



# EAA Chapter 100 January 2020 Newsletter

<http://eaa100.org>

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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.

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Reader submissions and comments are strongly encouraged.

## President Reflection

-- Jim Owens

Happy Year, aviation enthusiasts!! Our 2020 calendar has a number of traditional events- Young Eagles rally's May 16th and September 19th, Father's Day pancake breakfast, fall member picnic. I am particular excited about two things: The launch of a new program in place of the IMC club schedule called "Flight Following: An exercise in Aeronautical Decision Making" with the first meeting January 8th at 7pm. I have been reviewing the VFR scenarios from Pilot Workshop and I am happy to say that the six I have reviewed so far should provide some great conversation. Each month we will use a scenario to exercise our aviation passion and thought process. The second is AirVenture. The Canadian Snowbirds are scheduled in celebration of their 50th year. The current plan is for the entire snowbird team to camp in vintage with one of their Tutor's. That should be interesting!

I'm encouraged by our recent youth participation!! High school senior and Young Eagle rally participant, Brad Suhr joined the chapter last fall. Next fall he plans to attend the aviation program at RCTC. Wayne Trom's grandson, Joe Hadler also joined the chapter. He is currently in high school and is the inspiration Wayne was looking for to complete his Cessna 150 restoration. Wayne hopes to have it flying by this spring so Joe can use it for flight training!!! It is wonderful and vital that we have young people join the chapter, there is room for many more!!

We are hopeful that we are able to host the EAA B-17 on the July 4th weekend. We are working with Rochester airport to authorize our request.

The chapter voted to authorize the purchase of a laptop and printer for the Young Eagles rally. If you are willing to investigate an appropriate system, please volunteer.

I am hopeful for a mild winter so I can enjoy more flight time in my Sonex. Last January I had only 6 flights for the month. I am inching in on 200 hours in the Sonex since October 2018.

Thanks,

Jim

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## Secretary Comments

-- Jeff Hanson

### EAA Chapter 100

Meeting Minutes 12-13-19

1. Meeting began with the Pledge of Allegiance at 7:05 PM - 15 members present.
2. Chapter president Jim Owens opened discussion about hosting EAA's B-17 this summer, July 2nd through July 5th. Hours would be from 8 AM to 6 PM Friday, Saturday and Sunday and 6 - 8 volunteers would be required at all times. Moderate interest was shown by members present.
3. Wayne Trom was contacted by AOPA about a safety seminar in March to be hosted by the chapter - tentative date: 3-16-20. The general consensus among members present was that a later date would be better. Wayne is going to check to see if that is a possibility with AOPA.
4. Jim discussed the new aviation safety meeting that he is spearheading "Flight Following".
5. General discussion of member's recent flying / building activity followed.

Meeting adjourned at approximately 8:30 PM.

Respectfully submitted,

Jeff Hanson

Chapter Secretary

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### EAA Chapter 100 Dues for 2020

You can pay your EAA Chapter 100 dues for 2020 at the next Chapter meeting. Please bring \$10.00 to the next meeting on Friday, December 13, 2019. If you cannot make the meeting you can mail your dues to:

EAA Chapter 100  
Gordy Westphal  
2337 12 Ave NW  
Rochester, MN 55901

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## US Air Force Pilots

-- Dick Fetcher

### Height doesn't have to be deterrent for potential Air Force pilots

Although official regulations for becoming a US Air Force pilot require applicants to be between 5 feet, 4 inches and 6 feet, 5 inches tall, Maj. Gen. Craig Wills, 19th Air Force commander, says height waivers are available that enable many others to be eligible for training. According to Wills, there is more flexibility than ever in the height rules, and he says, "Don't let a number on a website stop you from pursuing a career with the best Air Force in the world."

I remember over 50 years ago being too light. I can't remember if I got a waiver or they changed the rule right after I applied.

Dick

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## Federal Aviation Administration

-- Steven Villanueva Director, Flight Service Date Air Traffic Organization

### Hazardous Inflight Weather Advisory Service (HIWAS) is going away

Hazardous Inflight Weather Advisory Service (HIWAS) is a legacy service that broadcasts hazardous weather advisories over a network of very high frequency omnidirectional radio range (VOR) outlets across the continental United States (CONUS). Originally, a specialist created these broadcasts using a script. Today, the broadcast is made by a computer-based system using text to voice technology. Airborne pilots can access these recordings over select VOR outlets. Flight Information Service-Broadcast (FIS-B) replaces the current HIWAS broadcast with both a graphical and textual display of hazardous weather information right to the cockpit at lower altitudes and over a greater geographical area. For those pilots who have not yet adopted the latest technology, an advisory alert broadcast will still be made to advise these pilots that adverse weather conditions exist and to contact Flight Service for additional information if needed.

Editor: The above was take from: [https://www.faa.gov/documentLibrary/media/Notice/N JO 7110.769 Hazardous Inflight Weather Advisory Service - HIWAS.pdf](https://www.faa.gov/documentLibrary/media/Notice/N%20JO%207110.769%20Hazardous%20Inflight%20Weather%20Advisory%20Service%20-%20HIWAS.pdf)

# Welcome to the Information Age

## General Aviation Enters the Next Era

--by James Williams, FAA Safety Briefing Associate Editor

In history, the three-age system is a way to classify historical periods into groups of three, each building on the others. The Stone, Bronze, and Iron Ages are the best-known examples. But we could apply the concept to any other historical segment.

So, let me propose that the Coal Age, Oil Age, and Information Age constitute our latest tripartite era. Coal was the fuel that fed the Industrial Revolution and the railroads. This age kicked off in the early 19th century and began declining in the early 20th, when oil began to rise in economic and strategic value. The automobile and its practical internal combustion engine allowed aviation to take off, so to speak. The Oil Age has *slowly transitioned to the Information Age, with data increasingly being the central “fuel” of our modern lives.* How many times a day do you hear “data-driven” as a descriptor for everything from strategic plans to morning commutes?

### In an Age Gone By

Until the last decade or so, one could argue that general aviation still resides in the Oil Age. That has begun to change in the last two decades. To one degree or another, composite materials, modern engines, and glass cockpits have become part of the general aviation ecosystem. As discussed in “How I Learned to Stop Worrying and Love the Singularity” in the May/June 2018 issue of FAA Safety Briefing (p.25), modern avionics opened the door for Flight Data Monitoring (FDM). Flashy screens with modern graphical interfaces sold these new avionics, but their digital architecture made the FDM breakthrough possible. Data capture became an easy task and data storage became a function of allocating memory already on board. The stage was set for GA to advance into the Information Age.

### Data Versus Information

While many people consider data and information synonymous, they are different, albeit interconnected

terms. The simplest way to distinguish the two is to recognize that data is a fact, while information is a fact (or facts) with some level of context or analysis. For example, a reading of your 50-knot airspeed is data. Information on the other hand would be: airspeed is 50 knots while in a climb. That context is meaningful and makes the information much more useful than the data.

FDM uses data to build information that can be useful for many purposes, from improving your flying skills to managing your maintenance practices. While useful at the individual pilot level, FDM is best used on a broader basis, since collective programs offer a larger data pool that can help detect problems more quickly. Think of it this way: if you had to learn every life lesson through personal experience, it probably wouldn't go well (e.g., don't touch a hot stove, look both ways before crossing the street, etc.). Our ability to learn from the experience of others is a key driver of safety in aviation.

### GAARDing Data

FDM has been very beneficial to commercial aviation safety. The stumbling block for GA has always been scale. As noted in our previous FDM article, now there's an app for that.

First a bit of background. The FAA uses a collection of databases to monitor aviation safety and these have been integrated into a single access point in the Aviation Safety Information Analysis and Sharing (ASIAS) system that allows users to query across all these separate systems. One big hole in ASIAS was always GA data. The National General Aviation Flight Information Database (NGAFID) fills that gap by providing a structured data collection system.

To help ramp up data collection, an early innovation of the NGAFID was the introduction of the General Aviation Airborne Recording Device (GAARD) App for iOS and Android devices. GAARD allows these devices to record and submit data into NGAFID, thus dramatically increasing the total possible user base. While the data might not have the same fidelity of that derived from more advanced avionics systems, it has a much lower entry cost.

“Flight schools are quickly realizing the benefits,” says Operations Research Analyst Corey Stephens with the FAA's Office of Accident Investigation and Prevention. “The more all of us work together, the better off we'll all be.” Stephens hopes to see similar safety improvements to the ones seen following the implementation of

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(Continued from page 3) - *Welcome to the Information Age*

FDM in the commercial world. The General Aviation Joint Steering Committee (GAJSC) is working to spread the word on the benefits of NGAFID and ASIAs and has signed up 13 universities and 97 corporate flight departments in addition to many individual GA pilots. In total, more than 1,000,000 hours of flight data have been collected in the light GA community alone.

### Analysis Paralysis

Data collection is only part of the equation; it needs context to create useful information. The GAJSC is hard at work in this area, but another organization is also on the case. The Partnership to Enhance General Aviation Safety, Accessibility, and Sustainability (PEGASAS) is a joint FAA/Academic Center of Excellence program designed to focus research on specific projects in the GA world. As you might recall from the previous FDM article, the PEGASAS team's Safety Analysis for General Aviation project is intended to provide tools to GA that would normally come from a corporate or commercial carrier safety program.

In its current phase, project researchers are learning to enhance the low resolution data provided by smartphones and tablets used as Electronic Flight Bags (EFBs). This work includes trying to "recover" data that didn't originally exist (e.g., flap position). Such enhancement may provide higher resolution data without needing to increase the parameters on GA recorders. The team has demonstrated this capability on the Cessna 172 and Piper Archer. They have also developed algorithms to identify phases of flight in the Cessna 172 and Cirrus SR20, as well as prototype algorithms to detect hazardous states from flight recorder data. This kind of analysis turns interesting data into useful information.

### Welcome to the Future

GA's rapid ascension into the Information Age leaves us with some questions. Some might ask: can't this data be used against me? The short answer is no. There are a number of firewalls that make any data submitted to NGAFID off limits to enforcement (and remember that under the FAA's Compliance Program, enforcement is a tool reserved for willful failure to comply with safety regulations). Remember too that voluntary reporting has a long and successful track record in both commercial aviation and, through the NASA Aviation Safety Reporting System, in GA. The FAA fully understands that such systems require trust, which has been a hallmark of the safety reporting programs the agency has sponsored.

Others might ask the famous WIIFM (what's in it for me) question. The most immediate benefit is that solutions like the NGAFID allow you to analyze your own performance and catch small errors before they become big ones. You can also detect changes in your flying. I remember one particularly frustrating session with touch-and-go landings when I just couldn't figure out why it went so poorly. I eventually determined that I was too fast on approach. FDM would have made it far easier to see the problem. FDM also means that by working together we can limit not only personal frustration, but also more dangerous outcomes.

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

### LEARN MORE

National General Aviation Flight Information Database  
[ngafid.org](http://ngafid.org)

PEGASAS Project 05 — Safety Analysis for General Aviation  
[bit.ly/2kRFbLJ](http://bit.ly/2kRFbLJ)

**Editor:** This article is in the FAA Safety Briefing: November December 2019 . You can read the article with pictures included at: [https://www.faa.gov/news/safety\\_briefing/2019/media/NovDec2019.pdf](https://www.faa.gov/news/safety_briefing/2019/media/NovDec2019.pdf) .

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## Benson's Airport

— EAA Chapter 745

Coffee and Doughnuts, Benson's Airport (6MN9), White Bear Lake, MN

EAA Chapter #745 Fly-in/Drive-in Coffee and Doughnuts, 9 am – noon, 3rd Saturday of the month at Benson's Airport (6MN9), White Bear Lake, MN. Stop in for some free coffee and doughnuts. Runway is NOT plowed. Kim: 763-503-0161 Airport: 651-429-0315.

We plan to continue doing these every 3rd Saturday of the month.

Benson Airport  
5860 Highway 61 N  
White Bear Lake MN 55110  
(651)-429-0315

### EAA Chapter 745

White Bear Lake, Mn

# ADS-B Out

-- Federal Aviation Administration

# Newsletter Editor

-- Art Howard

## Does the final rule mandate ADS-B Out only?

Yes, only ADS-B Out is mandated, and only within certain airspace. Title [14 CFR § 91.225](#) defines the airspace within which these requirements apply.

## How will the new ADS-B Out rule affect aircraft operators?

On January 1, 2020, when operating in the airspace designated in [14 CFR § 91.225](#) (outlined below) you must be equipped with ADS-B Out avionics that meet the performance requirements of [14 CFR § 91.227](#). Aircraft not complying with the requirements may be denied access to this airspace.

Under the rule, ADS-B Out performance will be required to operate in:

1. Class A, B, and C airspace.
2. Class E airspace within the 48 contiguous states  
*(Continued on page 6)*

Your Newsletter Editor is enjoying Florida weather at the Indiantown Marina, Indiantown, Florida. We are on our sailboat, Samana, which needs a new anchor light. It seems the one installed last year (has a three year warranty) decided to take on water which ruined the internal electronics that power the LED.

There have been no airplanes flying over the Marina for Christmas and New Years. We are located just inside the POTUS TFR. Usually it is quit busy.

Dwayne, hope you are enjoying N5438W, I see several flights on <https://flightaware.com/>. The fog over Christmas week probably kept a lot of planes on the ground. Yes, I do check the Minnesota weather!

