The Ramp Page
January 2022

Vol 53, Ed 01
EAA Chapter 323 Sherman, TX
Monthly Newsletter
Celebrating our 53rd year of service!

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President's Mission Brief:

By John Halterman

EAA 323,

Hi everyone!

We started off the year with a visit to the local Perrin Air Force Museum. We had several members attend and the museum was great! In fact, there was a recent addition that was completed that has the Texoma Wall of Honor and some new features to the museum. If you couldn't make it, please be sure to take some time to see it. It has been rearranged quite a bit since last time and reflects a lot of heritage to our area and various conflicts over the 20th and 21st century. Thanks to all that attend.

Our January 20th monthly meeting (at Sherman Muni Airport Terminal, 7 PM) will feature our annual aviation safety stand-down. We already have 2 people who will speak at it, and they are good reminders to all of us. If you're interested to share your story, feel free. You do not need to have any fancy presentation. You just need a willingness to share. I encourage each of you to attend!

For our first event in February (morning of Feb 5), the plan if weather permits is to have a flyout to Sulphur Springs and grab breakfast at the Red Barn. It is true that this over the course of last year became somewhat of a "habit" but the airport and environment offers a welcoming place for us to visit and is good for all aircraft—fast and slow. Mark it on the calendars now! Last fall we had over 20 participants!

For our next February chapter meeting, we have a very experienced air traffic controller, Bill Broadwell, who will give us a presentation on "Say it Right" and provide tips and guidance on best practices for VFR pilots with use ATC services. He is currently a controller at North Texas. That will be the evening of Feb 17.

I'm running short on time for this month's newsletter, but next month I'll feature a medevac flight I assisted on this past weekend. Quite the adventure!

See you soon, at the ramp!

John F. Halterman
EAA 323 President

EAA 323 Monthly Gathering (Dec): Annual Christmas Party

By Ed Griggs

If you missed the Christmas party this year, you missed a good one! The food, provided in part by Club members and our host, Kris Worstell of Pelican Landing, was exceptional!

Beautiful decorations and a roaring fire, who could ask for more?

Great looking group!!

Bright, smiling faces! Jim Smisek and Ross Richardson seem to be having a good time!

Ross Richardson receives an award for his volunteerism as both the Treasurer and Membership leader for the group!

Mary Jo Cowles is ready to get the Celebration started!

Kris Worstell received an Aviation Teddy Bear as a Christmas present!

Gathering around the tree for the Annual Gift Exchange!

Jim Smisek receives an award for his volunteerism as a Technical Advisor for the group!

John Halterman looking excited about receiving a pair of Poinsettias as a gift!

Karen Smisek got some gift cards. She just knows that someone is going to take it!

Mike McLendon and his Obvious Better half, Sharon, in front of the fireplace!

Ross Richardson getting excited about opening his Gift! Wonder if he got to keep it?

El Jefe, aka John Halterman, receives a plaque on how to identify airplanes! (after his first gift was "stolen")

Jim Smisek carefully looking over his gift!

Before and after of Waadee Hudson and his singing Santa!!

Pam Simmons looking excited about her gift!

Texoma Aero Club taking to the air!

By Michael McLendon

TAC officer election took place during the December meeting with existing officers being re-elected to their current positions. Michael McLendon, President; Rick Simmons Secretary; Mary Lawrence, Treasurer.
Two new Board of Directors assume responsibility January 2022. Rex Lawrence and Nathan Weick assume positions previously held by Paul Jones and Steve Straus.

"Lucy" the club 172, is in active service now. We are happy with the replacement engine and continue to monitor improvement in its performance. If you haven't flown her recently, check the weather and make a reservation.

"Sunshine" (172 N2158Y) and " Glenda" (150D N4594U) are leased aircraft and are also available for reservations.

Glenda has been outfitted with a new transponder and GPS source (Trig 22) for ADSB out capability. Soon to be certified.

All of our aircraft use MoGas 91 octane (as well as 100 LL a gas) and is available at $3.85 per gallon.
Come check us out. Hangar E2 NTRA KGYI Hope to see you soon, Michael

EAA 323 First Saturday Event (Jan): IHop and Perrin Museum visit

By Ed Griggs

This weekend was extremely social as members of EAA 323 got together for breakfast at IHop in Sherman and then proceeded to tour the Perrin Air Force Base Historical Museum, located at 436 McCullum Avenue, on the North Texas Regional Airport!

The Perrin Field Historical Society was chartered and registered as a non-profit organization dedicated to the preservation of the history of Perrin Army Airfield and Perrin Air Force Base located in Grayson County Texas. The purpose is to research, record and preserve the history of Perrin Field during thirty years of operating as an active military installation 1941 through 1971.

F-86L Sabre Jet guarding the entrance to Perrin AFB!

