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OCTOBER/NOVEMBER 2020



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ON THE COVER: Dave Weiman of *Midwest Flyer Magazine* with his 1976 Cessna 182P Skylane at Sugar Ridge Airport in Verona, Wisconsin. Learn about the significance of the rotating beacon in the background beginning on page 25.

Pete Aarsvold Photo

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Hungry For A Flying Destination?

by Dave Weiman

I am sitting at my computer having just sent an email to would-be participants of our 2020 “Canada Fishing Fly-Out” to Miminiska



Lodge, Ontario. Miminiska is one of very few fishing lodges with its own airstrip (CPS5), located 196 nm north of Thunder Bay, Ontario (CYQT), which makes it ideal for most of our participants who fly with “wheels!”

This great group of guys and gals in our group have looked forward to this year’s trip ever since they made their reservations back in 2019. Yes, for the first time in more than 20 years, our 2020 “group trip” was booked before December 1, 2019 – testament to the trip’s popularity, and a group of pilots who enjoy the trip year after year.

Unfortunately, the Canada government decided to keep the United States/Canada border closed for the 2020 season due to the COVID-19 pandemic here in the U.S. They had hoped to reopen the border at some point during the season, but eventually decided against it. While disappointing for our group, it has been a financial disaster for the hundreds of fishing lodges in Canada, as 99 percent of their business comes from the United States.

Under normal circumstances, tourism in northern Ontario generates \$500 million in tax revenue each year and contributes \$450 million to Ontario’s gross domestic product (GDP). In addition, 90% of the economic benefits of their tourism stays within their region. Still, the tourism industry has received no financial help from its government, and the fixed costs for these lodges has not gone away! For instance, lodges have hundreds of millions of dollars

invested in aircraft, and millions more invested in boats and motors, not to mention their employees who are now without a paycheck.

Fortunately for our friends at Wilderness North, owners of Miminiska Lodge, they have some other sources of income, including flying fuel, people and supplies to native villages throughout northern Ontario, and government contracts elsewhere in the world. But they too have had to cut back and mothball some of their aircraft to stay afloat and limit their overhead.

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ISSUE CLOSING DATES

DEADLINE	ISSUE
October 15	December - January
December 15	February - March
February 15	April - May
April 15	June - July
June 15	August - September
August 15	October - November

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DISTRIBUTION

Readership consists of aircraft owners, fixed base operators, airport managers, and aircraft maintenance shops in Wisconsin, Minnesota, North Dakota, South Dakota, Illinois, Iowa, Michigan, Indiana, Missouri, Kansas, Nebraska, and Ohio.

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NOTICE TO AIRMEN

Effective with the December 2020/January 2021 issue, *Midwest Flyer Magazine* will publish five (5) issues ONLINE, and one (1) issue — April/May 2021 — ONLINE and IN PRINT.

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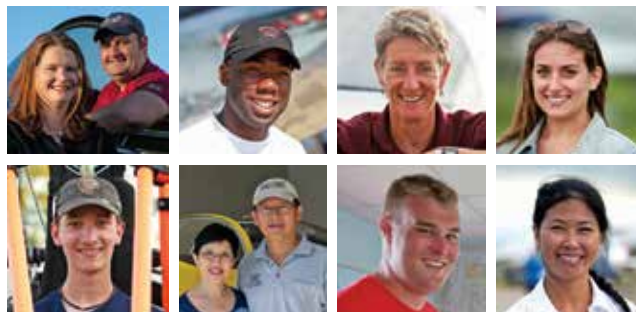


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DIALOGUE CONTINUED FROM PAGE 5

Everyone in our group took the cancellation in stride, knowing that we have to take this pandemic seriously, and that the delay will only make our 2021 trip that much more rewarding.

While our “group trip” is rebooked and completely full for 2021, Wilderness North is now accepting bookings on a plane-by-plane basis to fill any vacancies throughout the season. Contact Wilderness North at **888-465-3474** (wildernessnorth.com) for availability, and once booked, send me an email at dave@midwestflyer.com for a free copy of my personal “Canada Trip Planning Checklist to Miminiska Lodge.”

One member of our group asked: “So, Dave, is there a “Plan B?” That got me thinking of some great flying destinations here in the U.S., for fishing and other attractions.

A place Peggy and I have visited near Branson, Missouri is “Gaston’s Lodge” in Lakeview, Arkansas. There, you fish for Trout on the White River, although we are told there is a great Walleye lake nearby as well.

Gaston’s has a nice grass airstrip (3M0), Rwy 06/24, 3200 X 55 ft. that lies in a valley between some hills.

The lodge is a fourth-generation business, now operated by Clint Gaston, the great grandson of founder, Al Gaston.

Unlike Miminiska Lodge in which guide service is optional, guide service is highly recommended at Gaston’s because of the current in the river, and fishing hotspots are best known by the experts.

For reservations and additional information, call **870-431-5202** (www.gastons.com).

If you are destined for a Northwoods fishing experience south of the border, fly to International Falls, Minnesota (KINL) and stay at a lodge on Lake of the Woods. Just remember to stay on the U.S. side of the lake while the border is closed.

Another option is to fly to someplace like Mackinac Island (KMCD), or any of the other islands in the Great Lakes with airports, which were featured in a recent “Destinations” article by Yasmina Platt in *Midwest Flyer Magazine*, and charter a boat (midwestflyer.com/?p=13394).

Of course, you can always fly to your favorite airport restaurant, such as “Pat O’Malley’s Jet Room” restaurant, located in the Wisconsin Aviation terminal on the east ramp of Dane County Regional Airport (KMSN) in Madison, Wisconsin. Pat O’Malley’s Jet Room restaurant is open for limited seating; carry-outs are also available. For additional information, call 608-268-5010 (jetroomrestaurant.com). Pat O’Malley’s Jet Room restaurant is open from 7:00 a.m. to 2:00 p.m., Monday thru Saturday, and 7:30 a.m. to 2:00 p.m., Sunday. For a complete list of all airport restaurants in Wisconsin, go to the “Archives” page at **MidwestFlyer.com** and see the map published by the Wisconsin Bureau of Aeronautics on pages 55 and 56.

If you have a list of airport restaurants in your state, please email it to me at dave@midwestflyer.com and I will share it with our readers.

Midwest Flyer Magazine Online & In Print

When Peggy and I started the magazine in 1978, it consisted of 12 black and white pages and distribution was limited to one state. Today, *Midwest Flyer Magazine* has increased in size (now 64 pages), quality (now color) and distribution (now reaching 12 states and beyond). With this growth has come increased costs, especially in **printing and postage**. While we have tried to offset these costs by growing our advertising base, we were faced with the decision to either increase rates significantly for 2021 or think outside the box. We chose the latter and thanks to the Internet, we have that option.

If you haven’t visited **MidwestFlyer.com** lately, I encourage you to do so. Each issue of the magazine is posted online and “archived,” so you can go back as far as 2006 and find articles previously published. [Read the articles online, or print them yourself, and read them on paper!](#)

Midwest Flyer Magazine and **MidwestFlyer.com** feature as many as 25 contributing editors and photographers in any one issue; weekly, and sometimes daily, *news when it is news*, and provide **“free online subscriptions!”**

Effective with the December 2020/January 2021 issue, we will publish five (5) issues online, and one (1) issue (April/May 2021) online **and in print**, and expand our print distribution for that issue.

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Thank you for subscribing to *Midwest Flyer Magazine*, and to our loyal group of contributing editors, photographers and advertisers! We are looking forward to taking this journey with you in the New Year! □



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Insights From An FAA Illegal Charter Investigation

by Gregory J. Reigel
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Recent FAA press releases have publicized the enforcement actions the agency is taking against those involved in illegal charter. However, what is not publicized is how the FAA is investigating these cases. A recent case in the U.S. District Court for the Southern District of Indiana provides an interesting glimpse into one such investigation.



Greg Reigel

The Case.

In *Elwell v. Bade et al.*, the FAA received complaints regarding alleged illegal charter activity. In response, the FAA opened what has turned out to be a six-year investigation.

During its investigation, the FAA issued three sets of subpoenas over a three-year period. The last set asked for production of all documents related to agreements associated with use, ownership, and/or leasehold interest in certain

aircraft under investigation for a specified period of time. The recipients of the subpoenas (the “*Respondents*”) objected and refused to produce any documents.

The FAA filed a petition with the U.S. District Court requesting enforcement of the subpoenas. The Respondents objected to the subpoena by filing a motion to quash the subpoenas. The Court refused to quash the FAA’s administrative subpoenas and ordered their enforcement.

The Court concluded that “(a) the matter under investigation is within the authority of the issuing agency, (b) the information sought is reasonably relevant to that inquiry, and (c) the requests are not too indefinite.” However, the Court’s analysis and rationale also provide insight into some of the things the FAA can do, and when it can do them, in an illegal charter investigation.

Here are some of the key takeaways:

The FAA Has Authority To Issue Subpoenas In Connection With An Investigation

Under 49 U.S.C. § 46101(a), the FAA may investigate violations as long as the agency has “reasonable grounds.”

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- Reconditioning of crankcases and crankshafts
- Engine inspections and test running



Neither an enforcement action nor a lawsuit is necessary. When a court reviews an agency's subpoena requests, the court must make sure the agency does not exceed its authority. And the threshold for the relevance of the documents/information requested by the administrative subpoenas is relatively low. The court must also confirm that the requests are not for an illegitimate purpose.

In illegal charter investigations such as the *Bade* case, the FAA typically asks for

- aircraft flight logs
- flight summaries
- aircraft lease agreements
- operating agreements
- interchange agreements
- pilot services agreements
- pilot payrolls
- operating invoices
- receipts etc.

And, as in *Bade*, a court will likely hold that such requests are proper and do not exceed the FAA's authority.

Stale Complaint Rules Do Not Bar Subpoenas During An Investigation

As you may know, stale complaint rules act to bar the FAA from acting in certain situations after a period of time. For example, in certificate actions heard before a National Transportation Safety Board Administrative Law Judge, **49 C.F.R. § 821.33** may prevent the FAA from acting if it does not initiate the case within six months of advising the respondent of the reasons for the proposed action. Similarly, in a civil penalty case, a case may be dismissed under 14 C.F.R. Part 13.208(d) if the FAA does not initiate action within two years.

However, these stale complaint rules do not apply to ongoing investigations where no action has been initiated. According to the *Bade* court, the "FAA may conduct an investigation to assure itself that its regulations are being followed, regardless if it ultimately determines civil enforcement or formal charges are not warranted."

Similarly, the FAA may investigate a target who is "engaged in a continuing violation of [FAA's] safety regulations." In *Bade*, the FAA argued it was not investigating stale claims. Rather, it believed the respondents were engaged in continuing violations where "the statute of limitations restarts every day." And the Court agreed.

(Interestingly, the Court did not address whether this analysis, and its decision, would have changed if the aircraft involved had been sold and/or the flight operations had ceased. As a result, it is unclear whether the investigation would have been moot if applicable stale complaint rules prohibited enforcement action.)

The FAA Does Not Have To Tell The Target Of An Investigation About Subpoenas

Under **49 U.S.C. § 46104(c)**, an agency must only give notice to "the opposing party or the attorney of record of that party." However, an investigation has no "record." As a result, since the target of the investigation is not the one being deposed nor is counsel to those targets being deposed, the target does not have a statutory right to receive notice of third-party depositions.

The *Bade* court also noted that "'failing to receive notice of one or more depositions does not prove that the FAA's investigation is a sham,' and has 'nothing to do with the enforceability of the Subpoenas or the motive of the FAA in conducting this investigation.'"

So, potential respondents do not get to participate at third-party depositions or receive copies of documents produced in response to subpoenas. This certainly makes defending against an illegal charter investigation a more difficult task.

The FAA's Order 2150.3C Is Only "Guidance"

In *Bade* the Respondents argued that the FAA had not followed its own policies when conducting the investigation. Specifically, they argued the FAA failed to follow **FAA Order 2150.3** – FAA's Compliance and Enforcement Program. However, the Court rejected the argument. It observed that Order 2150.3 is not regulatory. Rather, Order 2150.3 merely provides guidelines to FAA personnel for performing their duties. Thus, the Court concluded that the FAA's failure to strictly adhere to Order 2150.3's "guidance" did not negate its authority to investigate. Nor did it mean the FAA was pursuing the investigation for an improper purpose.

Conclusion

Illegal charter is a high priority for the FAA at the moment and will be for the foreseeable future. As a result, the agency will continue to investigate complaints of illegal charter. It is important to understand how the FAA conducts these investigations and the extent of its authority.

And it is imperative for an aircraft owner or operator who is the target of an illegal charter investigation to know its rights. If you believe you are the target of an illegal charter investigation, contact us now so we can help you navigate the investigation and protect your rights.

EDITOR'S NOTE: Greg Reigel is an attorney with Shackelford, Melton, McKinley & Norton, LLP, and represents clients throughout the country in aviation and business law matters. For assistance, call **214-780-1482**, email: **greigel@shackelford.law**, or Twitter **@ReigelLaw** (www.shackelford.law). □

Autopilots On My Brain!

by Michael J. "Mick" Kaufman



Michael Kaufman

In recent weeks, I have been helping one of our *Midwest Flyer Magazine* readers in Brazil troubleshoot a chronic autopilot problem. I have seen many autopilot issues throughout the years, and some have never been solved totally. To claim that I am an autopilot expert is far from the truth, and when I have a tough question, I call my dear friend and colleague, Bill Hale of Ft.

Collins, Colorado. Bill is an electrical engineer who designed computer chips for a living, and designed, built and got the autopilot on his Bonanza certified by the FAA. When I get a question about autopilots, I try to find out all I can by creating different scenarios, then try to diagnose the problem. If I cannot determine an easy solution, I call Bill. I can recall so many unique situations in my years of training that it would require a book to cover all of them.

I have been teaching flying for over 50 years, so I always

feel that a history lesson is necessary to show how we have evolved to what we do today, and I feel it is necessary to do this with autopilots.

When I purchased my Bonanza 32 years ago, it had a Lear autopilot, which worked remarkably well considering it was state of the art in 1962 when the airplane was built. It could do everything that modern autopilots could do except no GPS functions, as GPS was not even a dream back in 1962. When I replaced this autopilot, I saved about 70 lbs as it was the size of a suitcase and used vacuum tubes.

When training pilots for their instrument rating prior to the invention of GPS navigators, autopilots needed to be designed to avoid errors in the navigation structure as much as possible. Going back to the Airman's Information Manual (AIM), we learned and needed to know some of the shortcomings of the system, not only for the autopilot, but for the pilot flying as well.

The localizer and glideslope both produced false signals, and I would try to trick the instrument students into following one of those signals. Autopilots were designed as much as possible to avoid these false radio signals by having



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“timing circuits.” For example, the autopilot needed to see a localizer with needle alive for 20 seconds before the glideslope needle centered in order to capture and fly the glideslope. It was a rule back then, and I believe still practiced that ATC needed to confirm with the pilot if he/she would accept a turn inbound on an ILS approach if the turn would not allow the aircraft to be established on the localizer more than two miles from the final approach fix. This procedure would allow autopilot flown approaches to capture and track the glideslope due to the safety feature provided by the timer. Before the advent of GPS and our modern approaches, it was necessary for us to always verify our position by more than one source, such as a localizer and a VOR radial or a localizer and an NDB (LOM) or marker beacon. Sometimes we used DME to get an accurate position and verify that this was the correct localizer and not a false course. Today, when using the GPS to assist us in getting established on an ILS approach, it is very simple. We can be relatively certain we will not be fooled by false signals. Learn the characteristics of your autopilot and on that rare occasion that it does not do things as you expect, analyze why.

There are some bad features inherent in some avionics installations that could easily kill some unsuspecting pilot. Some of these installations require a specific combination of equipment, along with certain events during an approach.

One I remember from some 10-plus years back is an installation of a Garmin 430/530 in Bonanzas with altitude preselect and a King KFC 150 autopilot. This was a factory package option when the airplane was delivered as new and probably worked fine. When WAAS became available, most pilots decided to upgrade and sent the non-WAAS navigator in for the upgrade. When the navigator came back from the factory, every pilot wanted GPSS (GPS-Steering), so it was installed.

Now for the deadly scenario.

You are flying an ILS approach with either a DME arc or procedure turn course reversal. You are at your assigned altitude, one which would have you capture the ILS glideslope at the final approach fix. GPS steering is doing a fine job, you are at approach airspeed of about 120 kts and have a power setting of about 16 inches of manifold pressure. You are happy and study the approach chart for the last time prior to reaching the final approach fix. The autopilot begins its final turn inbound and the navigator is set to auto and goes to VLOC mode; the glideslope comes alive, and the needle, which was not previously visible, comes alive from the bottom of the course deviation indicator to display that the glidepath is now above you. As the glideslope transitions to above you, the autopilot sees this and uncouples the altitude hold and starts to climb to capture the glideslope. You are still in Instrument Meteorological Conditions (IMC) looking at the approach chart, as the airplane climbs and the airspeed decreases until the airplane stalls.

I know this is true because I tested this many times and brought this to the attention of the FAA and fellow instructors in our training program. I have seen about six different airplanes with this issue, and my instructor colleagues have also reported seeing this situation with this avionics combination.

As an instrument flight instructor very dedicated to pilot safety, I urge pilots to never fly in IMC after maintenance, software updates or equipment upgrades until you fully understand how everything is working together. Be ready to disconnect your autopilot, assess the situation, fly needle ball and airspeed, if necessary, and use the “E-word” (declare an emergency), if you need to.

Why does my autopilot usually capture the glideslope, but sometimes it doesn't?

This is a very common question I hear.

The first test in troubleshooting is centered around that timing circuit that is still necessary in most autopilots. After that, we need to find out what always works and if possible, a scenario that never works.

We spent the better part of a day and \$1,000 in fuel trying to troubleshoot a Garmin G-900X connected to a Tru-Trak autopilot in an Epic aircraft. The solution was somehow tied to the use of the “altitude preselect.” The choice for a successful glideslope was to either not use the altitude preselect or to disengage the autopilot after using it and then reengage the autopilot. We were never totally able to solve the problem, but we did find what worked every time.

A more recent example was in a Bonanza with an Avidyne IFD-540 and a King KFC 200 autopilot. In this situation, we found it necessary to disconnect the autopilot and turn it back on once the glideslope was alive on the indicator. On most WAAS navigators (except the Garmin GNS 480), the glideslope does not come alive on a GPS approach until the final approach fix is the next waypoint in sequence on the approach.

Many times, some of these autopilot problems can be traced to the pilot either not having a good understanding of his flight profile, or “just plane stupid,” when I was learning to use my newly installed equipment.

I was flying a practice localizer approach using GPS Steering on my #2 radio, which is the Garmin GNS 480 for GPS assist in getting established. Once inbound and 2 miles from the final approach fix, I switched the navigator to VLOC and the autopilot to approach mode with the localizer set to the proper frequency and properly identified. About 15 seconds after the switch, the airplane made a 90-degree turn, which I knew was not correct. I tried it again thinking I have a glitch and the same thing happened. What am I doing wrong? On the third try, I found the problem. My #1 Nav/Com is a King KX 175 and there is a toggle switch to tell the autopilot which radio Nav head to follow. I had the switch set to my #1 radio, and the radial dialed also on my #1 radio,

by coincidence just prior to the final approach fix on the localizer. When this radial came alive, the autopilot in approach mode did what it was supposed to – capture the radial and fly it. I had always had this switch to select which indicator the autopilot was to fly, however in the process of using the Garmin GNS 480 which was new to the airplane, I forgot the switch still existed.

In conclusion, it can be said over and over again, know your airplane and equipment, and don't takeoff in IMC after maintenance or equipment updates. I have even seen corrupt data base updates for navigators. Have a back-up plan, back up equipment, and know how to use it. **FLY SAFE!**

A Predator In Fargo



Photo Courtesy of North Dakota Air National Guard.

FARGO, ND – At press time, the Fargo Air Museum was set to receive an MQ-1 Predator remotely piloted aircraft (RPA), which was originally a North Dakota Air National Guard aircraft, on loan from the National Museum of the U.S. Air Force. The 119th Wing, known as the “Happy Hooligans,” operated the MQ-1 Predator from 2007 to 2018, when it was replaced with the MQ-9 Reaper.

The MQ-1 Predator is operated by a crew, consisting of a pilot and a sensor operator, from a ground control station. The aircraft stands 7 feet tall, measures 27 feet in length and has a wingspan of 48 feet 7 inches. Although equipped with surveillance technology for the primary purpose of reconnaissance, the Predator can also be armed for light attack in warzones. □

EDITOR'S NOTE: Michael J. “Mick” Kaufman is a Certified Instrument Flight Instructor (CFII) and the program manager of flight operations with the “Bonanza/Baron Pilot Training” organization. Kaufman conducts pilot clinics and specialized instruction throughout the U.S. in a variety of aircraft, which are equipped with a variety of avionics, although he is based in Lone Rock (KLNK) and Eagle River (KEGV), Wisconsin. Kaufman was named “FAA's Safety Team Representative of the Year” for Wisconsin in 2008. Email questions to captmick@me.com or call 817-988-0174.

DISCLAIMER: The information contained in this column is the expressed opinion of the author only, and readers are advised to seek the advice of their personal flight instructor and others, and refer to the Federal Aviation Regulations, FAA Aeronautical Information Manual and instructional materials before attempting any procedures discussed herein. □

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Each Best Speed For Your Airplane Serves A Purpose

by Pete Schoeninger

Q: Could you explain “best loiter speed” and how I can find it for my airplane? Also, where would I find information on “best power-off glide speed?”

A: Best loiter speed is the speed of lowest fuel burn per hour, not per mile, in level flight, which usually occurs at a very low airspeed. This would be a handy bit of knowledge if you ever have to circle an airport while snow removal crews finish clearing a runway, or if someone landed gear up ahead of you and it will take some time to remove the damaged aircraft, or you are waiting for fog to burn off, etc. If you can't find your best loiter speed in your airplane's Pilot's Operating Handbook, Airplane Flight Manual, or Owner's Manual, the “best angle of climb speed,” which should be readily available, will be close to your best loiter speed. If you can't find your “best power-off glide speed,” use your “best rate of climb speed.”



Pete Schoeninger

Q: I just bought a used 1975 Cessna 182 from an estate. It has been sitting a few years. The maintenance records are very sparse, and the mechanic who used to maintain it has passed on. I could not find any record of any Airworthiness Directive (A.D.) compliance. The shop I have hired to perform an annual inspection has warned me that it will take many hours of research to compile an A.D. summary from scratch. Will I have to do this at every annual inspection?

A: At every annual inspection, A.D. notes have to be checked and if any are found outstanding, they must be complied with. Many A.D. notes are applicable to after-market equipment, such as fuel caps, mufflers, alternators, etc. So, an A.D. note could be issued against the after-market manufacturer, but they will also be shown as possibly affecting models that could have the device installed.

Here is a method some mechanics use which adds clarity and saves a lot of time with future inspections, but takes some time to create initially: 1) Make a list of A.D. notes that do not apply to the airplane, because they are not installed. List the date inspected and note “not installed.” 2) Make a list of A.D. notes that DO apply to the airplane, but are one-time compliance items, such as change markings on oil temp gauge. Note the date, hours and who inspected the marking change. 3) Lastly, make a list of recurring A.D. notes, showing the A.D. number, date and hours of compliance, and how complied with, and by whom, and when the next inspection is required. An example is old Cessnas may need their seat tracks inspected every 100 hours of use, or at every annual inspection.

Q: I just read that airplanes with a high “aspect ratio” glide better than low aspect ratio wings. Can you explain and give an example?

A: Generally, that is a true statement. Aspect ratio is defined by wingspan divided by chord. For example, on a Piper Tri-Pacer, with short, fat wings, the aspect ratio would be about 30 ft/5 ft = aspect ratio of 6. But a sailplane with 50 ft wings and a 4 ft chord would have an aspect ratio of about 50 ft/4 ft = 12. Tri-Pacer owners will tell you that it is a fine airplane, but the glide path is pretty steep power off. Sailplanes (remember, high-aspect ratio) on the other hand may glide as far as 40 feet for every foot of altitude loss.

Q: I recently purchased a hangar on a private strip from an estate. Inside the hangar are two-gallon cans with what smells like gasoline. Can I dump them into my 1966 Cessna 172, which is approved for car gas, as well as aviation gas?

A: Don't! If you are not sure of the origin, and purity, of your newfound gas, I would not consider using it in your airplane. Perhaps the field owner may want to use it in some field maintenance machine like a gas-powered tractor. But if it is 100LL, even burning it in anything but an airplane is a no-no. Anticipating your next question...do not even think about putting 100LL into your road vehicle. Not only is it illegal, but it will booger your catalytic converter, an expensive item. Note: Be sure to dispose of any old fuel at a waste disposal center, and not in the soil.

Q: Thinking ahead to winter with my new IFR rating in my pocket...experienced pilots warned me about the decrease in climb capability of even a bit of ice on my wings and prop. They tell me that in the winter, often there are clouds from 3,000 to 4,000 feet up to perhaps 7,000 to 8,000 feet. In the summer, it takes my 1985 Cessna 172 about 10 minutes when fully loaded to climb from 4,000 to 8,000 feet. Won't it climb better in the winter given cooler temperatures?

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A: Yes, your airplane will perform better in the winter, providing you have no ice onboard! An airplane trying to climb through stratus clouds to reach clear skies could run into non-forecast light rime ice. (Remember to turn on pitot heat before entering clouds.) As ice accumulates on your wings and prop, your climb rate might slow to zero before you get out of the clouds at perhaps 6,000 to 7,000 feet. If you get into that situation, get out of there as quick as safely possible, probably descending back to VFR below. A Cessna 172 is a fine airplane, but it is not certified for flight into known icing for many reasons, and it does not have excessive amounts of power to climb while ice accumulates. In these situations, a Cessna 182 or a twin are much better choices because of their better climb rate.

Q: I called my shop manager and asked for an hour of his time to discuss maintenance on a Piper Lance with my brother, who is considering buying one. We met at his shop at 9:00 a.m. and got lots of good information in an hour discussion. However, I was astonished that at the end of the month my statement for hangar rent, fuel, etc., included a one-hour charge for consulting at \$90, his hourly shop rate. I was very upset at this because he did not do any maintenance on an airplane. Who is being unreasonable – my shop manager or me?

A: You got what you asked for (maintenance information on a Piper Lance). Pay the bill, period. An hour of a professional's time at his facility is how he makes his living. He has massive overhead expenses that is paid using his expertise and knowledge. Someone has to pay for these things, and it is you, the customer. Would you ask your CPA for an hour of his time for free? Or a plumber, or a doctor? The answer is no!

Q: A friend emailed me a picture of a Cessna 180 sitting on a sandy narrow road in Alaska. Supposedly the straight stretch of the road was only 800 feet, with about 30 ft trees at each end. Would you attempt to operate out of that strip if lightly loaded?

A: My Cessna 180 experience is very limited, so I asked a friend who has owned a Cessna 180 for many years and has massive flying experience (several years of crop dusting, and as a chief pilot for a Fortune 500 company flying Gulfstreams). Would he attempt to operate his airplane in this place I asked? He is not a man of many words, but when he speaks, I listen. His answer was "Nope!"

Q: A year ago I sold my normally aspirated 1978 Piper Arrow. That was a mistake! Now, I am looking for a similar one to buy. I have found one with nice avionics, a 35-hour engine (turbocharged) at what seems like a reasonable price. Recently (3 months ago), the aircraft had an annual inspection and its overhauled engine installed. I am tempted to skip the pre-purchase inspection because the engine is freshly overhauled, and the airframe recently had its annual

inspection. What do you think?

A: Unlikely, but possible that many terrible things could happen to an airplane in 3 months/35 hours. Also given that the turbo-charged engine is more expensive to buy and operate, you should hire a knowledgeable party to look at the records of the overhaul. For instance, were accessories, such as the turbo charger, replaced or rebuilt, prop overhauled or not, etc.? A thousand bucks on a good prepurchase inspection would be mandatory in this situation and would be money well spent.

Q: I recently bought a farm in rural Minnesota. Part of the appeal is that the land is quite flat. I am looking at an alfalfa field, or pasture, as a possible landing surface for my Cherokee 180. Both fields are a half-mile long (about 2600 feet) and I will usually be flying solo. My question to you is, how long can I let the alfalfa or grass get before their length affects safety and performance?

A: Remember, all grass fields have more drag on your tires than pavement. As a former alfalfa farmer and cow pasture pilot, I can give you two reasons to use the pasture, not the alfalfa field if they are both similar in size and flatness. Alfalfa, clover and other broadleaf plants, can be pretty thick and sturdy, and cause you lots of drag, even at a relatively short



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height. Alfalfa has more cash value than pasture grass. Pasture grass will probably have less drag than alfalfa of the same height. But in either case, you should not try operating when the grass is as high as the middle of your wheel or higher to prevent it from wrapping around your axle and causing many problems. Cutting your runway frequently will cost you some lost income if you elect to use the alfalfa field, and less if you cut the pasture. Tailwheel airplanes with big tires can

operate in taller grass, but your tires are relatively small. Keep the grass short and enjoy the joy of flying from your own farm!

EDITOR'S NOTE: Pete Schoeninger appraises airplanes for estates, divorces, and partnership buyouts. He is a 40-year general aviation veteran, starting out as a line technician as a teenager, advancing through the ranks to become the co-owner and manager of a fixed base operation, and manager of an airport in a major metropolitan community. For aircraft appraisals, contact Pete at

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AIRCRAFT

Pilots & Aircraft Owners Take Over Mooney International... Pledge Legacy Support, While Pursuing Advancements

As reported by AOPA's David Tulis in September, a group of U.S.-based general aviation aircraft owners and pilots have taken majority ownership of the financially



Mooney Ovation2 GX

challenged airplane manufacturer, Mooney International, pledging to support airplane owners, provide transparency, and make Mooney more competitive.

Mooney Acclaim aircraft owner, pilot, and CEO Jonny Pollack is part of an investor group with an 80-percent stake in the company that was previously owned by Chinese investors and mostly shuttered in early January with two partially completed aircraft still on the factory floor.

This move means the Kerrville, Texas, factory will soon be humming with activity to help keep the 7,000-aircraft fleet in the air.

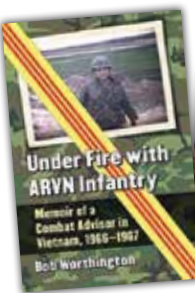

In a letter posted to the aircraft maker's website September 2, Pollack noted that "reports of Mooney's death are greatly exaggerated. Mooney is, in fact, very much alive, up and running." The letter indicated that changes at Mooney were "long overdue," and include a "new culture" reflective of the brand's loyal owners. Pollack's letter pointed out that the transition includes new management "made up entirely of pilots and Mooney owners, giving the company a unique and valuable perspective going forward."

Pollack became involved with the company after "some initial inquiries in 2019" when financial troubles resurfaced amid a trade war between the United States and China. Factory workers were initially caught off-guard when the company furloughed staff in November, called them back in December to hand-drive rivets and curve sheet metal, then gave them time off for the winter holidays. When they returned, they were abruptly told to go home, again.

"I've been running Mooney behind the scenes, literally since January," Pollack told AOPA, "and we've been able to make parts and keep the brand alive!" □

One Pilot's Story

**Bob Worthington,
Author of "The Left Seat"**

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Flying with Family is Fun! Fond Memories Flying with My Daughters

by Bob Worthington

www.BobWorthingtonWriter.com

Flying with family members can be great. In some families, the love of aviation passes from one generation to the next. In other families, the pilot has no one who shares his or her passion. My family sort of falls between the two extremes. While my wife, Anita, enjoyed several thousand hours in the right seat, our kids saw our plane as only a means of getting somewhere, quickly. Their combined attitude, in flight, became, "Are we there yet?" In fact, our youngest daughter, thought for some time, that every family had a small plane stashed somewhere as an airborne family station wagon.



Bob Worthington

When I became a pilot, I was 38. Our three daughters were Suzie (14), Julie (10), and Karen (7). Today, all are 45



(L/R) Julie, Karen & Suzie. Our three daughters when dad became a pilot.



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years older. Because our Cessna 172 (later a Cessna 182, then a Mooney 231) only allowed three passengers, someone had to stay home. So often, our teenager, with school obligations and newly found social activities, remained home for our single-day trips. Yet, sometimes, Anita would remain on the ground, so daddy could enjoy flight time with his three girls. Here are some flights I will never forget:

The \$100 Hamburger

One younger daughter had a friend who wanted to fly with her. After convincing the friend's mother I was a safe pilot, a Saturday morning was scheduled for a trip to an airport for the proverbial "expensive" hamburger. The little girl's mom was a nurse, telling me her daughter never suffered from motion sickness (yet she gave her daughter some Dramamine before our trip).

I planned a short flight (30 minutes) for lunch and both kids responded with glee, looking forward to the trip. The girls occupied the back seat. My daughter, being the "expert" on flying, showed her little friend where the sick sacks were in the rear pockets of the seats in front of them, just in case.

Unfortunately, before arriving at our cruise altitude, the friend got sick. It seemed like buckets of vomit exploded from her tiny body, not in a sick sack, but all over the entire back of the plane. My daughter comforted her, while I immediately turned around, returned to our airport, and landed without delay. No \$100 hamburger! Instead, we spent several hours cleaning up the plane. Being a quick learner, that was my only flight with a daughter's friend.

Flights To Padre Island, Texas

Being stationed in San Antonio, the white beaches of the barrier islands off the Texas coast became an attractive destination, sometimes for an overnight camping trip, but often for a day on Padre Island. Being less than 100 miles away, it was an easy flight. We could land on the beach (very tricky as too far inland, the wheels would dig into the soft sand and the plane could flip over, and the same could happen if landing too close to the water). North of the island was a deactivated U.S. Air Force bomber base we could land at, taxi to the beach, park and walk a few yards to the water.

As much fun as this was, there was a slight problem – balls of tar. Apparently, the tar came from offshore oil wells, floating ashore, coating the bare feet of anyone swimming or strolling. So, flying to the islands required a few plastic jugs of water, WD-40, a roll of paper towels, and plenty of soap. Upon landing, the jugs would be set on the ground, heated by the sun.

Before departing, I sprayed everyone's feet and legs with WD-40 to remove the tar. The warm soapy water would cleanse the lower extremities and the girls could board the aircraft. Climbing to cruise altitude, I would tune the ADF to 1200, the AM radio station of WOAI, in San Antonio, near

the airport. Being a clear channel station, we could easily pick up the frequency and just follow the needle, back home.

Going Away To College

For those pilots with kids, nothing beats general aviation for checking out colleges. Suzie knew she wanted to go to a women's college in New Orleans. Being about 550 miles away, we would stop in Lake Charles, Louisiana for fuel and food, then continue on. The trip by car would take 12-14 hours, but by plane, it was under 7 hours. Now the four of us who were left behind, could fly to visit her.

When it was Julie's turn to select a college, I suggested Northern Arizona University in Flagstaff (where I received a master's degree). The two of us planned a visit, a dad-daughter fun trip. We would fly from San Antonio to Lake Powell, camp there a couple of days next to Flagstaff, then land on a dirt strip on a mountain in southwestern New Mexico to camp, then return home.

Lake Powell is a national recreation area managed by the National Park Service. We planned to camp at the Park Service campground, Wahweap, on the southern end of the lake, just across from Page, Arizona. On the mesa just above the campground was a collection of trailers, and right down the middle was a short dirt strip. One could fly in, park, and hike the short distance to the campground.

We did just that and set up our tent, next to an older couple (early 60s) staying in their pick-up camper. Seventeen-year-old Julie could have easily passed for being in her twenties. So, this scruffy-looking guy in his late 30s or early 40s, and a young, attractive female came trudging down with packs, appearing to the couple as hitchhikers.

Our neighbors were very curious as to who or what we were but dared not seek answers. The day before we left, they asked Julie where she was going next. She replied, "Flagstaff." Believing we were hitchhiking since we walked into the campground, they asked her how long she thought it would take to hitch a ride for the 120 miles to "Flag." She replied, "about an hour." Their incredulous faces reflected disbelief. Julie then pointed to the mesa (where only trailers could be seen from the campground), explaining we had a plane parked next to the trailers. For the rest of our stay, the couple avoided any contact with us.

Karen was the last to leave for college. Her quest for schools initially focused on California. At that time, I was a business professor at West Texas State University (WTSU), now West Texas A&M, where Julie decided to go to school. Living in Canyon, Texas (near Amarillo), Karen had several schools she wanted to visit located in both the Los Angeles and San Francisco areas. During her junior year spring break, we planned to visit five colleges. First in LA, then to San Francisco, then back to LA.

On Sunday we flew to LA, an all-day trip. Arriving that afternoon, a rental car and hotel reservations were waiting. For two days we visited campuses, and early Tuesday evening,

we flew the 400 miles to San Francisco, another car and hotel reserved. Wednesday, we checked out a college. That night back to LA, for two more schools. Saturday morning, we departed California, heading back home. The only way this could have been accomplished is by general aviation.

Weight and Balance and Daughters

Aircraft weight and balance had little meaning to my daughters. Living in Canyon, Texas, we planned a spring break in Santa Barbara, California. Julie was at WTSU and Karen was in high school. All four of us were going. Leaving behind cold and snow, our destination would have spring flowers in full bloom. Cold weather clothes would only be used in flight. Anita and the girls packed what they thought each needed. So, three sets of everything from hair driers to combs and brushes went into each bag. Upon being packed I weighed the bags, each considerably overweight. I explained the weight limits of the plane and said how much each bag had to be reduced. Back to their rooms, each girl returned with much lighter bags, certainly within weight limits.

Glancing back at the girls, I almost cried. The clothing

removed from the bags never went back into drawers or closets, but on their bodies. Two shirts, multiple sweaters, long pants, shorts, and a skirt, scarfs, coats and who knows what else, did not reduce our weight, but only transferred it from suitcases to our daughters. My wife had a talk with them and finally their bodies and bags remained within limits.

Today, each girl has flown on the airlines many thousands of miles all over the world. For me though, memorable flights with my daughters will always be with me, forever!

EDITOR'S NOTE: Pilot, Viet Nam veteran and former university professor, Bob Worthington of Las Cruces, New Mexico, is the author of "Under Fire with ARVN Infantry" (<https://mcfarlandbooks.com/product/Under-Fire-with-ARVN-Infantry/>), and producer of the 2019 film "Combat Advisor in Vietnam" (www.borderlandsmedia.com). Facebook: Bob Worthington Writer (www.BobWorthingtonWriter.com).

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Phillips 66 Aviation Honors Minnesota Couple For Involvement In EAA Young Eagles

HOUSTON, TEXAS – Phillips 66® Aviation has presented its 2020 Phillips 66 Experimental Aircraft Association (EAA) Young Eagles Leadership Award to Dave and Bonnie Jennen of Erhard, Minn. The award, which is typically announced at EAA AirVenture Oshkosh, recognizes outstanding Young Eagles volunteers who have supported the future of aviation by going above and beyond the basic Young Eagles flight.



Bonnie and Dave Jennen

The Jennens, members of EAA Chapter 1174 in Fergus Falls, Minn., regularly fly children from several schools in western Minnesota and the eastern Dakotas, totaling 500 – 600 Young Eagles flights per year. Dave Jennen is the volunteer pilot, while Bonnie Jennen helps coordinate the logistics. Despite being in a rural area, their chapter is known for conducting a great number of Young Eagles flights in the state. Dave Jennen has personally flown over 1,100 Young Eagles, since the early 2000s.

"Through my work in the sheriff's department, I met so many kids that didn't have access to these kinds of experiences," said Jennen. "We saw an opportunity to work directly with area schools to coordinate Young Eagles flights for their students. For me, it's about boosting the kids'

confidence, exciting them, and motivating them to stay engaged in school, even giving them something to study towards."

Not only do the Jennens run a successful Young Eagles program, but Dave Jennen goes the extra mile to mentor the students. He visits each classroom prior to the students taking their Young Eagles flight and educates them about flying, and the importance of choosing a positive attitude, setting their own path and conquering goals. He also serves as a mentor to young adults who express an interest in flight training.

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COVID-19 & Your Fitness To Fly!



Dr. Bill Blank

by Dr. Bill Blank, MD

COVID-19 (COronaVirusDisease19) first appeared in late 2019. Since then it has caused a pandemic. It is classified as a corona virus. Corona is Latin for crown. Under the electron microscope, it looks somewhat like a crown with thorns, thus the name. Its official name is SARS-CoV-2. SARS stands for Severe Acute Respiratory Syndrome.

Viruses are not alive. They are little pieces of genetic material, DNA or RNA, surrounded by a protein coat. They are quite clever. They attach to the surface of the cell under attack, penetrate and enter the cell. They, then take over the cell's metabolic machinery and trick the cell into making thousands of copies of themselves. Eventually, so many copies are made that the cell often dies and the copies are released to attack other cells, either of the host or someone else.

COVID-19 is a respiratory virus. That means that it attacks the lungs. The major path of infection is by being inhaled. The infected person exhales into the atmosphere where it can be inhaled by someone else. In order to cause disease, there must be enough viral particles per cubic foot of air and enough air must have been inhaled. One CDC definition of close contact is being within 6 feet of an infected individual for 15 minutes. The infected person only exhales viruses for two weeks. That is the basis for the recommended two-week self-quarantine. Other viral diseases include Polio, Measles, Mumps, Smallpox, Chickenpox, Herpes, Rubella, Hepatitis, Influenza, and the Common Cold, which is caused by a different Coronavirus. Vaccines have been developed to prevent some of these diseases.

There are over 100 Coronaviruses, only a few of which cause human disease.

COVID-19 has caused so much trouble because it can cause serious illness and death and we do not yet have a specific, effective antiviral treatment for it.

The first antibiotic, Penicillin, was discovered in 1928.

Antibiotics treat specific bacterial diseases. Since 1928, we have discovered and developed many antibiotics. We have developed very few specific antivirals. We've had some antiviral medication success with Herpes, HIV, Hepatitis, Influenza and Ebola. This leaves us with supportive and non-specific treatments for COVID-19. Dexamethasone, convalescent plasma containing antibodies to COVID-19, and Remdesivir, a broad-spectrum antiviral, have been somewhat helpful.

What will end the pandemic? Perhaps, when enough people develop herd immunity, either from having had the disease or a successful vaccination, the virus will be unable, statistically, to find enough new victims to continue the spread. Another possibility is that quarantining will be effective.

I think there is reason for hope. Our scientific research is highly developed and never has been better. Many research organizations are looking at various vaccine options. More than one approach may be successful. Some are already in testing.

Official weather forecasts started in 1860. Over the years, they have gradually improved. This success is due to improved technology, along with many more data points, including satellite and radar observations.

How long have we been trying to predict the course of viral pandemics? When this first started, we were unable to test anyone who wasn't ill. We didn't know and still don't know how many people in the population have been exposed and had no symptoms or mild symptoms not requiring them to seek medical attention. Our lack of good data greatly decreases the accuracy of our forecasts. The last I read suggests that the death rate is now thought to be between 0.5% and 1.0%.

It doesn't look like the pandemic will end until a vaccine has been developed and is widely available. In the meantime, there are two goals: First, not to become infected ourselves, and second, if we are infected, not to infect anyone else.

How can we best accomplish this? **Avoid Close Contact.** Stay at least 6 feet away from anyone who is sick or has symptoms. **Wear a Face Mask in Public Places**, especially indoors in confined places. Do your own risk assessment. If you are in an area which is crowded or people aren't wearing face masks, leave and return later or go elsewhere. **Wash Your Hands Frequently. Stay Home If You Are Sick.**

As a pilot, in choosing your passengers, you are probably going to want to use the same criteria you use to decide who rides with you in your car. I am confident a vaccine will be found, but it will take time. Until then, be vigilant.

If, in spite of precautions, you do catch COVID-19, can you be certified?

The FAA recently notified Aviation Medical Examiners (AMEs) that they are evaluating the situation. If you have made a complete recovery, your AME should be able to certify you. If you were hospitalized, your AME will probably want hospital records, along with a current status report including pulmonary function tests. I don't expect a definitive policy for quite a while as the FAA evaluates research results. Hopefully, few of us will need this. *Meanwhile, stay healthy and fly safely!*

EDITOR'S NOTE: William A. Blank is a physician in La Crosse, Wisconsin, and has been an Aviation Medical Examiner (AME) since 1978, and a Senior AME since 1985.

Dr. Blank is a retired Ophthalmologist, but still gives some of the ophthalmology lectures at AME renewal seminars. Flying-wise, Dr. Blank holds an Airline Transport Pilot Certificate and has 5600 hours. He is a Certified Instrument Flight Instructor (CFII) and has given over 1200 hours of aerobatic instruction. In addition, Dr. Blank was an airshow performer through the 2014 season and held a Statement of Aerobatic Competency (SAC) since 1987.

DISCLAIMER: The information contained in this column is the expressed opinion of the author only, and readers are advised to seek the advice of others and refer to the Federal Aviation Regulations and FAA Aeronautical Information Manual for additional information and clarification. □

Aircraft Specialists Opens New Facility At Clark Regional Airport (KJY) Jeffersonville/Sellersburg, Indiana



JEFFERSONVILLE, IND. – Aircraft Specialists (ASI) has opened a new fixed base operator (FBO) facility and hangar complex at Clark Regional Airport (KJY). The 22,600 square-foot facility features a spacious lobby with a modern aesthetic. The facility provides a clear view of the airport as two walls of windows afford ample natural light. Guests also benefit from a functional kitchen, complimentary snacks and beverages, a well-appointed conference room, and a comfortable pilot's lounge, complete with a full bath. In addition, the complex features a new 18,200 sq ft hangar with 28 ft doors, able to accommodate up to a G-550.

The new facility offers easy access to and from the ramp, in addition to curbside pickup and drop off of crew and passengers in the main parking lot. This efficiency, in addition to the ASI's location just 10 minutes north of Louisville, Kentucky, makes it the most convenient fly-in option in the greater Louisville region.

Clark Regional Airport features two runways, 14/32 (3899 X 75 feet), and 18/36 (7000 X 100 feet), AWOS-3, CTAF, and Louisville Approach, Departure and Clearance Delivery.

As a full-service Avfuel-branded FBO, ASI offers customers 24/7/365 service, including expert ground handling services, quick turns, hangar and tie-down space, rampside vehicle access, full fueling services with competitive prices, a full-service Part 145 repair service center, rental cars, crew cars, gourmet catering, concierge services and restaurant options. □

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Cabin fever A prescription to get out and fly

by Mark Baker

AOPA President and CEO

Smooth air, cooler temperatures and the striking beauty of fall foliage make October one of my favorite months.

While I have been able to get some good flight hours in during the pandemic, I'm itching for even more of an escape, and I'm not the only one. In fact, many are turning their attention to newfound hobbies, and although certain sectors of our economy are struggling to stay afloat, others are surprisingly thriving. Much of that has to do with recent findings surrounding the virus.

As more information has become available, experts have concluded that transmission rates of COVID-19 are significantly lower outdoors—one small study even states the odds of catching the coronavirus are nearly 20 times higher inside than out. A prescription of fresh air and Vitamin D could help explain the surge we've seen in outdoor sports like golf, and such recreational activities as boating, biking, and camping, which have all spiked in popularity.

According to the National Marine Manufacturers Association, 70 percent of boat dealers saw sales growth in May, the strongest numbers recorded since July 2018. National park reservations are booking up quickly, and recreational vehicle sales are at an all-time high, especially among first-time buyers. The thirst for outdoor activities can even be seen through Google searches for water-related products like paddleboards, life vests, kayaks, and wakeboards, which have increased 70 to 100 percent, according to a recent news article.

With all the talk of bustling marinas and campgrounds packed with first-timers, it's clear that GA has an opportunity to attract our own new, adventurous audiences. After all, GA flying alone or with your family is one of the few activities where social distancing can truly be maintained. While statistics shows that GA is faring pretty well—activity is up 15 percent above seasonal norms and with an uptick in business aviation and private charters—we need to ensure that our pilot population stays robust. That starts with access.

The global aviation industry, as a whole, has taken a huge hit from the pandemic. The industry faced an immense global pilot shortage just eight months ago; another way to look at that was there was a tremendous demand for pilots. It was a



Mark Baker

great opportunity to earn a living by flying, and these pilots needed to start somewhere. Even now, as career prospects are more uncertain, all of us in the GA industry need to encourage more people to appreciate the passion and pursue the idea of becoming a pilot—for pleasure or for pay.

Here's your chance to be a real ambassador for general aviation. To those who think it takes years of time and piles of money to fly, remind them that a sport pilot certificate only requires a minimum of 20 hours of flight time. While there are some limitations, you can fly some pretty awesome light sport aircraft—everything from a Piper Cub to the ultimate amphibious adventure machine, the Icon A5. Icon even makes a point to reach out to nonpilots and offers training for its aircraft. And a reliable airplane needn't cost more than a quality car.

There are other ways to lower the cost of flying. Seeking out scholarships from industry organizations like Women in Aviation International, the Experimental Aircraft Association, the National Business Aviation Association, the Organization of Black Aerospace Professionals, and The Ninety-Nines is a great start. Here at AOPA, we offer numerous primary and advanced flight training scholarships. Last year alone, we awarded 123 scholarships totaling more than \$1 million. Scholarships are a great way you can help others experience aviation, as the funds come from donations to the AOPA Foundation. Flying clubs are another way to save money on aircraft ownership by lowering the costs of maintaining, storing, and operating aircraft. Not to mention, flying clubs offer a built-in support group from all levels of experience—just one of the many perks.

Of course, flying all starts at the local airport. I know we still have a long way to go to make them more welcoming. I remember riding my bike to the airport as a kid, but today, gates, fences, high security, and badge access might deter those interested from stepping in and talking to the locals. Welcome into our community those who are on the outside looking in because we know that once you're a part of the community, there's no group more willing to lend a helping hand than GA pilots—I've witnessed numerous examples of this in my own life.

So, as we enter another season waiting for a vaccine to eradicate this COVID-19 mess, let's be thankful for what we still have: the freedom to fly. Let's remind our friends and acquaintances that, just like boating and camping, flying is an adventure that can quite literally show you the world. And in times like these, what more can we ask for? □

Michigan's Detroit City Airport To Get Boost by GA



by *Kyle Lewis*
Regional Manager

*Government Affairs & Airport Advocacy / Great Lakes
 Aircraft Owners & Pilots Association
www.aopa.org*

In early August, AOPA was invited to attend an event at Detroit City Airport (KDET), Detroit, Michigan, hosted by the Detroit City Council and the Mayor's Office. It was actually a surprise to receive the invitation, given that all had been quiet surrounding the ongoing issues for a number of months. The purpose of the event was to unveil the airport's to-be-submitted Airport Layout Plan (ALP). To understand why this is an event for fanfare, one must go back in time and see where the airport was, and what had happened over time.

Detroit City Airport, also known as Coleman A. Young International, has a unique history. Operations began in 1927. Early visitors included the likes of Lindbergh and Earhart. Passenger service commenced in 1928 with flights from Detroit to Cleveland, Ohio. As demand grew, Detroit City Airport became one of the four first airports with an RCA air traffic control system. Passenger service also grew with 24 or more scheduled departures per week. By 1946, there were 100 weekly scheduled departures with a multitude of different commercial carriers. After World War II, larger airports were constructed outside of Detroit proper and passenger services transferred to the new facilities. Mayor Coleman Young was able to

attract a commercial operator to KDET in the late 1980s – Southwest Airlines. Southwest operated at the airport until 1993, as runway length limitations impacted the airline. Aside from commercial service, the airport was heavily influenced by general aviation users. The major auto industry players heavily used the airport across its existence and still do, to this day. Over the years, KDET, like other city infrastructures, felt the squeeze of low finances, lack of proper oversight, and neglect. GA tenants left the airport, compliance issues arose, and neighborhoods encroached on the airport land. It sounds like a death sentence for any airport.

There have been rumors and half-handed attempts to close the airport over the last 15 years, but the aviation faithful, including AOPA's Airport Support Network Volunteer at KDET, Euel Kinsey, have helped sway the tides and bring attention to the importance of the facility. In 2017, Detroit's current Mayor, Mike Duggan, made it known that an effort to close the airport may be mounted, given the poor state of affairs with the airport. Euel, along with other local airport users, formed the "Coleman A. Young International Airport Education Association." This association brought together a diverse group of airport users and supporters. Their primary goal was to educate the community and city on the value of the airport.

At several planning and strategy meetings, members of the community voiced support for the airport. Those voices were heard by the city council, and in 2018, a city council-sponsored airport "task force" was created to take a hard look at the airport.

The current airport manager, Jason Watt, was also a cheerleader for the airport and went to work every day



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knowing the potential the airport had. In short time, it was obvious the valuable role the airport played to the city. There were many concerns -- lack of funding, inability to apply for state and federal grants due to the ALP not being updated and current, would the Mayor eventually support the airport? Fast forward to August of 2020, amid the COVID-19 crisis, Mayor Duggan, along with Councilmen Benson and Spivey, held an in-person (socially distanced) event to unveil their plan.

This ALP, while most certainly not perfect, is a big step in a positive direction. The ALP calls for \$60-80 million of investment over the next decade and beyond. The Mayor stated he is a supporter and wants the gem of an airport polished in the right light and given an opportunity to reach its potential as a critical city asset. Part of the plan is to extend Runway 15-33, and install an Engineered Materials Arrestor System (EMAS) at each runway end to satisfy FAA runway safety area standards, then tunnel under the extended runway to make way for the reopening of a road connecting two neighborhoods. The plan also may mark an end to the current crosswind runway (7-25). The 3,714-foot runway is not eligible for Airport Improvement Project (AIP) funding based on FAA operational forecasts and wind studies. If the city were to keep that runway without FAA support, significant local dollars would need to be appropriated for rehabilitation of the runway surface, lighting, and taxiways to support the

future existence of the runway. That dollar amount would be in the millions, something that is not likely to be supported by the city on its own. The runway would also need to be shortened further for safety zones due to the installation of EMAS on Runway 15-33, minimizing utility even further. As KDET is basically landlocked between neighborhoods and cemeteries, the eventual closure of 7-25 will delegate property to develop and re-develop badly needed general aviation hangars and facilities. Private investment is literally knocking on the door to expand the aeronautical use of the airport.

AOPA is supportive, with cautious optimism, of the ALP that is slated to be submitted in the fall of 2020. It is exciting to see the City of Detroit listening to the community and willing to invest in the airport. AOPA is also very proud of the tedious work the local association did. It was not just talk, action happened, and the credit goes to the members of the Coleman A. Young International Airport Education Association. The submission and approval of the ALP is only a first step in getting the airport back into a healthy, sustainable position for the future. The work of the local association is not done, and ideas to strengthen the airport will be welcome as the process moves forward.

I hope this short story of an airport under fire will show the value of local voices and initiatives.

It is a privilege to serve you!

(kyle.lewis@aopa.org)



Mitchell Gallery of Flight & USO Lounge Celebrate New Locations



Milwaukee County Executive David Crowley and several other distinguished guests joined together for an official ribbon cutting of the Mitchell Gallery of Flight and the USO Lounge.

MILWAUKEE, WIS. – The Mitchell Gallery of Flight and the USO Lounge officially opened their new locations at Milwaukee Mitchell International Airport (KMKE), August 25, 2020. Milwaukee County Executive David Crowley, Milwaukee County Supervisor John F. Weishan Jr., and several other distinguished guests joined together for the official ribbon cutting ceremony.

The two new locations are the latest remodels to be completed as part of a major refresh to the retail and restaurant offerings at KMKE.

“The new and larger museum space will provide us with more opportunities to showcase Wisconsin’s proud

CONTINUED ON PAGE 38



Tom Kretschman, owner of Sugar Ridge Airport in Verona, Wisconsin, holding an album by country western star, Patsy Cline.

The Last Light In Patsy Cline's Life

by Dave Weiman

Any time I hear about an aircraft accident which is attributed to "pilot error," I cringe and try to put myself in the pilot's seat. Was it a matter of a lack of experience or proficiency, or weather-related, and how could the accident been prevented?

We have all been there... We want to fly when we planned to fly. We have a schedule to keep. Friends or family members are expecting us to takeoff at a particular time and don't understand or appreciate all of the factors involved in flying, and we don't want to disappoint them. The hotel we've been staying at is now booked, and we want to get home. The list goes on.

Recently, I had the opportunity to fly into Sugar Ridge Airport (WS62) – a private airport in Verona, Wisconsin,





Tom Kretschman with the rotating beacon that was once used at Dyersburg Army Air Base, Halls, Tennessee, and is now shining at his airport in Verona, Wisconsin. The beacon was manufactured in 1941 by Krause Heinz and weighs 742 lbs. It is said to be the last light Patsy Cline saw on March 5, 1963, before the airplane she was a passenger in crashed, killing all four persons onboard.



owned by retired Dane County Sheriff Deputy Tom Kretschman. The grass runway (9/27) might only be 1600 feet in length, but the airport has many other features which pilots usually only see at large metropolitan airports, such as runway markers and lights, a 260 ft. long hangar, a pilot lounge, top security, and a rotating beacon. The rotating beacon once lit up Dyersburg Army Air Base near Halls, Tennessee. The base was active during World War II as the only inland training airfield for the B-17 Flying Fortress east of the Mississippi. It closed on November 30, 1945, then put into civilian use and renamed Dyersburg Regional Airport (KDYR).

The rotating beacon is said to be the last light country western star, Patsy Cline, saw on March 5, 1963, before the 1960 PA-24-250 Comanche she was a passenger in took off from Dyersburg and crashed killing all four persons onboard.

The owner and pilot of the aircraft, Ramsey (Randy)



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Hughes, 34, was also Patsy Cline's manager and the son-in-law of Cowboy Copas, who was also onboard, as was Hawkshaw Hawkins. The aircraft crashed near Camden, Tenn., en route to Nashville, following a performance in Kansas City, Kansas, after dark in rain and low ceilings. Hughes was not instrument rated and likely experienced spatial disorientation.

Hughes took off from Kansas City and first landed to refuel at Rogers Municipal Airport in Rogers, Arkansas, then flew on to Dyersburg, landing at 5:05 p.m., at which time he received a weather briefing for the remainder of the flight to Nashville. The weather at Dyersburg was marginal VFR, and in Nashville was below VFR minimums. Hughes apparently told the briefer that he would fly east towards the Tennessee River and navigate to Nashville from there, and if weather conditions worsened, he would return to Dyersburg.

Patsy Cline was one of the first big female stars in country music, with a string of classic hits, including "Walkin' After Midnight" and "Crazy."

Musicians do a lot of traveling and often have back-to-back engagements, which requires that they fly late at night following a performance and sometimes in adverse weather conditions. Depending on the performer's budget, the pilots may be low time, and the aircraft might not be that well equipped.

The list of other performers who have died in airplane accidents includes Buddy Holly, Ritchie Valens and Jiles Perry "J. P." Richardson Jr., known as "The Big Bopper" (1959); Jim Reeves (1964); Otis Redding (1967); Jim Croce (1973); Ronnie Van Zant, Steve Gaines and Cassie Gaines of the band "Lynyrd Skynyrd (1977);" Ricky Nelson (1985); Stevie Ray Vaughan (1990); eight members of Reba McEntire's band (1991); John Denver on a recreational flight (1997); and most recently, Troy Gentry of "Montgomery Gentry" (2017).

Rock-n-roll legend, Buddy Holly, was killed on February 3, 1959, when the Beechcraft Bonanza he was a passenger in crashed into a cornfield near Clear Lake, Iowa, en route to another performance in Moorhead, Minn. Also killed was Ritchie Valens, J.P. Richardson, Jr., and the pilot, Roger Peterson. Holly's bass player, Waylon Jennings, was not onboard and instead gave his seat to Richardson, and Jennings rode in the band bus. The accident later became known as "The Day the Music Died," when singer-songwriter Don McLean made reference to it in his 1971 song, "American Pie."

Country western performer, Jim Reeves, was killed on July 31, 1964, during a rainstorm outside of Nashville, while flying back from Batesville, Arkansas, having completed a real estate transaction. Reeves was flying the plane. His business partner and manager, Dean Manuel, also died in the accident.

Not far from Sugar Ridge Airport, soul legend Otis Redding was killed on December 10, 1967, when his 1962 Beechcraft H18 crashed into Lake Monona in Madison, Wisconsin, on a three-mile final to Runway 36 at Truax Field

(now Dane County Regional Airport). The flight originated from Cleveland, Ohio, where Redding had just completed three concerts in two nights.

Weather conditions at the time of the accident included heavy fog and rain. The pilot, Richard Fraser, Redding, and all but one member of his band, "The Bar-Kays," were killed including Phalon Jones, Carl Cunningham, Jimmy King, and Ronnie Caldwell. Also killed was their valet, Matthew Kelly. Trumpet player Ben Cauley, who was asleep at the time, survived. Cauley died September 21, 2015 at the age of 67. Several weeks after Redding was killed, the song "(Sittin' On) The Dock of the Bay," written by Redding and guitarist Steve Cropper, became the first posthumous single to top the charts in the U.S.

Jim Croce and four others were killed on September 20, 1973, following a concert at Northwestern State University in Natchitoches, Louisiana, when their chartered Beechcraft E18S crashed en route to Sherman, Texas, to perform at Austin College in Sherman, Texas. The other victims in the accident were Croce's second guitarist, Maury Meuhleisen; road manager Morgan Tell; comedian George Stevens; a booking agent; and the pilot.

Croce's hits included "Don't Mess Around With Jim" and "Bad, Bad Leroy Brown."

The band "Lynyrd Skynyrd," one of the most influential southern rock bands of all time, perished on October 20,

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Dave Weiman of *Midwest Flyer Magazine* with his 1976 Cessna 182P Skylane at Sugar Ridge Airport in Verona, Wisconsin.

Photo by Pete Aarsvold

1977, when their chartered aircraft ran out of fuel and crashed in Gillsburg, Miss., near the end of a flight from Greenville, S.C., to Baton Rouge, La. Lead singer Ronnie Van Zant, guitarist/vocalist Steve Gaines, and backup vocalist Cassie Gaines, were killed, along with assistant road manager Dean Kilpatrick, pilot Walter McCreary, and copilot William Gray.

And who would ever forget when Ricky Nelson, his girlfriend and several members of his band were killed on New Year's Eve, December 31, 1985. Nelson's DC-3 crash-landed northeast of Dallas, Texas in De Kalb, after taking off from Guntersville, Ala., apparently caused by a malfunctioning heater in the cabin of the aircraft.

Also, near Sugar Ridge Airport, 76 miles away at Alpine Valley Theater in southeast Wisconsin, top blues guitarist, Stevie Ray Vaughan, and four others were killed on August 27, 1990 in a helicopter flight to Chicago Midway Airport, following an outdoor concert that also featured Eric Clapton. Clapton was not onboard the helicopter.

In the early morning hours of March 16, 1991, a jet carrying eight members of Reba McEntire's band, crashed into Otay Mountain near San Diego, Calif., late at night,

following a show. The accident was attributed to poor visibility when the pilot chose to depart VFR. McEntire was to fly out the next day and join up with her band in Indiana for their next engagement.

Pilot, aircraft owner and an occasional visitor to EAA AirVenture Oshkosh, John Denver, was killed on October 12, 1997, when his experimental Adrian Davis Long-EZ crashed into Monterey Bay near Pacific Grove, Calif., after running out of fuel.

Most recently, Troy Gentry of the country duo "Montgomery Gentry," was killed on September 8, 2017, in a helicopter accident just hours before a scheduled Montgomery Gentry concert in Medford, N.J.

In memory of Patsy Cline, Tom Kretschman has been collecting a number of memorabilia to show guests. He admits that he was never a big Patsy Cline fan before she died, but his rotating beacon has changed all of that.

EDITOR'S NOTE: Actress Jessica Lange portrayed Patsy Cline in the 1985 motion picture "Sweet Dreams." A documentary entitled "The Patsy Cline Story" was released in 2011. □



Dan Bass and his wife, Deanna, on their honeymoon on Norman's Cay, Bahamas. They flew N9149V to the Bahamas for 10 days where they island hopped around to different airports. "It was an amazing trip!" said Bass.

Miracle Over Minnesota... Survival After Carbon Monoxide Poisoning

by Dan Bass

In February 2017, I needed to visit a customer in Thunder Bay, Ontario. By car, it's over a 7-hour drive from Winona, Minnesota, where I live. But my Mooney would allow me to easily make the trip there and back in one day. With the exception of being cold, the weather looked great for a trip up north.

I woke up early for a planned 6:30 a.m. departure. The day before I filed my eAPIS (electronic Advance Passenger Information System) flight manifests online as required of U.S. Customs & Border Protection (CBP). I also notified (as required) the Canada Border Services Agency (CBSA) via 1-800-CAN-PASS that my estimated time of arrival (ETA) would be 9:00 a.m. local time. I planned for a 2.5-hour flight to Thunder Bay.

I plugged in my engine and cockpit heaters the night before, so once I got the plane out of the hangar, I climbed

into a warm cockpit, but that didn't last for long. On the taxi out it was clear that I would need to run the cabin heat and defrost on full blast. Other than the bitter cold, it was a beautiful day to fly. A high-pressure system sat right over Minnesota and promised clear skies for the region for the next two days. Though I departed Winona about 15 minutes behind schedule, the CBSA provides an arrival window plus or minus 30 minutes from one's scheduled ETA, so I wasn't too concerned. I picked up my IFR clearance on the climb and settled in for a nice flight.

As I enjoyed the beautiful sunrise to the east, I felt something irritate my eye. I started rubbing my eye and wondered, "Could this be carbon monoxide (CO)?" I turned the heat off and opened the fresh air vent. The cabin temperature quickly became unbearably cold and I realized that eye irritation isn't a symptom of carbon monoxide poisoning. I switched the fresh air off and turned the heat back on. My eye rubbing paid off and I felt good again. That

was the last time I thought about carbon monoxide that day.

The flight to Thunder Bay was normal with the exception of two things: 1) I was cruising at 10,000 feet MSL and it was common practice for me to check my SpO2 saturation levels. (SpO2, also known as oxygen saturation, is a measure of the amount of oxygen-carrying hemoglobin in the blood, relative to the amount of hemoglobin not carrying oxygen.)

I don't recall the exact number, but I do remember that my SpO2 level was several points higher than normal at that altitude, and thought to myself, things were going great! But the other unusual observation was that all my side windows were frosted over. This was normal if I had four people onboard when it was this cold outside. But I have never experienced problems before with the defroster not doing the job with just me in the plane. I figured that on that day, it must just be extra cold or maybe the humidity was higher than normal. I didn't give it any more thought, yet both of these things were signs of what was really happening.

During the last 10 minutes of the flight, I started to get a slight headache. I immediately thought of the coffee I had skipped earlier that morning. I start everyday with coffee and assumed this was the start of the inevitable lack of caffeine headache, but it wasn't.

Once on the ground in Thunder Bay, I called Canada Customs using my cell phone while I was still in the airplane. The agent asked me what time I landed, and I responded, "Just now, at 9:15." My answer seemed to confuse him for a minute and after some contemplating, he instructed me to write down a clearance number for my records and stated that I was all set. This was my first time flying to Canada and I was pleased to clear customs so easily. But I was still concerned that I may have missed something.

Again, it was bitterly cold that day, so I quickly secured the airplane and sprinted across the ramp into the warm FBO. As I made arrangements with the lineman for fuel, I noticed the wall clock displaying 10:15 a.m. The lineman confirmed that Thunder Bay was on Eastern Standard Time, not Central. I now understood the confusion with the customs agent on the phone. I had arrived over an hour after my scheduled ETA, well outside my plus or minus 30-minute window. It also just occurred to me that I would be late for my meeting as well. During all of this, I had a feeling of "butterflies" that was very unusual. Given the situation, I passed this feeling off as anxiety.

Throughout the morning, my headache came and went with varying degrees of severity. At lunch I had a few cups of coffee and the caffeine seemed to remedy the situation. By 3:30 p.m., my headaches were gone, and I was looking forward to the flight home.

I departed Thunder Bay for Duluth, Minnesota (KDLH) to clear U.S. Customs. I remember it being an incredible flight. Smooth, clear skies with great views of Lake Superior to my east, and a nice sunset to my west. I felt great for the entire 1 hour 20-minute flight.

The customs agent met me at my airplane on the ramp at Duluth. After I climbed out of the airplane and stood up on the wing, I immediately got a sharp headache. The agent and I quickly moved inside out of the cold to finish the paperwork. Once completed, I used the restroom and called my wife, Deanna, to let her know I would be home in a little over an hour. My headache persisted.

Up until this point, with the exception of the last 10 minutes of my flight to Thunder Bay, I experienced all of my symptoms while I was not inside the airplane. Up to now, I was able to rationalize my symptoms being caused by a lack of caffeine and some anxiety. But with this headache, my thoughts turned to our 4-year-old daughter, "Lilla." For the preceding week, Lilla was not feeling well. Being only 4, she wasn't able to articulate exactly how she was feeling, but we knew she was ill. I now rationalized the way I felt the entire day, thinking I was catching whatever Lilla had.

After finishing up with customs in the FBO, I quickly ran to and boarded the airplane. The outside air temp was around 0 degrees Fahrenheit and I wanted to get the airplane started before the engine had a chance to get too cold. Once it started, I got to work on filing my IFR flight plan to Winona using my iPad. I knew it would take several minutes for the flight plan to make its way into the system, so I used this time to prepare the cockpit for the flight. As the airplane idled on the ramp with the heater on full blast, I placed my flashlight, hat and gloves on the passenger seat within easy reach. I donned my headlamp (I always wear one during night ops) and strapped on my kneeboard. After a few minutes, a notification on the iPad acknowledged that my flight plan had been received by air traffic control (ATC), so I contacted ground for my clearance. It was approximately 10-15 minutes from engine start to my taxi clearance.

While taxiing out to Rwy 27, I still had the headache that came on when I exited the airplane. I then experienced another episode of "butterflies" -- this time more intense than the morning episode. It only lasted for 15 seconds and then just like that, I felt better with no butterflies or headache. As I got to the runup area, I remember wondering what was going on, but I continued with my runup. At this point I became hyper-focused and ran through my checklist over and over. It was almost as if I was reluctant to takeoff. After several minutes of re-running my checklist, the tower contacted me and asked if I was ready to go. This snapped me out of my checklist loop and I responded with "we're just about ready

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This photo overlooking Lake Superior was taken by Dan Bass just prior to landing in Duluth, and about 1 hour before he took off for Winona on that doomed flight. It would be the last photo he ever took from N9149V.

to go.” About 30 seconds later, the tower responded with my takeoff clearance, “Mooney 49V, turn left heading 240, Rwy 27, cleared for takeoff.”

In hindsight, I wasn’t playing with a full deck at this point, but I had no idea at the time. I taxied onto Rwy 27 and advanced the throttle. Just after liftoff while reaching to raise the gear, I had another intense episode of butterflies. Again, this was very short, lasting no more than 10-15 seconds. As quickly as it came, it went away, and I didn’t have any idea what was happening to me. I started the left turn, turned my heading bug to 240 degrees, and engaged the autopilot. This autopilot only had altitude hold, so I manually trimmed it for a 105 kt climb. This is when things started to happen quickly. The next few minutes started to blend together in my memory. I had a traffic call-out from the tower and then a handoff to departure. My responses to ATC were becoming difficult and I recall slurring some of my words. At this point I realized something was terribly wrong. I remember hovering my left thumb over the autopilot disconnect button on the yoke, but I was reluctant to change anything. I wanted to tell ATC I needed to land, but I didn’t. I kept going through the motions, not in control of my actions. I entered my “direct

to” for Winona (KONA) into my Garmin GPS nav com, and the very next thing I remember is waking up.

I figured I had dozed off. I keyed the mic and tried to contact ATC to let them know I was alright and needed to land. While I was trying to contact ATC, I marveled at how clear my windscreen had become. I was rather impressed... I have never seen it so clear. I reached my hand forward to



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The broken windshield that let fresh air into the cabin and saved Dan Bass' life.

touch the window, but it wasn't there. I started to take in my surroundings and realized I wasn't in the air anymore. I had crash-landed in a field.

I was very impaired at this time; my waking up was rather slow and dream-like. The realization that I had crashed didn't hit me right away. As I slowly realized what was going on, I tried to get out of my seat, but I couldn't move my legs. I assumed I was paralyzed, but that thought didn't bother me; a testament to my level of impairment.

I then noticed a search light from a road vehicle about 1 mile off my right wing. Despite my not fully understanding what was going on, I somehow knew that the light was looking for me. I tried to turn on any external aircraft lights to no avail. I tried my interior dome light, but I didn't have the strength in my fingers to rotate the switch in the right direction. I then went for my flashlight, but it was nowhere to be found, so I reached for the headlamp I had been wearing and it too was gone. I had nothing in my reach that could help me signal for help. A helicopter had also flown overhead a few times in what appeared to be a search pattern. I was confident people were trying to get to me.

The searchlight and helicopter had both disappeared over the horizon and my thoughts turned back to my legs. I remember looking down at them and trying my darndest to move them with no results. I then thought about my toes. I was able to wiggle them, so I knew I wasn't paralyzed. I struggled a bit more and realized that my feet were pinned under the rudder pedals. My right foot came out fairly easily, but my left foot was more stubborn, and it took several minutes to free it. Once moving, I climbed out onto the wing with the thought that I needed to get to where I saw that searchlight.

Deanna had sent along a pair of Carhartt bib overalls

to protect me from the cold in the event I had a forced landing. I retrieved them from the luggage compartment and in the process of trying to put them on, I fell back onto the wing and after a few more attempts, I gave up. So, I tossed them aside and went back into the airplane to collect my Carhartt jacket, hat, and gloves.

Before the flight, if you recall, I had my hat and gloves located on the passenger seat, next to my flashlight, and just like my flashlight, my hat and gloves were now missing. In my search, I found my cell phone which had an error message displayed, so I tossed it aside, and I found my iPad. Garmin Pilot was still running, and I was curious as to where I ended up. I knew I was headed south, and I wondered if I made it as far as Iowa. Once I determined that I was still in Minnesota, I set my iPad to the side, not realizing it could be used as a signaling device. Another example of my impairment.

I had been exposed to the bitter cold long enough that I lost all dexterity in my fingers and was unable to zip up my coat. So, with an unzipped coat, no hat or gloves, I set out toward the area of the searchlight, but after taking only a few



The crash site.

steps, I fell to the ground. I got back up and took a few more steps and fell, again. I was very weak and had poor motor skills, but I was determined. I walked, stumbled, and crawled across a snowy, frozen, plowed field. About 100 yards from the airplane, I was spent. I rolled over on my back and started to feel warm and comfortable. The helicopter was heading back my way, this time flying directly over the airplane and me. I yelled and waived my arms to no avail... It flew on.

I had no intention of getting up. I thought to myself, "If someone finds me, great. If not, no big deal... I don't really care." I settled in and enjoyed the view of the brilliant stars on this moonless night.

Three years previous, almost to the day, Deanna went into labor with our second daughter. We knew it was a girl but hadn't decided on her name yet. One of the names we were considering was "Maia," after a star in the Pleiades star cluster, aka Seven Sisters. At midnight, I was loading Deanna into my truck to bring her to the hospital. She paused and said, "we don't have a name for this girl yet." I looked up and Pleiades was directly overhead; we had our name.

Now I was lying on my back near a broken airplane and directly overhead, was Pleiades. Up until this point, I hadn't thought about who I was or if I had a family. As my life unfolded in my mind, it gave me a reason to not give up, so I sat up and surveyed my surroundings. Looking back at the plane, I noticed a security light near some outbuildings on the other side of a wooded area beyond the crash site. I estimated this was the closest thing to me and my best shot at finding help.

I made my way back to the airplane, much easier than before. I was gaining strength and coordination by the minute. Cognitively, I was also sharper. I started to understand the gravity of what had happened. As I walked by the rear of the airplane, I patted the stabilizer and said, "Thank you!"

When I reached the edge of the wooded area, I was faced with thick undergrowth to walk through. I remember thinking, "If I was healthy, I would walk around this," but it stood directly in the way of where I wanted to go, so I trudged forward. I found myself tangled in this brush, unable to move forward. After some time, I realized that I was pressed against a barbwire fence, then dropped to the ground and crawled beneath it.

Once in the woods, I found the trees to be a blessing. I was able to use them to steady myself and stay mostly upright. But the woods also challenged me with deeper snow. The field I had been navigating was windswept with very little accumulation. When I would fall, I remember crawling in the snow with my bare hands that now had no feeling and felt heavy as if they were concrete blocks. I was very upset at the idea that I may survive but lose my hands.

As I approached the service light, I could just see these two outbuildings. When I skirted up along the side of one of them to peer around it, a house came into view. The windows had a beautiful blue flicker that only a television emits. I somehow made my way the last 100 feet across an icy gravel driveway without falling even once. Lucky for me, this was the home of Cynthia and Chuck Crabtree. Cynthia was home alone that evening, but thankfully a bloodied, seemingly intoxicated man pounding on her back window didn't scare her into hiding. She brought me in out of the cold and alerted

authorities; a sheriff deputy showed up just minutes later. Shortly after that the paramedics were transporting me in a medivac helicopter that had been flying overhead earlier.

Once I reached the hospital, it was four days until I was able to stand up again. I used a walker for two weeks and then needed a cane for another month. It was 16 weeks before I could go without a back brace. The worst of my injuries were three broken vertebra in my back, the loss of two teeth, a broken upper jaw, a large facial laceration, and all of my fingers experienced frostbite. The neat part of my recovery was that I was released from the hospital five days after the accident on our daughter, Maia's, third birthday.

So, what happened?

Lessons Learned

I learned later that the aircraft had a crack in the muffler underneath the heat shroud. While running the cabin heat, carbon monoxide rich exhaust was being pumped into the cabin. The cause of the crack is unknown. It wasn't there 89



A crack in the muffler underneath the heat shroud caused exhaust to enter the cabin, resulting in carbon monoxide poisoning.



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hours before when we pressure tested the exhaust at annual. On a flight the day before the accident, I experienced a backfire at startup. Backfires were rare in this airplane. I have only experienced two or three over the course of owning this airplane. It's possible that the backfire caused the crack or at least exacerbated it. During all three flights that day, I was being slowly poisoned by carbon monoxide.

Carbon monoxide is an invisible, odorless, tasteless, colorless gas that is created by the incomplete burning of fossil fuels. When it is inhaled, it combines with the hemoglobin in the same space meant to carry an oxygen molecule, thus rendering the oxygen carrying capability of that hemoglobin useless. The CO bond is over 200 times stronger than the oxygen, so if CO is present, it's very effective at poisoning you. The half-life of CO in the human body is around four to five hours. So, when I started my second flight from Thunder Bay to Duluth in the afternoon, there would still be some CO in my blood from the morning flight, creating the perfect storm, building on the CO from the previous flights.

Because of the build up from the previous two flights and the prolonged ground run in Duluth, it only took about four and a half minutes from takeoff until I lost consciousness. I was climbing through 4,500 feet when the lights went out. From there the airplane continued to climb on its own with the autopilot keeping the wings level while tracking the heading bug. Fortunately, the mixture was still full rich from takeoff, that only allowed the airplane to climb to 12,500 feet. If the mixture were leaned at all, I would have climbed higher and went further. Being that I was already oxygen deprived, I'm sure that would have been fatal.

I missed a lot of excitement over the next two hours I was asleep. The flight brought me right over the Class B airspace at Minneapolis/St. Paul International Airport (KMSP). I was intercepted by two F-16s that were scrambled from Madison, Wisconsin (KMSN) that apparently checked me out, and the pilots determined that I was not a threat. Shortly after my impromptu formation flight, the selected fuel tank ran dry and I started my descent. Somehow the airplane "landed" in a very small, 800 ft. field with power lines on one end and trees on the other. It was around 30 minutes after impact that I woke up. Luckily the windshield broke open exposing me to fresh air that woke me up and gave life back to my otherwise lifeless body.

Some CO Lessons Learned

I didn't have a CO monitor onboard my aircraft. I thought I would be able to recognize the symptoms and take action. By the time I was experiencing symptoms, my cognitive abilities were already being compromised. I had symptoms that would come and go, which were easy to rationalize. I always assumed I would "know," and that assumption nearly killed me.

The only reliable way to detect and prevent exposure to CO is with a digital "*carbon monoxide detector*." I like the ones that have a parts per million (ppm) display and include visual and audible alarms. These detectors can be used to not only prevent a catastrophe, but they are accurate enough to detect very small exhaust leaks well before they are dangerous. If I had owned one, I would have noticed a problem weeks or months before this accident. Detectors give immediate feedback to the health of an exhaust system.

I discourage the use of the card-type detectors, as well as the home electronic detectors. The cards have a short useful life and are often unreliable. The home detectors might prevent a catastrophe, but they lack the sensitivity that is useful for troubleshooting and catching issues early.

It is also important to note that only half of all CO accidents are attributed to defects in the heating system.

CO is a problem year around and the statistics don't favor a season or geographic region. Nearly all of GA is susceptible to CO.

It's also a good practice to use a "pulse oximeter" to monitor your oxygen saturation. I use one on every flight. One would assume that CO poisoning would show up with a lower oxygen saturation reading, but it's the opposite. The pulse oximeter uses the color of blood to determine oxygen saturation. When CO is present in the blood, the pulse oximeter will actually display a higher saturation reading. This is why I had a higher-than-normal reading on my first flight.

Non-CO Lessons Learned

Get shoulder harnesses! My airplane had harnesses, but many legacy airplanes do not have anything more than a lap



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belt. The diagonal bruise I had across my chest proved it saved my life.

Keep all needed survival gear on your person or fixed to a part of the airframe within reach. I now fly with a flight vest and keep items such as my cell phone, personal locator beacon, portable strobe, flashlight, signal whistle, and signal mirror on me. I might look like I'm ready for combat, but the equipment would have come in handy that night. My handheld VHF radio is always charged and positioned near my left leg. Before this accident, I thought pilots carried handhelds onboard in the event of com radio failure. But in reality, their real value is to be able to communicate with someone from the ground following an accident.

Simple Precautions Can Save Your Life

Simple precautions can help prevent carbon monoxide poisoning, according to the Mayo Clinic in Rochester, Minnesota. In addition to having a carbon monoxide detector in your aircraft, it is recommended to have one in your boat and motorhome. Also install detectors in the hallway near each sleeping area of your home.

While it is recommended that pilots ship their detectors to the factory to have their batteries replaced and the detector checked for accuracy at recommended time intervals, the batteries of fixed detectors in your home or office should be checked every time you check your smoke detector batteries – at least twice a year. If the alarm sounds, land immediately or leave your home and call 911 or the fire department.

Don't fly if you feel ill. All pilots are required by the FAA to ground themselves should they feel medically unfit to fly for any reason, and it's just good common sense. Just because we need or wish to be somewhere at a given time, or we want to get home, is not a sufficient enough reason to fly.

Which Detector To Buy?

There are hundreds of CO detectors on the market. However, most of them are not well suited for aviation. They may not alert you until CO concentrations reach over 100 ppm, or they may not have an alarm that is audible in a noisy cockpit.

Detectors range in price between \$129.00 to \$170.00, depending on desired features and personal preference.

Minnesota Aviation Trades Association – Investing In The Future!

Congratulations to NATHAN WURST of Chaska, Minnesota, who was selected to receive the 2019 MATA Scholarship!

Nathan is working on his private pilot certificate at Thunderbird Aviation at Flying Cloud Airport in Eden Prairie, Minnesota, and has been accepted at the University of North Dakota John D. Odegard School of Aerospace Sciences beginning this fall.

To help pay for his education, Nathan started working as a line service technician at Thunderbird Aviation in the fall of 2018 while a senior in high school. Nathan stated: ***"I believe in hard work and focus in order to succeed as a pilot. I see the aviation community as bonded over its love of flight... It is a community that I am proud to be a part of for the rest of my life."***

To be eligible for the MATA Scholarship, applicants must be currently enrolled in a flight training curriculum at a Minnesota flight school that is also a member of MATA, and write an essay on why they want to learn to fly or continue their training. The applicant's ability to communicate their current position and future goals is very important. The scholarship application, details, updates and requirements can be found at <https://www.mata-online.org/>

One of the goals of the Minnesota Aviation Trades Association is to help create tomorrow's aviation professionals, while supporting member flight schools.

Aviation businesses interested in becoming a MATA member and supporting the organization's efforts to promote and represent the industry before government, should contact **Nancy Olson at 952-851-0631 Ext 322 or email ngo@thunderbirdaviation.com**.



MATA – The Choice & Voice of Aviation Businesses Since 1945



The CO detector I own and recommend is the **Sensorcon**, and I have worked a deal with the manufacturer that can save pilots 20% by going to their website sensorcon.com and using the code **Aircraft2020**.

Sporty's Pilot Shop has flown with and recommends the following three detectors: Tocsin 3 CO Cockpit Monitor, ForeFlight Sentry ADS-B Receiver, and Aithre Shield Carbon Monoxide Detector.

Tocsin 3. This is Sporty's Pilot Shop's overall top pick in carbon monoxide cockpit monitors, which sells for \$169.95 (Catalog 7761A). It features three alert modes - a 90 db audio alarm, flashing red lights, and vibration - so pilots will notice it in the cockpit. The built-in screen gives pilots a real time indication of CO ppm, but it's still small enough to mount almost anywhere. You can use the sturdy clip to keep it attached to a seat belt or mount it to the panel so it's in view. The default low alarm is set at 35 ppm and the high alarm is set at 100 ppm. The Tocsin 3 also has a TWA setting for 8 hours, but this is less important unless you're troubleshooting a persistent problem.

ForeFlight Sentry. This all-in-one ADS-B receiver does more than just receive weather and traffic. It also features a built-in CO detector that alerts pilots via a loud audio alarm, a flashing red light, and a pop-up alert in the ForeFlight app.

This makes Sentry a solid safety tool, and it can be mounted out of the way if necessary. The ForeFlight Sentry retails for \$499.00 (Catalog 6891A).

Aithre. This tiny detector takes a different approach. It is a standalone CO detector and alert device, but it also connects to a free iOS app to offer detailed monitoring. You can track ppm levels with a 15-minute history or get pop-up messages and Siri voice alerts. It uses a rechargeable battery and includes a handy mounting clip. The Aithre retails for \$130.00 (Catalog 6184A).

For additional information, see "Carbon Monoxide Detectors" on the Sporty's Pilot Shop "Safety & Survival" page at Sportys.com.

EDITOR'S NOTE: Dan Bass lives in Winona, Minnesota, with his wife, Deanna, and two children. He owns and operates Mec-Pro Mfg, a custom equipment manufacturing company founded by his father in 1975, who was also a pilot and aircraft owner. Dan soloed on his 16th birthday and received his Private Pilot Certificate on his 17th birthday. He is currently a Certified Flight Instructor with 2500 hours. After his accident, Dan replaced his Mooney M20C Ranger with a Mooney M20K 231. He and also owns an Ercoupe. □

The Birth of America... The Birth of Freedom

by Yasmina Platt

During a trip to Boston (to teach a “Rusty Pilots Seminar” for AOPA), I had the chance to travel back in time while visiting the Minute Man National Historical Park (<https://www.nps.gov/mima/index.htm>), and also stopped at a couple of nearby airports. You all already know it... I love it when I can combine aviation with the National Park System (NPS).



Yasmina Platt



The airspace around Boston, Massachusetts.
Sectional Chart Courtesy of ForeFlight

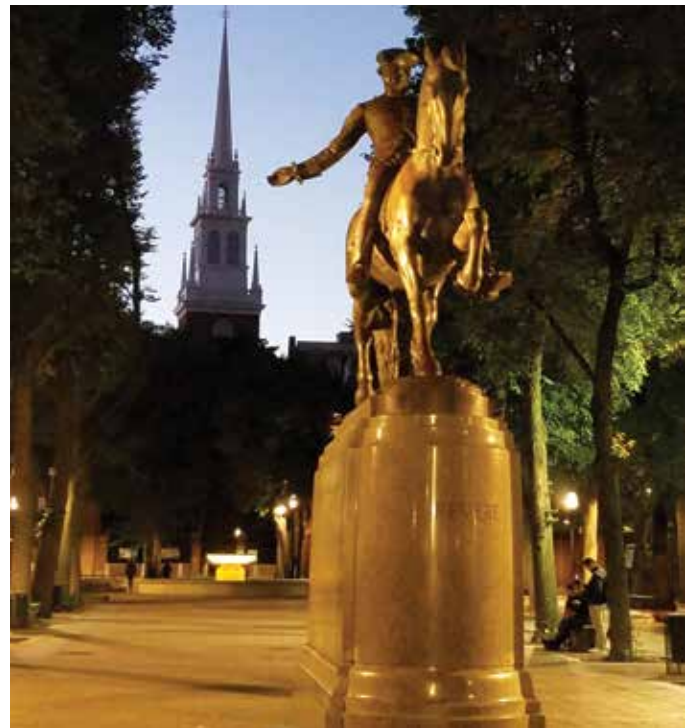
You may remember (possibly from your high school or college history class) hearing about the “Minute Men,” Lexington Green, Concord’s North Bridge, or the Battle Road. All of this is linked to Massachusetts and the start of the American Revolution. On April 19, 1775, nearly 4,000 colonists fought against 700 British soldiers, forcing the British out of the area along the “Battle Road,” from Concord to Boston. The details of the battles, how the militia and Minute Men were formed, how they operated, etc., are interesting.

Following this successful day for the colonists, on July 2 of that year, George Washington took charge of this army. Later, on March 17, 1776, British troops evacuated Boston. In Massachusetts, the fighting was over, but the war for independence had only begun.

The Minute Man National Historical Park preserves sites where colonial militia men and British soldiers clashed on April 19, 1775. They also schedule quite a few reenactments and exhibitions throughout the year.



Minute Man National Historical Park preserves sites where colonial militia men and British soldiers clashed on April 19, 1775. They also schedule quite a few reenactments and exhibitions throughout the year.



Paul Revere asked Robert Newman, the sexton of Old North Church, to signal with lanterns about the expected movement of the British regulars towards Concord. This basically signaled the beginning of the American Revolution.

Laurence G Hanscom Field Airport (KBED) is a very convenient airport to fly into to visit the park. The airport is so close, it might as well be part of the park. One, can walk/ hike, ride a bike, or even jog (for those overachievers out there!) from any of the fixed base operators (FBOs). You could also consider taking one of the FBO courtesy cars and drive over or request a rideshare.

The park has a number of trails. You can walk from one end of it to the other, using trails, while taking in all that history has to offer: battle sites, agricultural fields, colonial homes and taverns, forests, fragile wetlands, and historic landmarks. Portions of the trails are on Battle Road where the British column marched; other sections follow stone walls and farm lanes traversed by the colonists.

One of those taverns you can visit is “Hartwell Tavern.” Once home to the Hartwell family, this setting evokes the story of families who lived along Battle Road on April 19, 1775.

I also particularly enjoyed seeing Samuel Hartwell's old house near the tavern. It was cool to see its ruins, with the middle chimney structure still in great shape.

And, if hiking is not “your thing” or you're short on time, you can always take one of the Liberty Ride Trolley Tours.

By this point, both you and your plane are probably hungry. My suggestion is to make a quick flight over to Minute Man Air Field (6B6) for gas and a wonderful meal at Nancy's Air Field Café. This restaurant is not your typical “\$100 hamburger-type” joint. The concept is much more gourmet – farm to table – so, as such, some of their menu items are seasonal! You can get a burger (heck, you can even get a lamb burger!), if you want, but they also offer much more elaborate platters.

For additional information and more photos, visit www.airtrails.weebly.com. Go exercise your freedom to fly! Fly safe and fly often!

EDITOR'S NOTE: Yasmina Platt has been with the international airport planning and development consulting firm AECOM since 2016. She also writes an aviation travel blog called “Air Trails” (www.airtrails.weebly.com), in addition to articles on pilot destinations for *Midwest Flyer Magazine*. Pilots can locate articles Yasmina has written by going to www.MidwestFlyer.com and typing in her name in the search box. □

MITCHELL GALLERY OF FLIGHT FROM PAGE 24

flight heritage, and the newly-remodeled USO Lounge will continue to ensure the safety and comfort of military members and their families traveling through KMKE,” said Mitchell Airport Director Brian Dranzik.

The Mitchell Gallery of Flight is a free non-profit aviation museum that features a multitude of exhibits, displays, and artifacts. It is open to the public 24 hours a day, 365 days a year.

“Along with our new space, we will also be introducing a new exhibit honoring Wisconsin's Tuskegee Airman, World War II African-American fighter pilot Lt. Alfred Gorham,” said Mitchell Gallery of Flight Board President Bill Streicher.

Located next door to the museum, the USO Lounge

is open daily and is designed to be a comfortable space for military members and their families.

“The new USO Wisconsin Center is pre-security and will allow us to better serve military who are flying out of any concourse,” said Executive Director of USO Wisconsin Josh Sova. “Our VIP service is even more enhanced for recruits headed to basic training, reservists and National Guard annual training, service members deploying overseas, and families of the fallen.”

KMKE currently offers nonstop flights to nearly 40 destinations coast-to-coast, and 200 international destinations are available from Milwaukee with just one easy connection. KMKE is served by Air Canada, Alaska Airlines, American Airlines, Apple Vacations/Funjet Vacations, Delta Airlines, Frontier Airlines, Southwest Airlines, and United Airlines. The complete list of nonstop cities can be found at mitchellairport.com.

Milwaukee Mitchell International Airport is owned by Milwaukee County and operated by the Department of Transportation, Airport Division, under the policy direction of the Milwaukee County Executive and the County Board of Supervisors. The airport is entirely funded by user fees; no property tax dollars are used for the airport's capital improvements or for its day-to-day operation. □

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Years of Memories & Growing Up At Oshkosh

by Stacy W.

I may not remember my first time at EAA AirVenture Oshkosh, Oshkosh, Wisconsin, as I was too young, but I do remember prepping for the biggest event of the year. Our family would get up early and head to the show... my dad was always busy working the show – interviewing the crowd, performers and speaking with vendors.

We met many new people, made many new friends, and had many exciting adventures while at the show. No day, no show, no year was ever the same. The event is always bringing in new acts, new activities, new vendors, and for those people returning, EAA is always reinventing itself, so things are never the same.

If you haven't experienced the actual airshow from different spots on the grounds, you should. I mean, "wow," talk about a whole new perspective! I challenge you at the next show to pick a new spot and see the show from a whole new angle. From feeling the heat from the pyros on the showline, to feeling the jets coming up from behind you, no heart-pounding feeling is ever the same.

Yet in recent years, I look back at my memories of EAA and really nothing has changed in regards to meeting new people, working the show and preparing for the biggest event of the year. However, one thing has changed and that is me... as I age like a fine wine. I now bring my family to the show, and they get to experience the "ooohs" and "aaahs" of some of the same thrilling airshow performers that I loved as a kid – Julie



The night airshow and fireworks continue to be a big attraction at EAA AirVenture Oshkosh, as do the aircraft, like this USAF Rockwell B-1 Lancer.
EAA Photo by Chris Miller

Clark and Sean Tucker, to name two of the best! I now get to re-experience "KidVenture" and the many activities at the Ford Pavilion in the eyes of my son. I feel fortunate to be

able to experience the same youth activities as I did as a child with my family, and experience new activities.

One thing I don't remember as a child, and which has improved over the years, is the night show and fireworks. I mean "holy cow!" I love fireworks and that show has to be the best choreographed airshow of the year! Kudos to AirVenture and its team for raising my expectations so high that they cannot be met by any other fireworks display I have ever seen.

In closing, it is sad given the pandemic that AirVenture had to be cancelled for this year, among many other activities and events. Our lives have changed, but the anticipation for next year is even that much greater! I look forward to seeing you all in Oshkosh for EAA AirVenture 2021 where we will experience the greatest show on earth! □



EAA Founder, Paul H. Poberezny, and me at EAA AirVenture Oshkosh in 1982.



The "Wall of Fire" at EAA AirVenture Oshkosh.

EAA Photo by Will Campbell

10 Memories of A Decade At EAA

by "EW"
The Kid Reporter

EDITOR'S NOTE: Anyone who has ever attended EAA AirVenture Oshkosh at Wittman Regional Airport in Oshkosh, Wisconsin, has their own special memories, be it meeting people you have only read about, attending workshops and special programs, camping out, watching the daily airshow, or seeing every make, model and type of airplane that has ever been built by hand or in a factory. The following memories come from an 11-year-old boy who has attended AirVenture over the past 10 years. Not being able to attend in 2020 due to the pandemic was disappointing for everyone, but this young lad looks forward to many more memories in the years to come, and hopes you will too.



Each year I watched the daily airshow with my grandfather.

The 10 memories I have of a decade of attending EAA AirVenture Oshkosh include:

1. Watching the fireworks, because it is cool to see all of the pretty colors and planes fly by, and it is extremely cool to watch the "Wall of Fire!"
2. I liked it when the jets came by and made a super cool ruckus. It made the earth beneath us shake!
3. FOOD!!! Whatever you crave, there is a meal or snack

for you.

4. Seaplanes. If you are not into looking at airplanes at the airport, well then head to the EAA Seaplane Base on beautiful Lake Winnebago. There you will find every kind of seaplane imaginable, from Piper Cubs to transports, such as the magnificent "Martin Mars" water bomber that appeared in 2016.

5. The U.S. Navy Blue Angels appeared for the first and only time at Oshkosh in 2017. The team was formed in 1946 and is the second oldest military formation team in the world, second only to the French Patrouille de France formed in 1931. The Blue Angels currently fly six McDonnell Douglas F/A-18 Hornet jet fighters – one amazing aircraft in use today on our nation's

aircraft carriers. Other military formation teams that have performed at AirVenture includes the third oldest military formation team, the U.S. Air Force Thunderbirds (formed in 1953) that fly six F-16C Fighting Falcons. The Thunderbirds performed at Oshkosh in 2014. The Canadian Snowbirds performed at Oshkosh first in the 1970s, and then again in 1983 and 2016. The Snowbirds were founded in 1971 and fly 11 CT-114 Tutors. The Italian military aerobatic team,



In 2010, EAA Founder Paul H. Poberezny took the time to pose for a photo with me on his lap in his red convertible Volkswagen "Red One."



Where else but "KidVenture" at EAA AirVenture Oshkosh, does a "kid" get to take the controls of a North American B-25 Mitchell bomber?

"Freece Tricolori," performed at Oshkosh in 1986.

6. Interviewing spectators, airshow performers, and aeronautical engineers allowed me to learn a lot about airplanes, how they are built, and what enables them to fly!

7. Frequent visits to the "Ford Pavilion." If you are feeling like you have "the wiggles," then why not head down to the Ford Pavilion where you can climb up a rock wall and come down using a bungee cord. Or how about throwing a baseball or having a blast and getting cooled off at the same time from all of the activities you did during the day with the "water cannon."

8. "KidVenture" at EAA's Pioneer Airport has numerous activities for kids, from learning how to make an aircraft propeller, to flying an airplane. KidVenture has every activity a kid could ask for.

9. Watching drones fly is cool because there are different styles, depending on what you want to do with them. If you are feeling like you want to compete, there is a drone "racing station." And if you just want to relax and have fun, then go to the "driving station" where you can learn to drive a drone freely.

10. The daily airshows. There are so many cool planes and aerobatic or "trick" planes that do lots of cool maneuvers that look dangerous, but when flown by the experts, are really safe. I like the smoke that comes from the planes, and "barrel rolls."

If I may add an eleventh memory of EAA AirVenture Oshkosh, it is a memory shared by my mom, dad and my grandparents, as I was too young to remember it at the time. It was when the founder of EAA, Paul H. Poberezny, took the time to pose for a photo with me on his lap in his red convertible Volkswagen "Red One." Back in 1982, Mr. Poberezny held my mother in his arms so my grandparents could take their photo. Mr. Poberezny loved EAA and its members and attended AirVenture right up to within weeks of his passing on August 22, 2013. Mr. Poberezny considered all EAA members part of his family and wanted to be with them to the end.

May EAA and AirVenture Oshkosh celebrate a resurgence in 2021, when once again we will come together as one, and where there is something for everyone!

EAA AirVenture Oshkosh 2021 will be held Monday, July 26 thru Sunday, August 1. □



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Registering Your Aircraft In Wisconsin



by Michele Cumblad
WisDOT Bureau of Aeronautics

Fall is upon us. The leaves are changing, pumpkin spice flavoring is everywhere, and Wisconsin aircraft registration renewal fees are due. We have nearly 6,000 registered aircraft in Wisconsin, the oldest dating back to 1917. For many of these aircraft owners, the need to renew your aircraft registration is hopefully no surprise. For those needing a refresher on the rules, or for anyone with aircraft ownership in your future, here's a quick overview of how aircraft registration works in Wisconsin.

Who is required to register?

If your aircraft is based in Wisconsin for a period of 30 consecutive days, or for a cumulative period of 60 days in a calendar year, you must apply for Wisconsin registration or exemption. Wisconsin registration is required even if you already registered your aircraft in another state.

Owners of "amateur built" and "antique" aircraft pay a one-time \$50 registration fee. In addition, some aircraft may qualify for an exemption. If your aircraft is classified as unairworthy, incomplete amateur built, municipally-owned, or museum aircraft, you may apply for an exemption.



The State of Minnesota provides this Technical Bulletin in the interest of Aviation Safety and to Promote Aeronautical Progress in the State and Nation.

Cassandra Isackson, Director

Minnesota DOT Office of Aeronautics
222 East Plato Boulevard • St. Paul, MN 55107-1618
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Your Fly Minnesota Airports Passport Adventure Awaits You!

by Darlene Dahlseide

PASSPORT

fly Minnesota Airports!

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The graphic features a dark blue background with the word 'PASSPORT' in large, white, bold, sans-serif capital letters at the top. Below it is a teal-colored outline map of Minnesota. Overlaid on the map is the word 'fly' in a white, cursive script, followed by 'Minnesota' in a green, sans-serif font with a yellow star over the 'a', and 'Airports!' in a green, sans-serif font with an exclamation point. At the bottom of the graphic, on a light blue background, is the text 'SPONSORED BY MnDOT Aeronautics Minnesota Council of Airports' in dark blue, sans-serif font.

Flying is fun for aviators. The freedom experienced when you fly is little short of absolutely marvelous. And now and then something comes along that makes flying even more fun, or even makes it like a new adventure!

One of those things is the “Fly Minnesota Airports Passport” program. The program started in 2008, and to date, 46 pilots have qualified to receive a Fly Minnesota Airports leather flight jacket by visiting at least 130 of Minnesota’s 134 public airports, six aviation museums, and attending six FAA safety seminars.

Any FAA-licensed pilot from any state can participate in the program. After receiving their Fly Minnesota Airports Passport (registration takes about one minute), pilots can earn “stamps” in their passport each time they visit a Minnesota public airport, attend an FAA safety seminar, and visit Minnesota’s aviation museums.

The 46 pilots who currently wear a Fly Minnesota Airports leather jacket also earned a cap and flight bag for earning stamps during their skill-building and educational adventures. Hundreds of other pilots are currently working to fill their Fly Minnesota Airports Passport.

The program promotes general aviation safety and education in Minnesota, and is sponsored by the Minnesota Department of Transportation’s Office of Aeronautics and the Minnesota Council of Airports. At its most practical level, the program encourages pilots to practice approaches and landings in many different environments. It’s also a great way to support general aviation airports, local businesses, and tourism.

Now is the perfect time to get flying toward your leather jacket for the fall.

This year MnDOT updated the Fly Minnesota Airports Passport program. The entire process is now online. To register and receive your Fly Minnesota Airports Passport, visit the registration webpage, answer a few questions, and a passport will be sent to you within a week. After that, just begin flying and fill your passport with stamps. Registering online will validate your participation in the program and allow us to update you with any changes to the program.

The link to register is: www.mndot.gov/aero and click on the Fly Minnesota Airports Passport logo in the left margin.

Be sure to fill in the page at the front of your Fly Minnesota Airports Passport with your name and contact information. When you visit a public-use airport in Minnesota, an aviation attraction or participate in any FAA safety seminar, have your passport stamped or signed in the appropriate space.

Pilots may attend FAA safety seminars online or in person. If a course is taken online, fill in the course name, date, and instructor’s name in the appropriate block. You may also be asked to provide a copy of your FAA Safety Team Accredited Activity history. We encourage you to attend FAA safety

seminars in person when it is safe to do so, and the FAA will have stamps available at qualifying events. To find events, stay informed, and register, login on at www.faasafety.gov or contact the FAA Flight Standards District Office for more information.

There are three award levels to the Fly Minnesota Airports Passport program – the Bronze, Silver and Gold. The Bronze Level awards a hat and pin to those pilots who have visited 34 airports, two aviation attractions, and attended two FAA safety seminars. The Silver Level awards a flight bag to those pilots who have visited 68 airports, four aviation attractions, and attended four FAA safety seminars. The Gold Level awards a leather flight jacket to those pilots who have visited 130 airports, six aviation attractions, and attended six FAA safety seminars.

Upon completion of any level, the Fly Minnesota Airports Passport and your logbook must be submitted to the MnDOT Office of Aeronautics for review. Once a passport has been submitted and the award is received, the passport and logbook will be returned to the participant so that he or she can continue to the next level. There is no deadline for completing the passport program, as long as the program remains in operation.

We always encourage pilots to fly safe, conduct adequate preflight activities to ensure that a flight can be conducted safely, and always check NOTAMS.

Make your adventure last longer. Some airports may have vehicles to borrow to explore the community. Check with the airport manager about availability. Also, consult www.exploreminnesota.com or call **888-VISITMN** to get help from experts to plan your adventure. You may want to make a note of the date of your flight, weather conditions, and any other memorable details of your flight in your passport booklet in the correct airport box.

Here are a few comments from several Gold Award winners about their Fly Minnesota Passport program experience:

Rushford Municipal Airport – Robert W Bunke Field – was ranked by several pilots as the most beautiful airport in Minnesota: “It also has the best classic/collector courtesy car – you have to stop by and see it for yourself.”

Piney-Pinecreek Border Airport is the only airport owned by the State of Minnesota and is co-located in Minnesota and Manitoba, Canada.

Grand Marais - Cook County Airport: “I had been practicing my emergency takeoffs and landings and they paid off during my most challenging landing at Grand Marais - Cook County Airport due to the windy conditions off of Lake Superior.”

“My most memorable flights were in northern Minnesota in the fall. They are just beautiful with all the fall colors, crisp air, and great engine performance.”



(L/R) Cassandra Isackson, Director of Minnesota DOT - Aeronautics, presents Craig Rodamaker of Brainerd, Minnesota with the Certificate of Achievement and awards on July 31, 2019, for reaching the Gold Level in the “Fly Minnesota Airports Passport” program.



(L/R) Barry Erickson, now retired chief pilot with Minnesota DOT - Aeronautics, presents Thomas A. Rishovd of Elk River, Minnesota with his Gold Level awards and certificate in the “Fly Minnesota Airports Passport” program on April 14, 2016. Rishovd received certificates for all three levels that day.



Sandra Schreur-Jones of West Lakeland, Minnesota, received her Bronze Level award and certificate in the “Fly Minnesota Airports Passport” program on September 24, 2019.



(L/R) Brian Lett of Eden Prairie, Minnesota with his wife and flying companion, Debi. Lett received his Gold Level awards and certificate in the “Fly Minnesota Airports Passport” program on November 15, 2019.

What’s next for the Fly Minnesota Airports Passport Program?

The MnDOT Office of Aeronautics is looking forward to another great year for all Fly Minnesota Airports Passport participants. And for those pilots who already completed the

current program, we hope to create a new program for them.

If you have any ideas for “Passport 2.0,” please forward them to Darlene Dahlseide at **Darlene.dahlseide@state.mn.us**.

Happy Flyin’ and Landin’!



Know the Rules for Safe Ground Vehicle Operations at Airports

Information from FAA Advisory Circular 150/5210-20A

by Joe Anderson

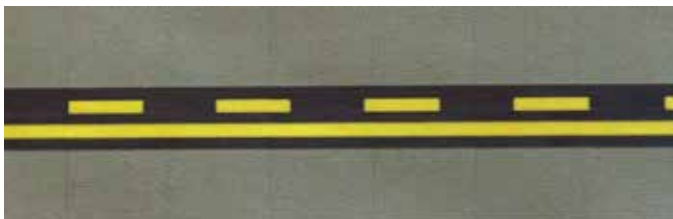
According to FAA Advisory Circular 150/5210-20A, “Each year, accidents, incidents, and runway incursions occur involving aircraft, pedestrians, ground vehicle drivers, and personnel taxiing or towing aircraft at airports. These accidents and incidents can lead to property damage, injuries, and even death.”

Most of us are accustomed to driving our vehicles on public roadways, with a thorough knowledge of the rules of the road and the operating expectations of ourselves and other drivers. However, when it comes to operating a vehicle on airport property, the “rules of the road” are different. There are hazards not normally found on a public roadway. Even signs and pavement markings are much different, which can be confusing for anyone not familiar with them.

For most people, driving a vehicle on an airport is far outside the normal scope of responsibilities or authorization. However, some of us who work at airports may need to venture out into what can be a very hazardous environment. Because of the potential hazard that we can create or be exposed to, we need to ensure that we have the proper authorization from the airport manager and/or Air Traffic Control (ATC) before operating on an airport.

Airport surfaces can be divided into two categories: movement areas and non-movement areas. Movement areas are defined as the runways, taxiways, and other areas of an airport that are used for taxiing, takeoff, and landing of aircraft, not including loading aprons and aircraft parking areas. The non-movement areas are anything that is not part of the movement area and used for loading, unloading, and parking aircraft. At tower-controlled airports, the non-movement area is not under the control of ATC, and aircraft and vehicles may move about the non-movement area without clearance or communication from ATC.

The delineation between movement and non-movement areas may be indicated on the airport surface by the following boundary marking:



The solid line is on the non-movement side, and the dashed line is on the movement side. At tower-controlled

airports, aircraft and vehicles cannot cross from the solid side of the line to the dashed side without ATC clearance.

Operating a vehicle within the non-movement area, even though a clearance from ATC is not needed, requires the driver to exercise extreme caution and alertness as the apron may contain moving aircraft, pedestrians and other vehicles. Noise levels may be high which could make it more difficult to detect other vehicles and aircraft.

Never drive between safety cones or across passenger walkways. Watch cockpit blind spots—pilots typically cannot see behind or below the aircraft. Avoid jet blast or prop wash, which can blow debris or overturn vehicles. Be aware of, and avoid, all moving propellers which can cause damage, injury or death. Be aware of other vehicle movements – you may not hear them approaching due to aircraft engine noise. Yield to all aircraft, passengers, and emergency vehicles, which always have the right-of-way. Pay particular attention when aircraft beacons (flashing red or white) are illuminated, as that aircraft may have engines operating and may be moving or preparing to move.

Driving in the movement area requires even more vigilance and situational awareness due to additional hazards. Consider the movement area as a protected place where only the well-trained should operate.

The movement area contains signage which can be difficult to understand. At airports with an operating control tower, a clearance from ATC is necessary. If operating in the movement area at a non-towered airport or at a tower-controlled airport when the tower is closed, it is necessary to self-announce location and intentions on the Common Traffic Advisory Frequency (CTAF).

Vehicles which operate in the movement area should be marked with flashing lights or flagged for high daytime visibility and lighted for night operations. Vehicles must be equipped with an appropriate radio for transmitting and receiving on the airport’s frequencies. The radio frequencies need to be monitored at all times, which means if a driver must get out of a vehicle, an external speaker or a handheld radio will also be needed. High visibility clothing—such as a vest and cap—need to be worn when outside of the vehicle. Hearing protection is always a good idea, along with any other personal protective equipment or other items required by your employer or the airport operator.

Taxiways are used by aircraft to move between the aprons and the runways. Taxiways are designated by a letter or a letter-number combination such as A, C, B4. Taxiways are typically edged by blue lights or blue reflectors. At hard-surfaced airports, taxiways also have a painted yellow center

stripe. Unlike a roadway where the centerline divides the road into two lanes, a taxiway is a single-lane surface – aircraft are expected to taxi on the centerline. Keep in mind that airplanes cannot backup. While driving on a taxiway, if a vehicle approaches an airplane head on, the vehicle will need to safely get off the taxiway by pulling over into the grass or turning around and exiting the taxiway.

A taxiway location sign may be located alongside a taxiway and will display the taxiway designation with yellow letters on a black background. For example:



Directional signs use black letters on a yellow background. Directional signs point to the direction of the indicated taxiway or runway. For example, at this sign, if you turn right, you will be on taxiway Delta:



While operating on the movement area of an airport, it is critical to avoid entering the runway inadvertently, resulting in a runway incursion. Always maintain situational awareness and know where runways - and their boundaries - are located.

Runway holding signs are red – think of them as a stop sign on the road. Never pass the holding sign unless you are given a clearance to do so at a tower-controlled airport. Here is an example of a holding sign for runway 15/33:



Runway areas may also be indicated by a runway holding position marking, painted on the pavement. Never cross from the solid line side to the dashed line side until a clearance is received at tower-controlled airports or until the area is clear and a radio call has been made at non-towered airports:



If you need to drive on the runway, it is best to drive with the direction of the wind. Aircraft takeoff and land into the wind. Driving in the opposite direction of arriving or departing aircraft will provide the best opportunity to spot them. If it is necessary to cross a runway, do so at the end of the runway instead of the middle as this will give aircraft the best chance to see you if you failed to see them.

While operating a vehicle on an airport surface, it is of utmost importance to do so in a safe manner. A runway incursion creates an enormous hazard.

A runway incursion is defined as “any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and takeoff of aircraft,” according to FAA AC 150/5210-20A. In other words, something is on the runway that is not authorized to be there.

Runway incursions are primarily caused by an error in one or more of the following areas: communication failure, airport unfamiliarity, loss of situational awareness or not using a current airport diagram.

Here are a few quick suggestions to help prevent a runway incursion while operating a vehicle on the airport:

Stay out of the movement area. Vehicle operations in the movement area should be reserved only for those that are operationally necessary. If it is necessary to operate in the movement area, consider having the airport manager issue a NOTAM to alert pilots of your presence.

Communicate. If at a tower-controlled airport, get a clearance before entering movement areas and don't assume you know which taxiway route ATC is going to assign you. If at a non-towered airport, self-announce on the CTAF before entering movement areas. Remember that pilots are not required to talk on the radio at a non-towered airport, so establish and maintain a good scan for aircraft with your eyes. Pilots will oftentimes activate the runway lights before they takeoff or land (even during the day). Exit the runway and look for approaching aircraft if the runway lights turn on.

Be familiar with your airport. Have an understanding of the taxiway designations and the most common routes aircraft are using to get to and from the runway. If you are unfamiliar, get an escort from someone who is familiar with the airport.

Maintain situational awareness. Study your airport's taxiway diagram and have it close by when moving on the airport. Always know where the runways are located, and don't allow yourself to inadvertently enter a runway.

Safety professionals believe nearly all safety incidents are avoidable. Ultimately, it is up to every one of us who operate at an airport to keep ourselves and others safe. Knowing the “rules of the road” when operating a vehicle on an airport surface is a good place to start. The full set of guidelines can be found online in FAA Advisory Circular 150/5210-20A. □



Raymond J. Rought

January 5, 1948 - July 6, 2020

FOREST LAKE, MINN. – Longtime Minnesota Aeronautics Director, Raymond J. Rought, 72, of Forest Lake, Minnesota, passed away peacefully July 6, with family by his side.

Rought completed his baccalaureate degree in civil engineering at Michigan Technical University in 1970. Following graduation, he served in the U.S. Army in Vietnam, assigned to the Medical Command Headquarters in Long Binh. Upon his return to the states, Rought joined the Michigan Department of Transportation, Bureau of Aeronautics. He completed his Master of Science Degree in Civil Engineering at Michigan State University in 1978. In 1986, he was named Director of Aeronautics for the Minnesota Department of Transportation, a position he proudly held for 22 years. He retired from MnDOT in 2012.

In 2007, Rought was awarded the Kenneth Rowe Ambassador of Aviation Award in recognition of his contributions to the betterment of aviation nationally through research, education and legislation. In 2011, Rought was inducted into the Academy of Civil and Environmental Engineers at Michigan Technological University. In 2012, he

was inducted into the Minnesota Aviation Hall of Fame.

Rought was very active in and dedicated to the aviation community. He was a member of the National Association of State Aviation Officials (NASAO) and served on its board of directors and as chairman. He worked to establish the NASAO Center For Research & Education. He served as president of the Minnesota Aviation History and Education Center, and was a longtime pilot and member of the Experimental Aircraft Association (EAA).

Ray Rought was born in Fremont, Michigan to Levirn and Jean Rought who precede him in death, as does his infant sister, Rebecca. He will be deeply missed by his wife of 50 years, Carol; daughters, Marissa (Steven) Sindelir of Sartell, Minn., Alecia (Anthony) Gick of Hampton, Va., and Jennifer (Nicholas) Naschansky of Rincon, Ga.; grandchildren, Noah and Aiden Gick and Nora and Greta Naschansky; brother, Richard (Linda); sisters, Rosemary (Harry) VanderVegte, and Carolyn (Jim) Brown; and his many friends and associates in the aviation community. □

Minnesota Aviation Hall of Fame Moves 2020 Banquet To 2021

BLOOMINGTON, MINN. – The board of directors of the Minnesota Aviation Hall of Fame (MAHF) has decided to postpone the 2020 Induction Banquet for the second time due to the COVID-19 virus. The event was to be held in April, then postponed to November, but has now been rescheduled for Saturday, April 17, 2021. The venue has also been changed from the MSP Intercontinental Hotel to the DoubleTree by Hilton Bloomington – Minneapolis South at 7800 Normandale Boulevard, Minneapolis MN 55439.

All current banquet reservations will be honored for the banquet on April 17, 2021. Anyone who has reservations and is unable to attend may request a full refund or cancel their reservations and donate the money to MAHF for scholarships and other programs.

Email all requests for refunds and donations to MAHOFBanquetReservations@gmail.com or call 952-906-2833. Be sure to include a mailing address (www.mnaviationhalloffame.org). □



Kada Goalen is proud of her mural at Cirrus Flight Operations, Inc., Anoka County-Blaine Airport in the Twin Cities.

Artist Focuses On Murals On Aircraft Hangars

by Richard Cross

We all use them – hangar doors! Cirrus Flight Operations, Inc., not to be confused with Cirrus Aircraft, would like to introduce Kada Goalen to the aviation community with her new look for old aircraft hangar doors.

Kada grew up in Minnesota, studied art and received a Bachelor of Fine Arts Degree from the University of Massachusetts, Amherst. She also studied and trained in Florence, Italy. After college she started her own business, “Kada-Creative,” and began painting murals for businesses and homes.

Kada has been creating and painting for over 20 years. Relying on her talent and experience, she looks forward to every project and challenge her clients set forth. Each project

is unique and exciting!

Kada lives in St. Paul, Minnesota, and has no aviation experience, other than trips to EAA AirVenture Oshkosh. But she is intrigued by the whole idea of flight, which is reflected in her work.

“Dick Cross, owner of Cirrus Flight Operations, located at Anoka County-Blaine Airport in the Twin Cities, came to me to liven up their hangar,” says Kada. “The hangar was very monochromatic and in need of some color. I was able to take their logo and incorporate it into a simple design that would fit with the aesthetics of the airport.

“The design is clean and simple and can be enhanced later with more art elements. The hangar door is a great canvas to show their clients and customers what they represent, and



to bring some interest to an otherwise dull space. The mural captures the viewer's eye and personalizes the space.”

Kada likes to collaborate fully with businesses and individuals to capture their specific “look and feel.” She can take any space, wall, hangar door – you name it – and elevate the aesthetics of a business or individual with a unique art

design.

For additional information or a project quote, contact Kada Goalen at Kada Creative llc: 651-592-3816 or email artbykada@gmail.com or Instagram: [@kada_creative](https://www.instagram.com/kada_creative) (artfuleclectic.com). □

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READERSHIP: Each issue is distributed to *different* aircraft owners (single-engine piston thru corporate jets) and pilots (Private thru ATP), aircraft technicians, fixed base operators, flight schools, technical colleges, airports and airport officials.

More than 10,000 copies are printed and distributed via mail, at conferences and trade shows, and displayed in pilot lounges throughout the Midwest, resulting in multiple ad impressions.

In addition to the “print” version of the magazine, each issue is posted “online” at MidwestFlyer.com, providing advertisers with added exposure at no additional charge!

First Pilot To Fly Without Arms Celebrates 30th Anniversary of Americans With Disabilities Act By Taking The U.S. Senator Who Sponsored The Bill, Flying!



Jessica Cox

On July 24, 2020, Jessica Cox of Tucson, Arizona, the world's first pilot born without arms, took former U.S. Senator Tom Harkin (D-Iowa) flying in her rudderless 1946 Ercoupe at Frederick Municipal Airport in Frederick, Maryland (KFDK). This was Jessica's way of thanking Sen. Harkin for his leadership, which made it possible for her and millions of other Americans with disabilities to access their rights and pursue their hopes and

dreams.

The former senator was the lead sponsor of the Americans With Disabilities Act (ADA), a landmark piece of legislation, which turned 30 years old on July 26, 2020. Harkin remains one of ADA's fiercest advocates.

Jessica and Sen. Harkin flew the pattern at Frederick several times. She controls the aircraft with one foot on the yoke and the other on the throttle. It was a hot and humid



After a thorough preflight inspection, Jessica Cox, the first person born without arms to become a pilot, took former U.S. Senator Tom Harkin (D-Iowa) flying in her 1946 Ercoupe at Frederick Municipal Airport in Frederick, Maryland (KFDK).



After landing, Jessica Cox said, "It was a privilege to fly with the person who made so much of a difference in the lives of those like me."



All smiles following a successful flight, former U.S. Sen. Tom Harkin remarked that pilot Jessica Cox "greased" the landing.

morning, but that did not deter either pilot. Harkin is a former Navy pilot, active GA pilot, and a member of the Congressional GA Caucus and the Aircraft Owners & Pilots Association (AOPA).

"I've been in Washington and doing events, but this day has been the best," Sen. Harkin said after he noted that Jessica "greased" the landing. "Her first landing was so-so, but then she went back to do it again—with all of these cameras rolling—and it was just perfect!"

After landing her plane, Jessica said, "It was a privilege to fly with the person who made so much of a difference in the lives of those like me." The flight also gave Jessica the opportunity to talk to Harkin about the work that still needs to be done.

With ADA, Jessica was able to attend school, earn a degree, get her driver's license, and eventually obtain her Sport Pilot Certificate in 2008. She uses her feet and toes like arms and fingers to control the aircraft. She is also the first armless black belt in taekwondo and enjoys surfing and scuba diving. Jessica can also type at 25 words per minute and travels the world as a motivational speaker and advocate for disability rights.

See Jessica's recent airshow promo video: <https://www.facebook.com/JCMSofficial/videos/713285949243751/>

KFDK is the home airport of the Aircraft Owners & Pilots Association, which supported the ADA legislation.

EDITOR'S NOTE: Special thanks to the editorial staff at AOPA for providing the information and photographs used in this article!



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EAA Wright Brothers Memorial Banquet Goes Virtual For 2020

Apollo 13 commander, James Lovell, is special guest for December 10th event



Astronaut James Lovell as seen in 1969.
NASA Photo

OSHKOSH, WIS. – The Experimental Aircraft Association’s (EAA) annual Wright Brothers Memorial Banquet, which has brought some of the world’s top aviation personalities to Oshkosh for nearly 20 years, is moving to a virtual online format for this year’s event to be held Thursday, December 10.

Apollo 13 commander, Capt. James Lovell, will be the special guest for the evening, which honors the 117th anniversary of the Wright brothers’ first successful powered flight at Kitty Hawk, North Carolina, on December 17, 1903. Capt. Lovell will be interviewed by Charlie Precourt, a former NASA space shuttle commander, in a program that begins at 7:00 p.m. Central Time on December 10.

“As much as we would love having Capt. Lovell and EAA members all together at the EAA Aviation Museum as we’ve had for past Wright brothers banquets, limits on large gatherings because of the COVID-19 pandemic have just made that impossible this year,” said Jack J. Pelton, EAA’s CEO and chairman of the board. “We are grateful, however, that Capt. Lovell has agreed to join us for an online streaming interview session where he’ll talk about his aviation and spaceflight experiences.”

This December 10 special event is free for all EAA members by using their membership access to EAA’s website EAA.org/WrightBrothers. Nonmembers may attend the event by first purchasing a one-year EAA membership for \$40 at EAA.org/Join, and then creating a member web account at EAA.org.

Capt. Lovell, a longtime EAA member and supporter of the organization’s programs, grew up in Milwaukee, Wisconsin. He attended the U.S. Naval Academy and after graduation flew McDonnell F2H Banshee fighters off of the USS Shangri-La before attending test pilot school at NAS Patuxent River. In 1962, he applied for and was accepted into the second group of U.S. astronauts. The Mercury astronauts were known as the “Original Seven,” while Lovell and his peers became the “New Nine.”

Lovell’s first space mission was Gemini 7 with fellow EAA member Frank Borman, followed by Gemini 12, in which he and Buzz Aldrin worked on extravehicular activities (EVA) and docking. In December 1968, Lovell was command module pilot alongside Borman and Bill Anders on Apollo 8, which was the first manned mission to orbit the moon.

Lovell planned to return to the moon in April 1970, as the commander of Apollo 13 with crewmates Fred Haise and Jack Swigert. Three days into the mission, an explosion severely damaged the spacecraft. Working hand-in-hand with mission control, Apollo 13 improvised a brilliant and safe return to Earth. □

National Aviation Hall of Fame President/CEO Amy Spowart Appointed To Newly-Formed Women In Aviation Advisory Board

DAYTON, OHIO – U.S. Secretary of Transportation Elaine Chao has appointed National Aviation Hall of Fame (NAHF) President and CEO Amy Spowart to the newly-formed “Women in Aviation Advisory Board” (WIAAB), which was established on October 3, 2019, under the FAA Reauthorization Act of 2018.

Spowart is one of 30 aviation leaders chosen to develop strategies to encourage women and girls to enter aviation fields. Recommendations will then be presented to FAA Administrator Steve Dickson for consideration.

WIAAB will focus on analyzing industry trends; coordinating efforts among airlines, nonprofit organizations, and aviation and engineering associations to facilitate support for women pursuing aviation careers; expanding scholarship opportunities; and enhancing training, mentorship, education and outreach programs for women interested in aviation careers.

Spowart has been a part of NAHF for over 20 years in various capacities and has been the executive in charge for almost 5 years. She has led NAHF from a locally-focused aviation history museum, to a nationally recognized brand.

“I am honored to be a part of this dynamic group of industry leaders,” said Spowart, whose role at NAHF includes



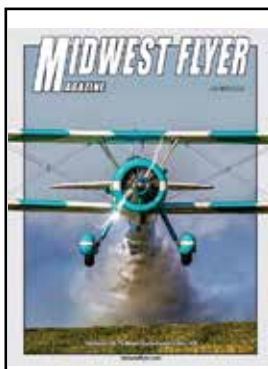
Amy Spowart
Mike Ullery Photo

funding, planning, and transitioning the current NAHF Learning Center to a state-of-the-art Heritage Hall and Education Center. The purpose of NAHF is to emphasize aerospace science, technology, art, engineering, and math focusing on under-served and non-traditional demographics. “The timing of the WIAAB and what we are doing at NAHF could not be better. It is our mission, and my focus, to elevate our current physical space to emphasize work force development, especially in

middle-school age children. To this end, attracting girls and women to aviation is purposeful and intentional.”

Secretary Chao shared in her statement announcing the creation of WIAAB: “Our nation is facing a shortage of pilots and aviation professionals. There are great opportunities in this sector and we want to encourage more women to enter these exciting professions.” Former U.S. Air Force Secretary Heather Wilson will serve as the chair of the board.

The National Aviation Hall of Fame was formed through an Act of Congress in 1964 and is dedicated to honoring America’s aerospace pioneers to promote their vision, innovation, skill and courage to further the nation’s aerospace legacy. NAHF and its Heritage Hall & Education Center are located in Dayton, Ohio. □



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High School Student Gets Private Pilot Certificate Flying STEM Project Aircraft

WESTOSHA, WIS. – On July 11, 2020 – just 7 days after his 17th birthday – Travis Senft, a student at Central High School in Westosha, Wisconsin, passed the flight test for his Private Pilot Certificate. He took his flight test in “Falcon Two,” the second RV-12 aircraft built by his high school STEM class.

“I feel I could have done my soft-field landing better, but I nailed my spot landing,” said Senft. Travis is the son of high school teacher, James Senft, who started the STEM program at Central High School. STEM stands for Science, Technology, Engineering, Mathematics.



Travis Senft wearing his Eagle Scout merit badge sash alongside his best friend, “Sapphire.”



Travis Senft with his flight instructor, Mickey Ferguson, following his first solo flight in 2019.

Travis soloed on the 4th of July in 2019, which was his 16th birthday. (Yes, before he could drive to the airport himself.) His goal after graduation is to become a corporate pilot.

During the summer, Travis worked for the local fixed base operator. He started his junior year in September and has been on the academic honor roll since the 6th grade.

In addition to flying, Travis is on the high school varsity trap shooting team that has won numerous state and national titles. He earned his Boy Scout Eagle Scout rank at the age of 15 with over 40 merit badges and holds the rank of Brotherhood in the Order of the Arrow.

Anyone interested in making a donation to the Central High School STEM program, may email James Senft at senftj@westosha.k12.wi.us



Bruce Landsberg Continues As NTSB Vice Chairman

WASHINGTON, D.C. – The National Transportation Safety Board (NTSB) Vice Chairman Bruce Landsberg has been designated by President Donald Trump to continue to serve in that position for a new term of three years. Landsberg began a five-year appointment as a NTSB board member on August 7, 2018, and on that same day began a two-year term as the NTSB Vice Chairman.

Prior to his NTSB appointments, Landsberg was President of the AOPA Air Safety Foundation. He is a pilot and aircraft owner and continues to be a guest speaker at AOPA Fly-Ins, Beechcraft owner group seminars, and other pilot events.



Bruce Landsberg



Peace Pilot Completes Pole-to-Pole Circumnavigation During Pandemic

“Peace Pilot” Robert DeLaurentis returns home having set multiple aviation records and learning first-hand what it means to be a “Citizen of the World.”

SAN DIEGO, CALIF. (August 10, 2020) – Nine months and several “pandemic pauses” after take-off on a planned five-month global Pole-to-Pole peace mission, “One Planet, One People, One Plane: Oneness for Humanity,” San Diego pilot and former Naval officer Robert DeLaurentis returned home in his highly modified 1983 Aero Commander, “Citizen of the World.”

DeLaurentis set out on a record-setting 26,000-mile, 22-country, six-continent flight to connect the only two places on the planet where there has always been peace: the North and South Poles. Along the way, he interviewed NGO leaders and local residents for an upcoming documentary “Peace Pilot to the Ends of the Earth and Beyond,” asking them, “What does it mean to be a “Citizen of the World for the World?” In addition, DeLaurentis also set multiple first-time aviation innovation records including:

- * Successfully used biofuels over the North and South Poles for the first time ever.
- * Longest distance flown in a twin or single-engine turboprop (17.5 hours).
- * First and fastest Polar circumnavigation of the planet in a twin or single-engine turboprop.
- * First testing for plastic microfibers across the globe including over the South and North Poles.
- * First testing of NASA WaferScale Spaceship outside of Santa Barbara.

“I took the biggest chance of my life with this Pole-to-Pole peace mission,” said DeLaurentis. “It was certainly the riskiest flight I ever set out on, with more opportunities for failure than I’d ever experienced. Add in a coronavirus pandemic that was not on the route schedule and having to navigate different countries’ lockdown policies and count on the goodwill of people whose language I didn’t speak, was daunting at times. But I learned more about what it truly means to be a “Citizen of the World” and the power of peace – both inner peace and peace between people and countries – than I ever dreamed possible.”

After successfully navigating a loss of communication and potential military intervention from Chile while flying over the South Pole, DeLaurentis then headed north, stopping in South Africa and Kenya, the Republic of Georgia and then on to his ancestor’s home country of Italy, just as the coronavirus pandemic took hold in Italy and lockdown was imminent. With friends, family, sponsors, and others telling him to cancel his mission of peace and return home, DeLaurentis doubled down, decided to continue and flew to the next

closest country that was still open – Spain.

As the pandemic spread, Spain became the epicenter of the coronavirus in Europe. DeLaurentis self-quarantined and had to move three times — from a monastery to a hotel to a private residence — but he never gave up hope, or his mission of peace. Once Spain eased restrictions, he continued on to Sweden, waiting another month for permission to fly back to the U.S.

With the help of friends, he repaired a burst fuel tank and waited for the North Pole to warm up, so his plane’s fuel didn’t gel in the subzero temperatures. After several tense days waiting for permission to fly back into the United States, he was cleared to land in Alaska.



Robert DeLaurentis

While flying over the North Pole, he encountered an unexpected loss of communication, loss of the two primary GPS units, the autopilot, and the two altitude and heading reference systems for a harrowing eight hours of the 11.5 hour flight and was forced to reroute his landing from Dead Horse, Alaska to Fairbanks due to intense fog.

After testing negative for COVID-19 and leaving Alaska, DeLaurentis flew “Citizen of the World” to its final stopover in Seattle, Wash., which included a documentary interview with aviation innovator Erik Lindbergh, grandson of aviation legend Charles Lindbergh, CEO of Powering Imagination (promoting sustainable aviation), and co-founder of VerdeGo Aero electric propulsion systems.

Upon his return to San Diego, DeLaurentis was available for media interviews and special events.

For additional information, contact *Sara Wacker, APR* at Sara@SaraWackerAPR.com or (858) 945-1104 sara@sarawackerpr.com

“There is a transformation unfolding in this time of uncertainty,” said DeLaurentis. “I’m optimistic and believe we are awakening to who we truly are. This is a time of rebirth and new beginnings for those who have felt trapped or stagnant. It is a global reset — not just on the planet, but in ourselves as well — and will bring us all together as One Planet and One People: Oneness for Humanity.”

“Peace Pilot” Robert DeLaurentis is an aviation circumnavigator, author, speaker, pilot, real estate entrepreneur, philanthropist, and Navy Gulf War veteran. He is the founder of the “Citizen of the World for the World” global peace movement to connect humanity through the wonder of flight and the power of courageous action. His books include the best-selling “Zen Pilot: Flight of the Passion and the Journey Within,” “Flying Thru Life: How to Grow Your Business and Relationships Through Applied Spirituality,” and his two newest books, “Peace Pilot: To the Ends of the Earth and Beyond” (coming 2021) and the children’s book “The Little Plane that Could.” www.PoleToPoleFlight.com.

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DUE TO THE CORONAVIRUS PANDEMIC, A NUMBER OF THE EVENTS LISTED BELOW HAVE EITHER BEEN CANCELED OR POSTPONED, SO CALL AHEAD BEFORE GOING!

OCTOBER 2020

- 6-8*** ORLANDO, FLA. - National Business Aviation Association (NBAA) has canceled its 2020 Business Aviation Convention & Exhibition (NBAA-BACE).
- 10*** GREENVILLE (KGRE), ILL. - Airstrovananza is still scheduled to be held, 9 am to 4 pm, subject to virus restrictions. B-25 Mitchell Bomber is scheduled to attend and will be giving rides. Scale model flying, food, static displays. Call 618-664-0926 or Ken Kopp @ 501-366-5273 for info and to schedule B-25 rides in advance. Get more info at the Greenville Illinois Pilots Association/EAA 1382 Facebook page.
- 6-8*** BUFFALO (KCFE), MINN. - Aviation Swap Meet 8am-3pm & Airshow 2pm. Sat. - Pork Chop Lunch 11am-2pm. Sun. - Pancake Breakfast 8am-Noon. If needed cancellaton decision on Oct. 1st. chapters.eaa.org/EEA878
- 25** JUNEAU (UNU), Wis. - 6th Annual Pumpkin Drop Contest **9am-3pm at Wisconsin Aviation, Dodge County Airport. 920-386-2402 / 800-319-0907.**

NOVEMBER 2020

- 7** MINNEAPOLIS/ST. PAUL, MINN. - Minnesota Aviation Hall of Fame event scheduled for November 7, 2020 will be post poned until April 17, 2021 All current reservations will be honored at that time. MAHOFBanquetReservations@gmail.com or call 952-906-2833.

DECEMBER 2020

- 11** OSHKOSH, Wis. - Wright Brothers Memorial Banquet. www.eaa.org

APRIL 2021

- 17*** MINNEAPOLIS/ST. PAUL, MINN. - Minnesota Aviation Hall of Fame. MAHOFBanquetReservations@gmail.com or call 952-906-2833.
- 13-18*** LAKELAND, FLA. - Sun n Fun Aerospace Expo. flsfnf.org
- 28-30*** MINNESOTA AIRPORT CONFERENCE - Reserve the dates with more information when it becomes available.

MAY 2021

- 19-20*** ST. CHARLES, ILL. - Illinois Aviation Conference at the Hilton Garden Inn.

JUNE 2021

- 12-13*** LA CROSSE, Wis. - Deke Slayton Airfest. airfest.com
- 26-27*** DULUTH, MINN. - Duluth Air and Aviation Expo. duluthairshow.com
- 29-6/5*** BATTLE CREEK, MICH. - Battle Creek Field of Flight Air Show and Balloon Festival. bcballoons.com

JULY 2021

- 1-5*** BATTLE CREEK, MICH. - Battle Creek Field of Flight Air Show and Balloon Festival. bcballoons.com
- 3-4*** KANSAS CITY, Mo. - KC Air Show. kcairshow.org
- 10-11*** DAYTON, OHIO - Vectren Dayton Air Show. daytonairshow.com
- 16*** ST. PAUL, MINN. - 133d Airlift Wing Commemorative Hangar Dance. falconheights.org
- 17-18*** ST. PAUL, MINN. - 133d Airlift Wing Centennial Airshow. falconheights.org
- 23-25*** JANESVILLE, Wis. - Janesville Warbird Weekend 2021 at Southern Wisconsin Regional Airport. jvl20.splashthat.com
- 26-8/1*** OSHKOSH, Wis. - EAA AirVenture Oshkosh 2021 (68th Experimental Aircraft Association Fly-In Convention) coincides with EAA's Spirit of Aviation Week. eaa.org

AUGUST 2021

- 1*** OSHKOSH, Wis. - EAA AirVenture Oshkosh 2021 (68th Experimental Aircraft Association Fly-In Convention) coincides with EAA's Spirit of Aviation Week. eaa.org
- 7-8*** YPSILANTI, MICH. - Thunder Over Michigan Air Show at the Willow Run Airport. yankeeamuseum.org

SEPTEMBER 2021

- 11*** WAUKEGAN, ILL. - Northern Illinois Air Show at the Waukegan National Airport. northernillinoisairshow.com

OCTOBER 2021

- 12-14*** LAS VEGAS, NEV. - National Business Aviation Association (NBAA) announced its 2021 Business Aviation Convention Exhibition (NBAA-BACE). nbaa.org

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Vision Films & Action Aviation Reach New Heights With “One More Orbit” Deal

LOS ANGELES (August 18, 2020) – Vision Films Inc. (“Vision”) has announced it has acquired worldwide distribution rights to the “One More Orbit” documentary from Action Aviation.

The feature-length film documents the pole-to-pole-world circumnavigation speed record achieved by Action Aviation Chairman Capt. Hamish Harding and former Commander of the International Space Station, astronaut Col. Terry Virts in a Qatar Executive Gulfstream G650ER aircraft.

Vision will release the film to VOD in the United States and Canada on October 6. The trailer is available for viewing here.

A special-edition DVD and Blu-ray will be available in time for the holidays. International licensing rights to “One More Orbit” are available now.

Launching from Kennedy Space Center on the 50th anniversary of the Apollo 11 moon landing, the One More Orbit team completed the Guinness World Record-breaking flight on July 11, 2019, in 46 hours and 40 minutes, at the average speed of 465 miles per hour. Pit stop-like speed refuels were achieved in Kazakhstan, Mauritius, and Chile. The mission covered 24,962 miles and beat the previous world record, from 11 years earlier, by five hours and 52 minutes.

The nine-member crew included:

- Capt. Hamish Harding, Chairman, Action Aviation of the United Kingdom.
- Col. Terry Virts (astronaut and former Commander of the International Space Station) of the United States.
- Cosmonaut Gennady Padalka, (guest) of Russia.
- Capt. Jacob Bech (pilot) of Denmark.
- Capt. Jeremy Ascough (pilot) of South Africa.
- Capt. Yevgen Vasylenko (pilot) of Ukraine.
- Magdalena Starowicz (flight attendant) of Poland.
- Benjamin Rueger (lead engineer) of Germany.
- Jannicke Mikkelsen (payload specialist, satellite live-streaming) of Norway.

Synopsis: A daring team of astronauts and aviators fly a high-speed Gulfstream G650ER business jet around the earth faster than anyone ever has done before, to set the pole-to-pole circumnavigation record. Beginning their mission from the same place Apollo 11 launched for the moon 50 years earlier, this tribute to the past, present, and future of space exploration breaks the boundaries of what was previously thought possible.

“The achievements of the One More Orbit mission prove that what appears ‘impossible’ and against the odds may actually be attainable,” says Harding. “We hope our film will inspire viewers to reach never before heard of successes of their own.”



“Human ingenuity and our hunger to explore will always persevere,” said Lise Romanoff, CEO and Managing Director of Vision Films. “This diverse international crew shows us that by working together cooperatively, we can achieve what was once thought out of reach.”

“One More Orbit” is an Untitled, Inc. production directed by Terry Virts.

About Vision Films

Vision Films is a leading independent sales and VOD aggregator specializing in the licensing, marketing, and distribution of over 800 feature films, documentaries, and series from some of the most prolific independent film producers in the world.

Led by Lise Romanoff, Managing Director/CEO Worldwide Distribution, Vision Films releases 2-4 films a month across Theatrical, VOD, DVD, and television platforms (www.visionfilms.net).

About Action Aviation

Action Aviation, established in 2004, is an international business brokerage company specializing in the sales and acquisitions of business jets, particularly large business jets such as Gulfstreams. Action Aviation has offices in UK, Dubai, USA, and India, and operates in all regions of the world. Many owners worldwide have used Action Aviation to sell their business jets or to acquire new business jets. Action Aviation is the copyright holder of the “One More Orbit” movie (www.actionaviation.com).

About Untitled, Inc.

Untitled is a global production company, which represents an elite roster of directors. The company creates compelling entertainment that both thrills audiences and builds brands via commercials, film, and television. The company is known for its award-winning work (www.untitled.tv). □

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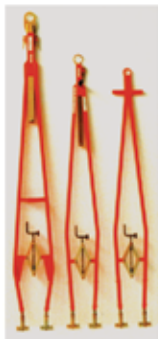
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