



# The Ramp Page - July 2023

**EAA 323's Monthly Newsletter  
Vol 54, Ed 07  
Sherman, TX  
Celebrating our 54th year of service!**

Email: [ea323@hotmail.com](mailto:ea323@hotmail.com)

Website: <https://chapters.eaa.org/EAA323>

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**We meet at the Sherman Municipal Airport (SWI)  
1200 S Dewey Sherman, Tx 75090 every Third Thursday at 7pm!  
Please come and be our Guest!**

## President's Mission Brief:

*By John Halterman*

EAA 323,

Well, the heat of summer is definitely here!

First off, I want to announce that our own Ed Griggs was awarded by the EAA this year as a recipient of the national award for chapter newsletter editor! What an honor. Best of the best across all chapters! He's working to get up to Oshkosh for a day or two to receive the award on the Saturday of Airventure. More to come on that once he gets his award, but well done!

To keep the club updated, we are starting the process of selecting our Ray Aviation Scholar nominee. We have 2 candidates in queue, and they are starting the process of an essay and an interview. We are targeting to get that selected by early August and get the individual started. The 2 candidates we have are very strong and it will be a tough selection. Good luck to the 2 candidates.

For our chapter gathering this coming Thursday July 20, 7 PM, at Sherman Muni Airport Terminal, our own Rex Lawrence is going to share his aviation career experiences with the chapter. Often, these are the best for they are home grown. Come on out and join us! Bring a friend!

The last announcement for this letter is that we're going to change from fall to summer the Pancake Breakfast and do it the morning of Saturday Aug 5th at Sherman Muni Airport in anticipation that we can get more planes to fly in. So, mark your calendars and we will need your help!

That's the latest from here. Be safe!

John F. Halterman  
EAA 323 President



## EAA 323 Monthly Gathering – June

By John Halterman



EAA 323 met for its monthly gathering on June 15<sup>th</sup> at 7pm. Our special Guest speaker was Kip Lankenau, the founder and president of KipAero, a division of Kip Motor Company, specializing in vintage aeroplane ignition components and authentic Sopwith aeroplane kits. A member of the Antique Automobile Club of America by the age of five, antique automobiles, flying and history are his lifelong passions.



A frequent speaker, Kip has presented at numerous conferences including British Motor Trade Association, Aviation Week & Space Technology Innovation Challenge, the Aircraft Engine Historical Society conference in Dayton, Ohio (October 2016), a guest commentator at the US Air Force Museum WWI Dawn Patrol Rendezvous and EAA AirVenture Oshkosh 2016 – 2022.

Kip shared his passion for both building and restoring these pre-WWI and WWII aeroplanes. His website (<https://www.kipaero.com/>) is filled with all kinds of information about his passion and these unique aircraft!

## EAA 323 Monthly Gathering – July

By Ed Griggs

Rex Lawrence will share some of his experiences as a pilot over his long career, both Civilian and Military. These gatherings are some of the best presentations due to the fact that they are our own members recollections and are genuine. Please join us, Thursday, July 20<sup>th</sup> at 7pm!



## EAA 323 Schedule of Events

By Ed Griggs

The Board of Directors met on June 3<sup>rd</sup> and came up with a tentative Schedule of Events and gatherings for the remainder of Fiscal year 2023. While not set in stone, the schedule below will give you an idea of the events that EAA323 will be looking forward to. Any updates to the schedule will be listed in future newsletters!

Month	1 <sup>st</sup> Saturday Events	3 <sup>rd</sup> Thursday Planned Program
Aug	5 - Pancake Breakfast to be held at Sherman Municipal Airport (KSWI)	17 – Ed Griggs’ Experience at Oshkosh
Sep	9 - Flyout to Sulphur Springs, visit the Legend Cub factory and have Breakfast/Lunch at the Red Barn Inn	21 – GA Jeopardy with Mike Montefusco
Oct	7 - Brushy Creek Flyin 20 – 21 Cedar Mills Splash-In	19 – How to run an EAA Chapter with John Halterman
Nov	4 - Tentative schedule of a Young Eagle flight at Sherman Municipal Airport (KSWI)	16 - Thanksgiving Potluck, Elections
Dec	2 - RV14 project visit	14 - Christmas Party



### Three words to live by:

- Aviate
  - Navigate
  - Communicate
- “Fly the Danged Plane”**

## EAA 323 First Saturday event: EAA 323 joins forces with “Coffee and Airplanes”

By John Halterman

On Saturday, July 08, several members of EAA 323 joined forces with Airplanes and Coffee as they held a Fly-In at Fort Worth Meacham (KFTW) to visit the Vintage Aviation War Museum visit. Among the exhibits, there was a “Rosie the Riveter” mural unveiling.



Visit their website at:  
<https://vintageflyingmuseum.org/>



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Region: Stockyards  
Phone: (817) 624-1935

## What is a Technical Counselor, What do they Cover, and How does this Program Work?

By Joseph (Joe) Nelsen, Chapter 323, Technical Counselor, Reference: EAA Technical Counselors Handbook

The technical counselor is very simply, another set of (experienced) eyes looking over your shoulders!

Objectives of this program are aimed to deal with mechanical, including electrical, factors That could reflect negatively on safety during first flights, and possible modifications to Experimental homebuilts. This is meant to cover airframe, engine, and if individual is familiar with, also avionics and electrical systems, and is wholly in an advisory capacity. No logbook entries are allowed, and builder is in no way obligated to accept any advice offered. Advice can come from specific test of specific aircraft systems, such as fuel system functionality, engine system function, control system setup, electrical systems performances, physical structural compliance with aircraft documentation, all with the goal of highest levels of safety prior to first flight.



Joe Nelsen

Another, not less important objective, is to help educate the builder, and restorer, with reference to published documentation related to a particular task. Some areas not commonly thought of may be welding, soldering wires and subsequent proper insulation thereof, and special construction of tooling needed to accomplish unforeseen tasks. Many books on many related subjects are available in various places on, of course the internet. A counselor may well be familiar with several sites as suggestions for information gathering.

Yet the most important area of a counselor's activities is that of assistance towards actually completing any project to the point of first flight, and beyond. Most, if not all, counselors have completed and flown at least one aircraft, and quite a few have done so many times, with each experience adding to their 'advise and counseling capability'. As beginning a project may seem easy at first, truly as time, pressures from elsewhere in life come into play, money availability, and the feeling of being overwhelmed and out of your comfort zone, the counselor can help by suggesting methods to break down seemingly large part assembly/construction, into much smaller items, or way to view them as such. The whole point is to finish the project properly and safely, and to be able to have a first flight!

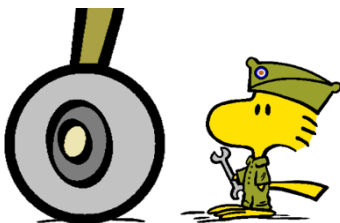
The technical counselor program works by organizing counselors as to location, chapter, aircraft makes/types, material preferences, and system preferences and experiences. Finding and conversing with a counselor in your area can be done utilizing EAA data base at 'www.eaa.org/techcounselors'.

There are just five simple things a counselor should do; Advise, Inspect (view/look), Inspire, Educate, Record. Simply point out things that could be better, and improve safety. A great, and correct, way to say things is 'If its on the plans, do it that way.'

As always, there are a few things counselors should not do. Primairily, not to slow down progress on the project, except to slow down to correct debits seen. A counselor must not cause actions that would "place liability on you, or the organization". Nothing like, or close to, unqualified approval of and aircraft, or maybe even any system! One must not say 'Its ready to fly", or anything like that, or to imply that!

Several other things can be listed and understood by the counselor using EAA data file as reference. Areas should include:

- Accepting responsibility; the builder should do this in the process of building, and can or not, accept the advice. (One old sage has always said 'Advice is always free, and worth every bit paid for it.'
- Be very aware of what is said. Don't let the builder misunderstand your advice as approval of anything. By saying "it looks ok to me" may imply approval, and that isn't the counselors duty. Better to indicate 'I could find nothing else...'. The builder should therefore understand the rest is up to him, as it should be.
- Counselor Records: Keep a record of your visits for future reference, if needed.
- Lastly, a counselor must not take a fee for counseling. Otherwise there very well could be a conflict of interest with EAA, and the counselor then becomes 'a hired hand', so to speak, and no longer represents the EAA in that particular activity.



Lastly, The counselor position is such that a builder should invite a visit. The counselor doesn't advertise, accept pay for ANY part of a visit. When invited, the counselor can set the time as acceptable to the builder, and should be responsive and prompt. Viewing a project for defects should be a positive experience for the builder, and needs to have a positive experience. Be very careful about 'judging', versus 'critiqueing', although some might not understand the difference! Suggestions are the way to educate.