Front of the building at 436 McCullum Ave at North Texas Regional Airport NTRA) (KGYI)

The Perrin Field Historical Society/Perrin Air Force Base Museum goals are to preserve the legacy of Perrin Air Force Base well into the Millennium so that our future generations will be able to see and remember the important part Perrin Air Force Base played to defend freedom and the security of the United States of America from World War II into the Vietnam war. The tragic events of September 11, 2001 (9-11) should be an everlasting reminder of the value of our national security.

You can visit the Museum via their website (http://perrinafbhistoricalmuseum.org/) or go visit them in person to see all that they have to offer at the address listed above!! They would love to see you there and tell you the stories of the Field! Hope to see you soon!

FunPlacesToFly

http://FunPlacesToFly.com
http://VansAircraftBuilders.com
http://SmittysRV.com
http://EAA1246.org
http://ThisNewOldRV.com
http://OpenAirNet.com

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CFI Corner: Secondary Stalls

By Adam Yavner

Happy 2022 everyone, I hope that everyone had a relaxing and joyful Christmas and New Year holiday.

For this month's topic, I thought I would expand on the Aerodynamic Stalls topic from a few months ago. As we know, there are 4 common ways we train around stalls to illustrate recognition and recovery in different flight configurations. These are: power-off stalls, power-on stalls, accelerated stalls, cross-control stalls. And one thing these all have in common is the importance of avoiding Secondary Stalls during the recovery.

So, to review the aerodynamics associated with a stall, a stall occurs when the critical angle of attack is exceeded. Angle of attack is simply the angle between the chord line of the wing and the relative wind, and the critical angle is about 16° in most GA airplanes. When this angle is exceeded, the smooth airflow over the wing is disrupted resulting in a loss of lift and increased drag. A stall can occur at any airspeed, in any attitude, or any power setting, depending on the factors affecting the particular airplane. These factors include weight, loading, and load factor – when these go up, you need more lift to accommodate – this can be achieved either through more airspeed or higher angle of attack – both of these are finite resources and work together – higher airspeed means you don't need as high an angle of attack, and vice versa.

One way this scenario can play out is with heavy weight – power will get more airspeed over the wings, but once you run out of available power, the only way to add more lift is higher angle of attack. Once angle of attack reaches the critical angle, you have no more tools at your disposal with which to add lift (assuming flaps out at this point). Remember, the published stall speeds are understood to be at Maximum Takeoff Weight (MTOW). In addition, higher load factors mean that this situation will happen at a higher speed. Fore and aft CG loading introduces tradeoffs between performance and stability – always stay within the envelope! Another thing the various stall types have in common is that the recovery involves reducing the angle of attack – either by relaxing back pressure or slightly pushing the yoke forward. Sometimes we try to resume normal flight too aggressively or too soon before the airplane is fully recovered, and end up with a situation like the solid line in the illustration below:

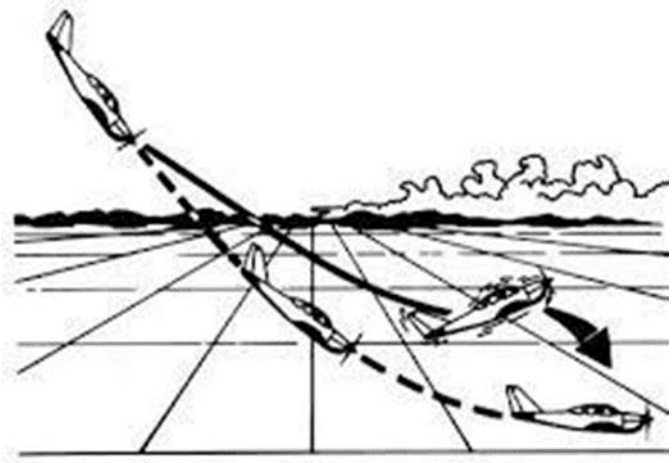

Figure 11-20 Recovering too Abruptly Causes Secondary Stall

To avoid a secondary stall, and the need to initiate another recovery, be patient and allow the airplane to regain sufficient airspeed before attempting to regain straight and level flight or a climb. More like the dashed line in the above illustration. That's all there is to it!

As always, if you have any questions just shoot me a message and I'll do my best to get you an answer!

Happy Birthday to a local Hero: "Sully"

https://sierrahotel.net/blogs/news/sully?fbclid=IwAR0YFDuVpdAaGqjDL5EuDFEOgRKFox
DUqBTyAvBKuSjEC2rlZ7V8CDgt1KE

Chesley Burnett Sullenberger III was born on the 23rd of January, 1951 in the town of Denison, Texas, where he grew up building model planes and aircraft carriers, and spending time watching military jets from an Air Force base near his house. At the ripe young age of 16, Sullenberger learned to fly in an Aeronca 7DC from a private airstrip near his home. He said the training he received from a local flight instructor influenced his aviation career for the rest of his life.

Sullenberger was appointed to the United States Air Force Academy, entering with the Class of 1973 in June 1969, and was selected to commence a cadet glider program. By the end of that year, he was an instructor pilot. Upon graduation, 1973, he received the Outstanding Cadet in Airmanship award, as the class "top flyer".

Sullenburger was assigned to UPT at Columbus AFB, Mississippi, where he transitioned to flying jets including the T-37 Tweet and T-38 Talon. Earning his wings in 1975 as a USAF Pilot, Sully completed training on the F-4 Phantom II at Luke AFB, Arizona. then given the assignment to the 493d Tactical Fighter Squadron of 48th Tactical Fighter Wing at RAF Lakenheath, United Kingdom, where he flew as a United States Air Force fighter pilot in the F-4D Phantom II.

Following his assignment at RAF Lakenheath, he was reassigned to the 428th Tactical Fighter Squadron of the 474th Tactical Fighter Wing at Nellis AFB, Nevada, again flying the F-4D. He advanced to become a flight leader and a training officer, and attained the rank of captain, with experience in Europe, the Pacific, and at Nellis Air Force Base, as well as operating as Blue Force Mission Commander in Red Flag Exercises. During his time in the Air Force, Sully also served as a member of an aircraft accident investigation board.

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After hanging up his helmet, Sullenberger began flying for Pacific Southwest Airlines, then US Airways where he served as an airline pilot for over 30 years... He holds an Airline Transport Pilot Certificate for single and multi-engine airplanes, and a Commercial Pilot Certificate rating in gliders, as well as a flight instructor certificate for airplanes (single, multi-engine, and instrument), and gliders. In total, Sully has more than 40 years and 20,000 hours of flying experience.

On morning of January 15, 2009, Sullenberger was the captain of US Airways Flight 1549 along with First Officer Jeffrey Skiles. As their Airbus A320 was taking off from LaGuardia Airport in New York City, the plane struck a large flock of birds (Canada geese) and lost complete power in both engines at only 2,818 feet in altitude.

Quickly determining he would be unlikely to reach either LaGuardia or Teterboro airport, Sullenberger uttered the famous words over the radio when asked if he could make KTEB. Sully simply transmitted the word “UNABLE”, Sullenberger and First Officer Jeffrey Skiles then directed their aircraft towards the waters of the Hudson River.

Capt. Sullenberger said that the moments before the ditching were "the worst sickening, pit-of-your-stomach, falling-through-the-floor feeling" that he had ever experienced.

Continuing their descent southwards at about 125 knots aiming at the middle of the North River section of the Hudson tidal estuary roughly opposite West 50th Street (near the Intrepid Sea, Air & Space Museum) in Manhattan, Flight 1549 touched down and came to a rest on the surface of the Hudson waters completely intact at 3:31 pm.

Sullenberger immediately opened the cockpit door and ordered evacuation. The crew began evacuating the passengers through the four overwing window exits and into an inflatable slide/raft deployed from the front right passenger door.

All 155 people on board survived and were rescued thanks to the efforts of nearby NY Waterway ferries Thomas Jefferson and then Governor Thomas H. Kean which both arrived within minutes. The last passenger deplaned the aircraft at 3:55 pm. Sullenberger walked the cabin twice to confirm it was empty.

The accident came to be known as the "Miracle on the Hudson", and a National Transportation Safety Board official described it as "the most successful ditching in aviation history” all thanks to the calm and professional management of an impossible emergency situation by Capt Sully, and First Officer Jeffrey Skiles.

Sully's response was "One way of looking at this might be that for 42 years, I've been making small, regular deposits in this bank of experience, education and training. And on January 15, the balance was sufficient so that I could make a very large withdrawal"

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It's a Long Way Down, Isn't It?

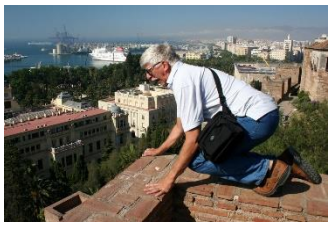
By Rod Machado, March 2019, https://rodmachado.com/blogs/learning-to-fly/it-s-a-long-way-down-isn-t-it

Psst! Psst! Come here. Come a little bit closer. I've got something I want to ask you, and I don't want anyone else to hear. Are you afraid of heights? It's probably embarrassing to admit it, but if you're like most other pilots, the answer is "Yes."

According to Chaytor Mason, a retired professor of aviation psychology at the University of Southern California, the rate of acrophobia is upwards of 90% in some of the pilot groups he's encountered. My own estimates indicate that the percentage of acrophobia in the general aviation pilot population is far, far higher than in the nonpilot population (where it is 6% to 10%). What's going on here? Is it possible flying attracts only those poor souls who enjoy the torment of an altitude-anxiety love-hate relationship? Or does flying itself breed acrophobia? Let's look a little further (not higher) for the answer.

Several theories of acrophobia exist. One theory suggests that fear of heights is a classically conditioned response. Another theory says simply hearing about the perils associated with heights is enough to spark a phobic response. A cognitive theory even suggests people are frightened by thoughts surrounding their inability to counter a perverse, irresistible urge to jump when near a precipice.
All the above are interesting theories, but none adequately explains why the incidence of fear of sky is so high in those who fly. I'm not all that surprised at the lack of explanations that ring true, since most theories fail to consider a very important part of the pilot personality—our endless quest for total control of ourselves and our environment.

Pilots are controllers. We like being in charge of ourselves, our environment, and preferably everything within about a thousand miles of our current location. This is the command personality. OK, that's the polite term. The more control we have, the better we feel. So, what's that got to do with fear of heights? Think about it for a second. Bud the Pilot flies along gripping a wheel or stick with one hand, a throttle with the other, and pushing rudder pedals (I hope) with both feet. Every available appendage is attached to a stick or pedal that makes the airplane do the pilot's bidding. We command controllers to give us headings or weather information, extract briefings at the call of a radio from ground-bound FSS specialists, and have enough electronic toys within arm's length to make us the envy of most teenage boys and submarine captains. Our elevation (you will pardon the expression if it makes you queasy) to king or queen of the universe can't be too far off, and we like it that way. I am pilot, hear me roar.



Take the same pilot, however, and stand him or her next to a 24th floor balcony and you've got yourself a nice little self-contained phobia fountain just gushing anxiety. It's likely this person will have to get down on his hands and knees just to look over the precipice. Don't laugh. You'd be surprised at the number of well known aviation personalities that nearly fall off their chair when watching a PBS special of how bridge spires are painted. At least they (and many of us) respond that way unless they are looking through a plastic windscreen while sitting strapped to an airplane seat, holding the controls of their flying machine. Take those things away and you have a helpless fish flopping on a boat deck.

Here's a possible explanation for this behavior, and you may need an explanation if you've done this test in a public place. According to current cognitive theory, acrophobia is related to the stimulation of a visual fantasy. When the phobic nears a precipice, he or she ceases normal thoughts of food, flying, and sex (in that order) and responds with an inner visual drama in which this normally in-command person stars. Acrophobias see themselves falling, and might even feel the physical sensations of tilting, sliding and being drawn over the edge. Called somatic imaging, it explains why some acrophobias report feeling dizzy or queasy in high places. To put it simply, pilots—being controlling types—don't react well to thoughts of falling. It's the ultimate loss of control for them.

In support of this theory, feed a willing aviator a good stiff alcoholic drink (there will be no shortage of volunteers for this activity), wait 20 minutes and he'll easily approach the balcony, if not taunt his audience with threats of a "railing walk." OK, maybe not a walk on the railing but at least his acrophobia will diminish to a noticeable degree. Why? Alcohol does its best work on the neocortex, which is the part of your noodle that helps you imagine things (such as imagining how goofy you might be acting at the moment). If you can't imagine yourself falling off the balcony you won't feel as fearful of heights. No, silly you. I'm not suggesting you drink to solve your acrophobic issues. I'm just stating a scientific fact.

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So, why is the rate of acrophobia so much higher in the pilot population? Perhaps a pilot's highly developed skill at visualization is the reason. After all, our visualization circuits are usually buzzing with comparisons between estimated and actual trajectories, the location of traffic, and other visually demanding activities. Is it any wonder aviators are so good at mentally projecting themselves into these imagined scenarios of falling?

Why don't pilots report the same queasy, sliding, falling feeling when looking out the aircraft window? Perhaps familiarity with their aircraft and the environment in which they fly minimizes their acrophobic response.

According to Mason, television news helicopter pilots (who are accustomed to low altitudes) sometimes report acrophobic feelings when flying cross country at high altitudes like 7,000 or 8,000 feet. For these pilots, a temporary change in the environment manifests their acrophobia (besides, if you see a helicopter at 8,000 feet it probably means the collective got stuck). Coupling environmental familiarity with the ability to control that environment seems to minimize a pilot's acrophobic response.

Translation please? OK, if you want to become more comfortable at higher altitudes, then fly at higher altitudes, but do so incrementally. If you've spent six months flying circuits in the pattern with students, you might not want to jump into a Cessna P210 and head for 23,000 feet all at once. But if you do, just realize that you might come face to face with your neocortex.

Psst! Psst! Come close again. Can you see how the high incidence of acrophobia in aviators might result from a combination of pilot personality and an active visual imagination? Are you a little relieved that you're not the only pilot who experiences some degree of acrophobia? Take my word for it, you're not. Now get down off that chair before you fall down and hurt yourself.

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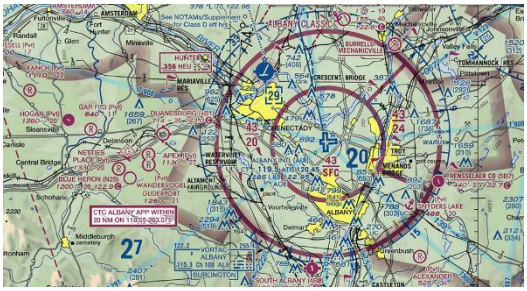
EAA323 VMC Club Question of the month: January 2022

By Radek Wyrzykowski, Manager of Flight Proficiency, EAA 1187948, 920-426-6899, www.eaa.org/proficiency



This month's question:

What is the Procedural Outer Area of Class C airspace? What is its radius, and how is it depicted on this chart? Enjoy!! Answer on page 9!

Pilot's Tip of the Month: How to Handle a CO Alarm?

Featuring Jeff Van West, https://pilotworkshop.com/tips/how-to-handle-a-co-alarm/

Jeff Van West, CFII, Pilotworkshops Creative Director

Subscriber question: "We just put a carbon monoxide detector in our airplane—and it goes off on almost every landing. Our mechanic can't find any heater leaks. Do we have a problem, or should we just ignore the beeping on landing?" — Jesse D.

From Jeff: "This is more common than you might imagine. But before I address your situation with nuisance alarms, let me say three things:

First: If you ever get a carbon monoxide (CO) alarm out of the blue and you don't know why, turn off any heat, land, get some fresh air, and check out the problem. You did the right thing by having your mechanic check for leaks in your exhaust system.

Second: There's a bunch of conflicting data out there about an 'acceptable' level of CO. Err on the conservative side. Altitude already reduces oxygen availability in your lungs and flying demands more mental acuity than watching TV.

Third: The impact of CO is cumulative. While even a low level can add up over a multi-hour flight, a brief spike during landing is unlikely to cause problems.

So … what's happening with your airplane?

Airflow over the fuselage changes with airspeed and configuration, and more exhaust gas might enter the cabin in certain situations. High power and low airspeed (high angle of attack), such as during slow flight, is a common cause. It can happen during landing, too. Don't panic. Your airplane has probably had this CO situation the entire time you've owned it. You just didn't know until installing the detector. Transient CO spikes aren't that hazardous because you don't stay in that condition long enough.

That said, ignoring an alarm is never a good policy, in my opinion. Some consumer CO detectors alert as low as 35 parts per million (ppm) of CO. For some airplanes—yours included—that's low enough to trip during normal flight operations. If you can, try a higher threshold for the alarm—but no higher than 70 ppm. The Consumer Product Safety Commission, and others, use that number as a threshold for noticeable effects on the general population. Ideally, you won't have to go even that high. If you're still getting alerts at 70 ppm every time you land, you should investigate further.

I'm also assuming the CO level drops to zero (or near zero) during other phases of flight. If you're seeing even 20 ppm in cruise flight, it's worth digging deeper. If the CO level is independent of the aircraft heat being on or off, there could be cracks in the exhaust system outside of the heater shroud, deteriorated seals where items pass through the firewall, or even excessive gaps around the cabin doors.

Finally, consider a CO level over 100 ppm in an airplane an urgent situation. Land as soon as practical. If you need priority to reach the ground sooner, declare an emergency to do so. CO poisoning is insidious: The longer you're exposed, the worse it gets, and the worse your facilities become to deal with it."

(Sorry, Ladies! Was just too funny not to include!)

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Quiz: 6 Questions To See How Much You Know About Stalls

By Corey Komarec | 11/22/2021, https://www.boldmethod.com/blog/quizzes/2021/11/six-questions-to-see-how-much-you-know-about-stalls/

Answers on page 14!

1) What happens when you increase the angle of attack past the angle at which the maximum coefficient of lift occurs?

- Performance will decrease as induced drag increases.
- The airfoil will stall.
- Aircraft stability decreases.
- The coefficient of drag curve flattens.

2) Adding flaps increases the _____ of the airfoil, which produces more _____ and delays airflow separation at _____ angles of attack on the airfoil.

- angle of incidence; lift; high
- chord line; drag; high
- angle of attack; drag; low
- camber; lift; high

3) There is a _____ found on the top of an airfoil when air is forced to move from _____ to _____. At high angles of attack, loss of energy to the boundary layer can create _____.

- adverse gradient; low pressure; high pressure; airflow separation
- pressure gradient; high pressure; low pressure; hyper-accelerated airflow
- Newtonian force; low pressure; high pressure; pitching moment
- adverse pressure gradient; low pressure; high pressure; wingtip vortices

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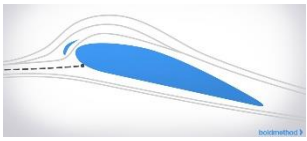
4) You're on a checkride and your examiner asks you: "For a given configuration, your airfoil will always stall at the same what?" You tell them...

Load factor	Angle of attack	Airspeed	Pitch angle

5) This _____ device allows _____ air beneath the wing, to move into the _____air above the wing, energizing the _____. This is called a _____.

leading-edge; low pressure; high pressure; free stream; vortex generator	trailing-edge; high pressure; low pressure; boundary layer; fowler flaps	leading-edge; high pressure; low pressure; free stream; vortex generator	leading-edge; high pressure; low pressure; boundary layer; slat



6) Which of these designs do aircraft manufacturers use to stall the inboard section of an airfoil first?

Stall strips	Wing cuffs	Wing twist	All of these

A funny thing happened on the way to the … Part 7

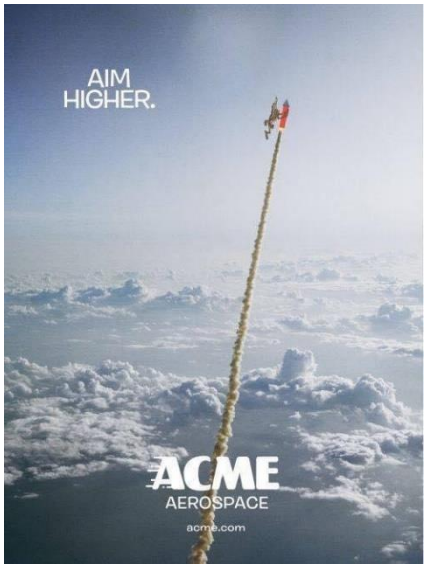
By Ed Griggs

Another Great Update: STC 11BC conversion allows for a starter to be put on an Aeronca Chief so that is what we have been busy working on. With the help of A&P's and IA's (and a whole bunch of people with a lot of spaghetti alphabet behind their names), I think we have it covered! Now to finish up that Annual and get back in the air!

I tried taking on Robby Carney's Cessna. Guess who lost?!? Pre-flight completed?

Pride and Professionalism while completing (to the letter) the STC that allows for a starter to be installed in my Chief!

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!!



Aircraft of the Month: 1939 Culver Cadet

https://en.wikipedia.org/wiki/Culver_Cadet

The Illustrated Encyclopedia of Aircraft (Part Work 1982–1985). London: Orbis Publishing, 1985.

The Culver Cadet is an American two-seat light monoplane aircraft, also once a radio-controlled drone, produced by the Culver Aircraft Company.

The aircraft designer Al Mooney developed an improved version of the Culver Dart, to provide improved performance with a smaller engine. Originally designated the Culver Model L the prototype first flew on 2 December 1939. The aircraft was named the Culver Cadet. Although similar to the previous Dart the Cadet had a semi-monocoque fuselage instead of welded-steel-tube and a retractable tailwheel undercarriage. The first variant (the Cadet LCA) was powered by a 75 hp (56 kW) Continental A75-8 four-cylinder horizontally opposed piston engine.

The 1941 version was designated the Cadet LFA and introduced a number of refinements and more equipment and was fitted with a 90 hp (67 kW) Franklin engine. Production was brought to an end after the United States entered World War II in December 1941, but the Cadet had found export orders, including to Uruguay, and had a new military role.

Specifications: Culver Cadet

General characteristics
Crew: two
Length: 17 ft 8 in (5.38 m)
Wingspan: 27 ft 0 in (8.23 m)
Height: 5 ft 6 in (1.68 m)
Wing area: 120 sq ft (11.15 m2)
Empty weight: 806 lb (366 kg)
Max takeoff weight: 1,305 lb (592 kg)
Powerplant: 1 × Franklin 4AC-176-F3 flat-four piston, 80 hp (60 kW)

Performance
Maximum speed: 142 mph (229 km/h, 123 kn)
Range: 500 mi (805 km, 430 nmi)
Service ceiling: 17,000 ft (5,180 m)

The Cadet was one of six models that Al Mooney designed during his eight years at Culver. He would leave to found Mooney Aircraft.

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Aviation Words – 'Helicopter"

By Ian Brown, EAA 657159, Editor - Bits and Pieces

January 2022 –According to most dictionaries, heli or helio as a prefix relates to the sun, so what does that have to do with a flying machine?

I found this amusing definition of a helicopter on the Internet:

"Thousands of parts flying around in close formation with an oil leak, waiting for metal fatigue to set in!"

In fact, the mass-produced helicopter wasn't flown for the first time until 1944, 41 years after the Wright brothers, and almost at the end of WWII, although the first public demonstration of a helicopter flight was made by Dr. Igor Sikorsky four years earlier.

You might think that the word helicopter is based on the prefix heli and the vague notion of a copter, but that's not correct. In fact, the prefix being used is "helico" meaning helical and "pter" from the ancient Greek "pterus" meaning wing. So a wing describing a helical pattern!

Answers to the Quiz on Page 11 and 12

1) The airfoil will stall.

2) Adding flaps increases the curvature/camber of the airfoil. This produces more lift and delays airflow separation caused at high angles of attack.

3) The adverse pressure gradient forces air molecules to flow from low pressure to high pressure. As the angle of attack is increased, the boundary layer will lose its energy, and the adverse pressure gradient will take over causing the air molecules located in the high-pressure region to flow back to the low-pressure region causing airflow separation.

4) An airfoil will always stall at the same angle of attack, which is known as the critical angle of attack.

5) A slat allows high-pressure air underneath the wing to move into the low-pressure air above the wing to delay airflow separation by energizing the boundary layer.6) Ground effect is a reduction in induced drag, caused by a reduction in downwash and wingtip vortices when your aircraft is approximately 1 wingspan or less from the ground.

6) Aircraft manufacturers often develop airfoils with wing twist, stall strips, cuffed wings, or a combination of all three.

EAA323 VMC Club Question of the month January 2022: Answer

By Radek Wyrzykowski, Manager of Flight Proficiency, EAA 1187948,
920-426-6899, www.eaa.org/proficiency

The answer:
The AIM under Section 2, Chapter 3-2-4 Class C Airspace, Subsection C, point 3, note 4 states:
"Class C airspace areas have a procedural Outer Area. Normally this area is 20 NM from the primary Class C airspace airport. (…) (This outer area is not charted)." (See the full quote below)
This area is not drawn on the chart but is noted in a box near Class C airspace. The procedure for entering Class C airspace is to contact the approach controller within the procedural area around the airport.
Here is the direct quote from AIM:
(…)
3. Arrival or Through Flight Entry Requirements. Two-way radio communication must be established with the ATC facility providing ATC services prior to entry and thereafter maintain those communications while in Class C airspace. Pilots of arriving aircraft should contact the Class C airspace ATC facility on the publicized frequency and give their position, altitude, radar beacon code, destination, and request Class C service. Radio contact should be initiated far enough from the Class C airspace boundary to preclude entering Class C airspace before two-way radio communications are established.

NOTE-
1. If the controller responds to a radio call with, "(aircraft callsign) standby," radio communications have been established and the pilot can enter the Class C airspace.
2. If workload or traffic conditions prevent immediate provision of Class C services, the controller will inform the pilot to remain outside the Class C airspace until conditions permit the services to be provided.
3. It is important to understand that if the controller responds to the initial radio call without using the aircraft identification, radio communications have not been established and the pilot may not enter the Class C airspace.
4. Class C airspace areas have a procedural Outer Area. Normally this area is 20 NM from the primary Class C airspace airport. Its vertical limit extends from the lower limits of radio/radar coverage up to the ceiling of the approach control's delegated airspace, excluding the Class C airspace itself, and other airspace as appropriate. (This outer area is not charted.)
5. Pilots approaching an airport with Class C service should be aware that if they descend below the base altitude of the 5 to 10 mile shelf during an instrument or visual approach, they may encounter non-transponder/non-ADS-B VFR aircraft.

Supporting Our Community, Shop Local, Shop Texoma:

By Todd Bass

When you think about getting the most out of your money, you might think about long-term investments – things such as high-yield accounts, 401k, IRAs, real estate investment, and so forth.

And as you might imagine, these are all great options for the money you want to keep, but how do you get a return on investment for the money that you spend?

The answer is simple – shop local.

When you shop local, you're making a personal investment in your neighborhood and community. In fact, for every $100 spent, roughly $68 to $73 of it returns to local activity.

Money is kept in the community because locally-owned businesses often purchase from other local businesses, service providers, and farms. Purchasing local helps grow other businesses as well as our region's tax base.

Whether you realize it or not, when you shop local you are individually stimulating the local economy with your support and in turn, helping shape your community's unique character and personality.

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

FASTSIGNS® of Sherman
Todd Bass
1920 N Grand Ave, Sherman, Texas 75090
https://www.fastsigns.com/608-sherman-tx

GARNER'S FEED AND SEED
EST. 1986
706 E. MULBERRY
SHERMAN, TX
903-892-1081

Pam Simmons
pk.simmons@yahoo.com
Phone: 972.743.1200
Fax: 903.564.4334

Rebecca Yavner, Agent
214-785-8188
https://rebeccayavner.exprealty.com/index.php

C & J's Family Dining
4531 Texoma Parkway Denison Tx, 75020
(903) 337-1533
Facebook: C & J Family dining
Instagram: candjfamilydining

Allstate
You're in good hands.

Vogel Allstate Insurance Group
5621 Texoma Pkwy, Sherman, TX
75090
https://agents.allstate.com/david-vogel-sherman-tx.html

EAA Webinars Schedule:

https://www.eaa.org/eaa/news-and-publications/eaa-webinars

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.

1/18/22 @ 7 p.m. **Subject: Young Eagles Coordinator Orientation**
Presenter: David Leiting

Learn how to perfect your chapter's Young Eagles rallies, improve operational efficiency, and maximize Young Eagles' flight experience. EAA Eagles Program Manager David Leiting will cover a wide range of topics including YoungEaglesDay.org — EAA's Young Eagles pre-registration system, EAA's new eSignature app for Young Eagles waivers, best practices for rallies, and how to keep youth involved in aviation following a Young Eagles flight.

1/20/22@ 7 p.m. **Subject: Become a Better Chapter Leader – Presidents/Vice Presidents 2022**
Presenter: Charlie Becker

Chapters Director Charlie Becker provides insights on the necessary tasks associated with the president and vice-president positions within EAA chapters, as well as tips on chapter management and critical due dates for chapter-related events.

2/2/22@ 7 p.m. **Subject: Cylinder Rescue**
Presenter: Mike Busch **Qualifies for FAA WINGS and AMT credit.**

Way too many cylinder wind up getting pulled due to low compression, says Mike Busch A&P/IA. Many of them can be rescued without resorting to cylinder removal. Mike illustrates this by telling the story of a frustrated Piper Seneca owner who had already replaced seven cylinders and was now being told by his mechanic that two more needed to come off. With the help of Mike's team, both cylinders were rescued without removal--one by lapping the valve in place and the other by doing a solvent ring flush. Mike feels that cylinder removal should be the last resort after less-invasive methods have been tried.

2/8/22@ 7 p.m. **Subject: Mustang: The History of EAA's P-51s**
Presenter: Chris Henry and Ben Page **Museum Webinar Series**

The P-51 Mustang is one of the most iconic aircraft of World War II and the EAA Aviation Museum is fortunate to have two different examples of this legendary airplane in our collection. Join museum staff members Chris Henry and Ben Page as they discuss the history of the type, as well as the two in the museum's collection.

2/15/22@ 7 p.m. **Subject: Become a Better Chapter Leader – Secretary/Treasurer 2022**
Presenter: John Egan and Charlie Becker

Chapters staff John Egan and Charlie Becker provide insights on the necessary tasks associated with the secretary and treasurer positions within EAA chapters, as well as tips on chapter management and critical due dates for chapter-related events.

3/2/22@7 p.m. **Subject: Teardown Needed?**
Presenter: Mike Busch **Qualifies for FAA WINGS and AMT credit.**

When metal is found in the oil filter, cam distress is noted after cylinder removal, or a foreign object is accidentally dropped into an aircraft engine, many A&Ps immediately conclude that a costly engine teardown, overhaul, or replacement is necessary. More often than not, it isn't. In this webinar, Mike Busch A&P/IA tells the story of three such aircraft engines (two Lycomings and a Continental) that were rescued from euthanasia under his guidance, and illustrates why mechanics shouldn't be spring-loaded to the teardown position.

EAA Webinars sponsored by

Upcoming Events:

Thursday, Jan 20	EAA 323 Monthly Gathering at the Sherman Municipal Airport (SWI), 1200 South Dewey, Sherman, TX @ 7:00pm Subject: Annual Safety meeting with John Halterman
Saturday, Feb 05	EAA 323 First Saturday Event: (If weather permits) Flyout to Sulphur Springs and grab breakfast at the Red Barn.
Thursday, Feb 17	EAA 323 Monthly Gathering at the Sherman Municipal Airport (SWI), 1200 South Dewey, Sherman, TX @ 7:00pm Subject: "Say the "Say it Right" with Bill Broadwell, Air Traffic Controller at KGYI, who will give us a presentation on and provide tips and guidance on best practices for VFR pilots with use ATC services.

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
Ross Richardson	Treasurer	rprichardson46@gmail.com	903-821-4277
John Horn	Board of Directors	jhorn@ntin.net	940-736-8440
Rick Simmons	Board of Directors	rr52s@yahoo.com	903-818-8066
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
Ross Richardson	Membership	rprichardson46@gmail.com	903-821-4277
John Horn	Young Eagles Coordinator	jhorn@ntin.net	940-736-8440
Adam Yavner	Eagles Coordinator	ayavner@yahoo.com	903-744-0384
Ed Griggs	PIO / VMC Coordinator	a_model_guy@ymail.com	903-436-1405

General Email: EAA323@hotmail.com Website: https://chapters.eaa.org/eaa323

Merry Christmas and a Happy New year from EAA Chapter 323!

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 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 EAA Chapter 323

Mail application to:
Ross Richardson
2115 Turtle Creek Circle
Sherman, TX 75092

National EAA offices:
Experimental Aircraft Association
EAA Aviation Center
PO Box 3086
Oshkosh, WI 54903-3086

National EAA Membership:
(800) JOIN EAA (564-6322)
Phone (920) 426-4800
Fax: (920) 426-6761

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: