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ON THE COVER: The U. S. Navy Flight Demonstration Squadron Blue Angels performing in their FA-18 Super Hornets at Sun 'n Fun 2021, Lakeland Linder International Airport, Lakeland, Fla. See complete schedule: <https://www.blueangels.navy.mil/show/>

Chris Bildilli Photo

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Publishing Online Opens New Pathways In Communications!

by Dave Weiman

In this issue of *Midwest Flyer Magazine* is an article on the award-winning engineering project completed by Short Elliott Hendrickson Inc. (SEH) at Duluth Sky Harbor Airport in Duluth, Minnesota. Like many of the articles we publish, we provide a link to SEH's website where they feature a video of the project, which brings it to life (<https://www.sehinc.com/portfolio/sky-harbor-airport-runway-relocation>). The video photography is exciting and educational!



The project involved rotating the runway by 5 degrees into Lake Superior, creating 7 acres of new land in the process.

Over the course of the **13-year project**, SEH facilitated a complex environmental review, and a design and construction process that maintained the airport within and adjacent to protected and regulated natural resources. SEH was able to minimize impacts to airport users through a unique phasing plan, which kept the runway open through nearly all of the construction. In addition, SEH was able to avoid construction impacts to a 5-mile residential street, a historic lift bridge and Duluth's tourist district by barging 210,000 tons (12,500

truckloads) of material to the site. When you watch the video, you will see how this material was utilized to improve the airport.

So, the next time you read an article in *Midwest Flyer Magazine* and see a "link" to a website, or in this case a "direct link" to a very well-done video, be sure to click it and be amazed and entertained!

EDITOR'S NOTE: Short Elliott Hendrickson Inc. (SEH) is headquartered in St Paul, Minnesota. Duluth is a port city in Minnesota on Lake Superior. The waterfront "Lakewalk Trail" passes along Canal Park, with views of the 1905 Aerial Lift Bridge. While the scenery and shipyards are enough to attract visitors, other attractions include the Lake Superior Railroad Museum, and the 1908 mansion "Glensheen" with its vast lakeside estate (<https://www.visitduluth.com/>). Also, with the elimination of most COVID-19 restrictions, the State of Minnesota announced that as of May 28th, there would no longer be attendance restrictions for indoor or outdoor events in Minnesota! That means greater access to the Duluth Airshow to be held June 26-27, 2021. The airshow will feature the U.S. Navy Blue Angels: (www.duluthairshow.com).

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Operational Control And Aircraft Leasing: What's The Big Deal?

by Gregory J. Reigel
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From the FAA's perspective, operational control in aircraft leasing transactions is not just a "big deal," it is "the" deal.



Greg Reigel

What Is Operational Control?

14 C.F.R. §1.1 defines operational control as "the exercise of authority over initiating, conducting or terminating a flight." In a "wet" lease situation, since the lessor is providing both aircraft and crew, the lessor maintains operational control of all flights. And in the absence of a specific exemption, such as under 14 C.F.R. § 91.501(c), the lessor who is operating an aircraft under a wet lease will need to have an air carrier certificate to legally operate the aircraft.

In a "dry" lease situation, the lessee provides its own flight crew, and the lessee exercises operational control over its flights. The lessee's operations may be conducted legally under 14 C.F.R. Part 91 without an air carrier certificate.

It is important to keep in mind that the FAA will look beyond the actual written agreements to determine who has operational control. Although a lease may be written as a dry lease and says "Dry Lease" at the top of the agreement, for example, that does not mean the FAA cannot take the position that the arrangement is really being conducted as a wet lease. And if the FAA takes that position when the lessor who is actually operating the aircraft for the lessee does not have an air carrier certificate, then that will be a problem for the lessor, and potentially for the lessee as well.

Why Does It Matter?

If the lessor is exercising operational control, then the flight must be conducted

in compliance with regulations that are stricter than Part 91 (i.e. Parts 121 or 135). Those regulations limit the types of airports the lessor may utilize, crew qualifications, crew rest and duty times, maintenance requirements, etc. Additionally, the lessor under a wet lease arrangement is required to remit federal excise tax on the amount charged to the lessee.

Alternatively, if the lessee has operational control under a dry lease, the lessee is permitted to operate under the less restrictive and less costly requirements of Part 91. And federal excise tax is not due on the amounts paid by the lessee to the lessor, although sales tax is often assessed on the lease rate.

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How Do You Determine Who Has Operational Control?

The FAA has issued guidance for determining which party has operational control in a leasing arrangement. Advisory Circular 91.37B Truth in Leasing provides FAA inspectors with an explanation of leasing structures and how they may or may not be compliant with the regulations. Although AC 91.37B only applies to aircraft subject to the requirements of 14 C.F.R. § 91.23, and it is not regulatory in nature, FAA inspectors also use this guidance when reviewing leasing structures that are not subject to truth-in-leasing requirements.

Here are the types of questions an FAA inspector will ask when the inspector is trying to determine which party has operational control in an aircraft leasing situation:

- Who decides crewmember and aircraft assignments?
- Who accept flight requests?
- Who actually initiates, conducts, and terminates flights?
- Are the pilots direct employees or agents for the lessor, the lessee, or someone else?
- Who is responsible for aircraft maintenance and where is that maintenance performed?
- Who decides when/where maintenance is accomplished, and who pays the maintenance provider for that service?
- Prior to departure, who ensures the flight, aircraft, and crew comply with regulations?
- Who determines weather/fuel requirements, and who pays for the fuel at the pump?

- Who directly pays for the airport fees, parking/hangar costs, food service, and/or rental cars?

If properly drafted, an aircraft dry lease agreement should answer these questions and, to the extent the answer for any item is “the lessor,” then the lease should explain that answer and how it does not negate lessee’s exercise of operational control.

For example, if the aircraft is leased to more than one lessee, it may make more sense for the lessor to retain responsibility for maintenance to ensure that the aircraft is consistently maintained in an airworthy condition. Similarly, it may be necessary to have the lessor, rather than the lessee, maintain an insurance policy to insure the aircraft and the various lessees to make certain the aircraft is insured appropriately.

However, responsibility for maintenance or insurance are just two indicia of operational control. And the lessor’s responsibility for maintenance or insurance does not negate the lessee’s responsibility for ensuring that the aircraft is in an airworthy condition and the lessee is properly insured prior to any operations conducted under a lease. Appropriate language in the lease can explain these issues so an FAA inspector reviewing the lease does not misunderstand and draw the wrong conclusion.

Also be aware that some FAA inspectors rely upon AC 91.37B, but do not fully or properly understand its guidance. For example, in one instance AC 91.37B states “[t]he FAA has taken the position that if a person leases an aircraft to another

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and also provides the flightcrew, fuel, and maintenance, the lessor of the aircraft is the operator.”

This language is sometimes misunderstood by inspectors to mean that a lessee does not have operational control when the lessor is responsible for maintenance. But that is incorrect.

The key indicia in the language above is lessor’s providing the flightcrew. However, lessor’s responsibility for maintenance by itself does not indicate that lessor is improperly exercising operational control over lessee flights. Although it may indicate that lessor is exercising some operational control, without other indicia of operational control by the lessor, performance of maintenance alone is not conclusive.

Conclusion

Operational control in aircraft leasing arrangements is, and will continue to be, an area of special emphasis for the FAA. Although the terms of the lease and other transaction documents are important, the FAA is not bound by those

terms when it is making an operational control determination. Rather, the FAA will also look at the actual arrangements between the parties, as well as the responsibilities of each party, especially if they are inconsistent with the lease.

When the FAA determines that lessor is exercising operational control in what is supposed to be a Part 91 dry leasing transaction, you can expect that it will act. Depending upon the circumstances, pilots and operators could be faced with certificate action and civil penalty action. It is important to understand the indicia of operational control and to be able to determine which party is exercising operational control in an aircraft leasing transaction. Only then will you be able to ensure that you are operating in compliance with the regulations.

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**). □

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Are You A Pilot or An Appliance Operator? - Part II

by Michael J. "Mick" Kaufman

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Michael Kaufman

In my column on instrument flying in the April/May 2021 issue of *Midwest Flyer Magazine*, we described a simple flight plan and departure from a Class C airport (Madison, Wisconsin - KMSN). In this issue, we will address a more complicated departure from a Class G airport with an emphasis on piloting skills, aircraft automation and especially

good flight planning.

I appreciate some of the emails I have received from readers and encourage you to email me your future comments and questions to: captmick@me.com.

One of the comments I received was on ATC (Air Traffic Control) communications on departure that I will address in a future issue as the topic requires more than a few sentences. Another comment was dealing with the aircraft flight manual in regard to cockpit automation, which I will incorporate in this issue.

I personally find it easier to do a departure from an airport with a control tower under most circumstances. The exception

would be departing from a busy airport that I am not familiar with. In my travels around the U.S. providing instrument training, I did several instrument ratings out of John Wayne/Orange County Airport in Santa Ana, California (KSNA). The daily departure to the practice area included an SID (Standard Instrument Departure), the Anaheim 1 Departure with the Lake Hughes Transition (ANAHM1.LHS). We used that departure for every flight as we filed out of the airport to the practice area.

This departure seemed overwhelming at first, but it was a piece of cake once we did it a few times. Automation played a big role in this departure as once loaded in the navigator, all of the waypoints were depicted, and the autopilot flew it perfectly. If we had to fly this departure using only paper charts, it would be a somewhat overwhelming workload for a single pilot IFR (Instrument Flight Rules).

I have seen some complex departures, so it is very important that pilots review and understand their clearances before departure in the event the GPS navigator dies at the wrong time. I like to have the route in a backup device in case this happens. Foreflight does a great job and when connected to a Garmin Flightstream device, you only need to enter the route once. I then have the route on my iPad, Garmin Area 660 display and my Garmin navigator.

If I were faced with having to execute a low IMC



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(Instrument Meteorological Condition) departure from a remote airport in mountainous terrain, the departure can be a lot more stressful than the simple departure I had written about in my previous column. It is extremely important to study the SID or departure procedure in great detail before departing. You may even want to wait for VFR (Visual Flight Rules) conditions as you may not be able to get any help from ATC or your navigator and autopilot. A complex departure from the ILOPANGO INTL AIRPORT, SAN SALVADOR, ES (MSSS) in my Bonanza was one of those departures, and I waited for good VFR conditions to ensure a safe departure with mountains all around. The SID had a reverse DME ARC with three tiers circling the airport. Each tier had a minimum altitude before moving to the outer tier which was high enough to join the airway above high terrain.

In my column in the April/May 2021 issue of *Midwest Flyer Magazine*, I put together an example of a simple flight using aircraft automation and the autopilot. I previously had a discussion with a fellow instructor whom I respect, and the topic came up of when should we begin using the autopilot on a low IMC departure. My take is to hand-fly the aircraft until reaching a safe altitude and a time of low pilot workload.

Should we engage the autopilot during high workloads at a low altitude, an imminent disaster could occur.

The aircraft and autopilot manufacturers have included

limitations on autopilot use in the aircraft flight manual or autopilot supplement.

In an email I received from one of our readers – Jim Gruneisen of Palo Alto, California – was a copy of one of the supplements, which you will find quite surprising.

In the Cessna 182 with the G1000 package, the autopilot may be used during an approach down to 200 feet Above Ground Level (AGL), but not used during other operations until above 800 feet AGL. This is to ensure a safe altitude for the pilot to recover in case of an equipment failure.

For the featured departure in this issue, I have chosen Ennis, Montana (KEKS) as our airport of departure. It is located in the mountainous region of Montana, has one 7600-foot runway, two published approaches and a SID for departure (Ennis One Departure). I have never flown into this airport, so I am using information from the charts to create this departure scenario.

The airport is located in Class G airspace with Class E starting at 700 feet AGL. This means that VFR aircraft can legally be in this airspace with 1 mile visibility and clear of clouds if under 700 feet AGL, and there is no separation of aircraft departing or on the approach below that altitude.

In studying the SID, which is an obstacle departure, there is one way out of the valley, which is to the north, so south departures require a 180-degree turn upon reaching 5930

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feet. I have no idea if you can reach ATC on the radio or a cell phone to get your clearance on the ground or at what altitude you may be able to contact ATC once departed. As a rated instrument pilot, you can legally depart in 0/0 conditions and fly in Class G airspace, but I would not recommend doing this.

After filing a flight plan to Spokane, Washington (KGEG) using ForeFlight, you need to get your clearance, and you realize you have cellphone coverage, so you taxi out for departure on Runway 16. You get your clearance with your cellphone and it is just about what you filed.

"Cessna N2852F is cleared from the Ennis airport to the Spokane airport via Ennis1 departure as filed. Climb and maintain 14,000. Enter controlled airspace on a heading of 030 degrees. Contact Big Sky Approach on 118.975 passing 10,000."

After reviewing your clearance and reading it back on your cellphone, you wonder what the (enter controlled airspace) means? This is to alert the pilot that there is no legal protection from other aircraft, in this case below 700 feet AGL in Class G airspace. The Ennis1 departure covers the right turn after departure to get you on course. Because the Ennis1 departure is an obstacle departure, you may not be able to put this in your navigator or ForeFlight. My ForeFlight did not accept it, so I added the waypoints of the departure manually.

The notation in the clearance indicated that I might not be able to contact approach below 10,000 feet. It should

also be noted that some GPS navigators have the capability to make turns based on altitude, so reaching an altitude of 5,930 feet MSL, the connected autopilot could make the turn to (SPHNX). It is important know what the equipment in your aircraft can do. This is not a tough departure to make, but good flight planning is essential when dealing with high terrain, high density altitude and mountains.

Use your flight planning tools before departure and fly safe, so you will be able to read the next issue of **Midwest Flyer Magazine**. The world is a better place with you flying in the blue skies above!

EDITOR'S NOTE: Michael J. "Mick" Kaufman is a Certified Instrument Flight Instructor (CFII) and the program manager of flight operations with the "Bonanza/Baron Pilot Training" organization. Kaufman conducts pilot clinics and specialized instruction throughout the U.S. in a variety of aircraft, which are equipped with a variety of avionics, although he is based in Richland Center (93C) and Eagle River (KEGV), Wisconsin. Kaufman was named "FAA's Safety Team Representative of the Year" for Wisconsin in 2008. Email questions to captmick@me.com or call **817-988-0174**.

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

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Aircraft Values & What Affects Them

by Pete Schoeninger
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Pete Schoeninger

Q: I have heard there has been a big jump in values of some Cessna 172 Skyhawks. Can you verify?

A: You are correct. Values have risen mostly among those 172s manufactured in the last 20 years. The 2021 spring edition of Aircraft Bluebook shows increases. The 2005 models have jumped a whopping \$30,000, and 2010 models have jumped about \$15,000. The middle aged Skyhawks (1975 – 1985) have seen a rise in value of about \$5,000, but the really old ones with the 145 hp engine (1967 and earlier) have not gained in value. Since Cessna resumed single-engine piston production in 1997, the C172 has been their primary trainer. Therefore, a good percentage of the new C172s are delivered to flight schools around the world, whereas the C182 and C206 are more likely sold to individuals.

Q: What are the single-engine aircraft sales between the three largest manufacturers: Cessna, Piper and Cirrus?

A: The General Aviation Manufacturers Association (GAMA, <https://gama.aero/>) has posted aircraft shipment information for year 2020: <https://gama.aero/wp-content/uploads/2020ShipmentReport-03162021.pdf>. Rather than risk confusing single-engine piston, turboprop and jet aircraft sales, please look and compare for yourself.

Q: Textron Beechcraft is advertising their Bonanza as having the longest continuous production in the world of 75 years. Is that true? What about Cessna 170/172s, and Piper Cubs?

A: Bonanza ads claiming the longest continuous production are correct. Bonanzas were introduced in 1947, with a price of about \$11,000. The Cessna 170 came out in 1948 and became the C172 in 1956 and is in production right now. But Cessna shut down their piston line from about 1986 – 1997. The Piper Cub was manufactured between 1938-47, and the Piper Super Cub was manufactured between 1949-83 and again between 1988-94. (Cub clones are now made by a couple of different manufacturers, but not by Piper.)

Q: Carb heat question please. I rode with a real high-time pilot recently in his Cessna 140. We did the usual runup for mags, but when he pulled the carb heat knob, he kept it on for about 20 seconds. He then pointed out to me that we picked up about 25 RPM over initial reading. He said, we picked up some carb ice, so we'll give it one more shot of carb heat just before takeoff to make sure it's clear. Sure enough, just before takeoff he checked carb heat again, and the tach again showed a reduction in RPMs, but not as much as first

indicated. Then, to my astonishment, he started his takeoff roll with full carb heat on. As he neared the application of full power, he pushed carb heat in with his right thumb as his right palm worked the throttle. Wasn't this overkill?

A: No, not at all. In many airplanes, the carb heat knob can be operated simultaneously with throttle movement.

Remember, this is about carburetor ice: If you suspect carb ice put on carb heat and LEAVE IT ON until engine power resumes. As ice melts and goes through the engine, the engine may run rough.

I can recommend the following internet websites for additional information: 1) "Carb Ice, it can happen quickly." In this video, a 150 hp engine begins to lose power about 2 minutes after takeoff into clear air. Listen carefully and you can hear the engine lose a little power, and then stumble when carb heat is applied and then it resumes full power. 2) "Combatting Carb Ice – AOPA." This is a great instructional website, and 3) "Carb Ice Probability Chart-AOPA." Note, carb ice is possible over a wide range of temperatures from perhaps 20 degrees Fahrenheit, up through about 90 degrees Fahrenheit.

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Q: Last winter, I accompanied a friend in his Cessna 172 to land on a frozen lake. We flew over the lake and he commented that the landing area was about 2500 feet long. I asked him how he knew this, and he said it was just a guess. Is there a better way to judge distances on a prospective landing site, especially one on a frozen lake?

A: Yes! Multiply your groundspeed in mph times 1.5 to get approximate distance in hundreds of feet. A 70-mph groundspeed works out to be about 100 feet traveled per second. So, if you flew over a lake – or a big field – at 80 mph into a 10-mph headwind, your groundspeed is about 70 mph, and if it takes you 25 seconds to cover the length of that field or lake, the field is roughly 2500 feet long. If you are in a faster airplane, you can use a groundspeed of 100 mph = 150 feet traveled per second. (Purists and math majors will correct me to say the constant should really be 1.47, but for me, 1.5 is close enough.)

Q: I have been tasked with selling my uncle's Cessna 185. I think I should hire a salesman or sales company to handle the sale, as I have no experience in selling airplanes, and I know very little about Cessna 185s, their quirks, values, etc. With that in mind, I contacted two airplane salesmen. The first person was a well-regarded man who is known for giving instruction in, and selling, Cessna 180 and 185 airplanes. He looked at our airplane and examined all maintenance records. He estimated he could sell the airplane for \$100 - \$110K and wanted a 120-day listing sale contract with 6% commission to him upon sale closing. An FBO about 60 miles away has just hired a rookie airplane salesman and I asked him to come look at the airplane. He looked it over and admitted he did not know much about C185s, but said based on bluebooks and internet ads, he could sell it for \$135K or so, and he wanted a year's listing. Who would you list the aircraft with?

A: The world's best airplane appraiser is the guy who is active in the market of your make/model similar to yours, regardless of bluebooks, other people's ads, etc. You'll be tempted to go with the new salesman and his higher price estimate, but I would go with the veteran. The experienced man knows the market, can fly your airplane, knows where

to advertise, and probably already has a list of potential C185 buyers. Besides, a 4-month listing contract beats a 12-month listing contract and demonstrates that the salesman has more confidence and will be able to sell your airplane faster.

Q: I just read that mechanical tachometers (like in my 1984 Skyhawk) can have significant errors, perhaps as much as 125 RPM. Can you verify this?

A: Yes, some mechanical tachometers can be off as much as 5%. Your mechanic probably has a tachometer checker and could check your readings in short order. I've also seen aircraft owners gripe about a lack of performance (lower cruise speeds and sometimes a reduced rate of climb) from their airplane with fixed pitch props, because they were running the engine 100 RPM less than they thought.

Q: Follow up question regarding my 1984 Skyhawk. I did check the tachometer, and it is within 20 RPMs of true. But my airspeed is about 10-15 mph below what the Pilot's Operating Handbook suggests I should be getting. I have flown my airplane in loose formation with a friend with a Mooney and our indicated airspeeds are very close, so I think the airspeed indicator is not at fault. Ideas?

A: With an accurate reading tachometer, you can now assume when you are running at the cruising RPM you desire, but you are still 10-15 mph slower than anticipated, I suspect your prop is the villain, in one of two ways: 1) Maybe your prop is old and has been filed on many times and has lost some of its aerodynamic ability to pull as much thrust as it used to. It probably needs to be reconditioned or overhauled or replaced if it is too far gone. 2) Perhaps your prop has been re-pitched to a different pitch setting, rather than the 57-inch pitch your airplane's prop should have. It sure wouldn't hurt to send your prop off to a prop shop to be checked over.

Q: My friend has a 1939 Piper J-3 Cub (legally a J-3L-65), and I have a 1946 J-3 Cub (legally a J-3C-65.) Both have 65 hp Continental engines. I looked at his limitation sheet and was astonished to see that his gross weight is only 1100 lbs., whereas mine is 1220 lbs., even though the empty weight of



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both aircraft is around 725 lbs. Can you clarify?

A: Your friend's airplane was manufactured with a 65 hp Lycoming engine, but somewhere over its very long life, the 65 hp Lycoming was replaced with a 65 hp Continental. But the airplane is still a J-3L-65, with all limitations of gross weight, CG, airspeeds, etc. Most of the Cubs made before WWII had a gross weight of only 1100 lbs., but with some improvements, that could be raised to 1170 lbs. I once owned a Piper J-3C-65. It had a 75 hp Continental engine, but it was still a J-3-C65.

Q: I started giving dual instruction to a private pilot in preparation for his Commercial Pilot Certificate. (He has a Cherokee and he only flies in very good VFR weather, without problems so far.) Progress has been very slow, and I suggested he try another flight instructor, which he did. Unfortunately, his second instructor is not having any more luck than I did. Have you ever gotten to the point of suggesting that a student not continue their quest for a higher certificate or rating?

A: Yes, but first I want to comment on the student. You said he owns a Cherokee and has flown for a while as a private pilot, but he is not gaining Commercial Pilot competency. I think you should tell him that while his skills may be safe for simple flights in a simple airplane in good weather like his Cherokee, he is going to spend thousands of dollars in training and may never reach Commercial Pilot competency. You also could suggest that his time and resources might be better spent trying to be the safest and best Private Pilot he can be. Nothing wrong with that.

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. □

Illinois Aviation Trades Association Cancels 2021 Conference

SPRINGFIELD, ILL. – Due to ongoing complications and restrictions of COVID-19 and large gatherings in the state of Illinois, the Illinois Aviation Trades Association (IATA) has decided to cancel its annual conference for 2021. The organization is expected to send out informative emails, will host webinars and welcomes input from members. Email concetta@cook-witter.com.



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Will you know when it is time to quit flying? There are other options, you know.

by Bob Worthington

www.BobWorthingtonWriter.com

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Bob Worthington

It is a fact of life. Sooner or later every pilot has to quit flying for one reason or another. Some do it voluntarily, while others are forced to abandon the

cockpit. But before that time comes, consider some options that may be available to continue flying.

Some of my friends quit flying because it became too expensive. Military pilot friends of mine provided numerous reasons why they quit. One

said that flying general aviation aircraft just could not compare to flying jet fighters, so when he retired, he stopped flying. Another friend quit flying when he retired saying he felt flying was too dangerous and he no longer had to fly. He had two combat tours in Vietnam as a helicopter pilot. Another friend who flew fighters in the service retired as a colonel at age 48, and quit flying thinking he was too old.

Most pilots I know who quit voluntarily report that the stress of obtaining weather, flying IFR or in congested areas, maintaining proficiency, staying current, and remaining technically competent became more of a chore than the fun it used to be.

Then there are those like me, who lose their freedom to fly. In my case, it was my heart. Two combat tours in Vietnam exposed me to tons of Agent Orange, which has a propensity to damage soft tissue in the body in a variety of nasty ways. I was diagnosed (at age 78) with Ischemic Heart Disease, requiring my aortic heart valve to be replaced. The Federal Aviation Regulations (FARs) prohibit a pilot with a replaced heart valve from flying. If the pilot desires, after several months pass, he/she can undergo extensive (usually expensive and not covered by insurance) cardiac evaluations, and if passed, request a Special Issuance (SI) Medical Certificate (FAR 67.401). When six months had passed and I was almost 79, medical specialists who had experience helping pilots obtain their SI to fly again, deemed me too old to get it, regardless how I fared undergoing heart tests. Still, other options for flying were available, which I will describe later.

Flying is an endeavor requiring several intellectual, psychological, and physical tasks be accomplished individually and in tandem. Strength is required to remove a plane from its hangar – the bigger the plane, the greater the strength needed. Mentally pilots must absorb, analyze, quantify, and act upon considerable information, often simultaneously. Good pilots must deal with the stresses of harsh weather, aircraft malfunctions, time schedules, passenger issues, and personal difficulties. Any of these issues may create psychological concerns that interfere with safe flying.

Sadly, as we age, our strength, our abilities and skills tend to diminish. For some people, this lessening may be slow over time, while with others it is insidious, rapid, and interferes with safe flying. Wise pilots recognize and accept these changes as we age. Others will ignore signs of fading capabilities, and continue to fly, regardless of the dangers involved.

One Pilot's Story
Bob Worthington,
Author of "The Left Seat"

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As we discover it takes more energy or agility or mental acuity to accomplish aviating responsibilities (which were readily achieved 20 to 30 years ago), we become frustrated, worried, and stressed. All reasons for failure in the left seat.

The Difference Between Yesterday & Today

Yesterday, you could curl 35 pounds effortlessly, whip through a crossword puzzle in minutes, answer the phone, take notes, and use your computer, all at the same time. Yesterday in severe IFR weather, you could easily, on final, acknowledge a request to abort your present approach and switch to a different instrument approach to land. Your acute mental process accepted and understood, immediately, what had to be done and how to do it. Missed approach procedures were applied, radio frequencies changed, approach plates switched, GPS reconfigured, quickly and without undue concern.

Today, though, 10 pounds to curl is hard, crossword puzzles require additional time to think about correct responses, and multi-tasking is almost impossible. Today, you must take time to focus on what is required to achieve, and if rushed, this can become incredibly stressful.

Confrontations arise when there are too many tasks to complete at the same time. In the cockpit, this is a recipe for disaster.

As we age and our abilities begin to fade, we need to recognize this is causing more stress on flights and we must do things differently (or with less challenges) to reduce stress. And doing this is not that challenging, if you want to continue flying, safely.

One way to work around the aging process is to change airplanes. In my late 60s, I had a Mooney 231. It was fast, but not easy to get in and out of with legs that have been busted up, way too often. I wanted as much speed as possible and an airplane that was much easier to get in and out of and roomier inside. The 231 gave way to a retractable Cessna 182. But then, another problem arose. Full tanks weighed almost 600 pounds, all over my head. The track at the bottom of the hangar door had a lip high enough, so I could not push the airplane into the hangar with full fuel. A gasoline tug solved that problem.

For those who fly retractables, an old saw goes, "there are those who have and those who will," meaning if you fly a retractable gear airplane, sooner or later you will have a gear-up landing. By my early 70s, I wanted less complexity, so I bought a fixed gear C182.

An uncomplicated way to reduce stress when flying is to alter flight plans. Into my 60s, I could fly my 231 straight from my home in New Mexico to my parents' home in Connecticut, over 2,000 miles, in one day (and the reverse).



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Depending on winds, this was a 12 to 15-hour trip.

As I grew older, I eliminated night flying, then cut back each day's flying to two easy legs, terminating no later than mid-afternoon. I did less "hard" IFR flying, willingly waiting for better weather. I would spend time flying locally, practicing the usage of all my instruments for instrument flights. Even if I only had one long cross-country in a month, I was still remarkably familiar with all the gadgets in my plane.

Since most of my flying was cross-country, I then began to plan my trips for the easiest flights, and not the quickest. Instead of seeking the cheapest gas enroute (which usually meant smaller, uncontrolled airports), I preferred larger airports with control towers to assist me in landing and fuel service. Additionally, I would select airports with an ILS approach to make it easier to set up the best flight path for landing (let the autopilot lock onto and fly to touch-down), and I would go around mountains, rather than over or through them.

Some people thrive on sticky notes. For me it is scraps of paper, typically found on my desk or the dining room table, sometimes taped to my computer. These are notes to remind me of phone calls to make, bills needing to be paid, appointments not to be missed, even grocery lists. Most people have a method of placing reminder notes around the house or office so important things will not be forgotten. The cockpit is just

as important (perhaps more so). Checklists, specific for your airplane, become your convenient sticky notes for the left seat. Some pilots use what is in their pilot's operating handbook (POH), others make their own. I preferred the plastic covered checklists made by CheckMate. It lays, readily accessible, in the console between the front seats. While I believe my brain is good, I know I can't remember everything, so a checklist ensures what I do in the plane is correct and that I do it. Where is your checklist?

Why one flies has a lot to do with cutting back. For me, the plane was primarily for cross-country trips. When the failed heart valve was replaced, my flying (as I did) was suddenly halted. I explored what options remained. Going the SI route was not seen as favorable to me. Because I had never been denied an FAA medical exam, I could fly a Light Sport Aircraft (LSA) using my driver's license, but with the aircraft's weight limitations, it would not serve as a cross-country plane for me and my wife.

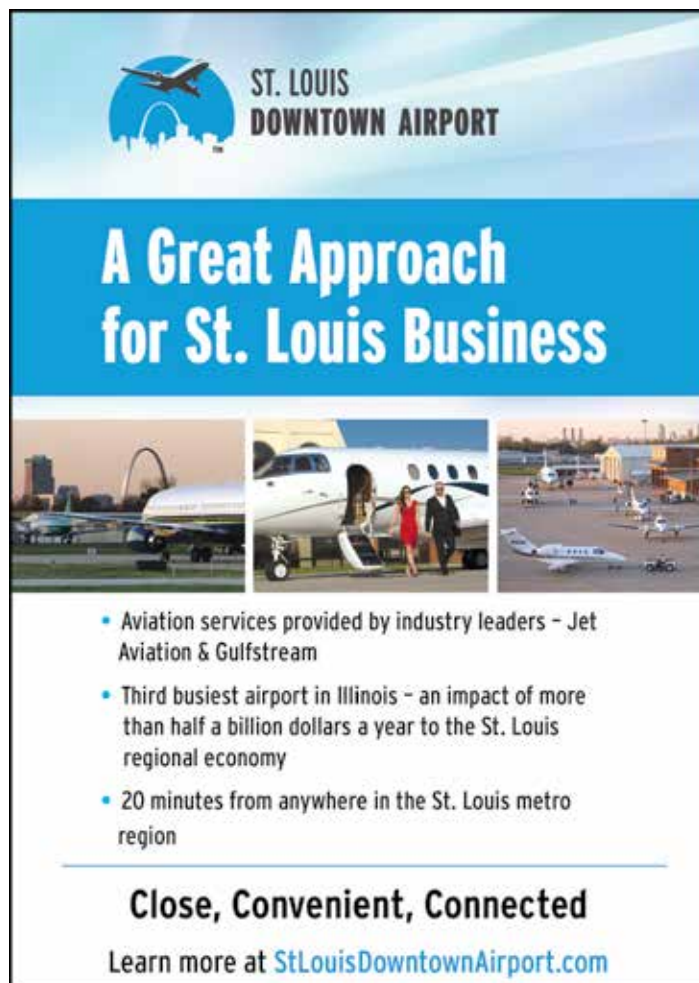
For me, the safe and sensible answer was to ground myself, which I did. Doing that proved to be the right decision as when I got into my mid-80s, I experienced several ambulance trips (heart episodes) to the ER, something not possible in the air. I still remain close to aviation by interacting with pilots, reading aviation magazines, using on-line aviation resources, and my favorite, sharing 40 years of flying experiences with you, our readers.

Everything I mentioned here can go a long way to reduce or eliminate stressful flights. Another suggestion...AARP provides an online defensive driving course (also in person), which is not a skill-driving session, but rather an in-class tutorial to make one a smarter driver. It exposes older drivers to threats and dangers, often never realized. Taking this course makes people very much aware of how aging negates what we may once have been able to do.

It is true that older, more experienced pilots, retain the knowledge and experience to either avoid danger or apply the appropriate action when challenged in flight. But those older pilots who have a keen understanding of how aging can affect performance, tend to be safer pilots and know when it is time to change how they fly if they continue to fly at all.

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

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The Final Word On Landings

by Harold Green

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In the last column I promised to complete the landing discussion, so here goes. When last we discussed the issue, we were on short final preparing to actually land the beast. Remember, the goal is that after the landing both the airplane and the occupants should be reusable. That means we have to manage the round out, touchdown, rollout, taxi and tiedown.



Harold Green

In order to achieve a smooth touchdown, we need to make sure the energy level of the airplane is appropriate.

There are two forms of energy involved. The first is “potential energy.” The amount of potential energy is determined by how far above the ground the airplane is. This is traded off for “kinetic energy,” which translates to speed, the amount of which is a function of the weight¹ of the airplane times the square of the velocity. That means any change in velocity has a greater effect on the airplane’s performance, than the percentage change in velocity would indicate.

For example, the difference between 65 and 75 knots is 15% in speed, but 33% in energy. This explains why both constant and correct airspeed are so important. Since, in the final analysis we will need to get rid of this energy through drag before we touch down, having the correct airspeed is critical.

Now what is correct for your airplane? That obviously depends not only on the airplane, but also on how long you wish to float just above the runway while slowing down to landing speed, also taking into account ground effect. This speed in a tail dragger performing a three-point landing is the “stall speed” of the airplane. In one with the training wheel up front, there is a little more leeway, but it would be nice to be at stall speed at touchdown.

For the tailwheel folks, a wheel landing can be performed at most any speed, but it would be really nice to be at or below approach speed, but above stall speed. Yes, Virginia, you can land a trike faster than stall speed and sometimes in a strong crosswind this may even be desirable. However, in general practice, there is no point in wearing out tires and – oh yeah – putting the airplane in a position in which control can be a challenge unless there is a reason to do so.

Next, we need to decide when and how fast rotation should occur.

The novice almost always asks, “How high should I be when I rotate?” The usual answer in a typical training airplane is about 10 to 15 feet above the ground. The trouble with this answer is that no one is going out there with a tape measure to determine height. While this advice is probably appropriate,

the final answer comes from demonstration and experience. Each person develops his or her own sense of when to rotate to begin slowing the airplane. The really critical part here is the rate of rotation because rotating too fast will cause the airplane to convert kinetic energy back into potential energy and up we go again. Therefore, it is important to pace the rotation rate to the speed of the plane and the height above ground. No, there is usually no set of numbers to provide guidance. This is just by feel folks. (Remember, we are talking about the usual single-engine general aviation light aircraft here, not something like an F-15.) If you have performed this operation properly holding the airplane off, trying to keep it from doing what it is eventually going to do, the plane will continue to gradually settle onto the runway without a thump or a bounce. When this happens, the elevator ideally should be up. This is definitely true for the tailwheel folks.

For them, if the elevator is not all the way up, decreasing the backpressure can cause the plane to reduce pitch, even through relaxing the tailwheel spring, and lo and behold, you are airborne again. Not good because you wanted to land. Typical reaction is to pitch down, bounce and then, pull back, then bounce again and awaayy we go! Also, not good.

Porposing can happen in a trike also. In this case it is usually caused by one of two things: First, landing on the nose-wheel first and correcting too rapidly, or touching down with too much speed and at a high angle of attack, bounce and again awaayy we go! Frankly anything that causes the plane to increase angle of attack with too much speed for the configuration of the plane can cause this.

The cure? Very simple: For the novice, “go around.” Do it now and at full power. With sufficient experience, you can tell if the situation is recoverable, but by all means, the safest thing is to go around.

While there is much more that could be said, we have covered the basics, so let’s now go to the roll out. The goal here is to keep the airplane solidly on the ground, rolling straight ahead and firmly under the pilot’s control.

For both tailwheel and tricycle, the directional procedure is the same...focus down the runway and keep the nose pointing straight ahead with reference to some ground object and keep the airplane from becoming airborne again until speed is lowered well below stall speed.

For the tricycle, simply by keeping the power out and looking over the cowlings, this is relatively easy.

For the tailwheel, life gets more complicated by two things: First sometimes one can’t see the runway over the cowlings, so straight ahead means keeping the runway edges, or other appropriate object, in the same relative position with respect to the airplane’s movement. Equally important in the tailwheel aircraft is to keep the elevators at full up pitch to prevent gusts, etc., from re-launching you. In a tricycle aircraft, with heavy or gusty winds, it may be desirable to

use down elevator to keep the plane glued to the runway. However, in this case be careful not to become a wheelbarrow. Tailwheel drivers doing wheel-landings keep the tail up as long as possible to maintain directional control. For both wheel configurations in a crosswind, the landing rollout should end with ailerons full into the wind. Now it is time to consider using brakes to slow down. Be careful to ensure the wheels don't lock up on slippery pavement. Here is where I am going to express a personal opinion.

These days, the predominant procedure is to maintain flaps and other systems at landing configuration until clear of the runway. Apparently this is a result of training to prepare the student for heavy, complex aircraft. In that situation, it makes sense because with several hundred thousand pounds of airplane and many systems to configure, attention should be on controlling the airplane until it is clear of the runway or it has been brought to a near stop. The usual explanation for this in a light airplane is to prevent the pilot from inadvertently retracting the gear instead of the flaps.

In the first place in the bad old days, the knobs or control points tended to be little balls no matter their function. No longer true. Flaps feel like airfoil...landing gear feels like a wheel on edge.

In the second place, leaving those flaps out at slow speed tends to increase the lift more than the benefits of drag. Therefore, in my opinion, on wet, snowy or ice-covered runways, one is better off with the flaps up during roll out to increase brake effectiveness. I feel flaps should come up as soon as the pilot feels they are not producing significant drag. Pilots can always be trained later to wait until clear of the runway, and furthermore, most pilots will never fly a heavy complex aircraft. Hence, I believe pilots are better served by being taught how to get the most from the airplane's they will be flying.

During the whole procedure, it is good to estimate the amount of distance required to stop versus the length of remaining runway. If it doesn't look good, again, around we go!

At last, we are ready to turn onto a taxiway. Sometimes the taxiway comes up faster than the pilot or the controller expected. Typically, this results in locked brakes, burnt rubber and the danger of either ground-looping or running off the pavement. On a turf runway, a sideways slide can be entertaining for those watching.

The cure for this problem is very simple -- don't turn! Keep going. If at a controlled airport the controller may be snarky, but that's alright. They are paid to solve problems like that. No matter the cause, it is better to put up with some snark-ness, than to have to explain to someone why your airplane is on its nose alongside the taxiway.

It is now "taxi time." Normally this is a no-brainer. However, there are a couple of things to bear in mind. First, don't be in a hurry. On a windy day, this is particularly important for both tricycle and tailwheels, but more so for tailwheels because of their ability to swivel on a dime. Tricycles can be tipped over in a high crosswind if proper

aileron is not used. Second, if the taxiway is a snazzy one with centerlines, keep your airplane on the centerline to ensure avoidance with objects alongside the taxiway.

In a crosswind, remember to place ailerons into a headwind and away from a tailwind. If you have a gyrocompass with a heading bug, setting the heading bug to the wind direction will provide a guide to this as you taxi. If the heading bug is ahead of the 90-27 line, the wind is ahead of you, and if behind it, the wind is from your tail and the quadrant of the compass tells you which way to turn the ailerons. If you are taxiing downwind of hangar(s) or other major obstructions, expect turbulence and/or increased wind velocity as the venturi effect created by air moving in a restricted passage.

At the tie-down area, point your airplane into the prevailing wind if at all possible as this will avoid damage from wind moving over a control surface in a direction to bang them into the stops. Parking into the wind will also prevent your door from opening too abruptly and tearing off the hinges.

If your airplane has control locks, by all means use them, as this will prevent extensive damage should the wind come up while the plane is tied down. If control locks are not available, using the seatbelts through the control wheel or around the control stick can at least keep the ailerons and elevator from banging around in the wind.

The heavy wire locks inserted into the control column are really good, but leave the rudder unprotected. The latter is not particularly a problem if the wind is from the nose but can lead to damage if the wind is from the side or the tail.

Rudders, which are interconnected to the nose wheel, have at least some support, but using a rudder lock is even better.

It goes without saying that the airplane should be firmly attached to the ground if it is going to be left outside for any period of time or in strong winds.

So now we have completed the landing.

While we may have missed some things, I think most of your questions on this topic have been covered, at least until we hear from you otherwise.

Finally, this is also my tie-down point. After a decade of writing articles for this column on a regular basis, and many more decades training pilots, it is time to allow others the opportunity to shed light on topics not yet covered and me greater flexibility in submitting articles in the future as needed.

Therefore, until our next "go-around," which may be sooner than we think, may all of your landings be safe ones!

Thank you!

EDITOR'S NOTE: Comments are welcomed via email at harlgren@aol.com, or by telephone at **608-836-1711** (www.MoreyAirport.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 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. □

DUIs & Certification

by Dr. Bill Blank, MD

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Dr. Bill Blank

Recently I have had a couple of applicants with more than one DUI (Driving Under the Influence) violation. Had they handled things differently, they probably could have been re-certified sooner. That is what gave me the idea for this article. Excess alcohol consumption

is a big problem in this country leading to serious problems for the alcoholic, his/her family, and major issues for the rest of society. The FAA is, of course, aware of this and has gradually refined its approach to the problem with some help from Congress.

You must report within 60 days to the FAA INTERNAL SECURITY and INVESTIGATION DIVISION, not the Civil Aviation Medical Division, a conviction, cancellation, suspension or revocation of your driver's license for operating while intoxicated or impaired by drugs or alcohol. This can now be done online.

Beware, even if your charges are later negotiated down, or your license was suspended only for a few hours and then returned, you **MUST** report it.

When you sign the FAA 8500-8 medical application form, you authorize the FAA to search the National Driver Registry (NDR) for violations. If you fail to report a violation, they will probably find it and you will be in violation of the regulations.

Who needs to report? Anyone from a Student Pilot to an Airline Transport Pilot who has a valid, at least by date, medical certificate -- 3rd, 2nd, or 1st class. If you are no longer flying and your medical certificate has expired, you do not need to report it. If you realize you should have reported it, report it yourself, even if it is beyond 60 days. That is better than having the FAA find it.

If you are flying under Basic Med, you don't need to report it to the Security Division. Substance dependence for holders of Basic Med is handled via Federal Aviation Regulation Part 67 "substance dependence within the previous two (2) years." In this case, a Special Issuance is required before a Basic Med can be obtained.

Now what? It's time for your next medical. Question 18V on the 8500-8 medical application form asks about arrests,



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convictions, etc., while intoxicated. This is where you report it to the Medical Certification Division.

What are the options for your Aviation Medical Examiner (AME)? He can pass you, himself, if there has been only one event in your whole life and the blood alcohol content (BAC) was less than 0.15. If the event the violation was less than 5 years ago, go online and find the "Drug and Alcohol Personal Statement," complete it and bring it to your AME in case he wants it. If you have two (2) or more events, your AME must defer it to the FAA, unless he has a letter authorizing him to issue.

Three or more events will probably result in a substance dependence classification. They will want all of your records of convictions, blood alcohols, driving records, etc. Plan ahead on this. It can sometimes take months to gather everything, and the FAA won't act until they have everything they want.

Sometimes the FAA will issue the medical with a warning letter. Other times you may get a Special Issuance with various requirements up to and including total abstinence and AA-type monitoring.

If, as you read this, you realize you need help, there is a pathway to re-certification via the HIMS (Human Intervention Motivation Study) program. This is a cooperative program between ALPA (Air Line Pilots Association) and the FAA to return pilots safely to the cockpit with close monitoring. Non-professional pilots can also take advantage

of the program. Certain AMEs have had special training and are designated HIMS AMEs. Your first step would be to contact a HIMS AME to make an appointment with him/her and discuss the situation. There is no need to contact the FAA at this point. A good link to learn about the program is: airspace.doc.com/hims-programs.

Hopefully you will not need to deal with the subject of this article. But if you do, I hope this information is helpful.

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.

NOTE: In the April/May 2021 issue of Midwest Flyer Magazine, the article entitled Hypertension and FAA Certification stated that "Normal blood pressure is generally considered to be under 120/80. Treatment from a medical point of view depends upon the risk factors. The article INCORRECTLY stated that your aviation medical examiner (AME) can certify you for any class, as long as your blood pressure does not exceed 155/90." The correct blood pressure that should not be exceeded is 155/95.

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. □

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Spring is in the air

A hopeful end to our winter of discontent

by Mark Baker
AOPA President and CEO

Spring, what a wonderful season and metaphor for where we all are in the pandemic. There are thousands of clichés about things blooming, opening up, springing eternal, and more. But what they all have in common is that we have real reason to hope and celebrate.

I've pointed out in previous columns the many ways general aviation has weathered the COVID storm relatively well, and even helped the country fight the pandemic by moving people and supplies to where they were needed most.

We should be proud of how our GA community has navigated the past year and, in some cases, has quite literally been a lifesaver. As we've seen through the pandemic, and with such natural disasters as wildfires, airports are key staging sites for relief. Many have been used to transfer vaccines and medical equipment, ferry needed personnel, and host medical clinics.

As we turn to longer days and warmer temperatures, I'm sensing a spirit of renewal everywhere I look. Call it "spring fever," but I am seeing more pilots in the skies across the country. Not that there was a big slowdown in general aviation (there wasn't!), but we are on our way to what will be considered "normal." I know flight schools are busy, and good luck finding a used Cessna 172 on the market! All great signs.

I am also happy to see that our counterparts on the airline side are seeing traffic and revenue rebounding. On March 12, TSA screened 1.3 million passengers on a single day—the most since March of last year, giving hope for a return to business as usual.

Not only are we flying more, but we are flying more safely. We're off to the best start we've had in more than 20 years and I am optimistic that this trend will continue. While many of us have remained in the air over the past few months, I know some pilots (and aircraft) are taking to the skies for the first time in a while. I encourage returning pilots to explore the valuable free material and guidance our AOPA Air Safety Institute offers to aviators, as well as the Rusty Pilots program from our AOPA You Can Fly initiative. Safety is, and always should be, our number-one priority.

One of the things I have missed most over the past year is seeing you—our members. Aviators are a social sort, and I know we're all looking forward to getting back together as conditions continue to permit. Our Outreach team is hard at work creating an exciting, albeit different, events strategy for the rest of the year, so that we can share this passion for flying—together. Come join us August 27 in Manassas, Virginia, and October 1 in Fort Worth, Texas, for Aviator Showcases. Look for details on other events coming soon. I can't wait to see you all again.

As we return to normalcy, I want to encourage everyone to continue doing your part in ensuring GA stays healthy. While we're coming out of this pandemic strong, there is still much work to be done for our industry to continue to grow.

As we're allowed to gather more, invite some nonpilots to fly with you. We know there's nothing like experiencing flight first-hand, and that's how many of us were bitten by the bug. Show your friends the fun and freedom, and perhaps, we will have a new aviator.



Mark Baker

On that note of opening the skies, let's also open up our airports. When I travel around the country, I love to visit the local airport to see what exciting things are happening on the ground. Too often, I'm greeted by barbed-wire fences. Yes, we need a measure of safety and security, but we all need to make sure there are as few barriers to aviation as possible. Making airports more welcoming—perhaps, hosting aviation days—would be a great way to build interest in learning to fly.

Just like any industry, we can't predict the future, but we are learning to adapt. And, I think we've done better than most could have expected. We are a resilient bunch as pilots, but more so as AOPA members—more than 300,000 strong.

As the season is upon us, I'm reminded of the old proverb: "No matter how long the winter, spring is sure to follow." □

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The Importance of Airport Tenant & Local Pilot Associations



*by Kyle Lewis
Regional Manager*

*Airports & State Advocacy • Great Lakes Region
Aircraft Owners & Pilots Association*

www.aopa.org

A basic ingredient of any successful airport community, for both the pilot and airport administration, is an active and focused airport tenant or local pilot association. There are many variations of these groups...some have hundreds of members, some may have only a few. The number involved is not entirely the key to success, but the mission is. AOPA's Airport Support Network (ASN) revolves around the promotion and protection of local airports, and local airport groups are the backbone to that success.

Before digging into the structure of a successful airport association, myths and facts need to be investigated:

- Myth – Airport managers have a deep disdain for pilot/tenant-based associations. This is a false assumption. An overwhelming majority of airport managers welcome these groups (if the focus and structure are well intentioned). I have personally consulted with airport managers on how to start a local group, as they WANT the feedback from the airport user. Airport managers cannot successfully accomplish their job without this input.

- Fact – Properly structured local airport associations do have valuable insight on the day-to-day operation of the airport. Who is better positioned to provide this insight other than the pilots who are on the field the most? Carrying a consistent message is valuable when there may be an issue causing a divide between airport users and airport administration.

AOPA receives calls from members across the country seeking advice on how to handle problems that arise at their airport. In many cases, we can connect those folks with their respective “ASN Volunteer” and work a strategy at the local level.

One of the first questions we will ask is if there is a local airport association. If not, we will strongly encourage the formation of one if it makes sense. If there is an active group, we encourage the member to work those angles on a resolution.

Just a quick snapshot of some of the issues AOPA is currently engaged on some level in over 120 airport “cases” across the nation. These range from airport closures, land use, noise complaints, and local airport rules, regulations, and leases.

So how does one form one of these local groups? First and foremost, there must be a focused mission. Is the primary goal to be a social platform or should there be a strong advocacy focus? That can be determined by the local airport landscape. Many groups are successful at both! AOPA encourages a diverse group comprised of airport users, including FBO representation, pilots and tenants, and any other airport stakeholder or business that should have a voice in the group. Obviously that cross-section may have differing opinions, but if the focus and mission (airport access and sustainability are good ones) are the same, the local group can be successful.

EAA chapters can be a good start, but in many cases, the EAA chapter structure is not designed to take on large-scale advocacy efforts at the local level. An EAA chapter is a good “neighbor” of an airport association and can be an ally in providing outreach for the overall effort.

Formal or informal? Does it matter? Again, that answer is specific to the situation. Informal is okay if the “gaggle” of members are okay with that method. Sourcing funding – and tracking it – may become difficult under the informal method. Airport management may be a little wary of the long-term stability of informal groups, and perhaps give little credence to the overall messaging. A formally structured association under an LLC or similar organization will have the hierarchy in place to allow leadership transitions, fundraising capabilities, liability protections, and other inherent benefits of being formally recognized. I would suggest the help of an experienced attorney when organizing a formal group. Sometimes these formal organizations become de facto advisory boards to airport management. Over the history of AOPA's Airport Support Network program, formalized airport associations have been instrumental in resolving airport problems.

Recently, the Lunken Airport Action Group (LAAG) at Cincinnati Lunken Airport in Ohio staved off a threat to tear down all the city-owned T-hangars. That action would have displaced nearly 60 GA aircraft, to be replaced with a development of a large corporate hangar serving only a few users. LAAG was formally chartered but had been dormant

for a few years. The group's leadership was able to gain traction with the city council and the mayor's office, which led to a "sit down" meeting with the FAA, developers, and city officials. The result of that meeting served a dose of reality to the developers. When the developers realized that the burden to pay for all the required studies, airport planning, and other infrastructure upgrades would up the price tag by millions, they backed out. LAAG was successful by engaging the entire airport community and educating that community as to what was truth and what was rumor.

So how can you start an airport association? Work with airport management, that is key. Have a discussion with that person as to why it is important, and how such a group will have a positive impact on the airport environment. Get the word out. Social media is a powerful tool, when used properly. Hold an organizational meeting and decide whether a formal or informal group best suits the mission. AOPA has a multitude of resources available online, including a guide to forming airport support groups: <https://www.aopa.org/advocacy/airports-and-airspace/airport-advocacy/resources>

Enjoy the flying weather and promote your airport. It is a privilege to serve you! (kyle.lewis@aopa.org). □

Emails Received From Readers To The Editor of *Midwest Flyer Magazine*

Dave Weiman
dave@midwestflyer.com

Thank you, Dave, for the nice photo and comment on our chapter's Hamburger Fly-In. We're starting them back up for 2021...3rd Wednesday of the month, April through October.

Love *Midwest Flyer*. Keep up the good work.

Eric Wegner, President
EAA Chapter 320
Watertown, Wisconsin
president.eaa320@gmail.com

Dave, at least three pilots I sent (your offer to for "free" online subscriptions) have subscribed and one who is the CFI in a flying club gave it to the members.

Bob Worthington
Las Cruces, New Mexico
rworthin@q.com

Good morning, Dave & Peggy.

I just breezed through your latest issue of *Midwest Flyer*, and if I haven't told you before, you can surely be proud of the publication you publish.

I will continue to pass on to other pilots to contact you for a "free subscription!"

The photo of the Beaver on floats above the clouds was mind boggling awesome. Gives me fond memories of when I worked for *Alaska Flying* magazine back in the '80s. The Beaver is really the workhorse of aircraft.

You also did an awesome job of promoting our Superstructure doors.

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Large-Scale Airport Solar Facilities Gaining In Popularity



Construction of the 9MW solar array at Dane County Regional Airport (KMSN) in Madison, Wisconsin in October 2020.

Photo Courtesy of MGE.

by Hal Davis

WisDOT Bureau of Aeronautics

The remarkable growth of the solar industry witnessed in the last decade continues to show no sign of slowing down. Fueled by decreasing costs and increasing demand for alternative energy sources, the solar industry grew 43% in 2020 and led all technologies in new electric-generating capacity, according to the Solar Energy Industries Association. The total solar capacity in the U.S. is currently about 100 gigawatts, but it is projected to surpass 400 gigawatts in the next decade. This means we can all expect to see more solar panels in the future. One place you might start seeing them more frequently is airports.

For the solar energy industry, airports provide several advantages when it comes to siting new solar facilities. Most



Hal Davis

airports have an abundance of clear, flat land and may also have existing fences to help secure the solar facility. As an added benefit, airports are often owned by municipalities, which offer solar companies a stable partner and one who might already be motivated to bring renewable energy to their community.

A solar farm on the airport can provide numerous airport benefits as well. First and foremost, the leasing of otherwise vacant airport land to a solar company can provide a significant and consistent source of revenue. All airports strive for financial self-sustainability, but most are unable to achieve it. The lease revenue generated by a solar farm could help close the gap. An on-airport solar farm can also help reduce an airport's operational costs by reducing the amount of land the airport must maintain. In some cases, on-site power generation capabilities of a solar farm can also help an airport stay operational during power disruptions elsewhere in the grid. Finally, incorporating green technologies and reducing the airport's carbon footprint is a growing priority for many



5MW solar array at Middleton Municipal Airport - Morey Field (C29) in Middleton, Wis.
Photo Courtesy of MGE.

airports.

While there is no denying that solar farms and airports can provide a mutual benefit, it is not always a perfect fit. Airports must first consider and evaluate their unique circumstances and ensure all proper coordination has been completed.

When considering a solar farm on an airport, the first thing to reference is the Airport Layout Plan (ALP). To begin coordination with the Federal Aviation Administration (FAA), the ALP will need to be updated to show the proposed location of the panels. Panels must not be located in safety critical areas, such as existing or future Runway Protection Zones, Runway Object Free Areas, Runway Visibility Zones, or anywhere it may interfere with navigational aids. They must also not conflict with future airport development shown on the ALP.

Once a suitable location has been found, the FAA will need to conduct a study of the solar facility's impacts on the surrounding airspace, such as Part 77 imaginary surfaces, instrument procedures, and navigational aids. Fortunately, most solar panel installations have a low profile and rarely pose a hazard due to their height. However, the potential for glint and glare will need to be analyzed closely. Any identified potential for glint or glare which may cause a temporary loss of vision to pilots on arrival or departure or to personnel in air traffic control will need to be corrected before the project can move forward.

Finally, construction activities will also need to be evaluated for impacts on airport operations, such as access routes and large equipment. In some situations, it may be necessary to temporarily close a runway to facilitate the construction.

In addition to assessing the compatibility of the solar facility, airports which have received federal airport improvement grants are also required to conduct additional coordination with the FAA. The type of coordination needed

will depend on how the impacted property was originally acquired and what is being requested. Proposals that involve property purchased with FAA funding will require prior FAA approval. During this approval process, the FAA will review the terms and conditions of the lease and verify that the airport is receiving fair market value compensation. Although it is possible for an airport to sell the land to the solar company, in most cases the FAA prefers that airport land be leased rather than sold so that it provides continuous income for airport purposes and preserves the property for future aviation usage. Additionally, FAA approval of this request will require a corresponding National Environmental Policy Act clearance document. For on-airport solar farms larger than 3 acres, a condensed environmental assessment needs to be completed.

Fortunately, proposals involving airport property purchased without FAA funding will require far less coordination in most cases. However, any proposal for an on-airport solar facility won't be reviewed or approved overnight and it is important to manage expectations. Most proposals will take upwards of 12 months or more to fully complete the coordination process with all interested stakeholders. Having a discussion with the Wisconsin Bureau of Aeronautics early in the planning stage is crucial to avoiding unnecessary delays.

Lastly, as more and more solar facilities are constructed, large-scale, off-airport solar facilities may be proposed near airports or along common flight paths. Currently, the FAA does not have any defined thresholds for solar project size, type, or distance from the airport that automatically triggers FAA review. For now, off-airport solar facilities must only comply with the standard FAA notification criteria established under FAR Part 77 that apply to any improvements made near an airport.

For questions about large-scale solar facilities on airports, please contact the Wisconsin Bureau of Aeronautics at (608) 266-3351. □



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

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Airport Maintenance From A Pilot's Perspective

by Chris Meyer

As pilots, we have a lot to think about when preparing for a flight. In fact, we're legally obligated. The Federal Aviation Regulation (FAR) regarding Preflight Action (91.103), says, "Each pilot in command shall, before beginning a flight, become familiar with *all* available information concerning that flight." Further, 14 CFR Part 91.3 states: "The pilot in command of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft." If you stop and really think about it, these two basic regulations serve quite a tall order.



Chris Meyer

Thankfully, with advances in technology, much, if not all of the required information, is available right at our fingertips. Many aviation applications provide weather reports, forecasts, NOTAMs, and runway information that can be retrieved right from your cell phone or tablet. Some offer the ability to calculate weight and balance for aircraft. Some now even allow the user to calculate takeoff and landing distances for aircraft by applying real-time weather. This is some neat stuff! However, there is a catch; this information is only as good as what's provided by the source.

As an example, let's look at a hypothetical scenario. Let's say you are planning on flying your family to a resort for a weekend getaway. After everybody packs for the trip, you realize you are going to have to reduce your fuel load to account for the extra baggage. You will need to make a fuel stop. In looking at the route of flight, there is an airport situated along your route of flight that offers self-service fuel which is available 24 hours a day with a credit card.

Next, you land at the fuel stop, taxi to the self-service pump, and shut down. It's time to gas up. As you approach the credit card reader, you see that dreaded little sign "credit card reader inoperative." You think to yourself, "I know I checked the NOTAMs for this airport, and nothing was published!" You look for help from an FBO only to hear the sound of wind accompanied by a rogue tumbleweed. NO!!

Chances are this scenario has happened to you. It has happened to me. Fortunately, I had a college professor that

taught the importance of always having a contingency plan. If I don't see a fuel related NOTAM, I will still call the airport/FBO to verify that fuel is available. If I am unable to reach someone, then I will carry enough fuel to ferry to another airport where I know fuel can be purchased.

Notices To Airmen

This scenario brings up a larger, more important concept, and that is the importance of reporting changes to airport infrastructure in the event of outages and/or maintenance projects. The means airports use to do so is the Notice to Airmen, or NOTAM system. Thinking back to the two regulations introduced earlier, it is challenging for pilots to become familiar with "all" available information if it is not being properly reported.

Disruption to fuel availability is only a tiny example. There are many other situations that affect airport capability. For example, are there any lighting outages? Sometimes outages can increase Instrument Approach Procedure minima.

One lighting-related challenge Minnesota airports are particularly faced with is frost heave of the footings that support PAPIs/VASIs. The calibration of these units is very sensitive. A footing that moves from frost heave will disrupt the calibration of the lighting system. MnDOT recommends airports inspect these systems for proper calibration every 30 days.

Notices of Work in Progress due to mowing or snowplow operations are also important.

And speaking of snowplowing – any snowplow operation at an airport also suggests the need for reporting field conditions through a FICON NOTAM. Surface contamination by means of rain, snow, slush, or ice has a significant effect on takeoff and landing performance in a negative way. Referring back to 14 CFR Part 91.103, "takeoff and landing distance data" is a specific requirement. If pilots don't have proper information about current runway conditions, they cannot make effective decisions as to whether or not it's safe to operate into or out of an airport.

As for pilots, we owe it to airports to actually take the time to read the NOTAMs they publish. Further, if you are out flying and you notice something is not right, let airport personnel know. The Airport Directory and Travel

Guide published by MnDOT Aeronautics contains contact information for the airport stakeholders in Minnesota. Most states have a similar publication. If that publication is not available, the phone number for the airport manager is published in the FAA's Chart Supplement (formerly known as the Airport/Facility Directory or A/FD). Lastly, if an FBO is open, let them know, and they will know how to pass the

information along to the airport manager.

These simple procedures go a long way in promoting aviation safety. In the end, it comes down to one simple but very important concept: applying effective communication. Let's all do our part to ensure our families can enjoy that weekend getaway as safely as possible. □

Bringing Clearance Delivery Into The 21st Century

by Kyle Sullivan

Airport Coordinator

MnDOT Office of Aeronautics



Kyle Sullivan

For pilots – whether seasoned or novice – receiving an Instrument Flight Rules (IFR) clearance is not a new concept. The delivery never varies from the standard C.R.A.F.T. format we've all been taught to love since flight school. Yet, the method of receiving those clearances from Air Traffic Control (ATC) can wildly vary depending on your current location on deck within the airspace system. At a towered field, it's relatively easy – contact the clearance delivery controller as listed in the publications, whether on ground control or a dedicated frequency. However, what do you do if you need to receive a clearance at an uncontrolled field?

Non-towered airports typically have a frequency listed within the Airport/Facility Directory (A/FD) – amongst other sources – to contact ATC for clearances while on deck. This frequency is usually for Approach or Center Control that governs the airspace above the field. Still, there are some remote airports where reaching ATC on deck can be difficult to downright impossible. So, then what? Or, if you are able to reach them, what happens if they are too busy to help?

I'm sure a fair number of us have all been in the same situation while trying to receive a clearance, finding ourselves unable to get a word in because ATC is clobbered by air carrier pilots talking overhead. Worse off, those of us on the ground waiting to contact ATC are very aware of the gas

being unproductively burned, and the "hobbs" meter clicking away. Likewise, those who are airborne are often annoyed by the radios being bogarted for a significant amount of time by aircraft receiving these clearances. These delays are extremely hazardous to pilots in busy airspace since they draw the controllers' attention away from their normal duties, as well as delay time-critical communications between airborne traffic.

The FAA is trying to tackle this issue with a 21st century solution. There are now phone numbers listed within the A/FD dedicated to delivering clearances to pilots over the phone. Air Route Traffic Control Center (ARTCC – a.k.a. "Center") Clearance Delivery phone numbers, which have existed for about two years now, are the preferred means to contact ATC directly at outlying uncontrolled airports. The number immediately connects you to a dedicated "off-station" controller able to quickly deliver departure clearances. This service is intended to free up radio clutter and allow "on-station" controllers to focus solely on airborne aircraft within their airspace.

This concept of receiving a clearance via phone delivery is not new. However, previous processes have historically been cumbersome – with pilots having to call their local Flight Service Station or 1-800-Wx-Brief, then go through a maze of touch button menus to finally reach a representative. This process also requires the representative to reach out to the appropriate ATC outlet in order to receive the clearance, which also takes time. In a worst-case scenario, 1-800-Wx-Brief can often get inundated with call volumes, or the local FSS phoneline is busy for what seems like hours, which may significantly delay your departure beyond acceptable limits.

The dedicated clearance delivery phone number immediately connects you one-on-one with a controller who can deliver your clearance on the spot with no delay. The goal is for a pilot to call the clearance delivery number, receive their clearance, and depart within minutes of starting engines – all without wasting valuable engine-on time sitting on deck. Moreover, new Bluetooth technology built into many aircraft system panels and/or headsets allow phone calls to be made while in the aircraft. This technology makes the idea of calling for clearance by phone, while sitting at the hold short line, a very distinct and achievable possibility.

Additionally, the Clearance Delivery phone number can also be used to close IFR flight plans upon arrival if unable to reach a controller by radio once on the ground. However,

the on-duty controller I spoke with wanted to relay to pilots that, while the phone number is intended to make receiving clearances easier, it **CANNOT** be used to file flight plans. Pilots must still file their flight plans via standards means, such as ForeFlight, FltPlan.com, 1-800-Wx-Brief, or your local FSS.

The process of receiving a clearance from the Clearance Delivery line is simple:

- Dial the local number within the A/FD.
- A live controller will pick up – no touch-button menus to navigate.
- Give your tail number associated with the filed flight plan and tell the controller you are ready to receive your departure clearance.
- The representative will contact the “on-station” controller via landline and relay the clearance back to you – typically less than a minute later.
- Depart no later than the clearance void time (i.e. the time given that you must be airborne by to guarantee ATC separation – which sounds like: “Clearance void if not airborne by xxxx”).

According to the FAA, the Clearance Delivery numbers are intended to supplement existing ground equipment – such as Ground Communications Outlets (GCO) and Remote Communications Outlets (RCO). Prior to widespread cell

phone technology, these ground relay systems were established as a means to provide ground-to-ground communications between air traffic control specialists and pilots located at satellite airports. These outlets utilize VHF-to-telephone relays – through a series of “mic clicks” – to contact local ATC and Flight Service Stations to obtain clearances, weather briefings, and other pilot-related services prior to takeoff or after landing.

Though GCOs and RCOs are the preferred method of reaching ATC while at satellite and remote airports, these relays are aging and are often difficult to repair due to their remote nature. Additionally, GCOs/RCOs utilize older analog phone lines, which will be more difficult and costly to repair as the systems become increasingly outdated and cell phone technology quickly advances with upgrades to digital lines. These factors together are driving the FAA’s desire to find new options that will eventually replace the existing systems with more current and reliable technology. With that said, remote locations outside of cell phone service range will continue to have access to RCO capabilities until a more permanent option arises.

Minneapolis ARTCC Clearance Delivery can be reached at (651) 463-5588 and will also apply for much of the Midwest. Clearance Delivery numbers for specific airports can be found within the A/FD and vary by region. □

Minnesota Aviation Trades Association – Investing In The Future!

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

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

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

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

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

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



MATA – The Choice & Voice of Aviation Businesses Since 1945

Airport Lodging

by Yasmina Platt

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Traveling during a pandemic has proven to be risky and, therefore, undesirable for many. RV travel trends have increased because people are not only transiting in their own vehicles, but also staying (eating, sleeping, showering...) in their own houses on wheels, with their own stuff. Flying General Aviation (GA) though (especially if you own your own aircraft) is also a great Covid-friendly way to travel, especially for day trips. This blog highlights a few airport lodging options and resources you may want to consider, now and in the future, during overnight trips.



Yasmina Platt

things.

If peace and quiet is what you're looking for, West Virginia's Hales Landing Airport (2WV3) has a 3,100-foot grass runway and an Airbnb. Ask the owners for permission to land when booking your stay.

During your next trip to Texas Big Bend country, you can consider booking one of Casa de Aero's Airbnb listings in Terlingua. With their permission, you can fly into Fulcher Field (3TE8), which features a 3,600-foot gravel runway. The owners can provide you with rental car information for your stay. Or, if you prefer to tent camp, Big Bend Ranch State Park Airport (3T9) has a 5,500-foot paved airstrip and you can camp under your wing/rotor. The state-owned airport offers complimentary transportation to and from the park. Call ahead for more information and to notify park officials of your ETA (432-358-4444, ext. 224).

Because of its decorations, you may travel all over the world without leaving your Airbnb at Yucca Valley Airport (L22) in California.

This may be my favorite option in this list, although it comes at a price. Not only because it is gorgeous and has great views of the surrounding mountains, but also because it is in a central location to Palm Springs, Joshua Tree National Park, and Big Bear, for example.

Lake Lawn Resort in Delavan, Wisconsin and its airport (C59) are 81 nm south of Oshkosh, Wisconsin. Runway 18/36 is 4,423 feet long, but beware of trees, powerlines, and fences on both ends. Also, keep in mind the asphalt may have cracks with vegetation

growing out of them. The resort is located across the highway from the airport. Swimming, golfing, boating, kayaking and paddle boarding are all Covid-friendly activities you can embark on while there, but you will face more interaction with other guests and staff while inside the hotel.



Hales Landing Airport (2WV3), West Virginia.

Airbnb Photo

New York's Drop Inn B&B is not called that for no reason. This cute log house is located at Shear Airport (63NY). With prior permission from the owners, you can fly into their 3,153-foot grass strip, skydive (get the "drop inn" reference now?), visit Niagara Falls, and tryout wineries among other



Nemacolin Airport (PA88), Pennsylvania.
Nemacolin Resort Photo

Similarly, flying into Nemacolin Airport (PA88) in Pennsylvania, and staying at the Nemacolin Resort, is without a doubt, the most luxurious option on this list. Obtain prior permission to land at least 48 hours in advance, then go pamper yourself!

On the other corner of Pennsylvania and much more outdoorsy, though still romantic, is an Airbnb at Cherry Ridge Airport (N30). Although this is a privately-owned airport, it is open to the public and features a 2,986-foot asphalt runway. You can park your aircraft immediately in front of your cottage.

Do your due diligence as PIC before each flight. For example, keep in mind most of these airports/airstrips do not offer fuel and may not have lights for night flying.

My blog (www.airtrails.weebly.com under the tab “Other”) also has an Excel listing of friendly airports and helipads with onsite camping, onsite restaurants, onsite museums, bike lanes nearby, and places to watch aircraft come and go in the Central Southwest area of the country. You may also want to join the fairly new Facebook group called “Pilot friendly Airbnb” for additional offerings.

Links for the referenced lodging options:

- New York’s Drop Inn B&B: <https://skydivethefalls.com/where-to-stay/>
- West Virginia’s Hales Landing Airport Airbnb: https://www.airbnb.com/rooms/43515455?adults=1&federated_search_id=0a649748-9b55-441a-847e-6d8a67174082&source_impression_id=p3_1615984568_NqcaAx50K2P7grzc&guests=1
- Texas’ Terlingua Airbnb (https://www.airbnb.com/rooms/24017233?source_impression_id=p3_1614284607_GFhOJ9%2BsBdmvKfhU&guests=1&adults=1) and Big Bend

Ranch State Park Airport (<https://tpwd.texas.gov/state-parks/big-bend-ranch/pdfs/airstrip-guidelines>)

– California’s Yucca Valley Airport Airbnb: https://www.airbnb.com/rooms/47059439?source_impression_id=p3_1614358208_wu1QCPLsi2CEUIYy&guests=1&adults=1

– Wisconsin’s Lake Lawn Resort: <https://www.lakelawnresort.com/>

– Pennsylvania’s Nemacolin Resort (<https://www.nemacolin.com/airfield/>) and Cherry Ridge Airport Airbnb (https://www.airbnb.com/rooms/32460316?source_impression_id=p3_1614359223_yrIDXPfA2Utklu4c&guests=1&adults=1)

Fly safe and fly often!

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. □

Solution To GPS Jamming Impact Overdue

WASHINGTON – The military’s jamming of GPS to simulate outages for defense exercises continues to create headaches for general aviation three years after an industry study recommended ways to minimize the effects, AOPA and the National Business Aviation Association said.

As reliance on GPS has increased for national defense, intentional jamming events have occurred “routinely” in the national airspace system. However, “At the same time, the NAS has become increasingly reliant on GPS as the primary source of navigation and aircraft system functionality while reducing the ground based navigational backup

infrastructure,” AOPA and NBAA said in a joint February 25 letter to the FAA and the U.S. Air Force.

AOPA made finding a solution to the conflict between civil aviation’s growing dependence on GPS and the proliferation of widespread jamming events a top advocacy priority, and has extensively reported on its flight safety implications at the systemic level and in connection with specific jamming events.

We have also worked to educate pilots on measures they can take while airborne if a GPS jamming event interferes

CONTINUED ON PAGE 39

Ramping Up Transparency.... **AOPA Unites Organizations** **Urging Standardized GA Parking Labels On Airport Diagrams**



AOPA Photo

FREDERICK, MD – Pilots would have an easier time selecting a destination on the airport after landing if the many terms airports use to label general aviation parking areas on FAA airport diagrams were boiled down to three. In the absence of a standard set of airport diagram labels for GA aircraft parking, AOPA has united an impressive group of 300 pilot and aviation organizations from across the country to support the use of such terms.

The three recommended parking-area terms and definitions include:

- **FBO RAMP:** An apron where itinerant general aviation operators can park their aircraft and expect to have access to traditional FBO services subject to terms and conditions.
- **GA TRANSIENT RAMP:** An apron where itinerant general aviation operators can park their aircraft without FBO services and subject to terms and conditions.
- **GA TENANT RAMP:** An area designated for parking of based general aviation aircraft, i.e. tiedown area.

AOPA conducted a review of airport diagrams and found as many as 30 different parking terms for the same type of ramp in southern California alone. Many airports currently have transient GA parking areas that are available to pilots, but are either not labeled or labeled in a way that is not clear

or relevant to the ramp's purpose. Standardized terms will eliminate confusion for pilots, better identify parking options for pilots where they exist, and assist pilots in preflight planning.

"There is very strong support in the pilot community for transparency at our nation's airports, whether it be FBO fees or airport ramps," said AOPA President Mark Baker. "The use of these standard parking terms, if applicable to an airport, will be very helpful to pilots by indicating parking options to fit their particular needs. We understand airports have different situations, but we will certainly do everything we can to encourage them to participate in this industry-led effort."

Standardizing the terms for airport diagrams will become increasingly important for pilots because the FAA plans to expand the number of airports required to provide an airport diagram from about 700 today to nearly 3,000 in the not-too-distant future.

Making the switch to the new terminology could happen quickly should an airport decide to submit changes, possibly as soon as the next FAA diagram publication cycle, because the FAA would not be required to conduct an engineering review before approving the revisions.

"Transparency for all FBO fees and GA ramps at our

nation's public-use airports shouldn't even be an issue but unfortunately it is. Pilots have a right to know how much they are going to pay and where they can park their airplane—whether piston or turbine. And we certainly don't need any more surprises, especially from the large chain FBOs

that continue to grow and expand. I am so proud that the GA community is speaking with one voice on this issue of transparency. We are certainly stronger when we work together and having support from so many pilots and aviation organizations is encouraging,” Baker said. □

United Adds Nonstop Service To Five Great Summer Destinations

First-ever nonstop service from Milwaukee to vacation destinations on the south, east coasts.



MILWAUKEE, WIS. – As more travelers take to the skies this summer, United Airlines is adding new nonstop service from Milwaukee Mitchell International Airport (KMKE) to five popular leisure destinations on the south and east coasts of the U.S.

Beginning May 28, United is flying nonstop from Milwaukee to Charleston, S.C.; Myrtle Beach, S.C.; Pensacola, Fla.; Portland, Maine; and Savannah, Ga. All five destinations have never had nonstop service from Wisconsin

before.

“These new nonstop destinations give our travelers exciting new choices for their upcoming summer vacations, including Wisconsin’s first-ever nonstop flights to the state of Maine and South Carolina,” Airport Director Brian Dranzik said. “The new flights also provide great opportunities for travelers in those locations to fly nonstop to Milwaukee and enjoy Wisconsin’s world-class golf courses, breweries, museums, sports, and outdoor recreation.”

Destination

Charleston, South Carolina
Myrtle Beach, South Carolina
Pensacola, Florida
Portland, Maine
Savannah, Georgia

Days with KMKE nonstop service

Saturday, Sunday
Saturday, Sunday
Saturday, Sunday
Friday, Saturday
Friday, Sunday

The new flights to each of the destinations will generally be offered twice per week for the entire summer, from May 28 through Labor Day weekend.

"Throughout the pandemic, United has been strategic and thoughtful in adding flights to destinations that our customers want to visit," said Ankit Gupta, vice president of domestic network planning and scheduling at United Airlines. "With many customers now beginning to plan summer vacations in places where they can enjoy time outside, we look forward to offering new service to these destinations. United will have the most flights to Portland, Maine of any carrier."

Tickets are available for purchase now at united.com or on the United Airlines mobile app.

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

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

Lake Elmo Airport Construction Update



Lake Elmo Airport (21D), Lake Elmo, Minnesota.
MAC Photo

ST. PAUL, MINN. – Construction at Lake Elmo Airport (21D) continues with earthwork grading and hauling operations throughout the spring and summer. Bituminous roadway patches were placed on the old portion of 30th Street to repair areas that had deteriorated and will continue to be monitored and repaired throughout construction. Phase 3 of the runway replacement project is currently out for bid and is scheduled to begin in the fall of 2021.



Wisconsin Aviation Trades Association

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wataonline.org**

AT OUR AIRPORTS

For more information, a construction update and fact sheet with additional details on the storm water management plan and mechanical evaporators, have been posted on the Lake Elmo Airport Construction website: <https://metroairports.org/general-aviation/airports/lake-elmo/lake-elmo-airport-construction>.

Lake Elmo is one of six (6) reliever airports operated by the Metropolitan Airports Commission (MAC). Minneapolis-St. Paul International Airport is the primary MAC airport in the Twin Cities metropolitan area. The other five reliever

airports are St. Paul Downtown, Flying Cloud, Anoka County-Blaine, Crystal and Airlake (MetroAirports.org).

To read more about the Lake Elmo Airport project and the Metropolitan Airports Commission, go to <https://midwestflyer.com/?s=Lake+Elmo>

Also read the exclusive interview with the Executive Director of the Metropolitan Airports Commission (MAC), Brian Ryks, entitled "Major Commercial Airport Contends With Pandemic." <https://midwestflyer.com/?p=13973> □

Ohio Air & Space Hall of Fame & Museum (OAS) And The Ohio State University Center For Aviation Studies Announce AvSTEAM Education & Historic Preservation Partnership



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 International Airport (CMH).

COLUMBUS, OHIO – Officials from the non-profit Ohio Air & Space Hall of Fame and Museum (OAS) and The Ohio State University Center for Aviation Studies & Air Transportation and Aerospace Campus (Ohio State Aviation) jointly announced recently a Memorandum of Understanding outlining a partnership supporting aviation-based Science, Technology, Engineering, Arts and Math (AvSTEAM) education programming. The recently signed agreement

includes opportunities to jointly develop and deliver curricula and activities, co-produce public events, support the OAS's historic preservation efforts, and promote AvSTEAM education throughout the State of Ohio.

OAS is currently fundraising to transform the original Port Columbus Air Terminal into its home and a civic showpiece. In addition to a \$550,000 grant from the State of Ohio and early gifts from donors, OAS recently received a generous



The Port Columbus Air Terminal and tower as they appeared in 1929.

gift from the Wright Brothers Foundation toward the renovation of the historic 13,000 square foot-plus Art Deco style terminal and tower, built in 1929 and on the National Register of Historic Places.

Public exhibits on the first floor will honor a diverse roster of air and space pioneers from Ohio, along with recognizing the state's companies and organizations significant to the advancement of powered flight and manned space exploration. The OAS second floor will be devoted to youth STEAM education and workforce development programming.

The Wright Brothers, John Glenn, Neil Armstrong, Charles E. McGee, and Jerrie Mock are just a few of the OAS honorees whose inspirational legacies will be integrated into AvSTEAM curricula and activities in collaboration with Ohio State Aviation (<https://aviation.osu.edu/>). □

Carver Aero Finalizes Acquisition of Advanced Air In Council Bluffs

DAVENPORT, IOWA – Carver Aero has announced that it has finalized the acquisition of Advanced Air, Inc. in Council Bluffs, Iowa. Lisa LaMantia, President of Advanced Air, will take on a new role at Carver Aero where she will oversee all flight school operations. Carver Aero currently operates fixed base operations in Muscatine and Davenport, Iowa, and is in the process of expanding into Illinois, Nebraska and Wisconsin.

The 50 employees of Advanced Air have been offered similar positions with Carver Aero. Advanced Air has more than 100 students who are enrolled in the University of Nebraska-Omaha flight program, and Carver Aero plans to expand the program further. In addition, Advanced Air has 18 hangars, aircraft maintenance and avionics services, computer testing, fuel and line services and offers insurance-approved training.

The move to Council Bluffs is the first initiative in Carver Aero's expansion in the Midwest. "We want to continue providing specialty services for those passionate about aviation, and we're also looking at an emerging market of new fliers – people who, for the first time in their lives, are looking at flying on a chartered aircraft, owning a plane or having shared ownership in an aircraft, or even learning to fly after a lifetime of dreaming about it," said Carver Aero CEO Guy Lieser. "We want to bring that nostalgic sense of wonder back to community airports, even make them again the place where families come to enjoy watching planes takeoff and land. We also believe airports should be huge contributors to the local economy, and we are looking forward of becoming a part of the local and regional economic development efforts."

"My dad (Dan Smith) came to this airport in 1992 with the dream of it being an economic hub for the community and the region," said his daughter LaMantia. "With the acquisition by Carver Aero, his legacy and dreams of economic development at this airfield will continue."

To that end, Carver Aero intends to explore further capital investment that includes expanding aircraft storage to accommodate mid- to large-sized turbine aircraft, as well as the construction of a new executive air terminal.

"Carver proposes investing in facilities and infrastructure to enable growth on the airfield," said Andy Biller, Executive Director, Council Bluffs Airport Authority. "The company has already acquired aircraft to add to the Advanced Air's existing fleet. We anticipate significant, sustainable growth in the general aviation industry for southwestern Iowa and Carver Aero is eager to pursue all viable opportunities."

Carver Aero's expansion plans in Council Bluffs also include working closely with Iowa Western Community College's Aviation Technical Program, which is located on the airfield. "In all our businesses, we offer unique apprenticeship and scholarship programs, and we are introducing the same concepts for students who have an interest in engine maintenance, avionics and other technical aviation programs that lead to better paying careers," said Inga Carus, co-founder of CL Enterprises. "As Lisa (LaMantia) will expand her role to oversee all flight school operations in the expanding Carver Aero aviation services network, we plan to create more jobs and are already hiring additional pilots and flight instructors." (www.carveraero.com) □

Des Moines Flying Service Moves Into New Facility

DES MOINES, IOWA – Des Moines Flying Service (DMFS) moved into a new 26,100 square foot facility located on the south side of Des Moines International Airport on March 22, 2021. The airport's new terminal programming plan necessitated the relocation.

The Des Moines Flying Service facility is connected to the new terminal project. The planning for this project started in 2018 with the purpose of opening land on the northeast side of the campus, clearing the way for a new terminal north of the existing site. Des Moines Flying Service began designing the building in October 2018.

The new facility provides increased capacity with 35%

more hangar space for aircraft and operations. Additionally, the move unites Des Moines Flying Service's new HondaJet and Piper Aircraft sales departments, pre-owned aircraft sales, aircraft parts and service, and operations under one roof, creating pathways for more efficiency in operations.

"This project is part of our long-term vision to build a new terminal," said Kevin Foley, Airport Authority Executive Director. "It's exciting to see the plan coming to fruition with Des Moines Flying Service moving to the southside of the airport and into their new facility."

The Des Moines Flying Service facility cost \$8,743,000. □

Gary Jet Center Named Cirrus Aircraft® Authorized Service Center

GARY, IND. – Gary Jet Center (GJC) has entered into an agreement with Cirrus Aircraft to be an Authorized Service Center (ASC). GJC will have trained technicians for both the SR-series piston aircraft and the Vision Jet. In addition to

routine and annual maintenance, GJC will offer composite and paint repair, warranty support, Garmin and Avidyne avionics servicing, and air conditioning service. □

SEH Receives Four Engineering Excellence Awards From ACEC-MN, Including A Grand Award For Duluth Sky Harbor Airport Project

ST. PAUL, MINN. – Four SEH projects received engineering excellence awards during the American Council of Engineering Companies of Minnesota (ACEC-MN) 54th Annual Engineering Excellence Awards Program on February 26.

SEH received the Grand Award for its work at Duluth Sky Harbor Airport in Duluth, and the new Northern Metal Shredder Site in Becker. Honor awards were given to the Owasso Boulevard North Reconstruction in Shoreview, and The Ledge Amphitheater in Waite Park.

ACEC-MN Awards Program recognizes engineering achievements that "exhibit the highest degree of merit and ingenuity." Entries were judged by an objective panel based on "originality and innovation; future value to the engineering profession; social, economic and sustainable design considerations; complexity; and meeting the client's needs."

Duluth Sky Harbor Airport – City of Duluth, Minnesota

Duluth Airport Authority's Sky Harbor Airport Runway Relocation effort protected 27 acres of vulnerable forest,

nurtured local wildlife and ensured the safety of all airport users. The project involved rotating the runway by 5 degrees into Lake Superior, creating 7 acres of new land in the process.

"We're thrilled with the results of a decade-plus of engaging community conversations and stakeholder relations. Combine this with innovative engineering and construction solutions and it's a win for aviation, the community and the natural environment," said Kaci Nowicki, SEH Project Manager.

Over the course of the 13-year project, SEH facilitated a complex environmental review, permitting, mitigation, and a design and construction process for maintaining the airport within and adjacent to protected and regulated natural resources.

The SEH team minimized impacts to airport users through a unique phasing plan, which kept the runway open through nearly all of construction. The project team avoided construction impacts to a 5-mile residential street, a historic lift bridge and Duluth's tourist district by barging 210,000 tons (12,500 truckloads) of material to the site. Barging this



Runway 14/32 at Duluth Sky Harbor Airport (KDYT), Duluth, Minnesota, is 2,600 feet long and opened in June 2020. The project included 23 acres of native plant community restoration, installation of 3,000 plants on the airport property, installation of 250-plus ecotype aquatic plants off the shoreline, and invasive plant species removal in 10 acres of old growth forest.

material also saved 50,000 gallons of fuel.

For additional information, including a video of the project underway, go to <https://www.sehinc.com/portfolio/sky-harbor-airport-runway-relocation>

Headquartered in St. Paul, Minnesota, SEH is a multidisciplinary professional services firm made up of 800 engineers, architects, planners and scientists who connect its

government, commercial and industrial clients to the right solutions. With 31 offices across the Midwest, Colorado and Wyoming, SEH focuses on improving mobility, improving infrastructure, engineering clean water and creating better places. In partnership with their clients, SEH is “Building a Better World for All of Us®”. Learn more about what SEH does at (<http://www.sehinc.com/>). □

SOLUTION TO GPS FROM PAGE 32

with navigation, including such measures as to issue a “stop buzzer” alert to air traffic control.

But nongovernment stakeholders can’t solve the problem alone. In 2017, the FAA assigned the RTCA Tactical Operations Committee “to evaluate and deliver a report on the Operational Impacts of Intentional GPS interference. In March 2018, the Committee delivered the report which included over two dozen detailed recommendations to help

minimize the operational impact of the jamming events,” the letter said.

However, the industry has yet to receive any feedback from the agencies on the disposition of those proposed mitigations. Therefore, NBAA and AOPA are seeking a detailed briefing and update on the status of that industry report, including the work done over the past several years to help provide operational relief. (Dan Namowitz, AOPA). □

EAA Launches “Project 21” Museum Expansion For Year-Round Aviation Education & Training



EAA CEO and Chairman, Jack J. Pelton, welcomed guests and media to the groundbreaking ceremonies for “Project 21,” the first expansion of the EAA Aviation Center in more than two decades.

Dave Weiman Photo

by Dave Weiman

EAA AVIATION CENTER, OSHKOSH, WIS. – At a time least expected due to the coronavirus pandemic, the Experimental Aircraft Association (EAA) launched its “Project 21” initiative, including the first expansion of the EAA Aviation Center in more than two decades.

Project 21 will bring year-round aviation education and training to current and future aviators. Groundbreaking for the two-story, 30,000 square foot facility, connected to the EAA Aviation Museum, took place April 26 with EAA staff, community leaders and the media present.

“While the EAA Aviation Museum highlights more than a century of accomplishments in personal flight, a major part of EAA’s mission to grow participation in aviation is to offer high-level programming for current and future pilots,” said Jack J. Pelton, EAA CEO and Chairman of the Board. “Project 21 brings that vision to reality, and further strengthens Oshkosh as the home for those who pursue their dreams of flight.”

The \$6.2 million project, completely funded via a capital campaign separate from EAA member dues, will feature an innovative Pilot Proficiency Center and a hands-on Youth Education Center. These facilities are adjacent to the museum’s current Eagle Hangar and will allow individuals and



EAA CEO and Chairman, Jack J. Pelton (center right), and members of the EAA executive staff, and others, broke ground for the new Project 21 addition.

Dave Weiman Photo

groups to experience all of EAA’s resources on a year-round basis.

The Pilot Proficiency Center features a state-of-the-art



skill building and training center for general aviation pilots. It combines relevant safety forums with challenging simulator training sessions that address key flight safety issues. The new facility will focus on improving pilots' overall aeronautical decision-making skills.

The Youth Education Center will bring aviation-centric experiences to the EAA Aviation Museum year-round. The 15,000 square-foot facility will provide youth, their parents, and their teachers access to interactive and project-based activities that inspire and nurture the next generation of aviators.

Project 21 is Phase One of EAA's long-range plan for its museum, which transforms the facility into one that encompasses history, training, and education. Construction is expected to be completed by May 2022, with a grand opening scheduled for EAA AirVenture Oshkosh 2022 in July 2022.

Had it not been for the love of sport aviation and people, demonstrated by Paul and Audrey Poberezny who started EAA in the basement of their Milwaukee, Wisconsin home in 1953, and their children Tom and Bonnie and their families, the Experimental Aircraft Association would not exist today. Credit must also go to the current CEO and Board Chairman, former Cessna Aircraft CEO, Jack J. Pelton; EAA's dedicated and capable staff; and continued support of EAA members worldwide, for being able to weather the storm during the pandemic, which included having to cancel EAA AirVenture Oshkosh 2020.

Paul H. Poberezny served as the organization's president from 1953 to 1989 and then as chairman of the board until 2009. Poberezny came from humble beginnings, yet he created one of the world largest aviation organizations and the world's largest annual fly-in event, EAA AirVenture. Paul died on August 22, 2013, after a career that spanned more than 70 years of flight at the controls of more than 500 different types



Artist renderings of the exterior and interior of the new "Project 21" addition.

EAA Photo

of aircraft. Audrey died on November 1, 2020 at age 95.

Paul and Audrey's son, Tom Poberezny of Brookfield, Wisconsin, succeeded his father as EAA President in 1989. He assumed additional duties as EAA Chairman of the Board in February 2009, then retired as chairman of EAA and EAA AirVenture in August 2011 and took

on the role of chairman emeritus.

During his career with EAA, Tom oversaw a number of the organization's milestone events. In the late 1970s he spearheaded EAA's first major capital campaign, which supported construction of the EAA Aviation Center. In 1992, he led the creation of the EAA Young Eagles program, which has become the most successful aviation youth program in history. Realizing the importance of mentoring to the future of aviation, EAA aimed to give one million youth between the ages of 8 and 17 a flight in an airplane by the centennial of powered flight on December 17, 2003. The one millionth Young Eagle was flown in October 2003, celebrating the efforts of 85,000 EAA volunteers to reach the goal. The Young Eagles program has now flown more than 2 million young people.

One of Tom Poberezny's most demanding roles was as chairman of EAA AirVenture for more than 30 years. During that time, EAA AirVenture Oshkosh, as it is now known, has grown to become the largest annual general aviation event in the world, attracting more than 500,000 members and visitors from 70 nations, and 10,000 aircraft.

Upcoming EAA AirVenture Oshkosh dates are July 26 - August 1, 2021; July 25 - 31, 2022; July 24 - 30, 2023.

Paul and Audrey Poberezny's daughter, Bonnie Parnall of Beverly Hills, Florida, supported EAA and AirVenture in many ways administratively, and coauthored the book *"Poberezny – The Story Begins..."* with her husband Chuck Parnall. They also assisted in recreating Paul and Audrey

Poberezny's original office, which is on display in the EAA Museum.

Ghidorzi and Associates of Wausau, Wisconsin, is the designer and general contractor for Project 21. Previously, the firm designed and donated their services to build the AirVenture Main Gate, Brown Arch area, and Warbirds Alley.

Among the many donors of Project 21 are the James Ray Foundation; the estate of the late Dave Lau of Watertown Wis.; and the family of the late Jim Brown of Hartzell Propeller.

Those interested in supporting Project 21 are urged to contact the EAA Aviation Foundation at <https://www.eaa.org/ea/support-eea/> or speak directly with a member of the EAA Aviation Foundation Team at **888-500-5600**.

The Experimental Aircraft Association (EAA) embodies The Spirit of Aviation through the world's most engaged community of aviation enthusiasts. EAA's 240,000 members and 900 local chapters enjoy the fun and camaraderie of sharing their passion for flying, building and restoring recreational aircraft (www.eaa.org). □

EAA Dedications Over The Years

EAA's Pioneer Airport at Oshkosh, Wisconsin, was dedicated on July 24, 1984, and featured a ribbon cutting ceremony by aviation pioneer, Dale Crites of Waukesha, Wis. EAA Founder Paul H. Poberezny and his wife, Audrey, held the poles that stretched the ribbon for the ceremony.

Dale Crites was the first pilot to take-off and land at the airport. He was flying his 1911 Curtiss Pusher biplane, an exact replica of the original Pushers built in quantity during the early years of aviation. The technical development of internal combustion engines paralleled the development of the airplane.

Pioneer Airport is located directly behind the EAA Aviation Center and is 1800 feet long and grass.

Buck Hilbert of Union, Illinois, also landed at the airport that day, flying his 1926 Swallow mail airplane.

The idea to build Pioneer Airport was conceived by Poberezny, who said, "The EAA Aviation Foundation possesses many rare and beautiful aircraft that are completely airworthy. It would be a shame to lock them up in some dark warehouse. Unfortunately, we simply do not have enough room in the EAA Aviation Center and Air Museum to house or display them all. The obvious solution was to add another building to the Aviation Center complex. We enhanced that solution by trying to recreate the atmosphere of aviation in the 1930s."

The first hangar at Pioneer Airport was modeled after hangars of the 1920s and '30s. It was Poberezny's vision to eventually feature antique airport vehicles, old-time gas pumps, and vintage signs and advertisements. Poberezny said, "It will reflect both the spirit and the reality of the early days

in American aviation." As the funds became available, the hangars were built and furnished as Poberezny had envisioned.

EAA members and their families are encouraged to visit Pioneer Airport during EAA AirVenture Oshkosh, July 26-August 1, 2021. □



Midwest Flyer Magazine, September 1984.

Introducing Express Arrival At EAA AirVenture Oshkosh 2021...

The Safest Way Into The AirVenture Grounds

OSHKOSH, WIS. – EAA AirVenture Oshkosh 2021 will soon be here, July 26 – August 1, 2021, and EAA is welcoming its members back to Oshkosh for the weeklong event in a safe and efficient way. This year, EAA is offering an upgrade to greatly improve the member's experience.

Safety has always been a top priority for EAA and Airbus, and this year it is more important than ever. That's why EAA has proudly partnered with Airbus to offer "Express Arrival." To make admission to AirVenture as safe and effortless as possible, when members register in advance and select Express Arrival, EAA will send their wristbands, parking, and Camp Scholler passes to them by mail.

This will reduce crowding at key entry points, support EAA's safety efforts by promoting social distancing, and improve the efficiency of the overall entry process. With Express Arrival, members will be able to bypass the admission windows and head straight to the gates.

Camping in Camp Scholler? Members can get to their campsites without ever leaving their car. With Express Arrival, there's no need to stop at camper registration or any of the admissions windows.*

Express Arrival, in partnership with Airbus, is exclusively available to U.S. members who have valid EAA memberships through at least July 31, 2021. Shipping is FREE of charge, but members must order their passes by June 15, 2021 to take advantage of Express Arrival.

If you are not yet a member, make sure you join now to take advantage of this members-only benefit. Don't forget, EAA members also save on their admission purchases. Join before purchasing your tickets to participate in Express Arrival and receive the best discount on your AirVenture tickets (<https://www.eaa.org>).

Carry-in bags with Express Arrival admissions are still subject to security screening per safety protocol.

Here's What Else Is New For 2021

Each year, AirVenture brings visitors features and attractions that they can't find anywhere else, and 2021 is no exception.

AirVenture will feature expanded warbird flying activities as its annual fly-in convention commemorates the 75th anniversary (plus one) since the end of World War II.

The aircraft and personnel of the U.S. Air Force Special Operations Command (AFSOC) will be among the highlighted programs at EAA AirVenture Oshkosh 2021.

As always, some of the world's top airshow performers

have made commitments to perform.

The Orbis MD-10 jet aircraft will be part of a salute to humanitarian aviation.

This year AirVenture has numerous notable aircraft celebrating significant anniversaries and planning aircraft gatherings. If you own one of the following aircraft and are planning to attend, register today to participate in the activities: AirCam 25th (Plus One) Anniversary, Pitts Special 75th (Plus One) Anniversary, RV-7 20th Anniversary, RV-8 25th (Plus One) Anniversary, Skybolt 50th (Plus One) Anniversary, Sonerai 50th Anniversary, and Kolb 40th (Plus One) Anniversary.

Special attractions will include EAA's Seaplane Base, nestled deep in the trees in a picturesque cove along the Lake Winnebago shore. Fill up your itinerary and sort through thousands of forums, workshops, special events, and much more. The EAA Member Center allows you to talk to EAA staff members, and explore EAA programs and member benefits. The FAA Aviation Safety Center features exhibits from 21 divisions and departments within the FAA and daily forums.

The Poberezny Legacy Tour this year is a must see! Take this unique opportunity to walk through the former grounds of EAA Founder Paul Poberezny and his wife, Audrey.

COVID-19 Updates

While some areas may look different at EAA AirVenture Oshkosh this year, the feeling will be the same as members gather to celebrate flight.


AirVenture Grounds Upgrades

In an effort to improve traffic flow, some of the EAA parking lots have changed.

Free Youth Admission

Free admission for youth ages 18 and under is supported in part by The Boeing Company.

QUESTIONS???

If you have any questions, refer to the EAA AirVenture Oshkosh website at <https://www.eaa.org/airventure>, email Membership@EAA.org or call 800-564-6322. 

EAA AirVenture Oshkosh Air Traffic Procedures NOTAM

Includes Important Changes For Pilots Flying To Oshkosh

Air traffic procedures are required reading for all aviators flying to EAA AirVenture Oshkosh, July 26-August 1, 2021, at Wittman Regional Airport (KOSH) in Oshkosh, Wisconsin. And there are several important Federal Aviation Administration (FAA) approved changes in the event's Notice to Airmen (NOTAM) featuring arrival and departure procedures. These changes are based on pilot feedback and FAA review of arrival procedure recommendations.

The NOTAM, which is in effect from 12:00 noon CDT on Thursday, July 22, until 8:00 p.m. CDT on Sunday, August 1, outlines procedures for the many types of aircraft that fly to Oshkosh for the event, as well as aircraft that land at nearby airports. The NOTAM was designed by the FAA to assist pilots in their EAA AirVenture flight planning.

For one thing, there are new Air Traffic Control (ATC) assignable transition points approaching Oshkosh from the west that will ease holding and congestion. These points are at Endeavor Bridge, Puckaway Lake, and Green Lake. They will be announced on the arrival ATIS when ATC puts them into use at times of highest traffic flows. Additional changes include:

- Different start and ending dates for the NOTAM.
- The temporary Runway 18L/36R at Oshkosh (KOSH) has been reconstructed and is now 60 feet wide.
- Two VORs (FAH and IKK) have been decommissioned.
- Numerous editorial changes.

"With AirVenture on hiatus last year, it is more crucial than ever to thoroughly read and understand the 2021 AirVenture NOTAM to ensure safe operations on arrival and departure for this year's event," said Sean Elliott, EAA's vice president of advocacy and safety. "We also urge all pilots to log appropriate cross-country time prior to their trip to Oshkosh so they have the proficiency and confidence to fly safely in conjunction with a thorough knowledge of this year's NOTAM."

EAA is also hosting a webinar on June 23, 2021 at 7:00 p.m. regarding flying to AirVenture 2021 and changes in this year's NOTAM. Pilots are encouraged to participate in



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Changes for 2021

- ☐ Transitions added to Fisk Arrival
- ☐ Numerous editorial changes
- ☐ FAH VOR decommissioned
- ☐ IKK VOR decommissioned
- ☐ RWY 18L/36R now 60' wide

This notice does not supersede restrictions contained in other FDC NOTAMs.

Special Flight Procedures effective Noon CDT July 22 to 8:00 PM CDT August 1, 2021

that webinar to build their knowledge prior to their flights to Oshkosh.

This year's NOTAM features a photo of the EAA Seaplane Base on the cover.

Pilots can download a digital version of the NOTAM at EAA.org/NOTAM, or order a free printed copy via that website or by calling EAA Membership Services at 800-564-6322 (www.eaa.org).

Aviation History of World War II To Be Highlighted At EAA AirVenture Oshkosh 2021

OSHKOSH, WIS. – The aviation story of World War II will be told through special flying activities during EAA AirVenture Oshkosh 2021, as the event commemorates 75 years (plus 1) since the end of the conflict.

The 68th edition of the Experimental Aircraft Association's fly-in convention will be held July 26-August 1 at Wittman Regional Airport in Oshkosh, Wisconsin.

The afternoon airshows on Friday and Saturday, July 30-31, will feature programs that chronologically recollect aviation history during that time, from U.S. involvement in the Eagle Squadron and American Volunteer Group "Flying Tigers" prior to Pearl Harbor and the Doolittle Raid, to the major battles in the European and Pacific Theaters, including D-Day, and the eventual celebrations of V-E and V-J Days.

Airplanes involved will span the aircraft used by the Army Air Forces and U.S. Navy during that time, as well as a variety of international aircraft from that period. All will be involved in each of the 90-minute shows presented each day.

"EAA AirVenture Oshkosh is already the world's largest annual gathering of warbird aircraft, so it's natural that

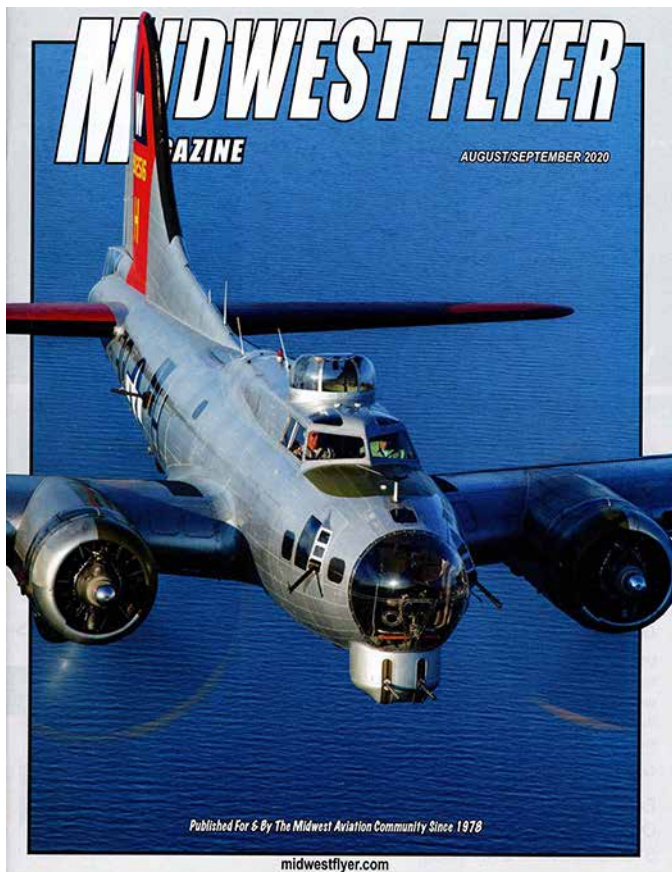
this big commemoration would take place here," said Rick Larsen, EAA's vice president of communities and member programming, who coordinates AirVenture features and attractions. "The EAA Warbirds of America and other select owners of these magnificent aircraft will showcase the evolution of air power during that period and salute the people who built, flew, and maintained these aircraft 75 years ago."

Among the aircraft featured will be the P-40 Tomahawk, Supermarine Spitfire, P-38 Lightning, F6F Hellcat, C-47 Skytrain, Hawker Hurricane, P-51 Mustang, F4U Corsair, B-25 Mitchell, B-17 Flying Fortress, B-29 Superfortress, and others.

When not in the air, these aircraft will be on display in the Warbirds area on the north end of the flightline. Select aircraft will also be featured on the showcase Boeing Plaza.

For more information on EAA and its programs, call 800-JOIN-EAA (800-564-6322) or visit www.EAA.org. Immediate news is available at www.twitter.com/EAA. □

EAA B-17 Grounded For Maintenance



EAA's B-17 "Aluminum Overcast" arrived at Punta Gorda, Florida (KPGD) on its schedule of flying and selling rides. When the aircraft arrived, crew filled up the tanks (1700-gallon capacity) and parked it for the next day's schedule of flying passengers. During the preflight inspection, it was noted that one of the wing fairings was loose and had screws missing. After removing the fairing for further inspection, a cracked wing attach point was found, allowing the wing to flex during flight and pop the screws on the fairing.

The aircraft was grounded and the crack was such that a fairy permit would not be issued by the FAA to fly it to a repair station. So, EAA began the process of blocking up the aircraft and removing its wings and trying to find replacement attach points.

The B-17 was recently serviced on the East Coast and the wings removed and reattached after inspection and service.

The airplane will be down for some time as repairs will take place in Punta Gorda when parts are located.

Therefore, EAA's B-17 national tour is on hiatus for the time being. As additional information becomes available, it will be posted on the B17.org website.

Refunds are being made available for all pre-booked passengers for tour stops and for EAA AirVenture Oshkosh flights. □

EAA's B-17 "Aluminum Overcast" as featured on the cover of the August/September 2020 issue of *Midwest Flyer Magazine*. EAA Photo by Connor Madison

International Aerobatic Club's Inaugural National Aerobatics Day

OSHKOSH, WIS. – The skill, beauty, and excitement of aerobatic flight will be celebrated on Saturday, June 26, during the inaugural National Aerobatics Day, as announced by the International Aerobatics Club (IAC).

“National Aerobatics Day is the perfect day to host an aerobatic camp, a BBQ, a practice session, or to share videos of aerobatic activity online,” said Jim Bourke, IAC President. “With over 40 chapters nationwide and two international chapters, IAC members will be organizing these types of activities and others to engage the public and general aviation pilots in aerobatics.”

IAC has established National Aerobatics Day as the fourth Saturday in June each year. It will highlight the dedicated pilots who fly these precision maneuvers, as well as the ground support teams that make it possible.

Greg Principato, President and CEO of the National Aeronautic Association (NAA), enthusiastically stated: “Aerobatics thrill. They also inspire. And there is no telling to what heights that inspiration will take someone!”

Originally developed as evasive maneuvers during World War I, aerobatics is a proven discipline that builds confidence and improves pilot proficiency. The loops, rolls, hammerheads, and lomcevak are examples of precision flying at its finest, and most fun!

“There are few things in life and nothing else in aviation that are as joyful and liberating as flying aerobatics,” said John Cudahy, President of the International Council of Air Shows (ICAS). “And the idea of devoting one day each year to celebrating aerobatics is brilliant.”

IAC exists to promote the safety and enjoyment of this great sport...what better way to celebrate than to set aside a special day to recognize the aerobatic community, and engage in sharing a passion that too few get to experience?

More information is available at www.iac.org, including IAC chapters throughout the country and IAC contest and events calendars for aerobatic activity on June 26 and year-round!

The International Aerobatic Club is a division of the Experimental Aircraft Association (EAA), and also a division of the National Aeronautic Association. It is responsible for the administration, management, and promotion of the sport of aerobatics in the United States under the applicable regulations of the Federation Aeronautique Internationale in Lausanne, Switzerland. FAI is the world governing body for all sport aviation competitions and record attempts. IAC represents the United States at meetings of the FAI Aerobatics Commission (CIVA), which establishes rules worldwide for aerobatic competitions.

The Experimental Aircraft Association is based in Oshkosh, Wisconsin, and embodies The Spirit of Aviation through the world's most engaged community of aviation enthusiasts. EAA's 240,000 members and 900 local chapters enjoy the fun and camaraderie of sharing their passion for flying, building, and restoring recreational aircraft. For more information on EAA and its programs, call 800-JOIN-EAA (800-564-6322) or go to www.eaa.org. For continual news updates, connect with [www.twitter.com/EAA](https://twitter.com/EAA). □

PEOPLE IN THE NEWS

Michael Goulian Named Chair of AOPA Foundation's Hat In The Ring Society

Fellow pilots, aviation enthusiasts and airshow spectators have been thrilled by Michael Goulian's aerobatic performances for the past 27 years. His strong and long-standing support of general aviation has now soared to a new level, as he has been named chair of the AOPA Foundation's "Hat in the Ring Society."

The society, the longest-running philanthropic giving program within the AOPA Foundation, helps fund important initiatives, including AOPA's You Can Fly program and the Air Safety Institute, both of which are fully supported through tax-deductible contributions to the AOPA Foundation.

The You Can Fly program engages young people in aviation STEM education while they are still in school; supports flight training providers; makes aviation more affordable and accessible through flying clubs; and helps bring "rusty pilots" back into aviation. The Air Safety



In 2006, Michael Goulian was awarded the prestigious "Art Scholl Memorial Award" for airshow showmanship by the International Council of Airshows (ICAS). In addition to performing in airshows, Goulian has been appointed to chair the AOPA Foundation's "Hat in the Ring Society."



Michael Goulian flies the Zivko Edge 540.

Institute is dedicated to improving GA safety through free educational resources and initiatives.

“Aviation has been both a vocation and avocation for me,” said Goulian. “There is no passion on Earth like ours for flying. We’re a tight-knit community and there are so many ways to give back to general aviation. I am happy to be part [of] one of those ways – an important one.”

An AOPA member since 1990, Goulian has been involved in aviation since the mid-1980s, as his parents founded and operated a flight school and maintenance facility in Massachusetts. He is a three-time member of the U.S. Unlimited Aerobatic Team, competed in the Red Bull Air Race World Championships from 2006 to 2019, and was the 1995 National Unlimited Aerobatic Champion. Goulian has written two books on aerobatics and produced numerous aviation safety seminars and videos. In 2014, he was awarded the Aero Club of New England Presidential Award for significant contributions to aviation. In 2017, he and his wife, Karin, founded Mike Goulian Aviation, focused on flight

training in, and management of, Cirrus Aircraft.

In thinking back about his enduring relationship with AOPA, Goulian recalls a memorable day when the organization helped save his family’s flight school business.

“We were being hounded by frivolous noise-related lawsuits that posed a real threat and could have shut us down, despite being without merit,” he said. “As I saw the AOPA airplane taxi up to our ramp, I remember telling my mom, ‘You don’t have to worry...AOPA is here.’ That was the day I saw firsthand what AOPA means to the aviation community.”

Melissa Rudinger, executive director of the AOPA Foundation, said that she is thrilled to have Michael Goulian onboard: “His support for GA and AOPA is matched only by the countless thrills he has given airshow and air race fans. This is a natural partnership.”

Learn more about the AOPA Foundation and the Hat in the Ring Society at <http://aopafoundation.org/>

Eric Blinderman, AOPA



Richland Center Dedicates New Terminal Building, Honors Local Pilot!



Michael Kaufman stands in front of the new terminal building at Richland Airport (93C), Richland Center, Wisconsin. Dave Weiman Photo

RICHLAND CENTER, WIS. – A new terminal building was dedicated April 25, 2021 at Richland Airport (93C), Richland Center, Wisconsin, replacing one of the last vintage terminal buildings in the state. The individual who spearheaded the project is former Richland Center Mayor, Michael J. “Mick” Kaufman, who is a longtime contributing editor to *Midwest Flyer Magazine*, and the program manager of flight operations with “Bonanza/Baron Pilot Training” (BPT).

Kaufman has been a pilot for 54 years and has logged over 21,000 hours. He is a Certified Instrument Flight Instructor (CFII) and conducts pilot clinics and specialized instruction throughout the U.S. in a variety of aircraft, which are equipped with a variety of avionics. Kaufman is based in Richland Center (93C) and Eagle River (KEGV), Wisconsin. He was named the “FAA Safety Team Representative of the Year” for Wisconsin in 2008.

Presenting Kaufman with a plaque recognizing his efforts in building the terminal was the current mayor of Richland Center, Todd Coppernoll.

Funding for the \$800,000 project came from federal, state and local government.

Both local pilots and pilots from Monroe, Waunakee, La Crosse, Boscobel and Oregon, Wisconsin, attended the event.



(L/R) Former Richland Center Mayor, Michael J. “Mick” Kaufman, with current mayor, Todd Coppernoll. Dave Weiman Photo

AOPA Flight Training Experience Survey Closes July 15

FREDERICK, MD – The Aircraft Owners and Pilots Association (AOPA) has announced the return of the 2021 Flight Training Experience Survey in an effort to continue seeking out and recognizing flight training excellence.

Anyone who has taken flight training – initial or recurrent – during the past 12 months can candidly assess the process and rate their individual experience through AOPA's proven template for taking testimonials from consumers of aviation training services.

From new student pilots to experienced aviators shaking off rust or taking on new challenges, participants in the (usually) annual survey can help AOPA identify and acknowledge flight schools and flight instructors that stand out as examples of excellence in their fields.

In addition, data collected by the survey allows the identification and monitoring of emerging trends in the flight training industry that help schools and instructors to adapt.

The 2021 Flight Training Experience Survey will be open until noon Eastern time on July 15. National and regional winners in individual and flight school categories will be named during Redbird Migration on a date in October to be announced. The awards format will consist of either a virtual presentation or a limited in-person event to be streamed online.

To be eligible for an award, an instructor must have received at least five valid entries, and a flight school must have 10 submitted by clients through the Flight Training Experience Survey and must achieve the top overall score from survey results for the region and category. A national winner will be selected from among the six regional flight school and flight instructor award recipients. Regional winners



will receive a Zulu 3 headset, compliments of Lightspeed. Instructors and flight schools receiving five valid reviews will be provided with report cards of their customers' feedback.

Regarding that one-year pause in 2020: AOPA called the timeout in consideration of challenges flight schools and pilots were facing as aviation wrestled with how to deal with the coronavirus pandemic.

In place of the usual competition, AOPA saw an opportunity to build community by seeking stories of how and where aviation inspired its members, how it demonstrated resilience in the face of adversity, and how it highlighted the flight training community's contributions to aviation and to communities at large. AOPA shared some of the stories during its presentation at the 2020 Redbird Migration, in social media, on AOPA's digital platforms, and in AOPA magazines.

The Flight Training Experience Survey and Awards are part of the AOPA You Can Fly program, a comprehensive set of initiatives designed to get people flying and keep them flying. The Flight Training Experience Survey and Awards support that effort by recognizing flight schools and instructors that deliver exceptional training experiences. For more information, read AOPA's Flight Training Experience Research.

You Can Fly program is funded by charitable donations to the AOPA Foundation, a 501(c)(3) organization. To be a part of the solution, visit www.aopafoundation.org/donate. □

In Memoriam - William H. Grady – Longtime Rockford, Illinois Airport Manager

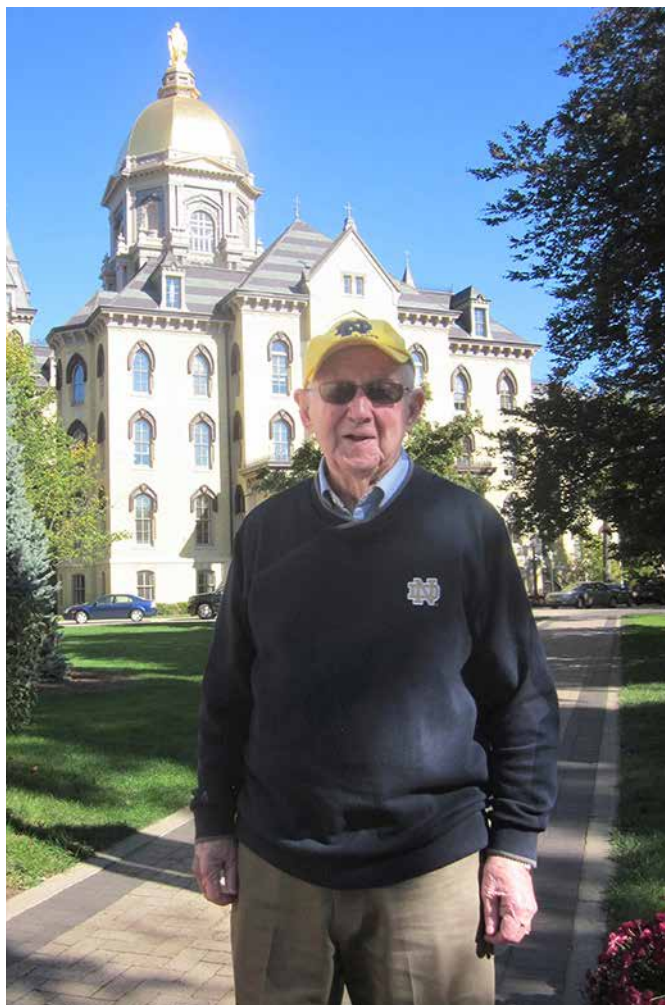
William H. Grady (1923-2021), longtime airport manager at what is now Chicago/Rockford International Airport (KRFD) in Rockford, Illinois, died at his home on March 14, 2021. He was 97.

Grady worked for more than three decades for the Greater Rockford Airport Authority. He was the airport authority's executive director for 10 years before retiring in 1988. During his tenure, Grady oversaw the construction of the airport's modern terminal building.

A loving husband, father, grandfather and great-

grandfather, Grady was also a World War II veteran, a proud alumnus of the University of Notre Dame and a devout Catholic, who was one of the first lay lectors at St. James Catholic Church in Belvidere after Vatican II.

In 1941, Grady went off to Notre Dame, but his college education was interrupted by World War II. He served three years in the U.S. Army Air Forces as a radar counter-measures specialist before returning to Notre Dame and graduating in 1948. He was active in – and a former officer of – the Great Lakes Chapter of the American Association of Airport



William (Bill) H. Grady at his old alma mater, Notre Dame.

Executives (AAAE), a former member of the board of OSF St. Anthony Medical Center in Rockford and served for 15 years on the finance council at St. Rita Catholic Church in Rockford. He was also elected to six terms as city treasurer of Belvidere. In the 1950s and 1960s, Grady was active in the Belvidere Little League organization as a coach, umpire and league official.

"I recall that Bill had quite a sense of humor, always enlivening Illinois Public Airport Association (IPAA) meetings!" said former Southern Illinois University (SIU) Professor, Dr. David NewMyer. "Bill taught Aviation Management programs for SIU-Carbondale off-campus for quite a number of years. Looking at all of his church, community (especially Little League), and airport-related involvement, I am not sure how he managed to travel all over the country teaching for us in North Carolina, Arizona, Colorado, California, and elsewhere, and he seemed to successfully accomplish this long list of "To Do's" in an effortless manner."

Though raised in Belvidere, Grady was born on August 8, 1923, on his grandfather's farm in rural Dane County near Oregon, Wis. He was married for more than 67 years to Patricia Schmitz Grady, who died in 2015. He was also predeceased by a daughter, Mary Elizabeth "Lisa" Grady; his brother, David D. Grady; and his sister Mary Elizabeth Gericke.

Survivors include three sons, William R. (Pamela), Timothy E. (Pamela), and John P.; two daughters, Ann G. (Charles) Bown and Maureen G. (Mark) Himmel; and numerous grandchildren and great-grandchildren. □

A Change In Command At Piper Aircraft

VERO BEACH, FLA. – Simon Caldecott, President and CEO of Piper Aircraft for more than 10 years, has retired. Replacing him effective April 6, 2021 is John Calcagno, who will serve as acting President and CEO.

Calcagno brings a wealth of experience to this role, having most recently served as the company's Chief Financial Officer (CFO) for the past 11 years, responsible for all financial reporting, treasury and company cash management functions, as well as information technology and enterprise resource planning.

Calcagno began his career in the audit practice of PriceWaterhouseCoopers. His career also took him to The Acerra Consortium, Alltel (Supply) Communications



Simon Caldecott

Products, Coca-Cola, and C.R. Bard before he accepted his position at Piper Aircraft.

Calcagno holds a Bachelor of Science in Accountancy, with minor emphasis in Political Science from Southern Illinois University, and is a Certified Public Accountant. Additionally, he is an honorably discharged veteran of the United States Air Force.

"I know that I speak for everyone at Piper Aircraft in thanking Simon for his leadership and tireless dedication to the company," said Calcagno. "I am incredibly excited to assume this new role and for the future of the company. We have an exceptionally talented team at Piper Aircraft that is focused on taking decisive actions to transform the business, continuing to innovate our products in new and diverse ways, and unlocking future growth opportunities. I look forward to leading the company and continuing our great tradition of precision manufacturing and delivering best-in-class airplanes." □

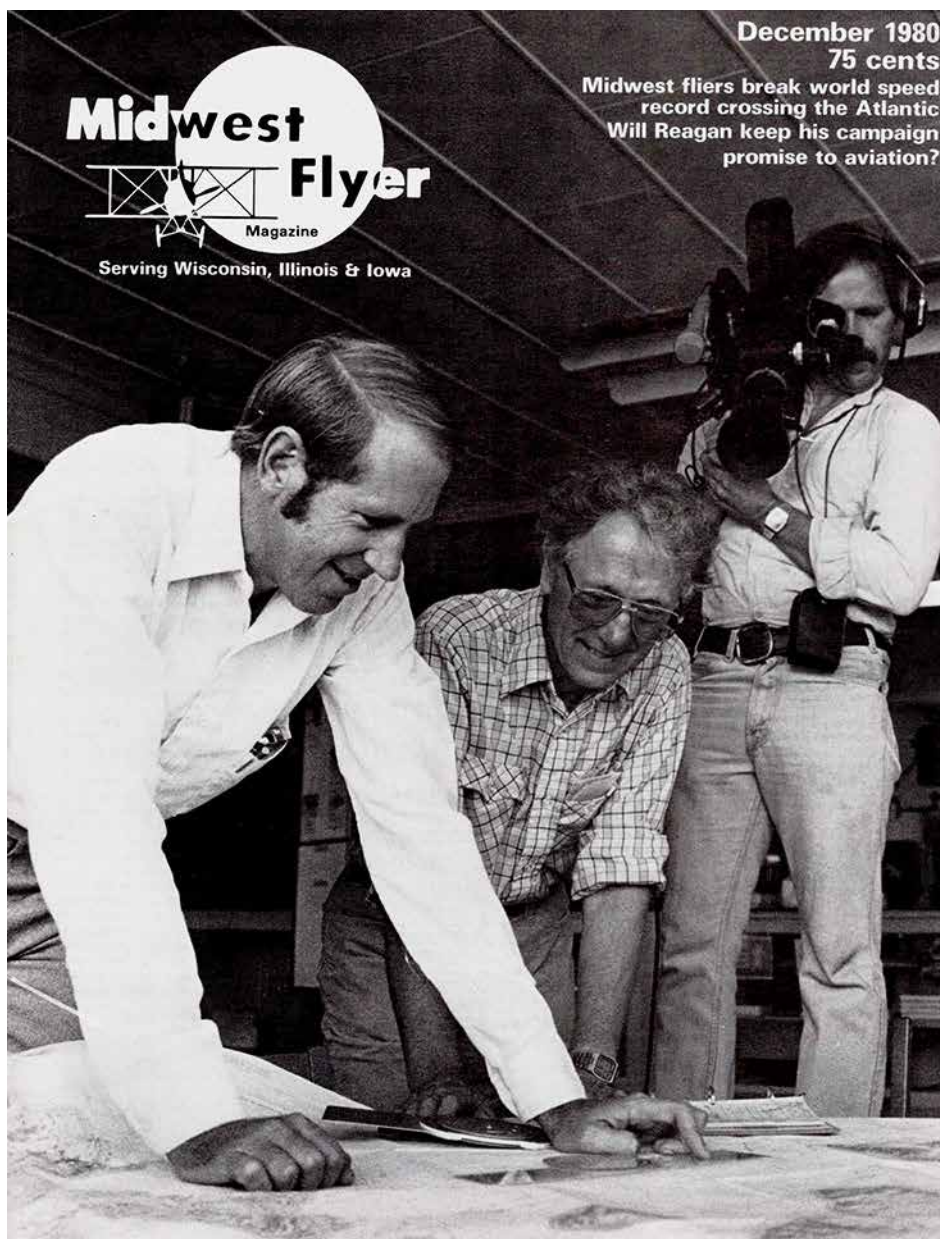
Four Years Above The Earth – A Memoir by Field Morey

(A Review by Dave Weiman)

Whether it is a book entitled *"Poberezny,"* as told by his son-in-law, Chuck Parnall, and daughter, Bonnie Poberezny.... *"Fire And Air" – A Life On The Edge* by Patty Wagstaff with Ann L. Cooper... *"Forever Flying"* by R.A. "Bob" Hoover with Mark Shaw... *"Adventures In Flying"* by Jack Elliott... *"A KNAVE Among Knights In Their SPITFIRES"* by Jerry Billing... *"Under Fire with ARVN Infantry"* by Bob Worthington... *"Baa Baa Black Sheep"* by Pappy Boyington... *"Yeager"* by General Chuck Yeager and Leo Janos, or any other interesting book about pilots and their flight experiences, it is especially fun if we know – or knew or met – the people who are featured or who wrote the book.

I just finished reading *"Four Years Above the Earth,"* a memoir by Field Morey. I've known Field and his family for over 40 years. I have flown with him; got my instrument rating from him; flown to the airport that bears his name – Middleton Municipal – Morey Field in Middleton, Wisconsin (C29) countless times; and written dozens of articles about his businesses, flight training, and aeronautical adventures.

As stated in the book's foreword by Dolores Bandow, during his four years above the earth, throughout 58 years of teaching more than a thousand pilots, Field Morey overcame fear, faced weather, set records, had abundant fun...and as he puts it, *"learned from my students...probably more than I taught."* In his memoir, the two-time "Flight Instructor of the Year" and Wisconsin Aviation Hall of Fame honoree, recounts his coming-of-age in aviation and relates stories of memorable flights, remarkable adventures and relationships with students and family. "Yes, this is a story about flying, but it is much



The cover of the December 1980 issue of *Midwest Flyer Magazine* featured author and flight instructor, Field Morey (left), and fellow pilot, Oliver Smithies (right), as they plotted their course for their transatlantic flight.

Dave Weiman Photo

more... It is a study of how excellence evolves, not always in a linear progression, but with passion and vision," notes Bandow.

Field Morey's aviation career started the day he was born on November 9, 1938, when his dad, Howard Morey, was awarded the contract to manage Madison Airport in Madison, Wisconsin. An administration building, built under the Works Progress Administration (WPA) program, as part of President Franklin D. Roosevelt's "New Deal," became Field's first home.

The airport, Morey Field, was founded in 1942 by Howard Morey. Property taxes and pressure from developers forced Field to sell the airport to the City of Middleton, Wisconsin in 1998. After turning the reins of the airport (renamed Middleton Municipal – Morey Field) and business (Morey Airplane Company) over to his son,

Richard, Field and his wife, Karen, moved to Medford, Oregon in 2003, where he continued to conduct his popular “Morey’s West Coast Adventures” (IFR WEST) instrument flight training trips (ifrwest.com). Field Morey’s daughter, Debbie Maier, also works at Morey Airplane Company.

Field Morey has been a leader in instrument training and has strong convictions as to what makes a good pilot.

Morey recalls in the book how he created the course: “I knew of no other flight schools offering these long cross-country, full-immersion IFR adventure training flights in the 1980s. I was alone in this market. Providing a revolutionary concept of instrument training, I perceived that many other pilots seeking (an) instrument rating could benefit from my IFR adventures, regardless of where they lived.”

Field Morey states in the book, that after he advertised the course in *Midwest Flyer Magazine*, demands for it increased, and he added trips almost every month. “Little did I know that our schedule was about to explode,” said Morey. He credits an article entitled “Instrument Rating on the Fly” written by a former West Coast Adventure student, Frank Farwell, published in *AOPA Pilot* magazine, for providing the course with national exposure.

Morey’s West Coast Adventures expanded to also include trips to Alaska, and additional flight instructors were hired, all personally trained by Morey – including his son, Richard. At the time the book was published, “we stand at 450 West Coast and Alaska trips, training 790 pilots,” said Morey. Of that number, 216 pilots have repeated their adventure at least once, and some pilots have repeated the trip as many as eight times, alternating a trip every other year when their biennial flight review came due.

Morey’s early flights from Wisconsin to the West Coast included a hair-raising adventure flying a Piper Tri-Pacer before he got his instrument rating, which is described in the book in great detail. Morey has learned a lot since that flight and the importance of having an instrument rating. He is also the first kid on the block to use the latest in state-of-the-art equipment.

I remember when Loran C first came out, Field Morey bought a unit and taught me how to use it on a night flight from Cable to Middleton, Wisconsin. He currently operates a late model Cessna Corvalis TTx equipped with a Garmin G2000 and the Cessna Touch Pad Flight Deck, and a Cessna Turbo 182 Skylane with a G1000.

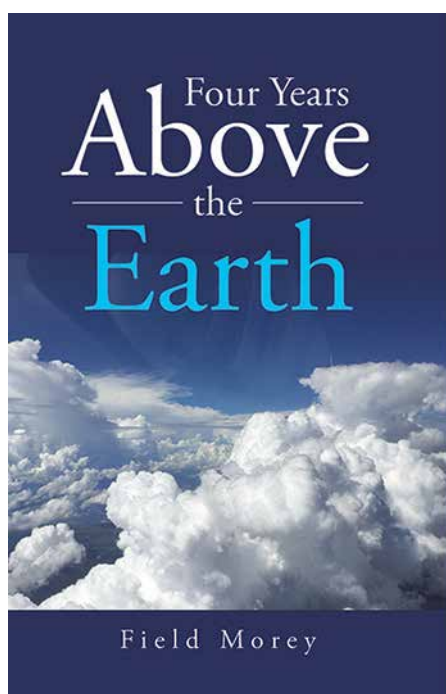
Another adventure told is of a record-setting flight from Wisconsin to Europe in a Cessna Turbo 210 that took place in 1980. Morey goes into great detail describing how he went about preparing and executing that flight, from contacting the Aircraft Owners & Pilots Association (AOPA) for information, to speaking with others who had made the flight. Morey did his homework!

We can all learn something by reading about Field Morey’s experiences.

Field Morey will be doing a special book signing back at his home airport, Middleton Municipal – Morey Field (C29) on Saturday, July 24 and Sunday, July 25, 2021.

If those dates don’t work for you, you can order “*Four Years Above the Earth*” at Amazon.com and BarnesAndNoble.com. (ISBN: 9781662422980 - PAGES: 278 - \$25.95).

For additional information on *Morey’s West Coast Adventures*, visit ifrwest.com and call or email Field Morey at 541-772-4582 (fmorey@charter.net). □



Book Signing @ Morey Field (C29)

During his four years above the earth, throughout 58 years of teaching more than a thousand pilots, Field Morey overcame fear, faced weather, set records, had abundant fun...and as he puts it, “learned from my students... probably more than I taught.” In his memoir, the two-time “Flight Instructor of the Year,” and Wisconsin Aviation Hall of Fame honoree, Field Morey, recounts his coming-of-age in aviation and relates stories of memorable flights, remarkable adventures and relationships with students and family. Yes, this is a story about flying, but it is much more...It is a study of how excellence evolves, not always in a linear progression, but with passion and vision. “*Four Years Above The Earth*” by Field Morey (ISBN: 9781662422980 – PAGES: 278 - \$25.95). Available at – Amazon.com & BarnesAndNoble.com, or at the book signing, July 24 – 25, 2021 at Middleton Municipal Airport – Morey Field, Middleton, Wisconsin (C29). Also visit ifrwest.com □

JUST RELEASED!!!!

When his student and close friend, Oliver Smithies, accepted his Nobel Prize in Medicine and Physiology, he singled Field Morey out as someone who was important in his life, saying, *"Field Morey, a distinguished flight instructor, taught me to fly...but he taught me something more important than flying...he taught me that it is possible to overcome fear with knowledge."*

During his four years above the earth, throughout 58 years of teaching more than a thousand pilots, Field Morey overcame fear, faced weather, set records, had abundant fun...and as he puts it, *"learned from my students... probably more than I taught."*

Since he grew up in an aviation family at an airport in Wisconsin that became his namesake (i.e. Morey Field), it was expected that Field would fly. A contemporary of Charles Lindbergh, his father, Howard, taught Field about airplanes, about operating an airport, and about character and responsibility, while Lindbergh inspired him to imagine more and aim higher. The book serves as a tribute to his father, an exemplary aviation pioneer, by thanking him for guiding Field in the right direction, a direction which has become a family tradition.

In his memoir, the two-time "Flight Instructor of the Year," and Wisconsin Aviation Hall of Fame honoree, Field Morey recounts his coming-of-age in aviation and relates stories of memorable flights, remarkable adventures and relationships with students and family.

Yes, this is a story about flying, but it is much more...It is a study of how excellence evolves, not always in a linear progression, but with passion and vision.

Four Years Above the Earth

A Memoir

Field Morey

Available at - Amazon.com & BarnesAndNoble.com

ISBN: 9781662422980 - PAGES: 278

**Learn more about
Field's**

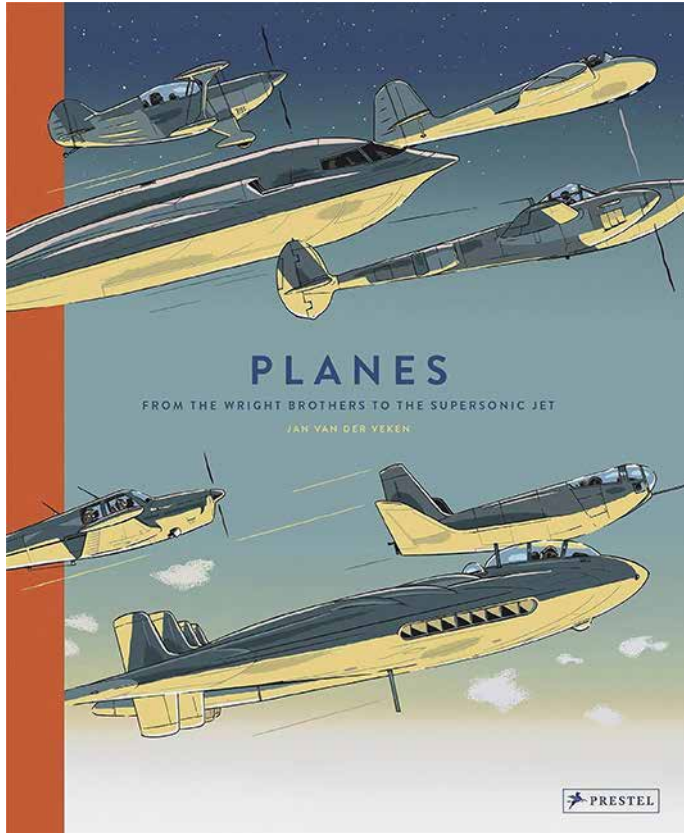
IFR Adventure Flights

at ifrwest.com



*Author (center) with Daughter Debbie, and Son Rich
Photo courtesy Midwest Flyer Magazine by Dave Weiman*

Planes: From the Wright Brothers to the Supersonic Jet



Budding aviation fans will pore over every page of “Planes: From the Wright Brothers to the Supersonic Jet” by Jan van der Veken (3/9/21; ISBN 978-3791374413; Hardcover \$19.95; Ages 8-12; 104 pages), a fascinating encyclopedic guide to the history and mechanics of flight, from the Wright Brothers to the Concorde.

How does a plane move through the air? What is turbulence? What do those lines on the runways mean? All these questions and many more are answered in this gorgeously illustrated history of planes and flight.

The book opens with a basic introduction to plane anatomy and shows how aircraft have developed over the ages. Readers will then learn about aerodynamics, the mechanics of wing shape and lift, and how ailerons, propellers, and flaps work. There is even a section on communications systems, runway design, and GPS.

Profiles of famous historic airplanes illustrate basic principles throughout the book. Readers will find out about record-breaking flights across continents and oceans; how “flying wings” evolved into the B-2 bomber; and where the world’s most treacherous runways are located. A section on experimental aircraft looks at zeppelins, flying cars, and the fate of the Concorde jet.

Jan van der Veken’s lushly colored, retro drawings detail everything from plane design to the physics of flight and provide the perfect companion to his engaging text. Budding aviators will linger over every detail of this information-packed book that serves both to demystify and celebrate the miracle of flight. □

HIGH TECH

Ingenuity Mars Helicopter Completes Its First Flight

Members of NASA’s Ingenuity helicopter team in the Space Flight Operations Facility at NASA’s Jet Propulsion Laboratory (JPL) were excited when data showed that the Ingenuity Mars Helicopter completed its first flight on April 19, 2021.

The Ingenuity Mars Helicopter was built by JPL, which also manages this technology demonstration project for NASA headquarters. It is supported by NASA’s Science Mission Directorate, Aeronautics Research Mission Directorate, and Space Technology Mission Directorate. NASA’s Ames Research Center and Langley Research Center provided significant flight performance analysis and technical assistance during Ingenuity’s development.



Ingenuity hovers over the surface of Mars.
NASA Photo



Ingenuity as seen in the distance on the surface of Mars.
NASA Photo



NASA's Ingenuity Mars Helicopter team was excited when the aircraft landed successfully.
NASA Photo

A key objective for Perseverance's mission on Mars is astrobiology, including the search for signs of ancient microbial life. The rover will characterize the planet's geology and past climate, pave the way for human exploration of the Red Planet, and be the first mission to collect and cache Martian rock and regolith (broken rock and dust).

Subsequent NASA missions, in cooperation with ESA (European Space Agency), would send spacecraft to Mars to collect these sealed samples from the surface and return them to Earth for in-depth analysis.

The Mars 2020 Perseverance mission is part of NASA's Moon to Mars exploration approach, which includes Artemis missions to the Moon that will help prepare for human exploration of the Red Planet.

JPL, which is managed for NASA by Caltech in Pasadena, California, built and manages operations of the Perseverance rover.

For more information on Perseverance, go to mars.nasa.gov/mars2020/ and nasa.gov/perseverance (NASA/JPL-Caltech).

AIAA Announces Design/Build/Fly (DBF) Winners Competition Champions 25 Years of Aircraft Innovation and Design

RESTON, VA. – The American Institute of Aeronautics and Astronautics (AIAA) has announced the winners of the 25th annual AIAA/Textron Aviation/Raytheon Missiles & Defense Design/ Build/Fly (DBF) Competition. The 2020–2021 Design/Build/Fly winners, with links to their video submission, are:

- First Place (\$3,000): Dayananda Sagar College of Engineering, Bengaluru, India.
- Second Place (\$2,000): University of Central Florida, Orlando, Fla.
- Third Place (\$1,500): Embry-Riddle Aeronautical University, Daytona Beach, Fla.
- Best Report Score (\$100): University of Michigan, Ann Arbor, Mich.

The contest provides a real-world aircraft design experience for undergraduate and graduate engineering students by giving them the opportunity to validate their analytic studies. The competition is divided into two sections—a proposal and a formal design report. This year teams were also encouraged to submit a video presentation showcasing their aircraft in flight.

This university program invites teams of students to design, fabricate, and demonstrate the flight capabilities of

an unmanned, electric-powered, radio-controlled aircraft that can best meet the specified mission profile. The goal is a balanced design that demonstrates flight handling qualities, and practical and affordable manufacturing requirements, while providing a high vehicle performance.

“Design/Build/Fly is a highlight of the year,” said Dan Dumbacher, AIAA executive director. “Aerospace trains us to adapt to the unexpected. It’s a good lesson for students as they enter this vibrant and meaningful field. Congratulations to the winning teams!”

This year’s teams were treated to a message from Pittsburgh Steelers quarterback and DBF alumnus, Joshua Dobbs. Dobbs is a 2017 graduate of Tickle College of Engineering at the University of Tennessee, Knoxville, where he majored in aerospace engineering with a minor in business administration.

During the awards ceremony, Dobbs shared, “Engineering can be hard, especially in this discipline. We are working to change human transportation on Earth and in space. Seems pretty simple, right? In those moments when the problems seem insolvable and overwhelming, remember why you became passionate about the field. Along any journey to reach your goals you will face adversity. Your attitude will define

how you overcome it.”

This year’s DBF objective was to design, build, and test an unmanned aerial vehicle (UAV) with a towed sensor. Missions included delivery of the UAV, transportation of sensors in shipping containers, and surveillance by deploying, operating, and recovering a towed sensor. More details about the mission requirements can be found on the DBF website at aiaa.org/dbf. Follow DBF on Facebook @Aiaadbdf.

“We are impressed with the resilience these teams have demonstrated by continuing their participation during the pandemic. I have enjoyed the video submissions by the teams flying their aircraft – we are inspired by their enthusiasm, talent, and creativity, which are hallmark to this event,” Dumbacher concluded.

The DBF organizing committee accepted 115 proposals for the 2020–2021 competition. Of those, 92 teams submitted design reports and 68 teams submitted a video presentation. The formal reports are scored for design, as well as manufacturing and testing plans.

Russ Althof, director of the DBF organizing committee, said, “We owe our thanks for the success of the DBF competition to the efforts of many volunteers from Textron Aviation, Raytheon Missiles & Defense, and the AIAA sponsoring technical committees: Applied Aerodynamics, Aircraft Design, Flight Test, and Design Engineering. These volunteers collectively set the rules for the contest, publicize the event, gather entries, judge the written reports, and this year, judge the videos instead of the fly-off.” □

Collins Aerospace Breaks Ground On \$18M Ram Air Turbine Wind Tunnel Test Facility In Rockford, Illinois

With fully automated, state-of-the-art technology and greater quality controls, a new wind tunnel will streamline the testing process, while improving employee safety.

ROCKFORD, ILL. – Collins Aerospace broke ground May 12, 2021 on a new wind tunnel that will help streamline the testing process for its Ram Air Turbine product line at the company’s Electric Power Systems center of excellence in Rockford, Illinois. Collins is a Raytheon Technologies (NYSE: RTX) business.

Designed to serve as the small but mighty heart of an aircraft’s emergency power system, Collins’ Ram Air Turbine deploys from the wing or fuselage when an aircraft loses power in flight. By rotating its small turbine, the system extracts sufficient power from the airstream to allow the pilot to control and land the aircraft safely.

With fully automated, state-of-the-art technology and greater quality controls, the new wind tunnel will streamline the Ram Air Turbine testing process, while also improving employee safety.

To simulate the environment of an in-flight power loss, the tunnel will use a powerful fan to create a windspeed of up to 170 knots. The new wind tunnel will have the ability to test Ram Air Turbines of all sizes for business, regional, single aisle, widebody and military platforms.

“By helping pilots land planes safely after losing power in flight, Collins’ Ram Air Turbines have saved more than 2,000 lives to date,” said Stan Kottke, vice president, Electric Power Systems for Collins Aerospace. “It’s a critical product and one that we’ll now be able to produce faster for our customers and more safely for our employees once our new wind tunnel becomes operational around summer 2022. At the same time, this \$18 million investment represents our continued commitment to investing in our Rockford facility and maintaining its world-class capabilities for the long term.”



The groundbreaking ceremonies for the Collins Aerospace Ram Air Turbine Wind Tunnel Test Facility.
Collins Aerospace Photo

Collins Aerospace, a unit of Raytheon Technologies Corp. (NYSE: RTX), is a leader in technologically advanced and intelligent solutions for the global aerospace and defense industry. For more information, visit CollinsAerospace.com.

Raytheon Technologies Corporation is an aerospace and defense company that provides advanced systems and services for commercial, military and government customers worldwide. With four industry-leading businesses – Collins Aerospace, Pratt & Whitney, Raytheon Intelligence & Space and Raytheon Missiles & Defense – the company delivers solutions that push the boundaries in avionics, cybersecurity, directed energy, electric propulsion, hypersonics, and quantum physics. The company, formed in 2020 through the combination of Raytheon Company and the United Technologies Corporation aerospace businesses, is headquartered in Waltham, Massachusetts. □

New Features In ForeFlight

ForeFlight's advanced electronic flight bag technology provides you with an affordable, all-in-one solution that makes flying easier, safer, and more enjoyable. New features include:

DYNAMIC WINDS & TEMPERATURES:

View forecast wind speed, direction, and temperatures at multiple altitudes and times using these stunning weather layers, combining heat maps and particle animations.

AIRPORT 3D RUNWAY LIGHTING: Prepare for a night approach or establish a mental picture with toggleable Day/Night modes and realistic Runway Lights in Airport 3D.

DRAW & DROP FILES: Import multiple files at once with this new workflow (including "stacking" gesture for multiple files). This feature also works within any document drive to add documents or entire folders to a custom binder.

FOREFLIGHT LABS: TAXI ROUTING:

Access cutting-edge features and easily provide feedback to help us optimize and refine them with ForeFlight Labs! Our inaugural feature is Taxi Routing, where users can chart a course to or from the runway with an interactive and contextually aware taxi route bubble editor.

BACKGROUND DOWNLOADS: ForeFlight will now continue downloading selected charts and data, even when backgrounded, allowing users to use other apps on their iPad or iPhone without interrupting the download.

ForeFlight 13.3 also includes a new "Weather Layer Legend" just above the time slider, with the ability to link multiple Jeppesen accounts in ForeFlight and combine linked accounts with chart coverages purchased through ForeFlight, and expanded VFR chart add-ons for European customers.

ABOUT FOREFLIGHT: ForeFlight formed in 2007 with one guiding mission: **Create software that makes flight planning easier.** Since then, ForeFlight has not only revolutionized the pilot's flight bag, but also laid the groundwork to make mobile flight planning apps essential to



ForeFlight synthetic vision with Jeppesen plate on map.

flight operations. Continued strong growth has positioned ForeFlight as a leader in the aviation industry. ForeFlight serves the needs of pilots and flight departments all over the world, and across all segments of aviation including personal, business, military, commercial, and education.

ForeFlight Mobile, the company's flagship product, is used by individual pilots and professional flight crews to gather weather and destination information efficiently. It has become the go-to app to route, plan and file, access and manage electronic charts and maps, organize flight publications, and used as a reference for enroute navigation aid.

The passion of ForeFlight's pilot co-founders. – Tyson Weihs and Jason Miller – drives ForeFlight's culture to build elegant, high-performing products, and the company practices its core values on a daily basis (<https://foreflight.com/>).

ForeFlight, now a Boeing company, has offices in Houston and Austin, Texas; Portland, Maine; and Odense Denmark. □

Aviation Solutions Company Focused On Solving Legacy Industry Challenges

SAN FRANCISCO (May 18, 2021) – Portside, Inc., a provider of cloud-based software solutions for the global business aviation industry, has announced an investment of \$17 million led by Tiger Global Management, with participation from existing investors including I2BF Global Ventures and SOMA Capital.

Portside's cloud-based data platform enables business aviation companies and flight departments to quickly deploy one system that seamlessly combines critical flight

operations, crew and staff scheduling, expense management, maintenance, financial and budgeting data while enabling operators to streamline their workflows, optimize operations, and make informed financial, operational and customer support decisions on the fly. Prior to the Portside solution, this information was cumbersome and inefficient for business aviation operators to find and often required multiple programs to source.

"This infusion of new capital will be used to accelerate

investment in product innovation, support further engagement with large enterprise customers, and grow our global engineering and customer success teams,” said Alek Vernitsky, co-founder and CEO of Portside. “We appreciate the strong support we have received from both our existing and new investors in this round. They have collectively demonstrated their confidence in our strategy and intentional approach to cloud-based digital transformation of the global business aviation industry,” said Alek Vernitsky, co-founder and CEO of Portside.

Despite the impact of the pandemic in 2020, Portside experienced a revenue increase of nearly 300 percent and the addition of more than 50 aircraft operators to its growing customer base.

The Portside platform supports private, managed, fractional and government fleet operators, and integrates with existing flight operations and accounting systems.

Founded in 2018, Portside, globally headquartered in San

Francisco, is a growing aviation software solutions company, powering aviation companies in over 25 countries. The firm’s core mission is to help aviators and their support teams communicate complex and critical information faster and more accurately by simplifying and accelerating the digital data operations. Portside provides an integrated software solution for aviation management companies, aircraft owners, corporate flight departments and fractional operators globally. It is the only purpose-built cloud software platform designed to seamlessly connect all participants in the global business aviation industry (www.portside.com).

Tiger Global Management is a leading global technology investment firm with over \$60 billion under management. The firm focuses on private and public companies in the internet, software, and financial technology sectors. Since 2001, Tiger Global has invested in hundreds of companies across more than 30 countries. □

Neste & Finnair Present Sustainable Aviation Fuel Based Solution To Reduce Business Travel Emissions

Neste and Finnair are joining forces to reduce carbon emissions related to Neste employees’ business travel by using Sustainable Aviation Fuel (SAF). Neste has recently made 300 tons of Neste MY Sustainable Aviation Fuel™ available at Helsinki Airport in Finland for Finnair’s use. By replacing a part of the fossil jet fuel with SAF on its flights departing from Helsinki Airport, Finnair will reduce its greenhouse gas emissions by 900 tons of CO₂ equivalent. This represents a significant share of the emissions accumulated from Neste employees’ global air travel in 2020.

The collaboration contributes to the climate commitments Neste made in 2020, including a commitment to reduce and compensate emissions from its employees’ business travel through the use of the company’s own sustainable aviation fuel. Finnair is a strategic partner for Neste, and also one of the most frequently used airlines for business travel by Neste’s employees. Finnair’s target is to become carbon neutral by 2045, and to halve its net CO₂ emissions by the end of 2025.

The collaboration between Neste and Finnair also serves as a showcase for other businesses, since it offers a clear solution on how to reduce business air travel emissions. Neste’s aim is to make this solution available for businesses, public institutions and other organizations with ambitious climate commitments.

“We are excited about collaborating with Finnair to pilot the innovative solution we have developed for reducing emissions from business air travel. This solution, built upon Neste MY Sustainable Aviation Fuel and partnerships with airlines, will provide corporate customers and other organizations yet another tool for tackling climate change and meeting their climate commitments,” says Sami Jauhiainen,

Vice President, Business Development from Neste’s Renewable Aviation business unit. “We are extending the invitation to other companies and collaborating airlines to partner with Neste, making business travel more sustainable and future-fit. It is now a great time to prepare for when business travel takes off again.”

“Sustainable aviation fuels are a key element in our ambitious CO₂ emissions reduction targets,” says Anne Larilahti, Vice President, Sustainability at Finnair. “Solving the climate challenge of aviation requires contribution from all stakeholders. Companies can reduce the environmental footprint of their business travel by choosing direct routes, flying with airlines that have a fuel-efficient fleet, and by choosing to fly with SAF. We are excited to partner with Neste in this.”

As part of the pilot project, Neste has arranged to supply altogether 500 metric tons of SAF in Europe and North America to the airlines most frequently used by Neste employees on their business travels. The volume already provided for Finnair’s use is included in the total.

Replacing fossil jet fuel with such an amount of Neste MY Sustainable Aviation Fuel has been calculated to cut greenhouse gas emissions by up to 1,500 tons CO₂ equivalent when all the emissions over the life cycle of the fuels are taken into account and compared*. The emission savings correspond to the total estimated emissions that resulted from Neste employees’ business air traveling globally in 2020.

Neste will continue to reduce the emissions from its employees’ corporate traveling each year with its SAF-based solution. The volumes of SAF needed to cut the

CONTINUED ON PAGE 64

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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

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.

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

JUNE 2021

- 3* **IRONWOOD (IWD), MICH.** - Hamburger Social 5-7pm at Gogebic-Iron County Airport.
- 5* **AMERY (KAHH), WIS.** - Pancake Breakfast 7-11am. 715-554-3858.
- 5* **ALEXANDRIA (KAXN), MINN.** - Fly-In & Open House Smokin Brews & Ques Pulled Pork Sandwiches. Display/Activities: Viking Speedway Race Cars, Axe Throwing through US Axe & More 10am-2pm. 320-762-2111
- 5* **OXFORD (IA24), IOWA** - Antique Airplane Fly-in Lunch at Green Castle Airport. Rain date 12th. 319-645-2101.
- 6 **NOBLE (KOLY), ILL.** - Fly-In Breakfast 8-11am Airplane Shaped Pancakes, Biscuits, Sausage, Gravy, Doughnuts, Coffee, Juice. 618-393-2967.
- 6 **TEKAMAH (KTQE), NEB** - Breakfast 7-11am. 402 870 0058.
- 6* **REEDSBURG (C35), WIS.** - 69th Pancake Breakfast. (312) 909-4410.
- 6* **CHEROKEE (KCKP), IOWA** - Breakfast 8-11am. 712-299-5360.
- 12 **FRIENDSHIP (63C), WIS.** - Young Eagles Rally "Free Airplane Rides for Kids" & Bike Rodeo 9am - 1pm. Registration Link: <https://youngeaglesday.org?1479>. For additional information contact Mathieu Labs at 630-222-0682. eachapter931@gmail.com
- 12 **BENTON (H96), ILL.** - Food Truck Fly-In & Cruise-In 2-7pm.
- 12* **SUPERIOR (SUW), WIS.** - Pancake Breakfast 7:30am-Noon with Lunch and Dinner following until 9pm at the Richard Bong Airport. A number of activities during the day. 218-461-1752 eea272.com
- 12* **OTTAWA (KOWI), KANS.** - Breakfast 8-10am. 785-229-2710.
- 12-13 **LA CROSSE, WIS.** - Deke Slayton Airfest. airfest.com
- 13* **RUSH CITY (KROS), MINN.** - Pancake, Sausage Breakfast 8am-Noon. Afternoon food vendors, Noon to 2:00ish.
- 13* **FERGUS FALLS (KFFM), MINN.** - Pork Chops Lunch and for Kids under 6 Hot Dog Meal 10am-2pm. 218-205-4345.
- 16 **WATERTOWN (WRYV), WIS.** - Hamburger Social Fly-In 5pm.
- 16* **COUNCIL BLUFFS (CBF), IOWA** - Great Plains Wing CAF Cookout starting at 5:30pm. 402-981-4633.
- 19 **GRAND RAPIDS (MI93), MICH.** - Burger Fry Fly-In 11am-3pm at the new Galloway Landings. Additional Information: Pattern 1,800 MSL, tower on south side 1,600 MSL, **Approach/Departure runway heading 1 mile with no turns. No flying over horse ranch buildings or wooden fence areas on West end, fly straight out.** Frequency 123.45 Mhz for air and ground communications. For more information contact Clark Galloway at cgalloway9@gmail.com or 616-309-8182.
- 19 **IONIA (Y70), MICH.** - SMAT Community Fun Day with Pancake Breakfast and Food All Day, Kids Carnival Games, Inflatables beginning at 7am. Evening Concert from 7-8:30pm. 616-527-4160.
- 19* **KEOSAUQUA (6K9), IOWA** - Pancakes & Sausage Breakfast 7-10am.
- 19* **CLARINDA (KICL), IOWA** - Breakfast 7am-Noon and Airshow.
- 20* **GENESEO (3G8), ILL.** - Father's Day Pancake Breakfast at the 2600'

turf runway. 218-464-7340.

- 26-27 **DULUTH, MINN.** - Duluth Air and Aviation Expo. duluthairshow.com
- 27* **PENDER (OC4) NEBR.** - Breakfast 8am-Noon. 816 210 2081.
- 27* **FAIRMONT (KFRM), MINN.** - Pancakes, Eggs and Sausage Breakfast 7-11:30am. 507-236-3604.
- 27* **REDWOOD FALLS (KRWF), MINN.** - Rotary Breakfast 8am-Noon. 507-430-8872.
- 29-6/5 **BATTLE CREEK, MICH.** - Battle Creek Field of Flight Air Show and Balloon Festival. bcballoons.com
- JULY 2021**
- 1-5 **BATTLE CREEK, MICH.** - Battle Creek Field of Flight Air Show and Balloon Festival. bcballoons.com
- 3-4 **KANSAS CITY, MO.** - KC Air Show. kcairshow.org
- 10 **BENTON (H96), ILL.** - Food Truck Fly-In & Cruise-In 2-7pm.
- 10 **TERRE HAUTE (313), IND.** - Sky King Airport P-Factor Days Pancake Breakfast 8-10:30am. Rain or shine. 812-466-2229.
- 10* **OTTAWA (KOWI), KANS.** - Breakfast 8-10am. 785-229-2710.
- 10-11 **DAYTON, OHIO** - Vectren Dayton Air Show. daytonairshow.com
- 10-11 **MILLE LACS LAKE (MY72), MINN.** - Isle Airport on the SE shore of beautiful Mille Lacs Lake, Saturday evening bonfire and campout. Sunday morning flight breakfast. 7 a.m. - 12 p.m. Everyone is welcome. PIC's free. CTAF 122.9 Contact: Dave Retka (651) 263-8614 or daveretka@gmail.com
- 11 **EAST TAWAS (6D9), MICH.** - Pancakes, sausage, eggs, coffee, juice breakfast 7am-Noon at Iosco County Airport. For more information contact Fred Hupert at fhupert@aol.com or 989-820-0296.
- 16 **ST. PAUL, MINN.** - 133d Airlift Wing Commemorative Hangar Dance. falconheights.org
- 17-18 **ST. PAUL, MINN.** - 133d Airlift Wing Centennial Airshow. falconheights.org
- 21 **WATERTOWN (WRYV), WIS.** - Hamburger Social Fly-In 5pm.
- 23-25 **JANESVILLE, WIS.** - Janesville Warbird Weekend 2021 at Southern Wisconsin Regional Airport. jvl20.splashthat.com
- 24-25* **MIDDLETON (29), WIS.** - Book signing of Field Morey "Four Years Above the Earth." Read more about the book starting on page 51 in the June/July 2021 issue.
- 26-8/1 **OSHKOSH, WIS.** - EAA AirVenture Oshkosh 2021 (68th Experimental Aircraft Association Fly-In Convention) coincides with EAA's Spirit of Aviation Week. eaa.org
- AUGUST 2021**
- 1 **OSHKOSH, WIS.** - EAA AirVenture Oshkosh 2021 (68th Experimental Aircraft Association Fly-In Convention) coincides with EAA's Spirit of Aviation Week. eaa.org
- 1* **CRESCO, IOWA** - Omelets & Pancake Breakfast at Ellen Church Field 7:30am-Noon. 563-547-3434.
- 7-8 **YPSILANTI, MICH.** - Thunder Over Michigan Air Show at the Willow Run Airport. yankeearmuseum.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
- 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 (KOV), 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.
- 12-15* **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.

Aviation STEM Day

KICK OFF event for introducing youth to the many opportunities in Aviation both
for Careers and Hobbies available through education at Omaha, Nebraska. We
seek lots of air operations as an excitement builder for attending youth and the 30+
affiliates with information and engaging hands on activities.

Pancake Breakfast available 7am

Free Pilot Seminars with Wings Credit:

FAA Loss of Control 9 am

NOAA Weather Forecasting & Briefs 10 am

ATC Communications, changing nature of Drone Traffic and Management 11 am

65th Annual Wisconsin Aviation Conference To Be Held In Elkhart Lake

ELKHART LAKE, WIS. – The 65th Annual Wisconsin Aviation Conference
will be held October 17-19, 2021 at The Osthoff Resort in Elkhart Lake. Due
to COVID-19, last year's conference was cancelled. The Wisconsin Airport
Management Association (WAMA) is working on opportunities for participants
to speak directly with FAA and Wisconsin Bureau of Aeronautics officials and
receive the latest updates. There will be a wide variety of exhibitors ready to answer
questions as well. And there will be plenty of opportunity to meet with other
airport officials and business leaders from around the state to exchange ideas and
concerns in a social and formal setting. It is the only conference in Wisconsin
to encompass all facets of aviation including airports, aviation businesses, pilots,
consultants, and state and federal agencies. For additional information, refer to the
WAMA website: <https://wiama.org/>

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PIPER ARCHER III ENGINE PLUGS (Quantity 3): List New \$160.00. Now \$50.00 for the set (608-695-6609).

MADISON, WISCONSIN (KMSN) – Co-Ownership 1977 Piper Lance PA32R-300, individual hangar from Dane County. 300 HP, Retractable, 3 bladed prop, SMOH 565, TT 5748, speed mods provide 160 nmph TAS. Contact John White 574-527-3047 or johnbobwhite@gmail.com.

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HARTFORD, WISCONSIN (KHXF) – Hangar for Sale: 70 x 70 hangar built in 2014. Higher Power hydraulic door that measures 60 x 16. Hangar is located at the North End of the field: \$180,000. Contact Dana 608-235-9696 or danaosmanski@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.

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EAA CHAPTER 234 MEETINGS every second Thursday at 7pm at 1220 Airport Access Road, Traverse City, Michigan. Currently meeting via zoom. 269-924-7300.

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NESTE & FINNAIR PRESENT FROM PAGE 58

corresponding emissions are expected to increase post the COVID-19 pandemic; hence, the company continues to consider all alternatives to reduce its own emissions and those related to its value chains.

*The emissions calculations are based on the method provided by the EU Renewable Energy Directive. Based on this method, Neste MY Sustainable Aviation Fuel in its neat form and over the life cycle helps reduce greenhouse gas emissions by up to 80% compared to fossil jet fuel use. The companies have not claimed any regulatory incentives for the supplied SAF, and thus the achieved emission reduction is additional to that achieved by governmental policies.

Neste (NESTE, Nasdaq Helsinki) creates solutions for combating climate change and accelerating a shift to a circular economy. The company refines waste, residues and innovative raw materials into renewable fuels and sustainable feedstock

for plastics and other materials. Neste is the world's leading producer of renewable diesel and sustainable aviation fuel, developing chemical recycling to combat the plastic waste challenge. The company aims at helping customers to reduce greenhouse gas emissions with its renewable and circular solutions by at least 20 million tons annually by 2030. As a technologically advanced refiner of high-quality oil products with a commitment to reach carbon-neutral production by 2035, Neste is also introducing renewable and recycled raw materials, such as waste plastic as refinery raw materials. The company has consistently been included in the Dow Jones Sustainability Indices and the Global 100 list of the world's most sustainable companies. In 2020, Neste's revenue stood at EUR 11.8 billion, with 94% of the company's comparable operating profit coming from renewable products. Read more: neste.com 

GAMA Publishes First Quarter 2021 Aircraft Shipments & Billings Report

WASHINGTON – The General Aviation Manufacturers Association (GAMA) has released the general aviation aircraft shipments and billings report for the first quarter of 2021. Deliveries increased for turbine helicopters and propeller airplanes, while business jet and piston helicopter shipments were flat, as compared to the same period in 2020, which in its closing weeks saw the onset of the pandemic.


"The first quarter of 2021 shows progress for the industry," said GAMA President and CEO Pete Bunce. "It is encouraging to see manufacturers begin to bounce back from the impacts of the pandemic. Although, we are not yet in the clear, the industry continues to face headwinds, especially with ongoing supply chain issues and pandemic-related restrictions and constraints to global travel. It is important that we continue working with governments to assist in strengthening our supply chain, safely easing travel-related restrictions and protecting our highly skilled workforce. Our outlook toward the future is exciting, particularly in light of our industry's commitment to, and focus upon, environmental sustainability which continues to spur development of new aircraft, innovative technologies, and the production, distribution and uptake of Sustainable Aviation Fuel."

Airplane shipments for the first three months of 2021, when compared to the same period in 2020, saw piston airplane deliveries increase 7.3%, with 235 units; turboprop airplane deliveries increase 18.3%, with 84 units; and business jet deliveries were flat with 113 units.

Civil-commercial turbine helicopter deliveries for the first three months of 2021, when compared to the same period in 2020, saw an increase of 8.2%, with 92 units; and piston helicopter deliveries nearly matched first quarter 2020 with 36 units.

First Quarter Aircraft Shipments and Billings


Aircraft Type	2020	2021	Change
Piston Airplanes	219	235	7.3%
Turboprops	71	84	18.3%
Business Jets	114	113	-0.9%
Total Airplanes	404	432	6.9%
Total Airplane Billings	\$3.33B	\$3.93B	18.1%
Piston Helicopters	37	36	-2.7%
Turbine Helicopters	85	92	8.2%
Total Helicopter	122	128	4.9%
Total Helicopter Billing	\$431M	\$544M	26.2%

GAMA's complete 2021 first quarter report can be found at gama.aero. 

Has Your Airplane Been Stolen? Maybe not.

If you wake up in the middle of the night and see that on FlightAware your airplane is not where you left it, and fear that it might have been stolen, don't panic. First, go to your airport and look to see if it is there. If not, then call law enforcement and notify the Federal Aviation Administration. But if your aircraft is at your airport where it belongs, chances are either the owner of another aircraft or

an air traffic controller abbreviated an aircraft's call sign to be your N number when they last made a radio transmission.

One would think that with ADS-B transponders, such a mix-up would be impossible, but apparently whatever air traffic control uses for an N number is what is recorded in the system and is what FlightAware uses. 



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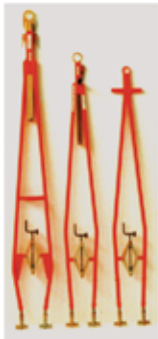
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