The Ramp Page
November - December 2021

Vol 52, Ed 11
EAA Chapter 323 Sherman, TX
Monthly Newsletter
Celebrating our 52nd year of service!

Email: eaa323@hotmail.com **Website: https://chapters.eaa.org/EAA323** **Like us on Facebook @eaa323**

President's Mission Brief:

By John Halterman

EAA 323,

We've had quite a few great events at the tail end of this year with our chapter.

The pancake fly in was quite a success! We had quite a few aircraft arrive and join us for pancakes. We had a great team of people that assisted as well. A special thanks to PK Solutions and Cedar Mills/Pelican's Landing Restaurant for donation of supplies. It was a great success.

At our November meeting, the elections occurred with a potluck dinner. We had a nice crowd and a variety of food. As for the election results, our 2022 officers are:

President: John Halterman

Vice President: Frank Connery

Secretary: Rex Lawrence

Treasurer: Ross Richardson

Board of Directors: Mary Lawrence, John Horn, Rick Simmons

On December 4th, Steve Riffe and Frank Connery hosted a riveting session in preparation for those who want to work on the RV 14 project, or, for that matter, just learn. We even had a few folks from Houston show up for rivet practice for a RV project they are just starting. In fact, the first set of parts are expected to arrive in the next couple weeks for the chapter project! . It was an excellent event! If you're interested to participate more in that build, contact Steve Riffe or Frank Connery.

Our last chapter event for 2021 will be the annual Christmas party on December 16th. This is always a nice way to close the year out with our chapter and I really hope each and every one of you can make it along with your significant others. You'll find a more detailed explanation later in this newsletter as to the events.

As we close out 2021, I want to thank everyone that helps make this possible—the members, the chapter volunteers, donation of time. The chapter has the largest number of members EVER! Our balance sheet is strong! All our paperwork is straight! I attempt to find a balance of events that include piloting, flying, maintenance, homebuilding, history, airport information, to name a few. We had quite a variety this year. We have an exciting agenda planned for 2022!

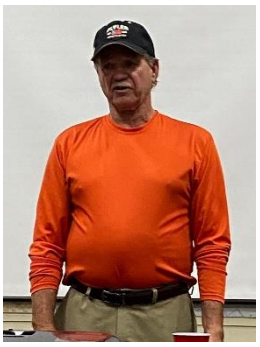
Merry Christmas and Happy New Year!

John F. Halterman
EAA 323 President

EAA 323 Monthly Gathering (Oct): Acrobatics

By Ed Griggs

Steve Riffe arranged with Oliver Spatscheck and Mike Plyler who gave a very interesting aerobatic presentation as well as their personal biographies and background! I personally learned enough to know that I probably won't be doing aerobatics! Both Oliver and Mike are available to talk with you in the event that you are interested in learning more!




EAA 323 First Saturday Event (Nov): Pancake Breakfast

By Ed Griggs

A big thank you to all the volunteers today for our pancake fly in. We had a successful event, good time to interact with other fellow aviators and made some cash for the chapter. Well done!!!!

Also, a special thanks to PK Solutions and Pelican's Landing/Cedar Mills for the donations of supplies and food. Without their support this would not be possible.





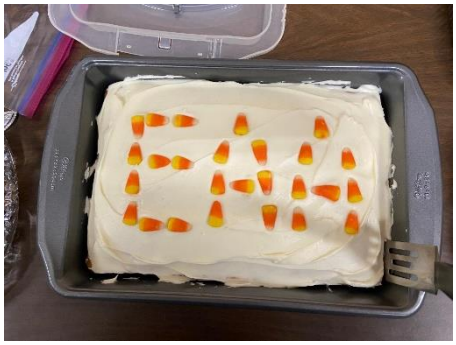





EAA 323 Monthly Gathering (Nov): Thanksgiving Potluck and Officer elections

By John Halterman

Members of 323 were hosted to quite the spread at our last meeting! Our November meeting is typically a “pot-luck” dinner where members bring their favorite dishes and this year was, once again, the best! We even had some artistically creative deserts! If you missed the meeting, you missed out on quite a meal!



Who knew we had such artistic people?!?

Mary Ann Smith looking over the delicacies on the Buffett tables, while Danny Smith, Rex Lawrence and Rich Kreekon get ready for a trip down the line!

I happened to catch Rich Kreekon mid chew but everyone else at the table seems to be enjoying their meal as well!

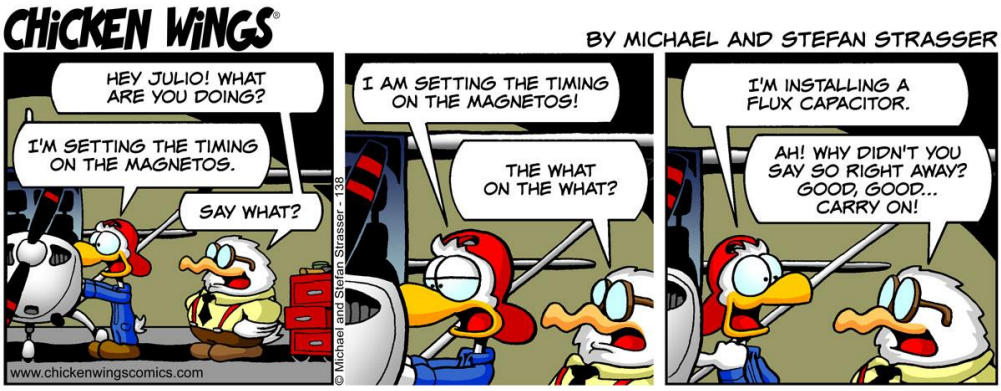
Rick Simmons and Frank Connery sharing a moment!