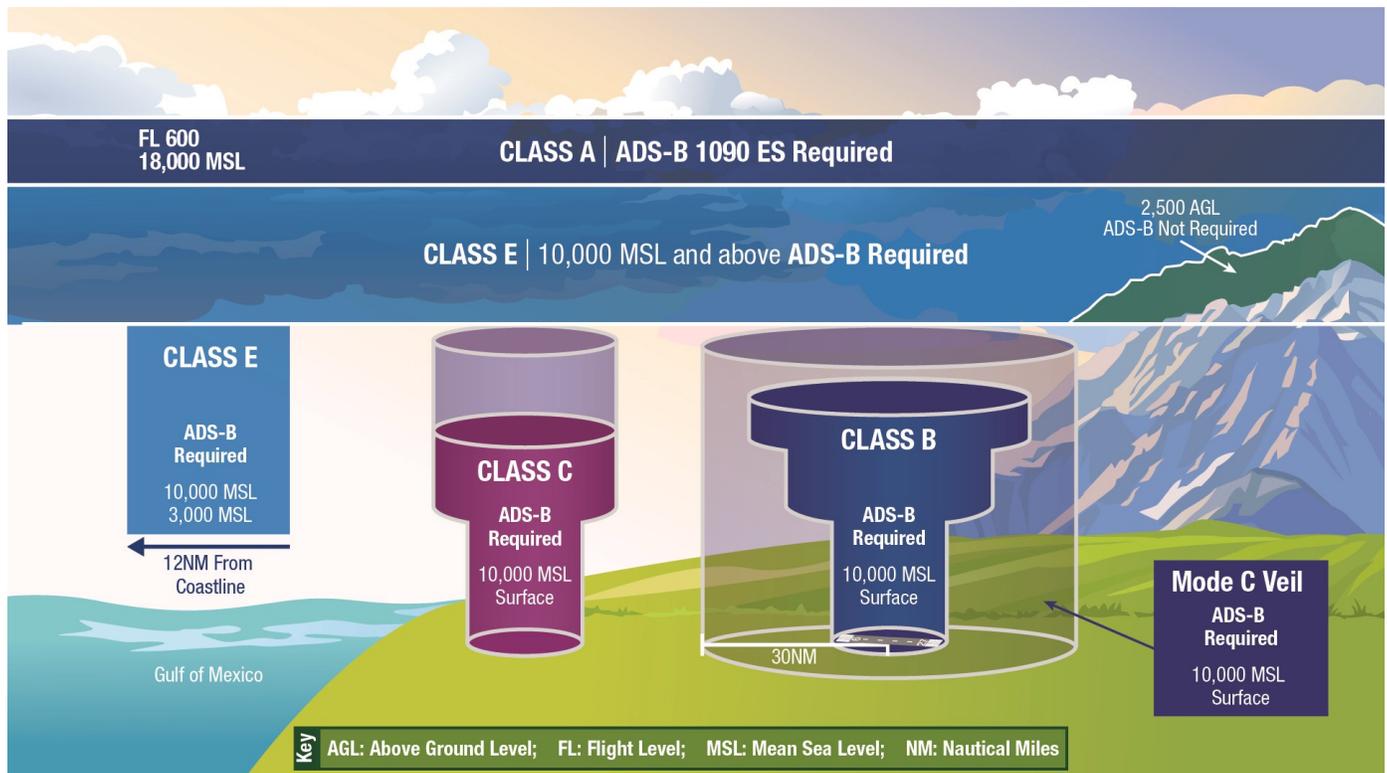
Your newsletter editor,.....

Fly safe and fly often!

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Submissions to this newsletter are welcome from EAA Chapter 100 members. Please send articles and pictures to [newsletter@eaa100.org](mailto:newsletter@eaa100.org).

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# Items for Sale

(Continued from page 5)

**Note:** The following e-mail was received for inclusion in our Newsletter:

**From:** "[aabebay@evertek.net](mailto:aabebay@evertek.net)" <[aabebay@evertek.net](mailto:aabebay@evertek.net)>

**Sent:** Friday, December 6, 2019, 10:20:33 AM CST

**Subject:** Long EZ Project For Sale

Please forward this information to anyone that my be interested in purchasing a Project. I will no longer be able to get my pilot's license due to medical issues. The URL below will take you to my website that shows most of the components included in the sale. The price is \$3000, but I am open to partial or complete trades (looking for enclosed trailer or SCCA project car), open to all offers, the worst I can do is say no. I can store this project until spring if needed. Please email with any questions, or use the reply box on the website.

<https://longezforsale.godaddysites.com/>

Thank You,  
Allen

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and the District of Columbia at and above 10,000 feet MSL, excluding the airspace at and below 2,500 feet above the surface.

3. Class E airspace at and above 3,000 feet MSL over the Gulf of Mexico from the coastline of the United States out to 12 nautical miles.
4. Around those airports identified in 14 CFR part 91, Appendix D.
5. The ADS-B Out rule does not apply in the airspace defined in items 2 and 4 above for any aircraft not originally certificated with an electrical system or that has not subsequently been certified with such a system installed, including balloons and gliders. For additional requirements for using the exception for item 4, please refer to [CFR 91.225](#) section (d) for the requirements.
6. Please refer to "[What are the ADS-B rules?](#)" for more information.

**Editor:** Please reference the FAA Website for the above information: <https://www.faa.gov/nextgen/programs/adsb/faq/#o2>

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EAA's B-17, *Aluminum Overcast*, flying the beautiful skies in Florida.