



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



Issue 4468, February 2020

Next club meeting: February 24th, 2020, 7:00 pm, Buffalo West Restaurant, 7101 Camp Bowie Blvd

Presidents Corner: *by James Meadows*

HELP! This is a word you will see thru out this article. It's a que that the Thunderbirds need you!

HELP the public comment period for the proposed FAA Rule changes concerning model aviation or as is defined by the Rule UAS operations will close on Mar 2, 2020. If you haven't taken the time to read it, listen to numerous pod casts or YouTube videos, on the subject, you need to. Then you need to sit down and provide your comments to the FAA. Your comments need to be constructively presented, simply stating this is a bad Idea, is not effective. Mention the safety Record of Model Aviation since the start of AMA around 1938, the contributions of model aviation to aviation industry commercially and private! I know my career path was directly influenced in part, by the wonder of flight, plastic modeling, free flight aircraft and RC aircraft building as a youth. This process was repeated, in some fashion with my son Jason. The point here is a Cause and Effect that goes beyond just the numerous restrictions and requirements that these rules will impose. The government likes to define issues by cause and effect, so give them the effect that this proposal will cause to our hobby, the aviation industry, education of youth (STEM) etc. Tell them that remote id as defined in the rule, is not obtainable, not economical, and will kill the hobby, defining tradition Model aviation in the spectrum of UAS operations is a mistake, and that there are differences between Commercial UAS and hobby aircraft and that not all model aircraft fit the DRONE definition. **HELP!** Then the hard part, tell them a better way to do it! That our Community Based Organization (AMA) is the Subject Matter Experts (SME) in Model Aviation and as such, has the policies and rules in place that have resulted and will continue to provide, that long-standing safety record. To be clear, Remote ID is only one of the many rule changes proposed, others include RC field locations and registration requirements for aircraft and pilots.

HELP! Then I need you to sit down and write your elected officials, expressing your concern about the rule proposals and the mis-information that is out there. Ask them to look into it, and again provide them with the information that they need, the Cause and Effect if you will.

We are not alone in this issue. Several aviation related organizations have stepped forward to release statements, pod casts and requests to their members to provide comment to the proposed rule changes to model aviation, and its effect on aviation. The Aircraft Owners Pilots Association (AOPA), Experimental Aircraft Association (EAA) to name a few! I urge all of our members to watch, listen, or read the links below from this organizations. If you are a member of these organization or others, drop them a note expressing your thanks for the support of model aviation. The following Links are provided on the Rule change and other information):

<https://www.modelaircraft.org/about-ama/advocacy>

<https://www.aopa.org/news-and-media/all-news/2020/february/03/aopa-seeks-to-improve-drone-tracking>

<http://go.eaa.org/lKEyp000B4112U3Ot0K0A0S> and <https://www.youtube.com/watch?v=baw6viYhx8k>

HELP! SAE is coming up! April 3-5 for the competition phase, with setup beginning on the 3 April 2020. The club needs volunteers to step up to the plate, and be the hero of the day. This is a great opportunity to be part of an international event that truly can make a difference to those who participate. We need aircraft inspectors, grounds personnel, and other positions filled. If you have not replied to Bill Lake that you can assist, then please do so. I promise you, it will be fun and a great experience and you will get that SAE shirt you always wanted to have, but just couldn't figure out a way to get it. Hint: Reply to BILL LAKE'S request and give him your shirt size.

The Thunderbirds recently received some training aircraft from a non-member, Keller TX resident. Not fixed wing, but helicopters. A very thoughtful and kind gentleman from Keller TX contacted me and I went and picked them up. They should be available for training after a brief safety check and mechanical review. Thanks Mr. John Wynne for your donation and support.

Our very own Thunderbird member John George has donated numerous RTF, ARF's to the club for auction or raffles at club meeting. Truly a kind and generous act, Thanks John.

We are launching a new FACEBOOK site. Visit often!

