



EAA Chapter 100 November 2023 Newsletter

<http://eaa100.org>

2023 Chapter Leaders

- President
Dwayne Hora
President@eaa100.org
- Vice President
Ken Chase
VP@eaa100.org
- Secretary
Jeff Hanson
Secretary@eaa100.org
- Treasurer
Chris Budahn
Treasure@eaa100.org
- Web Editor / Newsletter
Art Howard
Webmaster@eaa100.org
- IMC Club Director
Art Howard
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
Dan Crandell
Brad Anderson
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.

November Meeting

– Dwayne Hora

November 10th EAA Chapter 100 meeting agenda:

We will need to elect chapter officers. After which Lee Hilgendorf, a volunteer with the History Center of Olmsted, will present a history of the Rochester MN airports prior to the current airport.

- Pledge of Allegiance
- Welcome Visitors
- Reports | As available
- Secretary's Report
- Treasurer's Report
- Committee Reports
- Hangar
- Flight Advisor/ Tech Counselor
- Old Business
- New Business
- Election of 2024 chapter officers
 - ◇ President: Dwayne Hora
 - ◇ Vice President: Ken Chase
 - ◇ Treasure: Chris Budahn
 - ◇ Secretary: Jeff Hanson
- History of Rochester MN Airports - Lee Hilgendorf
- Adjourn

The next Chapter 100 meeting is at 7:00 pm on Friday evening, November 10, 2023.

The meeting location is in Dwayne Hora's shop at 58341 280th Ave, Mantorville.

Thank you,

Dwayne Hora
EAA Chapter 100
President



A Note from the Treasurer

-- Chris Budahn

Hello EAA 100,

Nothing to report this month.

Happy Flying,

Chris

Medical Factors in Aviation Mishaps

-- FAA Safety Briefing

Fortunately, medical issues are not the cause of most aviation accidents. Nonetheless, even one is a tragedy. In this article, I will review some of the more common medical issues that have either caused or contributed to a fatal aviation accident.

You might be surprised to know that, by law, an autopsy is performed on occupants of all fatal civil aviation accidents, including passengers. This is usually accomplished by the local coroner's office with assistance from the National Transportation Safety Board (NTSB) and Civil Aviation Medical Institute (CAMI). The latter is

part of the FAA's Office of Aerospace Medicine (OAM) and performs the toxicological evaluation of the remains, when feasible. You might wonder, though, why autopsies are required and what has been found.

Several years ago, the OAM sponsored a study looking at fatal mishaps to evaluate for contributory medical issues (see the technical report at bit.ly/AM-18-8). The author reviewed data from both the NTSB and FAA for a 36 month period beginning in April 2013. In the report, he laid out the three primary reasons for a post-mortem evaluation: 1) to help determine the probable cause of the accident; 2) to help reconstruct the accident; and 3) for injury analysis in order to better protect aircraft occupants in future accidents.

The author then looked at the records of 601 pilots involved in a fatal accident between April 2013 and March 2016. Over 40% had incidental medical findings (IMFs), which are medical conditions not previously known by the FAA, but discovered on autopsy. The NTSB determined that for this group of pilots, the most common medical issues, that were either causal or contributory, were use of a sedating medication, followed by alcohol or illicit drug use, cardiovascular disease, neuropsychiatric problems, and strokes.

A separate study showed that of the impairing over-the-counter medications, diphenhydramine remains the most frequent culprit, found in almost 6% of the pilots who were involved in a fatal accident and for whom toxicology was available. Yet another study found that 15% of pilots in fatal accidents had controlled drugs and over 25% had potentially impairing drugs in their system; often these are taken for a medical condition that is itself impairing.

So what does this mean to you? First, the good news: the general aviation accident rate has steadily decreased over the past decade and the trend remains favorable. However, as a group, we pilots continue to make the same mistakes that lead to accidents. There is simply no good reason to fly after taking a sedating medication, alcohol, or an illicit drug. The attendant cognitive impairment will affect the planning process,

(Continued on page 3)



Secretary Comments

-- Jeff Hanson

(Continued from page 2) - Medical Factors in Aviation Mishaps

Here are the minutes from the October meeting:

- 19 members present.
- 3 guests present.
- Chapter officer nominations: It appears that all existing officers will retain their current positions unless other interested individuals step up to help out. If you are interested in serving in any chapter officer position, please let one of us know.
- Hangar discussion: Gordy and Stan replaced the hangar fire extinguishers as the old ones expired. There are currently two 10 pound and one 5 pound extinguishers in the hangar.
- Young Eagles recap: we had 11 airplanes and were able to fly 128 kids. Thanks again to Dan and Lori for the coordination along with all of the other volunteers who made the event a success.
- Pedal Plane follow up: Gordy reported that the Dodge Center fire department is going to take the completed one to be used for fundraising.

Jake and Dave gave a tour of their hangar along with some very interesting canard and fiberglass aircraft discussion. Thank you for hosting the meeting.

Respectfully submitted,

Jeff Hanson

Chapter Secretary

go/no-go decision, and en route decisions. The ability to successfully handle an emergency is compromised. These problems are rare in airline and military pilots; both groups have strong safety cultures; we general aviation pilots should strive to emulate this.

What about cardiac disease, which is the most common cause of death in the adult population? With the right lifestyle changes and the proper medical management of risk factors, you can reduce the likelihood of medical incapacitation and extend the years that you are able to enjoy piloting an aircraft. These steps also make it easier to maintain medical certification and is safer for all whether flying under a medical certificate, BasicMed, sport pilot, glider, or ultralight.

Dr. Susan Northrup received a bachelor's degree in chemistry, a medical degree from The Ohio State University, and a master's degree in public health from the University of Texas. She is double board-certified by the American Board of Preventive Medicine in Aerospace Medicine and Occupational Medicine. She is a retired U.S. Air Force colonel and a former regional medical director for Delta Air Lines. She is also an active private pilot.

Editor: This article is from FAA Safety BRIEFING dated November/December 2022. The URL is: https://www.faa.gov/sites/faa.gov/files/NovDec2022_1.pdf



Don't Try This ~~at Home~~ on the Runway

-- FAA Safety Briefing

COMMON TAKE OFF AND DEPARTURE ERRORS

We've all seen the quote: "Aviation in itself is not inherently dangerous. But to an even greater degree than the sea, it is terribly unforgiving of any carelessness, incapacity or neglect." Captain A.G. Lamplugh said that in the early days of aviation, and despite our massive technological advancement in the near century since, it still holds true. Aviation has become safer, but that unforgiving nature is still a constant threat.

Takeoffs and departures tend to be an underappreciated area of risk. We focus a lot of energy on taxiing (because of the potential of runway incursions) and approach/landing because those are the most common types of accidents. But takeoff accidents are the second most common, with 115 reported in 2019, according to the latest Joseph T. Nall report.

Takeoff carries with it some unique safety risks and opportunities. Once we have decided that a takeoff is in order, the errors we experience tend to fall broadly into three categories: planning/decision-making, management/ attention, and technique errors.

Planning to Fail

The most obvious planning and decision error is not properly calculating, or not calculating at all, the takeoff performance data. This is particularly surprising given the proliferation of easy-to-use apps and programs that can provide a detailed performance calculation with just a few simple clicks or taps. If you prefer crunching the numbers by hand, by all means, do so. But there's no excuse for skipping performance calculations. It seems simple: regularly computing your takeoff data can help you avoid missing a critical factor that might make your no-problem departure into a nail-biter or worse.

These factors might include items like density altitude or unfavorable winds, just to name a couple. It's not uncommon to hear pilots talk about choosing to take off with a tailwind simply because they don't want to taxi to

the other end of the airport so as to save time (and money). Some assume that since a headwind will slightly reduce your takeoff run, a tailwind would only have a slight increase in takeoff distance. But a tailwind takeoff is much worse. In the case of a Cessna 172, it's actually four and a half times worse. While takeoff distances are decreased by 10% for every nine knots of headwind, they are increased by 10% for every two knots of tailwind. So even a few knots of tailwind make for a significant reduction in performance and a much longer takeoff. But if you don't calculate it, you won't know that.

Scanner Error

Errors also arise from aircraft management and attention. During takeoff, our focus should be mainly outside the cockpit, but don't exclude cockpit instruments entirely. We should be making sure all the information is in alignment. Does what you're seeing and hearing outside match what your instruments are saying? Specifically, does your airspeed indicator match what you see through the windshield? Does your engine sound, feel, smell, and look to be operating normally according to your instruments and other info? If you see something a bit off, you can either abort or alter your post-lift-off itinerary depending on the TAKE OFF November/December 2022 17 anomaly. Managing the aircraft and your attention to it is a balancing act, so working up a good scan for takeoff is worth the practice. That's because you also need to ensure that your runway environment is clear and stays that way

Do Try This at Home?

Experience can be a harsh teacher. But when dealing with technique, it can be hard to learn without actually doing. It's one thing to know, academically, that when I push the throttle forward for departure, I'm going to have a left turning force that I have to counter with right rudder. It's another thing to know exactly how much right rudder correction to apply in real life.

To do some learning from experience without risking bending metal or breaking bones, I fired up a PC simulator and made a bunch of mistakes. I mean, I made a

(Continued on page 5)

Newsletter Editor

-- Art Howard

Another summer season has come to an end. Most of us got a year older. Please use extra planning if going on a late fall or winter flight. Snow showers and icing can surprise even the most experienced pilot. Do a very thorough weather briefing.

I need more articles from the membership. Please send your articles and pictures to alhowar@attglobal.net.

(Continued from page 4) - Don't Try This at Home on the Runway

ton of errors. I even made a list to ensure I covered most of the common takeoff errors. The biggest takeoff error for me from all of these screw-ups was how much they tended to compound — a result that can lead to a classic snowball debacle where you're "chasing the needle" in an attempt to regain control. This was especially true of the left-turning tendency. Rudder errors often led to swerving back and forth across the runway. It was even worse with a sharp throttle movement that felt at times like it verged on unrecoverable even on a wide airline-sized runway. Seeing how much smooth throttle and rudder application helped with taming this issue was a great use of simulation.

Pitch and speed errors didn't feel as immediately sketchy as rudder errors, but they have a special place in my memory as it was an area I struggled with early in my training. I had a bit of experience in one type of airplane before my formal training started, so my first instructor told me to "just pull back a little and let the plane fly off." I did precisely that, at least in my estimation. My prior experience gave me an incorrect impression of what just a little pullback on the elevator meant in our training aircraft. Not using a proper attitude for takeoff makes for a longer, and possibly unstable ground roll. Of course, the opposite is true as well. Overcontrolling the elevator, especially shortly after liftoff, can create another "chase the needle situation," this time in the vertical plane and with the risk of a stall.

Then there are wind correction errors. We've already touched on tailwinds, best handled by planning. But crosswinds are generally a fact of life. You can plan to minimize them, but you must correct for them while on the takeoff run and initial climb. Even if you don't have too much trouble getting off the ground, you will find yourself getting blown into areas your fellow pilots and ATC don't expect you to occupy. This, in turn, can cause conflicts with other aircraft or potential obstacles that wouldn't be a problem if you were on course. It could happen at my old training airport, where they could run two GA patterns that required airplanes on the smaller runway, which was the one we preferred, to turn crosswind as soon as possible to give them more margin. If you were getting shoved north by the wind, it would be possible to create a potential conflict.

That's why training in a "safe" environment is a great way to build experience while limiting or eliminating risk. Whether it's through simulation or real-world flying with a good instructor, putting in the practice is essential. Doing a few practice performance calculations in your downtime is a great way to build proficiency with whatever tool you use and gives you a chance to practice your go/no-go decision-making and risk mitigations. That practice will make the calculations on an actual flight quicker and easier. If you have access to some kind of simulator, they are a great way to practice skills to the point of failure and in whatever condition you want. This lets you practice in "hard mode" so that, hopefully, real life is easy.

The biggest thing is to avoid letting problems snowball. Practicing shows you how these errors can blend into each other and worsen a bad situation. Learning how to intervene early and with the correct amount of force can help to stop that snowball before it becomes an avalanche.

James Williams is FAA Safety Briefing's associate editor and photo editor. He is also a pilot and ground instructor.

Editor: This article is from FAA Safety BRIEFING dated November/December 2022. The URL is: https://www.faa.gov/sites/faa.gov/files/NovDec2022_1.pdf

Fly-in Event Websites

The following are websites to use to look for fly-in activities:

<https://www.dot.state.mn.us/aero/events/flyins-and-events.html>

<https://wisconsindot.gov/Pages/doing-bus/aeronautics/trng-evnts/flyins.aspx>

<http://www.moonlightflight.com/>

<https://www.socialflight.com/search.php>

If you know of any others, please send the link to me at:

alhowar@attglobal.net



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.

