



## NEW EXECUTIVE TEAM

January 2020

Volume 65 Issue 1

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## Next Event

January  
11th,  
11:30 am  
Program to Follow

Runway 35 is published monthly as a free service for our members and our flying community by EAA chapter 35.

Publisher: Chuck Fisher  
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### President: Darren Medlin



My Mom was a school teacher. Before becoming an engineer Dad was a back-seater in an F-94 stationed in Alaska during the Korean War. He loves aviation and is a private pilot. He used to help me build model airplanes when I was too small to safely handle an Exacto knife. After graduating from Texas Tech I served in the Air Force (non-flying) for 27 years. I met and married Susan, who was an Army officer, and we have two boys. Travis is an Army officer and his brother, Kyle, is a Navy officer. I joined EAA Chapter 35 when we were stationed here in 2004. When Travis was 12 he worked on the plane hanging from our EAA 35 hangar roof. It was being built as a chapter youth project.

After retirement we moved back to San Antonio. I commuted to California for 3 years to build an Earthstar Odyssey airplane and later went back to California to earn my Light Sport Repairman certificate with a Maintenance rating. After volunteering in a community RV-12 build I was approached to help Southwest High School start an aviation class. To support the students I earned an Advanced Ground Instructor certificate and tremendously enjoy working with other chapter members in the school's growing aviation

program. When not at an EAA event I volunteer with Civil Air Patrol and am an FAA Safety Team Representative with a focus on LSA maintenance. EAA 35 has been a great experience and I want to make sure our chapter survives and thrives so future generations can have the opportunities I've had.

### Vice President: Chuck Fisher



Chuck is a retired USAF colonel, chief flight surgeon and practices in the specialties of Aerospace, Occupational and Family Medicine as a consultant or provider. He is an AME with an office in Bulverde. His 24+ year career included tours overseas and extensive

deployment and combat support roles as a physician in F-16, F-111, C-21, T-1, UH-1 squadrons and he has flown in nearly every USAF aircraft type. He was a squadron commander, twice group commander, director of aerospace medical operations (HQ AF) and the last commander of the School of Aerospace Medicine at Brooks (and the first at its new location in Ohio). He flies a former Army National Guard L-17B that was the HQ aircraft for the 172d FA Battalion. He

(Continued on page 4)

## January Program:

Annual youth program update

Presented by Vanneau, Medlin, Versteeg, Covington



**PRESIDENTS COCKPIT****DARREN MEDLIN****January 2020**

At our December meeting we enjoyed an amazing holiday meal led by Freda Jones. Roxanne Beavers and others cooked, cleaned and served an amazing spread. Thankyou to everyone that contributed. The decorations were festive and the meal

was delicious.

**Santa and His Elf**

After the holiday feast we enjoyed a surprise visit by St Nick and his trusty elf, aka Chuck and Peggy Fisher. Santa had a list of rules as long as my arm that included serenading participants with a variety of songs. Besides holiday favorites we sang "You're A Mean One, Mr. Grinch" to folks who chose to "steal" during the gift exchange. After attempting to sing in tune I chose to hum loudly, but festively.

**Newbies**

Your new chapter officers include me, Darren Medlin, Chuck Fisher as Vice President and Paul Wurster as Chapter Secretary. We owe a big debt to our predecessors. For four active years Steve Jones was President and Mike Landis was Secretary. Their dedication and service are much appreciated and Steve continues as a voting member of your Board of Directors in a Past President capacity. After many years of service Dave Baker has resigned from the Board. Thank you Dave for your tremendous leadership and support.

VP Chuck has a great program for the year with interesting speakers and trips. We've been getting together as friends and family occasionally to watch aviation movies. Chuck has graciously stepped up to lead this activity so if you have a suggestion please let him know.

**Why We Are Here**

As I look ahead my focus will be to achieve our mission as laid out in our By-Laws, shown here:

- (a) To promote aviation education, research, development, and safety.
- (b) To assist the community in the development of educational and scientific projects relating to aviation.
- (c) To introduce area youth into the aviation arena through cost-free aircraft orientation flights and ground school education.
- (d) To establish an aviation orientation library with emphasis on aeronautical engineering and practices.

- (e) To provide scholarship funds to permit highly motivated youth to attend aviation summer camps.
- (f) To promote and encourage grass roots efforts relation to aviation research and development.
- (g) To foster closer fellowship among its members through the exchange of ideas of mutual interest.
- (h) To operate as a local Chapter of the Experimental Aircraft Association Inc. (EAA), to cooperate with the EAA and to further the goals and purposes of that Association within the geographic area served by the corporation and to comply in all respects with all policies and procedures of the EAA as that Association might establish for its Chapters at any time and from time to time.

**January Meeting**

I'm very proud of all the work members do to support our youth and aviation community. Your work over the last year will be the focus of our January meeting. If you have an idea on how to do more grab me or Chuck and tell us or send an email or call or text. There is always room to improve.

I'm looking forward to a great 2020. See you on January 11th.

Darren Medlin, President, EAA 35

**VICE-PRESIDENTS NOTES:**

By Chuck Fisher,

Happy new year. This issue will contain a new schedule for the year. There are still a few gaps and I'd love suggestions and volunteers. This year we will include the VMC club and Movie night on the schedule and I encourage you to join us for these great events. Please note that there are two dates where the club does not fall on its usual 3<sup>rd</sup> Friday. You might also notice "place holders" on the third Saturday. These are for activities to be determined that might include a Young Eagles event, a non-chapter voluntary fly-out opportunity or similar. Those are totally fluid and any activity will be announced as the date approaches. Please send suggestions or comments to me at [ea35VP@gmail.com](mailto:ea35VP@gmail.com).



# CHAPTER BULLETIN BOARD

## HELP is NEEDED!!!

*Chapter 35 needs your help*

⇒ **Looking for volunteers to sponsor a monthly meal.**

## January Luncheon!

**First, a request: I'm looking for volunteers to sponsor a monthly meal.** Steve and I will be spending more time travelling between Texas and Tennessee this year to attend to my parents. In fact, we're there now. You would be responsible for determining the menu, acquiring groceries within a budget, cooking, serving, cleaning up. But you won't work alone. It's a team effort.

**Main Course:** Beef Stew served with savory dinner rolls. Tender Angus beef seared and simmered in its own juices with potatoes, onions, peas, and carrots. Your mouth is watering already, isn't it?

**Side Dishes:** crispy garden salad served with a selection of delicious dressings

**Desserts:** requesting pies, cakes, cookies, brownies or anything you like.

**To Drink:** water, soda, iced tea, lemonade and coffee



Thank you so much to our volunteer members who made the Holiday Banquet so special.

### Chefs

- Roxanne Beavers – Mashed potatoes
  - Danny Beavers – Northern Style Dressing
  - Freda Jones – Southern Style Dressing, Pork Tenderloin, Eye of Round, Brownies and Cake
  - Susan Medlin – Sweet Potatoes
  - Chuck and Peggy Fisher – Reese's Cupcakes
  - Frank and Beth Piez – Cake
  - Dee Brame – Two Pies
- I'm going off memory here as my notes are in San Antonio. If I missed you, please accept my apology

### Servers

- Roxanne Beavers
  - Peggy Fisher
- These are the people who made our holiday meal happen again for only \$10.00 per person. They are **rock stars!**

## New Executive Team ..

(Continued from page 1)

volunteers with Warbirds of America at AirVenture each year, is a Young Eagles pilot, and has been known to don Grinch and Santa garb for our chapter festivities.

### Secretary: Paul Wurster



I'm a third generation Air Force Officer. Both of my parents were in the military so we moved every few years, but I consider Texas home. My wife and I both graduated from High School in Wichita Falls, TX. After high school, I went to the Air Force Academy. There I flew gliders,

jumped out of airplanes, and eventually got my private pilot license. After pilot training at Laughlin AFB, I got married and went to B-52 training. I was stationed in Minot, ND in 2002, and not long after getting there we left for the start of Operation Iraqi Freedom. After returning to the states, I upgraded to Aircraft Commander and then accepted an assignment to go back to Laughlin and instruct pilot training in the T-38. While I was at Laughlin, I realized that I had the hours and qualifications to apply to a program that I had always had floating around in the back of my mind—the U-2 Dragonlady. I put together a package and sent it off to California. I got to take a T-38 to Oshkosh that year and met up with a large contingent of U-2 guys. That helped me get the interview, but it also got me back into general aviation. Joining the U-2 program was the best decision I made in military career. I did most every job possible all the way up to being the squadron commander of the U-2 schoolhouse, the 1st Reconnaissance Squadron. The U-2 has the largest group of aircraft owners and GA flyers that I have seen in the Air Force. I got back into myself over the last decade. I've reinvigorated my CFII, and even picked up a Cherokee when moving back to Texas. I enjoy instructing and taking a couple long trips a year. I took my youngest son Henry up to Oshkosh this last year, and it was incredible. However, I am now seriously thinking about an autopilot. People always ask me what my favorite airplane is to fly, and the answer is somewhere between whatever I'm flying now and anything small GA or experimental. I appreciate the freedom and ease of flying outside of work. With less than 90 days left in the Air Force, I'm looking to transition to the airlines in the future and someday build my own Van's RV. I look forward to seeing everyone at the next meeting, Young Eagles event, and hopefully Oshkosh again. -Fly Safe. Paul "Brother" Wurster.

### Treasurer: Dee Brame



Dee Brame volunteered to act as the treasurer for Chapter 35 in 2007 and has been reelected annually to serve in that capacity ever since. Dee is the wife of Charlie Brame, also a member of Chapter 35, and builder and owner of a flying RV-6A hangered at San Geronimo.

Dee served 20 years as an Air Force Contracting Officer/Purchasing Agent, retiring in 1990 at Brooks AFB with the rank of Major. Shortly after retiring from the Air Force, she went back to work as a government

contracting specialist for the U.S. Civil Service at Randolph AFB. She retired from Civil Service in 2002. In her words, she has purchased and/or administered government contracts for everything from satellites and bombers to ballpoint pens and toilet paper.

Dee has a BS Degree in Data Processing from Cameron State University in Lawton, Oklahoma, plus a MA in Hospital Management and a MBA from Webster University. She also completed several professional courses in the Air Force including the Air War College. Since retiring, Dee has worked as a substitute teacher with the NISD and as a Bexar County election judge. However, her main interests continue to be local Republican Party politics. She served as Membership Chairman, Treasurer, and President of the Republican Business Women over a seven year period and remains involve in Republican Women's activities.

Dee was born in Snyder, Texas, but grew up as an Army "Brat." She and her family moved frequently between several locations in Germany, Texas, and Oklahoma. She graduated from high school in Lawton, Oklahoma, and still considers that home. She and Charlie have lived in the San Antonio area for over thirty five years and have been members of Chapter 35 since early 1999. Both Dee and Charlie are Life Members of Chapter 35.

