



EAA Chapter 100 February 2022 Newsletter

<http://eaa100.org>

2022 Chapter Leaders

President
Dwayne Hora
President@eaa100.org

Vice President
Ken Chase
VP@eaa100.org

Secretary
Jeff Hanson
Secretary@eaa100.org

Treasurer
Chris Budahn
Treasurer@eaa100.org

Web Editor / Newsletter
Art Howard
Webmaster@eaa100.org

IMC Club Director
Open
IMCClub@eaa100.org

Program Director
Art Howard
ProgramDirector@eaa100.org

Technical Counselor
Wayne Trom
TechCounselor@eaa100.org
507-374-6245

Flight Advisor
Dave Nelson
FlightAdvisor@eaa100.org

Young Eagles Chairperson
Open
YoungEagles@eaa100.org

Tool Coordinator / Hangar
Gordy Westphal
ToolCoordinator@eaa100.org
Hangar@eaa100.org

EAA Chapter 100 is a nonprofit association involved in the promotion of aviation through adult and youth education, hands-on training, building and maintenance of experimental aircraft, and through community awareness programs.

This publication by EAA Chapter 100, Inc. is for the use, education and occasional enjoyment of its members and others. No claim is made for the accuracy or applicability of information herein. Editorial content is the opinion of the contributor not necessarily the position of either EAA Chapter 100 or the Experimental Aircraft Association.

Reader submissions and comments are strongly encouraged.

February Meeting

– Dwayne Hora

Our next meeting is 7 pm, Friday evening, February 11, at the Dodge Center Airport Admin Building.

Reminder that we need to conduct a Board of Directors meeting scheduled for February 8 at 7 pm.. We should plan on meeting at KTOB since restaurants are still dealing with COVID protocols.

- 2-8-2022 BoD meeting Agenda to at least include Pancake Breakfast and Young Eagles planning.
- 2-11-2022 regular meeting Agenda,
 - ◆ Pledge of Allegiance
 - ◆ Welcome Visitors
 - ◆ Reports | As available
 - * Secretary's Report
 - * Treasurer's Report
 - * Comittee Reports
 - * Hangar
 - * Breakfast
 - ◆ Flight Advisor/Tech Counselor
 - ◆ Old Business
 - * Young Eagles
 - * Hangar Repair
 - * Other
 - ◆ New Business
 - * EAA Ford Tri-Motor Tour Stop - July 14-17
 - * Filing Tax Form 990 for EAA Chapter 100
 - ◆ Project /Flying Reports
 - ◆ Adjourn

Thank you,
Dwayne Hora
EAA Chapter 100
President

A Note from the Treasurer

-- Chris Budahn

Hello EAA 100,

A few notes from the treasurer. I'd like to thank those of you who have sent in your membership dues for 2022. We are attempting to consolidate our records into one online tool to help everyone stay connected. If you speak with anyone from the club please pass along my information so we can get all of our contacts up to date. We still have a lot of members that were listed on previous rosters who have not submitted dues.

EAA100 has always had a strong membership and we'd like to continue that trend. After the April news letter we will be using the new online roster tool to disseminate the chapter news letter, so anyone who has not updated their contact information or sent in chapter dues will no longer receive correspondence from the chapter.

Some of you who have sent me checks in the last month may have noticed those checks have not yet cleared. I apologize for the inconvenience but I had a SNAFU with the bank app that I've been using to make deposits. I believe I've resolved the issue and you should see those checks clear very soon.

As a reminder, you must maintain an EAA National membership in addition to chapter membership. When submitting the \$10 chapter dues please include your EAA member number. Our new roster tool allows us to correlate the chapter and National membership information. This is helpful for maintaining things like background checks and youth protect certifications that are required for Young Eagles programs.

You can reach me at the following for any questions, comments, or membership dues you have for me.

Thanks,

Chris Budahn
6525 County 30 BLVD
Kenyon, MN 55946

christopher@budahn.com

507-438-1130

Out in the Cold

-- AOPA

STAY SAFE AND WARM TO ENJOY WINTER WEATHER FLYING

November 1, 2018 By W. Scott Olsen

I arrive at the Fargo Jet Center just in time to see a student walking out to a Cessna 172; dressed in a heavy winter coat; hood up over his hat; thick mittens; and heavy, insulated boots. The temperature is minus 5 degrees Fahrenheit, the sky bright and clear, the wind about 15 miles per hour from the west. The wind chill, on the old scale, is 42 degrees below zero.



Illustration by Allan Davey

This is his second lesson, and the preflight is going to be brutal. Then again, there is probably no happier person on the planet. The air is thick and smooth and bright and clear; no bumpy thermals at all. The fields around Fargo are snow-covered and bright, the rivers frozen solid. Trees look like black-and-white photographs.

Winter air is different than summer air. It's thicker, denser, and in some ways more stable. January can be just as windy as July, but there's little of the convection that leads to cotton-ball clouds—and none of the flying that feels like you're driving down a deeply rutted gravel road.

Simply put, winter flying on the northern plains is fun. Every airplane feels like a sports car. Turns are tight. There's no haze, and you feel like you can see forever.

(Continued on page 4)

Secretary Comments

-- Jeff Hanson

EAA Chapter 100

Chapter 100 meetings

Here are the minutes from the January meeting:

The weather was not very good so we had a light turnout.

- 6 members were present.
- Ken Chase was confirmed as chapter vice president.
- We started the discussion about whether or not to have the pancake breakfast this year. The initial consensus was to move forward at this point. Decisions can be made at the upcoming business meeting.
- Young Eagles was also discussed. If any events are going to move forward this year, we need someone to volunteer and take charge of getting things going. We also talked about scaling things back and holding a smaller event possibly at Dodge Center instead of Rochester.
- Flying conversation followed.

Meeting adjourned around 8:30 PM.

Respectfully submitted,

Jeff Hanson

Chapter Secretary



60 years of Sport Aviation

-- Gordy Westphal

I have 60 years of Sport Aviation to give to someone or its off to the recycle center.

Please call me at:

(507) 282-9981 Home

(507) 259-8018 Cell

AOPA Foundation Flight Scholarship

-- AOPA

LAST CHANCE!

Applications Close

February 11, 2022, at 11:59 p.m., EST

Don't pass up this opportunity to win one of the [AOPA Foundation's aviation scholarships](#), from \$2,500 to \$14,000. If you're not interested, please pass this along to someone who will benefit from financial assistance in pursuing their aviation goals.

The AOPA Foundation also designated 80 merit-based flight training scholarships at \$10,000 each for high school students to earn their private pilot certificate.

Additional [scholarships](#) in various award amounts are also available in the following categories:

- Sport, recreational, and private pilot flight training
- Instrument
- CFI (Certificated Flight Instructor)
- CFII (Certificated Flight Instructor-Instrument)
- MEI (Multi-Engine-Instructor)
- Aviation maintenance technician

(Continued on page 4)

(Continued from page 3) — AOPA Foundation Flight Scholarship

The AOPA Flight Training Scholarship Program is made possible thanks to donations to the [AOPA Foundation](#).

[Donate today](#) to help build a stronger, safer aviation community.

Editor: The URL is: https://www.aopa.org/training-and-safety/students/flight-training-scholarships?utm_source=memberemail5&utm_medium=email&utm_campaign=2022+scholarship+program&utm_term=AOPA+Foundations+aviation+scholarships+text+link

Please check the AOPA website for additional details. If you know of anyone that is interested in flight training, please pass along this information.

(Continued from page 2) - Out in the Cold

Winter, though, requires its own awareness. A great many things about flying are the same year-round. But a great many things about flying in winter are unique.

“There are a bunch of things we do differently in winter,” says Steve Schlangen, assistant chief flight instructor at the Fargo Jet Center. “And one of the first is talk about how the students are dressed.”

I vaguely remember advice about not wearing flip-flops, but I don’t recall anyone ever talking about appropriate pilot-wear.

“Think about it,” Schlangen says. “Right now it’s just below zero. The wind chill is whatever it is, but it’s very cold. Now imagine you need to put down in a field for some reason. You have to wait half an hour for the sheriff to arrive. Or worse, you have to exit the airplane because of some post-landing fire or such. So you’re standing in the field, exposed until someone arrives. Yes, how you’re dressed matters.

“I had a student show up in ankle socks and a light windbreaker once,” he says. “I threatened to make him stand outside on the windward side of the building for half an hour. I didn’t do that, but he got the point.”

Mike Paulson, flight school manager and chief flight instructor, agrees. “And it’s not just the college kids,” he says. “Businesspeople come out in winter in dress

pants and thin shoes. They’re not going to be well-protected either.”

Paulson points to a bright orange snowmobile suit hanging on the back of his office door. Remembering winter flights in a Cessna 150 and 152, I am suddenly jealous.

Fred Remer, professor of atmospheric science at the University of North Dakota, has a story about winter clothing.

“In 1991,” he says, “I was part of a group of five or six airplanes that flew from Grand Forks up to Churchill, Manitoba, to see the polar bears. Airplane just jumped off the runway. Really just a joy to fly those days. Sky was crisp blue.

“I had a [Piper] Comanche 250 back then. Single engine. Of course we had brought survival [equipment], and it was so cold in the backseat my wife jumped into the sleeping bag. Heater didn’t reach back that far.”

Remer and I are sharing winter stories. He’s just sent me an email, a picture of his computer monitor—numbers on a screen, taken with his cellphone. The numbers show a density altitude of 4,700 feet below sea level. I can’t help but wonder what this would mean when I’m rolling down the runway, about to pull back on the yoke.

There are a thousand lessons about winter flying you learn only by experience. They are not in the pilot’s operating handbook (POH). They are not part of the training curriculum. For example, when you’re sitting on the taxiway, slightly turned to the side, pushing the throttle in for a run-up, you might learn that if you’re sitting on ice, it does not matter how hard you push on the brakes. And you might feel that wonderful cardiovascular awareness for a moment, too. Trust me.

I remember a winter flight years ago, renting a Cessna 172; the afternoon was profoundly cold. The guys at the Fargo Jet Center were kind to me—the airplane was still in the hangar when I arrived, all warm and cozy. I did the preflight in shirtsleeves (my heavy winter coat on the right seat). Then we opened the doors, pulled the airplane outside. I got in and fired it up.

(Continued on page 5)

Newsletter Editor

-- Art Howard

Minnesota and Wisconsin are seeing some cold temperatures lately. At least that is what I am seeing in the forecast and on the temperature gauge at our house in Lake City, Minnesota. Breaking in the new engine has come to a stop for a couple of months. We left Minnesota on Friday, January 7 driving south. We stopped for a couple of days to visit my daughter and her family in Cleveland, Tennessee. We even had time to go skiing in North Carolina for one day. Then it was on to Florida and New Smyrna Beach for about a week.

We finally arrived in Indiantown Marina on Sunday, January 24. We found our sailboat to be covered in green stuff and lots of dirt. It has been stored on the hard for two years because of COVID. We decided this year to put it back in the water. We have been cleaning for several days now and still more dirt to remove. We hope to get out for a few weeks in Florida. The lock to the east of us, St Lucie Lock, is closed for repairs until March 31, so we will not get to the Bahamas this year. We will be taking the Okeechobee Waterway west from the Indiantown Marina.

Now you may be wondering why I am on a sailboat. Some of you may know that we spent almost 10 years cruising in the Caribbean and up the East Coast of the USA to the Chesapeake Bay. I did very little flying those years!

Sailing is easy to understand if you have been a pilot. I have a Ketch, which is a two masted sailboat. That means there are three sails. There is a jib, main and mizzen sail. If you look at a sail when the boat is sailing upwind, the curve of the sail is almost like an airplane wing. Instead of being horizontal as the wing is on an airplane, the sail is vertical on a sailboat. Navigation and weather skills are needed both for airplanes and off shore sailing. The chart symbols are different. Flying is three dimensional while sailing is two dimensions. If you are on a submarine, then being in the water is three dimensions! Time distance problems are similar except much faster in an airplane. Navigation is modern now with GPS but both airplanes and sailboat still

have a compass.

So how do I stay up to speed with flying while I am spending time on a sailboat. I use X-plane with a gaming laptop computer. I use a joystick with throttle controls and my iPad with Foreflight. I can do cross country flights and fly instrument approaches. Thus, I keep my head in the knowledge needed for flying.

So when not making a passage and sitting at a marina or at anchor, I can get my flying fix by flying X-plane. The 172 in X-plane makes a nice aircraft fly, both VFR and IFR. No, I cannot log any of these flights in my Pilots log, but I certainly can keep my head in the flying game.

So what about all the cold weather in Minnesota and Wisconsin? We are enjoying the warmer climate of Florida this year. We have not scrapped any ice off the windshield or shoveled any snow!

I am typing this newsletter from our sailboat, Samana, with the air-conditioning running! We are at dock at the Indiantown Marina, Indiantown, Florida.

See you in the spring!

(Continued from page 4) - Out in the Cold

Everything looked wonderful. All I had to do was wait for the oil temperature to come up. So I waited. And waited. And waited. This was an old-school panel with round gauges. The oil-temperature needle moved, but it did not center in the green. I waited so long I finally got out my phone and called Mike Paulson. "If the needle's come up a bit, you're good," he told me. "The oil temperature will come up the rest of the way once you start flying."

Winter flying demands an understanding of temperature and metal. Pilots know the rule that if oil does not drip from the dipstick during preflight, the engine is too cold to start. It will likely turn over easily enough, but you'll do damage to the cylinders on the way. At the jet center, the 172s have red thermal coverings over the cowlings when they are parked outside, and Tanis heaters plugged in to warm the engines. Yet neither of these

(Continued on page 6)

Items for Sale

Editor: Please send me a description and photo, if you have one, and I will place your for sale item here.

(Continued from page 5) — Tips for safe winter flying

is foolproof.

“There can be a gap in the cover,” Schlangen says. “And the heater may have come unplugged.” Schlangen teaches his students to place their hands on the engine during preflight. If it does not feel warm, it’s not.

“Have you ever heard of shock cooling?” he asks me. I confess I have not. “You know what happens when you put hot metal in water, or a skillet directly into the sink. There’s all that noise and steam and the metal contracts rapidly.”

I nod. This much I know.

“Now, imagine you’re at the point in lessons when you want to teach power-out gliding. What do you think will happen if you suddenly pull the throttle out? The cylinder-head temperatures are somewhere between 300 and 400 degrees and the air is 15 degrees below zero. Suddenly, there’s no heat at all going into that engine. The first two cylinders are getting all that cold air. That’s a really good way to hurt your engine.”

“What do you do?” I ask.

“Wait for a day that’s not so cold.”

Schlangen and I start wondering about performance charts. Stall speeds do not change with temperature; landing and takeoff speeds do not change—but just about everything else does.

The standard performance tables in the Cessna 172 POH only go 20 degrees below standard temperature. Standard temperature is 15 degrees Celsius, or 59 degrees F. Minus 5 C is only 23 degrees F. This isn’t even close to winter flying on the northern prairie. While the jet center does not generally allow lessons or rentals when the air temperature is lower than 10 or 15 degrees below zero, it has reached 40 below.

EAA Young Eagles

Pilot Requirements

-- EAA

Editor: This is from the EAA Young Eagles **Pilot Guidelines** brochure: **Pilot Requirements**

The Young Eagles pilot requirements are basic, but **MUST** be followed.

- ◆ Be a current EAA® member and hold an appropriate airman’s certificate (sport pilot or greater)
- ◆ Possess a current medical certificate (if applicable)
- ◆ Be current to carry passengers in the aircraft you plan to use
- ◆ Have a current flight review
- ◆ Complete the Young Eagles registration form before the flight, including parent or legal guardian signature, and pilot signature
- ◆ Conduct flights in an aircraft that is in airworthy condition
- ◆ Have aircraft passenger liability insurance for the aircraft used (owned, rented, or borrowed)
- ◆ Adhere to all applicable Federal Air Rules (FARs)
- ◆ Complete both the online training and basic background check as a part of EAA’s Youth Protection Policy. For more information, visit EAA.org/YouthProtection.

Editor: Make sure you are current to fly Young Eagles at the EAA Chapter 100 Young Eagles events. Hopefully, this event will occur this year.

For grins, we plug minus 40 and an altitude of 1,000 feet (Hector International Airport is actually 900) into an E6B flight computer. We use the current pressure: 29.79 inches mercury. Density altitude: minus 5,967 feet.

(To be continued in the March Newsletter)

Editor: There is more to this article and a very interesting read. Please to go URL: <https://www.aopa.org/news-and-media/all-news/2018/november/flight-training-magazine/out-in-the-cold>