Steve and Nancy Riffe seem to be enjoying their dinner!

At this meeting, we had our Officer elections. We are pleased to present the Officers/Trusted Positions for EAA 323 FY2022:

President: John Halterman Vice President: Frank Connery Secretary: Rex Lawrence

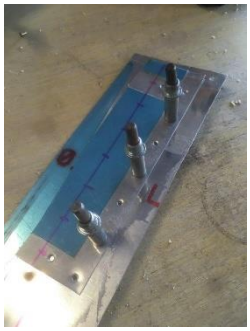
Treasurer/Membership: Ross Richardson Board of Directors: John Horn, Mary Lawrence, Rick Simmons,

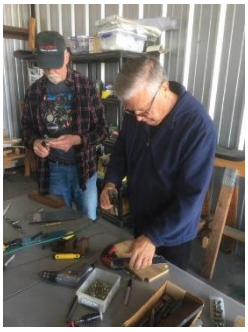


EAA 323 First Saturday Event (Dec): Rivet Class

By John Halterman

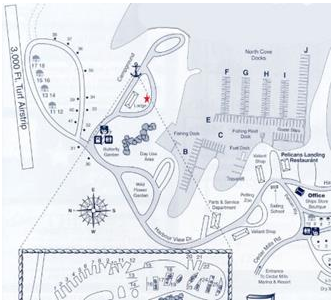
Frank and Steve's rivet class, held at Frank's hangar at North Texas Regional Airport (GYI), was a smashing success! There were nearly 10 people at the class, and 2 flew all the way up from Houston! Well done! It's great to see the engagement of our chapter in many different ways--piloting, building, maintaining, and fellowship! The chapter is helping build a RV14 starting in mid December and the kit is expected to arrive in mid-December. You do need rivet practice before riveting on the final product.





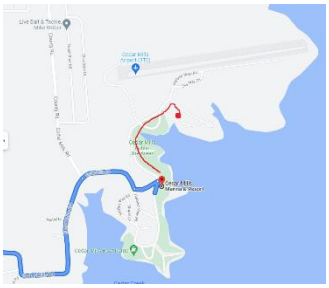
EAA 323 plans Christmas Party!

By John Halterman



Our annual Christmas party will start at 6:30 with dinner being served at 7 PM on Thursday December 16th. The party this year will be located at the Lodge at Cedar Mills. The Lodge is very warm environment to have a nice get together and the ambiance is excellent with a nice crackling fireplace and a Christmas tree. I strongly encourage each of you to attend.

There is a map attached to this email. If you use google maps our other tool, use the address of 500 Harbour View Rd, Gordonville, TX, that will get you to the blue line in the map below (leads to the restaurant). Then continue by following the red line below to get to the red circle for The Lodge.



As for food and drink, everyone is encouraged to bring a side dish and/or dessert to pass and/or any beverages. Fortunately, the Worstells will provide the ham as they have done for a long time. Thanks again!

During the event, we'll make a few mentions of achievements throughout the year.

Last, and most importantly, will be the gift exchange. Each individual (not couple--individual) is asked to bring a gift valued around $20-30 (yes, inflation has arrived) and have it wrapped prior to arrival. We will have a gift exchange after dinner. There will be numbers picked, packages stolen, and feelings hurt. Oh well. It's part of the fun and drama.

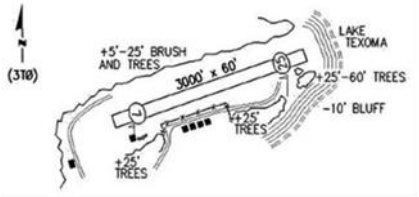
I would ask that you reply to this email with an RSVP and number attending to get an estimate. It is not required for you to RSVP (so, don't let that stop you even if you decide to go at the last minute!)

Thanks again everyone! We look forward to seeing you there.

Directions to Cedar Mills Resort:

http://www.cedarmills.com/airfield.php

Cedar Mills Marina & Resort Airfield (3T0) on Lake Texoma is located in North Texas and is a great vacation destination for our flying friends. Our turf airstrip is 3,000 feet and is always maintained. Tie-downs are located on the south side of the runway.



Fly-In Data
- Airport Identifier 3TØ
- CTAF 122.90
- Phone 903-523-4222
- 133° Radial
- 28.6 miles from Ardmore VOR 116.7
- 39.5 miles from Bonham VOR 114.6
- Coordinates: N 33-50-24, W 96-48-42
- Field Elevation: 640’ MSL
- Length 3000 Feet, Turf

The airstrip is a refreshing short stroll from the center of the marina where you will find the Ships Store Gift Shop & Boutique, Main Office, and our waterfront restaurant, Pelican’s Landing.

Driving from DFW Metroplex

You can reach Cedar Mills from either the West corridor (I-35E) or the East corridor (U.S. 75).

From the western side, drive up I-35E to Gainesville, Texas. Exit at Highway 82E at Gainesville travel east to Whitesboro, Texas. Take exit 624 at Whitesboro (Highway 377). Turn north (left) and continue on Highway 377 for approximately 12 miles until you reach the large billboard for Cedar Mills Marina & Resort and Pelican's Landing Waterfront Restaurant (on the right side of the road). Turn east (right) on Cedar Mills Road, stay to the left and follow road for three miles. It will take you directly to our resort.