***IT TAKES LOTS of time and effort to keep a organization like this working right. So THANK YOU! For your time and efforts!***

# THE BUILDER'S/MAINTANCE CORNER

By Mark Julicher

## Prime Time

With the first blast of wintry weather it is no longer practical to shoot two or three strokes on the primer and expect an engine to start. Some time ago we wrote about the care and maintenance of the primer from the point of view of the pilot. Now let's take a look at what happens at the other end of the primer.

For many of our planes it takes about six good shots of prime to achieve a reliable start. What then constitutes a "good" shot of primer?

To answer that question, first look at photo 1. This little, brass, spray nozzle is the outlet end of the primer. The spray orifice is about .005 inches. In other words it is tiny. Furthermore, the spray nozzle is not just a simple hole drilled through a brass fitting. There is a baffle about ¼ inch behind that orifice and the baffle helps atomize fuel as it passes by. Think of this as the spray nozzle on a bottle of Windex. You turn the nozzle one way and you get a stream and you turn it 180 degrees and you get a spray. In the case of primer fuel, spray is what we need.

A "good" shot of prime atomizes liquid fuel and makes a fine spray. Now just like with your bottle of windex, if you don't squeeze hard enough you get a dribble and not a spray – same with the primer in your plane. Put some pressure on that knob and make it spray!

**Photo 1: Primer spray nozzle**



One last thing is needed for that "good" primer shot. Be expeditious! If you are that pilot that sort of lollygags about reading the checklist and fussing with switches, then please SKIP the primer step in that checklist UNTIL just before you hit the starter. Why? Because just like with that Windex, when it hits the cold glass (or fuel hits cold engine) the fine mist condenses into larger drops.

No fine mist = much more difficult to start.

Get that start right and winter flying is much more fun.

**Photo 2: Primer nozzle with the copper fuel line disconnected.**



By Andrea McGilvray; The digital world is affecting us all.

We all use cell phones and Google and some have started to use smart devices like Alexa or Siri to communicate with. Our times are changing faster and faster and it is really hard to keep up with what is new. In fact, NEW is an OLD word, or it ought to be. What was new today is old today. Many publications are moving to online digital-only versions. Many still print, but there is a day that paper will truly be obsolete. The cost of the process of printing it is high and the data is OLD by the time it is published. Also, the world wide web has the ability to link to articles. I bet you get those in your emails! I got my "digital Sport Aviation Magazine" today! IT was here before the printed version!

<https://sportaviation.mydigitalpublication.com/publication/?i=640023&p=&l=&m=&ver=&view=&pp=&pn=64>

I would like to move to that direction only. It gives MUCH more information, and it is searchable and is more timely. Let me know your thoughts!

The "look" will also change and have video and links to more information and yes you will still be able to print it out if that is how you wish to read it. You can always find all of our newsletters on our website!!



## Childhood Attention Deficit Disorder and Flying

By Chuck Fisher MD

There are some situations that just make an aeromedical examiner like me feel awful, and one of the most common in my clinic have to do with student pilots who had no idea that their childhood Attention Deficit Disorder (ADD/ADHD) would be a problem for them. Unfortunately, it is.



This is even more tragic as, an FAA Medical Exam is not required until a student-pilot is ready to solo. Thus, many young men and women will have already taken flight lessons up to the point where they are ready to solo, not knowing or recognizing they have a condition that will seriously delay or perhaps even prevent them from ever making their solo flight. Trust me, no AME wants to be the person to break that news to the student or their parents.

The FAA categorizes Attention Deficit Disorder within the broad category of psychiatric conditions, and considers the diagnosis to be, for many individuals, incompatible with the tasks and attentiveness required to safely fly an aircraft.

There is a broad spectrum of behavior and learning abilities and disabilities that fall within the very broad category of Attention Deficit Disorder / Attention Deficit Hyperactivity Disorder (ADD/ADHD). At one extreme are individuals who require regular use of psychostimulant medications to function; and without them they are unable to focus, concentrate or perform even simple serial tasks like following a checklist or remaining focused long enough to follow approach instructions. Clearly an individual on this end of the spectrum would be a poor candidate to be a pilot. On the other extreme are young men and women who had some soft signs of ADD as a child, but who quickly “grew out” of the need for any sort of school accommodation or medications. These folks, if they have not required or used medications and have done well without them for a long time, may make fine pilots.

But both extremes fall into the same diagnosis and there is really no way to easily assess where an individual falls on this spectrum. Thus, before approving an FAA medical certification, the FAA requires a pretty exhaustive evaluation to more objectively determine where on the spectrum each applicant is, and the diagnosis requires a Special Issuance (waiver) from the Federal Air Surgeon.

Unfortunately, the evaluation to qualify for a special issuance is long, expensive and time consuming. Candidates with a history of ADD/

ADHD will not walk out of the AME’s office with a medical certificate, no matter how much they believe they didn’t or don’t need treatment.

To qualify for a Special Issuance (waiver) for ADD/ADHD, the applicant must have been totally off all stimulant medications for at least three months, and they will be drug tested to make sure they are off at the time of their evaluation. They will have to be evaluated by a neuropsychiatrist who specializes in aeromedical evaluations and has been approved by the FAA to perform special testing. There is one such physician in the San Antonio area. This evaluation will involve an extensive battery of testing and interviews, and the physician will have to have all prior records of treatment by physicians and clinics for ADD and all school records of any accommodations requested or required. A drug test must be performed immediately after or during the evaluation to make sure the applicant is not taking medications.

In some cases a second, more detailed series of tests will be needed. Once all of this has been done, the AME can perform a physical examination and assemble a waiver package to be sent to the FAA. Generally, it’ll take the FAA staff about 6-8 weeks to render an opinion on qualification or request additional information.

Each of us is passionate about helping new pilots join our ranks, or you wouldn’t be reading this. Thus, it is very important that we ask student pilots or those wanting to become student pilots about a history of ADD/ADHD before they begin flying lessons and invest heavily in their training. Realistically, in the best circumstances an evaluation and waiver for ADD/ADHD will require about 3 months and a lot of expense and cooperation and many are not approved at all. So, it is unkind to allow a student to go all the way to solo only to find they cannot advance.

Parents, instructors and interested friends, please ask potential flying students up front about ADD/ADHD or any other medical conditions for which the student does need or has required treatment. If they have a history of conditions like ADD, advise them to visit with an AME before beginning flying lessons to discuss their medical history and chart a pathway forward before they invest heavily in flying. That way, we can be more sure our students and friends will be able to complete their training without delay.

*Charles (Chuck) Fisher MD is an FAA Senior AME and retired USAF chief flight surgeon. He has flown in a broad spectrum of military and civilian aircraft and currently owns and flies a former military vintage L-17. Make appointments for Dr. Fisher or his partner Dr. Saboe at [saboeavmed.com](http://saboeavmed.com).*



# Aviation Tips and Tricks - Changing your Oil

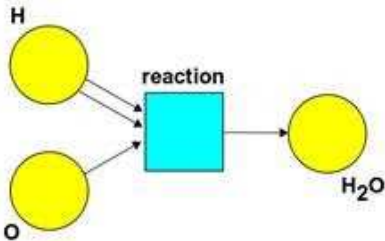
Article by Anthony Arispe - [Arispe Aviation](#), McKinney, TX

Another fifty hours, another oil change. You know you have to do it. You know it's a normal expense of operating your aircraft, but do



you truly know why you do it? The answer has a little bit of science involved in it but can be beneficial to take the time to learn.

Now, if you're anything like me, then you probably like to geek out on the why of things. Here is a cool fact for you: The gas you put into your aircraft is made of the molecules Carbon and Hydrogen (C8H18). You then take this fuel and mix it in the right mixture with the oxygen in the air (O2). Hydrogen and oxygen are two molecules



that are so highly attracted to each other they can create an explosion when they are introduced to each other. That's right: The two elements that you combine to make water will actually become volatile in the mad rush to meet up with each other.

Now, if you do the math with me you have these two ele-

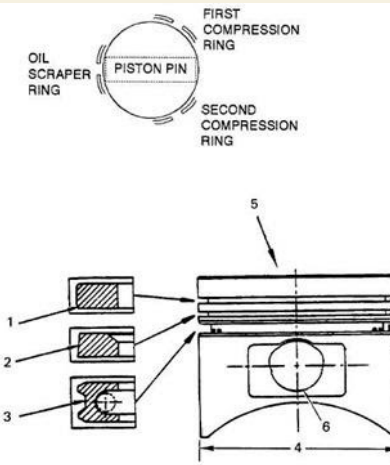
ments that you light on fire. The fire, or combustion, taking place is not destroying these elements but simply rearranging them. So what you get leftover is carbon, and dihydrogen oxide or H2O. In fact, for every gallon of fuel you burn you are sending about a gallon of water out your exhaust.

If you don't believe me, then just look at the muffler of the car sitting in front of you at a red light some-time, and you're bound to see liquid pour out.

There are six main functions for the oil you put in your engine.

**Reduces Friction :** This one is a no brainer for any one that has touched oil. It's slick, slimy, and hard to get off your hands, tools and clothes. In fact it's this difficult chore of getting removed from anything it touches that makes it so efficient for your engine.

It coats the outside and inside of the bearings, push rods, rockers, and just about every other surface inside the engine. And be honest, it's probably lubricating a fair portion of the belly of you bird too.



It provides a slick surface that not only helps things move easier but actually keeps the things that move from making direct contact with each other and instead sliding around on a thin film of oil.

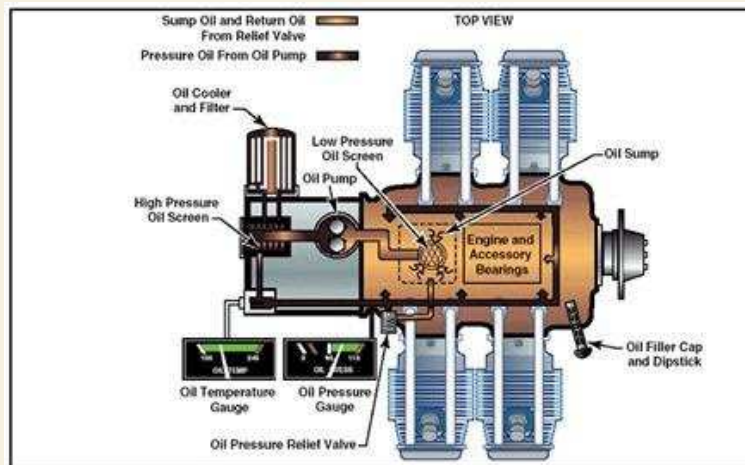
**Seals and Cushions:** Turn your windshield wipers on your car one day when there is absolutely no rain or water on the windshield: They bounce, squeak, and bump because they have no lubrication to

help them seal to the window. Once water is introduced into the equation they work quietly and efficiently to displace the water from the windshield. It takes water on the windshield to let the wipers work properly.

Now imagine if your windshield wipers were made out of steel and you turned them on without water: Ouch. This image is very similar to what could be happening to the inside of your cylinder.

Your piston ring will act very similarly to a windshield wiper, creating a seal between the piston and the inside cylinder wall. Oil is the substance that helps this seal to form and allows the piston ring to slide back and forth without the bouncing, scrapping and gouging.

Oil on the cylinder wall creates a nice smooth surface that allows the piston ring to not only create that air tight seal we are all looking for during our compression test, but also provides the lubrication for the piston ring to slide back and forth with minimal wear from metal on metal contact.



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## Continued... Aviation Tips and Tricks - Changing your Oil

(Continued from page 7)

It also helps to cushion metal-on-metal contact, such as when the push rod hits the rocker or the cam shaft contacts the lifter. Oil makes the difference in this metal-on-metal contact much like punching your bare fist into a bowl of pudding instead of rock hard concrete.

**Removes Heat:** If you have ever gotten a little too anxious with a baked potato and stuck into your mouth scalding hot, then you probably followed this brilliant action up with pouring a drink down your throat immediately after. What you did here was not cool off the food in your mouth but displace the heat into the cool liquid.

The engine you depend on gets hot, very hot. And let's face it: Those funny looking fins on your cylinder are not going to cut it. Therefore, oil gets sprayed on the back of the piston to pour off taking the heat with it and back down into the sump. It then gets sucked up and shot through the oil cooler to have a nice blast of cold air cool it off before being slung up onto the piston again.

**Cleans the Inside of the Engine:** Not only is the oil cooling off the piston, but it is cleaning the cylinder as well. The seal that the piston ring is making is far from perfect. It allows a lot of the byproducts created from combustion to slide on by. The oil catches these impurities and contains them with the help of certain additives that are processed into the oil during manufacturing. It will also collect all the little particles of metal that are very normal to form and leave them deposited on the screen in the oil filter or sitting in the bottom of the oil pan.

**Protects against Corrosion:** Again, that piston ring does not create a perfect seal, and not only is it letting acidic by products from the combustion by, but it is also allowing that water that is created in. That water mixes in the oil and then gets sprayed all over the inside of the engine along with the oil.

The boiling point of water is 212 degrees Fahrenheit. So, to those of you going around bragging about how cool your engine runs and that your oil temp never reads over two hundred, you can now realize the mistake you may be making. You want that oil to heat up hot enough every once in a while to boil the water in it. The boiled water turns to vapor that is sucked out the breather and shot down the belly of your airplane.

**Performs Hydraulic Action:** The majority of horizontally opposed engine have hydraulic valve lifter. The constant speed propeller is hydraulically actuated. Another function of the hydraulic action is your oil pressure gauge. The oil being directed into the line connecting to an oil transducer, or the panel mounted oil pressure gauge, is a hydraulic action.

**Closing:** There are several types of oil out there for aircraft engines.

There are even more different types of weights and viscosities.

The multi-viscosity types advertise that they are thinner when the engine is cold so it can lubricate faster but thicken up as it gets warmer. This does as advertised and is great for an engine that gets to run more than five hours a week.

Part of oil's job is to coat the inside of the engine to prevent that water and acid by-products from being able to bond on the engine's metal surface and begin to corrode it. If your airplane sits idle for long periods then you do not want a thin engine oil because it will just run off the interior walls of the engine and expose bare metal to all the harsh chemical deposits it was meant to keep away from it in the first place.

A thicker oil will give this inside protection longer when sitting idle but will still eventually creep back down into the sump.

This is why adding extra additive to your oil can be a very smart investment. Additives can help to contain all the nasty by products leftover from combustion along with creating an impregnable surface on the inside of the engine that oil cannot do alone.



There is one brand in particular that I recommend, [Cam Guard](#)

You will add 1.6 oz of an additive like this to every quart of oil. This will raise the cost of your oil change slightly, but the added benefit of an additive that can help do all the little extras that your oil is trying so hard to do on its own can be well worth the investment.

Your oil has to provide a tremendous service to your engine. After being boiled, frozen, and polluted your oil will eventually lose the battle of holding itself together. At this point it will rebel against the abuse and start working against its own environment by thinning, not coating from corrosion, and having no more room for all the leftovers from the combustion process.

Through research, manufacturers have provided us with the ideal times to perform our engine oil changes. These ideal times are set to give your engine the optimum use out of the life of your oil change and to provide the best times to drain and dispose of oil that has performed its duty. So remember, it's not just another chore to perform an oil change on your engine, but a great opportunity to give you a chance to see what is going on inside the engine, what particles are being left in the filter and a great potential time to provide your engine with the little extras to help it stay cool and efficient for the many hours it has left.





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– SEE MORE AT <https://www.facebook.com/ea35/> AND ON E-VERSION PAGE 22



# EAA 35 Safety Brief

From Ron O'Dea



This is the time of year when we will be bombarded with articles regarding winter flying so this article will be just tips on how to help your airplane through the cold weather. Having managed a flight school in New Hampshire I learned some of these.

## 1. Keep it warm if you can.

There are many products available to preheat you engine. A very simple and inexpensive version is a 60 wt light bulb. Simply place the light bulb under the cowling. Cover the cowling with a blanket and let it sit overnight. The engine will be toasty next morning. The more expensive methods are better, but this will work. Don't forget your instruments (if you still have steam gauges) their lubricants need to be warmed too. A little electric cube type heater does a great job of getting the cabin toasty.

## 2. Starting a cold engine.

If your engine has a carburetor with an accelerator pump and an engine primer do the following.

Prime the engine with about 5 shots from the primer and leave the primer loaded. Apply about three strokes of the throttle and then advance the throttle about 1/2". Lock the throttle down and leave it there. If your carburetor does not have an accelerator pump just lock the throttle open about 1/2". Put one hand on the primer and the other on the key (starter). Start the engine. It should start right up, however, if it starts to quit "DO NOT PUMP THE THROTTLE", advance the primer slowly until engine continues to run. Once running, secure the primer and set the throttle to the slowest rpm until engine begins to warm up.

"**Caution**" when attempting to start a cold engine, if it starts and then stops, don't continue cranking. It is likely that with the first intake of cold air the plugs became frosted. If you continue cranking you will have a frosted engine and a dead battery. The only solution here is to get inside and warm it up or get an engine heater.

So as always "Keep Your Brain In The Game", and be safe out there!

Ron



By Andrea McGilvray

## PERFORMANCE

Flying in Winter here in Texas is nothing like flying in the great white north. It has been many years since I have lived in Canada, but flying does not stop even up there, when it gets below freezing. There are other considerations that we don't have to deal with and those that fly to colder climates during these times need to know those!

BUT the most fun about flying in the winter in our climate is **Performance**. If you love to fly and do things not as ordinary as

straight and level flight or just want to get to altitude faster, this is the time of year! When your airplane takes forever to lift off the runway in the summer and then this time of year jumps off, you know that density altitude is a factor. I have always let the airplane "take-off" vs pull it off and when they are ready to fly that is what they were designed for and will fly off, but it can spook you when a typical take-off takes say 15 seconds and in 7 seconds you are airborne! My Hatz I have had it off the ground in the summer in approximate 10 seconds and as in little as 5 seconds. The Pitts even less, so ya.. BE READY! But how much more fun that is that, when the airplane is so willing go fly!

## Here are the reasons I like to fly in Winter.

- 1) There is more available power with thicker air, so the engine runs better and gives you more power.
- 2) Your CHT, Oil Temp and EGT all are cooler! Do you look at them? I do! YES 20-50 degrees make a difference. So in a higher performance airplane that makes a huge difference.
- 3) YES, warmer clothing is required and even a glove and a hat, BUT when your airplane is happy, you should be too. On our warmer winter days, only a small sweater is required and you are not drenched from sweat from being too hot.
- 4) Open-air cockpit flying is a little more challenging, but a snow or sky suit works quite well. A fur-lined hat is almost needed and there are even things like electric jackets and gloves available for Motorcycle riding. So there is no excuse!
- 5) There are less Vultures, those crazy birds that like to get in your way!! Ya, all those that fly my altitude need to keep a close eye on them. I have had plenty of close calls. When you see their eyes looking at you, you know that it is too close! I had a close call on takeoff and with good reflexes, we both avoided each other.
- 6) There are less gusty winds and those that are here are not thermal related so easier takeoff and landings.
- 7) The only negative thing about flying this time of year is that the landscape underneath is brown vs green.. BUT how would you know what to appreciate if you don't see the opposite!



BUT the big deal for me is **performance**. When your airplane loves to fly, you should go too! So make sure you are properly dressed and the airplane is properly pre-flighted and you will love to fly during our so-called winters!





# Country Store

RICHARD VINAS

I am Rick Vinas, and I will be working to fill the shoes of the Goodes, who turned the Country Store over to me after their incredible eight-year run. They grew the Store from a few items into the large selection available now. With the reins being turned over from Brian and June Goode, the Country Store is still open and is a great place to get any number of quality Chapter 35-themed items for yourself, your airplane, or as gifts for others. Apparel, key chains, coffee cups, and hats are only a small part of the merchandise we have for sale, but you might have an idea for other items that will fit in with our offerings. Let me know if there is something that you think our members would be interested in and we will see about adding to our inventory. I look forward to continuing the great work that has been done to make our Country Store the place to go for Chapter 35 merchandise.

The shirt is 100% ring-spun combed cotton pique. Solid dark blue back.

The 36" long X 34" wide apron is made of stain resistant material. It has 2 pockets on the front and a thermometer/pencil pocket on the bib and an adjustable neck strap.



TEXAS FLAG POLO SHIRTS	Sold Out - Can be ordered	\$39.00
TEXAS FLAG FISHING SHIRT	One Medium- Men's	\$46.00
YELLOW POLO SHIRTS	One Small	\$31.00
	One Medium	
YELLOW FISHING SHIRT	ONE Small Men's	\$40.00
KHAKI FISHING SHIRTS	ONE MEDIUM	
	ONE LARGE	
TEXAS FLAG APRONS	3 left	\$26.00
Additional Items available		
BASEBALL CAPS (with logo)	SIX NEW ONES	\$12.00
CHAPTER 35 DUFFLE BAGS	Only 2 left	\$31.00
COFFEE MUGS	EIGHT	\$7.00
REMOVE BEFORE FLIGHT KEY TAGS	Plenty	\$5.00
KOOZIES	Plenty	\$4.00
BUMBER STICKERS, DECALS AND PATCHES	Lots of them	\$1.00 - \$3.00
ALUMINUM WHEEL CHOCKS	3 Double sets	\$40.00
WASH WAX PRODUCTS	Limited supply	\$8.00 & up

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## DECEMBER MYSTERY PLANE REVEALED

DOUG APSEY

I really thought I finally fooled Charlie Brame with our December mystery airplane since I did not hear from him for a while but it turns out he was just off the grid while deer hunting so wasn't able to contact me for a few days. Charlie correctly identified the mystery airplane as the Northrup Grumman Firebird.

The Firebird is designed as an intelligence gathering/reconnaissance aircraft and built by Northrup Grumman's Scaled Composites division. Many of you may recognize the name Scaled Composites as the company Burt Rutan founded back in 1984 to build many of the composite aircraft he designed. Northrup Grumman obtained sole ownership of Scaled Composites in 2007. The Firebird was one of the last designs Burt worked on prior to his retirement in 2011.

The Firebird first flew on 9 February, 2010 and production was approved in November of 2012. It is a medium-altitude reconnaissance aircraft designed for long endurance aloft. It can stay airborne for over 30 hours while cruising at speeds of up to 230

mph at an altitude of 30,000 ft. It is powered by a turbocharged Lycoming TEO-540 producing 350 hp. The 65 ft long wing is a thin, high aspect ratio design that is swept forward slightly. The fuselage is 34 ft long with the engine mounted in a pusher configuration between the twin booms. Maximum takeoff weight is 5000 lbs.

The Firebird is capable of carrying up to four separate modules of "spy" equipment that can provide infrared imagery, high definition video, radar imagery, and signals intelligence (communication and electronic signal interception). It also has two wing mounted hard-points if additional space is needed for other "unnamed" items. One very unique feature of the Firebird is that it is designed to be either a manned or unmanned aircraft.



A second prototype began flight tests in December of 2018. Northrup Grumman has been demonstrating the airplane to both government and non-government potential customers. So far an unnamed US government agency (or agencies) has placed an order for the Firebird as well as two civilian companies, Grand Sky Development Company and Tenax Aerospace with deliveries expected in 2021.

A short Youtube video of the Firebird in flight can be found at <https://www.youtube.com/watch?v=Ue7xnnCdSok>

Sources for this article include:

[https://en.wikipedia.org/wiki/Northrop\\_Grumman\\_Firebird](https://en.wikipedia.org/wiki/Northrop_Grumman_Firebird)

[https://www.militaryfactory.com/aircraft/detail.asp?aircraft\\_id=1712](https://www.militaryfactory.com/aircraft/detail.asp?aircraft_id=1712)

<https://news.northropgrumman.com/news>



## NAME THE PLANE

DOUG APSEY

## December Mystery Airplane

Here is our final mystery airplane for 2019. Who will be the first to email me at [dapsey@satx.rr.com](mailto:dapsey@satx.rr.com) with the following information about this month's mystery airplane?

1. What is its designation/name?
2. Which aircraft company built it?
3. What year did it first fly?
4. What is the primary purpose of the design?
5. Bonus question. What famous experimental aircraft designer/builder was involved with the design of this aircraft?



CHAPTER NEWS

**Annual San Geronimo Airpark**

**New Years Day**

Were: EAA Chapter Bldg January 1st at "Noon"

This was started by the founders nearly 40 years ago and is an ongoing tradition. All are invited. Just bring what you can. We will need Chili, Tamales, Chips, Salsa, Onions, Black eye Peas, and anything else you can think of.

**Fun Facts about black-eyed peas:**

- Originally used as food for livestock, they became a staple of the slaves' diet. During the Civil War, black-eyed peas (field peas) and corn were thus ignored by Sherman's troops. Left behind in the fields, they became important food for the Confederate South.
- In the American South, eating black-eyed peas and greens (such as collards) on New Year's Day is considered good luck: the peas symbolize coins and the greens symbolize paper money.

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If you are interested in having your own compact tractor, or know somebody who might, the Branson tractor that has served San Geronimo Airpark for the past 15 years is now FOR SALE.

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More info: <https://www.tractorhouse.com/listings/farm-equipment/for-sale/list/?pcid=4034121&dlr=1&crmid=17859618&if=1>



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# EAA Chapter 35 Leadership



## Officers

<b>President:</b> (210) 875-9971	Darren Medlin <i>president@eaa35.org</i>	<b>Vice President:</b> 210-878-5561	Chuck Fisher <i>eaa35vp@gmail.com</i>
<b>Secretary:</b> 503-933-8264	Paul Wurster <i>paul.wurster@gmail.com</i>	<b>Treasurer:</b> 210-493-5512	Dee Brame <i>DeeB@satx.rr.com</i>

## Board of Directors

Past Presidents	At Large
Nelson Amen (2012-2014) 210-834-1991 <i>nelson.p.amen@gmail.com</i>	Ron O'Dea 210-488-5088 <i>r2av8r@gmail.com</i>
Steve Jones (2015-2019) 210-570-9435 <i>steven.jones@eaa35.org</i>	Brian Goode 727-709-1159 <i>ladybgoode@msn.com</i>
Andrea McGilvray, Director 210-413-7392 <i>cowgirlcapital@att.net</i>	

## Chairpersons

<b>Facilities:</b> (210) 570-9435	Freda Jones <i>eaa35facility@gmail.com</i>	<b>Newsletter Publisher:</b> 210-878-5561	Chuck Fisher <i>eaa35news@gmail.com</i>
<b>Air Academy:</b> 210-256-8972	Maarten Versteeg <i>maarten.Versteeg@sbcglobal.net</i>	<b>Newsletter Editor:</b> 210-413-7392	Andrea McGilvray <i>eaa35news@gmail.com</i>
<b>Board Advisor:</b>		<b>Builders Academy:</b> 210-688-9072	Lew Mason <i>lewnan@sbcglobal.net</i>
<b>Young Eagles:</b> 210-887-3135	Philip Vaneau <i>pvaneau@gmail.com</i>	<b>Aircraft Builders:</b>	
<b>Tool Crib:</b> 210-688-9072	Lew Mason <i>lewnan@sbcglobal.net</i>	<b>EAA Hangar:</b> 210-688-9072	Lew Mason <i>lewnan@sbcglobal.net</i>
<b>Public Affairs:</b>	Jose Garcia <i>eaa35pr@gmail.com</i>	<b>Membership:</b> 210-488-5088	Ron O'Dea <i>r2av8r@gmail.com</i>
<b>Website:</b>	Jose Garcia <i>eaa35pr@gmail.com</i>	<b>Country Store:</b> 210-912-1699	Richard Vinas <i>vinas@sbcglobal.net</i>
<b>Safety Officer:</b> 210-488-5088	Ron O'Dea <i>r2av8r@gmail.com</i>		