Finally, as said in the 'Handbook', 'a counselor isn't that of being a hallway monitor. You aren't a traffic cop, and you aren't looking for business. You are making yourself available to the sport aviation community with the hopes of making it a better [and safer] place for us all to live in!'

I have been a Technical Counselor since 2019 and have viewed the following aircraft types; RV 14, CH 750, Sonex-ONEX, CX-4, Hawk Arrow II, CX-4, Phantom X1. All technical counselors should have a good grasp of basic aircraft mechanics. In addition, an individual may have expertise in a specific area over and above that which would be considered average for his qualifications. Passing on these special talents would be beneficial to builders who are working on their aircraft.

So, as one of your local Technical Counselor's, If I can ever be of assistance by offering advice of a technical nature, I am just a phone call or email away! Till then, Best of luck with your build!

Contact Information: Joe Nelsen, Text: 903-818-0496, email: nelsen.n502pd@gmail.com

## [VMC Club](#)

*By Ed Griggs*

The VMC (Visual Meteorological Conditions) club, hosted by EAA 323 and held at Texoma Aero Club facilities, held a presentation entitled "The Complete Cross Country" to the members and guests at the recent TAC gathering. While the scenerio is based on a "real-life" event, Our members were able to glean information and gain a knowledge that may help them -- should they find themselves in a similar predicament -- to avoid a costly accident!

The purpose of EAA VMC Clubs is to build proficiency when flying under visual flight rule conditions.

EAA VMC Clubs are extensions to local EAA chapters and offer monthly meetings in which pilots can network and share knowledge and experience. The meetings use real-world scenarios to engage members, and allow a free exchange of information that improves awareness and skills. The intent is to create a community of pilots willing to share information, provide recognition, foster communications, promote safety, and build proficiency. Through the EAA VMC club programs, visual flight rule pilots have improved their proficiency, and they love it. We cant wait to see you there!

## [EAA323 VMC Club Question of the month: July 2023](#)

*By EAA VMC Staff, (Answer on Page 13)*



**EAA VMC Club**  
Question of the Month

Question: When arriving at an uncontrolled airport that uses the standard left traffic pattern, can a pilot of an airplane decide to use right hand traffic in order to improve safety? An example might be when there are low clouds adjacent to the airport that would potentially raise a safety concern for aircraft making a left-hand pattern, but the other side of the airport is clear with 10-mile visibility.

## [EAA 323 to host Pancake Breakfast](#)

*By John Halterman*

EAA 323 is going to host a Pancake breakfast on 05 Aug 2023, 8:30am to 10:30am, for all who can Fly, Drive or Walk-in! We continue to have great turnouts as well as the cheapest fuel in the tri-county area! If you are up for a nice breakfast, great conversation and comraderie, please be sure to look us up and join us! Come for the food, stay for the Comradery! We cant wait to see you there!



## EAA 323 Awarded Ray Aviation Scholarship:

By John Halterman

As previously mentioned, EAA 323 has been awarded a Ray Aviation Scholarship for a deserving youth (aged 16 – 19)!



The EAA Ray Aviation Scholarship is a scholarship program that is funded by the Ray Foundation, managed by EAA, and administered through the EAA Chapter network. Through the generous support of the Ray Foundation, EAA provides up to \$11,000 to deserving youths to help cover their flight training expenses, totaling \$1,800,000 in annual scholarship funding.

The Ray Foundation was founded by James C. and Joan L. Ray. James' dedication to aviation began shortly after the December 7, 1941, attack on Pearl Harbor, when he enlisted in the Army Air Corps. He was involved in the D-Day invasion as a command B-17 pilot with the 8th Air Force. Post war, he served in the Air National Guard, and was very involved in general aviation following his service years.

James was the recipient of EAA's 1992 Freedom of Flight Award, and in 2009 had a thoroughfare on the AirVenture grounds named in his honor. His support for numerous EAA initiatives is part of his legacy, as he made possible both facilities and programs that extended EAA's ability to grow participation in aviation. The most visible of those gifts is the Air Academy Lodge. Since 1998, this facility has hosted hundreds of young people each summer at the EAA Air Academy, which gives those ages 12-18 the opportunity to discover more about flight. The Ray Aviation Scholarship Fund is sure to deliver an equally impactful experience for youths who are passionate about aviation.

EAA 323 will be putting together a committee to select a candidate for this Scholarship! If you know of an eligible and deserving Candidate, please forward your nomination to me (at [ea323@hotmail.com](mailto:ea323@hotmail.com)).

### Scholar Eligibility and Requirements

<https://www.eaa.org/ea/ea-chapters/ea-chapter-resources/chapter-programs-and-activities/ray-aviation-scholarship-fund/scholar-eligibility-and-requirements>

Ray Aviation Scholarship Fund applicants are the most engaged, excited, and motivated aspiring pilots the chapter has had the pleasure of meeting. It will be incumbent upon the chapter to vet local youths to help bring forward the most deserving candidate in their local area.

Local candidates must meet the following criteria:

- Minimum of age 15 for glider training
- Age 16-19 for powered flight training
- Possession of a student pilot certificate
- Possession of FAA medical certificate (private pilot students)
- Be able to begin their flight training within 60 days of receiving the award
- Additional consideration will be given to candidates who are former Young Eagles, EAA student members, and actively participating in the EAA Flight Plan, specifically the Sporty's Learn to Fly Course.

Once selected by the chapter, the candidate will also be screened by EAA through an application process. If approved by EAA, the scholarship recipient will have to comply with the following requirements:

- Partake in two hours of chapter volunteer service per month, such as:
- Young Eagles rally volunteering.
- Volunteer at pancake breakfast/fly-ins
- Chapter build project support
- Chapter gathering participation
- Chapter social media and website maintenance
- Submit regular progress reports during monthly check-ins
- Reach designated flight training milestones, as outlined by EAA's training timeline

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## TAC Operations

By Michael McLendon, July 2023

In 2019, TAC began club operations after a handful of EAA323 members decided the Texoma Area needed a flying club. With the help of Pat Brown, (AOPA Ambassador, and AOPA staff members), Chad Smolik, (Aviation Insurance Experts), NTRA leadership, and many hours developing bylaws and rules and applying to state and Federal agencies for incorporation, TAC became a non-profit club for all who are aviation enthusiasts.



Currently, TAC has 20 flying members and 6 social members. Eleven instructors are involved with the club under CFI memberships. Memberships are available in all categories: Full, Family, Corporate, Rusty, Student, Social. See our website for details.



N4594U "Glenda", the Club's 1964 Cessna 150D

TAC meets monthly on the 3rd Saturday. We start serving pancakes at 8:30 AM with a invitation to all who work and play at NTRA.

Our business meeting starts about 9 and then around 9:30, EAA323 VMC Club pits you against the "Experts" with a VFR challenge scenario.

We reserve the 10 AM time slot to fly "Discovery Flights" for those who may be interested and the weather permits!



N1528Y "Lucy", the Club's 1962 Cessna 172C

As for the club aircraft, We finished the annual on "Glenda", the Club's 1964 Cessna 150D, a week ago. New brake discs were installed along with new brake pads. A new seat track was also installed on outboard pilot side. New intake hoses were installed. Minor repair to the throttle system. We are delaying our plans to do the avionics upgrade until later in the summer.

N1528Y "Lucy", the Club's 172C, is undergoing a 100 hour inspection and should be back online by the time you read this. New tires were installed as well as new brake pads.



Glenda's new avionics! To be installed... soon!



N7689M, our "yet-to-be-named" 1958 175C

Our "Yet-to-be-named" 1958 175C, is looking less a parts donor now but she is definitely on lifesupport! Electric wiring for the main bus is progressing. Flap cables on order. JPI Engine monitoring system wiring harnesses will soon be placed and probes installed.that is still undergoing restoration with engine and avionics upgrades. We cant wait for the day that we get to take her out, which will be a Saturday to be announced!

Fly in, drive in or walk-in and join us for some hangar talk. Type in KGYI in your flight software to check out latest conditions and notices for North Texas Regional Class D airport.

TAC is located in the executive hangar area, Hangar E2, just north of the tower. For those driving, come to the gate at Don Ort Drive. Text us (404)825-4795 or (918)407-7797 or (903)821-7640 in advance to obtain entry to the ramp area.

We always need new "hangar talk" material, so come join us for pancakes.

Blue Skies!

Mike



Control panel for N7689M

## What Is Cruise Climb Speed, And When Should You Use It?

By Boldmethod, 06/29/2023

Vcc is commonly called "enroute climb speed", and it's always faster than Vy. Unless a steep climb is required to avoid terrain or to fly a departure procedure, cruise climb speeds allow you to fly faster, with a relatively small loss of climb performance. Once you've reached pattern altitude or 1,000', transitioning to cruise climb speed might be a good idea. So, what aircraft have a cruise climb speed, and what types of aircraft benefit most from it? We'll get to that in a bit, but first...



**Cruise climb gets you to your destination faster, with only a small reduction in climb performance.**



### **Benefits of flying Vcc**

Cruise climb helps you in three ways. First, increased airflow keeps your engine cooler in the climb. That's especially important for high-performance piston aircraft.

Second, cruise climb gets you to your destination faster. You do lose some climb performance, but in most aircraft, it's an acceptable (and sometimes almost imperceptible) loss of climb performance, in exchange for faster forward airspeed in the climb.

And finally, you get better forward visibility in a cruise climb. You're supposed to be looking out the window for traffic. Plus, a reduced pitch attitude can make your passengers feel more relaxed. If you're flying an unpressurized aircraft, the reduced rate of climb can also help mitigate pressure changes that your passengers experience. Remember this tip if you have a sick passenger, young child, or baby on board.

### **When Is A Cruise Climb speed Published?**

It depends on the plane, but in general, the higher the performance, the more likely you are to have a published cruise climb speed. But even the Cessna 172S has a recommendation for cruise climbs. The 172's sea-level Vy is published at 74 knots. Enroute climb (Vcc) is published at 75-85 knots. Here's a quote from the POH...

"Normal enroute climbs are performed with flaps up and full throttle and at speeds 5 to 10 knots higher than best rate-of-climb speeds for the best combination of performance, visibility, and engine cooling."

### **An Easy Rule-of-Thumb If You Don't Have A Published Vcc**

If you want to figure out the cruise climb speed for your airplane, and you don't have a published speed, a good rule-of-thumb is to find the difference between Vx and Vy, and add that number to Vy.

For example, a POH for the Piper Warrior III has a Vy of 79 knots and a Vx of 63 knots. Add the difference of 16 knots to Vy, and you can estimate cruise climb speed to be around 95 knots. Depending on weight and performance, 95 knots might be a little on the high side, but it's a good ballpark to start with. It also gives you a speed you can start experimenting with in the climb.

### **Cruise Climb Rule-of-Thumb**

Find the difference between Vx and Vy, and add that number to Vy.

If...  
Vy = 79 Knots  
Vx = 63 Knots



Cruise climb is about...  
95 Knots (79+ 16)

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### **How Exactly Does Performance Change?**

To analyze the change of performance, let's look at a POH that has both rates published: the Cessna 208EX Caravan. While the Caravan might be different than what you fly, the performance change is actually very similar in most single-engine aircraft.

Let's look at climb rates first. Here are the conditions: 8,000 foot pressure altitude, 20 degrees Celsius, maximum takeoff weight of 8,807 pounds.

- Vy (102 knots): 740 feet per minute
- Vcc (115 knots): 675 feet per minute



You told me you had a lot of money invested

Yeah... in my 55 year old airplane





With this scenario, you only lose 65 feet-per-minute climb rate, in exchange for 13 knots more airspeed. That equates to 12% more speed, for an 8% loss of FPM.

What about time, fuel, and distance for climb? Here are the conditions: climb from sea level to 8,000 feet, standard temperature, and maximum weight.

- Vy: 7 minutes, 61 pounds of fuel, and 13 nautical miles
- Vcc: 7 minutes, 62 pounds of fuel, and 14 nautical miles

In this example, the time to climb is essentially the same, you'll only burn about 2% more fuel, and you'll have over 7% faster forward airspeed. While this example was limited to the Cessna Caravan, in most airplanes you'll find that the percentage change in FPM is relatively small in comparison to the substantially better airspeed flown at cruise climb.

### A Cooler, Faster Climb Speed

If you have the capability to fly a cruise climb departure, you can shave time off your trip, keep your engine in better shape, and make your passengers in the back more comfortable.



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### Pilot's Tip of the Month: "Finding Traffic"

Featuring Jeff Van West, <https://pilotworkshop.com/tips/finding-traffic-2/>

Subscriber question:

"When ATC calls traffic for me, I never see it until I'm passing it, even when it's at or near my altitude. Is there any trick to this?" — Shawn R.

Jeff:

"The best advice really comes down to angles.

Suppose traffic is called out to us at 12 o'clock, five miles, same altitude. Instinctively, we look to the horizon because we're terrestrial beings most of the time and that's where we think we are. However, that's not quite correct due to the curvature of the earth. Even only 1000 feet in the air, the horizon in the distance is 1.5 degrees below level. By 10,000 feet, that's about two degrees, and by FL410 it's about 3.5 degrees.

Two degrees is about the width of one finger held out at arm's length. So if we're flying at 10,000 feet or lower, we need to hold our arm out in front of us at arm's length and put the bottom of our finger on the horizon. The traffic is somewhere behind that finger—which is a really small slice of the sky just above the horizon. Put the finger down now and look for traffic right there.

Suppose the traffic call was 12 o'clock, five miles, 1000 feet below. Would you look much lower? Not really. A point 1000 feet below you and ten miles away is only one degree down visually. So 1000 feet below and five miles away is two degrees down. If traffic at your altitude is directly behind your finger held at arm's length, then traffic five miles away and 1000 feet below is just below your outstretched finger. Traffic five miles away and 1000 above, is a just above that finger.

In other words, look for traffic two finger-widths above the horizon to one finger width below. That's where all the traffic is that matters when it's approaching—and where it will stay if it really matters!"



Vice President, Product Design and Strategy, CFII



### Mel Asberry

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## Student pilot at 50?

by Nathan Wieck

That was my question in the summer of 2020 at the start of the COVID pandemic. In July, I contracted COVID and was shunned to my bedroom for 2 weeks. What was I going to do for 2 weeks besides binge watch Netflix movies? How many crossword, Wordle, or Sudoku puzzles could I complete before going insane? Well after a day or two it was evident I needed to find something to do to keep me sane, why not learn to FLY, that is surely sanity at its best!

My hobby background consists of hunting, archery, fishing, boating, and being around family. I am a technician for Texas Instruments and have been for 30+ years. I troubleshoot on a daily basis and grew up farming with my Uncles and grandparents in the Texas Panhandle. I have no REAL background in aviation, other than always being fascinated by flying. My son in law had recently earned his pilots certificate

which started the bug in me.

I decided to take a few days and research what it would take to become a pilot and where to begin. I contacted Mike and Mary at the Texoma Aero Club at KGYI. They both gave me some great advice and information about the club. I searched the internet and found a free online private pilot ground school. It was a good way to start, without a monetary commitment to see if I liked it. I completed the ground school and scheduled my FFA written exam. Before I took the exam, my family scheduled me a discovery flight out of Addison which really made the flying bug bite harder. After several hours of studying and several mock tests I was able to pass the written with a 90+ score.

Being 50 years old, I was given advice to go get my medical next as there was no reason to throw money at flying if I couldn't pass my medical. I received my class 3 medical and was ready to being my flying. I thought since I could drive a truck, tractor, boat, manual shift automobiles, this flying should be pretty "easy". Well, I was wrong!

I joined TAC (Texoma Aero Club) flying club and began my lessons as a 50-year-old student pilot. When I started flying I wanted to fly 2-3 times per week and though I would have my ticket in 40.1 hours, I soon discovered my reflexes were slower and my will to live was stronger, I was no longer a carefree youth willing to take a chance. When I had about 15 hours of instruction, my frustration set in! Was I ever going to learn how to land this flying contraption? My CFI wanted me to fly with another CFI and after another ten hours, I was able to solo in December 2020!

I thought I would have been doing my check ride at his time but never knew the degree that weather would impact my scheduling. After I soloed flying lessons started to speed up. I was able to take care of my night flying by taking a trip around DFW and actually did a stop and go at Dallas Love Field (KDAL) 13R. We had a magnificent view of the Dallas lights at night too!



Solo with Sean Noel, CFI extra-ordinaire!



Dallas at night, what an impressive view!



Then the February ice storms hit and halted my training for 3 weeks. Once I got back on track and the planes annuals out of the way, it was June, and I was looking for a DPE to get my check ride completed. I was lucky that the pilot shortage check rides had not started and I was able to get my check ride completed in early July 2021. It took me one year from the time I started my online classes to punching my "ticket"!

What was my goal? It was to cut down a 5-hour drive to West Texas to see my grandkids and to find new adventures for my wife and I since becoming empty nesters!

So, it is never too late to learn something new if you are determined! I'm currently at 180 hours and taking my first biennial review.



Granddad flew in for the day to spend time with Kodi and Knox!



The wife and I flew out to get some BBQ and a nice ride in the Antler's, Ok courtesy car.



We were able to fly to Galveston to meet the rest of the family for a little vacation.



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# The Arcane Aviation Texas Fact: A Texas WWII Gasoline Story You Probably Never Heard

By Nancy Aldrich, March 19, 2021, <https://firstaerosquadron.com/2021/03/19/a-texas-wwii-gasoline-story-you-probably-never-heard/>

But, thanks to long-time FASF member and retired United Air Lines Captain, Nancy Aldrich, a loyal Texan, and regular aviation author, we have this fascinating and little-known story of how an East Texas refinery – and one of its sharper engineers, Tim Palucka – helped change the war’s outcome – in our favor – by his use of an obscure French patent on gasoline refining.



Nancy Aldrich,  
Captain

Without further ado, here’s the tale:

## 87 Octane Aviation Gasoline vs 100-130 Octane Aviation Gasoline in WWII (This is a declassified article by the British Society of Chemists (Declassified in 2014) )

“It has always puzzled me as to why the German Luftwaffe kept on using 87 Octane Aviation Gasoline while the Americans and British used 100 Octane Gasoline in their Spitfire Fighters and Americans used 130 Octane in our P-51 and other fighters.



P-51 Mustang leads Spitfire in close formation flight



P-51 Fighter in Flight



B-17E Flying Fortress

This morning I discovered the reason!

It seems that the German and British aircraft both used 87 Octane Gasoline in the first two years of the war. While that was fairly satisfactory in the German Daimler-Benz 12 engine, It was marginal in the British Rolls-Royce Merlin XX engine in British aircraft. It fouled the spark-plugs, caused valves to stick, And made frequent engine repair problems.

Then came lend-lease, and American aircraft began to enter British service in great numbers. If British engines hated 87 Octane gasoline, American, General Motors Built, Allison 1710 engines loathed and despised it. Something had to be done!

Along came an American named Tim Palucka, a chemist for Sun Oil (SUNOCO) in their South East Texas Refinery.

Never heard of him? Small wonder, very few people have. He took a French formula for enhancing the octane of Gasoline, and invented the “Cracking Tower” and produced 100 octane aviation Gasoline.

This discovery led to great joy among our English Cousins and great distress among the Germans. A Spitfire fueled with 100 Octane gasoline was 34 miles per hour faster at 10,000 feet. The need to replace engines went from every 500 hours of operation to every 1,000 hours. Which reduced the cost of British aircraft by 300 Pounds Sterling. Even more, when used in 4 engine bombers.

The Germans couldn’t believe it when Spitfires that couldn’t catch them a year ago started shooting their ME-109 E and G models right out of the sky.



ME 109 Messerschmitts escorting Nazi Heinkel Bombers



SUNOCO officials pour the billionth gallon of high-octane aviation fuel produced during World War II

Of course, the matter had to be kept secret. If the Germans found out that it was a French Invention, They'd simply copy the original French patents. If any of you have ever wondered what they were doing in that 3 story white brick building in front of the Sun Oil Refinery on Old Highway 90, that was it. **They were re-inventing gasoline.**

The American Allison engines improved remarkably with 100 Octane gasoline but did much better when 130 octane gasoline came along in 1944. The 130 Octane also improved the Radial Engined Bombers we produced.

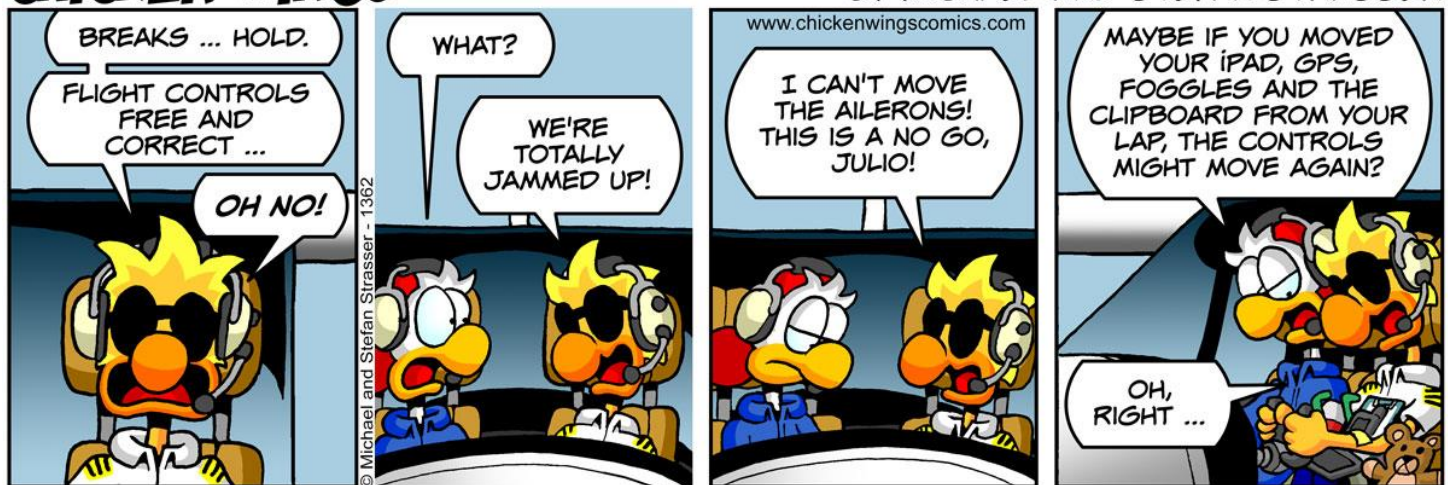
The Germans and Japanese never snapped to the fact that we had re-invented gasoline. Neither did our "Friends" the Russians.

100,000 Americans died in the skies over Europe. Lord only knows what that number would have been without "Super-Gasoline". And it all was invented just a few miles west of Beaumont, and we never knew a thing about it."

Aha --- but there's much more to this story than just recited above. In 1935, 6 years before Pearl Harbor and his country's entry into WWII, Jimmy Doolittle, had retired from the Army and was working for the Shell Oil Company. He saw the need for a higher octane fuel if we should enter another war. So for more on the important role he played in the fuel octane race, which is not mentioned in the opening story above, stay tuned for next months installment.

## CHICKEN WINGS®

BY MICHAEL AND STEFAN STRASSER

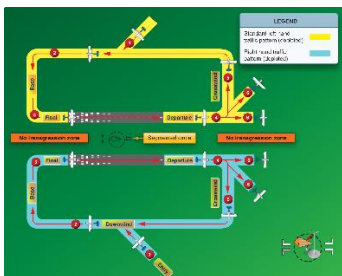


### EAA323 VMC Club Question of the month July 2023: Answer

By EAA VAM Staff, (Question from Page 5)

It would seem that from a regulatory standpoint, right hand traffic is not allowed at airports where left hand traffic is prescribed. So at first blush, the answer is "No." According to 91.126, Operating on or in the vicinity of an airport in Class G airspace. (a) General.

Unless otherwise authorized or required, each person operating an aircraft on or in the vicinity of an airport in a Class G airspace area must comply with the requirements of this section. (b) Direction of turns. When approaching to land at an airport without an operating control tower in Class G airspace: (1) Each pilot of an airplane must make all turns of that airplane to the left unless the airport displays approved light signals or visual markings indicating that turns should be made to the right, in which case the pilot must make all turns to the right; and (2) Each pilot of a helicopter or a powered parachute must avoid the flow of fixed-wing aircraft. However, according to AC 90-66B, paragraph 9.1: Left Traffic. Use of standard traffic patterns (left turns) for all aircraft and CTAF procedures by radio-equipped aircraft are required at all airports without operating control towers unless indicated otherwise by visual markings, light gun signals, airport publications, or published approach procedure.



In addition, this paragraph goes on to state: It is recognized that other traffic patterns (right turns) may already be in common use at some airports or that special circumstances or conditions exist that may prevent use of the standard traffic pattern. Right-hand patterns are noted at airports on an aeronautical chart with an "RP" designator and the applicable runway next to the airport symbol. All that said, if a pilot declares an emergency, that would change the complexion of the issue, but that opens another can of worms.



## [Airport Holding Markings: You Can Fool Some of the People...](#)

By Rod Machado, June 2021, <https://rodmachado.com/blogs/learning-to-fly/rwy-hold-lines-you-can-fool-some-of-the-people>



Here's the scenario: From your present position shown in the graphic above ATC says, "...taxi to Runway 19R via taxiway Whiskey, hold short of Runway 19R at Whiskey Eight." (The beginning of Runway 19R is located at the far, north end of Taxiway W where W8 is also found.)

As you taxi, you come across a set of yellow solid-double and dashed-double hold markings directly ahead of you, as shown in the picture above. What are you required to do?

- A. Hold and ask for a clearance to cross the solid double-yellow lines.
- B. Nothing. You may cross these lines without an ATC clearance.
- C. Cross these lines, then stop. If ATC doesn't say anything, keep going.

If you picked answer A, that would be incorrect. The correct answer is "B."

Wait! Don't go all Hong-Kong Kung-fu on me. Let me explain.

First, I asked what you are required to do. I didn't ask what you should do or what would be reasonable to do. The holding markings you see in front of you (solid double bars on your side in the graphic above) are known as taxiway holding position markings, not runway holding position markings (which prevent the unauthorized entry onto a runway). When taxiway holding position markings are located next to a runway sign showing the letters "APCH" on it, then you are only required to stop if ATC specifically instructs you to hold short of these markings. This is one of the more confusing aspects of runway signage foisted on unwary pilots, especially student pilots.

Here's what paragraph 2-3-5(3) of the AIM says.

**3. Holding Position Markings on Taxiways Located in Runway Approach Areas.** These markings are used at some airports where it is necessary to hold an aircraft on a taxiway located in the approach or departure area of a runway so that the aircraft does not interfere with the operations on that runway. This marking is collocated with the runway approach/departure area holding position sign. When specifically instructed by ATC, "Hold short of Runway XX approach or Runway XX departure area," the pilot MUST STOP so that no part of the aircraft extends beyond the holding position marking. (See Subparagraph 2-3-8b2, Runway Approach Area Holding Position Sign, and FIG 2-3-15.)

And here's what subparagraph 2-3-8b2 says.

**2. Runway Approach Area Holding Position Sign.** At some airports, it is necessary to hold an aircraft on a taxiway located in the approach or departure area for a runway so that the aircraft does not interfere with operations on that runway. In these situations, a sign with the designation of the approach end of the runway followed by a "dash" (-) and letters "APCH" will be located at the holding position on the taxiway. Holding position markings in accordance with Paragraph 2-3-5, Holding Position Markings, will be located on the taxiway pavement. An example of this sign is shown in FIG 2-3-27. In this example, the sign may protect the approach to Runway 15 and/or the departure for Runway 33.

Taxiway holding position markings (yellow solid-double and dashed-double bars) are placed on a taxiway when an aircraft might interfere with nearby runway operations. This interference might be physical (your big tail sticks up in the air and scares pilots on final approach) or electronic in nature (your airplane interferes with glideslope/localizer signals). These holding position markings look exactly the same as the runway holding position markings, except that they aren't meant to prevent the unauthorized entrance to the runway.

You can identify these holding position markings on taxiways by the presence of a sign with white-on-red lettering having a runway designation (1L) followed by a dash (-) followed by letters APCH.



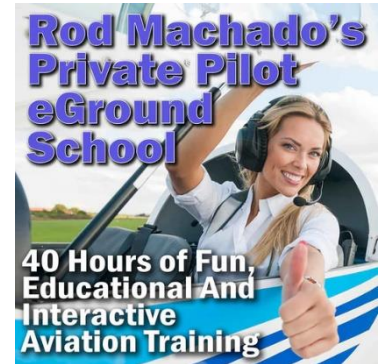
Looking at the graphic below, if you are cleared to taxi NE bound on Delta and ATC didn't specifically say, "Hold short of Runway 15 approach," then you are not obligated to stop at these hold bars on taxiway Delta. Instead, you may cross them without an ATC clearance. The hold bars in the example below protect the runway approach area (or, this can also be the runway departure area, too).

Wise pilot that you are, you might be asking, why not just use a taxiway holding position marking (a single dashed yellow line across the taxiway) instead of using yellow solid-double and dashed-double markings? After all, isn't that why airports have a taxiway holding position marking? I suspect the FAA felt that pilots do not pay as much attention to single yellow-dashed lines compared to their supersized double-solid/dashed cousins. So the FAA opted for that which all pilots are conditioned to notice: double-solid/dashed bars.

Now you know what you are required to do. However, what would you actually do when you encounter holding position markings on a taxiway as shown in the graphics above?

My advice to you is to always stop and query the controller. Period. That's right. STOP and make sure you are cleared to cross those solid double yellow lines! Even if you don't need a clearance to cross the taxiway holding markings, get one anyway, or at least check in with the controller before crossing them. The worst that can happen is that the controller gets uppity with you. If he does, then start speaking to him as fast as he speaks to you. Problem solved.

The fact that there is an exception to the clearance requirement to cross the yellow solid-double and dashed-double lines is note-worthy. Yes, I realize the runway and taxiway hold lines have different names. So what? They look exactly alike, and that's what matters here.



I find it interesting that the FAA goes out of its way to identify likely areas where pilots are might accidentally cross runway hold markings without a clearance. The FAA even give these areas special names called hot spots and depict them on airport taxi diagrams to prevent runway incursions. Then, if a pilot experiences a runway incursion, he's sent to a ground-school-gulag where he's forced to print out runway signs (OK, maybe not, but it feels like that, anyway). My point is, everyone knows that runway incursions are serious events! The FAA's exception to the clearance requirement for crossing holding markings on a taxiway seems likely to increase these incursions, not lessen them. It's a deeply unwise policy, in my opinion.

What's my solution to the FAA's policy here? Why not require a clearance to cross all taxiway holding markings? If I were in charge of the FAA for a day (the longest I would remain in the job before being fired and sent to that gulag I mentioned earlier), I would require a clearance to cross "ALL" taxiway holding markings. That seems like common sense to me.

It's been said before and it's appropriate to say it again (with a twist). You can fool some pilots some of the time, but you can't fool all pilots all the time--however, taxiway holding markings come pretty close.

### [EAA Chapter 1246 Gathering and Young Eagle Day](#)

By Jim Smith, [funplacestofly.com](http://funplacestofly.com)

Let's get together and support a fellow Chapter for some fellowship and fun! They are having Free coffee and donuts for everyone on the third Saturday of every month at Pat Long's Hangar in the McKinney Hangar Owners Association area at the Collin County Regional Airport in McKinney, TX. Let's gather at 9:00 am. Also, we will be flying Young Eagles on that day. Volunteers needed!

# FunPlacesToFly

[funplacestofly.com](http://funplacestofly.com)



## Hobbs Time versus Tach Time

By Joe Haygood, Updated on August 30, 2022, <https://www.skytough.com/post/tach-time-vs-hobbs-time-complete-difference-list>

As a pilot, it's important to understand Hobbs time and tach time and how they work. We'll teach you everything you need to know in this expert guide. Whether you're worried about how to keep your logbooks up to date, how engine hours are monitored on an airplane, or how you'll be charged hourly for aircraft rental, it's important to know how time is measured in the aviation world. This is where Hobbs's time and tach time come in. But what does that really mean and how are Hobbs and tach time different from each other?

**Tach time measures the number of hours of wear and tear on an airplane's engine (engine hours), while Hobbs time measures the actual number of hours that an airplane is operated. Hobbs time should be used in a pilot's logbook for flight time, and tach time should be used for maintenance.**

In aviation, there are two main ways to measure time: Hobbs time and tach time. They both have their own unique benefits and drawbacks, which can be confusing for those who are new to the industry. In this article, we will explore everything you need to know about Hobbs time and tach time. We'll start by discussing both types of time and how they're measured, and then we'll dive into the key differences between Hobbs time and tach time.

### **What is Hobbs Time?**

Before we can start talking about the differences between Hobbs time and tach time, we need to make sure we explain what they both are. We have to start with one or the other, so let's first take a look at Hobbs time. Hobbs time is a measure of time that is used to calculate the amount of use an aircraft has received. In other words, it's the actual number of hours that the airplane has been operated. It is named after John Weston Hobbs and was first used in the mid-20th century after the introduction of the Hobbs meter.

Hobbs time is measured by the number of hours that an aircraft engine has been running. This measurement is usually taken from the time that the engine is started until it is shut down. Another way to think of Hobbs time is that it's the true measure of flight time. When you're flying and an hour passes on your watch or on the clock on your smartphone, then an hour of Hobbs time has also passed. That might sound like a silly thing to mention, since an hour is an hour, right? Not quite! As you'll see when we talk about tach time, all hours are not created equal!

### **How is Hobbs Time Measured?**

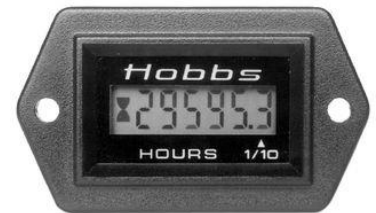
As briefly mentioned above, Hobbs time is measured using a Hobbs meter. This is a device that's connected to the aircraft engine and records the number of hours that it's been running. The Hobbs meter is often found in the cockpit so that the pilot can easily see how much time has elapsed.

Some newer aircraft are equipped with electronic Hobbs meters, which are able to record and store the data automatically. This can be helpful if you want to track your Hobbs time over a long period of time, or if you want to share the data with someone else (like a mechanic). The Hobbs meter is usually either wired into the ignition system, put on an oil pressure switch, or hooked up to the airplane's engine in another way to track how many hours it's been used.

### **What Do Pilots Use Hobbs Time For?**

Now that you have a better idea of what Hobbs time is and how it's measured, you might be wondering why it matters. After all, isn't it just another way of measuring time?

Pilots use Hobbs time for a few different reasons. First, it's a good way to track how much flight time they have and is the time that should be used to record the number of hours flown in the pilot's logbook. This is important because pilots need a certain amount of flight time to earn or maintain their certification. If a pilot doesn't have enough flight time, they might not be able to fly passengers or cargo. Second, Hobbs time is used to calculate aircraft rental fees. When you're renting an airplane, you'll usually pay by the hour. The rate will sometimes be based on the Hobbs time, but we'll get into this in more detail towards the end of this article. Finally, some aircraft maintenance schedules are based on Hobbs time. This is because certain parts of the airplane will wear out after a certain number of hours of use. For example, the engine might need to be overhauled after a certain number of Hobbs hours.



Typical Hobbs meter's: above is a digital unit and below a mechanical.





## What is Tach Time?

Now that we've gone into detail about Hobbs time, let's talk about tach time. Tach time is another way of measuring the amount of use an aircraft has received, but it's different from Hobbs time in the way it measures hours and what it's used for.

Tach time is the number of hours that an engine has been running at a certain speed.

Unlike Hobbs time, tach time doesn't measure the actual number of hours that an aircraft has been flown. Instead, it's a measure of how much wear and tear the engine has experienced.

Tach time is also known as power-on time or rotor-running time. It gets its name from the tachometer, which is a device that measures the rotational speed of an engine. This is just like the tachometer in your car, which displays the RPM of your car's engine at any time.

A plane's tachometer works similarly, and it typically measures the rotational speed of the plane's propeller (and therefore, its engine).

## How is Tach Time Measured?

Tach time is measured using a tachometer, which is a device that measures the rotational speed of an engine. As we mentioned before, a tachometer on a plane is just like the one on your car, except here it's measuring the rotational speed of your airplane's engine. In most cases, this means that it's measuring how many rotations per minute the propeller itself is making.

Tach time is measured in hours, but it's not the same as how many hours pass on your watch or in Hobbs time. Tach time is a measure of how long the engine has been running at a certain speed, and it doesn't necessarily correlate to the number of minutes or hours that have passed. The only time that tach time will match the actual amount of time that has passed is when the plane is traveling at its cruise speed. This is because the engine is running at a constant speed (which is also the speed that it was designed to operate most efficiently), so the number of hours on the engine will correlate to the actual number of hours that have passed.

## What Do Pilots Use Tach Time For?

Tach time is used to track how long the engine has been running. In other words, tach time is used to measure the number of rotations that it has performed, or how many hours of wear and tear are actually on the engine. This information can be used to help maintain the engine and keep it running smoothly.

The Federal Administration Administration (FAA) typically **requires that your airplane is inspected every 50-100 hours**. This requirement is based on engine hours, which is measured in tach time. That's why it's vital to monitor tach time separately from Hobbs time. Otherwise, you might be getting inspected far more often than you have to (since Hobbs time is often much faster than tach time!).

Tach time is also used to calculate the amount of fuel that has been used. This is because tach time is a measure of how long the engine has been running, and fuel consumption is directly related to how long the engine has been running and at what RPM the engine has been operating. In most cases, an airplane will be most efficient when it's operating at or near its cruise speed.

## Key Differences Between Hobbs Time and Tach Time

Now that you have a better understanding of what both Hobbs time and tach time are, let's take a look at the key differences between them:

- Hobbs time is measured using an hour meter, while tach time is measured using a tachometer.
- Hobbs time tracks how long the airplane is operated (engine running), while tach time tracks how many hours of wear and tear are on the engine.
- Hobbs time is measured in hours, while tach time can be measured in hours or rotations.
- Hobbs time should be used for recording flight time in a pilot's logbook, but tach time should be used to monitor the number of engine hours for maintenance.
- Hobbs time will usually be significantly higher than tach time since it starts from the time the engine is started until it's stopped.
- Hobbs time will always match the actual amount of time that has passed, while tach time will only match the actual amount of time that has passed when the plane is at cruise speed.
- The FAA requires that your airplane is inspected every 50-100 hours based on engine hours (tach time), not Hobbs time.



*Figure 1. A tachometer for a reciprocating engine is calibrated in rpm. A tachometer for a turbine engine is calculated in percent of rpm.*



As you can see, there are some major differences between Hobbs time and tach time. While they both may seem similar at first glance, there are actually quite a few key differences between them. So be sure to keep these in mind the next time you're logging your flight hours or getting your airplane ready for inspection!

### **Are Airplane Rental Fees in Hobbs Time or Tach Time?**

Last but not least, let's talk about airplane rental fees. The vast majority of flight schools and airplane rental companies will charge you based on Hobbs time. This is because it's the most common way to measure how long the airplane has been operating since it begins tracking hours as soon as the engine is started.

However, there are some schools and companies that will charge you based on tach time instead. In general, it's cheaper to rent an airplane by the hour if it's based on tach time rather than Hobbs time. This is because tach time will often be significantly lower than Hobbs time (since it doesn't measure the hours in actual time passed unless the plane is at its cruise speed).

So if you're trying to compare prices between different flight schools or rental companies, be sure to ask if they charge by Hobbs time or tach time!

We hope you found this article helpful in understanding the difference between Hobbs time and tach time. It's a bit confusing to think about different ways to measure the time an airplane is operated, but hopefully this article cleared things up a bit!

### **Aviation Words – “Stall”**

<https://aviation.stackexchange.com/questions/1418/what-happens-when-an-airplane-stalls-and-why-do-pilots-practice-it>

Stall was an unfortunate choice of words for an engine that suddenly quits since the aerodynamic stall in aviation means something hugely different and isn't related to the aircraft engine at all.

To a non-pilot, an aerodynamic stall can best be described as the situation where there is not enough air flowing over the wings to create the amount of lift needed to hold up the airplane.

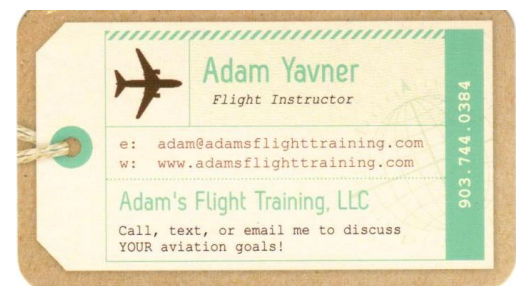
The main reason that student pilots practice stalls is to learn the telltale signs that occur just before it happens and to make the recovery procedure automatic. If pilots can recognize an impending stall, they can take corrective action to either avoid the stall altogether or to recover as quickly as possible.

Outside of training, inadvertent stalls typically only occur shortly before landing and after takeoff, when the pilot gets distracted while already at a slow speed. In both situations the airplane is very close to the ground, immediately requiring the correct action from the pilot in order to avoid a crash. This needs to be instinctive and corrected using muscle memory so that it is accomplished as rapidly as possible.

The next logical question is usually: How does a pilot fix an airplane that has stalled?

Fortunately, airplanes are designed so that even during a stall the tail is still effective, and the pilot is able to use it to force the nose down. This makes the airplane go faster, since it is pointed down towards the ground, and gets more air moving over the wing which allows it to create enough lift for the airplane to start flying again. During practice it is usually uneventful, but when it happens at a low altitude there may not be enough time to regain flying speed before the airplane crashes.

For more information, AOPA has a great Safety Publication targeting flight instructors called Why we teach slow flight and stalls which is available on their website.



## Quiz: 6 Questions To See How Much You Know About Climb Performance

By Corey Komarec, 06/16/2023, <https://www.boldmethod.com/blog/quizzes/2023/06/quiz-six-questions-to-see-how-much-you-know-about-climb-performance/>

Answers on page 21, Ready to get started?

1) You're taking off into a 20-knot headwind. This headwind will...



Allow you to climb faster because of an increase in lift.

Decrease climb rate due to a reduction in groundspeed.

Provide a greater altitude gain per nautical mile due to a reduction in groundspeed.

Allow you to climb faster due to an increase in true airspeed.

2) You are taking off from a runway that has significant obstacles at the departure end. What initial airspeed would be best in this situation?

$V_x$ ; Best angle-of-climb airspeed

$V_y$ ; Best rate-of-climb airspeed

$V_t$ ; Best terrain clearance airspeed

$V_p$ ; Maximum engine output airspeed



3) In a retractable gear aircraft, retracting the landing gear during the climb is important because...



It reduces form drag during the climb.

It helps with obstacle clearance.

It reduces parasite drag during the climb.

All of these.



4) Retracting flaps on the climb out...

Prematurely can prevent adequate lift necessary to clear obstacles on the departure path.

Should only be accomplished immediately after rotation.

Needs to occur the moment the aircraft leaves ground effect.

Is a nonstandard practice and should only be accomplished once reaching traffic pattern altitude.



5) At high-density altitude airports...



Vy (KIAS) will be faster than Vy (KTAS)

Vy (KTAS) will be faster than Vy (KIAS)

Vy (KIAS) and Vy (KTAS) will remain the same

These are all incorrect.

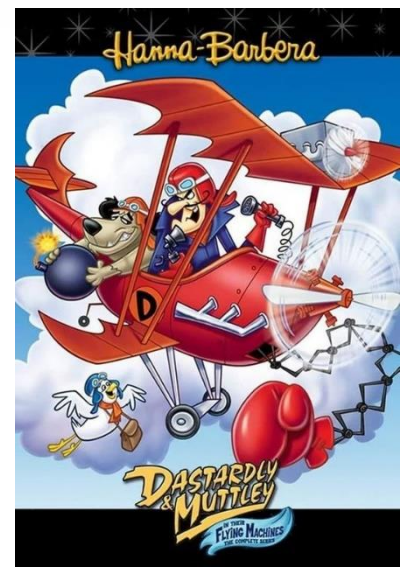
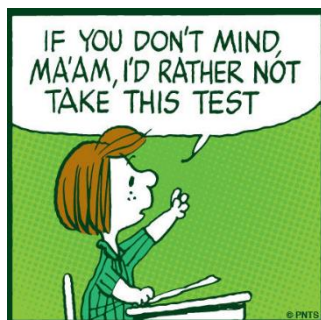
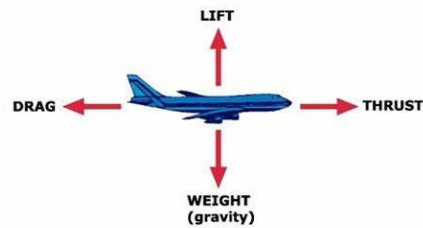
6) How does aircraft weight affect climb performance?

A heavy aircraft results in a slower rate of climb.

A heavy aircraft climbs more efficiently due to a lower angle of attack.

A heavy aircraft results in less power produced by the engines.

A heavy aircraft will gain more altitude in a shorter period of time because of an increase in ground speed.



## Aircraft of the Month: Howard DGA-4/5

[https://en.wikipedia.org/wiki/Howard\\_DGA-4](https://en.wikipedia.org/wiki/Howard_DGA-4)

<https://www.fantasyofflight.com/collection/aircraft/currently-not-showing-in-museum/golden-age/1932-dga-5-ike/>

As a young man, Benjamin O'Dell Howard was never one to seek conventional education, so with a how-to-fly book and a second-hand biplane, he experienced his first flight . . . quickly followed by his first crash. Undaunted, he rejected a high-paying job to work from the ground up at the Curtiss factory, where he learned hands-on about aircraft design and building. By the age of 20, he designed and built his first aircraft. What followed was a wildly colorful, Golden Age career, modifying aircraft for bootleggers and chasing racing prizes during the romantic '20s and '30s. Each aircraft Benny built was identified with his own official trademark, DGA, which stands for "Da\*ned Good Airplane."

In partnership with Gordon Israel, Benny created two of the smallest and quickest aircraft in the 1932 races: low-wing wire-braced monoplanes known as "Mike" and "Ike," who took turns being the faster. After Benny and Gordon added a third aircraft, "Mr. Mulligan," to the stable, prize money and acclaim poured in, culminating in 1935 when Howard aircraft won the Bendix, Thompson, and Greve Trophy—a season of racing events that became unofficially known as the "Benny Howard National Air Races." Benny claimed he preferred building racing planes because they "paid for themselves," but his legacy was bigger than trophies. Howard's aircraft were among the safest in the hell-bent-for-leather races, never killing a pilot. And while many of the original classic racers—including all the GeeBees—are long gone, Howard's original "Ike" and "Mike" are still preserved.

The Howard DGA-4 (a.k.a. Mike), and DGA-5 (a.k.a. Ike and "Miss Chevrolet") was the next in a series of racers from Ben Howard. He built two examples, "Mike" and "Ike", each with a different landing gear design.

### **Development**

In 1932 work started on a larger follow-on racer to Howard's "Pete" racer. Both aircraft were built to ATC design requirements for ATC racing that never came about.

The DGA-4 was a low-wing, wire braced monoplane. Ventilation came from 30 holes drilled into the windscreen.

### **Variants**

Howard DGA-4 "Mike" - Mike and Ike were virtually identical, except that Mike had a super charged Menasco B-6S and a slightly different landing gear structure. Mike featured more cooling louvers and a cowling designed for a spinner. In 1933, many of the louvers were closed in, and smaller wheels were used. Howard DGA-5 "Ike" - Ike featured a unique landing gear with two small wheels spaced one behind the other, with a wheel pant covering both. This landing gear was replaced with a single wheel configuration in 1933. Ike also used a higher octane fuel in races and had a Menasco B-6 (S/N 6008) rated at 160 HP at 1975 RPM.

Specifications: Howard DGA-4

#### General characteristics

Capacity: 1  
Length: 17 ft (5.2 m)  
Wingspan: 20 ft 1 in (6.12 m)  
Wing area: 67 sq ft (6.2 m<sup>2</sup>)  
Airfoil: NACA M6  
Empty weight: 919 lb (417 kg)  
Gross weight: 1,194 lb (542 kg)  
Powerplant: 1 × Menasco Buccaneer 485 cubic inch inline, 200 hp (150 kW)

#### Performance

Maximum speed: 209 kn (241 mph, 388 km/h)  
Cruise speed: 152 kn (175 mph, 282 km/h)



DGA-4 (NR55Y) "Mike"



Howard DGA-5 "Ike"/"Miss Chevrolet" NR56Y

# Cedar Mills Happenings – July 2023

By Kris Worstell



July 2023

500 Harbour View Rd. Gordonville, Texas (903) 523-4222 www.cedarmills.com

## Marina Hours

### Main Office

Mon - Sat 8am - 5pm  
Sunday 8am - 3pm

### Service

Tues - Sat 8am - 12pm  
and 1pm - 5pm  
Sun & Mon - Closed

### Gas Dock NEW HOURS

(Please Call for Assistance)

Mon - Thurs 8am - 5pm

Fri 8am - 8pm

(Closed for Lunch 12pm - 1pm)

Sat 8am - 8pm

Sun 8am - 5pm

## Vacation Home

Lot #09  
1995 Redman Fiesta  
195,000

GORGEOUS LAKE VIEW!  
SHADY LOT!  
LOTS OF UPGRADES!



Contact Cedar Mills Marina 903-523-4222

## CEDAR MILLS BOAT SALES

THE BOAT MARKET IS **HOT, HOT, HOT!!**

Contact Randy Worstell  
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## Answers to the Quiz on Page 19 and 20

1) An increase in headwind won't affect how fast or slow you climb but how much ground you cover during your climb out. For example, an aircraft climbing at 800 FPM at Vy of 78 knots with no headwind, may have a groundspeed of 65-75 knots over the ground. Take the same scenario and add a 20-knot headwind, the aircraft is still climbing at 800 FPM, but now the groundspeed may reduce to 45-55 knots. Slower ground speed = less distance covered over time.

2) Vx, or best angle-of-climb airspeed, will give you the greatest altitude in the shortest distance. This speed is important during climb-outs over terrain and obstacles.

3) Bringing the gear up after a positive rate indication helps to quickly shed parasite drag and give you a faster rate of climb.

4) Takeoff flaps increase your lift and allow you to rotate off the runway in a shorter distance, however, retracting them too soon can cause a loss of lift that can momentarily stop your climb. When trying to clear obstacles, retract the flaps when the highest obstacles have been cleared and are no longer a threat. Consult your aircraft's AFM for detailed procedures on obstacle departures.

5) At high-density altitude airports, true airspeed will always be faster than indicated. Vy, stays the same regardless of density altitude. However, the actual true airspeed values differ at higher elevations / warmer temperatures.

6) As weight increases, so does the amount of lift that needs to be produced. This is done by increasing the angle of attack, and as a result, the aircraft produces more induced drag from the wings and overall parasite drag on the aircraft. You're limited by the amount of power your engine can provide. If you have excess power, you can overcome the extra drag and achieve the same climb rate you'd experience at a lower weight. But in most situations, this isn't the case, so your climb rate will be compromised.

## Builder's Corner Updates:

By Ed Griggs

If you are currently building an aircraft or doing any restoration work and want to be included in Builders Corner, we would like to hear from you. Email your updates and pics to Ed Griggs at a\_model\_guy@ymail.com. Thanks!

**SAL'S AIRCRAFT CYLINDERS, INC.**



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15963 Parvin Rd.  
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## Supporting Our Community, Shop Local, Shop Texoma:

By Kim and Todd Bass

Shopping locally is crucial to our community. By supporting local businesses, in turn, you are helping your economy and community thrive. Every local retailer is one of our neighbors. Looking for ways to buy local shows our neighbors that we believe our community is worth investing in.

Small businesses are the largest employers nationally. Small, locally owned businesses account for 44% of the US economy. In 2019, small business Saturday generated \$19.6 billion in revenue. When you shop locally more money is kept in the community because locally owned businesses often purchase from other local businesses. Shopping and buying locally is a win-win for you, for small businesses and for our community as a whole.

The following Companies have been very supportive of EAA323 and are deserving of our patronage.

# FASTSIGNS®

### FASTSIGNS® of Sherman

Todd and Kim Bass

1920 N Grand Ave, Sherman, Texas 75090

<https://www.fastsigns.com/608-sherman-tx>



### Rebecca Yavner, Agent

214-785-8188

<https://rebeccayavner.exprealty.com/index.php>

## Larry's CB Shop



1816 N Waddill St, McKinney, TX 75069, USA

(972) 562-6898

[larryab5kr@gmail.com](mailto:larryab5kr@gmail.com)

Keep Calm  
SHOP LOCAL

Here are some ways you can continue to support our local businesses during this season where they may experience economic hardship.

- Buy gift cards now for later use.
- Buy items now for future pick up.
- If you know a business owner, ask how you can help them during this time.
- Keep your membership current. Most places rely on your dues to operate.
- While shopping is always a good practice, now is a time to be particularly generous.



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## EAA Webinars Schedule:

<https://www.eaa.org/eaanews-and-publications/eaawebinars>

These live multimedia presentations are informative and interactive, allowing the presenter to use slides and audio, while audience members can ask questions and be polled for their opinion. Pre-registration is recommended since space is limited to the first 1,000 registrants.



**8/8/23 @ 7 p.m.**

Presenter: Paul Dye

**Subject: Homebuilt Highlights from AirVenture 2023  
Homebuilders Webinar Series**

Kitplanes Magazine's Editor at Large Paul Dye and EAA's homebuilt community manager Charlie Becker will cover the important homebuilt news, products, and just plain cool aircraft that caught their attention at AirVenture 2023. Even if you attended AirVenture 2023, put this one on the calendar as you just can't see it all.

**8/9/23 @ 7p.m.**

Presenter: Mike Busch

**Subject: Unbelievable Compressions  
Qualifies for FAA WINGS and AMT credit.**

The FARs require a differential compression test to be performed at every annual inspection, but it's a really terrible test that is neither reliable (i.e., repeatable) nor a valid indication of cylinder health. In this webinar, Mike Busch, A&P/IA, demonstrates its shortcomings, explains its pitfalls, and emphasizes why poor compression alone should never justify cylinder removal unless backed up by more trustworthy supporting evidence such as a borescope inspection.

**8/16/23 @ 7p.m.**

Presenter: Tom Charpentier

**Subject: Vintage Aircraft Parts Substitution  
Qualifies for FAA WINGS and AMT credit.**

The EAA government advocacy team gives a briefing on the various FAA policies used to keep vintage aircraft in the air, including the FAA's new Vintage Aircraft Replacement and Modification Article (VARMA) program.

**8/23/23 @ 7p.m.**

Presenter: Chris D'Acosta

**Subject: Swift Fuels Unleaded Avgas  
Qualifies for FAA WINGS and AMT credit.**

Chris D'Acosta, Swift Fuels CEO, will discuss current and future Swift Fuels plans for the transition to an unleaded fuel for piston aircraft. Chris will share what's happening with their high-octane 100R unleaded avgas product and their premium UL94 unleaded avgas.

**9/6/23 @ 7p.m.**

Presenter: Mike Busch

**Subject: Legal Interpretations  
Qualifies for FAA WINGS and AMT credit.**

We all love the FARs, right? Those regulations are written and maintained by a large team of FAA lawyers who work for the FAA Office of Chief Counsel. If you have a question about the meaning of a particular rule, you can request a "legal interpretation" and usually the responsible FAA attorney will draft one for you. More than 1,000 of these legal interpretations can be found online. Some are quite surprising and counterintuitive, and some significantly alter what most of us thought the regulations mean. In this webinar, Mike Busch, A&P/IA, reviews some of the most interesting, surprising, and significant ones that pertain to aircraft maintenance.



[https://www.faasafety.gov/WINGS/pub/learn\\_more.aspx](https://www.faasafety.gov/WINGS/pub/learn_more.aspx)



<https://www.faasafety.gov/AMT/amtinfo/default.aspx>



EAA Webinars sponsored by





## Upcoming Events:

- Saturday, Jul 15      Texoma Aero Club Monthly Gathering and Pancake Breakfast  
North Texas Regional Airport (KGYI) @ Executive Hangar (just north of the Control Tower)
- VMC Club Meet and Presentation (to follow the TAC Monthly gathering)  
Subject: "Mississippi Mix Up"
- EAA Chapter 1246 McKinney, Tx, McKinney National Airport (KTKI)  
Chapter Gathering and Young Eagle Day,
- Thursday, Jul 20      EAA 323 Monthly Gathering at the Sherman Municipal Airport (SWI),  
1200 South Dewey, Sherman, TX @ 7:00pm  
Subject: and there I was....with Rex Lawrence
- Saturday, Aug 05      First Saturday Event: Pancake Breakfast at Sherman Municipal Airport (SWI),  
1200 South Dewey, Sherman, TX @ 8:00am
- Thursday, Aug 17      EAA 323 Monthly Gathering at the Sherman Municipal Airport (SWI),  
1200 South Dewey, Sherman, TX @ 7:00pm  
Subject: Oshkosh Experiences with Ed Griggs
- Saturday, Aug 19      Texoma Aero Club Monthly Gathering and Pancake Breakfast  
North Texas Regional Airport (KGYI) @ Executive Hangar (just north of the Control Tower)
- VMC Club Meet and Presentation (to follow the TAC Monthly gathering)  
Subject: "A Full-Throttle Approach"

## **Officers/Board of Directors/Key Coordinators**

Name	Position	Email Address	Contact Number
John Halterman	President	john.f.halterman@hotmail.com	903-819-9947
Frank Connery	Vice President	caapt1@aol.com	214-682-9534
Rex Lawrence	Secretary	rlaw@me.com	918-407-7797
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Mary Lawrence	Board of Directors	mary1983cpa@gmail.com	903-821-2670
Mel Asberry	Technical Counselor / Flight Advisor	n168tx@flytx.net	972-784-7544
Jim Smisek	Technical Counselor	jwsmisek@aerotechniques.com	903-819-6428
Joe Nelsen	Technical Counselor	nelsen.n502pd@gmail.com	903-818-0496
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Adam Yavner	Eagles Coordinator	ayavner@yahoo.com	903-744-0384
Ed Griggs	PIO/VMC Coordinator/Newsletter Ed	a_model_guy@ymail.com	903-436-1405

**General Email: [EAA323@hotmail.com](mailto:EAA323@hotmail.com)      Website: <https://chapters.eaa.org/ea323>**





### *High Flight*

Oh, I have slipped the surly bonds of earth  
 And danced the skies on laughter-silvered wings;  
 Sunward I've climbed, and joined the tumbling mirth  
 Of sun-split clouds . . . and done a hundred things  
 You have not dreamed of . . . wheeled and soared and swung  
 High in the sunlit silence. Hov'ring there,  
 I've chased the shouting wind along, and flung  
 My eager craft through footless halls of air.  
 Up, up the long, delirious, burning blue  
 I've topped the windswept heights with easy grace  
 Where never lark, or even eagle flew.  
 And, while the silent, lifting mind I've trod  
 The high untrespassed sanctity of space  
 Put out my hand, and touched the face of God.

*John Gillespie Magee Jr., R.C.A.F.  
 (killed in WWII)*



## EAA SHERMAN CHAPTER 323 MEMBERSHIP APPLICATION AND RENEWAL FORM

- New Member
- Renewal
- Info Change

Membership dues for EAA Chapter 323 are \$30/year.

Make checks payable to  
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Mail application to:  
 Ross Richardson  
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National EAA offices:  
 Experimental Aircraft Association  
 EAA Aviation Center  
 PO Box 3086  
 Oshkosh, WI 54903-3086

National EAA Membership:  
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 Phone (920) 426-4800  
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Name \_\_\_\_\_

Copilot (spouse, friend, other) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone Home: \_\_\_\_\_ Mobile: \_\_\_\_\_

Email address \_\_\_\_\_

EAA # \_\_\_\_\_ Exp date: \_\_\_\_\_

(Chapter 323 membership requires National EAA membership)

Pilot/A&P Ratings \_\_\_\_\_

I am interested in helping with:

- Fly-Ins
- Programs
- Newsletter
- Young Eagles
- Officer

Plane, Projects (%complete) and Interests: