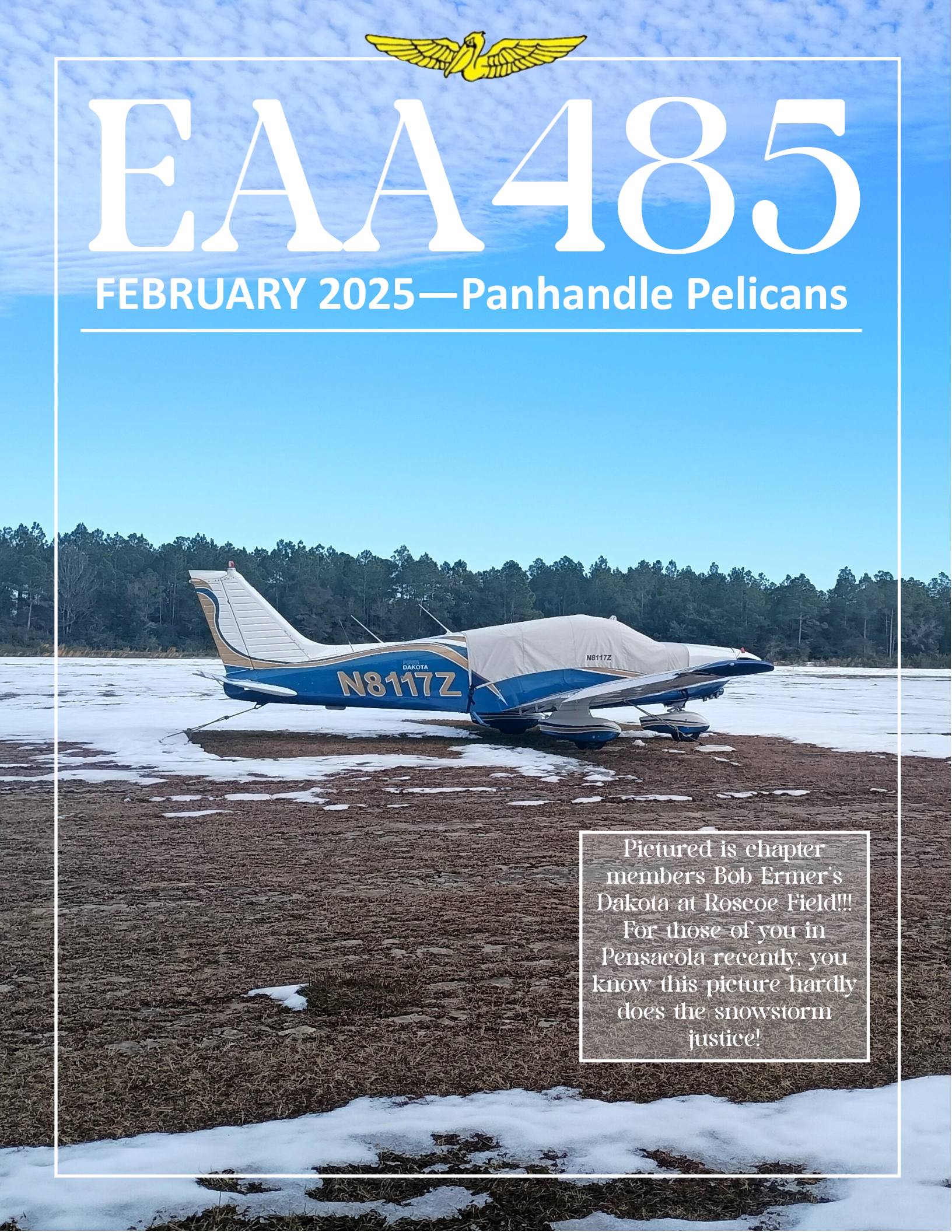
EAA485

FEBRUARY 2025—Panhandle Pelicans



Pictured is chapter members Bob Ermer's Dakota at Roscoe Field!!! For those of you in Pensacola recently, you know this picture hardly does the snowstorm justice!

PRESIDENT'S NOTES

Our January meetings had a great turnout. Hopefully everyone enjoyed the quieter environment provided by our new Heat Pump installation.

A short pitch on paying your dues: Many of you already paid your 2025 local dues, still $25/year. Thank you. Our local dues are still waived for all active duty military, actively training scholarship winners, and honorary members. Local dues keep us up and running! We pay EAA $583 total/year for chapter dues and insurance. The liability insurance EAA provides covers ALL our ground activities; meetings, Young Eagle Events, etc. And of course, we have various expenses to keep our clubhouse functional and looking presentable. For those unable to attend meetings to pay our treasurer Scott Swanson directly, see eaa485.org, BECOME A MEMBER, to pay by check. Thanks.

EAA does expect you to be a member of EAA national if you are a local chapter member. Normal individual adult membership is $48/year. Explore family membership or lifetime memberships to save some money. Any student membership in EAA is free until age 18 ½. For more details, see EAA.org, Membership.

Anonymous scholar progress: Sean Londrigan flew six flights (scheduled nine) in his first two weeks at Lightning Aviation, while still on college break. Now that his classes have begun, he is striving to schedule two lessons during the week, and one on weekends. Congratulations to Cody Stebbins, who flew his first solo flight on Jan. 24th, and now moves on.

Both our meetings Feb. 8th will be at the clubhouse. The main meeting starts 15 minutes earlier than normal, at 9:45. It will be short, wrapping up around 10:15. This is so anyone interested can be at the National Flight Academy by 11:00 for our tour. Park and enter the museum normally. We will enter the National Flight Academy at the Quarter Deck entrance, on the museum side of the building. The building is not open to the general public; the door will be unlocked for us around 11:00. If it's rainy, gather just prior to 11:00 in the museum atrium, under the Blue Angel A-4s, and we'll go over as a group.

—Ralph

RAY AVIATION UPDATE

January 1st the local applications for our chapter's two Ray scholarships were sent out. We have nine candidates for this year—five young ladies and four young men. February 15th is the deadline to have all the prerequisites completed and the applications turned in. During the week following February 15th times will be set for the March 1st interviews. The interviews will be held at the clubhouse with the Ray Scholarship committee. (Nick Hanssen, Ralph Moser, Scott Swanson and Craig Spoke). Each applicant and their parents will be invited to the interview which will last about one hour. The decisions will be made immediately following the last interview. This will allow the scholarship winners to start their flying journey as early as April.

One of the prerequisites for the scholarship is to have a 3rd class medical. On Saturday, January 18th, Dr. Keel in Fairhope, AL, completed these exams free of charge for any applicants who were interested. Six of the candidates made the trip to Dr. Keel's office to take advantage of this very generous offer. It was such a success that Dr. Keel has offered to make this an annual offer. A special thank you to Dr. Keel.

—Craig

January 11th, 2025

VMC: Landing gear not down and locked
IMC: Cancelled IFR flight plan

General Membership Meeting
- Officers Reports
  - Feb 8: VMC/IMC at 0830, General meeting at 0945, NAS Flight Academy tour at 1100
  - Mar 8: PNS Tower tour after meetings
  - Apr 12: Tentative Paradigm Parachute tour after meetings
  - 2024 MVP is Craig Spoke
  - Foley Fly-in on Mar 22
- Ray Scholarship
  - We will be awarding two matching scholarships for 2025.
- Anonymous Scholarship
  - Ethan Smith is now a Private Pilot.
- Young Eagles
  - Tentative Young Eagles Rally on Apr 19

—Jacob Abston, Secretary

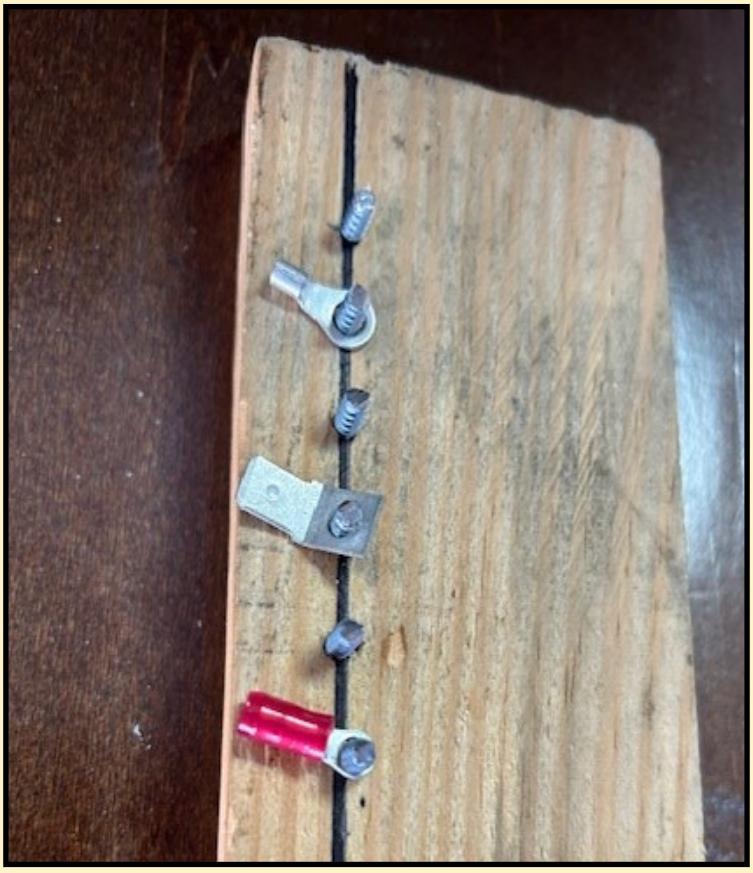
Glenn Miller Concert 2025

Click here for last minutes tickets to the world famous Glenn Miller Orchestra performance at the Pensacola Naval Aviation Museum!

DRANO'S 750 UPDATE

I once read were an EAA builder claims to have wired his homebuilt in a day. I'd like to meet that guy, I bet he is a politician. For me this takes a considerable amount of time even though the wiring plan for my airplane is reasonably simple. I'm working on connecting everything behind the instrument panel and, like with everything else, I learned a few things I want to pass along.

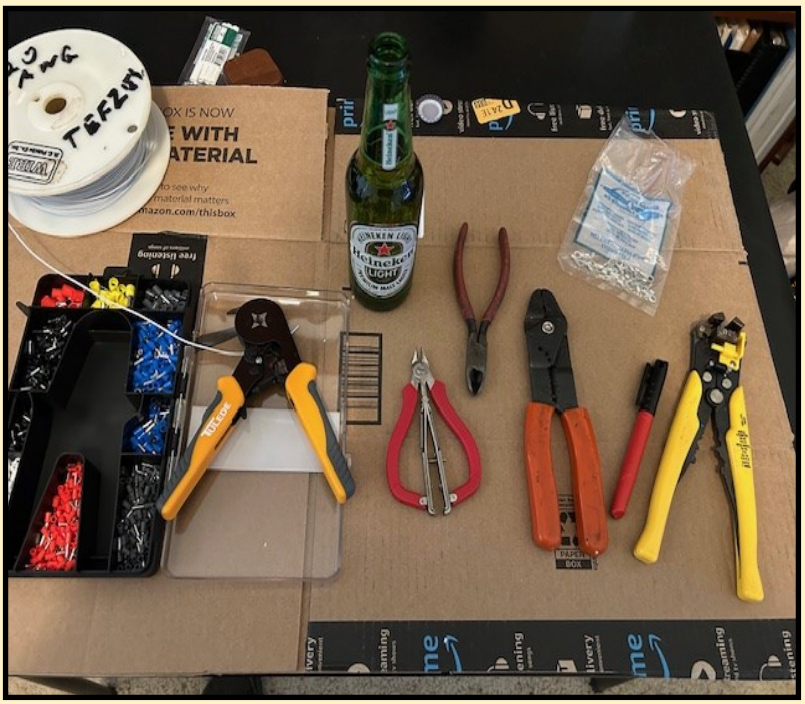
My wiring plan is basically to bring power to a Main Bus and an Avionics Bus, both of which are fuse blocks. From there I go to switches when I need to be able to control it on or off (lights, boost pump, etc.) or directly to the device using the power anytime the switch is on (Flight Data Computer, the EFIS, etc.) The first picture is of my Main Bus on the right and the Avionics Bus on the left as they swing down on hinges below the instrument deck behind the instrument panel. The Avionics Bus will be powered through a switch after the Main Bus.



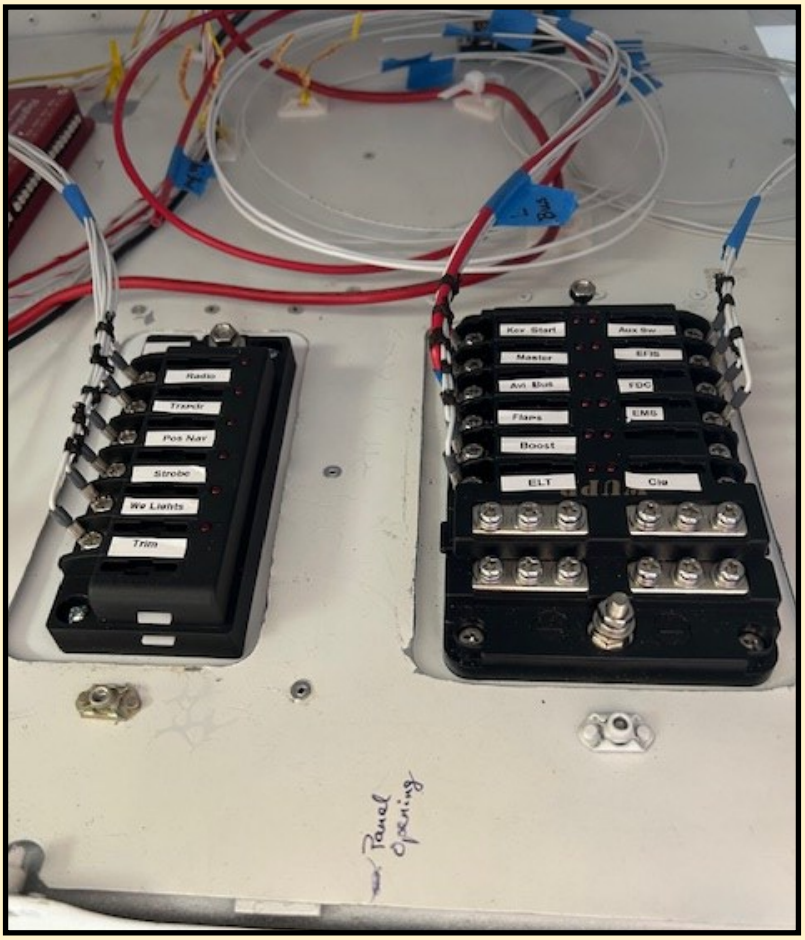
The generic process is again pretty straight forward. You put a wire terminal on the end of a wire and bundle the wires as they go on to the switches or the powered device. But this is also where it starts to get interesting. I first built a model of the bus in order to assist building the wire bundles. Pictured are three different terminal selections and I chose to use the one at the top after my experience building my RV-6 using the two at the bottom. When you build wire bundles using 22- & 20-gauge wire, you are trying to crimp itty bitty wires with itty bitty strands of copper wire into an itty bitty terminal. It is challenging to get the good, tight connection that you want and need. To check it, you give it a tug after crimping and more than once the darn itty bitty thing came off. There is a better way.

DRANO'S 750 UPDATE CONTINUED

It was freezing cold outside and there were some good football games on, so I decided to set up my wire bundle production on a card table in my office. Pictured are all the gadgets and gizmos you need. While they are all necessary, one item you can vary according to taste. On one end of the display you will see a Wire Ferrule Kit from Amazon which included the crimper. It doesn't say "wire ferrule" anywhere on it but that is what Amazon called them. You crimp the proper sized ferrule gizmo onto the end of the wire then insert the ferrule gizmo into the terminal you have chosen then crimp the terminal to the ferrule. I could not pull them apart after assembly.



I then routed the wires away from the bus tying them to each other for support creating a wire bundle that will be covered with a loom and routed as appropriate. Here is a picture of the same two 12 volt buses, swung up into position, and ready for service. I will simply duplicate the ferrule gizmo process at the other end of each wire as it reaches the switch, the splice, or the device.



This may be the standard practice approach for other builders, but it was new to me. I'm pretty sure it will work but I will keep you informed.

--Drano

Pre Sun-N-Fun Air Race

Get ready for an adrenaline-pumping aviation showdown! The inaugural **Pre Sun-N-Fun Air Race** is set to take off at **Bob Sikes Airport (KCEW) in Crestview, Florida, on March 29th**—and you don't want to miss it!

There's still plenty of time to register as a Sport Air Racing League pilot and claim your spot on the starting line. Whether you're a seasoned racer or a newcomer looking for high-speed thrills, this is your chance to push your limits, test your skills, and feel the rush of competition in the skies! Secure your place now and get ready for an unforgettable race!

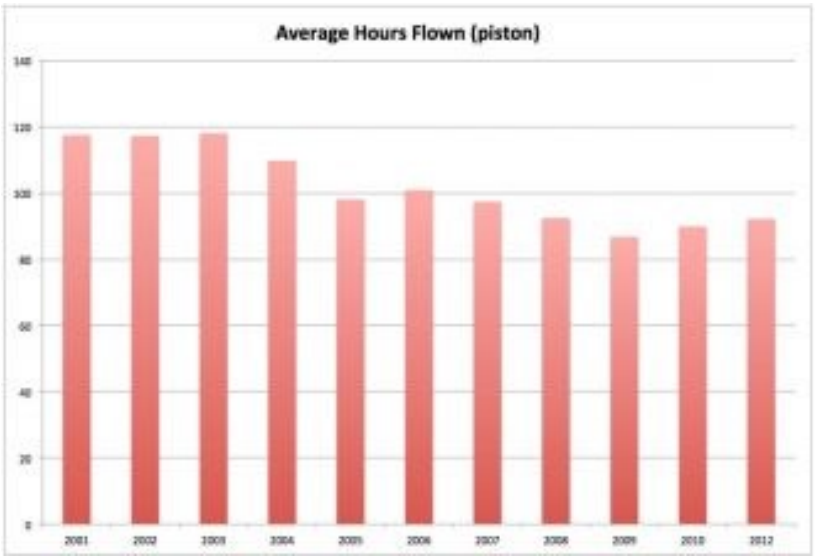
-Lou Toth

What's Wrong With Cessna 172 Pilots?

It appears to be personal...

I did a bunch of safety studies in *FLYING* 15 or 20 years ago in which I calculated accident rates for the airplanes studied. It was no surprise that the Cessna 172 came out well with a fatal accident rate of .56 per 100,000 flying hours. That gave the 172 the best accident rate in private aviation. (The airplane will always be a 172 to me. Think of it as a Skyhawk if you wish.) By comparison, the fatal accident rate for the total activity has been stuck in the 1.2-1.4 range for quite a while.

The 172 is the most built airplane in history at 43,000 copies. A lot of those airplanes are quite old, a lot were exported and a bunch have been damaged beyond repair. It is probably still safe to say there are more 172s flying the U. S. than anything else and though production rates today are relatively low, that will remain true for a long time to come. That makes it a true benchmark airplane in a lot of ways, including that good safety record.



Calculating accident rates is fraught with peril and while I thought my methodology was pretty good, I am sure it had flaws. Rates that I calculated did, though, come out pretty close to rates calculated by others so I thought mine were and are as accurate as you could hope for.

A lot has happened in and to private aviation in the time since I did those safety studies. Flying activity has dropped dramatically, airplane use has probably changed substantially, and the pilot population has changed. Maybe the biggest change in pilots is that the average age has increased almost hand-in-hand with the time that has passed. The same thing is true of the airplanes that we fly.

I think it is safe to say that any accident rate numbers developed today would be substantially more suspect than those of 15 or 20 years ago. Still, though, some numbers and information that I developed about the 172 then are probably still true today.

The 172 accounted for 17-percent of the active fleet and flew 16-percent of the hours flown while accounting for six-percent of the fatal accidents.

In a two-year period there was but one fatal 172 accident that was due to a mechanical failure. That was an engine failure related to a valve. There were no fatal accidents related to fuel exhaustion or starvation.

What's Wrong With Cessna 172 Pilots?

Despite the good record in that area, the 172 is probably involved in just as many forced landings as any like airplane. It just appears more adaptable to impromptu arrivals than some other airplanes. The low landing speed contributes to this. There is no available statistic on this, but I would bet that most 172 forced landings don't result in what the NTSB classifies as an accident.

I looked at fatal 172 accidents that occurred during two more recent years (2012 and 2013) when virtually all the NTSB reports were final as opposed to preliminary. There were 25 such accidents in the 48 contiguous states. If the methodology I used years ago is applied to that number, the 172 safety record appears to have improved, maybe substantially.

It's still one of the safest airplanes in the sky, but the accident picture is changing.

As a matter of record, Diamond currently claims to have a better record than the 172. I have looked at their numbers and if everything is accurate they are probably right. The Diamond fleet is, however, much smaller so the inevitable yearly changes in the number of accidents would cause big changes in accident rates.

I was most curious about whether or not the changing patterns in private aviation resulted in any change in the nature of 172 accidents. The quick answer is yes, there seem to have been basic changes. Remember, this is for two years which in a fleet as large as the 172 could represent close to 10-million flight hours.

In that old study half the fatal accidents were related to time-proven trespasses: continuing VFR into bad weather, descending below a safe altitude while IFR, and intentional low flying (but not including stall/spin) were all there. About 20-percent of the fatal accidents were stall/spin.

If there was a particular phase of flight where the 172 was vulnerable, it was the go-around. Those big flaps, 40-degrees on older models and 30 later, make a go-around a demanding maneuver, especially if it is started late.

Over ten percent of the 172 accidents involved drugs or alcohol.

One accident actually followed a shoot-out. The pilot shot two people, killing one, and then exchanged gunfire with another person as he was taxiing out in a stolen airplane. He crashed into a wooded area 20 minutes after takeoff.

What's Wrong With Cessna 172 Pilots?

When looking at the accidents that occurred 15 or 20 years later, there's a strong sense that you are looking at an entirely different pilot group.

Where darkness didn't show up much before, more recently 40-percent of the 172 fatal accidents happened at night. Almost 20-percent reflected some form of pilot incapacitation ranging from a massive heart attack to cataracts screwing up night vision to the point that the pilot couldn't function properly.

Almost 30-percent of the accidents in the later period were related to drugs or alcohol. Drug involvement is hard to pin down because the NTSB will often mention drug use but not include it in the probable cause. I guess that is because with alcohol there is a maximum level prescribed in the FARs where there is no such measure for drugs.

Airplanes certified over 60 years ago are still flying safely – the FAA deserves some credit for that.

Suicide or possible suicide was indicated in 25-percent of the fatal accidents.

Stall/spin showed up exactly the same as before at 20 -percent.

There was no gun play in the latest tally.

Two of the accidents are interesting to me because of the particular human factors involved. Neither involved anything peculiar to the 172.

The pilot of a 172 was maneuvering around adverse weather in mountainous terrain when he lost control of the airplane. The pilot survived the crash and it was obvious that he had accessed on-board survival gear. He died of hypothermia before he was found two days later. The airplane had an STC-approved shoulder harness retrofit that failed on impact. That could have contributed to his injuries and made survival more difficult.

Another pilot was returning a just-bought 172 to his home base when he flew into the ground. It was night and the active airline pilot had been doing a lot of flying, including several trans-Atlantic flights, in recent days. The NTSB concluded that he simply went to sleep.

What's Wrong With Cessna 172 Pilots?

There's always a question about the relationship of airplane age to accidents. I don't think this proves anything but almost 40-percent of the recent 172 fatal accidents were in 172R and 172S models, built under a new Part 23 certification since Cessna resumed 172 production in 1996. The only other single models that stand out are 172M and N models. Those were built in relatively large numbers so that is logical.

Cessna once acquired what was thought to be the highest-time 172 in the fleet. This was some time ago and, as I remember, the airplane had about 15,000 hours on it, almost all in low-altitude patrol flying. They subjected the airframe to every available test and the only parts of the airframe that showed any appreciable wear were the front seat tracks. Those were replaced, the airplane was put back together, and it went back on patrol. It might still be flying, perhaps still none the worse for wear.

There is no way to calculate the hours flown by individual models of the 172 but it is a cinch that the newer ones fly more. I doubt that there would be a lot of difference in accident rates among the various models if the numbers were available to calculate those rates.The 172 is thought of as a training airplane as much as it is a personal airplane but almost none of the fatal accidents and not a whole lot of the non-fatal accidents occur during instructional flying.

In the old two year period studied, there was one fatal 172 accident in instructional flying. In the later period there were two but one of those was a midair collision, one of two in a 172 in that period. The midair occurred in a training area. That is a risk that is not related to the type airplane flown. I know, some disciples of low-wing airplanes are locked and loaded to say that midairs are more related to high wing airplanes but I have never seen any factual basis for that claim.

The 172 record in non-fatal accidents is better than the record for the private aviation fleet but this has to be taken with a lot of grains of salt. An airplane has to be substantially damaged, or someone has to be hurt more than just a little, for an event to the classified as an accident. Just by their nature, simple airplanes are less likely to be involved in what is classified as an accident. And if there is an accident, it is likely less serious in the simple airplane.

The 172 is probably available to more pilots than any other type and that is likely the reason that the personal problems of pilots have come to figure into more accidents in this airplane.

Even though the 172 is about as simple as airplanes get, it demands a thorough check out that leads to a good understanding of the airplane. The basic good nature of the airplane has a lot to do with its safety record but it making nice might disappear if it is abused.

One of the 172 fatal accidents in the later time period involved a new private pilot, 19 years old, and a student at one of the finest college aviation programs. The pilot had just been accepted for admission to the U. S. Naval Academy at Annapolis.

What's Wrong With Cessna 172 Pilots?

He had flown the Cirrus SR-20 exclusively in training. No reason was given for him flying the 172. There were three passengers but the NTSB calculated that the airplane a few pounds below its maximum takeoff weight.
They were not able to substantiate any previous 172 flying and there was no apparent record of a check out. There was, however, some suggestion that he had flown a 172 in the past.

The takeoff was from an intersection at a controlled airport with over 5,000 feet of runway remaining. The airplane got off the ground and climbed to about 100 feet. The pilot reported that he was a little over-weight and needed to return and land. Witnesses stated that the airplane was wallowing and that the flaps were extended. The airplane crashed and burned just past the departure end of the runway.

The airplane was a 1976 172M with flaps that extended to 40-degrees. (The flaps were limited to 30-degrees travel effective with the 172P, in 1981.) The NTSB determined that the flaps were indeed down 40 -degrees when the airplane crashed.

Those big flaps can sometimes be a weakness.

The Cirrus he had been flying called for 50-percent flaps for takeoff and there was a pre-select switch for the flaps. The 172 had a spring loaded flaps switch and a gauge to show flaps deflection. Flaps are not normally used for takeoffs in a 172.

Whatever caused him to do so was not determined but he did attempt the takeoff in a fully-loaded 172 with full flaps. Anyone who has flown one of the airplanes will tell you that is a bad idea. Apparently the pilot never realized his mis-take. The moral to that story might be that the simplest air-plane can have complicated moments if flown by a pilot who is unfamiliar with it.

I had a long history with the 172 and always found it to be a trustworthy airplane.
I taught people how to fly in the 172 and I only had one reservation about the airplane when flown by a new pilot. The 172s I used the most had the 40-degree flaps deflection and I thought that was too much.

When I taught Hugh Downs to fly on the TODAY show in 1963, the 172 we used had an advantage when it came to the flaps. That airplane still had the big lever between the front seats and it was easy to be aware of how far the lever should be pulled for a reduced flaps setting. The flaps could also be retracted almost instantaneously.

I thought the airplane was more pleasant to land with the flaps set to 20-degrees. That meant it was also easier to teach people to land with this setting. That did not mean I didn't have to teach students how to use 40-degrees flaps including go-arounds. That was the rub.

What's Wrong With Cessna 172 Pilots?

The pilot who crashed after attempting a departure with full flaps learned the hard way that the airplane won't really climb with the flaps down 40-degrees. It might surprise you that the certification rules allowed this but they did and still do. The balked landing climb requirement with landing flaps is waived if the flaps can be retracted in two seconds. There's no question that this was the case with the lever–operated flaps.

I never timed the time required to retract the electric flaps but the balked landing procedure in the POH for these airplanes calls for retracting the flaps to 20-degrees *immediately* and then to 10-degrees ASAP and then to up after all obstacles are cleared. That tells you what you need to know about climb performance as related to the flaps. Apparently the electric flaps will retract to 20-degrees in two seconds and at that setting the airplane will meet the required 3.3 degree climb gradient for a balked landing. That is not exactly a spirited climb.

Maybe that is a wart on the 172 and in my mind it is the only one. Most airplanes have a much longer list of peculiarities that you want to be sure to cover in training. I owned a 172 that was decked out for serious IFR flying. I bought the airplane with no avionics and put in a complete King Silver Crown package, including an HSI and area navigation. I flew that airplane for about two years and 1,000 hours and was pretty fond of it. It would, in fact, do everything that a TBM 930 will do except fly high and fast and far.

Flying instruments in a simple airplane is more about the instruments and IFR procedures than it is about the airplane and it was actually fun to fly around probing and learning about the weather without any distraction related to flying and operating the airplane. Life is indeed simpler when you are flying a simple airplane. I did this without an autopilot, too.

Someone asked me once which model of the 172 is my favorite. They thought it would be the 172M because that was the model I bought and fixed up with all those avionics. Not so, my favorite would be the 1967 172H, the last one built with the 0-300 Continental engine of 145 horsepower. For some reason Cessna paid extra attention to making it a nice airplane and the interior quality seemed much better than usual for the airplane. I had one to use for a number of months, on flight training projects we were doing at *AIR FACTS*, and I got so attached to it that I contemplated a purchase.

I have owned both Continental and Lycoming engines, too, and feel they are equally reliable if not equally smooth. The Continental produced horsepower where it always felt to me like the Lycoming was banging out horsepower. I thought that 0-300 was one of the nicest engines ever.

When it comes to risk management and safety, the 172 appears to work well for pilots of pretty diverse skill levels. What it won't do is help a pilot who does not want to be helped. No airplane will do that.

To read more of Richard Collins's analysis of aircraft safety records, read his articles on Mooney pilots, Cirrus pilots and V-tail Bonanza pilots.

EAA and Local Chapter Sites

EAA 485 EAA 1265

EAA HDQTRS EAA 108

Interesting Links

Blue Angel 360 Way cool

Making the First Airbus 220 Time Lapse

Jetman Unleashed in Dubai

Boeing 737 Time Lapse Build

F-18 Low Level

High Speed Carrier Maneuvering

Miscellaneous

1800wxbrief.com

FAA Notams

Barnstormers

Skyvector.com Flight Planning, Charts

AirNav.com Airport info, Fuel Prices

2025 Officers and Committee Chairmen

President: Ralph Moser (847) 736-4603

Vice President: Mark Rogers

Tech Counselor (251) 228-0356

Flight Advisor:

Secretary: Jacob Abston (251)424-5004

Treasurer/Membership: Scott Swanson (309)267-9710 711 Marlinspike Dr. Pensacola, FL 32507

Ray Scholarship Coordinator: Craig Spoke (251) 550-5795

Young Eagles Coordinator: Eric Goldman (317) 910-2513

Webmaster: Doug Francisco (850) 453-5501

Normally meetings will be held at Roscoe Field Airport **(82J) (Uni 122.8) on the Second Saturday of each month at 10:00 AM unless otherwise posted. If flying in, check NAS Pensacola (KNPA) NOTAMS for possible TFRs and the Roscoe Field Airport website under the Arrivals tab for important arrival and departure information.**

Driving: From Hwy 98 go past the main airport entrance and take the next left. Go thru the gate and make a left on the gravel road. Make a right past the T hangars you'll see our building down on the left side. Anyone interested in sharing general aviation, aircraft building, maintaining and restoring is welcome.
For more info contact:

Ralph Moser (847) 736-4603

Home Of The
PANHANDLE PELICANS
EAA 485 Pensacola, FL

Get Your Chapter Ballcap!!!

It's 2025! If you don't have a EAA 485 ballcap by now do you even love your chapter? We have ballcaps with the chapter logo for sale for ONLY $20. That's right—only twenty dollars to look amazing *and* rep our awesome chapter.

Upcoming Events

(CHAPTER EVENTS IN CAPS):

February 8: 0830-0930 VMC/IMC MEETING at clubhouse, then 1000-1030 CHAPTER MEETING at Museum of Naval Aviation Little Theater, then 1045 Flight Academy Tour, then Noon Lunch Westpac Room Cubi Restaurant

March 8, MONTHLY CHAPTER MEETINGS + PNS TRACON Tour (tentative)

April 1-7, Sun'n Fun, Lakeland, FL (LAL) https://flysnf.org/

April 12, MONTHLY CHAPTER MEETINGS + Paradigm Parachutes Tour (tentative)

April 19th, SPRING YOUNG EAGLES RALLY (Tentative)

July 12-13, Pensacola Beach Air Show

July 21-27th, Air Venture Oshkosh https://www.eaa.org/airventure

September 10-14th, National Championship Air Races (KROW). https://airrace.org

Chapter Meetings:

Saturday, February 8th, 2025

08:30-09:30, VMC/IMC Club Meeting.

10:00-11:00, General Membership Meeting:

- **Pledge**
- **Guests**
- **Officers Reports: President, Vice-President, Secretary, Treasurer/ Membership**
- **Ray Scholarship – Craig Spoke**
- **Young Eagles – Eric Goldman**
- **Member Build Projects Update**
- **Adjourn & Proceed to National Flight Academy**

11:00 - Tour of National Flight Academy (Stephanie Pugh, Client Relations Director)

Following tour, members' choice to eat lunch at Cubi Restaurant (open seating) and/or tour museum.

CHAPTER DUES: For those who haven't gotten around to paying dues yet—it's $25 per year as usual and can be paid during the meetings or mailed to Scott Swanson.

Scott Swanson
711 Marlinspike Dr.
Pensacola, FL 32507