From the eastern side, drive up U.S. 75 to Sherman, Texas. Exit on Highway 82 and turn west (left) on Highway 82. Travel west to Whitesboro, Texas. Exit on Highway 377, go north (right) for approximately 12 miles, until you reach the large billboard for Cedar Mills Marina & Resort and Pelican's Landing Waterfront Restaurant (on the right side of the road). Turn east (right) on Cedar Mills Road, stay to the left and follow road for three miles. It will take you directly to our resort.

Driving from Oklahoma

Head south on Highway 99 in Oklahoma. When you cross the Willis Bridge over the Red River (and Lake Texoma) into Texas, the highway number changes to Highway 377. Continue from the bridge, one-half mile south, turn east (left) at Hillcrest Street (next to Mitchell's Store) and continue for one-half mile. Turn right at County Road. Continue down County Road for about two miles until you reach the stop sign at Cedar Mills Road. Turn left and follow the roadway into the marina.

Driving from DFW Airport

Take the North Exit out of the airport and continue on it (it becomes Hwy 121) to Lewisville, where you reach I-35E. Take I-35E North to Gainesville, Texas. See the rest of instructions above, "Driving from DFW Metroplex".

EAA Chapter 323 Est. 1969 Sherman, Texas

Overview of New UAV Regulations

By Daniel Hileman, in Adventures of The Bearded Dronesman

For a long time, I fought off interest in drones…. I realized (a little late) that they are here to stay and are a business now days. In this month's article we will dive into the drone world. The year 2021 has brought some new "regs" for "Droneys"---(That's my word for those that fly drones) Lets just touch on the basic changes:

1. Night Flying (Part 107 Pilots)

Who doesn't like night flying? So, this one is huge! As of this past March, No more waivers required for night flying! Keep in mind, you will need anti-collision lights. My DJI Mavic Pro 2 has a landing light built in! Pretty cool! Also, expect to be tested on the Part 107 test about the challenges night flying gives to pilots.

This rule allows routine operations of small UAS, beginning April 21, 2021, at night under two conditions:

1. The remote pilot in command must complete an updated initial knowledge test or online recurrent training, and
2. The small, unmanned aircraft must have lighted anti-collision lighting visible for at least three (3) statute miles that has a flash rate sufficient to avoid a collision.

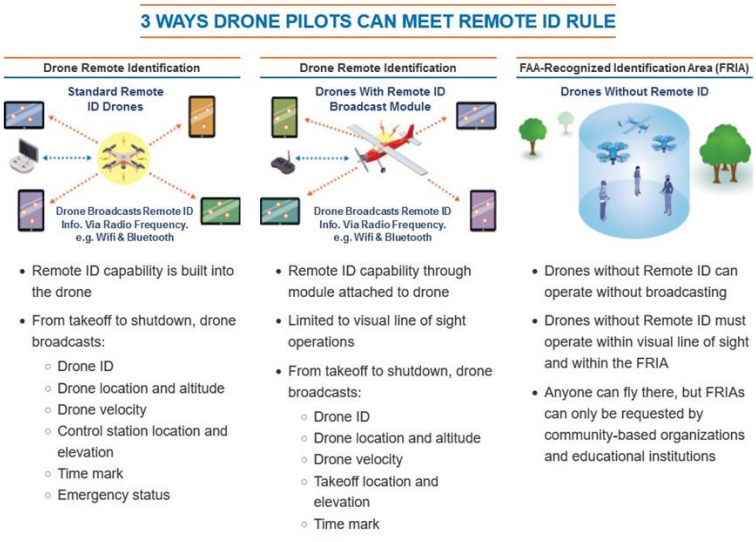
2. Remote ID Requirements

As of 2023, Drones will have to identify in one of three ways: (Refer to the FAA's Figure 1 below as well.)

• Operate a Standard Remote ID Drone (PDF) that broadcasts identification and location information about the drone and its control station. A Standard Remote ID Drone is one that is produced with built-in remote ID broadcast capability in accordance with the remote ID rule's requirements.

• Operate a drone with a remote ID broadcast module (PDF). A broadcast module is a device that broadcasts identification and location information about the drone and its take-off location in accordance with the remote ID rule's requirements. The broadcast module can be added to a drone to retrofit it with remote ID capability. Persons operating a drone with a remote ID broadcast module must be able to see their drone at all times during flight.

• Operate (without remote ID equipment) (PDF) at FAA-recognized identification areas (FRIAs) sponsored by community-based organizations or educational institutions. FRIAs are the only locations unmanned aircraft (drones and radio-controlled airplanes) may operate without broadcasting remote ID message elements.



The information below comes directly from the FAA:

"Which Drone Pilots Must Comply With the Rule?
All drone pilots required to register their UAS must operate their aircraft in accordance with the final rule on remote ID beginning September 16, 2023, which gives drone owners sufficient time to upgrade their aircraft.

What Information Will be Broadcast?
Whether using a Standard Remote ID Drone or a remote ID broadcast module, the message elements must be broadcast from take-off to shutdown. A Standard Remote ID Drone or a drone with a remote ID broadcast module must transmit the following message elements:

- A unique identifier for the drone;
- The drone's latitude, longitude, geometric altitude, and velocity;
- An indication of the latitude, longitude, and geometric altitude of control station (standard) or take-off location (broadcast module);
- A time mark; and
- Emergency status (Standard Remote ID Drone only)

See the Remote ID for Drone Pilots page for more details.

Effective Dates
Almost all the final rule on remote ID becomes effective April 21, 2021. The subpart covering the process for FRIA applications from community-based organizations and educational institutions becomes effective September 16, 2022.
Here are other dates of note:

- September 16, 2022:
    - Drone manufacturers must comply with the final rule's requirements for them.
- September 16, 2023:
    - All drone pilots must meet the operating requirements of part 89. For most operators this will mean flying a Standard Remote ID Drone, equipping with a broadcast module, or flying at a FRIA. "

3. Flight Operations Over People
Up until now (This took affect in April 2021, so applies now.) flying over gatherings of people or vehicles in motion was kind of a big no-no. You would have to get an FAA Part 107.39 waiver. Be advised though, the FAA has created 4 categories based on risk to people/equipment. Probably what most of us will fly will be in category 1 and not require any extra documentation. Below are the 4 categories:

Category 1 small unmanned aircraft are permitted to operate over people, provided the small unmanned aircraft:
- Weigh 0.55 pounds or less, including everything that is on board or otherwise attached to the aircraft at the time of takeoff and throughout the duration of each operation.
- Contain no exposed rotating parts that would cause lacerations.

In addition, for Category 1 operations, no remote pilot in command may operate a small unmanned aircraft in sustained flight over open-air assemblies unless the operation is compliant with Remote ID.

Category 2 and Category 3 provide performance-based eligibility and operating requirements when conducting operations over people using unmanned aircraft that weigh more than .55 pounds but do not have an airworthiness certificate under part 21.

- In addition, for Category 2 operations, no remote pilot in command may operate a small unmanned aircraft in sustained flight over open-air assemblies unless the operation is compliant with Remote ID.
- Category 3 small UAS have further operating restrictions. A remote pilot in command may not operate a small unmanned aircraft over open-air assemblies of human beings. Additionally, a remote pilot in command may only operate a small unmanned aircraft over people if:
    - The operation is within or over a closed- or restricted-access site and all people on site are on notice that a small UAS may fly over them; or
    - The small unmanned aircraft does not maintain sustained flight over any person unless that person is participating directly in the operation or located under a covered structure or inside a stationary vehicle that can provide reasonable protection from a falling small unmanned aircraft.

• **Category 4** operations is an addition from the NPRM. This category allows small unmanned aircraft issued an airworthiness certificate under part 21 to operate over people, so long as the operating limitations specified in the approved Flight Manual or as otherwise specified by the Administrator, do not prohibit operations over people. Additionally, no remote pilot in command may operate a small unmanned aircraft in sustained flight over open-air assemblies unless the operation is compliant with Remote ID. To preserve the continued airworthiness of the small unmanned aircraft and continue to meet a level of reliability that the FAA finds acceptable for operating over people in accordance with Category 4, additional requirements apply.

4. Recurrent Testing

As of March of this year, Part 107 Re-current Part 107 (Every 24 months) need not be IN PERSON...However, Initial Part 107 Testing does need to be in person.

This has been a VERY brief over-view of new Regulations affecting Part 107 "Droneys. " I highly encourage anyone interested in Flying Drones to go the FAA website: https://www.faa.gov/uas/commercial_operators/ and https://www.faa.gov/uas/recreational_fliers/
Thanks for reading! Don't hesitate to contact me if you have any questions. I am not a UAV Expert, but am learning!

Written By Daniel Hileman, The Bearded Dronesman
ATP-MEI-CFI-CFII
EMAIL: cfi.dhileman@gmail.com

Texoma Aero Club still looking for members!

By Michael McLendon

Texoma Aero Club has become a special part of the NTRA community. Being the only Flying Club in the Texoma area, we have attracted the attention of beginners as well as 20,000 plus hour pilots. We're still a small club in membership but we have large ambitions with plans of adding a third aircraft soon!

TAC meets the second Tuesday of the month! All club members are encouraged to attend as well as anyone interested in becoming a member. TAC is located at hanger E2, at North Texas Texas Regional Airport (NTRA)(KGYI).

For Mary!

EAA Chapter 323 Est. 1969 Sherman, Texas

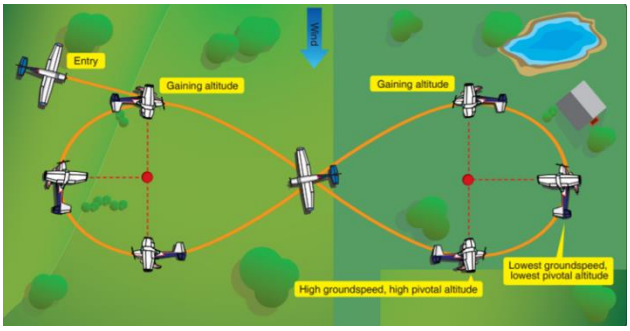
FunPlacesToFly

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

CFI Corner: Eights On Pylons

By Adam Yavner

This is the most challenging ground-reference maneuver! Here, a figure-eight is performed between two points on the ground, at a particular height. The goal is to increase the ability to intuitively and subconsciously control the aircraft, dividing your attention between the pylons and the flightpath. The maneuver was originally developed in war-time so a pilot could maintain a sight picture of the wing lined up with a point on the ground to allow a gunner to destroy a target. Other applications might include search and rescue or aerial photography.

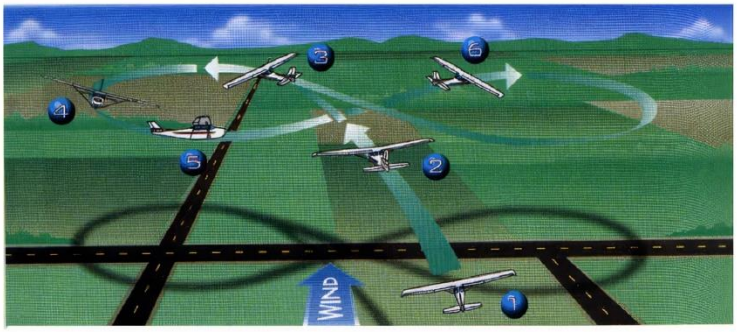


The objective of this maneuver is to develop the ability to maneuver the airplane accurately while dividing one's attention between the flight path and the selected points on the ground. Eights on Pylons are extremely helpful in developing subconscious control of the airplane. They are required for the Commercial Pilot Certificate. The difference between this and a turn around a point is that you are not trying to maintain a fixed radius around the pylon – you are trying to keep the object lined up on the wingtip. Rather than correcting for wind, you are correcting for groundspeed.

Since the maneuver may be unfamiliar to some, some definitions are in order –

Pylon – a fixed object or point on the ground used as the reference.

Pivotal Altitude (PA) - the altitude at which, for a given groundspeed, the projection of the visual reference line to the pylon appears to pivot



The goal of the "eights-on-pylons" is to have an imaginary line that extends from the pilot's eyes to the pylon. This line must be imagined to always be parallel to the airplane's lateral axis. Along this line, the airplane appears to pivot as it turns around the pylon. In other words, if a taut string extended from the airplane to the pylon, the string would remain parallel to lateral axis as the airplane turned around the pylon. At no time should the string be at an angle to the lateral axis.

The altitude at which the visual reference line ceases to move across the ground is the pivotal altitude. The pivotal altitude is critical and changes with variations in groundspeed. Since the headings throughout turns continuously vary from downwind to upwind, the groundspeed constantly changes. This results in the proper pivotal altitude varying slightly throughout the turn. The pilot should adjust for this by climbing or descending, as necessary, to hold the visual reference line on the pylons. This change in altitude is dependent on the groundspeed.

Putting it all together:

Select your pivotal altitude based on ground speed. Since this will vary throughout the turn, and will even change with the winds, some use IAS to make the initial pivotal altitude selection (just know that its ground speed which is the determining factor). A helpful tip is to make a small chart with some common airspeeds for your plane, so you can refer to it without having to use a calculator.

$GS^2/15$ = PA in mph. $GS^2/11.3$ = PA in knots. This gives the pivotal altitude in AGL.

After clearing the area and other pre-maneuver checks, and trimmed for straight and level cruise power (not above Va)…

Select two pylons that are prominent and adequately spaced, and perpendicular to the wind direction. Fly between the pylons 45° to downwind, such that the first turn is to the left and into the wind. Line the wing up with the pylon, and then adjust altitude as necessary to maintain that sight picture all the way around the pylon to about your starting position. Elevators are the primary control for this maneuver. Bank should not change much. After the first turn, fly straight and level for about 3-5 seconds between the pylons – this will again be downwind or 45° to it, so the highest groundspeed and therefore the highest pivotal altitude. Roll towards the right pylon, and repeat. By the way - I am not aware of a "requirement" to make the first turn to the left, however since you are likely sitting in the left seat, it may make setting up much easier.

Do NOT attempt to correct the sight picture by use of the rudder – use the rudder only to maintain coordination. Focus nearly all attention outside, between the pylon and the flightpath. Trying to use the altimeter to maintain the pivotal altitude is useless.

The Airplane Flying Handbook Chapter 6 has all of the specific information as well as some common errors associated with this maneuver. With practice, this is one of the most fun and useful maneuvers, and well worth adding to your repertoire!

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

A funny thing happened on the way to the … Part 6

By Ed Griggs

Massive Update: Engine installed and fired up! Everything seems to be moving forward! Brakes are holding at 2,000rpm so that is a definite change from previous instances! Oil Pressure up at 50-60lbs! Now to finish up that Annual and get back in the air!

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!!

EAA Chapter 323 Est. 1969 Sherman, Texas

EAA323 VMC Club Question of the month: November 2021

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

This month's question:

In the AIM Section 3-1-5 VFR Cruising Altitudes and Flight Levels, Table 3-1-2 shows VFR cruising altitudes for elevations above 18,000 feet.

TBL 3-1-2

VFR Cruising Altitudes and Flight Levels

If your magnetic course (ground track) is:	And you are more than 3,000 feet above the surface but below 18,000 feet MSL, fly:	And you are above 18,000 feet MSL to FL 290, fly:
0° to 179°	Odd thousands MSL, plus 500 feet (3,500; 5,500; 7,500, etc.)	Odd Flight Levels plus 500 feet (FL 195; FL 215; FL 235, etc.)
180° to 359°	Even thousands MSL, plus 500 feet (4,500; 6,500; 8,500, etc.)	Even Flight Levels plus 500 feet (FL 185; FL 205; FL 225, etc.)

We were all taught that Class A airspace begins at 18000 feet to 60000 feet (FL600). We were taught that you must be instrumented rated, on an instrument flight plan, and in contact with ATC to fly in Class A airspace. Yet this table indicates that VFR flight rules would apply, flying East at Odd Flight Levels plus 500 feet, and flying West at Even Flight Levels plus 500 feet... up to FL290. How and where are you going to fly above 18000 feet VFR?

Pilot's Tip of the Month: Should You Fill Out a NASA Form?

Featuring John Krug, https://pilotworkshop.com/tips/nasa-form-1221/

Subscriber question: "I recently flew through the edge of Class Bravo airspace without a clearance. My Instructor told me to fill out a NASA form. What is that? He said it can keep me from FAA enforcement. Is that true?" — Pat R.

From John: "Your instructor is talking about the Aviation Safety and Reporting System (ASRS) form. Because this system is maintained by NASA, rather than the FAA, it's commonly called the NASA form.

The program's goal is to identify any safety issues in the aviation system—which is why it's administered by NASA. The FAA does not, I repeat, does not have access to any information submitted through ASRS. If you voluntarily submit a report that, for example, describes an airspace violation, FAA cannot use that to find and violate you. (Although with ADS-B so common, FAA hardly needs a NASA form to track a violator.)

Basically, anytime that you see or experience any issue that you think may have an adverse effect on system safety it should be reported. The form is only for safety issues. It should not be used to report aviation accidents.

To encourage submissions, the program comes with an incentive: Submitting a NASA report protects you from a penalty or certificate suspension if the violation was inadvertent (that is, not deliberate), there was no criminal offense, you had no prior FAA enforcement actions for the five years prior to the date of occurrence, and you submit the report within 10 days.

While not quite a 'Get Out of Jail Free' card, the FAA considers the filing of a report with NASA to be indicative of a constructive attitude. They believe making a report will tend to prevent future violations.

The form may be submitted online or by mail. Doing it online gives immediate verification it was accepted into the system. Each ASRS Report has an ID strip that NASA will time stamp and return as a receipt. That's your proof you submitted the report and what you'd show the FAA if they pursued the matter of your airspace violation.

Let's clear up another misconception: The FAA can still put a violation on your record even if you file the ASRS report. The protection is only against a penalty if the conditions I already mentioned are met. While you can file as many ASRS reports as you want, the immunity doesn't apply if you have another violation in the previous five years.

So, you should file the report, but you should also talk to your instructor about how your Class B incursion happened and figure out how to avoid that issue in the future.

ASRS reports aren't just for pilots. Air traffic controllers, dispatchers, flight attendants, maintenance technicians, and even drone pilots have submitted reports on hazardous situations. Examples of incidents that are commonly reported include airspace violations, busting an IFR altitude, or close-calls with other aircraft. Common safety issues that have been reported are confusing taxiway or runway markings, ATC radio interference, similar sounding call signs, defective navigation aid, an aircraft system anomaly, or a confusing ATC procedure. Several real improvements in aviation safety have come as a result.

The ASRS website and Advisory Circular 00-46F have more information. You can also subscribe to the Callback newsletter to get some of the 'greatest hits' from recently filed reports."

Quiz: Can You Answer These 7 Aerodynamics Questions?

By Boldmethod | 12/03/2021, https://www.boldmethod.com/blog/quizzes/2021/11/can-you-answer-these-seven-aerodynamics-questions/

1) Angle of attack is:

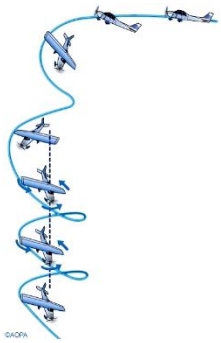
The acute angle between the wing chord line and the direction of the relative wind	The acute angle between the wing camber line and the direction of the relative wind
The acute angle between the angle of incidence and the direction of the relative wind	The same as Vso

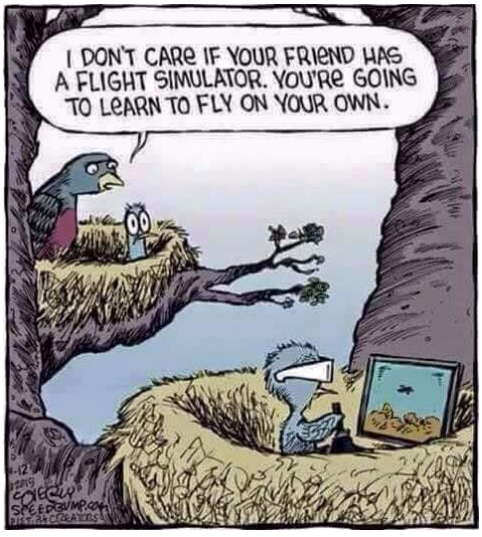
2) What speed is the top of the airspeed indicator green arc?

Vx	Va	Vs
Vso	L/D_{max}	Vno

3) In a spin:

The inside wing is stalled, the outside wing is not	The outside wing is stalled, the inside wing is not
Both wings are stalled	Neither wing is stalled





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4) Lowering flaps increases:

- Camber
- Lift
- Drag
- All of the above

5) Maneuvering speed (Va):

- Increases with increased aircraft weight
- Decreases with increased aircraft weight

6) Ground effect is caused by:

- Reduced parasite drag
- Reduced induced drag
- A cushion of air
- Magic

7) What climb rate will a single engine aircraft produce at its service ceiling? (max weight, clean config, max continuous power)

- 25 FPM
- 50 FPM
- 75 FPM
- 100 FPM
- 125 FPM
- 150 FPM

Aircraft of the Month: 1930 Monocoupe 90

https://www.flystl.com/newsroom/stl-news/2018/lindbergh-monocoupe-exhibit-ending-its-run-at-stl-airport
https://en.wikipedia.org/wiki/Monocoupe_90

The Monocoupe 90 was a two-seat, light cabin airplane built by Donald A. Luscombe for Monocoupe Aircraft. The first Monocoupe (Model 5) was built in an abandoned church in Davenport, Iowa, and first flew on April 1, 1927. Various models were in production until the late 1940s.

The Monocoupes were side-by-side two-seat lightplanes of mixed wood and steel-tube basic construction with fabric covering. A braced high-wing monoplane with fixed tailskid landing gear, and the reverse curve rear fuselage lines that were to become one of the signature identifiers features of the Monocoupes.

The fuselage framework was built up of welded steel tubing in a rigid, triangular-framed Warren truss form for the side panel structures, heavily faired to shape with dural metal sheet formers and wooden fairing strips. The wings were built up of solid spruce spars with wing ribs of basswood webs and spruce cap-strips. The leading edges were covered with dural metal sheet and the entire framework was covered in fabric.

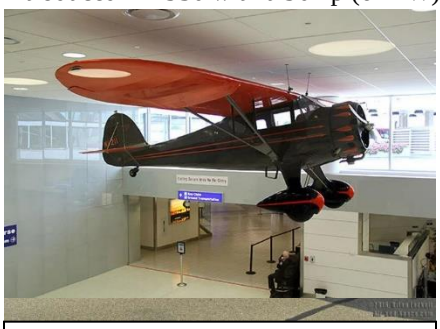
The aircraft was powered originally by either a 60 hp (45 kW) Anzani engine or the unsuccessful 65 hp (48 kW) Detroit Air-Cat radial. The Model 22 was the first light aircraft awarded a type certificate (number 22) and in 1930 it was fitted with the Velie M-5 62 hp (46 kW) five-cylinder radial engine to become the Model 70.

Specifications 1930 Monocoupe 90
Data from Specifications of American Airplanes

General characteristics
Crew: 1
Capacity: 1 passenger
Length: 20 ft 5+3⁄4 in (6.242 m)
Wingspan: 32 ft 0 in (9.75 m)
Height: 6 ft 9+3⁄4 in (2.076 m)
Wing area: 134.5 sq ft (12.50 m2)
Empty weight: 967 lb (439 kg)
Gross weight: 1,610 lb (730 kg)
Fuel capacity: 28 US gal (23 imp gal; 110 L)
Powerplant: 1 × Lambert R-266 radial engine, 90 hp (67 kW)

Performance
Maximum speed: 130 mph (210 km/h, 110 kn) at sea level
Cruise speed: 110 mph (180 km/h, 96 kn)
Stall speed: 40 mph (64 km/h, 35 kn)
Range: 600 mi (970 km, 520 nmi)
Service ceiling: 16,000 ft (4,900 m)
Rate of climb: 850 ft/min (4.3 m/s)

In 1930 Monocoupe introduced the Model 90 with refined lines and a fuselage that was slightly longer and wider, this being sold in Model 90 and Model 90A versions with a 90 hp (67 kW) Lambert R-266 radial engine. The Monocoupe 90 DeLuxe introduced trailing edge flaps, wheel speed fairings and an improved engine cowling. The Model 90AF was fitted with a 115 hp (86 kW) Franklin engine. The Model 90AL had Avco Lycoming engines. The Model 90J was introduced in 1930 with a 90 hp (67 kW) Warner Scarab Jr engine.



1934 Model D-127 Monocoupe, once owned by Charles Lindbergh.

A Model 113 on display at the EAA Aviation Museum

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The Monocoupe

Aviation Words – 'Aresti Dance"

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

October 2021 – If you've ever been close to aerobatic pilots when they're going through their routine in their minds, you'll see them doing an odd, slow-motion dance. They wave their arms around, slowly indicating direction of movement. It's a bit like watching a little kid in an adult's body, but it's a vital part of the process of successfully competing in aerobatics.

The Aresti dance is performed to rehearse a sequence of what are called Aresti figures, which are contained in an FAI-approved document called the Aresti Catalogue.

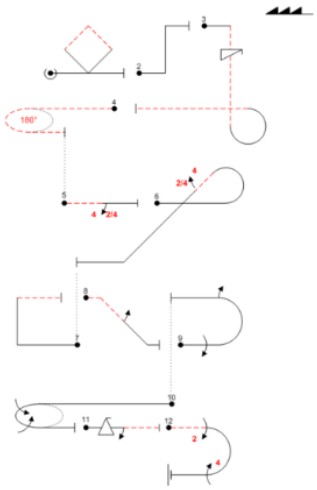
Named after Spanish aviator Colonel José Luis Aresti Aguirre (1919-2003), a Spanish aerobatics instructor who developed them in the 1960s, they use a system of lines, arrows, geometric shapes, and numbers to describe the precise form of a manoeuvre.

The system allows pilots to understand what is expected of them in training or competition and it also allows pilots to invent new figures.

They are still published in book form by the Aresti family.

The catalogue classifies manoeuvres into numbered families from 1-9.

Family 1: Horizontal, 45-degree and vertical lines
Family 2: Turns and rolling turns
Family 3: Combination of lines
Family 4: No longer used
Family 5: Hammerheads, also known as stall turns
Family 6: Tail slides
Family 7: Loops and part loops, curved and angular
Family 8: Combinations of loops and lines
Family 9: Rolls, snap rolls, and spins
Families 1-8 are the basic figures, while family 9 adds a rotational element that can be added to the basic figures to increase difficulty.



Answers to the Quiz on Page 12 and 13

1) According to the Airplane Flying Handbook, angle of attack is the acute angle between the chord line of the airfoil and the direction of the relative wind.

2) The maximum structural cruising speed (Vno) is the top of the green arc.

3) Both wings are stalled in a spin. As the airplane rotates around the vertical axis, the rising wing is less stalled than the descending wing creating a rolling, yawing, and pitching motion.

4) Lowering flaps increases camber, lift and drag.

5) Maneuvering speed increases as aircraft weight increases. This is because aircraft at higher weights need to fly at a higher angle of attack at a given airspeed to produce enough lift for level flight. Since the aircraft is at a higher AOA, it will more quickly reach the Critical AOA if a full, abrupt control movement is used.

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.

7) Service ceiling is the maximum density altitude where the best rate-of-climb airspeed will produce a 100 feet-per-minute climb at maximum weight while in a clean configuration with maximum continuous power.

EAA323 VMC Club Question of the month November 2021: Answer

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

FAR § 91.159 VFR cruising altitude or flight level states:
"Except while holding in a holding pattern of 2 minutes or less, or while turning, each person operating an aircraft under VFR in level cruising flight more than 3,000 feet above the surface shall maintain the appropriate altitude or flight level prescribed below, unless otherwise authorized by ATC:
(a) When operating below 18,000 feet MSL and -

(1) On a magnetic course of zero degrees through 179 degrees, any odd thousand-foot MSL altitude + 500 feet (such as 3,500, 5,500, or 7,500); or

(2) On a magnetic course of 180 degrees through 359 degrees, any even thousand-foot MSL altitude + 500 feet (such as 4,500, 6,500, or 8,500).

(b) When operating above 18,000 feet MSL, maintain the altitude or flight level assigned by ATC."

Supporting Our Community, Shop Local, Shop Texoma:

By Todd Bass

Connect. Shop. Buy.

Local businesses define our communities and are very much at risk right now. Use this site (https://www.graytvlocal.com/market/sherman-tx) to identify local businesses that are open, how to purchase from them and their hours.

Another tool to use is Texoma Curbside Restaurants on Facebook (https://www.facebook.com/groups/texomacurbside) as a tool to show you what restaurants are open and what items/services they are offering!

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

FASTSIGNS

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

Texoma Bicycle

5629 Texoma Pkwy,
Sherman, TX 75090
903.893.BIKE (2453)
TexomaBicycle@gmail.com

PK SOLUTIONS
Pam Simmons
pk.simmons@yahoo.com
Phone: 972.743.1200
Fax: 903.564.4334
Promotional Products • Awards • Apparel • Screen Printing

eXp REALTY

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

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

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

EAA Chapter 323
Est. 1969
Sherman, Texas

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.

12/7/21 @ 7 p.m. **Subject: Homebuilt Biplane Roundup**
Presenter: Budd Davisson **Homebuilders Webinar Series**

Trying to decide which homebuilt biplane to buy or build? This is the webinar for you. Budd Davisson has flown them all and will share his insights into each one. Budd is a regular contributor to Sport Aviation, forum speaker at AirVenture, and transition training instructor for Pitts Specials.

12/8/21 @ 7 p.m. **Subject: The Truth About Stalls**
Presenter: Tom Turner **Qualifies for FAA WINGS credit.**

A lot of what we know, and what we teach and evaluate about stalls, doesn't mesh with the actual Loss of Control Inflight (LOC-I) accident record. Join Tom Turner from the American Bonanza Society Air Safety Foundation to investigate what we can learn from the NTSB record that will help us train and practice to avoid real-world stall scenarios.

12/14/21 @ 7 p.m. **Subject: The History of EAA's B-25**
Presenter: Chris Henry/Ben Page **Museum Webinar Series**

EAA's B-25 Berlin Express has led an incredible life. Originally built for war, this aircraft soldiered on to become an executive aircraft, transport, movie star, and eventually flying museum piece. Join Chris Henry and Ben Page from the EAA Aviation Museum as they discuss the history of this incredible aircraft.

12/15/21 @ 7 p.m. **Subject: Flying Clubs – Growing Participation in Aviation**
Presenter: Timm Bogenhagen

EAA's initiative to support the formation of flying clubs by the members of EAA's chapter network continues to grow, and Timm Bogenhagen from the EAA will help you learn the ins and outs of forming a separate nonprofit flying club at your local airport!

1/5/22 @ 7 p.m. **Subject: Balky Alternator**
Presenter: Mike Busch **Qualifies for FAA WINGS and AMT credit.**

Maintenance expert Mike Busch describes how he dealt with an intermittent alternator failure on his airplane, how he was able to troubleshoot the problem and then resolve it quickly and economically. Mike's tale offers some lessons that apply to a wide range of intermittent aircraft problems, and demonstrates why aircraft owners may be in a much better position to troubleshoot such problems than their mechanics.

1/12/22 @ 7 p.m. **Subject: Ground Reference Maneuvers — Practicing Precision Patterns**
Presenter: Prof. H. Paul Shuch **Qualifies for FAA WINGS credit.**

Ground reference maneuvers are called out as a required training area in the private pilot air certification standards and the sport pilot practical test standards. But they are more than merely boxes to check off during your practical test. In this webinar, you will learn how to master them, and become a safer pilot through precision pattern practice.

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.

EAA Webinars sponsored by

Upcoming Events:

Thursday, Dec 18	EAA 323 Monthly Gathering at the Cedar Mills Marina & Resort Airfield (3T0) (Map provided above) 500 Harbour View Rd, Gordonville, TX @ 06:30pm Subject: Christmas Celebration with John Halterman
Saturday, Jan 08	EAA Monthly First Saturday event: EAA 323 RV-14 project Frank Connery's hangar at North Texas Regional Airport (GYI) @ 09:00am Subject: Visit with Brad Hodge, Frank Connery and Steve Riffe about RV-14 project
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

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

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: