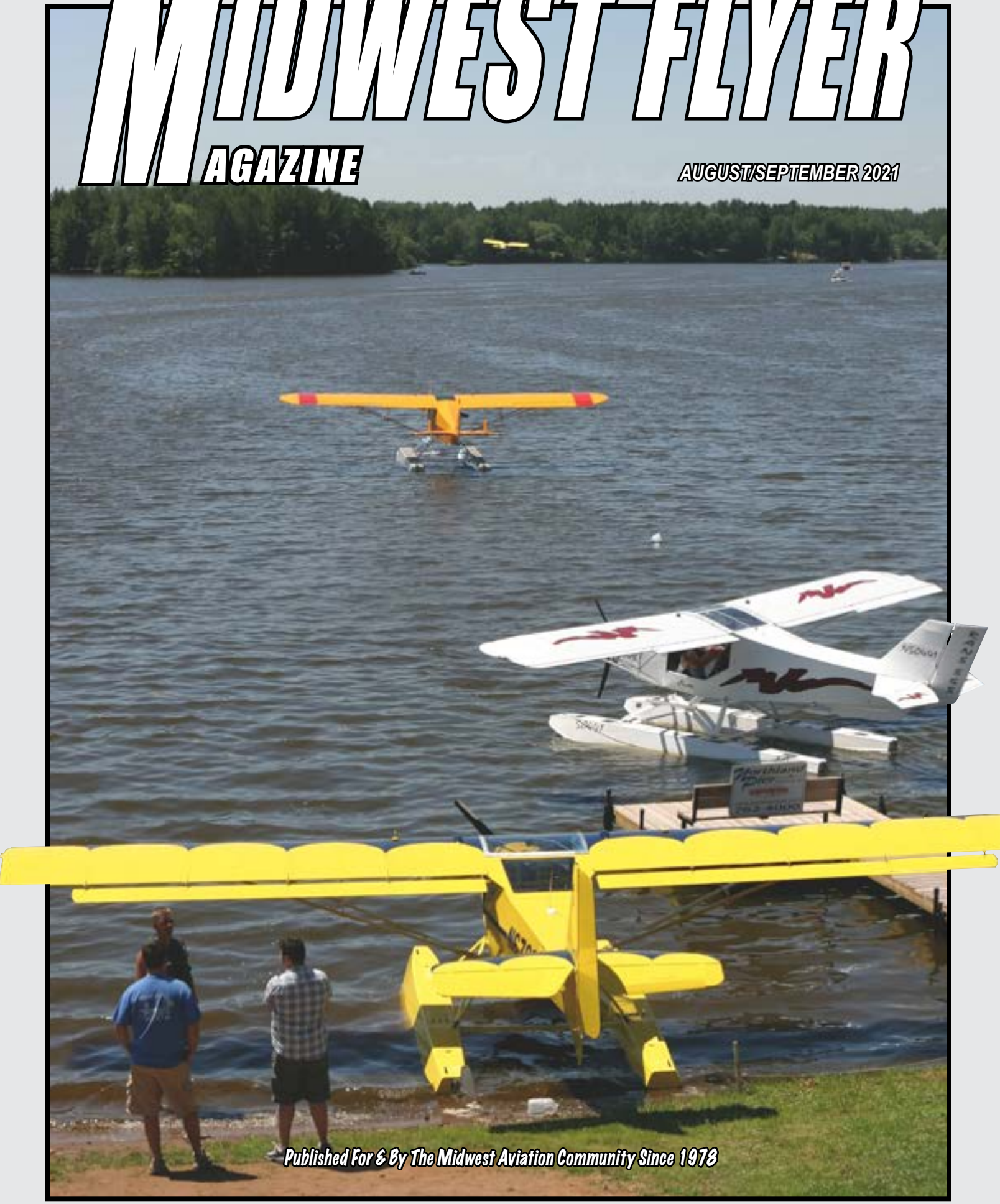
# MIDWEST FLYER MAGAZINE

AUGUST/SEPTEMBER 2021



Published For & By The Midwest Aviation Community Since 1978

midwestflyer.com

# ONE UNIQUE AIRFIELD, TWO UNIQUE EVENTS!

**FREE** TO EVERYONE! **FREE** REFRESHMENTS!

With both a control tower and grass runways, Milwaukee's Timmerman Airport provides a flying experience like none other. Join us for one of our FREE, fun and family-friendly events. You'll leave with new skills, new friends—and maybe even some extra cash!

## FLOUR DROP CONTEST
10AM, JUNE 5, 2021

**$200 PRIZE!**

## SPOT LANDING CONTEST
10AM, SEPT 18, 2021

**$200 PRIZE!**

MILWAUKEE COUNTY'S
TIMMERMAN
AIRPORT

TIMMERMANAIRPORT.COM | 414-461-3222 | KMWC - MILWAUKEE, WI

Vol. 42. No. 5

# Contents

ISSN: 0194-5068 AUGUST/SEPTEMBER 2021

**ON THE COVER:** Seaplane activity at Harbor View Pub & Eatery on Long Lake in Phillips, Wisconsin. The restaurant and lake are located across the highway on the west end of Price County Airport (KPBH). *Dave Weiman Photo*


## HEADLINES



## COLUMNS




20

36

42

46

## FEATURES



## SECTIONS

# Sharing What We Know Benefits All of Us!

*by Dave Weiman*

When Peggy and I were dating back in 1973 – shortly after I got my Private Pilot Certificate – we would go flying in a rented flying club airplane – a Cessna 150 or Cessna 177 Cardinal – with basic avionics – at which time I would convey to her my great, newfound knowledge. Now 48 years later and more experienced, I am trying to get her familiar with our much-more technologically advanced Cessna 182 Skylane. While I sometimes think we should have continued flying a very basic aircraft which Peggy was confident in handling, modern avionics was inevitable.

Peggy was raised on a farm, and is mechanically inclined, so she understands that if I became incapacitated, the plane would continue to fly in a straight and level manner to our destination with the auto pilot on. Knowing how to operate the radios and make coordinated turns is essential, but just knowing how to turn on and off the auto pilot, reduce power, lower flaps, and maintain minimum airspeed, would help her greatly to land the airplane, absent any auto-land system.

At some point, I would like Peggy to take some formal flying lessons (she has attended AOPA's "Pinch-Hitter Course," which has helped), but for now, she is getting a lot out of just going flying with me and reviewing the basics. And while she is learning, so am I. Verbally explaining what I am doing helps me to reinforce what I know, while Peggy is building confidence and getting more and more familiar with the airplane.

*Gee, has it really been 48 years?* ❑

**MIDWEST FLYER MAGAZINE**
AUGUST/SEPTEMBER 2021
Serving The Midwest Aviation Community Since 1978

EDITOR/PUBLISHER
Dave Weiman

PRODUCTION DIRECTOR
Peggy Weiman

PHOTO JOURNALISTS
Chris Bildilli, Brad Thornberg

CONTRIBUTING EDITORS & PHOTOGRAPHERS

| | |
|---|---|
| Mark Baker | Kyle Lewis |
| Dr. Bill Blank | Chris Meyer |
| Rick Braunig | Dan Namowitz |
| Tom Briden | Jenifer Oimoen |
| Kris Christenson | Yasmina Platt |
| Hal Davis | Gregory J Reigel |
| Seán G. Dwyer | Pete Schoeninger |
| Harold Green | Anita Worthington |
| Michael Johnson | Bob Worthington |
| Michael Kaufman | Dale Zoerb |
| Chris Kruse | |

ADVERTISING
PHONE: 608-772-1776
EMAIL:
dave@midwestflyer.com

EDITORIAL
PHONE: 608-772-1776
EMAIL:
dave@midwestflyer.com

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 |



READERSHIP
Each issue is published online at MidwestFlyer.com and available to readers free of charge to maximize circulation to aircraft owners (single-engine piston thru corporate jets), pilots (Private thru ATP), aircraft technicians, fixed base operators, flight schools, technical colleges and universities, airports and airport officials, and government agencies.

EMAIL-OR-MAIL ALL ORDERS & CORRESPONDENCE TO:
dave@midwestflyer.com
MIDWEST FLYER MAGAZINE
6031 Lawry Court
Oregon, WI 53575-2617 USA
www.midwestflyer.com

# Index To Advertisers



## ACT NOW….
## FREE SUBSCRIPTION OFFER!

**Please encourage your friends, colleagues and employees to sign up for a FREE SUBSCRIPTION at *MidwestFlyer.com*. *Click SUBSCRIBE NOW!* We also accept "group" subscription requests from flying clubs, flight schools, fixed base operators and EAA Chapters. For additional information, email dave@midwestflyer.com**

***If Your Business Is Not Listed Above Call 608-772-1776***
***Or Email dave@midwestflyer.com***
***www.midwestflyer.com***

# 65TH WISCONSIN AVIATION CONFERENCE

## OCTOBER 17-19, 2021 • THE OSTHOFF RESORT, ELKHART LAKE, WI

Sheboygan County Memorial Airport
Host Airport

**"Working with FAA and State Officials to make a beneficial conference for all."**

*Sunday, Oct 17, 2021*
Golf Outing at Quit Qui Oc Golf Club.
Trap Shooting at Sheboygan Falls Conservation Club.
Evening Ice Breaker Reception by the lake at The Osthoff.

Wisconsin Aviation Conference 2019 award recipients: (L/R) Brian Grefe, WAMA Vice-President, airport director at Central Wisconsin Airport, Mosinee, Wis.; David Mann, recently retired airport manager, Batten International Airport, Racine, Wis.; Hal Davis, airport compliance manager, WisDOT Bureau of Aeronautics; Mark Graczykowski, P.E., airport development engineer, WisDOT - Bureau of Aeronautics; Jed Mattmiller, engineer, Becher-Hoppe, Inc.; and Charles Sweet, WAMA President, airport superintendent, Sheboygan County Memorial Airport, Sheboygan, Wis.

The Wisconsin Aviation Conference is the premier educational and networking opportunity for those involved in aviation in the Upper Midwest. It's the only conference in Wisconsin that encompasses all facets of aviation.
Airport officials, aviation business owners and managers, pilots and aircraft owners, consultants, and state and federal officials attend this conference. In addition to addressing important issues, there's plenty of time to network with fellow attendees and guest speakers.

*Sponsored By: Wisconsin Airport Management Association, Wisconsin Aviation Trades Association & Wisconsin Business Aviation Association*
*Aircraft Owners & Pilots Association, Program Partner*

*To Register, Go To:* **www.wiama.org/register**

*Exhibitors Welcomed...Sponsorships Available:* **www.wiama.org/events**

*Make Your Hotel Reservations Early As Space Is Limited:* **1-800-876-3399**
*(Reference Wisconsin Aviation Conference for special group rates).*
**The Osthoff Resort, 101 Osthoff Avenue, Elkhart Lake, WI 53020-0151**

# Does The "As-Is" Language In An Aircraft Purchase Agreement Make A Difference?

*by Gregory J. Reigel*



Greg Reigel

It isn't uncommon in aircraft purchase agreements to see language stating the parties are agreeing that the aircraft is being purchased "as-is" or "as-is, where-is." Oftentimes the agreement will go on to also say that the seller is not making, nor is the buyer relying upon, any representations or warranties regarding the condition of the aircraft. And it may also specifically state that the buyer is only relying upon its own investigation and evaluation of the aircraft. But what does this really mean?

Well, from the seller's perspective, the seller wants to sell the aircraft without having to worry that the buyer will claim at a later time that the aircraft has a problem for which the seller is responsible. So, the seller does not want to represent that the aircraft is in any particular condition (e.g., airworthy). When the deal closes, the aircraft is sold to the buyer in its existing condition without any promises by the seller about that condition.

Here is an example of how this works: If the first annual inspection of the aircraft after the sale reveals that the aircraft is not in compliance with an airworthiness directive *("AD")* that was applicable to the aircraft at the time of the sale, the buyer could claim that the aircraft was not airworthy at the time of the sale and demand that the seller pay the cost of complying with the AD. But if the purchase agreement has "as is" language, then the chances of the buyer being able to actually force the seller to pay are low.

Not only does this "as-is" language protect the seller, but it also protects other parties involved in the sale transaction, such as the seller's aircraft broker. A recent case provides a nice explanation of the legal basis for this result:

*Red River Aircraft Leasing, LLC v. Jetbrokers, Inc.* involved the sale of a Socata TBM 700 where the aircraft owner/seller was represented by an aircraft broker. The buyer and seller entered into an aircraft purchase agreement that included not only "as-is, where-is" language, but it also provided that the buyer was accepting the aircraft solely based upon buyer's own investigation of the aircraft.

During the buyer's pre-purchase inspection of the aircraft, the buyer discovered certain damage to the aircraft. However, the buyer accepted delivery of the aircraft in spite of the damage based upon alleged representations by the broker that the damage was repairable.

After closing, the buyer learned that certain parts were not

repairable. Rather than sue the aircraft seller, presumably because the buyer recognized the legal impact of the "as-is" language in the purchase agreement with the seller, the buyer instead sued the aircraft broker alleging that the broker negligently misrepresented the aircraft.

In order to succeed on a claim of negligent misrepresentation under Texas law (the law applicable to the transaction), the buyer was required to show (1) a representation made by the broker; (2) the representation conveyed false information to buyer; (3) the broker did not exercise reasonable care or competence in obtaining or communicating the information; and (4) the buyer suffers pecuniary loss by justifiably relying on the representation.

In response to the buyer's claim, the broker argued that the "as-is" language in the purchase agreement waived the buyer's right to be able to prove that it justifiably relied upon any alleged representations by the broker. The buyer primarily argued that the purchase agreement language did not apply because the broker was not a party to the agreement. But the Court disagreed with the buyer.

The Court found that the purchase agreement contains clear language evincing Red River's intent to be bound by a pledge to rely solely on its own investigation. And, because it appears that the parties transacted at arm's length and were of relatively equal bargaining power and sophistication, the court concludes that the language in the purchase agreement conclusively negates the reliance element of Red River's negligent misrepresentation claim.

So, even though the broker was not a party to the purchase agreement, the Court still held that the buyer was bound by the statements/obligations to which the buyer agreed in the purchase agreement, even with respect to third-parties. As a result, the Court granted the broker's summary judgment motion and dismissed the buyer's claims against it.

**Conclusion**

"As-is" language will continue to be common in aircraft purchase agreements. Aircraft sellers and those working with them will certainly want to include and enjoy the benefit from this language. Conversely, aircraft buyers need to be aware of the scope and impact of "as-is" disclaimer language in an aircraft purchase agreement. If a buyer is unhappy with the condition of the purchased aircraft, the presence of this language in the purchase agreement will significantly limit the buyer's remedies and recourse.

*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). ❑

# The Human Factors In Instrument Flying

*by Michael J. "Mick" Kaufman*

Michael Kaufman

I recently watched a video presentation by AOPA on the "Impossible Turn," and it brought back some memories of the movie I had seen a number of years ago, "SULLY," starring Tom Hanks as Captain Chesley Burnett "Sully" Sullenberger III. Most pilots and aviation enthusiasts have seen the movie, which is based on the 2009 ditching of U.S. Airways Flight 1549 in the Hudson River off Manhattan after both engines were disabled by a bird strike (i.e. Miracle on the Hudson). One of the things both the video and the motion picture emphasized was "human factors," which is the focus of this column.

Today, we have so much information at our disposal in the cockpit with state-of-the-art avionics that we have "brain overload."

As an instrument flight instructor, I watch instrument pilots push buttons, twist knobs, and configure different views on their touch screens, and when I ask them what they are looking for, they can't tell me!

I can hand-fly a precision approach (ILS) in my airplane using what is referred to as a "sixpack" with no flight director, HSI or moving map better than they can, and probably equal to what their autopilot can do. "How can this be?" pilots ask. "I just spent 50K on these new avionics and you did that using a King KX-175, designed and built in the 1970s?" There is a factor of too much information and brain overload which is a human factor.

I am not trying to discourage or pooh-pooh that new technology as I am a geek for new advances and love to fly this equipment myself. It is the instrument pilot of today that we have created who has become "A Child of The Magenta" (the subject of one of my previous columns).

In four days, I will start training a new instrument pilot in a 10-day course. This will be my first full instrument student in over a year due to the pandemic, and I am very excited!

I picked up my syllabus that I have used for over a decade and saw that little has changed in the way an airplane flies: "The Wing Is The Thing, And If You Don't Understand It, It Will KILL YOU!" We still use the same basic concepts as far as the instruments are concerned, but they may be displayed on a glass screen and driven by an attitude and heading reference system (AHRS), instead of a vacuum pump. I still teach attitude instrument flying, pitch + power + configuration = performance, and instrument scan. Navigation and approaches will still be taught using the VOR, however I have elected not to teach automatic direction finder (ADF) approaches, unless there is one in the airplane, and we have some time to do so. As training progresses, we will teach GPS and the buttonology that goes with those new boxes, if there is one in the airplane (and there usually is). And finally, we will hopefully – weather permitting – be able

to give the pilot the experience of flying in real instrument meteorological conditions (IMC).

Human factors play an important role in instrument flying. Pilots over the years have developed many bad habits that are hard to break. Some of these bad habits must be broken to become a successful instrument pilot. One of those habits is the misuse of trim, especially if the aircraft has electric trim.

Back to basics. Do we trim for altitude, attitude or airspeed? I hope you guessed it right. The answer is "airspeed." If the pilot has an autopilot with electric trim, I say learn from the autopilot. In altitude hold mode, if you reduce power, you will be reducing airspeed and the autopilot will retrim itself if you are in turbulence. The elevator is used to hold altitude and the electric trim is rarely used and only when the pitch servo calls for help. When trying to hold altitude while hand-flying in turbulence, I see so many pilots try to hold altitude with the throttle.

When learning to drive a car, your instructor told you to put both hands on the wheel, but your flight instructor said one hand on the yoke, and one hand on the throttle. Pilots who use two hands on the yoke forget to use the rudder pedals and cannot hold their heading precisely. Why is that a human factor? Sweaty palm syndrome, I call it. Pilots grip the yoke with a death grip. They are constantly switching hands on the yoke, while they wipe their sweaty hands on their trousers, which distracts from their precision flying.

Finally, they experience "brain overload" trying to fly a precision approach caused by too much unimportant information. When I see this happen on an approach, I take away the approach plate, turn off the moving map, and tell the student to ask me for any information they may need.

While teaching instrument ground school, I tell the class I will flash an approach chart on the screen for 10 seconds and have them tell me what information they need to fly the approach. Try it sometime in a safe environment. Once inside the final approach fix (FAF), very little information needs to be retained to memory. If this is a precision approach, the decision altitude (DA) and the missed approach point (MAP) are the same. We also need to know the initial part on the missed approach – a climb straight ahead or a climbing right or left turn. If this approach is a non-precision approach, we need to know the minimum descent altitude (MDA) and the MAP as we are to descend to the MDA, level off and fly to the MAP. In several instances, I have flown an approach in IMC after declaring an emergency without ever seeing the approach chart and having key information given to me by Air Traffic Control (ATC).

Flight planning is also an important part of any flight. Too often in my life, I have needed to make changes to a route. Weather, mechanical and human factors contribute to the safe outcome of a flight. Human factors also contribute to aeronautical decision-making and is important to the safe outcome of a flight.

Many pilots feel that their instrument flying skills have deteriorated over time but are too embarrassed to seek the help of a professional flight instructor. Don't think you are alone, as I see many pilots who cannot hand-fly an approach. When this happens, I encourage you to call a flight instructor for help. You will be surprised at how quickly these skills can improve.

Safe flying and enjoy reading *Midwest Flyer Magazine!*

*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. He conducts pilot clinics and specialized instruction throughout the U.S. in many makes and models of aircraft, which are equipped with a variety of avionics. Mick is based in Richland Center (93C) and Eagle River, Wisconsin (KEGV). He was named "FAA's Safety Team Representative of the Year" for Wisconsin in 2008. Readers are encouraged to 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. ❑

WISCONSIN AVIATION

# Celebrates Four Decades of Service

The Watertown Municipal Airport terminal building in Watertown, Wisconsin, and Wisconsin Aviation's home at the time of its inception in 1981.

WATERTOWN, WIS – Wisconsin Aviation, a leader in the general aviation services industry, was founded on July 22, 1981, by Owner/President/CEO Jeff Baum – four decades ago! From the beginning, Baum's mission was to be an organization which customers would want to do business with, and a place where its colleagues would want to work. The company's focus has always been to deliver the best possible customer service. This was true 40 years ago and still holds true today.

"This year marks a significant milestone in our company's history, and we would like to thank our customers, partners, employees, and vendors for their trust, loyalty, and support of the Wisconsin Aviation mission and strategy," said Jeff Baum.

"From three employees in 1981 to 140 today, from piston Senecas to Citation jets, from a 3200-foot runway to Dane County Regional, it's been quite a journey. The challenges seem to come from more directions, but so do the opportunities. We are proud of where we have come from, but even more excited about where we can go. We will do it by concentrating on providing the best customer service, prudent financial management, and making sure we enjoy the journey along the way."

The Wisconsin Aviation team consists of over 140 employees, with several serving the company for over 30 years. The corporation has grown from its meager beginnings in 1981 at Watertown Municipal Airport, its corporate headquarters, to Dodge County Airport in Juneau (1983), and then to its flagship operation at Dane County Regional Airport in Madison (1994). The company's full lineup of general aviation services includes air charter, flight training, aircraft rental, maintenance, avionics, interiors, aircraft sales and management, and ramp services.

Wisconsin Aviation has supported the general aviation industry by being longstanding members of many associations, including the following: Air Charter Safety Foundation, National Air Transportation Association (NATA), National Business Aviation Association (NBAA), Aircraft Owners and Pilots Association (AOPA), General Aviation Manufacturers Association (GAMA), Wisconsin Airport Management Association (WAMA), Experimental Aircraft Association (EAA), among many others.

To learn more about Wisconsin Aviation and its services, visit www.WisconsinAviation.com.

# Do You Have A Valid Medical?

*by Dr. Bill Blank, MD*



Dr. Bill Blank

An airman will sometimes say "I am going to quit flying when this medical expires. I can't pass the next one." If you can't past the next one, is your current medical valid? Why can't you pass the next one? Your medical is valid the day it is issued, with the assumption that nothing will change during its period of validity, and that you will stop flying if something significant arises. What can render a medical invalid varies with the type of medical; regular FAA Medical, Basic Med, or Sport Pilot (driver's license).

14 CFR § 61.53 Prohibition on operations during medical deficiency applies to all pilots regardless of the type of medical. When you become aware that you have a condition, are taking medication, or treatment for a condition that makes you unable to meet the requirements for your type of medical certificate, you must stop flying. If the condition is temporary, something like a broken arm, and resolves, you may resume flying when you have recovered. In any case, with certain exceptions, you do not need to report it to the FAA until your next medical.

For holders of regular FAA Medicals, there is a list of mandatory disqualifying conditions. They are Angina Pectoris, Bipolar Disorder, Coronary Artery Disease that has required treatment or is symptomatic, Diabetes Mellitus that requires insulin or oral medications, Disturbance of Consciousness without adequate explanation, Epilepsy, Heart Transplant, Myocardial Infarction, Permanent Cardiac Pacemaker, Personality Disorder manifested by overt acts, Psychosis, Substance Abuse, Substance Dependance, Transient Loss of Nervous System Function, and Valve Replacement. When you become aware of any of these conditions, your medical is immediately invalid. In many cases, certification is

possible via Special Issuance.

You don't need to inform the FAA if you develop any of these conditions…just stop flying! But, if they have given you a Special Issuance, you must immediately inform the FAA of any change in the condition, including a change of medication. The FAA may, or may not, revoke the Special Issuance, depending on the circumstances.

The situation is different for pilots flying under Basic Med. There is again a list of disqualifying conditions. It is quite similar to the regular medical list and includes various mental health and neurologic disorders, along with certain cardiovascular conditions. The substance dependence look-back period is only the previous two (2) years. Interestingly, Diabetes Mellitus is not included. Under Basic Med, you must get a one-time Special Issuance if you develop any of these conditions. Thus, your current Basic Med will become invalid.

Both Basic Med and Sport Pilot require a valid driver's license. The restrictions on the license must be followed. Being required to wear glasses is fine. What about not being able to drive on freeways or at night, a 5-mile radius of home? Hmm…

If you can't pass your next medical, it is likely that your current medical is not valid. If for some reason the FAA or your insurance company becomes interested, it may cause problems. Insurance companies won't pay claims if you don't meet their requirements. An invalid medical can lead to FAA sanctions.

I hope this has clarified disqualifying conditions.

*Happy flying!*

*EDITOR'S NOTE:* Columnist 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 has 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. ❑

# AOPA, COPA Urge Canada To Allow Pilots With Basic Med To Fly In Canada

*With the BasicMed program now in its fifth year, and more than 60,000 pilots participating, and Mexico and the Bahamas on board, the Aircraft Owners & Pilots Association (AOPA) and the Canadian Owners and Pilots Association (COPA) are urging Canada to join the rest of the North American continent in allowing BasicMed operations there as well.*

FREDERICK, MD – "Since its availability in 2017, BasicMed has proven to be both successful and safe," wrote AOPA President Mark Baker and COPA President Christine Gervais in a July 2, 2021 letter to Canada Minister of Transport Omar Alghabra.

They said, not only has BasicMed proven to be safe as it grows (an analysis by the National Transportation Safety Board fatal accident reports found only 10 accidents linked to all classes of medicals with an FAA estimated 76 million flight hours between 2017 and 2019), but the program is helping to reduce the FAA's medical-certification backlog and workloads of aviation medical examiners.

Under BasicMed, a participating pilot may fly an aircraft weighing up to 6,000 lbs. to altitudes up to 18,000 feet MSL, at a speed at or less than 250 kts, with up to five passengers plus the pilot aboard. A pilot who has previously held an FAA medical certificate can fly under BasicMed by taking an online medical education course every 24 months and receiving a medical examination from a state licensed physician or an AME every 48 months. BasicMed pilots with a cardiovascular, neurological, or psychological condition are required to undergo additional medical review by the FAA.

The letter to Mr. Alghabra also notes that Canada "remains one of the most popular international destinations for U.S. general aviation pilots," accounting for about 30 percent of annual international GA flights, and now has a rare chance to maximize the impact of accepting BasicMed.

"As we seemingly turn the page on the COVID pandemic and begin to reopen our countries and hopefully our borders, we believe that this request provides a unique opportunity. The increase in general aviation traffic in Canada would undoubtedly help businesses rebuild, provide opportunities for families to see one another, and allow tourism to again flourish with tens of thousands of border crossings by general aviation pilots each year," they wrote.

In 2017, the Bahamas became the first international destination to grant access to pilots flying under BasicMed shortly after the program went live. Mexico followed in 2019.

*Dan Namowitz, AOPA* ❑

# A Prepurchase Inspection Can Be An Annual Inspection, But It's Usually Not That Thorough

*Therefore, Buyers Need To Be Realistic If Their Mechanic Misses Something.*

*by Pete Schoeninger*



Pete Schoeninger

**Q**: What's the latest on the used airplane market?

**A:** From what I see and hear, the market continues strong as we come out of the Covid mess. I think the reasons for a strong market have some parallels to the strong market for used cars. It is my opinion that a good used Cessna (or Piper, or Beech, or Cirrus) will probably continue to be a good investment unless our whole economy goes south.

More specifically, older Cessna 172s (1956 to mid-1970s) have jumped in value roughly $10 grand in the last several months. I suspect what happened is that the buyer who was looking for a $50K late 1970s C 172 found those prices had jumped, so those buyers began grabbing older ones, driving up their price as well. Other changes, according to the Summer 2021 edition of the Aircraft Bluebook (www.aircraftbluebook.com), include late model V 35B Bonanzas jumping in value $10 grand or so, the same with older Cessna 206s, and older Cirrus aircraft.

**Q**: I have heard that some aircraft mechanics will no longer do a prepurchase inspection? Is this true, and if so, why?

**A:** Yes, true. There is no legal definition of a prepurchase inspection. Some mechanics may feel (sometimes correctly) that a prospective buyer is looking for a complete review of the prospective purchase by paying only for a couple hours of inspection time. If, after the airplane is purchased, significant hidden problems or paperwork issues are found that were not discovered during a brief prepurchase inspection, the new owner may hold the mechanic responsible. In other words, the reward of a few hours of revenue may not be worth the risk – or hassle – of missing an item or two.

**Q**: I have noticed my recently acquired Skyhawk wants to turn a bit to the right on landing roll and while taxiing. Could my main wheels be out of alignment?

**A:** Possibly, but unlikely. In my experience, the very simple cause is that one tire has lower air pressure than the other. Service your two main tires to the same recommended air pressure and see what happens.

You can do a primitive tire alignment test yourself in 5 minutes, or a better test in 30 minutes, as follows, if your wheel pants are off: Put the tab of a tape measure in the center tread of the front of the tire and measure the distance to the front of the other main tire. Then do the same for the rear of the tires. You should find the measurement about the same, or possibly showing a little toe in. But if your tires are worn, or lumpy, here is the half-hour test: Clamp a 4 ft straight edge to the brake disc on each side. Then measure the distance just ahead of the wheels, and at the end of the 4 ft straight edges. If you find a significant difference, or correcting tire pressure does not cure your problem, it is time to consult your mechanic.

**Q**: Everybody knows Beech made a few aerobatic Bonanzas, models E 33C and F 33C about 50 years ago. A friend told me a few of the Sundowners around 1970 were also aerobatic legal. He said you can tell aerobatic versions because of a slightly different paint scheme. Is he right?

**A:** CAUTION! Paint has no structural properties. I have seen a Sundowner repainted with the aerobatic scheme that was NOT an aerobatic legal airplane! The Pilot's Operating Handbook should be used to determine aerobatic certification. Beech added an aerobatic kit during construction to some airplanes, but to only a few. Be cautious.

**Q:** A friend asked me to take her for a ride over her newly acquired rural property. In doing so, I did a 45-degree bank, and made some slightly steeper banks for wind correction to keep us at about the same distance from her place as we circled. She turned green and almost lost lunch. Is there a better way to view an object on the surface that is less upsetting to a nervous passenger?

**A:** Yes, a State Patrol pilot told me about a technique he used years ago. He suggested that rather than circle a place, fly just to the left of the main attraction on a straight line, at slightly reduced power. (And don't forget to stay at least 500 feet over sparsely populated areas, or 1,000 feet over congested areas). Doing so will give your passenger in the right seat a nice view of the place, while your airplane is in level flight. The State Patrol pilot said they used that technique to overfly a suspected crime property. They would only pass over once and keep on the same heading for several miles after passing overhead. Doing so, he felt, lessened the chances that bad guys thought the cops were looking at them.

**Q:** Hey Pete, I recently became a private pilot. Hooray! Now, I am being solicited to join both EAA and AOPA. Should I?

**A:** I strongly urge you to join at least one pilot organization… preferably both. Doing so adds your name to the clout these organizations carry when they lobby for reasonable changes and improvements from the Feds, if for no other reason. Both organizations also have knowledgeable staffs who can answer a myriad of aviation-related questions.

**Q:** My Cessna 172B needs its engine (Continental 145 hp) replaced and I am looking for ideas. My engine has 2400 hours since overhaul and over 5000 hours total time. It has the original cylinders on it. Now, one cylinder is shot and the other five are marginal. Clearly, it is past time for an overhaul or engine replacement. I would love to install a new 180 hp Lycoming but am concerned with even asking what that would cost. Do you have any ideas and rough cost estimates for a 180 hp conversion, or even just the cost of overhauling my present engine? I only fly about 75 hours a year, all for pleasure.

**A:** Overhauling your present engine with six new cylinder assemblies, and many other parts, including new hoses, baffles, accessories, and probably overhauling your propeller, will cost you roughly $25 - $30,000. Installing in a new Lycoming 180 hp engine with a new prop as well is going to cost you at least $60,000. If you are flying only 75 hours a year, putting $30K or $60K is a lot of money to sink into an airplane. At 75 hours per year, your engine will "time out" (12 years is recommended overhaul period for both engines you are considering) before it uses up its expected 2,000 or so hours. If you aren't going to use up the full value of either engine choice, you might want to consider a used engine at half the price of overhauling your worn-out engine, if you can find one from a reputable seller. Be sure to include your mechanic in this search.

**Q:** I have been gifted a 1969 Cessna 172 from my recently deceased uncle. I am a pilot and have flown it a few times. Overall, the airplane is in good shape, but all the avionics are completely outdated, and I suspect even illegal to use. I will only use the airplane for simple VFR flying. What's your guess on costs to install a basic VFR setup?

**A:** I spoke with Bruce Botterman, owner of NewView Technologies in Oshkosh, Wisconsin. Bruce estimated perhaps $8,500 for a basic transponder with ADS-B, a com unit, and a simple GPS receiver.

**Q:** With fall just around the corner, any precautions or suggestions?

**A:** Fall is my favorite time of the year. Lots of clear, cool weather. Watch out for ground fog forming as temps drop quickly as darkness arrives. If you are not current for night flying, remember darkness approaches about a few minutes earlier every day. Each fall, pilots, who are not night current, get stuck flying with passengers after dark. Don't be one of them! It's not legal, and it's not safe!

*EDITOR'S NOTE:* Pete Schoeninger 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. He welcomes questions and comments via email at PeterSchoeningerLLC@gmail.com.

*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 aircraft owner manuals, manufacturer recommendations, the Federal Aviation Regulations, FAA Aeronautical Information Manual and instructional materials for guidance on aeronautical matters. ❑

# Flying Cross-Country A Lot? A Timeshare May Work For You!

*by Bob and Anita Worthington*
www.BobWorthingtonWriter.com



Bob Worthington


Anita Worthington

Extensive cross-country trips in a small plane are not cheap. In addition to the plane expenditures, there are food and lodging costs. Examine outlays for a 1500-mile trip in a C-182 to a resort for three (3) nights and four (4) days. The flight plan is to fly about 6.5 hours each day, so one (1) night is spent on the road, three (3) nights at a resort, then another night returning home. With the nightly hotel rate averaging $160, including tax, the room costs are $800. Add to this $1,350 for fuel and the trip will cost $2,150, plus food. If we went on this trip, we would have no room costs! Why? Because we own "timeshares."

For us owning timeshare property is a worthwhile asset. For others, timeshare ownership is not as beneficial. Now it seems that for many, timeshares are a bad

purchase, even a financial disaster. We are aware of this. Timeshares are expensive, based on return versus investment. Each year owners must pay maintenance fees and even when a timeshare is not used, costs continue. Various timeshares use a "points system," but it can be that points not used in the calendar year are lost.

A friend invested in a timeshare on Marcos Island, Florida with minimal maintenance fees. He touted how inexpensive his vacations were due to the low annual costs. Over time the yearly amount paid by the owners failed to sustain the upkeep and taxes, so the timeshare went bankrupt. Another friend had a timeshare in one location with a specific period to be used. But taking a vacation in the same place, at the same time, became boring and the maintenance fees excessive.

Our time shares are a valuable part of our portfolio. We accept that time shares are expensive. We do not consider them an investment. We understand that selling a paid-off timeshare is extremely hard to do (and if sold, could be at a fraction of what you paid for it). Conversely, a timeshare with a mortgage is almost impossible to sell. With all this dire information regarding timeshares, why do we own some?

For us, owning timeshares is because of the convenience and benefits attached to ownership. It has proven to be of immense value. Let us share with you the how and why of our timeshares.

First, it should be known that we flew all over the U.S. every year. As aviation journalists, we covered events and airshows around the country. We lived in the southwest but visited friends and family up and down the east coast. We covered around 28,000 miles a year. That added up to 30 to 40 nights spent elsewhere with a cost of several thousand dollars. We also love to take mini vacations at resorts and enjoy a few days of being pampered.

It started one day 15 years ago when we received an invitation to spend three (3) nights and four (4) days at a Hilton Grand Vacations Club Resort on The Strip in Las Vegas. The only requirement was to attend a timeshare presentation. Aware of the financial pitfalls of timeshares, initially we declined. On second thought we said, why not? Spending two hours in an intense sales pitch session seemed a fair price for three full days in Vegas, so we signed up. The presentation was scheduled for the morning of our second day.

Our first evening, at a casino next door, we were asked to visit another local timeshare operation. If we would attend a session the next morning, we would be presented a complimentary dinner. We ate a delicious meal and sat in the spiel. It was an education into buying timeshares. The sellers only had one resort, in Las Vegas (only one location like my friend). Calculating a cost analysis, we quickly realized it was not beneficial to us in any way. Now for the Hilton sales pitch, we had an idea of what we should look for.

Before the Hilton presentation, we wrote down questions to ask the presenter. Costly maintenance fees, yes! Loosing points if not used, yes! How much time do we get for how much money, yes! Can we only stay at the timeshare in Vegas, yes! Are there other places we could stay outside Las Vegas, yes! Before the presentation, we took time to do some Internet research on Hilton Hotels Resorts. What we found surprised and impressed us.

The next morning, we listened to the purchase performance, and at the conclusion, we were assigned to a sales consultant, Torry (known as a vacation counselor), who then began the sales pitch. We asked all of our questions and received what a timeshare costs (from a few thousand to several hundred thousand dollars) depending on what we bought. We did some financial calculations and decided to buy. In 2006, we bought our first unit. In 2007, another, and over the next six years, we purchased three more. Torry was our sales rep for each purchase.

Here is why we bought the timeshares.

Our level of membership is now at the top tier, so we receive numerous benefits (for instance, we pay no fees for any transactions regarding reservations or converting points) and additional perks when staying at any Hilton property. We never lose any points because we convert any unused points at the end of the year to Hilton Honors points, which are never lost. These points can be used at any of Hilton's 15 brand hotels or resorts covering most market segments of travelers. Located in almost 600 locations in six countries around the world, we have never been disappointed during any of our stays.

This is how it worked for us. On a cross-country flight, we may not be certain where we would stop for the night (sometimes we would fly until tired; other times weather might force us to land, sooner than expected). Upon landing, in the FBO while the plane was being fueled, I would call an 800 number, explain where we were and ask for a reservation at a local Hilton property. We would then call the hotel, and they would pick us up. The next day, the hotel provided breakfast (free) and a ride back to the airport. Our bill would be zero.

Our annual timeshare maintenance fees run about $6,467, and we get 35 to 40 nights a year on our points at hotels or resorts. The cost of rooms and breakfasts (if we had to pay) would run around $6,700 to $7,800. To calculate precisely over the 15 years of timeshare ownership what we received versus what we paid would be impossible (the 2016 value was almost $215,000, but we did not pay close to that). What we enjoy is the ability and convenience to use the Internet or phone to make any reservations we want at first-class properties, knowing that we will be treated as respected and valued guests, and not have to consider any costs. Now that is convenience!

Over time, we have flown to and vacationed at resorts in Key West, Fla. Jamestown, Va., Palm Springs, Calif., Las Vegas, Nev., Scottsdale, Ariz., in the Rocky Mountains, the southern Blue Ridge Mountains, and dozens of other retreats, around the country. And we realize we can point out how much we spent on acquiring the timeshare and the annual

fees. But what would a cottage on the shores of a beautiful lake cost? It would have a multitude of expenses. We see our timeshare in the same light.

As we said, timeshares are not investments, and we do not plan to sell them. When we pass, our daughters will inherit them. We are traveling less, yet we still can use the points. One daughter and her family (daughter, husband and their two daughters) from Hawaii, will be spending several weeks on the mainland visiting us and friends and other relatives. For overnight travel stays, we have booked 34 nights using our Hilton Honors points. No one gets a bill.

For us, our timeshares are and have been a worthwhile venture. Other hotel and resort chains offer timeshare options. Your due diligence research can determine if it will benefit you. It works for us.

*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. Website: www.BobWorthingtonWriter.com. Worthington has placed excerpts about combat flying in Vietnam (from his books) on his website. Here is a direct link to those excerpts: www.BobWorthingtonWriter.com/combat-flying-in-vietnam/. Every couple of months he will add another excerpt.

*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, mechanic, attorney and others, and refer to the Federal Aviation Regulations, FAA Aeronautical Information Manual and instructional materials before attempting any procedures or following any advice discussed herein. ❑

## Anita Elliott Worthington

*1938-2021*

It is with great sadness to report that contributing editor, Anita Elliott Worthington, passed away on July 14, 2021, from multiple health issues.

Anita was born in Washington, D.C. on September 3, 1938, and graduated from Marjorie Webster Junior College with an English degree, earned a bachelor's degree from the University of Utah in 1973, and a Master of Business Administration from Trinity University in 1980. Anita and her husband, Bob, founded Worthington and Worthington Management Consultants, with Anita as president, and she began her professional writing career.

Traveling was one of Anita's and Bob's shared passions, and together they flew their aircraft to four countries and landed in every state except Hawaii. Her experience in aviation led her to create and write a column, "The Right Seat," for a national aviation magazine.

Anita requested that any memorial contributions be made in her honor to Mesilla Valley Hospice, 299 Montana Ave., Las Cruces, NM 88005 or www.mvhospice.org. ❑

# The Show Goes On

*by Mark Baker*
*AOPA President and CEO*


Mark Baker


Over the past year, I think we've all learned a simple lesson in appreciation. Most of us didn't realize how much we'd miss the little things: a family gathering, a sporting event, and for us pilots, an airshow. Or to be more specific, the World's Greatest Aviation Celebration.

I've spent many summers at EAA AirVenture in Oshkosh, long before I became president of AOPA, and I'll likely return to these grounds long after that title is retired. Along with half a million aviation enthusiasts, I was disappointed to miss last year's show. But we've waited patiently, weathered the storm, and I can tell you it will feel really good to be at Wittman Regional Airport once again.

Reflecting on previous trips, within minutes the nostalgia sets in. The roar of the military fighters over the flight line, the seaplanes splashing along Lake Winnebago's shore, and the smell of brats grilling in the afternoon. I've missed being in the company of legendary pilots and innovative aircraft. But above all, I've missed that unmistakable blue tent proudly displaying my favorite acronym. In other words, I've missed seeing you.

Of course, it's what's inside AOPA's tent that brings the magic to life. Over the course of a week, this tent is home to many aviators across the spectrum—rusty pilots, students, professionals, and pilots flying for fun.

I know there are hundreds of exhibitors to visit, lots of merchandise to buy, and many performances to see, but I hope a stop at the AOPA campus is on your agenda. Come say hello to the people behind your AOPA membership who work hard for your freedom to fly every day. Our government affairs staff, AOPA Air Safety Institute experts, member service representatives, and legal specialists are on site to answer any of your questions. Check out our recently renovated AOPA Sweepstakes Grumman Tiger in person (you might be calling it yours someday) or join us and your fellow AOPA members for a great view of the excitement taking place on the flight line. From educational seminars to my Pilot Town Hall, and our social media meet-and-greets, a lot of action is jam-packed into this airshow. We wouldn't have it any other way.

AirVenture's weeklong celebration reinforces what makes our aviation community so special and reassures me that our general aviation industry is thriving. The same demand to be in the company of the aviation community is extending to the desire to buy aircraft. Demand for aircraft outstripped supply in numerous market segments in the first quarter of 2021. According to the aircraft valuation service Vref, piston single-engine aircraft accounted for almost 65.5 percent of valuation activity. Cessna 182 Skylane models were at the top of a most-valued list for the category, followed by some Cessna 172s.

The momentum for GA is alive and well. It makes me excited for fly-ins down the road, and especially for our AOPA Aviator Showcases. I think we all could use an excuse to get out and fly! AOPA's Aviator Showcases will be held August 27 in Manassas, Virginia, and October 1 in Fort Worth, Texas. These events require registration in advance and won't be like our usual fly-ins, but rather a more intimate experience geared toward connecting pilots with industry leaders in avionics, technology, and aircraft. While these events may take a different shape, I can assure you that they reflect our same passion to connect with the community.

If you aren't able to make it to our showcase events, we will be hosting a multi-stop air tour later this fall during which members will be able to interact in person with me and other AOPA leaders. I look forward to meeting you, all while building on our aviation inspiration.

I know I've said it time and time again, but the GA community never ceases to amaze me. It's easy to see the spirit of GA come to life each year at grand celebrations like AirVenture or major fly-ins. We should all strive to keep that energy alive year-round for, as they say, the show must go on. ❑

# Airport Authorities, Commissions, Advisory Councils & You!

*by Kyle Lewis*
*Regional Manager*
*Government Affairs & Airport Advocacy / Great Lakes /*
*Aircraft Owners & Pilots Association*

Kyle Lewis

How well do you "know" your airport? How well do you know the recent airport decisions that may impact your home field? If the answer is "not very well," then read on.

Airport governance is wide ranging. Pilots need to know who makes decisions for the airport and what direction the airport is headed. More importantly, airport stakeholders need to be involved in the decision-making process!

Most airports are owned by a "sponsor" (terminology used in accepting federal grants) that falls under the jurisdiction of the local elected government – perhaps a county, city, township, village, or even multiple owners, as in regional airports. Some sponsors are an airport authority or commission, which is created by local or state law and have the same duties and powers as any other government body. Advisory councils or advisory boards are another form of airport oversight, but with different rules. Let us take a closer

look at these airport governing bodies, and how you, as an airport user, can have an impact.

At most small general aviation (GA) airports, the airport sponsor is the local elected government. Day-to-day operations are the responsibility of an airport manager, who may report to the public works or transportation director or directly to the mayor, county executive, or city administrator. Sometimes the airport manager plays "double-duty" with another role in the local government. The airport manager may have been hired without the requirement for professional airport management training and he or she may be a staff of one!

Regardless of how small the local GA airport is, it will certainly face the same challenges as larger airports – like incompatible land use development, noise complaints, seeking and managing state or federal grant projects, and maintaining a positive community relations campaign.

Small GA airports provide essential services and are a vital transportation mode that connects the local community to the national transportation network.

Small GA airports may also have their own airport authority, perhaps a multiple-member board comprised of local airport users, or individuals with a strong tie to local business that have an interest in the airport. While this model is not perfect, it does provide a diverse viewpoint for airport planning and development. In some cases, these individuals may not have the best intentions of the airport in mind, creating conflict among the local airport stakeholders. Usually, it takes some educating of these misaligned folks, and once the curtain is pulled back and the economic power of an airport is revealed, they understand the value of the airport and are airport proponents, or at least are open to promoting the airport.

Airport authorities or commissions usually have the same authority as a local government body and can enter into contracts, have taxable authority, sue or be sued, hire employees, enter into leases, adopt and amend bylaws, acquire land, and create and maintain a police force. All the above-mentioned powers are all in effect to create, operate, and maintain an airport or airports within its jurisdiction. In metro areas, airport authorities are quite large and oversee the development of multiple airports – the Metropolitan Airports Commission (MAC) in Minneapolis oversees seven (7) airports, including KMSP and six (6) GA reliever airports. The MAC is one of the largest airport commissions in the country with over 600 employees, and over 1,500 GA tenants at the reliever airports, not to mention the ever-changing landscape of commercial operators, FBOs, flying clubs and flight schools based throughout the system.

Airport advisory boards are different. They are "advisory" in nature, have no real authority or power, and usually report to a city or county council on the airport.

The make-up of these advisory boards is similar in description of an airport authority, with diverse opinions and backgrounds. Some airport advisory boards include citizens from neighboring townships or cities. Some advisory boards are only created to deal with specific issues, like noise or relaying community input to airport managers on airport development. Either way, airport advisory boards present an excellent opportunity for local pilots to interact with airport management.

What does this mean to you? I, along with other AOPA Regional Managers and associated staff, receive calls and emails with a panic tone of "the airport manager is doing this (insert seemingly diabolical act here)!" Truth be told, the conversation on any major change, project, renovation, closure, etc. is usually months or years in the making. Most airport tenants and local airport users may not be aware of what has been going on. Don't be like them! Go to airport authority and advisory board meetings… they are all open to the public. The exception is closed (or executive) sessions, at which votes affecting the public cannot take place.

One silver lining of the COVID pandemic has been the wide adoption of teleconference technology, which allows any airport tenant to participate from anywhere. These public boards are the avenue for transparency and public process. Be a part of them!

Want to be more involved than just listening at an airport board meeting? Become an AOPA Airport Support Network (ASN) Volunteer. AOPA oversees a network of more than 2,000 volunteers who are engaged at their local airport. These volunteers are members of advisory boards, airport authorities, and tenant associations. Is your airport lacking one of the above? AOPA can help institute one of these groups or expand on what is already there.

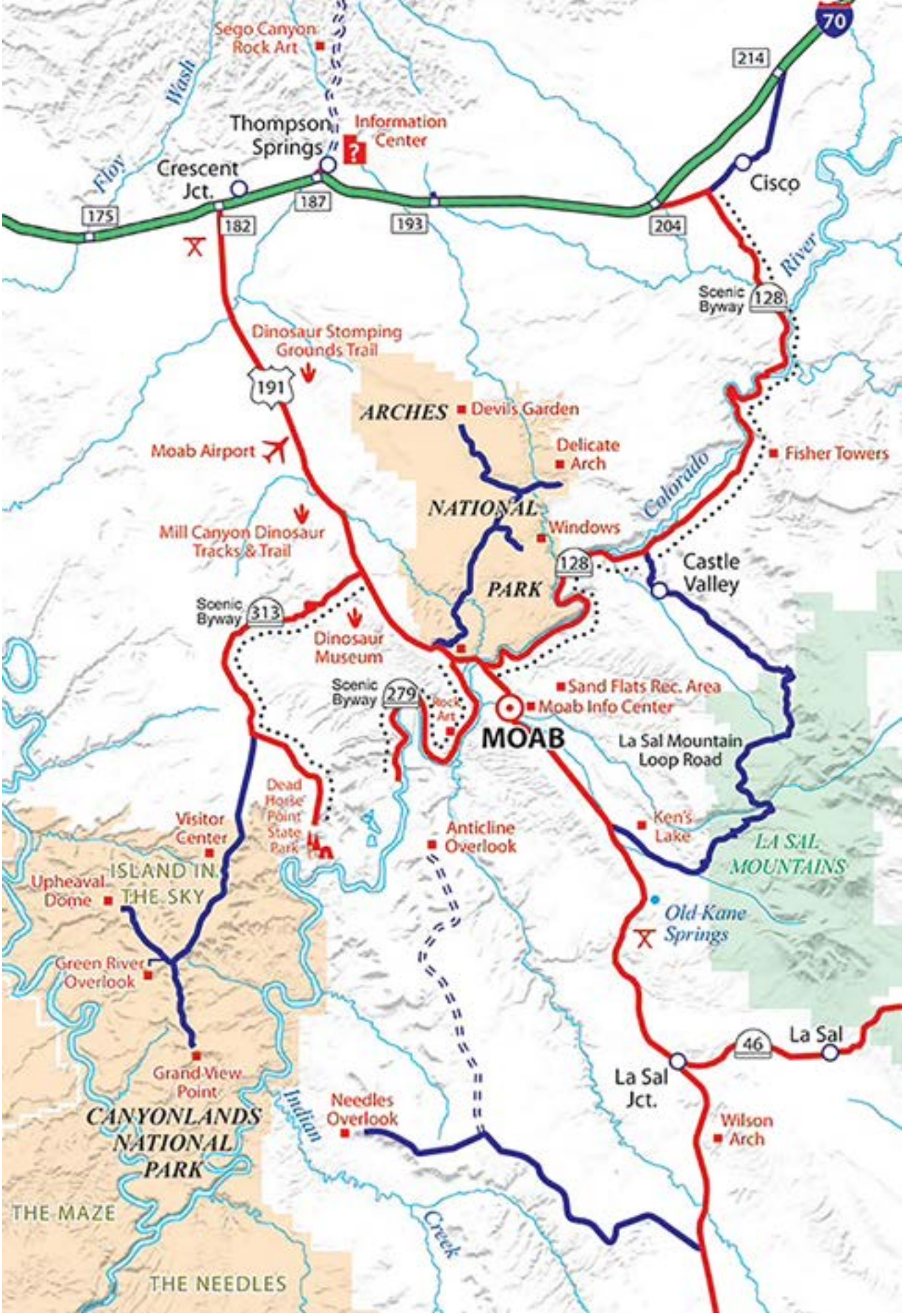
AOPA ASN Volunteers have access to an online resource library including topics on hosting an airport open house, airport development, community relations, land use and obstructions, economic impact factors, airport funding, compliance, and support groups. We have made it easy to volunteer. Visit **www.aopa.org/asn** to search for an airport in need of a volunteer and apply! kyle.lewis@aopa.org ❑

# Experience Moab 360

*by Yasmina Platt*

Moab, Utah is one of my favorite hubs for adventure. It has absolutely something for everyone: two National Parks (NP), two more State Parks (SP), lots of open Bureau of Land Management (BLM) land, a cute town (for shopping and restaurants), the Colorado River, camping or glamping, and history (including dinosaur tracks and petroglyphs)… all surrounded by stunning red rock landscapes.

The famous Delicate Arch
*Yasmina Platt Photo*




This map touches the surface on what's around and available.

*Source: www.discovermoab.com*

Dead Horse State Park
*Yasmina Platt Photo*

Thelma and Louise Point *(What they dropped into at the very end of the movie.)*
*Yasmina Platt Photo*

We often spend a week in Moab on our way to/from home with the motorhome and the Jeep Rubicon that we pull behind it. But there are a couple of airstrips to fly into as well. The more obvious one is Canyonlands Regional Airport (KCNY). With a 7,360 x 100 ft paved runway, and a secondary 2,000 x 60 ft gravel runway, this is the easiest way to get in and out, rent a vehicle (suggest a Jeep), etc.

The more adventurous option, but one that requires more planning (such as fuel provisions, food/drinks, potentially camping, etc.), is Mineral Canyon (UT75). This BLM airstrip requires permission prior to landing, but it is otherwise open to the public. Contact the Moab Field Office at 435-259-2100. The airstrip is in the Green River Canyon (about 1,000 ft deep), right between the river and Campground 1. The dirt runway (14/32) is 2,000 x 40 ft. For recent pictures and "ride reports," visit the Utah Back Country Pilots Association website. Warning – Once there, you may never want to leave!

Some of my favorite sites include, of course, the National Parks. Arches NP has many drives and hikes, including one to see Utah's iconic Delicate Arch (which you can find on many UT license plates and it's best viewed early or late in the day). Canyonlands NP is so large that it is divided into two areas: Island in the Sky and The Needles. The NP website has everything you need to plan your trip, including suggested itineraries based on available time. However, for Canyonlands, I suggest driving the Shafer Trail with a 4x4, down Canyonlands to Moab via Potash Road and Scenic Byway 279. The views, including Thelma and Louise's Point, are phenomenal. If that's not an option, then you can also do the short hike to Mesa Arch and visit Dead Horse Point State Park instead to view the area from above.

In addition to Dead Horse, the State of Utah is also creating a brand-new state park called "Utahraptor," only 6 miles from Canyonlands Field Airport.

If you want a more intense 4x4 experience, the Sand Flats Recreation Area is a popular spot for Jeeps and ATVs. The Slick Rock Bike Trail is also popular in this area amongst bicyclists.

No matter how long you visit Moab, you won't have enough time to do it and see it all. But, no matter what, you'll have a great time!

If you decide to fly though, flying over the Potash Ponds (along Potash Road… yes, the one you can drive based on my earlier suggestion) makes for an interesting 3D site.

For more information about flying around Utah, visit **www.airtrails.weebly.com/utah**. Fly safe and fly often… explore and experience!

*ABOUT THE AUTHOR:* Yasmina Platt's new job has her planning the future of aviation infrastructure for Joby's electric Vertical Takeoff and Landing (VTOL) aircraft. 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 **"Yasmina"** in the search box. ❑

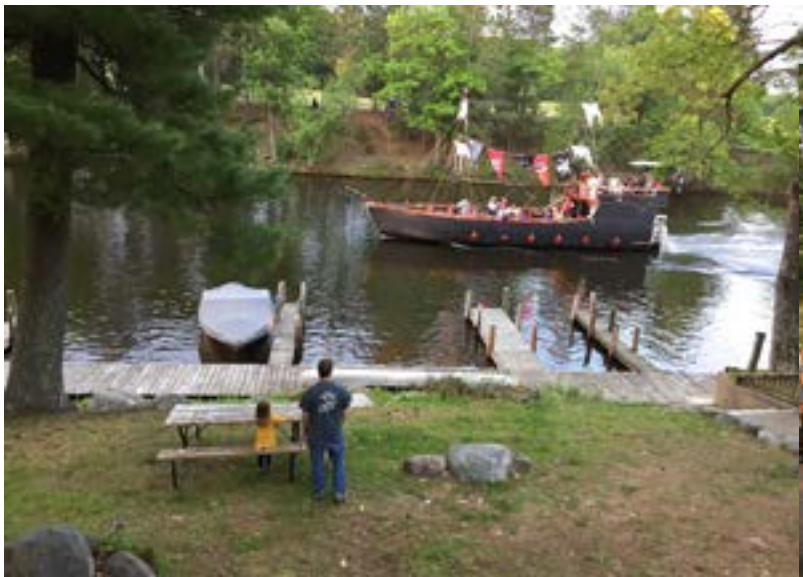
Jenifer Oimoen Photo

# Eagle River, Wisconsin... A Vacation Paradise Year-Around

*by Dave Weiman*

Just the name "Eagle River" suggests a Northwoods appeal… Abundant wildlife; rustic, yet modern accommodations; a river and a chain of crystal-clear lakes; boating and water sports; fishing tournaments; bicycle, cross-country skiing, snowmobile and ATV trails; horseback riding; golfing and tennis; excellent restaurants; a friendly atmosphere; and a first-class airport!

I've been flying to Eagle River ever since local and international businessman, Ray Rubin, stopped by the airport one day in 1988 and picked up a copy of *Midwest Flyer Magazine.* After reading the magazine, he gave us a call, and bought an advertisement to promote a Canada fishing resort he built in partnership with Al Reed of Winnipeg, Manitoba. As soon as the airstrip was in, Ray and I flew up to the resort,



Dave Weiman Photos

Photos Courtesy of the Eagle River Chamber of Commerce.

while the resort was still under construction. Once finished, the resort was rated five stars! That was the start of the annual Canada Fishing Fly-Out we promote each year, now at Miminiska Lodge in northern Ontario (CPS5).

Eagle River was the site of the first permanent Indian settlement in the Wisconsin Northwood's, located on the shores of Watersmeet Lake where the Wisconsin River and Chain of Lakes meet. These early Indians were called Old Copper Indians and were succeeded by the Woodland Indians from 2,600 B.C. to 800 A.D. They are believed to be the ancestors of the Chippewa, Potawatomi and Menominee. Settlers started coming to the area in 1857. Logging and fur trading were the dominant trades. It wasn't until 1925 with the development of the automobile that the resort industry began to grow.

At its peak, there were 1,600 residents in Eagle River. The current population is 1,431. The city's name was derived from the abundance of eagles nesting along the river.

Eagle River has retained its small, northern Wisconsin appeal, but gone are the days of the "ma and pa" resorts that

Photos Courtesy of the Eagle River Chamber of Commerce.

rented little cabins with outhouses, which have since been sold to individuals who made improvements and formed condominium associations. Today, resorts are modern, and many privately-owned cabins have been replaced with glorious lake homes, most of which are weekend getaways!

My idea of an ideal vacation is to fly into Eagle River Union Airport (KEGV), rent a car and drive over to one of the marinas, such as **Boat Sport Marina**, *(https://www.boatsport.com/)*, and rent a boat, then boat on over to a resort, such as the **Chanticleer Inn** *(http://www.chanticleerinn.com/)*.

The Chanticleer Inn, where our family has stayed many times, dates back to 1922, with the Alward family purchasing the property in 1951, which now consists of 30 acres. In January 1964, the Alwards pioneered the first World Championship Snowmobile Derby on nearby Dollar Lake, which two years later moved to the permanent derby site near the airport on Highway 45 North. Today, Dollar Lake is the location for the annual Labatt Blue USA Adult Pond Hockey Tournament. Thirty (30) hockey rinks dot the 107-acre lake for the three-day event that attracts 2,000 participants and spectators. As many as 300 teams from across the country participate on adult male, female and co-ed teams. The players range in age from 18 to 70-plus!

Dollar Lake.
*Peggy Weiman Photo*



During our stay this summer, we found Dollar Lake wonderful for swimming and kayaking, and aside from one fisherman we saw one day, and a mom and her three toddlers another day, we had the lake all to ourselves.

Owners Jake and Sue Alward live in a private residence adjoining the Chanticleer property and were very accommodating. In fact, Jake himself rented us the kayaks.

Besides boating, fishing and water skiing, golfing is a popular sport in Eagle River, and one of the best golf courses in the area is **Lake Forest Golf Course**. It features nine (9) holes and 2819 yards from the longest tees for a par of 36. The course rating is 33.8 and it has a slope rating of 115. Best of all, the course is open to the public *(http://www.lakeforest-golfclub.com)*.

*Photo Courtesy of the Eagle River Chamber of Commerce.*

Lake Forest Golf Course was originally called Eagle Waters Golf Club. In 1917, a small group of wealthy regulars started a private club open to only an elite group of cottage owners and their guests. Many famous people golfed there, with President Dwight D. Eisenhower being a frequent visitor in the 1950s. The 210-acre club was sold in 1963 and built in its place was Lake Forest Resort and Club, Wisconsin's first successful timeshare resort. **Lake Forest Resort** has condominiums for rent, and yes, we've stayed there as well *(www.lakeforestresort.com)*.

Like all vacation destinations following the pandemic, Eagle River is playing catchup with people again going on vacations and dining out at restaurants, so you need to book well in advance for accommodations, and the earlier you can go out for lunch and dinner, the better!

Upon Ray's recommendation, we dined at the **Kickback Grill** *(https://kickbackgrilleagleriver.com)* on beautiful Duck Lake, once by car and once by boat. A well-maintained pier makes boating to the restaurant very enjoyable. Dining indoors and on the patio is available.

Since the uniqueness of Eagle River is its chain of lakes, a great pastime is to boat the chain from Eagle River to Three Lakes, Wisconsin, which takes a full day roundtrip. However, Three Lakes Municipal Airport (40D) has a 3400 X 120 ft grass airstrip (Rwy 03/21) on the east end of town, so you

can fly there as well. The Sunset Grill and C-Store, and Jake's Bar and Grill, are located a half-mile from the northeast end of the airport. Check with your **ForeFlight** app or the **Wisconsin Airport Directory and Pilot's Guide** for additional information.

We also enjoy boating around at 5-10 kts looking at the beautiful homes and historic boat houses. Over the years, we've also done our share of waterskiing with our kids. Now it's time to teach our grandchildren.

This region of Wisconsin has a lot of aviation history. Jack Vilas, for whom the county is named after, was one of the first people to have a commercial aircraft operation.

Eagle River Union Airport was built in the 1930s and the runway orientation that exists today is from the mid-1970s. The airport is operated by the City of Eagle River, Town of Lincoln and Town of Washington. The airport features a separate helipad for medevacs and a Civil Air Patrol squadron is located on the field.

When you fly to Eagle River, you will be greeted by airport manager, Rob Hom, and his staff. Full and self-service fuel is available (100LL and JET A), as well as courtesy cars and bicycles for quick trips to town for breakfast, lunch or dinner, and car rental for longer stays.

One fall while flying home from the Upper Michigan Peninsula, we diverted to Eagle River because of weather, and was able to rent a car on short notice. But this is not always possible, especially during the summer. So, if you plan to vacation in Eagle River, it's best to call ahead to reserve a car.

AVIS is located on the field, featuring midsize, SUVs and minivans. The airport also has heated hangar space, as it does get cold up there come winter.

Rob Hom was born and raised in St. Catharines, Ontario, which is near Niagara Falls. He attended Confederation College of Applied Arts and Technology in Thunder Bay, where he received his Commercial Pilot Certificate, Seaplane Rating and a degree in Aviation (Flight) Management.

Eagle River Union Airport Manager, Rob Hom.
*Dave Weiman Photo*

After graduating, Rob flew for Weagamow Air in Weagamow (Round Lake), Ontario; Central Air Transport in Sioux Lookout, Ontario; and Lac La Croix Quetico Flying Service out of Crane Lake, Minnesota and Lac La Croix, Ontario from 1983 to 1992. He flew de Havilland Beavers, Otters, Cessna 180s/185s and an Aeronca Champ – all on straight floats in the summer, and skis in the winter. That's when Rob met his American wife, Katie, and they moved to Garrison, Minnesota in 1992, where Katie accepted a position as a veterinarian and Rob changed careers, serving as an assistant manager at Mille Lacs Golf Resort. They moved to Ashland, Wisconsin in 1998 to be closer to family. Rob began his career in airport management at John F. Kennedy Memorial Airport in Ashland in 2000 and was appointed manager at Eagle River Union Airport in 2009. Rob and Katie have a daughter and two sons.

In his freetime, if Rob isn't flying his 1946 Taylorcraft BC12D, he is either making pottery or playing soccer and coaching the local high school soccer team.

Eagle River Union Airport features a 5000 ft hard surface runway (04/22) with RNAV (GPS), LOC/DME, and VOR/DME approaches, and a 3400 ft crosswind runway (13/31). The airport accommodates all GA aircraft, including large corporate jets. It is not uncommon to see a half-dozen or more jets parked on the north ramp on a busy weekend, some with passengers from as far away as the West Coast. Ample parking is available in front of the terminal building for small GA aircraft.

The modern, but rustic-looking terminal building has a conference room, ice and vending machines, pilot lounge with Direct TV, a flight planning room, and free wi-fi and internet access. If after visiting Eagle River you fall in love with the community and want to spend more time there, the airport has vacant land available for hangar development, and there's plenty of real estate companies to choose from.

Aircraft maintenance is available at **Noble Aviation**. Contact Roger Shadick for additional information: 715-477-0719.

For a complete listing of all airport services, visit *www.erairport.com* or call Rob Hom at 715-479-7442 or email *fbo@erairport.com*.


Kurt Hartwig

Besides its first-class airport, Eagle River is home to **Eagle Fuel Cells** *(https://www.eaglefuelcells.com/)*, which is owned and operated by Kurt Hartwig. The Hartwig family consists of longtime pilots and residents of Eagle River, and Kurt, his dad, Carl, and son, Andrew, 17, are pilots and EAA members. In fact, Carl and his brother, Albert, were among only 150 people who attended the first EAA Fly-In at Milwaukee Timmerman Airport in 1953. Andrew is the current Cadet Commander for the Eagle River Civil Air Patrol Chapter and will be attending EAA AirVenture this year as a Blue Beret. Kurt served on the Eagle River Union Airport Commission for 10 years during the airport's growth years, and as chairman during his final four years.

Whether you are looking for fuel cell maintenance and inspection tips, overhaul and replacement options, or researching the historic and technical background of aircraft fuel cells, you will find it at Eagle Fuel Cells. For assistance, call 800-437-8732, 715-891-0524 (Cell) or email: kurt@eaglefuelcells.com. Eagle Fuel Cells exhibits at EAA AirVenture Oshkosh, so you can find them there as well.

To learn more about Eagle River, Wisconsin, go to **https://eagleriver.org/**. ❑

---

# Breezy Point Aviation Days 2021 Was A Go!

With the cancellation of Breezy Point Aviation Days 2020 due to the pandemic, there was pent-up enthusiasm for the annual fly-in held Saturday, May 1, 2021, at Breezy Point Airport - Muller Field (8MN3), Breezy Point, Minnesota.

This fly-in is completely free, including the food and drinks, and there are no parking or landing fees. Over 1,200 people showed up to see the 87 airplanes that flew in, and the 74 classic cars on display.

Breezy Point Resort bought farmland in 1964 and built the 2576 X 50 ft. paved, unlit runway (17/35) that exists today. Most recently, an asphalt parking area was built on the East side, midfield.

The resort retained ownership of the airport over the years, even though the ownership of the resort changed. The airport and the resort finally parted company in 1980, when Hopkins House Breezy Point Co. which bought the resort in 1968, sold the airport to a group of pilots and Breezy Point Airport, Inc. was founded. Most of the adjacent properties, hangars and residences along the runway are deeded to private owners.

The airport is private and operated by its shareholders. Flight operations are limited to its members and their guests. Pilots who flew in for the fly-in were required to preregister in advance at **https://www.breezypointairport.com/** and receive a briefing.

The mission of Breezy Point Airport - Muller Field is to

Photos by Dale Zoerb

further the enjoyment of general aviation by providing an airport that is safe and valuable to the community. The airport is located 12 miles north of Brainerd Lakes Regional Airport, northwest of Pelican Lake.

The Breezy Point Airport Preservation Group is an affiliated group of aviation enthusiasts dedicated to preserving the property as an active airport. The group supports growth in the number of pilots who use the airport and who become shareholders in the airport corporation.

For more information, contact the airport manager, Cliff Muller, at 218-838-3434. Tom Moroni is treasurer of Breezy Point Airport, Inc. ❑

# Aeronautics Report

**Wisconsin Bureau of Aeronautics**
P.O. Box 7914, Madison, WI 53707-7914
*David M. Greene, Director*
(608) 266-3351
www.wisconsindot.gov

## New Publications For Wisconsin Aviators

*by Hal Davis*
*WisDOT Bureau of Aeronautics*


Hal Davis

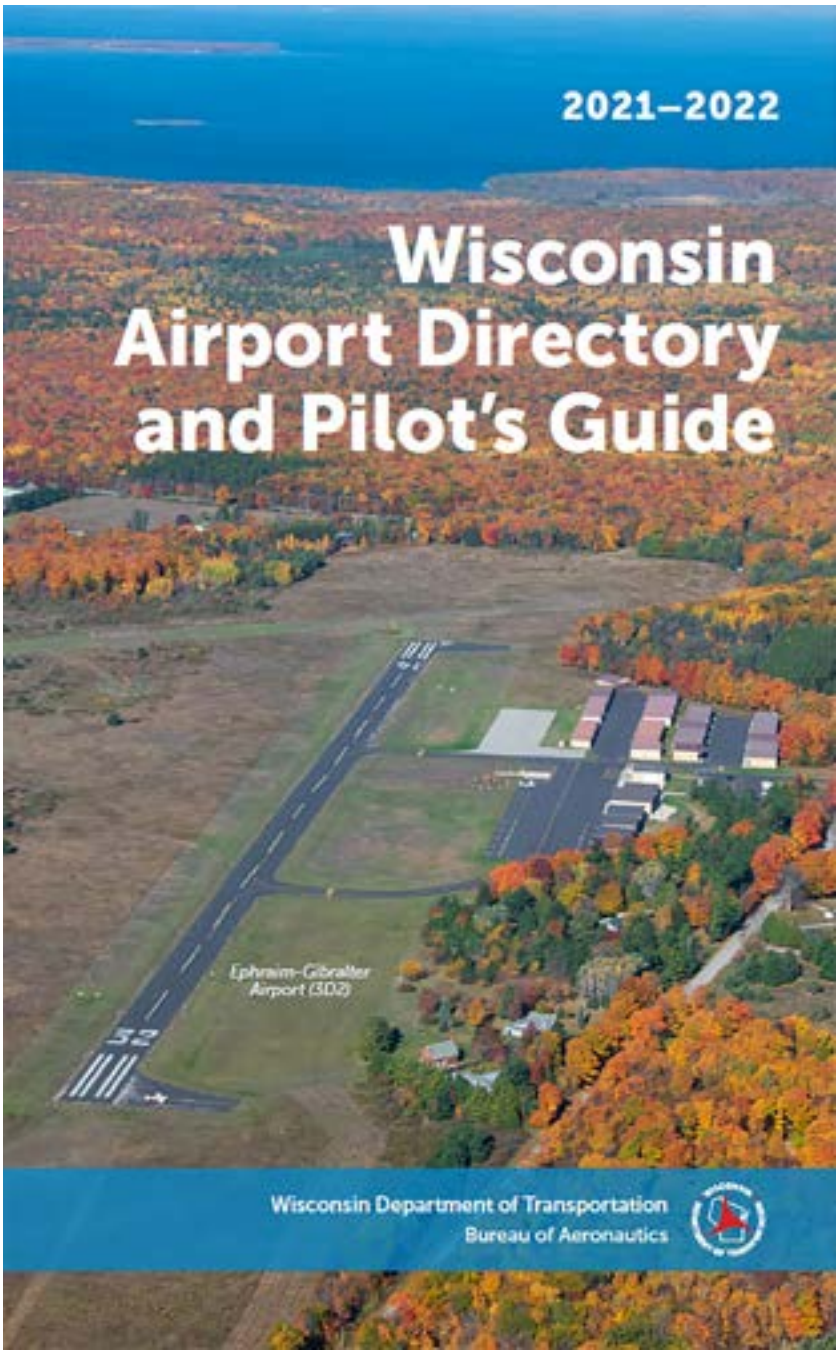
The Wisconsin Bureau of Aeronautics (BOA) is pleased to announce the release of several new publications for aviators. Digital copies of these new publications, along with numerous others, can be found at: https://wisconsindot.gov/av-pubs.

**2021-2022 Wisconsin Airport Directory & Pilot's Guide**

For anyone who frequents Wisconsin airports, the all-new Wisconsin Airport Directory and Pilot's Guide is a must have for your flight bag. The directory contains airport diagrams and essential information like frequencies, services, airport remarks and contact information for all public-use airports and seaplane bases in the state. Participants of the "Fly Wisconsin Airport Passport Program" will also find a description of the stamp location for each airport.

New this year, we've added the directory as a free content pack for ForeFlight. The content pack, along with instructions for installation, can be found on our website. Once downloaded to ForeFlight, users will be able to view the airport directory as a geo-referenced map.

As always, most aircraft owners registered in Wisconsin will receive a physical copy of the directory in the mail. Hard copies of the directory can be purchased by mailing in an order form found on our website. There you will also be able to view and download a digital pdf version of the directory for free as well.





New this year, the directory features a free content pack for ForeFlight. ❑

---

# Meet Greg Stern, Airport Development Engineer

Greg Stern joined the Wisconsin DOT Bureau of Aeronautics (BOA) in May 2021. As an airport development engineer, Greg is responsible for managing projects at 10 airports around Wisconsin. His duties include helping airports develop a realistic and achievable capital improvement plan; contracting with consultants for planning, design and construction engineering services; conducting plan reviews; and working as a liaison between local sponsors and state and federal agencies. In addition to his role as an engineer, Greg also assists in the review of planning documents, such as master plans, and Airport Layout Plans (ALPs).

Greg Stern

Greg earned a Bachelor of Science Degree from the University of Wisconsin-Platteville in 1997 in Civil Engineering. He worked in consulting for over 24 years before joining the BOA and is registered as a Professional Engineer in Wisconsin. Greg enjoys helping airport owners meet their development goals and looks forward to continuing to be of service to Wisconsin airports as a member of the BOA staff.

Greg lives in Madison with his wife, Lisa, and their three children.

Airport officials can contact Greg Stern by calling 608-266-7910 or via email: gregory.stern@dot.wi.gov. ❑

MINNESOTA AERONAUTICS BULLETIN
www.dot.state.mn.us/aero
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
395 John Ireland Blvd, MS 410 • St. Paul, MN 55155
651-234-7200 or (toll free) 1-800-657-3922

# MnDOT Air Mobility Strategic Plan Looks To The Future

*by Michael Johnson*
*Business Process Manager*
*MnDOT Office of Aeronautics*


Michael Johnson

The Minnesota Department of Transportation's Office of Aeronautics is developing an air mobility strategic plan to prepare for Minnesota's future as aviation technology evolves. The new Air Mobility Strategic Plan will lay out a framework for open decision-making that provides and supports coordination, collaboration and innovation, as well as ensures efficient and effective use of state resources.

As part of creating this new strategic plan, MnDOT is forming an Air Transportation Workgroup. The group is intended to help inform Minnesotans on the current state of the industry and engage the public and interested stakeholders in discussions of regulatory and standards-development activities at the federal, state and local levels. This new workgroup will also help MnDOT make informed transportation system decisions through an inclusive and engaging process, supported by data and analysis. More information about opportunities to participate in MnDOT Air Transportation Workgroups will be available in the coming months on the MnDOT website. If you have ideas for the workgroup or would like to become a potential member of the workgroup, please contact MnDOT at DroneInfo.DOT@state.mn.us, and watch for more information at www.mndot.gov/aero/drones.

**Why a strategic plan? Why now?**

Rapidly emerging aviation technology, along with evolving FAA rules that support use of that technology, are driving industry change at a disruptive rate. The technology isn't just in development…in some instances it is here. For example, drone delivery is already occurring in six states, and major corporations like Amazon and UPS are working to adopt and deploy drone delivery technologies. Midsize electric propulsion aircraft capable of transporting people are in various stages of development and testing, with prototypes already operational.

Leveraging the capabilities of Unmanned Aircraft Systems (UAS) has the potential to change how Minnesotans conduct business, move goods, and access the nation's airspace. It's conceivable that UAS could soon provide rapid transport of life-saving medical supplies, delivery of food and other essentials, delivery of consumer goods, and efficiencies across warehouse and campus systems.

Beyond UAS, electric propulsion is now in the early stages of being applied to larger aircraft capable of carrying passengers. Electric and hybrid-electric regional passenger and cargo aircraft show promise to open commercial air travel and air freight delivery to previously underserved or unserved communities.

One of the key assumptions of MnDOT's Air Mobility Strategic Plan is that the convergence of traditional multimodal transportation, with these more widely accessible forms of aviation, will drive a change in the way we think about aviation and integrated transportation. For example, Advanced Air Mobility has the potential to radically change urban, suburban, and inter-airport mobility through a network of electric Vertical Takeoff and Landing (eVTOL) aircraft.

As eVTOL and other technology-driven aviation changes become adopted, our traditional aviation system must adapt to support the future of aviation. A few considerations include vertiport location and design, aviation ecosystem infrastructure, new discussions around privacy and land use, workforce development, and economic impact.

The FAA continues to develop new regulations to fully integrate UAS into the nation's airspace. It is important to recognize that UAS is not limited to the aircraft alone. UAS includes all of the components necessary to support the aerial operation, such as support equipment and controls, and the human operator.

One fundamental question is: where are these new aircraft going to take-off and land?

There are 113 heliports in Minnesota today. None of those are open to public use, and none support refueling.

Nationwide, there are 5,918 heliports in the U.S. today. Yet only 58 are open to public use, and approximately 90 percent do not support refueling or other services. So, this is not just a Minnesota issue.

While the FAA provides design recommendations, the specifications are only required if the heliport receives federal grants through the Airport Improvement Program. Only one heliport in the U.S. has ever used AIP funding for construction (Indianapolis Downtown Heliport).

Also, many of the nation's heliports are currently located in highly desired urban locations but are inactive due to local ordinances on noise levels.

Ideas for locating new vertiports include repurposed tops of parking garages, existing helipads, and underutilized land surrounding highway interchanges. While these options could, potentially, form the basis of an extensive, distributed network of vertiports, consideration must also be given to land use requirements, infrastructure requirements, and community input.

The Air Mobility Strategic Plan is an important part of providing statewide leadership and a shared vision and strategy for enabling safe, fast, and reliable air transportation for the citizens and businesses of Minnesota through partnership and innovation. Balancing technology capabilities with strategic planning will offer exciting new passenger and air transportation options for cities throughout Minnesota. While these new technologies continue to be refined and developed by private industry over the next several years, MnDOT's statewide leadership will promote a shared vision and strategy to enable safe, fast, and reliable air transportation that benefits the citizens and businesses of Minnesota through planning, partnership, innovation and engagement.

Although the future is unknown, MnDOT's Air Mobility Strategic Plan is an important step in helping us prepare for an unknown future by informing policy development, fostering innovation, creating an environment of inclusion, and promoting local and regional aviation ecosystems for deployment. ❑

# Improved Internet Services Coming To Many Minnesota Airports

*by Kris Christenson*
*MnDOT Navigations Systems Radio Engineer*


Kris Christenson

MnDOT's Office of Aeronautics has been working on several programs to improve communication services at Minnesota's local general aviation airports. The first of these improvements – improved internet services – will be rolled out in the coming months.

Currently, most internet connections at Minnesota's public general aviation airports are conventional DSL lines with max speeds of 1.5Meg down/768k up. When you are used to home speeds of 150 meg down and 30 meg up and faster, it is hard to imagine how slow and clunky this is until you are at the airport competing with a few of your aviation friends for bandwidth!

Minnesota's general aviation airport internet service supports two main functions. First, it allows pilots to easily access the AWOS data sent via our National Airspace Data Interchange Network provider, AnyAWOS. AnyAWOS enables our one-minute AWOS Weather updates. You can get those updates over the internet at www.anyawos.com/k###, or access through our online mapping app at mndot.gov/aero/navigationsystems/awos-map-online.html. Second, faster internet supports our public-use internet kiosk MnWAS (Minnesota Weather Access System). The kiosks are available at each arrival-departure building for flight planning, weather updates or other needs a pilot may have to access the internet while traveling about.

Our vision for the future is to utilize wireless 4G LTE data service providers that deliver typical internet speeds averaging 25Meg down/5Meg up. We have tested this equipment for about 12 months in various spots around the state to make sure it is dependable for all the services MnDOT supports.

With these upgrades, our equipment will be able to support in-building Wi-Fi service. Pilots and guests of the airport will be able to access this service on their own Wi-Fi enabled devices. We recognize that most of the pilots going through the airports have their own device and may use it for filing flight plans and closing flight plans. We also know that in this new norm of teleworking, many pilots and guests alike will enjoy the access.

We also recognize that there is a growing need for internet services to be available on the ramp areas. This could be that last-minute weather check or downloading a clearance to your device before departure. We are developing a solution for this, and plan to provide outside Wi-Fi coverage to the ramp area right around the tie-downs and passenger loading and unloading areas.

Once Wi-Fi to the ramp is installed, pilots should be able to file a flight plan from their airplanes while sitting on the ramp at Detroit lakes and land at Morris, Minnesota and close their flight plan – all without leaving the cockpit or with the need for any data plan.

Beyond improved services for pilots and other airport guests, the improvements will add remote network management and cut operating cost by more than half!

We continue to look for new ways to improve internet connections and service. Look for future articles for more exciting news from your Navigation System Team. ❑

The Bell 222UT medivac helicopter being removed from on top of a roof when it made an emergency landing on approach to St. Paul Downtown Airport. *Chris Kruse Photo*

# Check that box and fly it to the ground!

*by Chris Kruse*

Chris Kruse

Sometimes life comes at you in small drips. At other times, like a fire hose stream. And still at other times, it can resemble a water tower collapse.

Helicopters are some very curious but capable beasts. Unlike our fixed-wing airplane cousins, they need to spin their wing or airfoil to create lift. The airplane relies on forward speed to flow air over its wings, creating that magic lift. Helicopters spin themselves. To do that, there are multitudes of moving parts, all working in concert. With that the main rotor spinning above, a smaller rotor attached to the tail is needed to counteract the torque and keep the fuselage from spinning in the opposite direction. The pilot uses his or her feet to control the tail rotor pitch. The pilot's left hand controls the pitch of the main rotor above, and his right hand controls the cyclic stick between his legs to steer the direction of the aircraft.

To say all this is a rather "busy" endeavor, is a total understatement. The helicopter demands your complete attention at all times. When things go south, they usually do so in a big hurry.

When the engine or engines fail, we can use the stored energy in those spinning rotors and a rapid decent to keep that rotor spinning adequately to do an emergency landing. That is termed "autorotation." The only caveat is you have only that one chance to get it right. No going around for a second try. Lose that stored rotor RPM and the lift all goes away. Everything stems from the main and tail rotor spinning at the proper speed to allow controlled flight.

I had been an EMS helicopter pilot for years, and before that a U.S. Army medivac pilot. All helicopter pilots can be separated into two distinct but very different clubs: those who

have had emergencies, and those who still naively think they are immune.

My prior military service had ended with a medical discharge after injuries sustained in a helicopter rollover sequence, following an engine failure over water. On that sunny "May Day" (May 1, 1997), lady luck had cast no shadows on me. The near perfect autorotation ended with the left skid of our Huey pivoting on a submerged stump in the water, causing the rollover. Take that stump out of the equation, and the helicopter and crew would still be at it today.

The violence associated with a main rotor striking the ground or water is indescribable. In the Huey, a 1200 hp turbine engine is spinning a driveshaft at 6600 RPM, into a transmission spinning a 48-foot diameter main rotor at 324 RPM. A tremendous amount of kinetic energy is suddenly interrupted, causing mayhem simply beyond words. While I did recover from my injuries, the resulting blood clot in my right subclavian vein disqualified me from further military service. My naivety had been vigorously shaken from me that day. I had joined the club.

The civilian Bell 222UT seemed like a great alternative to the single-engine military Huey. Instead of one, I now two turbine engines, about 750 hp a piece; two redundant hydraulic systems; a reliable autopilot to allow single-pilot instrument flying; plenty of fuel capacity for a solid 2-3 hours of endurance; and a decent amount of payload to carry everything needed on a typical civilian medivac role. All of that working together would create typical cruise airspeeds of about 130-140 kts, with day, night, visual and instrument flying allowed. We routinely carried a nurse and a paramedic. Along with them, and their associated life-saving equipment, we would still be several hundred pounds below max gross weight.

So, when I entered the civilian medivac world, flying this machine, I felt I had made a good choice in terms of safety, redundancy and survivability. And of course, my crash was behind me! That box had already been checked. Or so I thought…

On April 14, 2000, fortunately for the little one we transported and the medical team tending to him or her, that second back-to-back neonatal flight from Buffalo, Minnesota went off without any drama. That is, no drama until after they were all dropped off intact and safe at the Minneapolis Children's Medical Center. The next several minutes would impact us remaining crewmembers for the rest of our lives.

After assisting in the unloading of the baby and the hospital's team members, paramedic, Bill Yoch, rejoined me, sitting in the left front crew seat. I obviously sat in the pilot's seat, and after a normal run-up and before takeoff checks, we left the hospital helipad. As we headed back to our home base at St. Paul Downtown Airport (KSTP), all appeared normal as I climbed the Bell 222 helicopter up to 1000 feet above the ground and headed east. Thoughts of a lunch missed, due to the two morning flights, dominated our minds as we flew towards the airport, a short 5-minute flight. Until a sudden, but slight, metal-to-metal "tick sound" was heard and felt, all looked routine. This would be the first and only warning I would receive of the pending mayhem that soon faced us.

Captain Geoff Presson, an off-duty airline pilot from Rochester, New York, was doing his normal afternoon jog along the walkway of the high-bridge in downtown St. Paul. He heard an approaching helicopter and glanced up to see us just as we turned the downwind leg for the landing at St. Paul. A sudden loud engine surge and the subsequent backwards loop of the helicopter stopped him dead in his tracks. He glanced at his watch and believed he was about to witness a fatal helicopter accident.

After the tick, Bill looked over at me and said, "what the hell was that?" We heard a momentary engine surge simultaneously with the sound. I looked over everything available to me to verify systems and all appeared normal. I saw no indication of trouble on the multitude of gauges and warning lights before me. I momentarily thought of continuing the flight in an attempt to troubleshoot the issue. As I looked over to my right, with St. Paul Downtown Airport so close, I quickly abandoned that plan. Instead, heading back to my waiting mechanic seemed the more prudent idea.

I had already contacted tower for landing clearance and keyed the mike again to announce the state capitol, a routine visual checkpoint that tower had requested us to announce as our arrival in their traffic pattern:

"St. Paul tower, helicopter 225LL is at the state capitol for bravo taxiway." Tower acknowledged us and cleared us to land. After the right-turn to the downwind, I again keyed the mike, but before I could get the words out to read back their landing clearance, I heard and felt that weird tick sound again. Immediately after that and to my horror, the cyclic stick between my legs suddenly displaced to the full aft position, dead solid and frozen.

St. Paul tower controller, Robert Olson, had glanced my way as I turned downwind after announcing the capitol. Suddenly he heard a person screaming on the radio. He looked back at where he thought we should be and saw nothing. Unable to see us, and after repeated attempts at contacting us went unanswered, he queried a Minnesota State Patrol helicopter in the area, being flown by Captain Geoff Presson, to look for us. The screams continued over their radio frequency.

I was the scream heard on that radio. The sudden pitch up and inability to move any of the flight controls began the ultimate fight of my life and wouldn't end for some 90 seconds, according to Captain Presson's watch. Those next 90 seconds were going to be the longest seconds of my life and I knew we were in serious peril.

The rotor system on the Bell 222, a teetering rotor system, is not designed for aerobatics. Similar in design to a Bell Huey or Cobra, it is known to catastrophically fail when exposed to violent low-g environments. As the helicopter pitched straight up, I remember thinking that if I could somehow just keep it

from going over backwards, we might survive. The helicopter then pitched over upside down in an inside loop.

Captain Presson watched in horror as our out-of-control helicopter went through a series of loops, weird Immelmann turns, partial Split S turns, hammerhead-type stalls and partial rolls. He watched us struggle for control and was convinced it would end in disaster. We then disappeared out of his sight.

I struggled to move the cyclic and regain control of the ship. The initial inside loop resulted in a dive straight towards the ground. The Mississippi River was quickly filling the windshield view as I managed to arrest the dive and begin a climb, only a few hundred feet above the water. Looking right, I saw the tall downtown buildings pass by my side as the fight continued upwards.

The next 30 seconds gave me that exact view again and again. I was tiring very quickly and remember thinking if you're going to kill me, just get it over with!! I then thought of my family and friends, and a vivid image suddenly was forefront in my mind. It was a dingy, flat barge anchored on that dark Mississippi River. A crane sat on that damn barge, and at the end of its cable, the destroyed helicopter cabin emerged from the water with the lifeless bodies of Bill and I hanging from our belts. This image reenergized me in a way I have trouble even expressing. A super-human determination to live overwhelmed me again, and I became determined not to ever quit. FLY IT TO THE GROUND!! was the phrase I and every other aviator out there has heard during their training. My military flight instructor would allow his students to get very close to disaster, and then offer the correcting words or actions to save the aircraft. Again, these words flooded my mind, and I fought the continuing battle.

Bill was watching me struggle from his seat and with a similar will to survive, he tried to assist me in any way he could. He noticed that when I let go of the collective lever to use both hands on the cyclic, it would go to the full up position on its own. The aircraft would then flip upside down. I would recover from the upset, and then use my left hand to reposition the collective again. My hands were bleeding from the collective and cyclic jumping around and me trying to grab them. The collective lever to my left controls the collective pitch of both main rotor blades, and also the engine governors to meet the demands of the system in regards to power. On this model of helicopter, the two-engine throttles protrude out at 90 degrees to the left at the end of this control stick. Pull up on that lever, more pitch in the blades and more engine power to make the helicopter climb. Lower it, and the opposite occurs. What happens next is somewhat of a mystery. I either told Bill to stabilize the collective, or he did this on his own. Regardless, when he did that he grabbed the collective at the point of those throttles.

As Bill lowered the collective, he also rolled both engine throttles mostly off-line, either all the way to flight idle, or at a minimum to partial power. The timing of his lowering the collective lever was paramount. Had he done this action under a low or zero-G environment, the result would have been that rotor system failure I talked of. Mast bumping would have torn the rotor right off the mast and the fight would have been abruptly over. As life goes sometimes, he did this while the helicopter was in a configuration that allowed it. I'll take a little luck anytime.

What did occur as a result of Bill's help was a small degree of returned control. I was now able to at least minimally control the attitude of the machine, but I also was now in a power-off autorotation. Power off, falling from the sky in a 7000-pound helicopter with nearly 175 gallons of Jet-A fuel, as well. But, at this point, being upright was a wonderful thing.

We had drifted south of the river, and now were over Harriet Island. I franticly searched for an area large enough to do a run-on landing. Descending quickly, I scanned and just to our left saw a construction company's parking lot, with a tall chain-link fence surrounding it. I planned on touching down within that parking lot, and skid the helicopter on the ground into that fence to arrest the ground run. At about 400 or 500 feet above the ground, I managed to turn the helicopter left and back into the wind. As I approached the parking lot, a man suddenly walked out into the exact spot I was aiming for. I remember yelling out loud: "Dude, I can't do a thing for you…I hope you move!!" I continued the approach. At about 200 feet, as I began to arrest the approach and slow down by adding aft cyclic, I quickly learned that the machine was going to have the last word. The aircraft pitched straight up and appeared to be going over backwards just one last time.

Very flammable Jet-A fuel. 1100 pounds. 175 gallons. Two very hot and unhappy turbine engines. And we were going to die in a flaming mess.

As the helicopter approached vertical again, the rotor started bleeding down its speed due to that reduced engine power settings. The familiar "whopp-whopp-whopp" of a slowing rotor filled our ears. This last loop failed at its apex, and slowly the helicopter's pitch fell forward again. What filled the windshield now were high-tension power lines, never seen before and now looming large and right in front of us.

Every helicopter pilot's DNA includes a strand dedicated to the avoidance of power lines. It's inbred in every one of us, and there was no way I was going to go through all this and in the end be blamed for killing us by hitting power lines. I reached over to pull the collective and use the last energy available to jump over these lines and crash to the ground beyond them.

Just as I was about to pull the collective, Bill yelled: "Hey, a flat roof over here!!!" I looked and right next to that construction company's building was a mostly flat metal roof, and yes, immediately to our left! I quickly jammed full left pedal and swung the cyclic left. The helicopter used its one remaining breath to make that last 180-degree turn, and then promptly fell the remaining 15-20 feet onto the rooftop.

The metal roof swayed deeply under the impact load of

the helicopter's fall. I briefly considered the likelihood of the roof failing, and the burning helicopter destroying it and us as well. And then the roof rebounded, damaged but intact. The roof acted like a huge pillow, absorbing the impact load from the helicopter's fall. We then just sat there at flight idle, the blades turning happily, just like I had intentionally parked it there.

We stared out the windscreen in utter disbelief. Disbelief of the event. And disbelief of surviving it mostly unscathed. There was no fire. The helicopter's skids had collapsed. The tail boom was kinked. It otherwise looked intact.

After shutting down the engines, I managed to crawl up and look inside one of the cowlings on the helicopter. All three hydraulic flight control servos were dangling in space, broken free of their mounts. I looked up at the mast on the helicopter. Numerous "witness marks" consisting of very deep gouges, were all over it, reviling the severe mast bumping that had entailed. Somehow it had all held together just long enough to bring us here…here back to earth! Getting down from that look in the cowling, my knees buckled, and I was unable to walk without help.

I know literally dozens of professional helicopter pilots who went an entire career, flying 10, 15 or even 20,000-plus hours without a single incident. Who possibly could have predicted that I would have to check that damn box not once, but twice? My measly 5500 hours offered me two chances. I guess lady luck was shining on me after all.

*EDITOR'S NOTE:* This true incident occurred on April 14, 2000, and was written by Chris Kruse of St. Paul, Minnesota, who is a retired U.S. Army and civilian medivac pilot. ❑

---

# Carver Aero Acquires Janesville Jet Center

DAVENPORT, IOWA – Carver Aero has announced that it has acquired the fixed-base operation Janesville Jet Center at Southern Wisconsin Regional Airport in Janesville, Wisconsin. Carver Aero is continuing to expand its full-service FBO network throughout the Midwest. In addition to Janesville, the company operates FBOs in Muscatine, Davenport and Council Bluffs, Iowa.

"We have three key initiatives with the Janesville FBO," said Carver Aero CEO Guy Lieser. "One is to work with existing airfield businesses and tenants to determine what opportunities exist to benefit all. A second is to offer services not currently being offered, such as aircraft maintenance, avionics and charter services with our fleet of turboprops. Finally, we believe smaller airports should be contributors to the local economy and be an integral part of the community."

"The Janesville FBO fits into our business strategy to expand into smaller communities throughout the Midwest, and this acquisition expands our footprint into Wisconsin," said Peter Limberger, Chairman of Carver Aero, and co-founder and Chairman/ CEO of CL Enterprises, the holding company for Carver Aero. "This airfield can accommodate higher volumes and larger planes," Limberger said. "That means greater opportunity."

Greg Cullen, Southern Wisconsin Regional Airport Director, welcomes the new ownership of the FBO. "Carver Aero brings additional capital and resources to expand aviation services on the airfield and has already reached out to existing businesses to determine how they can grow overall operations at the airport. This should be a win for everybody."

Based in Peru, Illinois, CL Enterprises (www.cl-enterprises.com) is the family holding company for businesses owned and managed by husband and wife, Peter Limberger and Inga Carus. Both are pilots. CLE invests in a wide variety of businesses ranging from farming, manufacturing, hospitality, real estate development, to aviation, with a focus to participate in the economic development of smaller towns and rural regions. ❑

# Declared Distances and Displaced Thresholds... When the runway is shorter than published.

*by Rick Braunig*

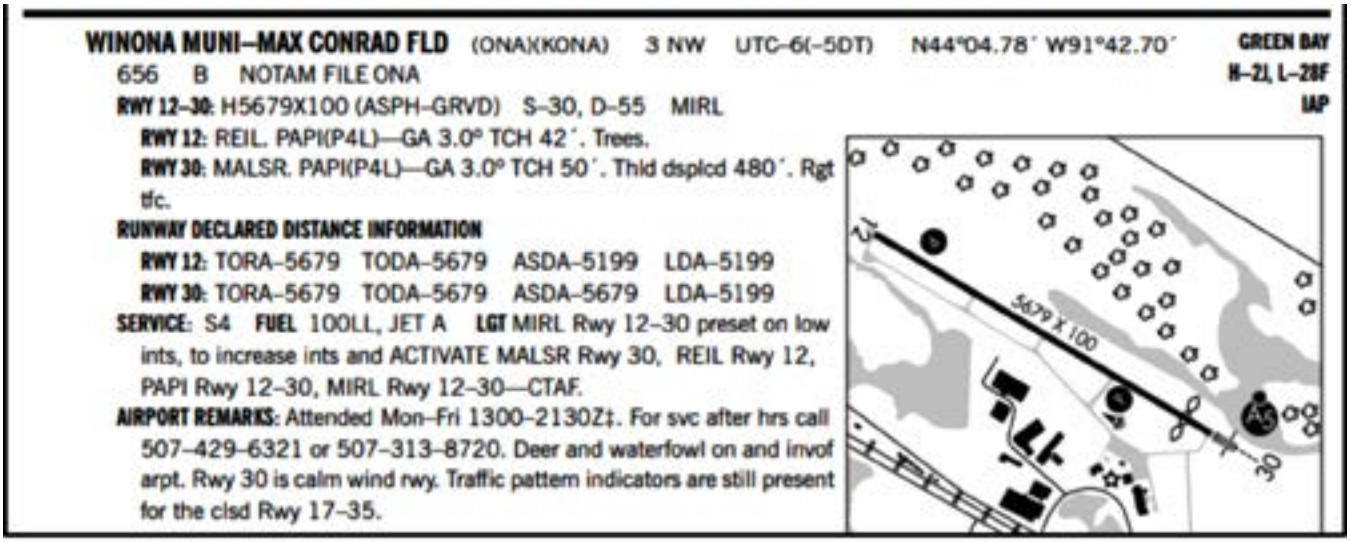

Rick Braunig

There aren't a lot of runways with displaced thresholds in Minnesota, but they are common enough that pilots should be familiar with them. When a runway has a displaced threshold, the landing distance available (LDA) is shorter than the runway length. The threshold to Runway 30 at Winona Municipal-Max Conrad Field (KONA) is displaced by 480 feet, meaning that aircraft are not supposed to land before that point on the runway. When landing on Runway 30, the pilot does not have the full 5,679 feet to land on, but rather, only 5,199 feet. This information is shown on the top line of approach plates or in the Declared Distance information in the Chart Supplement (Green Book).

Displaced thresholds are usually added to clear obstructions in the approach. There are requirements for approach slopes that are based upon the type of approach to the runway. In this case when we say type, we are talking about whether the approach has to be visual or if there is an instrument approach to the runway end. If an object penetrates the required slope, the FAA allows the use of a displaced threshold to clear the slope. Displaced thresholds are marked and lighted so the pilot can identify them during both day and night operations.

Of course, runways can be used in two directions, so it stands to reason that an approach obstruction to Runway 30 would be a departure obstruction to Runway 12. Departures are normally made with maximum thrust and the climb is normally at best angle of climb (Vx) until the objects are cleared. While an aircraft can legally use the entire runway for takeoff, that does not ensure that they will be able to clear the obstructions on climb out. If you notice on climb out that you are not going to clear the obstruction, the only choice left is to try to turn to avoid it. A good rule of thumb is to always plan to lift off by any displaced threshold on the reciprocal runway, giving you a better chance of clearing the obstructions. Unfortunately, the displaced threshold can be hard to see at night because the displaced threshold is not lighted for aircraft going the opposite direction.

It is interesting to note that the LDA for Runway 12 at Winona is also 5,199 feet. There is no displaced threshold to Runway 12, so why can't all 5,679 feet be used for landing? The answer is that the usable runway has been shortened by the distance required for the Runway Safety Area (RSA). The RSA is a defined surface surrounding the runway, prepared or suitable, for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. The RSA is also meant to support aircraft rescue and firefighting equipment if needed for an aircraft crash and to support snow removal equipment to help the airport keep



the RSA usable year-round. At Winona, both the displaced threshold and the shortened landing distance for Runway 12, are because of the RSA requirement and not because of obstructions.

At Jackson Municipal Airport (KMJQ), the planned Runway 13/31 is 4,142 feet long, but the usable length is really 3,591 feet. In this case, declared distances are being used to clear the Runway Protection Zone (RPZ). The RPZ is an area at ground level prior to the threshold or beyond the runway end to enhance the safety and protection of people and property on the ground. The RPZ extends out beyond the RSA covering a larger area. The RPZ is causing a displaced threshold on both ends and a shortened LDA, but it is also shortening the Takeoff Runway Available (TORA), which is normally the length of the runway. The only operation that can use more than 3,600 feet in either direction would be the accelerate-stop (ASDA) or rejected takeoff. Pilots are supposed to calculate their takeoff distances and on departure, liftoff prior to the TORA distance, but there are no markings indicating the location of the shortened TORA, making it invisible to the pilot.

If you haven't heard about this before, you are not alone. The FAA changed their position several years ago on RSA and RPZ and started requiring full compliance at commercial service airports. Those requirements are now being required at all airports that accept federal funds when the airport has a runway project.

Many of the smaller airports in Minnesota do not currently meet RSA or RPZ standards. I believe Winona was the first Minnesota airport to employ declared distances beyond using a displaced threshold to clear obstructions, but they will not be the last. The Minneapolis Crystal Airport is using them on Runway 14/32, and as discussed, there are plans to incorporate them at Jackson, Minnesota when that runway is rebuilt. Others are also in the planning process.

The RPZ and RSA are surfaces defined in the Airport Design Advisory Circular. Though the name implies that compliance is advisory, airports that take federal funds agree to abide by the advisory circulars as part of grant assurances. Airports that don't take federal funds are not obligated to clear these surfaces and the Minnesota licensing requirements do not include RSAs or RPZs, so airports that only get state or local funding do not have to clear these surfaces.

The purpose of both the RSA and the RPZ is to improve the safety of the airport by providing room for crashes that leave the runway. When building a new airport, RSA and RPZ requirements should be taken into account in site selection, so that the entire runway is usable. Existing airports have limitations.

For both Crystal and Jackson, they are limited by the development off the ends of the runways. From the pilot's view, we would like to see the airport buy more property so the runways can be longer and the RPZ and RSA are not impacted using the full length. Unfortunately, that property cannot be easily acquired. At Jackson, without using declared distances, the new runway on the available footprint would be 3,060 feet. As noted, the current runway is 3,591 feet. The airport could not accommodate the current aircraft mix if reduced to 3,060 feet, so declared distances are planned. Other airports will encounter similar issues when applying the RSA and RPZ requirements, and in some cases, the result will be a shortened runway even with declared distances. As a pilot, I would prefer more runway to safely complete the takeoff or landing so that the crash these surfaces address is less likely to occur.

The guidance to pilots on declared distances is confusing. In the Aeronautical Information Manual (AIM), it states that the distances must be calculated based on the information in the aircraft flight manual or operating handbook, and those numbers must be less than the declared distances for the pilot to accept the runway. In the Airport Design Advisory Circular, it states that declared distances are for turbine aircraft. In any case, knowing the declared distances and applying them to your operations can only increase your safety.

Going forward, pilots should be aware that the total runway length might not be available for takeoff or landing and the chart supplement is the place to find that information. The FAA publishes the chart supplements online at: https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dafd/

EDITOR'S NOTE: Rick Braunig has a degree in Aerospace Engineering and Mechanics from the University of Minnesota. Upon graduation he accepted a commission in the United States Navy and flew both airplanes and helicopters on active duty for 10 years. Rick continued in the Navy Reserves for another 17 years working in aircraft survivability and battle damage assessment. He retired from the service in 2007 at the rank of Captain.

In 1990, Rick took a position with the Minnesota Department of Transportation (MnDOT) Office of Aeronautics, where he flew a Bonanza and King Air, compiling more than 7,000 hours over his career. He was a part of the FAA safety team that presented pilot safety seminars throughout Minnesota for a number of years starting in the late '90s.

Prior to his retirement from MnDOT in 2021, Rick was the manager of the Aviation Safety and Enforcement Section. In this role, he trained and supervised the team responsible for the inspection and licensing of airports, heliports and seaplane bases in the state.

Rick lives with his wife, Kelly, in Woodbury, Minnesota.

# First In-Flight Livestream Brings Spaceflight Experience To Audiences Around The World


Virgin Galactic's carrier aircraft, "Virgin MotherShip Eve" (VMS Eve), with "Virgin SpaceShip Unity" (VSS Unity) attached in the middle.
*Virgin Galactic Photo*

Virgin Galactic announced that VSS Unity successfully reached space on July 11, 2021, completing the company's fourth rocket-powered spaceflight. The flight was the 22nd test flight of VSS Unity and the first test flight with a full crew in the cabin, including the company's founder, Sir Richard Branson. The crew fulfilled a number of test objectives related to the cabin and customer experience, including evaluating the commercial customer cabin, the views of Earth from space, the conditions for conducting research and the effectiveness of the five-day pre-flight training program at Spaceport America.

Following the flight, Michael Colglazier, Chief Executive Officer of Virgin Galactic, said: "Today is a landmark achievement for the company and a historic moment for the new commercial space industry. With each successful mission we are paving the way for the next generation of astronauts. I want to thank our talented team, including our pilots and crew, whose dedication and commitment made today possible. They are helping open the door for greater access to space – so it can be for the many and not just for the few."

VSS Unity achieved a speed of Mach 3 after being released from the mothership, VMS Eve. The vehicle reached space, at an altitude of 53.5 miles, before gliding smoothly to a runway landing at Spaceport America.

This seminal moment for Virgin Galactic and Sir Richard Branson was witnessed by audiences around the world. It gave a glimpse of the journey Virgin Galactic's future astronauts can expect when the company launches commercial service following the completion of its test flight program. A recording of the livestream can be accessed on Virgin Galactic's YouTube channel.

Sir Richard Branson said: "I have dreamt about this moment since I was a child, but nothing could have prepared me for the view of Earth from space. We are at the vanguard of a new space age. As Virgin's founder, I was honored to test the incredible customer experience as part of this remarkable crew of mission specialists and now astronauts. I can't wait to share this experience with aspiring astronauts around the world."

Branson continued, "Our mission is to make space more accessible to all. In that spirit, and with today's successful flight of VSS Unity, I'm thrilled to announce a partnership with Omaze and Space for Humanity to inspire the next generation of dreamers. For so long, we have looked back in

Sir Richard Branson floating in space.
*Virgin Galactic Photo*

wonder at the space pioneers of yesterday. Now, I want the astronauts of tomorrow to look forward and make their own dreams come true."

The mission specialists in the cabin were Beth Moses, Chief Astronaut Instructor; Colin Bennett, Lead Flight Operations Engineer; Sirisha Bandla, Vice President of Government Affairs and Research Operations; and the company's founder, Sir Richard Branson. The VSS Unity pilots were Dave Mackay and Michael Masucci, while Kelly Latimer and CJ Sturckow piloted VMS Eve.

VMS Eve is a carrier mothership for Virgin Galactic and launch platform for SpaceShipTwo-based Virgin SpaceShips. VMS Eve was built by Scaled Composites for Virgin Galactic. The "VMS" prefix stands for "Virgin MotherShip." The aircraft was named after Evette Branson, the mother of Richard Branson. The nose art on the aircraft is of a blonde woman holding a banner with the Virgin Galactic logo. The image is based on how Ms. Branson looked when she was younger and is called "Galactic Girl."

Virgin Galactic Holdings, Inc. is a vertically integrated aerospace and space travel company, pioneering human spaceflight for private individuals and researchers, as well as a manufacturer of advanced air and space vehicles. For more information, go to https://www.virgingalactic.com/

VSS Unity on approach to Spaceport America, Consequences, New Mexico.
*Virgin Galactic Photo*

❑

# AIAA Statement On The Successful Virgin Galactic Unity 22 Mission

RESTON, VA – The American Institute of Aeronautics and Astronautics (AIAA) congratulated its corporate member, Virgin Galactic, on its successful test flight of SpaceShipTwo Unity, July 11, 2021. AIAA Executive Director Dan Dumbacher made the following statement:

"On behalf of the 30,000 professional and student members of AIAA, we are excited to congratulate Sir Richard Branson and the Virgin Galactic team on their accomplishments today! The successful Unity 22 mission marks a major step forward in humanity's quest to extend the human neighborhood beyond planet Earth. Virgin Galactic is helping move us closer to the day when space travel is widely accessible to people everywhere.

"We especially congratulate Unity 22 Mission Specialist Sirisha Bandla on her part in this flight. In addition to serving as a Unity 22 crew member, Sirisha is a member of our ASCEND Guiding Coalition. The ASCEND Guiding Coalition is the executive board of advisors for ASCEND, the global community focused on building humanity's off-world future faster. Sirisha exemplifies the community experience of space because no one goes to space alone.

"We commend the pioneering role of Sir Richard Branson in accelerating the nascent space tourism industry. Today's mission would not have been possible without his long-term vision and risk taking. He has courageously led the Virgin Galactic team through challenges and tragedies to get here. Their collective perseverance is admirable, reminding us of how we must accelerate innovation in space with the utmost focus on safety and our shared humanity.

"We recognize the countless professionals in the aerospace industry involved in making this mission a success, from design, to fabrication, to testing, and now to operations. We salute and applaud the Virgin Galactic team for pursuing their dreams with determination and making important contributions to shaping the future of aerospace."

Powered by AIAA, ASCEND promotes the collaborative, interdisciplinary, outcomes-driven community of professionals, students, and serious enthusiasts around the world who are accelerating humanity's progress toward our off-world future! For more information, visit ascend.events, or follow ASCEND on Twitter, Facebook, or LinkedIn.

The American Institute of Aeronautics and Astronautics (AIAA) is the world's largest aerospace technical society. With nearly 30,000 individual members from 91 countries, and 100 corporate members, AIAA brings together industry, academia, and government to advance engineering and science in aviation, space, and defense. For more information, visit www.aiaa.org, or follow AIAA on Twitter, Facebook, or LinkedIn. ❑

---

# Jet It & JetClub Move Forward With Electric Airplanes

DENVER, COLO. – North Carolina-based Jet It and JetClub have announce that they have entered into an agreement to become the launch customers for Bye Aerospace, which developed the 7-passenger, all-electric, twin turboprop aircraft, eFlyer 800™. Jet It and JetClub, sister companies operating in North America and Europe respectively, have signed a purchase agreement for a fleet of eFlyer 800 and four eFlyer 4™ aircraft. Jet It will operate the first fleet of electric aircraft in North America, eliminating the release of millions of metric tons of CO2 each year.

"The evolution of travel continues with this investment in sustainable aviation. At $1,600 an hour, our fleet of HondaJets is by far the cost leader in private travel and also, given the incredibly low-carbon footprint of the HondaJet, extremely friendly to the environment. The operating efficiency and zero emissions of the eFlyer 800 will allow Jet It and JetClub to deliver more value to travelers by further reducing the cost to travel while driving towards zero net emissions," says Glenn Gonzales, co-founder and CEO of Jet It.

Slated to be in operation by 2025, the eFlyer seats up to seven passengers and one or two pilots. The eFlyer 800, expected to be the first-to-market all-electric seven-passenger aircraft, boasts cruise speeds of 320 knots, a ceiling of 35,000 feet, and eliminates emissions while reducing operating costs 5x. According to Bye Aerospace CEO, George, E. Bye, "The remarkable economy and flight performance from eFlyer 800 is ideal for Jet It, JetClub and their customers in the United States, Canada, Europe and beyond."

Adds Gonzales, "Sustainability is a key pillar of our philosophy. We operate highly fuel-efficient HondaJets and use sustainable products in our cabin. While aviation contributes only 3% of global emissions, that is not enough for us. We want to be at 0% and today with this

The Bye Aerospace all-electric eFlyer 800™.

announcement, are investing towards that goal. Together with Bye Aerospace, we will achieve zero emission affordable air travel this decade. This is a momentous leap in aviation sustainability in our industry."

Jet It utilizes a hybrid-fractional ownership model based on days – not hours – which provides owners with the freedom to use the fleet freely. Jet It can customize a customer's day as they see fit. A Jet It owner based in Chicago, Illinois, picked up a client in Savannah, Georgia, flew to a meeting in Atlanta, stopped in Hilton Head, S.C. for some fresh seafood, then flew back to Chicago, all in one day. This trip would have been impossible with commercial travel, incredibly expensive to charter, and impactful for an individual using a jet card program. This is one of several examples of how Jet It owners utilize their jet to increase productivity and value (https://www.gojetit.com/).

JetClub is an innovative private jet usage model that combines the newest jet aircraft with a sharing economy to provide members with an affordable, private, fast and intelligent solution. Client members have the flexibility and convenience of owning a business jet without the traditional administration, concerns and expense. The Club has a dedicated flight operations team to take care of pilot training, maintenance, logistics and international operations, and a concierge desk that manages all travel details and trip support. It was co-founded by Vishal Hiremath and Glenn Gonzales for the Asia, Europe and South American regions (http://www.jetclubgroup.com).

Based at Centennial Airport near Denver, Colorado, Bye Aerospace specializes in the design and manufacture of electric aircraft, including the eFlyer family of aircraft. Bye Aerospace was named "2020 Small Business of the Year" by the Aurora, Colo. Chamber of Commerce and recognized as the "Most Innovative" in the 2020 Made in Colorado awards sponsored by *ColoradoBiz* magazine. Bye Aeospace was founded by George E. Bye, who is also Chairman and CEO. ❑

# LSA Maintenance Training – A Rare Opportunity

After training more than 7,000 students from nearly every state in the U.S., and more than 20 different countries, the owners of **Rainbow Aviation**, Brian and Carol Carpenter, have relocated their business from California to Kingsville, Missouri – about an hour southeast of Kansas City. The new location has been well received for its central location for both Rainbow Aviation's two-day/16-hour Light Sport Aircraft Repairman Inspection (LSR-I) course, and its 15-day/120-hour Light Sport Aircraft Repairman Maintenance (LSR-M) course.

There is only one repairman certificate, but two ratings: **"LSA-Inspection" (LSR-I**), and **"LSA-Maintenance" (LSR-M**).

The "Inspection Rating" allows the holder to complete an annual condition inspection on an Experimental Light Sport Aircraft they own. Once they have this rating, it does not need to be renewed. This weekend course is invaluable to the aircraft owner and is especially popular among those who own amateur-built Light Sport Aircraft. Weekend courses are held at various locations throughout the country.

***What can an LSA owner gain from taking the 16-hour (two-day) LSR-I Inspection Rating Course?***

- Work on Experimental Light Sport Aircraft.
- Annual their own Light Sport Aircraft.
- Improve their safety.
- Reduce their maintenance problems.
- Gain a greater awareness of their aircraft.

***The Light Sport Aircraft Repairman Maintenance Rating (LSR-M) is available by attending a 15-day/120-hour Repairman Course***.

Rainbow Aviation's new facility in Kingsville, Missouri.

The LSR-M course runs through the weekends, usually just taking one day off, to get students in and out quickly. The course gives graduates the equivalent privileges of an Airplane and Powerplant (A&P) mechanic with an Inspection Authorization (IA) Certificate but is limited to Light Sport Aircraft. Compare the 120-hour instruction requirement for the LSR-M Rating to the 1900-hour instruction requirement for the A&P Certificate, and the LSR-M Rating is very appealing.

Unlike the simpler, shorter LSR-I course, an individual who completes the longer, more involved LSR-M course may perform maintenance and inspections on anyone's Special LSA or Experimental LSA and may charge for their services!

No prerequisites are required to take the LSR-M course. A repairman with an LSR-M Rating does not need to be a pilot, and the best kept secret is, after working in the field for 30 months under his or her own supervision, the repairman is qualified to take the A&P test and add that certificate as a rating without ever attending an A&P school. This represents a significant privilege, opportunity and savings for LSR-M repairmen.

Mike Zidziunas was the first person in the country to acquire an LSR-M Rating and earn his A&P Certificate in 2009 under this rule. He saw the potential in Light Sport Aircraft maintenance and enrolled in one of the first LSR-M courses ever offered. Zidziunas has gone on to leverage the opportunities the certificate provides, and opened a Rotax engine service center, works with manufacturers assembling LSA aircraft, and continued his education to earn his inspection authorization.

In addition, the LSR-M Rating may also serve as a stepping-stone to becoming a Designated Airworthiness Representative (DAR). This FAA designation covers those who inspect new Special LSA before they are sold. Therefore, demand is good, and so is the income potential.

***What can you do if you complete the 120-hour (15-day) LSR-M Maintenance Course?***

- Operate commercially. Charge other LSA owners for maintenance and repair services.
- Work on Special Light Sport Aircraft (SLSA).
- Work on Experimental Light Sport Aircraft (ELSA).
- Perform annual inspections.
- Perform 100-hour inspections.
- Perform routine maintenance on SLSA and ELSA.
- Perform major repairs on SLSA and ELSA.
- Perform avionics installations.

Who are LSR-M course participants? The majority tend to be over 50 but range in age from 17 to 86. Among those who participate are Certified Flight Instructors (CFIs) who take the course so they can reduce their operating costs and perform their own maintenance and inspections with the authorization to perform 100-hour inspections. SLSA manufacturers also sign up for the course so they can perform warranty work and the like. And as previously noted, the LSR-M Rating can be used as a steppingstone to the A&P and DAR Certificate, so the repairman can open a Light Sport Aircraft Service Center, or work for an LSA manufacturer or fixed base operator. Others take the course if they want to make a career change. A&P mechanics will also complete the training as a way to meet the requirements for recent experience and to reactivate their A&P Certificate. Some people take the course to specialize in avionics, or engine

A full classroom.

Brian Carpenter demonstrates to students how to inspect a Rotax 912 gearbox.

Rainbow Aviation instructor, Brian Carpenter (left), takes his students outside the classroom to see firsthand what he described in class.

specialty services, or to specialize in a certain make of Light Sport Aircraft, such as Flight Design or Remos, or Rotax engines.

The variety of needs in the field of Light Sport Aircraft maintenance seems endless, and aircraft maintenance is constantly among the top 10 to 20 career lists by popular websites, such as MonsterJobs, Yahoo! Jobs, and Forbes. It can be a great career and the Light Sport Aircraft community needs qualified people.

For additional information on Light Sport Aircraft Repairman instruction provided by Rainbow Aviation Services, visit **www.rainbowaviation.com** and call **530-567-5141** or email **carol@rainbowaviation.com**. Camping is available at Rainbow Aviation's Kingsville, Missouri location, and there's a variety of other affordable lodging options.

Rainbow Aviation is a family-owned and operated company. The principal instructor is Brian Carpenter, who was named "Aviation Maintenance Technician of the Year" in 2017. ❑

(L/R) Gordy and Tom Briden tackle a Special Light Sport Aircraft (SLSA) project at Tom Briden's shop in Stacy, Minnesota.

# LSA Certification Within Your Reach!

*by Tom Briden*



Fellow Birdmen and future "Erks" (ref. WWII mechanics), I just returned from a 120-hour, 15-day aviation maintenance course taught by Rainbow Aviation, the Light Sport Specialists, in Kingsville, Missouri (https://rainbowaviation.com/). Our instructors were the owners – husband and wife team, Brian and Carol Carpenter.

Both are flyers, aircraft owners, and mechanics. This event was a jammed packed, fun-filled and challenging curriculum that mirrors the knowledge and practical application of the FAA Aviation Maintenance Handbooks (FAA-H-8083-30A, 31 and 32) and Advisory Circular 43.13-1b/2b, more commonly known as "Aircraft Inspection and Repair." After completing the course, I left with a Certificate of Completion of Light Sport Repairman Maintenance - Airplane in hand. I will now present this certificate to my local FAA Flight Standards District Office (FSDO) for my license under FAR 65.107. With this repairman certificate and license, I can now work for hire to maintain Special Category Light-Sport Aircraft (SLSA) and Experimental Light-Sport Aircraft (E-LSA). It's one more step to eventually obtaining my Airframe and Powerplant Certificate (A&P), if I choose to do that.

All mornings start with 4 hours of lecture, lunch, and more talk, followed up by a workshop. Carol specializes in the Federal Aviation Regulations (FARs), repairman eligibility, privileges, limitations, rules and regulations, FAA liaisons, registrations, Light Sport differences, inspections, checklists, service directives, orders and notices, resources, links, logbooks, testing and much more. Her background is in education and she adds excitement and humor to what could be described as mundane.

Brian is the recipient of the 2017 FAA National Aviation Technician of the Year Award. He is the consummate professional. "Van" (i.e. Richard "Van" VanGrunsven, Van's Aircraft) has him on speed-dial. His exemplary talent and use of training aids is the best I've ever seen. I was enamored by his interactive white board, slides, videos, diagrams, demos and handouts. Brian's explanation of aviation physics, aircraft design and function, troubleshooting, carburetor synchronization, engine mechanics and gearbox harmony, along with his shop supervision, made learning a breeze. He was the spigot… I was the sponge.

All 16 of us students felt more useful, better educated and more competent, based on work performed. Whenever I hear or read about "sport mechanics," LSAs, moment of inertia, EMG-6, weight shift, 3D modeling, electric powerplants, powered parachutes, Jabiru, sail cloth, LOAs, spark plug analysis, hangar 7, Corrosion X, all things Rotax, flutter, punch testing, pulse wave, Buzz Master, gliders and many more GA topics, I will recall this class and think of my mentors, Brian and Carol. I am excited to enter the field of LSA maintenance.

If you're looking for a world-class hands-on experience in the heartland of America, you should consider this course provided by Rainbow Aviation! 7,000-plus graduates already have.

Tom Briden, ATP, FE, CFI A&I, USAF, LSRM-A, Repairman A/B. ❑

# Fighting Lock-Down With A Flight Simulator

*by Seán G. Dwyer*

Everybody has experienced a moody computer. Nothing you do will get it to work, and then -- suddenly -- it is working. Keep in mind, computers can't sweat. When they work too hard, they overheat, and that is when a flight simulator crashes. This was one of the attractions for me of Apple's new M1 chips. They are very cool, in all senses of the word. Why was I interested? Lock-down was taking a toll and I wanted to build my own flight simulator. Being limited by frugality, I ordered an M1 Mac Mini, at Apple's low-end of the market, with arrival expected just before Christmas. Did I succeed in building a flight simulator?

Are we talking big bucks here? The answer is no, but that is, of course, relative. Like any frugal person, I believe that a penny saved is a penny earned. (Thank you, Ben Franklin.) I also believe in junk drawers. For some people, they are evidence of untidiness. For others, they are a place to stash stuff they know/think/suspect might be useful someday. My junk drawers include things like Atari computers from the Dark Ages, back in the day when the computer games, *Pac Man* and *Flight Simulator*, were big hits. The *Flight Simulator* yoke from Atari days defies any connection with a modern computer, but old monitors and other stuff filled a need.

Relative to "noises your creative process can't help overhearing," early reports of the M1 Mac Mini and M1 MacBooks, which were released in November 2020, cited the absence of fan noise when running CPU intensive applications, particularly when compared to Intel-based predecessors. Fan noise increases when CPUs are being stressed. CPU means "central processing unit," basically recognizing that computers started out as extremely fast adding machines. Like the origin of math itself, their original purpose was to count stuff, in order to tax it.

CPU intensiveness was not my only concern, as flight simulators are also very GPU intensive. GPU stands for "graphics processing unit." In a flight simulator, readings on dials and controls inside the plane and the scenery outside must all simultaneously depict what is being simulated. Realism would suffer if the windsock was limp when transiting from a crab to wing-low/opposite rudder while landing with a 15-knot crosswind.

I learned about CPUs and GPUs from my son, Malcolm, a legitimate computer guru. He showed me *Microsoft Flight Simulator* on his homebuilt computer. Knowing I prefer Macs, he told me about *X-Plane* and Apple's M1 chip. An M1-based Mac would definitely be an improvement over what I started using (*X-Plane* on a MacBook Air), but would it be able to deliver the required graphics and physics? As for the *X-Plane* program, it drives many FAA-certified simulators, and is better suited to Macs than *Microsoft Flight Simulator*.

One can download a free demo copy of *X-Plane* to test it on a computer. While the demo is limited to 15-minute sessions, all it takes to have access to the unlimited version is to purchase a key to unlock it. Basically, one already has the full program on the computer. If the demo works, the program will work. One can then add scenery and other aircraft.

I liked what I saw in the demo, and bought discs for the program ($60), along with a pay-ware version of a 1965 Cherokee ($23), just like my own. So, what was wrong with *X-Plane* on my MacBook Air? While the simulation was smooth, the plane floated too much when landing. A non-pilot might not have noticed, but I did. Something was wrong. An aircraft's wings don't flap, so it was more subtle than the slow motion of the *Six Million Dollar Man*, but it was not going to help my crosswind landing skills.

The 16 GB M1 Mac Mini ($899) arrived, along with a Logitech Yoke, Power Quadrant, and Rudder Pedals ($350). A TV from downstairs worked as a main monitor, and an old monitor served as a side window. My simulator was functioning with two screens, and Malcolm had given me a third monitor from his junk drawer.

As a VFR-only pilot, I need to look out the side windows when in the landing pattern. Conversely, in a simulator intended strictly as an instrument trainer, the pilot is supposed to stay focused on the instruments, and only look up after breaking through the clouds on short final. If done correctly, the runway should be directly in front. Thus, while only one monitor is required for IFR work, my VFR needs were actually more demanding. But would the M1 Mac Mini be up to the challenge? Manage your expectations, and the answer is "Yes."

While extolling the speed of M1 chips, the gurus at Apple ruled out use of an eGPU (external graphics processing unit) with the new M1 based computers, and further maintained that an M1 Mac Mini could not support more than two monitors, one through an HDMI port and the other through

a Thunderbolt port. Now, in case you are getting lost in the alphabet soup of computer jargon, don't feel like the Lone Ranger. I feel the same way. I am a chemist, not an engineer.

Think of an eGPU as a computer that tells another computer how to draw stuff. It is not called a computer, because that might make your main computer feel inadequate. Could modern computers and programs (i.e. "smart" machines with artificial intelligence) have feelings? Keep that in mind, and you might solve tricky problems. I learned this when I finally managed to get a third monitor to work.

Before I get to that, let me tell you that I was almost satisfied with two monitors on the simulator. The front one depicted the instrument panel and windscreen, and one on the side looked out the left window. As long as I was at airports with left-hand patterns, I was in gravy. While one can always swivel the view on a flight simulator, I find that both distracting and unrealistic. In any event, someone demonstrated in a YouTube video that he could run six monitors with one of the new M1 Mac Minis. His description of how he achieved this left room for clarity, but it did include an obsolete connector which he had laying around. Obviously, he is another believer in junk drawers, or perhaps he was sending a coded message to fellow Masons. As Ann Landers once said, "If it happens, it must be possible," so the quest for a third monitor was reinvigorated.

What do you use when people say something can't be done, but you are determined to do it anyway? OK, aside from Yankee ingenuity. . . "Sweat equity" and "trial and error" are what I am going for, and the latter generates items from a junk drawer.

I was using only one of the two Thunderbolt ports on the Mac Mini, so naturally I tried to use the other. Connectors that were tried included DisplayPorts with USB-C to VGA, USB-C to DVI-I, and USB-C to HDMI. OK, more alphabet soup. Either you understand it, or you don't. If you don't, crack the code or read the label, not that reading the label helps much. Before any guru interrupts, I know that all Thunderbolt 3 cables and ports use USB-C, but not all USB-C connections are also Thunderbolt 3. "Trial and error" mean sometimes things don't work. Many did not, but if you are not willing to fail, you are not trying hard enough.

Computer forums are similar to junk drawers and EAA chapters, except the focus of forums is on computers and applications, rather than things that fly. However, the X-Plane.org forums resemble a hybrid of the two, as everybody who participates is either already a pilot or is a wannabee ("I wannabee a pilot").

I posted a picture of my two-monitor setup on an X-Plane.org forum, asking for suggestions on adding a third monitor. Several responders said that a Mac Mini could not deliver graphics at an acceptable FPS (frames per second). Perhaps they did not consider the M1. After all, if breakthroughs did not seem illogical at first, would they be breakthroughs?

FPS need to be at least 20, or the physics of the *X-Plane* program would drop out of real time. Keep in mind, *X-Plane* is not a game; it is an engineering tool, and a Cherokee on a MacBook Air floated too much when landing, as described earlier. Time had dropped to about 50% of real time, so everything took twice as long. The simulation may have looked great, but it was useless for crosswind training purposes.

Many posts made it clear that X-Plane.org forums include ATPs (Airline Transport Pilots), eager to maintain or develop skills in airliners, and many who are really into "eye candy." The former demand a level of complexity that has no appeal to me, and the latter spend more money on huge screens and expensive computers than I spent to buy my airplane. My flight simulator should not cost more than my airplane! Remember, I am a frugal man.

One forum member offered a suggestion involving a DisplayLink and an associated driver. I had tested several DisplayPorts with no success and cannot tell you the difference between a DisplayLink and a DisplayPort. The full name of the key component, which cost $80, is "USB 3.0 Dual Head Graphics Adapter – HDMI and DVI-I." Nowhere on the box did the word DisplayLink appear, nor did it say that it required a DisplayLink driver, but it does. When the driver was downloaded and "turned on," the M1 Mac Mini lit up all three monitors.

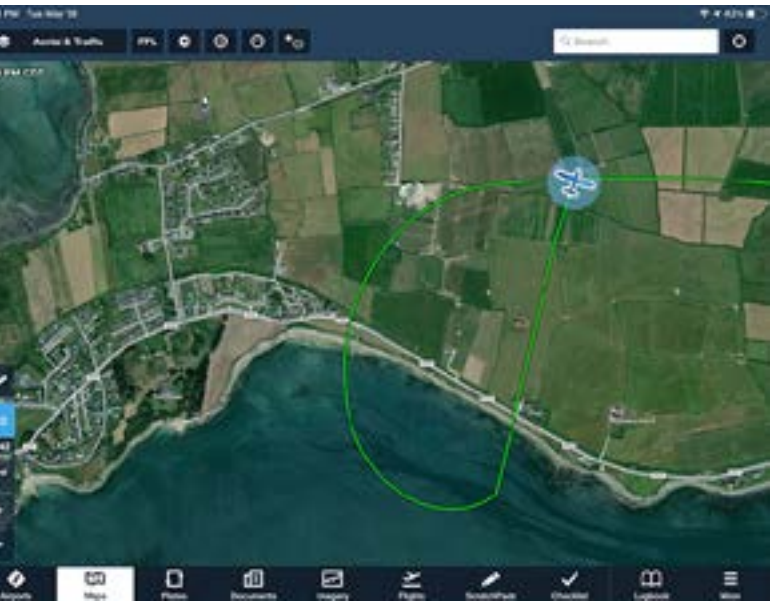
Getting the Mac to see three monitors won a battle, but not the war, as *X-Plane* would only open two screens for some reason. My wife, Geraldine, who has been very supportive while I turned the family room into a test laboratory, suggested that I treat *X-Plane* like a jealous child. "You have been using two monitors with *X-Plane*…maybe it does not want to meet a third one." Given that the application applies artificial intelligence, maybe I should not treat it like an adding machine? So, I quit X-Plane, went to Display Preferences/Gather Displays, and designated the third monitor to be the "main monitor." Who is a big boy now? It worked!

After starting *X-Plane* again, the program recognized the new monitor, although I was looking to one side to see the panel and windscreen. To cut a long story short, introductions had been made. All that needed to be done was to quit X-Plane again, tell the computer which monitor was really the main one, and how the three monitors were aligned. When I restarted *X-Plane*, all three monitors were working as shown, although it was necessary to play around with geometry in the graphics settings to angle them correctly.

You may have noticed that there are five screens on the first photo, not three. The small one on the Control Yoke is a Mini iPad running *ForeFlight*. This is linked wirelessly to *X-Plane*, which acts as a GPS source for the ForeFlight application. So, if you are simulating a flight out of KRAC (Batten International, Racine, Wisconsin) that is where the plane will be depicted on *ForeFlight's* VFR sectional chart on the Mini iPad.

I like to simulate flights in Ireland, and *ForeFlight's* Aerial Map is a satellite view of the whole world with names of roads imposed on it. This picture shows my Cherokee's avatar flying over a fairy ring fort near Fenit, Ireland. Since an iPad can

mirror its screen onto a television, you can actually conduct aerial tours on a family room television with *X-Plane*.



The larger iPad on my desk is not linked to *X-Plane*. Running *Google Earth*, one can zoom in anywhere on Earth with 3D, even down to street level.

The Saitek radio panel in front of the main monitor, is another refugee from a junk drawer, although not mine. While one can dial any frequency on radios in the panel by using a mouse, this is fussy, so I investigated adding this external radio panel. Its literature says nothing about Macs, and the company's support group said they do not support Macs. I asked about it on an *X-Plane.org* forum. A member told me not to buy one. He would just send me one from his junk drawer. He did so (gratis!). Another provided the software to make it work on a Mac. If you wonder about such generosity, I refer you to the Digital Age. Rules for everything have changed, and there was some *quid pro quo*. The radio panel is now tuned to Racine airport's ASOS, which transmits weather 24/7. It can also be an ADF, DME, or transponder. X-Plane can apply whatever weather I want, including CAVU, so high graphics settings and FPS are possible.

In for a penny, in for a pound. The *Flight Velocity Pro Trim Wheel* in front of the yoke cost $99. While rudder and elevator trim are simulated by switches on the control yoke, I found the latter to be unrealistic. Elevator trim gets a workout when landing a Cherokee, while one rarely adjusts rudder trim. This is fortunate, because you almost have to duck your head under the panel to reach it, something you do not want to do in flight. I tried designating the unused blue prop control toggle to be elevator trim, but it was too easy to bump it when landing.

The final purchase was *Air Manager* by Sim Innovations ($23). This enables one to design a panel displaying selected instruments on an iPad, rather than on the monitor. Monitors can then be set to show only the view outside the cockpit, yielding a great view. There was also a small FPS bump, because the burden of displaying instruments was shifted from

the Mac Mini to the iPad. With a key stroke, I switch to the outside view only after completing checklists and engine start.

One question every pilot will ask is "Can you log time to maintain instrument currency?" The answer is no, not because the simulation is different from an FAA-certified simulator. It is just that it is not "FAA-certified." The retail version of *X-Plane* is almost identical to that found in $500,000 full motion, FAA-certified platforms. However, certification requires FPS checks, custom aircraft files, and hardware instrument panels like those in physical cockpits. The FAA-certified version also lacks some purely fun stuff (like space flight), even though those situations are simulated accurately in *X-Plane*. Similarly, the home-use license of my copy of *X-Plane* would not permit its use in a commercial flight school. That would require purchase of an *X-Plane Professional* license for $750.

A final point relates to my simulator's ability to handle complex aircraft, something a person in the *X-Plane.org* forum said it could not do. I took off from KRAC in a B-747 on a clear day, landing in KORD (Chicago O'Hare International). The landing was not pretty and took three go-arounds. FPS was 31 throughout the flight with mostly high graphic settings. They would have had to be reduced if low clouds were included. The "sweet spot" for FPS in *X-Plane* is 25 – 35. While it was interesting to fly a B-747, that is not "my thing." I just want to fly VFR to places like Kerry Airport (EIKY) or Palmyra (88C), and practice crosswind landings in a PA28-140. Better eye candy would be nice but might be a distraction per the FAA. Bottom line, the M1 Mac Mini and *X-Plane* meet my needs.

The Covid lock-down may be over, but I still have my "sim." Where will I fly?

**Appendix: Physical Construction**

"Trial and error" are a learning experience. My initial setup was done on a hodge-podge of end tables and assorted furniture. This was replaced with a single-piece desktop made from ¾ inch plywood, 48 x 36 inches. A 4-ft long angle iron was screwed underneath along the 48-inch end. The board

was then covered in matt black contact paper. The 36-inch dimension provides an arm rest on the left, where there is one in my Cherokee, and room for a mouse pad on the right .

The hodge-podge phase revealed the problem of having the Logitech yoke and power quadrant sitting on top of the desk. Since the yoke protrudes from a box which is 10 inches deep and 4 inches high, the removable plastic mounts that came with the controls required the instrument panel on the screen to be either far away or unrealistically high. The solution was to mount the yoke box and power quadrant under the desk, placing the screen immediately at the front edge of the desk.

A bracket titled "*LowRider* Yoke Mount" is available on the internet for $80, but I decided to use a flattened cookie sheet, because (a) Geraldine would not miss it, and (b) it would provide additional support. Holes were drilled in the cookie sheet for four of the six screws on the top of the yoke's box (see the *LowRider* video), and around the cookie sheet. The other holes were used to screw the cookie sheet to the bottom of the desk, thereby adding rigidity. The power quadrant was attached separately.

The desk's legs were trestles, making disassembly easy, should one want to move it. Because all of the support is at the sides, I felt there was a need for the angle iron across the back and the metal cookie sheet. The latter was larger than was needed to mount the yoke.

On the floor are two L shaped brackets, each with an extra 90-degree bend. When inserted between the trestle and the desktop, they provide a shelf for the wireless keyboard. There is also a hardwired keyboard and mouse on a similar – but deeper – shelf under the right side. Gravity and weight on top are enough to keep everything in place. The rudder pedals were mounted on a piece of plywood, which was cable-tied to the anti-static mat to prevent it from sliding. The anti-static mat was there to protect the carpet. Unlike an ejection seat, my desk chair rolls forward and back, and this is the family room after all, not the basement.

The Mini iPad with *ForeFlight* was docked on the yoke by

means of an appropriately cut and shaped aluminum sheet. A flattened and reshaped beer can was used as a dock for the Mini iPad with *Air Manager*.

Positioning the side screens was complicated by the fact the screens were not all at the same height, and the screen at the right is smaller than the other two. Rube Goldberg came to the rescue, and everything was raised to the same level.

Hidden behind the monitors are the Mac Mini, USB bus, and a power bar into which everything is plugged. Further details for getting the M1 Mac Mini to support three monitors can be found in this forum thread: https://forums.x-plane.org/index.php?/forums/topic/195927-anyone-flying-on-a-mac/&page=2&tab=comments#comments-2116215

*EDITOR'S NOTE:* Seán Dwyer lives in Racine, Wisconsin, and is a retired Research & Development Manager with a PhD in Chemistry. He has a Private Pilot's Certificate and owns a Piper Cherokee PA28-140, which he has used to fly hundreds of EAA Young Eagles. He is the publisher of the book "STEM for All Ages." ❑


OAS is underway with a three-phase, multi-million-dollar fundraising campaign. Phase One will result in the renovation of the original 1929 Art Deco-style Port Columbus Air Terminal and tower, located at John Glenn Columbus International Airport (KCMH).

# Ohio Air & Space Hall of Fame (OAS) Forms Inaugural Board of Trustees, Announces Name Change As Plans To Renovate Historic 1929 Port Columbus Air Terminal Move Forward

COLUMBUS, OHIO – The non-profit Ohio Air & Space Hall of Fame and Learning Center (OAS) has established its inaugural board of trustees, the group now focusing on multiple aspects of renovating the original 1929 Port Columbus Air Terminal into its new home and establishing its public programming.

The nine-member volunteer board presently serving OAS represent diverse business, aerospace, and education backgrounds and have collectively begun to direct the newly formed organization with OAS Founder and Executive Director, Ron Kaplan, who additionally serves as interim chairman. Since their first meeting in May, trustees have been focused on administrative tasks, the "Phase One" campaign to raise matching funds required by the State of Ohio for its $550,000 grant and preparing for a multi-million-dollar fundraising campaign to follow.

OHIO AIR & SPACE
HALL OF FAME AND LEARNING CENTER

Earlier this year, OAS announced a memorandum of understanding with the Ohio State College of Engineering's Center for Aviation Studies to partner in developing aviation STEAM (Science, Technology, Engineering, Arts and Math) curricula for teens and the creation of aviation events and activities related to Ohio's air and space pioneers. Potential partnerships with other Ohio universities, non-profits, and education programs are in discussion. In March, OAS and Moody Nolan, its Columbus-based architectural firm, also premiered an animated fly-through video depicting the 13,000 sq ft terminal when completed, including a state-of-the-art STEAM learning facility. Other involvement includes The Hodge Group, serving as philanthropic counsel, and Signature Flight Support, which is supporting the project with office space.

A recently completed feasibility study for OAS confirmed the board's enthusiasm for saving and transforming the historic terminal into the home of OAS, especially for its mission of providing youth with learning and workforce development opportunities. Upon review of such feedback, it was proposed that OAS change its name to better emphasize its role of providing education resources to those of all ages and backgrounds. As a result, OAS trustees unanimously approved changing the organization's name to the "Ohio Air & Space Hall of Fame and Learning Center," which is now reflected in a new logo. The 501(c)(3) organization had originally been formed as the Ohio Air & Space Hall of Fame and Museum.

The inaugural OAS Board of Trustees include Christopher Axene, Equity Principal, Rea & Associates, Inc.; Tim Beach, Executive Administrator, Youth Aviation Adventure; Earl Lee, Principal, Director of Experiential Design, Moody Nolan Architects; John Mitchell, President, Tuskegee Airmen Inc., Ohio Chapter, and American Airlines Captain (Ret); Stephanie Morgan, Executive Director, Air Transportation/ Aerospace Campus, OSU College of Engineering; Christine Mortine, Certified Flight Instructor, and FAA Designated Pilot Examiner; George O'Donnel, Vice President, Arshot Real Estate Services, LLC; Andrew Pierce, Director, Buckeye Tigers A.C.E. Academy, and USAF Lt. Col. Retired; Robert E. Tanner, Executive Director, Aerospace Partnerships, Parallax Advance. (www.OhioAirandSpace.org) ❑



# Sylvester "Wes" Schmid

*December 31, 1921 - June 26, 2021*

Longtime Experimental Aircraft Association (EAA) board member, Sylvester "Wes" Schmid, 99, of Wauwatosa, Wisconsin, passed away June 26, 2021.

Schmid was born in Oshkosh, Wisconsin, on December 31, 1921. He was just shy of 20 years old when Pearl Harbor was attacked by Japan. He first served stateside in 1942 as a military police officer in Indian Town Gap, Pennsylvania. He requested overseas duty and became an amphibious engineer attached to the 7th Infantry Division, participating in the invasion of Leyte, Philippines, in late 1944, and Okinawa, Japan, in 1945. After the war ended, he was assigned to occupation duty in Korea, returning to Oshkosh in December 1945.

Schmid attended college on the GI Bill, enrolling first at the Oshkosh Teacher's College, followed by a year of college in Kentucky before earning his degree in Journalism at the University of Wisconsin – Madison. Upon graduation, he began his career at Olson Publishing Company in Milwaukee, where he met Julie, who would become his wife. They married in 1953, and in 1956, they welcomed their first daughter, Kathi, followed by their son, Rob, in 1963, and youngest daughter, Mary, in 1967. He left Olson Publishing to start his own advertising agency, S. H. Schmid & Associates, where he worked until he retired at age 85.

Schmid met EAA Founder Paul Poberezny in the early 1950s and joined EAA where he served 33 years on its board of directors. He also served on the board of EAA's Antiques & Classics Division; and held the position of Chairman of the Forums for 50 years at EAA AirVenture Oshkosh. EAA dedicated the Forums Headquarters in his honor. In 2012, Schmid was inducted into the EAA Hall of Fame, Homebuilders Division. To watch a short video about his involvement in EAA, go to https://www.eaa.org/videos/1973932263001

(L/R) EAA Founder Paul Poberezny with Wes Schmid, longtime EAA board member. *EAA Photo*

Wes Schmid wrote hundreds of articles for various EAA publications and authored or co-authored numerous books about air racing and homebuilt aircraft. Licensed as a pilot in 1963, he owned two airplanes and built one of them.

In lieu of flowers, memorials may be made to the Experimental Aircraft Association in his name (www.EAA.org). ❑

# Minnesota Seaplane Pilots Association To Hold Annual Safety Seminar & Fly-In At Madden's

BRAINERD, MINN. – The Minnesota Seaplane Pilots Association (MSPA) will hold its 2021 Safety Seminar, September 17-19, at Madden's on Gull Lake near Brainerd, Minnesota (*https://www.maddens.com/*). Wipaire will be sponsoring the second annual Poker Run on Friday, September 17. The keynote banquet speaker on Saturday, September 18, will feature ferry pilot, Kerry McCauley, who will be sharing his experiences that led to his best-selling book "Ferry Pilot."

Contact Madden's Reservation Desk at **1 (800) 642-5363** to reserve your room, register for the seminar and select your meal plan, or click below:

**Madden's Registration**

Seminar registration and meals for members not staying at Madden's may be purchased online from MSPA. Please register for the seminar and purchase your meals in advance of the seminar to aid in the planning process. Click below:

**Offsite Seminar Registration**

Whether seaplane rated or not, the annual MSPA Safety Seminar is worth attending, as much of the information presented can be applied to both floatplane flying and flying on wheels. And the opportunity for social interaction and activity cannot be beat!

Madden's operates Steamboat Bay Seaplane Base (M16) on Gull Lake, and East Gull Lake Airport (9Y2) located adjacent to the resort. Courtesy shuttle service is provided to pilots and their guests between the airport and the resort (www.maddens.com).

MSPA's other big event of the year is its "Pig Roast" to be held Sunday, August 8 at Surfside Seaplane Base in Lino Lakes, Minnesota. Refer to the MSPA website for details: (http://www.mnseaplanes.com/)

The purpose of the Minnesota Seaplane Pilots Association is to promote seaplane flying and safety in the state of Minnesota; educate and inform government officials, the legislature and the public on seaplane operations; and create safe and compatible seaplane bases throughout Minnesota. ❑

# Listen To The


***Hosted by Al Malmberg***
**Sponsored by**
**Thunderbird Aviation**
**& Academy College**
**Sundays**
**From 10:05 to 11:00 AM (CT)**
**On The Patriot Radio Station**

**am1280ThePatriot.com**

**Listen Live – or – Listen To Podcasts**

**Mobile Apps Also Available!**

**Here is the link to program podcasts, including August 8, 2020 featuring Dave Weiman of *Midwest Flyer Magazine***

**https://am1280thepatriot.com/radioshow/7656**

***Topics Covered:***

- EAA AirVenture Oshkosh Update
- The Commemorative Air Force Rescue & Preservation of the B-29 Superfortress "FiFi"
- Debate Over Flying Warbird Aircraft
- Canada Fishing Fly-Out Plans For 2021

***Special Tributes:***

- Warbird & Airline Pilot, Randall Lee Sohn
- Antique Airplane Association Founder & President, Robert Lee Taylor
- The Person Who Gave EAA Its B-17, Bill Harrison
- The Founder of Frasca Simulators, Rudy Frasca

# Anyone Giving or Receiving Instruction In A Limited, Primary or Experimental Category Aircraft, Is At Risk of Violating New FAA Directive

*The FAA issued a new directive effective July 12, 2021 that "provides notification on flight training for compensation in certain aircraft," specifying it applies to receiving and providing instruction in limited, primary, and experimental category aircraft. Meanwhile, in court proceedings, the FAA is prosecuting flight instructors who volunteered their time instructing in limited category aircraft and didn't receive a penny for doing so, arguing the volunteers had received compensation.*

FREDERICK, MD – The FAA argued in court that flight instructors who volunteered their time training pilots in limited category aircraft were given "compensation" whether money changed hands or not. The recent FAA directive requiring approval to provide compensated instruction also applies to experimental and primary category aircraft.

"The FAA can't have it both ways, while claiming it is clarifying the situation. This is contrary to the FAA's mission and obligation to promote safe flight," said AOPA President Mark Baker.

On July 12, 2021, FAA prosecutors quoted **FAA Advisory Circular 61-142,** "defining 'compensation' as the receipt of anything of value that is contingent on the pilot operating the aircraft… [it] does not require a profit, profit motive, or actual payment of funds. … accumulation of flight time and goodwill in the form of expected future economic benefits can be considered compensation. Furthermore, the pilot does not have to be the party receiving the compensation; compensation occurs even if a third party receives a benefit as a result of the flight."

The FAA alleged volunteer instructors received compensation by "accumulating flight time" and "generating goodwill." In other words, the FAA believes giving away your time and talent equates to compensation.

While pilots and flight instructors receiving and giving instruction in standard category aircraft are not affected by this recent move, it is a roadblock for those seeking instruction in these three specific categories of aircraft, potentially causing some to forego proper training and therefore impacting safety. Until July 12, the FAA never required students who provided experimental aircraft to have a Letter of Deviation Authority (LODA) to receive flight training and flight reviews.

Now the FAA "clarified" that owners and operators of more than 39,000 experimental aircraft, as well as the CFIs who provide instruction in them, need LODAs in place to receive or give "compensated" instruction in those aircraft. But in reality, it doesn't appear to matter if no money is exchanged for instruction in limited, experimental, or primary aircraft; the FAA can and is arguing that anything is considered "compensation" solely because the FAA labels it so, and that it can prosecute a flight instructor for someone else receiving "compensation," even if the instructor receives none. The overreach and refusal to draw limits is breathtaking.

So, what does this mean for pilots who want to receive a flight review or transition training, or just brush up on techniques with an instructor in their limited, primary, or experimental category aircraft? And what does this mean to the instructors who want to teach them?

To stay out of the FAA's legal crosshairs until the courts decide whether the FAA's legal arguments are winning ones, you'll need to get the FAA's permission first. For training in experimental aircraft, that means obtaining a LODA, as outlined in the July 12 directive. For limited and primary category aircraft, that means obtaining an exemption.

Flight instruction is a noble profession, one that requires significant investment in terms

of time, money, and effort. Flight instructors deserve to earn a living without needless bureaucracy. Pilots, particularly those who fly unusual aircraft with unique flight characteristics, need access to training without meaningless "approval" processes that have no impact on safety, beyond degrading it by delaying training and adding barriers to access.

Can there be flight training that doesn't result in hours of experience for the instructor or student? Why did the FAA issue a policy that targets flight training "for compensation" if it also argues there is no situation that doesn't fit its "kitchen sink" definition of compensation? It sure would be nice if it could "clarify" that.

AOPA will continue to probe the FAA for answers to these questions while also working through whatever means necessary to remove these impractical barriers to training.

If you're a member of AOPA's Pilot Protection Services plan and have questions about the approvals needed to give or receive training in a particular aircraft, the AOPA Pilot Protection Services legal team is standing by to assist you. The AOPA Pilot Protection Services can be reached at 800-872-2672. *Justine A. Harrison, AOPA* ❑

# CALENDAR

Include the DATE, TIMES, LOCATION *(INCLUDE CITY, STATE & AIRPORT NAME & I.D.)*, and CONTACT PERSON'S TELEPHONE NUMBER, as well as that person's address & email address for reference. First 15 words **FREE**. $.75 for each additional word.
**Go to "Calendar" at www.MidwestFlyer.com and post your aviation event.**
You can also email: dave@midwestflyer.com – Or Mail To – Midwest Flyer Magazine, 6031 Lawry Court, Oregon, WI 53575
NOTAM: Pilots, be sure to call events in advance to confirm dates and for traffic advisories and NOTAMs.
Also, use only current aeronautical charts, etc., for navigation and not calendar listing information.
*MIDWEST FLYER MAGAZINE* IS NOT RESPONSIBLE FOR ACCURACY OF, OR RELIANCE ON, ANY INFORMATION PUBLISHED.
* INDICATES ANY NEW OR UPDATED CALENDAR LISTINGS SINCE THE PREVIOUS ISSUE.

## 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.orgfly

**1** **CRESCO, IOWA -** Omelets & Pancake Breakfast at Ellen Church Field 7:30am-Noon. 563-547-3434.

**7*** **Menomonie (KLUM) - Wis. -** Airfest/Autorama 8am-3pm. Pancake breakfast & car show 8-11am, Radar Run 11am, kids activities, merchant mart and art. - Unfortunately, there will be no aerobatic demonstrations this year: 715-220-6549.

**7-8** **YPSILANTI, MICH. -** Thunder Over Michigan Air Show at the Willow Run Airport. yankeeairmuseum.org

**8** **LINO LAKES (8Y4), MINN. -** Minnesota Seaplane Pilots Association (MSPA) Pig Roast Fly-In. Noon-4pm at Surfside Seaplane Base. www.mnseaplanes.com

**8** **AITKIN (KAIT), MINN. -** Wild Rice Pancake Breakfast 8am-Noon. 612-600-1230. Jackiesjet@gmail.com

**14** **BENTON (H96), ILL. -** Food Truck Fly-In & Cruise-In 2-7pm.

**14** **BRIGHTON (45G), MICH. -** Breakfast, Lunch with a low-key car show.

**14** **Linden, (9G2), Mich. -** Ice Cream Social at Price Airport at 5pm.

**14** **OTTAWA (KOWI), KANS. -** Breakfast 8-10am. 785-229-2710.

**18** **WATERTOWN (WRYV), WIS. -** Hamburger Social Fly-In 5pm.

**20-21** **BEMIDJI, MINN. -** Friday over night camping & Fly-In 218-368-9260 chapters.eaa.org/EAA1397 eaachapter.1397@gmail.com

**21*** **MOOSE LAKE (KMZH), MINN. -** Pancake Breakfast 7:30-11am. PIC Eat Free! 218-485-4441

**22** **POPLAR GROVE (C77), ILL. -** Airport Fly-In with Vintage Planes, Cars, and Food. 815-547-3115.

**23-25** **KANSAS CITY, MO. -** 4 States Airport Conference at Kansas City Marriott Downtown. www.4statesairportconference.com

**28** **WESTFIELD (I72), IND. -** Westfield Airport Aviation Day, 11am-3pm. Lunch will be served and there will be all sorts of aviation activities.

**29** **BOSCOBEL (KOVS), WIS. -** Breakfast 8-11am. 608-374-5001.

## SEPTEMBER 2021

**4** **MARION (MZZ), IND. -** The action starts early at 7am and runs until 2:00pm. This annual event features antique, classic, homebuilt, ultralight, rotorcraft and warbird aircraft as well as vintage cars, trucks, motorcycles, fire trucks, autocycles, military vehicles and tractors. An all-you-can-eat Pancake Breakfast is served. 765-664-2588

**4** **GLENCOE (KGYL), MINN. -** Sweet Corn & Bratwurst Feed 10am-2pm. Contact Stuart Selchow 320-238-2376, cell 320-583-8367. stuart.selchow@gmail.com. Info www.eaaul92.weebly.com

**6-11** **GALESBURG (KGBG), ILL. -** 50th National Stearman Fly-In Golden Anniversary (https://www.stearmanflyin.com). Tye Hammerle, 262-658-8139, tye@leakpath.com.

**9** **OMAHA (KMLE), NEBR. -** Aviation STEM Day & Pancake Breakfast starting at 7am. Read more on page 59.

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

**11** **BENTON (H96), ILL. -** Food Truck Fly-In & Cruise-In 2-7pm.

**11** **TERRE HAUTE (3I3), IND. -** Sky King Airport P-Factor Days Pancake Breakfast 8-10:30am. Rain or shine. 812-466-2229.

**11** **OTTAWA (KOWI), KANS. -** Breakfast 8-10am. 785-229-2710.

**12*** **NEW ULM (KULM), MINN. -** Breakfast 7am-12:30pm. 612-501-2719.

**12-15** **COLORADO SPRINGS, COLORADO -** National Association of State Aviation Officials (NASAO) 90th Annual Convention & Trade Show, Cheyenne Mountain Resort, : https://nasao2021.com/ (202) 925-7340.

**15** **WATERTOWN (WRYV), WIS. -** Hamburger Social Fly-In 5pm.

**17-18** **BRIGHTON (45G), MICH. -** Fly-in/Camp-in Friday - 17th at 4pm ending Saturday -18th at noon. Include camping, food (dinner & breakfast available for a donation), camp fire, movie, some form of entertainment suitable for all ages. General agenda and layout at registration tent. Bring your own tie downs. 810-588-4887 or email karl@brightonairport.org

**18** **GRAND MARAIS, (KCKC) MINN. -** Pancake Breakfast 8-11am at the Grand Marais/Cook County Airport. See the beautiful fall colors along Minnesota's North Shore of Lake Superior. Spend the day hiking or exploring the lakes, Boundary Waters Canoe Area Wilderness or the charming village of Grand Marais.
For more information please contact Rodney Roy at 218-387-3024 or email airport@boreal.org.

**18*** **OCONTO (KOCQ), WIS. -** Planes, Cars, Tractors & Food Vendors 9am-4pm. Admission $5 - Kids 12 & Under Free! 920-373-6948.

**18-20** **BRAINERD, MINN. -** Minnesota Seaplane Pilots Association (MSPA) Safety Seminar, Madden's on Gull Lake, Brainerd, Minnesota (https://www.maddens.com/). For details: http://www.mnseaplanes.com/

**19*** **HECTOR (1D6), MINN. -** 79th Annual Lion's Fly-in Breakfast 7:30 am - 12:30 pm. All you can eat Pancakes - French Toast - Sausage - Coffee - Juice and Milk. PICs free. Warbirds, Classics, Antiques, Homebuilt, Helicopters and Ultralights. Ping Pong Ball Drop with prizes for Kids at 11:15 am. CTAF 122.8, Contact Ed Newberg 320-979-1270.

## OCTOBER 2021

**9** **OTTAWA (KOWI), KANS. -** Breakfast 8-10am. 785-229-2710.

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

**17-19** **ELKHART LAKE, WIS. - 65th Annual Wisconsin Aviation Conference** at The Osthoff Resort.

**20** **WATERTOWN (WRYV), WIS. -** Hamburger Social Fly-In 5pm.

**Go To The Following Site To See More Aviation Events To Fly To**
**moonlightflight.com/flysocial/**

# Watertown's EAA Chapter 320 Members Receive National Awards

WATERTOWN, WIS. – Two members from EAA Chapter 320 in Watertown, Wisconsin, were contacted by the Experimental Aircraft Association (EAA) in late June 2021 to inform them that they have been chosen as 2021 National Chapter Award winners! Honors go to Bill Rantanen for the "EAA Chapter Web Editor Award" and Rich Fraser for the "EAA Chapter Newsletter Editor Award." The award recipients will be honored at the 2021 EAA AirVenture Oshkosh Chapter Leaders Breakfast on Saturday, July 31, at the EAA Aviation Museum in Oshkosh, Wisconsin.

Bill Rantanen

Rich Fraser

Rantanen and Fraser were selected for the recognition out of hundreds of entrants by the EAA Chapter Relations staff at EAA headquarters in Oshkosh.

"Bill and Rich have done an outstanding job serving our chapter in different roles and capacities for years. It is great to see them get the recognition they deserve at a national level," said EAA Chapter 320 President Eric Wegner. "Their professionalism and dedication to our members reflects the quality of individuals we have in our organization and has been key to our growth and vibrancy."

EAA Chapter 320 Watertown is a non-profit organization established in 1968 and currently has approximately 60 members. Chapter members meet the first Monday each month at Watertown Municipal Airport, located at 1741 River Drive, Watertown, Wisconsin. The public is encouraged to follow the chapter on Facebook and on their website: https://chapters.eaa.org/EAA320

For more information about EAA Chapter 320, contact Eric Wegner at 612-799-5717, or via email: President.EAA320@gmail.com. ❑

# Watertown's EAA Chapter 320 Awarded $10,000 Scholarship

WATERTOWN, WIS. – EAA Chapter 320 of Watertown, Wisconsin, has met the stringent requirements to qualify for and receive a James C. Ray Foundation Scholarship administered through the Experimental Aircraft Association (EAA) in Oshkosh, Wis. The scholarship covers up to $10,000 to help offset the cost of flight training for one youth working to obtain their Private Pilot Certificate.

"There are only 100 scholarships awarded nationwide to chapters which qualify, and the vetting process is quite rigorous," said Chapter President Eric Wegner. "Our Chapter 320 has worked very hard to distinguish itself as a 'Gold Level' chapter and meet the criteria to participate in this program. Receiving this scholarship says a lot about the quality of the Watertown chapter."

Receiving the scholarship is Chapter 320 member, Micah West, 17. Micah intends to continue his flight training with the goal of flying for a major airline. He is receiving his flight training from Charles Allen, an instructor with Wisconsin Aviation in Watertown.

Carrie Nettesheim is the EAA Chapter 320 Scholarship Coordinator who helps chapter members of all ages obtain funding for flight training.

"We're thrilled for our chapter and for Micah," said Nettesheim. "It is rewarding to help people pursue their dream of being able to fly!"

(L/R) Flight student, Micah West, with his flight instructor, Charles Allen.

EAA Chapter 320 Watertown is a non-profit organization established in 1968 and has approximately 60 members. Chapter members meet the first Monday each month at Watertown Municipal Airport in Watertown, Wis. (chapters.eaa.org/EAA320). For additional information, contact EAA Chapter 320 President Eric Wegner at 612-799-5717 (cell) or email President.EAA320@gmail.com. ❑

# Classifieds

SINGLE LISTING: $.75 per word. Minimum Order $20.00 per issue
EMAIL AD TO: dave@midwestflyer.com and you will be invoiced via PayPal
and you can then pay using your credit card or PayPal account.
OTHERWISE, PLEASE MAIL AD WITH PAYMENT TO:
Midwest Flyer Magazine - 6031 Lawry Court - Oregon WI 53575

**MARK'S EMPORIUM has over 900 aviation items** including t-shirts, hats, stickers, mugs, magnets and more. Many are exclusive to Mark's online store! Visit **https://gomarks.us/flying** to see Mark's aviation collection.

**AIRCRAFT SALES & BROKERING** - Sell your airplane quickly and efficiently. 150-plus transactions! Spring City Aviation. Email gavin@springcityaviation.com, or call **414-461-3222** (Office) or **218-280-2615** (Cell).

**FLORIDA HOUSE FOR RENT ON PRIVATE AIRPARK** - Don't shovel snow this winter!! Come and stay for 1 month or 6! Furnished mobile is 2 bed/1 bath in north central FL on a private airpark (FA38) 90 miles north of Orlando. You can fly in and have your own concrete block hangar. Our 2500 ft strip is paved, or if you prefer to land on grass we have that too. $700.00/week includes everything. Check out our website at www.woodsandlakesairpark.org for pictures of the mobile. Send inquiries to **woodsandlakes6578@gmail.com**

**GET THREE MONTHS FREE RENT ON HANGARS** at Southern Wisconsin Regional Airport (JVL), Janesville, WI. Available on T-hangar units #25-#44 only (1-year commitment required). Check out our website www.jvlairport.com for airport amenities and call **608-757-5768** for current availability. Better yet, fly in and see for yourself. While you're here, enjoy a meal at Bessie's Diner or 18-holes of golf at the Glen Erin Golf Club.

**AVIATION INSURANCE RESOURCES** - Best Rates, Broadest Coverage, All Markets. Access the entire market with just one phone call: 301-682-6200. Or online at www.AIR-PROS.com.

**INSURANCE** – 67 years risk management serving aircraft operators and owners. Superior, empathetic service. Mid-Continent Aircraft Corp., Hayti, MO. **acinsurance@midcont.com. 1-800-325-0885**.

**AIRCRAFT CONSIGNMENTS WANTED** - Buying or selling, we'll work for you! **800-657-0761 WisconsinAviation.com**

**FLY TO CANADA IN 2022** - Make plans and reservations now to experience flight into the Canadian wilderness in 2022, while enjoying the comforts of home! Miminiska Lodge, located 196 nm north of Thunder Bay, Ontario, features a 2400 ft. grass airstrip within walking distance to your cabin, the lodge and waterfront. Top-notch meals are provided, excellent fishing with guides optional, newer and well-maintained boats and motors, well-maintained facilities and excellent housekeeping, delicious shore lunches, and scenery that cannot be beat. This is the lodge *Midwest Flyer Magazine* has featured for the past 10-plus years! For additional information call **1-888-465-3474** and visit https://wildernessnorth.com/accommodations/miminiska-lodge/ Ask about the special package for Midwest flyers, August 14-17, 2022. Includes an extra half day of fishing at ***NO ADDITIONAL CHARGE!***

**CUSTOM OPEN AND ICE FISHING RODS** tuned to your preference.
Check out Tuned Up Custom Rods. For more information contact **Cory 320-413-0263** or **Todd@tunedupcustomrods.com 320-413-0147 tunedupcustomrods.com** (also available, reels and apparel).


# WISCONSIN AVIATION

WisconsinAviation.com

*The State's Premier Full-Service FBO*

**Madison** **Watertown** **Juneau**

Air Charter • Aircraft Management • Aircraft Sales
Flight Instruction • Aircraft Rental
Maintenance • Avionics • Interiors

## AIRCRAFT RENTAL

Diversified fleet of over 25 aircraft!

- Cessna 152 (7)
- Cessna 172 (4)
- Piper Warrior (3)
- Piper Archer (4)
- Piper Arrow (3)
- Citabria Taildragger
- Cirrus SR20 (2)
- Cirrus SR22 (2)
- Piper Seneca (2)

*608-268-5024 FlightSchool@WisAv.com*

## AVIONICS


Exclusive Cirrus SR22 demo equipped with
Garmin's G500 TXi Retrofit Upgrade, including the GFC 500 autopilot system.

*608-268-5006 Avionics@WisAv.com*

## AIRCRAFT SALES

**1940 Meyers OTW NC26460**
Only 27 SMOH (165 hp), May Annual, Falcon prop, full set of logs, beautiful condition! ..... $62,900

**1981 Cessna 414A N351HC**
Well maintained on 135, 725 SMOH RAM VII, GNS-530W, GMX-200 w/WX and 497 Skywatch, 650 MFD w/RDR-160 radar, WX-1000, GTX-345 ADS-B In/Out. 800B Autopilot, PowerPac spoilers, lots more!
..... $479,000

**CONSIGNMENTS WANTED**
Buying or selling, we'll work for you!

*800-657-0761 ACsales@WisAv.com*

# AOPA & The AOPA Air Safety Institute Honored With Excel Awards

FREDERICK, MD – The Aircraft Owners & Pilots Association (AOPA), and the AOPA Air Safety Institute, were recognized June 16 for their news and educational media during the virtual 41st Annual AM&P Network Association Council Excel Awards hosted by Association Media and Publishing.

The awards "are the largest and most prestigious program recognizing excellence and leadership in association media, publishing, marketing and communication," among nonprofit and for-profit associations, according to Association Media and Publishing's parent organization, the Software & Information Industry Association. The association recognized 240 finalists across 82 categories in the peer-reviewed awards program.

"AOPA employs the largest group of media professionals covering general aviation," said Tom Haines, AOPA editor in chief and senior vice president of media, communications, and outreach. "Combining that talent with our aviation expertise allows us to create compelling content across all of our channels. We receive great feedback from members routinely, but it's also rewarding to receive recognition from our publishing peers in the association world."

AOPA Live® earned a Gold Excel Award for its Arsenal of Democracy 2020 video that showcased the last two Boeing B-29 Superfortresses still flying, joining up with other warbirds for an aerial parade in remembrance of the 75th anniversary of the end of World War II. About 60 warbirds had gathered in northern Virginia in September 2020 to fly over Washington, D.C., but weather scrubbed the mission. Still, AOPA covered the show of force from every angle and brought it to members as a tribute. The video also features U-Haul CEO Joe Shoen's Consolidated PB4Y-2 Privateer, the last of its kind still flying; the Military Aviation Museum's Consolidated PBY Catalina; and the moment when a true "Rosie the Riveter" reunited with one of the bombers she helped rivet.

AOPA Senior Photographer Chris Rose's photo featured on the cover of the April 2020 issue of AOPA Pilot, featuring a sunrise-lit seaplane in a remote area of Quebec Province, won a Bronze Excel Award for best cover photography.

AOPA's "Coronavirus impact on GA" microsite earned a Bronze Award in the new pandemic response microsite category. The microsite enabled pilots, flight schools, and the media to learn about the effects of the pandemic on GA, what the aviation community was doing to help manufacture and transport personal protective equipment and vaccines, and how AOPA advocated on Capitol Hill to keep aviators flying safely during the pandemic.

The AOPA Air Safety Institute swept the educational video category, earning a Gold Award for "Accident Case Study: Lake Renegade," which examines a fatal accident that occurred in 2017 at the seaplane base on Lake Winnebago in Oshkosh, Wisconsin, when a pilot attempted to take off in high waves; a Silver Award for "Real Pilot Story: Pressure Over the Atlantic," which details how a ferry pilot flying solo over the North Atlantic, discovered a serious issue with his auxiliary fuel tank and found a solution and survived; and a Bronze Award for "Reality Check: What are the Costliest Insurance Claims?", which looks at the types of claims that can drive up aviation insurance rates, and provides tips on how pilots can be part of the solution to reducing the cost of insurance.

In addition, the institute's digital "CFI to CFI" newsletter won a Silver Award for general excellence in the newsletters category. The quarterly publication is free to more than 57,000 subscribers and promotes relevant safety education materials for flight instructors and their students. *Alyssa J. Cobb, AOPA* ❑

# Erin Miller To Receive 2021 Bruce Whitman Trophy

WASHINGTON, DC – The National Aeronautic Association (NAA) has announced that Erin Miller, author of "Final Flight Final Fight: My Grandmother, the WASP," and "Arlington National Cemetery," has been selected as the recipient of the 2021 Bruce Whitman Trophy.

The Bruce Whitman Trophy was established by the Board of Directors of NAA in 2019 to honor the late aerospace executive and philanthropist. Whitman was posthumously named the first recipient of the trophy the same year.

The trophy is awarded to "… outstanding individuals who have made significant contributions to aviation or aerospace in the United States, and who by working with museums and other institutions, have promoted an appreciation by students and the broader public of the sacrifices and legacy of members of the military service." A deserving nominee is put forth annually by the chairman of the NAA.

Erin Miller is the proud granddaughter of Elaine Danforth Harmon, a member of the Women Airforce Service Pilots (WASP) during World War II. Despite being part of the first group of women to fly for the United States Army, WASP remained officially unrecognized as members of the military. Her grandmother's last request was to be laid to rest at Arlington National Cemetery (ANC) and after she died in April 2015, this request was denied by the U.S. Army. This injustice led Miller to launch a successful grassroots, social media, and direct lobbying campaign to fight the decision. Thanks to Miller's efforts, WASP members can now be buried at ANC. ❑

# A Flying Fishing Adventure To Miminiska Lodge Ontario, Canada

196 nm north of Thunder Bay, Ontario
on the Albany River Watershed

CPS5 Rwy 9/27 2400 X 50 ft. Grass Airstrip
*Floatplanes Also Welcomed!*

**NOW ACCEPTING RESERVATIONS FOR 2022**

*FOR RESERVATIONS*
*Call Toll Free:* **1-888-465-3474**

Wilderness North
PO Box 22012, Strathcona RPO
Thunder Bay, ON P7A8A8
CANADA