## Flight Advisors




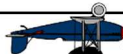

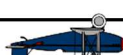
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Ron O'Dea 210-488-5088 <i>r2av8r@gmail.com</i>	

## Technical Counselors

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Nick Leonard 830-765-7481 <i>ohlson38@gmail.com</i>	Lew Mason 210-688-9072 <i>lewnan@sbcglobal.net</i>

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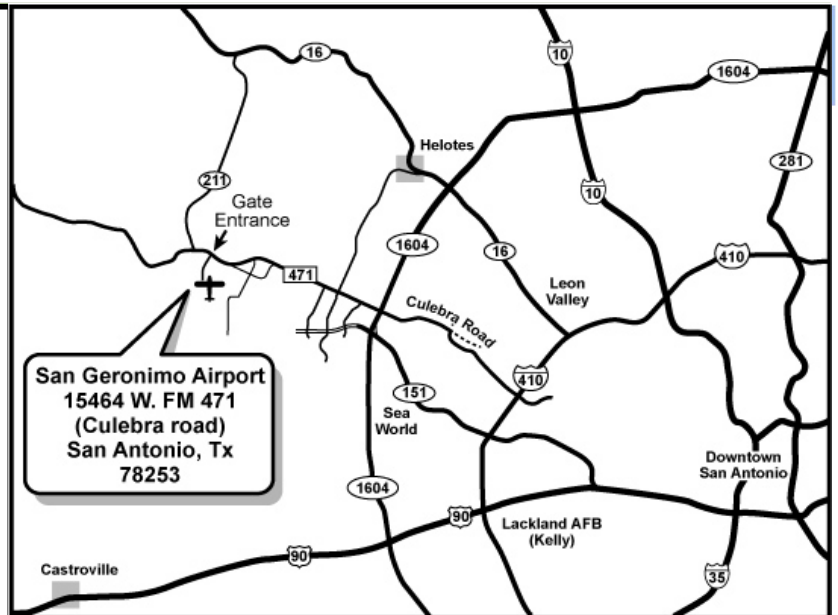
**CHAPTER CALENDAR — CONTACT EAA35VP@GMAIL.COM - PROGRAMS ARE TENTATIVE AND SUBJECT TO CHANGE!**

JANUARY	11	10:00 Board of Directors Meeting 11:30 Lunch, Program: Annual youth program summary (Vanneau, Medlin, Versteeg, Covington)
	17	6:00 pm VMC Club: ICE build-up; 7:30 pm Movie: 12 O'clock High
FEBRUARY	8	1130 Lunch ; Program TBA
	21	6:00pm VMC Club; 7:30pm Movie
MARCH	14	11:30 Lunch; Program: Chris Hyatt, Restoring and flying the Baby Great Lakes
	20	6:00 pm VMC Club; 7:30 pm Movie
	26	San Antonio Aviation and Aerospace Hall of Fame 2020 Awards Dinner <a href="https://www.deehoward.org/saahof-2020-dinner">https://www.deehoward.org/saahof-2020-dinner</a>
APRIL	11	9:00 FLY-IN BREAKFAST (Chef, Prep Cooks, Servers always Needed) Board of Directors Meeting to follow
	17	6:00 pm VMC Club; 7:30 pm Movie
	18	Optional Activity (Fly-Out/Rally) TBA 
MAY	9	10:00 SPRING CLEANING! Bring your work-clothes, gloves, and energy! Lunch to follow (If you've done your chores)
	15	6:00 pm VMC Club; 7:30 pm Movie
	18	Optional Activity (Fly-Out/Rally) TBA 
JUNE	13	11:30 ANNUAL CHAPTER 35 MEMBERS PICNIC
	19	6:00 pm VMC Club; 7:30 pm Movie
	20	Optional Activity (Fly-Out/Rally) TBA 
JULY	11	9:00 FLY-IN BREAKFAST (Chef, Prep Cooks, Servers always Needed)
	17	AIRVENTURE - No VMC club or Movie this month
AUGUST	8	11:30 LUNCH; Program: Casey Fox - Reincarnating a Warbird (T-6)
	14	6:00 pm VMC Club; 7:30 pm Movie
	15	Optional Activity (Fly-Out/Rally) TBA 
SEPTEMBER	12	11:30 LUNCH; Program TBA
	18	6:00 pm VMC Club; 7:30 pm Movie
	19	Optional Activity (Fly-Out/Rally) TBA 
OCTOBER	10	9:00 FLY-IN BREAKFAST (Chef, Prep Cooks, Servers always Needed) Board of Directors Meeting to follow
	16	6:00 pm VMC Club; 7:30 pm Movie
	17	Optional Activity (Fly-Out/Rally) TBA 

### Annual San Geronimo Airpark New Years Day

Were: EAA Chapter Bldg January 1st at "Noon"

# **Chapter 35 meets Each Second Saturday of the Month**



EAA Chapter 35 is part of the worldwide network of EAA chapters. EAA embodies the spirit of aviation through the world's most engaged community of aviation enthusiasts. EAA's 170,000 plus members enjoy the fun and camaraderie of sharing their passion for flying, building and restoring recreational aircraft. Our clubhouse and building facilities are located at San Geronimo Airpark (8T8) located off FM 471 (Culebra Rd) West of San Antonio.

For 60 years Chapter 35 has represented aviators of creativity who share a passion for flying. Come join us!

[Click Here for Link to 8T8 on AirNav.com](#)

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