to remove the floats.

Position of the Step

The "step" of the float needs to be located at or just behind the center of gravity of the airplane. As a general rule 1/2" to 1" should be about right for most average sized RC float planes.
The front of the floats should stick out a couple inches past the propeller in order to keep the plane from nosing down into the water.

The last thing you want is for the propeller to cut the front of your floats off! So be generous and give yourself a comfortable couple inches of clearance between the propeller and float. It may be a good idea or even necessary to install a 3 bladed propeller to give you the added clearance and torque.

Float Spacing

You will want to space the floats apart by at least 25% of the wing span, which is a bit further apart than most wheels on traditional landing gear. Mounting the floats any closer together may result in a spectacular splash and your plane rolls over in the water!

Mounting Angle

No matter how much power you have, your RC float plane will stubbornly refuse to lift off the water if the attitude of the plane is too low once the plane is riding up on the step of the floats. In this situation, your RC float plane is nothing more than a speed boat with wings!
If the nose is angled upward too much the plane will want to lift off to early and may stall.
Mounting your floats to the airplane at the correct angle is absolutely critical. Doing so incorrectly is the source of most RC float plane problems....
You want to get the floats parallel to the attitude of the airplane. First mount the front of the floats to obtain the proper propeller clearance. Then adjust the back of the floats until you get the top of the floats parallel with the horizontal stabilizer of the airplane.
This should put you pretty darn close to where you need to be. The wing incident relative to the top of the floats should be a couple of degrees positive. If not, you need to slightly increase the height of the front mount until you achieve a 2-3 degree positive wing incident.

Power Requirements

You're going to need a bit more power to fly your airplane with a set of floats. Why?

For starters floats weigh a bit more and create a bit more drag while flying than conventional landing gear. But that's almost negligible compared to the significant amount of friction created by the floats dragging through the water on takeoff.

So how do you know if you're plane has enough power to lift off from the water? An old rule of thumb is if your plane can take off in grass a couple of inches tall at three quarters throttle, she can handle a set of floats.

Is Flying a Float Plane Hard?

If you can take off and land a tail-dragger confidently, you can fly from the water. But there are a few things to consider before picking up your first RC float plane.

Taxiing

Water taxiing is probably the hardest thing to get used to. On a calm day, there's nothing to it! Add a little wind and you just might be pulling your hair out watching your plane chase its tail around the water going everywhere except for where you intend for it to go.

A good water rudder set up is worth its weight in gold on a breezy day. But even with a water rudder, you'll find taxiing in the wind is a challenge to say the least. It takes some practice learning to work with the wind, not against it...
When turning down wind it's important to use the ailerons to keep the wing from rising up and getting caught by the wind, otherwise your plane has a good chance of flipping over. Especially if it's a high wing trainer.

At this point it's time to relax the elevator as you apply full throttle.
Just like taking off from land, gently add elevator until she lifts up off the water for the climb out.

Once airborne the different vertical weight distribution along with the aerodynamic effects from the floats may cause her to be just a bit less agile, every plane is different. For the most part you'll find that your airplane behaves just about the same with floats as it does with wheels.

Landing a float plane is the same as landing any other airplane. You might want to come in a little hot the first couple of times as the floats may cause her to slow down a bit quicker than you're used. Just sit her down nice and easy on the floats just like the mains of a tail dragger.

Field Flooding 2021



No Pun Intended, "HOME JAMES"

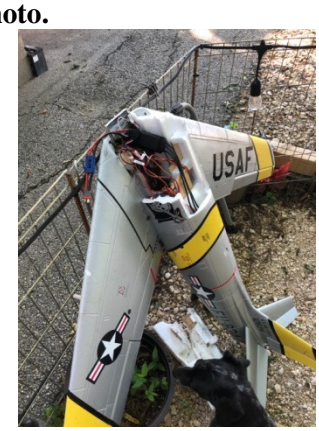
Field Flooding 2015


North Dallas RC Warbird

Thunderbird attendance at this year's North Dallas RC Warbird Event. Last one is a trash pile of destroyed pop-ups.

Flying

Some days are just not good flying days. Photo is of Woody's F-86. All was well up to about 3.5 minutes into the flight when the plane rolled over and headed straight for terra firma. It ended up in the lake and was recovered by some corps folks (much appreciated). Judging from the abrupt change from controlled flight my best guess is a loss of battery power. Another 'BIG Thank You' to Sam Corlett and his son Sam for their efforts to find the F-86 as seen in the last photo.



2021 CALENDAR

DATE	EVENT	POINT OF CONTACT
4 July	Independence Day	Club Officers
8 August	Float Fly	Mel Wells
October	Jet Fly	Tom Blakeney
October	Electric Fly-In	Tom Blakeney
23 October	SPA West Championship	Todd Blose (Waco)

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POSITION	BOARD MEMBER	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	Bill Lake	safetyofficer@fwthunderbirds.org

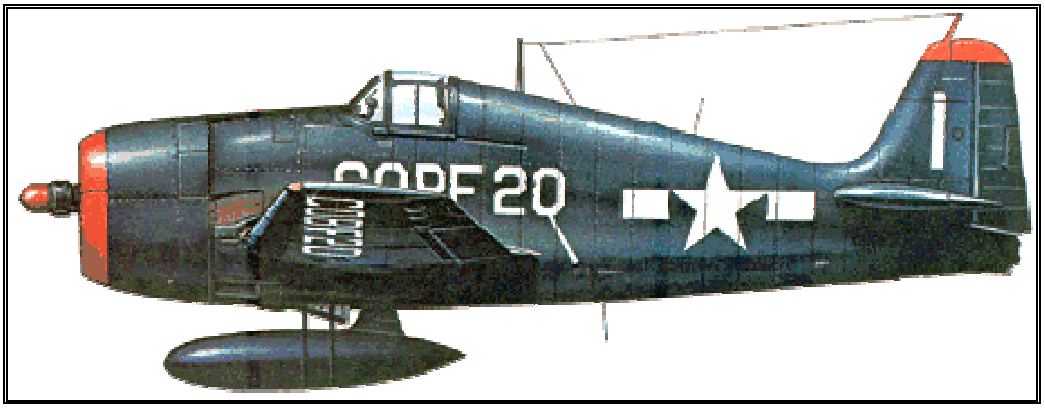
Pres: **James Meadows**

VP: **Rob Lowe**

Sec: **Mike Schroeder**

Safety: **Bill Lake**

***Treas*:** **Chris Berardi**

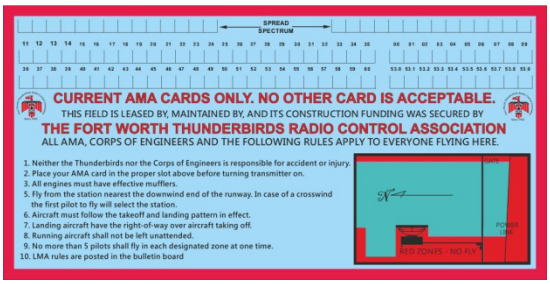


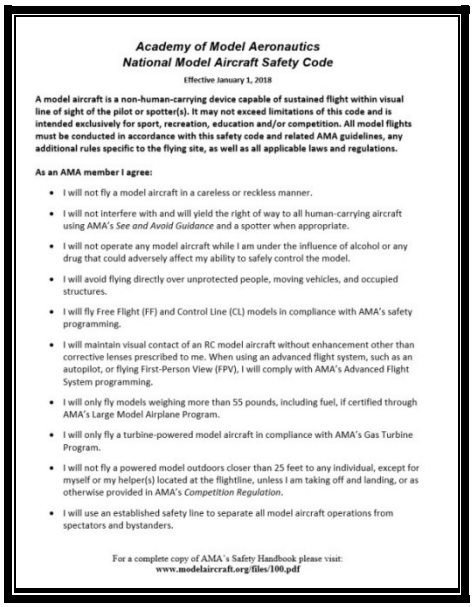
SUPPORT OUR ADVERTIZERS

Roy's Hobby Shop 817 268-0210
1309 Norwood Dr. Hurst TX 76053

JT's Hobby Shop 817 244-6171
8808 Camp Bowie Blvd. Fort Worth TX 76116

Flying Field Rules





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

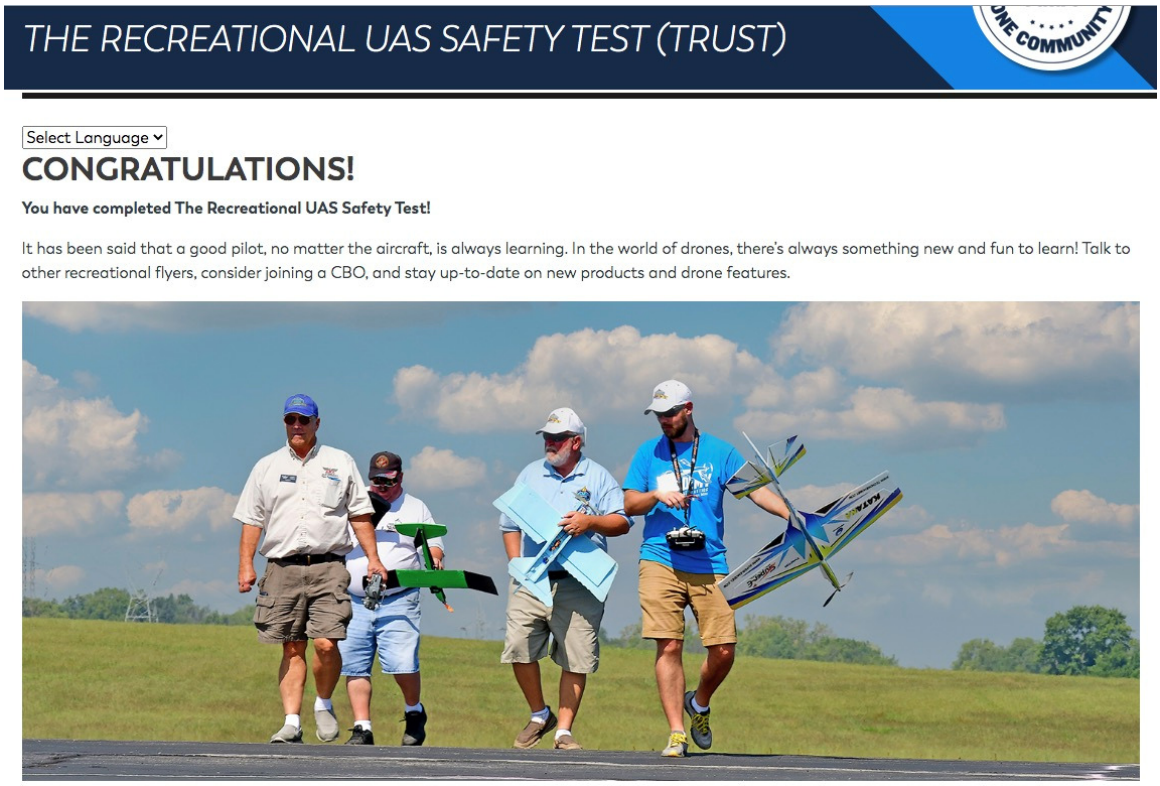
ATTACHMENT A

From the Treasury: *By Chris Berardi*

The Shape of Things to Come

You may have just heard that the aeronautical knowledge test is now a practical fact. Known as "The Recreational UAS Safety Test" or TRUST, the test is now available at one of many authorized providers including the Academy of Model Aeronautics (AMA). The URL to the AMA site is: https://trust.modelaircraft.org

The test is preceded by a brief training course covering several key areas. After each area, a series of multiple choice questions are asked. You can't actually get them wrong as the course is designed to ensure that you get a passing mark once the correct answers are provided. I know it is an easy test, because all the club's officers have already taken it - and dare I say it, all passed. Here's a screen shot of what to expect after course and test completion:



One of the things that I picked up in the course was the expectation that we modelers would be using the "B4UFLY" app. I had not used the app in quite some time so I downloaded it and looked around. It hasn't changed much and provides all the information one needs to ensure compliance with airspace, altitude and Temporary Flight Restrictions (TFR) requirements. It is worth mentioning that on occasion, a TFR will preclude us from flying at the field, such is the case when the president comes to town. So, it is now virtually mandated that you review the airspace situation before taking to the air.

The B4UFLY app is provided free of charge to users and there are also other providers and alternative resources that you can use - via your browser for example. These providers are known as UAS Service Suppliers (USS). They are approved by the FAA to provide Low Altitude Authorization and Notification Capability (LAANC) services to users via mobile apps or desktop applications. The AMA recommends UASidekick, but there are a lot of other great options out there.

Lastly, as it stands right now there is a 400 foot ceiling at a number of local, well established flying sites. The field in Waco has already posted signs in the pilot boxes indicating that there is a hard 400 foot ceiling. This situation will change over time as the FAA-recognized Identification Areas (FRIA) are established.

What does this mean to us? Well, I would recommend swapping in a telemetry receiver with altitude reporting capability. Just about any modern radio can features this capability either with like branded components or using an aftermarket sensor such as those available from SM ModelBau's, Micro Vario line. These will work with Graupner, Jeti, MultiPlex, Futaba, JR DMSS, FrSky, Spektrum and CORE protocols and cost around $50. I just purchased a Spektrum 8020 receiver that has the vario built in and displays all information right on my Spektrum transmitter.

Obviously this isn't a requirement but having this information available is instructive about how we are flying. The training course alludes to the notion that the pilot must know both what the airspace ceiling restrictions are and what the model's altitude is. Other than outright guessing, an altimeter is the only easy way to determine it.

4th of July at the Field

Your truly will be teaming up with Tab Bowland and other board members to prepare hot dogs, drinks and fixings this 4th of July. You can read elsewhere in this newsletter about specific events and times. The last I heard we were going to do a bit

of a sale and swap meet in the morning. I plan on bringing a trailer full of kits and flyable aircraft to sell. Heck, I've even got a radio to offload - and a dozen servos that I'll never use. This will all take place on Sunday - remember this is a club member event but you can bring guests to join in the fun.

You are responsible for the welfare and wellbeing of your guest: We recently had a guest who upon leaving the flying field drove at a high rate of speed through the park. Of course, the vehicle was identified and needless to say, we got the call on that one. Another event like that could see us ousted from our privilege of park access when during periods of closure.

Back to the party - we will probably send out more information on what the schedule will be and other details regarding events and food.

Membership Update

The member roster has not yet been sent out - we'll get that situation corrected within the week. With respect to membership and renewals, next year will see the implementation of a revised renewal process. We are currently working on a variety of introductory, training and membership materials that new and renewing members will be asked to review. In addition, we will actively be asking permission to contact you via email, text message or to publish your membership in the club directory. Previously we have asked about a Turbine Waiver or Contest Director license, but we'll be extending this to other categories. Lastly, before a key is mailed to a new or renewing members, an attestation affirming that comprehension of our flying site policies.

This has all to do with the new regulations springing up around us and our experience in past years of members and guests ignorance of basic flight rules and park restrictions. Our privilege is on the line and the club members, the board and guests are going to be held accountable. Believe me; just getting a call from the Corps of Engineers about speeding vehicles, members fishing and so forth, is more than stressful.

Here's another example. On countless occasions now, we have addressed members and guest about placing their AMA license on the board. Yet, even when asked to place their card on the board, the amount of pushback and outright refusal is disheartening. In virtually all of these situations, we as club members have created and agreed to follow these rules. In some cases, they are imposed upon us and that aspect is about to explode.

Ignorance is not a defense, so the board members are actively trying to help by creating an informative and interesting program. It will be a slow start as there is a lot to create and produce requiring both a creative streak and the tools and technology to complete it. Only by sticking together and becoming truly knowledgeable about our organization and operational environment can we survive the upcoming regulations.

Here is our latest membership count as of 6/22/2021.

Membership Type	Count
Individual	160
Family	6
Associate	9
Life	14
Service & Gift	2
TOTAL	**191**

That's it for my report this month; stay safe and warm, I'll see you at the field.

ADDITIONAL JULY 4th PHOTOS

2016

2017