Please get out to the field and enjoy your day or evening. Thanks for being a Thunderbird.

Vice Presidents Corner: by Rob Lowe

Hello Thunderbirds! I hope you have been able to fly during some of these great days we've had recently. Please see the vital info in the other officer's articles. Your voice needs to be heard on remote ID. Also please let Bill Lake know where you'd like to volunteer and assist with the upcoming SAE event. We need everyone to help. It's a huge lift but very rewarding. Ask any officer or Bill Lake or Tom Blakeney if you have questions about how you can help. WE NEED YOU!

Lastly, we have an exciting meeting planned for this month. Our latest installment in things you have asked for, we have a special presenter who will instruct on cutting foam wings and more!

See ya at the field! Here's my virtual low pass salute to you, Thunderbirds!



January Club Meeting Minutes: by Mike Schroeder

Meeting starts 7:00pm 1900

James welcomes club members and asked if there are any new members, visitors or renewing old members from long ago. Hunter Ande, Gary Nelson, Randy Shaw, and Dale Thomson.

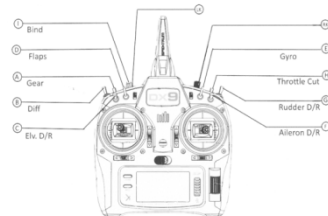
Recap December

Christmas party at the Botanic Gardens. A very fun time for all who attended. Lots of great raffle gifts with a special surprise of the gifts being wrapped.

Black Eye Pea New Years Day, largest turn out ever and only one crash

Show and Tell

Brian Way showed off his fiber glass rebuild of a trainer. This was a build using several different planes that had salvageable reusable parts. Brian was able to get several of his materials from EBay very cheap. The fuselage is fiber glassed and spray painted. The wing is monokote over ribs and is 72 inches. The plane weights roughly eight pounds. Brian is still waiting to do his maiden flight as he has a few bugs to still work out. Brian asked Joey at JT Hobbies to lay out a standard transmitter placement of switches. Thanks Bran for the Show and Tell.



Officer Reports

Treasurers Report - Chris Berardi: Chris reported on the financials of the club checking and savings which are in good standings. As of the January club meeting there are 225 members. The SAE event is coming and this is a big fund raiser for our club to cover the lease and keep our dues at a reduced cost for all of us. Please sign up for SAE if you have not. See Bill Lake for SAE information.

Secretary Report - Mike Schroeder: Motion made to suspend the reading of the minutes by Bill Lake, second by Ken Knotts. Show of hand to not read the minutes all in favor to suspend the reading of the minutes. None opposed.

Vice President Report - Rob Lowe: Rob thanked Woody for putting our newsletter together each month. Taking all the inputs from the officer's reports and anyone else who writes an article for the newsletter. Woody makes it all flow which makes our great newsletter. Thanks Woody.

Tom Blakeney gave us an SAE update and a brief description of what SAE is all about for any new visitors. Aerospace engineering university students compete in design, build, submit an engineering presentation, and test their design against other universities. This is a great time for Lockheed engineers to see students display their skills. There are three classes; Advanced, Regular, and Micro. Regular class had the rule change this year and they will be carrying soccer balls with only one hundred feet of runway to take off.

If you have never volunteered please do and contact Bill Lake. The club needs the help from every club member. You can work all four days or just put in four hours if you can. We also need wives to help out please get with Robin if you can help. Please help support your club as we need everyone to volunteer instead of just a few.

Safety Report- Ed Kettler: Thanks for a great year and no reportable safety events 2019. Please if you have not submitted your inputs to the FAA about the new proposed drone rules you have until March 1 to get those in. Be constructive and positive about how modeling is a great thing for our youth to learn. Please contact you congress person to let them know also. You can submit as many times as you want as we need to let the FAA know our thoughts.

Old Business

James went over the 2020 calendar year and if there are any items to add please contact a board member. We will post the calendar events on the website. Some of the items are:

March

WAMS Swap meet March 20-21

April

SAE April 2- 5

SPA Golden Triangle April 18

May

Warbirds over Benbrook May 2

June

WAMS Float fly, Sarge says details to come
North Dallas Warbirds June 12-13

July 4

Thunderbird Club fun fly Picnic

August

Float Fly Joy Park August 2

October

Alliance Airshow
SPA West Championship October 24-25
Electric Fly in October 31

November

Toys for Tots

December

Christmas Party

New Business

Corps of Engineers: Meeting with the Corp to discuss the current lease and new lease. What we lease is 3.2 acres of the park per year. We are proposing a 20 year lease with a payment every five years. Lots of things we would like to discuss with the Corp. Repaint parking lot, Tree removal, Heli pad area, Training room, bathrooms, RV parking with electric and water. Trying to meet the needs of our community and youth groups.

Woody: Flap Jack plane in the January newsletter and if anyone wanted a copy of the plane please get with Woody and he can get it to you.

Bill Lake was contacted by a friend who has a large model that he wants to have somebody paint it. If you are in need of a project please contact Bill Lake

WAMS update, looking for new field and they are looking at an area two miles away from the old field.

Raffle

Meeting over at 8:22pm

Thunderbird Members in Attendance

Rob Lowe	Brian Lowe	James Meadow	Tom Benke
Pete Devlin	Sarge Bell	Charles Weaver	Mark Wheeler
Tab Bowland	Peter Lucas	Gary Cummings	Randy Shaw
Wayne Lemkelde	Brian Way	Dennis Miles	Bill Lake
Roger Spence	Tracy Kobs	John Hesoir	Ed Kettler
Paul Stelly	Arron McMorres	Sam Corlett	Chris Berardi
Hunter Ande	Robin Blakeney	Tom Blakeney	Ian Warning
Mel Wells	Tom Mullen	Garry Rife	Tommy Perry
Dale Thomson	Gary Nelson	Ken Knotts	Mike Schroeder

From the Treasury: by *Chris Berardi*

Skills Worth Having

This hobby has a lot to offer, doesn't it? I credit my involvement in the hobby with so many practical skills that

on the surface might be taken for granted. These skills have helped me in my life and even through a couple of careers too.

As I was working on a model this weekend, my sons were intrigued with my handy soldering ability. There I was with several sets of 8 and 10 gauge battery and ESC leads with shiny gold bullet connectors to solder on. I had a desk worth of tools that included two tip cleaners, a sponge, a Tenma soldering station, solder, a third hand, a jig to hold the connectors, alcohol, flux and copper wicking tape.

Thinking back to my childhood, the first time I ever soldered was a pair of washers to a wire landing gear. This was to retain the solid rubber wheels of my Keil Kraft "Champ" control-line model. I found myself in my grandmother's kitchen at the island table explaining to her what I needed to do. In my hand was an inexpensive plug-in type soldering iron that I had relieved from my father's tool box. He was busy working and I don't recall even asking him to help me. But, my grandmother gave me the space on her table and off to work I went. The job must have been satisfactory because I never had any issue with the wheels on that Champ. Incidentally I flew that Champ on 25' lines and it was powered by a Davies-Charlton "Spitfire" a diesel engine of Icc.

Since then, I have soldered bits and pieces on many model aircraft, train sets and electronic projects, not to mention 100's if not thousands of pins during 6 years in the USAF. My sons were quite impressed when I showed them the shiny joints and explained how to tell a good joint from a bad one. I've never really thought too much about soldering as a skill before, but in answering their questions it was clear that not everyone knows how to do it.

If you are new to the hobby or have assembled models (such as ARFs) that do not require soldering, then take a look on YouTube for some excellent "how-to" type videos. If you are soldering bullet type connectors or large gauge wires for your battery and ESC components, you will need a good soldering iron of around 60W - 75W. If you buy a cheap \$10 iron then it won't have fast recovery or a closed loop temperature control. This means you'll be applying the iron to your work longer than you need to possible damaging insulation or other connected parts. I really like the Hakko line of soldering equipment and I have a couple of irons that I do 90% of my work with. One is a 25W iron that I use for smaller wiring and Deans connectors while the 60W iron I use on the larger EC5 and XT60/90 connectors. Both irons have ceramic elements and iron clad tips that if cared for can last many years. The Tenma 21-10115 soldering station (60W) is quite adaptable and inexpensive at around \$90. I have used this on electronics

kits all the way up to large connectors.

You will also need accessories and a solder that you like to work with. Since this is a hobby and I'm not too much worried about the lead, I use a lead based solder. Typically, lead free solders require higher temperatures and that in itself affects the oxidation of your tips and the amount of heat passed to your work. My favorite solder is M. G. Chemicals, Sn63/Pb37 (Tin/Lead), 0.050" (18 gauge) with 2.2% flux, along with an iron temperature of 650F or 800F depending on the work. This mix of Lead and Tin is known as a eutectic solder; that is, the melting and freezing point of the lead is the same (183C, 361F). I don't think it makes much of a difference in the type of soldering I do, but I'm familiar with that combination and stick with it. I also use M. G. Chemicals' flux (acid free) and that really helps the solder wet out a connector or to saturate a wire when tinning it.

That skill that I learned as a child with one of my first control line models has lasted me a lifetime. And that's just one skill out of many that I can think of where my hobby has shaped my capabilities at work and around the home. Can you think of something where this hobby has helped you at work? How about reading and following directions, or, the dexterity of your fingers? Problem solving, project management, chemistry, reading schematics, weights and balance, painting and on and on!

If you appreciate all you have learned now is the time to write to your representative about the NPRM that could change our hobby and perhaps drive it to extinction as we know it. Please read your Thunderbird email notices about how to do that or contact us for help - we need to get the word to our representatives in Washington before the 2nd March.

Microsoft Flight Simulator

One of the first games I ever purchased, and the main reason I even wanted a computer in the first place, was to "fly" subLOGIC's "Flight Simulator." The subLOGIC company was founded by Bruce Artwick and he created several versions of it between 1977 and 1995 when Microsoft purchased it. I don't know how many versions of Flight Simulator I have owned but probably around 6 or 7 and on several different platforms including: Commodore 64, Atari 520ST, Apple Mac, Memotech MTX512, Osborne CPM and of course IBM "compatibles."

Flight Simulator was shelved back in 2009 following the passing of one of the key programmers and it's taken nearly 10 years for it to be resurrected. Indeed, the new version of FS is so radically different and improved that I purchased my first desktop computer since 2006 just so I could have it set up and running when it is released. Online it is being called, "Flight Simulator 2020" but that is not the official name - just an identifier that pilots are referring to. Currently, it is in beta with a release sometime later this year.

On YouTube, there are many video "trailers" of the program and some interesting discussions with the development team that explain the technology used to develop such things as weather, traffic and how every airport in the world has been modeled.

I'm not much of a game player as I prefer much slower, less intensive games that would not interest my sons at all. But FS is much more than a game and probably not

Safety: by Ed Kettler

Safety Smorgasbord

This month I need to cover a couple of important topics: Remote ID and the upcoming SAE event

James has covered the criticality of member engagement in the NPRM process in his article this month, so this is a "foot stomp" to emphasize the importance to each of the Thunderbirds, each of the AMA members, and the aviation community as a whole to keep this set of regulations from going out in its current form. Here are some guidelines from the Experimental Aircraft Association (EAA) that may help guide you:

Please use these talking points to develop your own comments in your own words. Copied and pasted comments have far less impact on the rulemaking process. Please be civil and respectful in your comments.

Begin by writing a brief statement about your connection to model aviation and your concern for the future of the hobby under these proposed rules. For example, you may be a modeler yourself, you may be concerned about the loss of a pathway for youth into aviation, or you may simply be concerned about this rule threatening a fellow community of aviation enthusiasts.

something they would be interested in. That means I'll be able to play unmolested which isn't possible if I try to play Starcraft with them.

Hardware requirements aren't too steep and most any decent desktop from the past 2 years or so will ably run it with emphasis being on the video card. A minimum of a GTX 1060 card or equivalent is recommended: The trailers on YouTube and FS web site at: www.flightsimulator.com has more information.

Christmas Party 2020

It may surprise you to know that we are already booking the location for our 2020 Christmas Party. As it stands right now, it will be held on Saturday, 12th December at the Fort Worth Botanic Garden - all that remains is for the City of Fort Worth to confirm the date.

That's it for my report this month - see you at the field.

Next, state your belief that the rule should not apply to traditional model aircraft (we'll use the abbreviation "TMA" in this guide). EAA proposes defining traditional model aircraft as the following:

*Traditional Model Aircraft: small unmanned aircraft systems that are not capable of navigating beyond the visual line of sight of the operator through advanced flight systems and technology.**

As of evening of February 16th, over 15,000 comments have been submitted, which sounds like a lot, but if you haven't commented, you are not doing your part as an AMA or Fort Worth Thunderbird member. Passage of this rule in its current state will kill RC modeling in a few years. Comment early and comment often!

The SAE Aero Design event is just weeks away, and we will have over 700 guests at the field, most of whom are unfamiliar with the RC aircraft and flight operations, and will not recognize risks. Some of these risks are compounded by language differences and cultural norms. As at past events, every member is part of the

club safety team. If you see something, either say or do something, to protect the safety of the attendees. We need to be professional in our approach, polite but firm, to educate on what the issue was and how to resolve it (operating within the SAE rules as well). Battery charging, arming in the tents, people where they are not supposed to be, etc. are all things we have seen before, and will see again. Please be alert, and help the Thunderbirds have another great SAE event!

FAA AMA

The following is a repeat of what our officers posted in our January Newsletter;

Our Hobby is changing as are the rules that govern it. Change is GOOD! It's the way we handle it that sometimes is bad. The FAA has asked for a public comment on the latest US Air Space Rules Proposals and I would strongly suggest that you provide your comment, not only to them, but also to your elected officials, on the local and National level. Link to AMA site with info:

<https://amablog.modelaircraft.org/amagov/2019/12/26/ama-update-on-remote-id-proposal/> There are multitudes of blogs, Face book comments etc. out there to look at. Recently Horizon hobbies release a face book post with their concern for the Hobbyist flyer. That was refreshing and needed:

<https://www.facebook.com/HorizonHobby/videos/2562422250712259/> Bottom line is that we need to provide a voice and support to the AMA. Change is coming and we need to have a say, don't leave it up to your fellow flyers, to carry the load.

My fellow officers have provided some great info and links to information on the Notice of Proposed Rulemaking (NPRM) on Remote ID. Please read those and let me "FOOT STOMP" what they said about this being YOUR opportunity to have a voice and influence the future. YOU CAN MAKE A DIFFERENCE. Our amazing hobby needs you step up and provide your Write your congressman and senators, too. Some have websites.
Call their offices

My major heartburn is 89.2xx which will have a major impact on AMA fields. Why? We have to renew every 48 months (what if somebody forgets?)

input. As James said, "don't leave it up to your fellow modelers, carry the load".

Shifting gear, the major safety focus in 2020 is going to be the safety of the RC hobby and retention of our field well into the future. You all have received emails from AMA urging you to write your congressman and senators, and respond to the NPRM. Reading a 350 page Federal document is a sure cure for insomnia (by design), so how do you get to the facts? The following is from my AOPA Drone Pilot newsletter.

"Although it's counterintuitive, this is one instance where I highly recommend you start reading the end of the story first. In the original PDF version, start on page 278 and read the actual proposed amendment, then go back to the beginning of the document. If you don't, chances are you will flame out before you get to the rule. Taking this approach will virtually guarantee that you'll fly (no pun) through the remaining 275 pages, which consist mostly of explanations as to "why" the proposal says what it says.

"Also, if you are a visual learner, the NRPM contains some handy charts that summarize pages upon pages of text. Check out Table 1. Summary of Major Provisions, beginning on page 21, and Table 4. Summary of Differences between Standard Remote Identification UAS and Limited Remote Identification UAS (beginning on page 97). If you can comprehend these two tables, you've essentially mastered the proposed rule. Those who run UAS businesses will also want to deep dive into the costs of operational compliance, outlined in Table 7. Cost Impact of Proposed Operational Compliance Period, Loss of Use quantified as Depreciation Expense (\$ Millions) (beginning on page 213) and the surrounding text."

Here are some strategies to consider:
Submit several small/single topic entries, not one massive one
Submit multiple times
Provide options and reasons for position in a positive manner.
Make one submittal the AMA form

No new fields after a certain date (this means no new clubs, and if a club has to move, they are dead)

Make your voices heard, contribute early and often. In the NPRM game, volume counts. The FAA has shown what its dream looks like for commercial UAS operations, and we need to make sure it does not become our nightmare.

A Day at the Field, with Some of the Usual Suspects



Gooney Birds – Experimental Aircraft That Were Too Weird for Use in WW2

Just when you think you've seen it all

Airborne Anti-Aircraft Gun

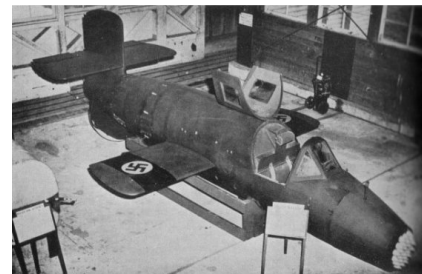


The YFM-1 was a “bomber destroyer.”

The concept of placing aircrew away from the fuselage wasn't just a German idea. The Bell Airacuda YFM-1 had similar wing mounted crew cabins – two of them. Developed in the late 1930s as a sort of flying anti-aircraft battery for use against enemy bomber formations, the YFM-1 featured manned forward-facing gun turrets on both wings, each packing a 37mm cannon. To make room for the cabins, the plane's engines faced aft. The U.S. Army ordered 13 of these curious “bomber destroyers” for evaluation purposes in 1940, but withdrew them from service within two years

after the design's many shortcomings became evident. With a top speed of only 275 mph (450 km/h) the YFM-1 was far too slow to catch most bombers of the day. Also, its “pusher” style engines made for unstable handling and risky bailouts. All models were eventually broken up for scrap.

Failure to Launch



A rocket-powered flying shotgun?

Less of an airplane and more of a flying shotgun, the rocket-powered Bachem Ba-349 *Natter* interceptor was designed to overtake Allied bombers and pepper the enemy formations with salvos of up to 33 unguided explosive-tipped projectiles. *Natters* required no runways for takeoff; they could be launched vertically from just

about any flat surface. The plane's powerful rocket engine was designed to hurtle it 30,000 feet (9,000m) into the air in under a minute. Once at altitude, the pilot could easily overtake and destroy adversaries and then glide back to earth. Both the Luftwaffe and SS expected to add the *Natter* to their inventories. But by the time the BA-349 was ready for service, Nazi Germany was mere days from defeat. Only 36 were ever built – none saw action.

Flying Saucer



The Flying Pancake.

“Round” was also the watchword for the Vought V-173 Flying Pancake – a twin-engine demonstrator that looked more like a Frisbee than an airplane. Despite its solid handling at low speeds (as confirmed by test pilot Charles Lindbergh) and its ability to take off and land in extremely small spaces, the V-173 never advanced beyond the demonstration phase. Only one was ever manufactured.

Strange But True



The Miles M.39 Libellula.

Speaking of envelope-pushing designs, consider Britain's Miles M.39 Libellula, a swept-wing, twin-engine, medium bomber demonstrator that flew in 1943. The three-man attack aircraft was designed to deliver a 2,000 lb. payload more than 1,500 miles (2,400 km) at 400 mph (640 km/h). Despite the fact that the sole working prototype displayed impressive handling characteristics, the RAF passed on the unconventional aircraft.

The Ascender



The swept-wing XP-55

At almost the same time, American engineers at Curtis Wright were also dabbling in swept-wing combat aircraft with the XP-55 Ascender. The pusher-style fighter interceptor was equipped with a rear-facing, three-blade propeller. Up front was a suite of 20 mm cannons and .50 caliber machine guns. The military balked at the design and its underwhelming flight characteristics.

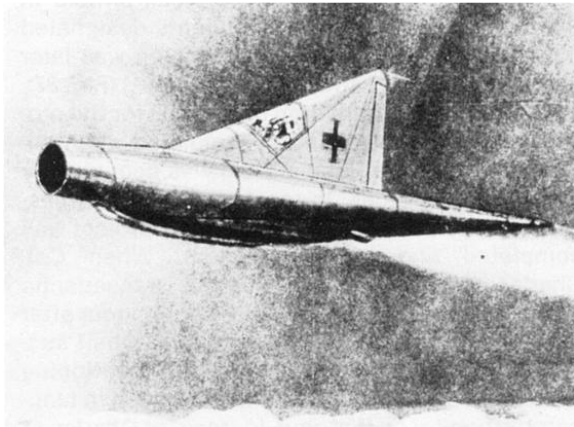
Swoose Goose



Vultee XP-54 Swoose Goose

Stranger still was the Vultee XP-54 a single-engine twin-boom fighter demonstrator that the military tested in 1943. The single-seat warplane featured a nose section that could be pivoted several degrees vertically, allowing the plane's two 37 mm cannons to be easily trained towards the ground during level-flight strafing runs. This odd feature earned the XP-54 the nickname the “Swoose Goose” after a popular song of the time. With a top speed of only 380 mph (600 km/h), it's no surprise that the War Department passed on this ugly duckling.

Dis Honourable Mentions



The Lippisch P.13a.

Resembling a giant paper airplane, Nazi Germany's delta winged Lippisch P.13a rocket plane certainly looked futuristic; yet ironically it ran on a decidedly old fashioned power source: coal. Hitler's engineers could never really get the idea off the ground in time to save the Third Reich however and none were built.

Northrop XP-56 Black Bullet



Northrop Aircraft's XP-56

This little warbird takes home the prize as one of the most bizarre looking planes. With two built in 1943, these planes were meant to be fighter interceptors. With a projected top speed of 465 mph, this was supposed to be the fastest propeller-driven fighter; however, its flight tests proved it to be unstable, paving a way for newly developed jet engine aircraft. The XP-56 was an extremely advanced pusher type pursuit plane, and the first of its type ever designed and built. The streamlined nacelle, vertical fins above and below, and the absence of a conventional tail give the XP-56 a startling and unusual appearance.

THUNDERBIRD TENTATIVE 2020 CALENDAR

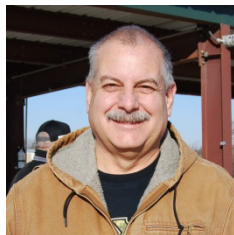
March 20-21	WAMS Swap Meet	
April 3-4-5	SAE	Bill Lake
April	AMA Pattern	Chris Beardy/Sam Corbett
May 2nd	Warbird	Ed Kettler
June 12-13	War Birds Over N Texas	Ed Kettler
July	Club Picnic	Club Officers
August 2nd	Summer Float Fly	Woody Lake/Mel Wells
September	Senior Pattern	Wichita Falls TX
September	Pylon Race	Golden Triangle
September	Senior Pattern	Valley Mills TX
September	B-17 Fly-In	Monaville TX
October 16-18	Alliance Airshow	

October	Benbrook Thunder EDF Fly-In	Gary
October 31st	Texas Electric Expo	Tom Blakeney
October	Senior Pattern	Ken Knotts
November	Toys for Tots	
December 12th	Club Christmas Party	Officers

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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 8808 Camp Bowie Blvd. Fort Worth TX 76116
jtshobby@yahoo.com

Project #	Proposed Project	Summary of Project	TYPE	EXPENSE	POC	Status	Notes
1	HELIPAD	LUXLO Concrete Hubs with ground, Could be Self help or contracted	Self /Contract	\$1,000.00	Officers	APPROVED 2016-17	Will require new Lease /or wait for expiration of 2018 Lease to negotiate Less \$5
2	Line control Area	Develop area for line control modelers	Self /Contract	\$1,000.00	Officers	APPROVED 2017	wait for expiration of Lease
3	Shed Update	Cross Ventilation fan	Contract				Suggest to member ship for Purchase
4	Larger shed/addon	Larger shed to store more stuff	self/contract				Will require new Lease /or wait for expiration of 2018 Lease to negotiate Less \$5
5	Enclose some or the covered shelter area	utilizing rollup doors that can be pulled down when needed	Self /Contract	\$Unknown			Purchase
6	Extend current runway	More stopping distance for models	contract	\$ Unknown			Lease Renewal/cost
7	Tree Removal	Remove trees at approach end of runways. Requires root removal and new plantings	Contract	\$15-\$20,000		IN WORK	requires Corp Approval will request Corp permission and requirements
8	Solar power lights in PIT Area	Allow for some visibility	Self /Contract	\$400.00	James Meadows	testing in Aug	
9	Weather Station , with wind velocity	post on web site for real field condition s	Self	\$5	Chris Berardi		
10	Taller Flag Pole	the old one needs replaced	Self /Contract	\$500.00	Mike Schroeder	Getting Pricing	
11	Quad GATES	Members Request	SELF	\$5	UNK		used in Heli,quadand CL area

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:

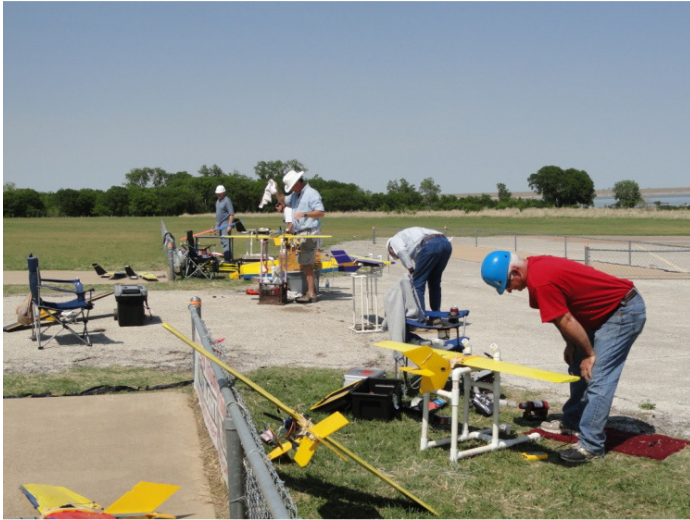
- I will not fly a model aircraft in a careless or reckless manner.
- I will not interfere with and will yield the right of way to all human-carrying aircraft using AMA's *See and Avoid Guidance* and a spotter when appropriate.
- I will not operate any model aircraft while I am under the influence of 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



Looks like a 'Wave Off' to Me

Anybody remember this type of event?



SAE



TEAM HUNTSVILLE



BEAUTIFUL SAE WEATHER



UNLIMITED CLASS