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ON THE COVER: Michael Weinfurter of Rhinelander, Wisconsin, takes off from Iceport 2019 on Mille Lacs Lake in northcentral Minnesota in his 1951 Cessna 305A "Bird Dog." The Cessna 305A was a military liaison and observation aircraft. The Iceport 2022 Fly-In Brunch will be held at Mac's Twin Bay restaurant, Saturday, March 5 from 10:00 a.m. to 3:00 p.m. with door prize drawings at 1:00 p.m., courtesy of Tanis Aircraft Products. Event coordinates: 46.17N/93.48W. Look for the orange safety cones depicting the landing zone. Pilots, monitor 122.9 Mhz. There is no fee, but donations are encouraged to help offset the cost of plowing the "iceway" (skis and wheels welcomed). For additional information, contact Mark Priglmeier at CreateLift@gmail.com,

320-200-8050 (www.MacsTwinBay.com/da-boathouse-restaurant). Brad Thornberg Photo

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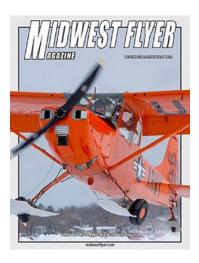
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It's Called Consideration & Common Courtesy

by Dave Weiman

onsideration and common courtesy works both ways... Airports and fixed base operators need to provide self-serve fuel systems which are easy, convenient, and safe for pilots to use, and pilots need to be respectful and responsible of the equipment.

In the August/September 2019 issue of Midwest Flyer Magazine, we published an article entitled "Why The Size of Fuel Hoses On Self-Serve Systems Is So Important!" The article emphasizes the importance for airports with self-serve fuel systems to provide fuel hoses which are easy for pilots to use: https://midwestflyer.com/?p=12669

While large fuel hoses might be okay to use on low-wing aircraft, they are not okay to use on high-wing aircraft. And while large fuel hoses might enable airport personnel to transfer fuel from the pump to a fuel truck faster, they are not convenient for the customer fueling their own aircraft.

As pilots, we must do our part too. We need to be respectful of the fuel equipment to avoid damaging it, and when we line up behind other aircraft to fuel, we should shut down our engines so the pilot fueling ahead of us can hear the fuel filling in their tanks. Otherwise, the chance of over-filling is real. See you at the pumps!





The ladder provided at Price County Airport (KPBH) in Phillips, Wisconsin, is safe and convenient, compared to the flimsy aluminum ladders at most airports. Good, safe, and well-maintained selfserve fueling equipment attracts and deserves repeat business. Dave Weiman Photo

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EDITOR/PUBLISHER **Dave Weiman**

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PHOTO JOURNALISTS Chris Bildilli, Brad Thornberg

CONTRIBUTING EDITORS & PHOTOGRAPHERS

Joe Anderson Kyle Lewis Randy Arneson Richard Morey Mark Baker Yasmina Platt Jim Bildilli Gregory J Reigel Dr. Bill Blank Pete Schoeninger Casey Carlson Randy Strebig Skot Weidemann Hal Davis Harold Green **Bob Worthington** Michael Kaufman

ADVERTISING

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

EDITORIAL

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

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EMAIL-OR-MAIL ALL ORDERS & CORRESPONDENCE TO:

dave@midwestflyer.com

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Drafting An Aircraft Mechanic Lien Statement

by Gregory J. Reigel, Esq. © Copyright 2021. All rights reserved!

f you perform work, provide services, or furnish materials to an aircraft, you likely have the right to assert a lien against that aircraft. A lien may also arise from a lien claimant's storage of an aircraft.

Aircraft mechanic liens are governed by state law. And each state is a little bit different. However, most states require that a lien statement be filed with the Federal Aviation Administration ("FAA") within a certain period of time.



Greg Reigel

What Does The FAA Require?

In order for the FAA to accept and record a lien statement, it must include the following:

- 1. The state or the specific law under which the lien is being claimed;
- 2. A description of the aircraft including manufacturer, model, serial number, and registration number;
 - 3. The amount of the claim;
- 4. The date on which the last labor, services, or materials were furnished on/to the aircraft; and
- 5. Signature of the claimant showing appropriate title of the individual signing the statement.

What Else Should Be Included?

In addition to meeting the FAA requirements, the lien claimant must also meet the applicable state requirements. For example, if the lien claimant is required to maintain possession of the aircraft, then the lien statement must address this information.

Alternatively, if the lien claimant is required to surrender possession of the aircraft, then the lien statement must provide this information. Also, if local law requires the lien statement to be verified (acknowledged before a notary public), that must be included as well. The FAA will reject the lien statement if the required information or verification is missing.

Although not usually required, the lien statement may also include the date the work was authorized and who authorized the work. However, unless specific state law requires it, the FAA will not reject the lien statement if this information is not shown.

What Happens If The FAA Has Questions?

If the FAA receives a lien statement identifying a lien

claimant who does not appear to be located or doing business in the state under whose law the lien is claimed and the aircraft is registered in a different state, that could raise questions for the FAA. It will wonder whether/what work was performed on the aircraft in the state claimed.

In this case the FAA may request supporting documentation to establish the connection with the state claimed. It may also ask the lien claimant to re-file the lien statement with attached invoices, a clarification statement, or other documentation reflecting work was performed on the aircraft in the state claimed.

Local Recording

In addition to filing with the FAA, some states also require a lien claimant to file their lien statements. This could be with a county clerk, a clerk of courts, a register of deeds, or a county recorder. In this situation, the lien statement filed with the FAA must include either the local file-stamp or certified copy confirming it was filed with the correct local office within the applicable time frame. Without this confirmation, the FAA will reject the lien statement.

Effect Of Filing With The FAA

It is important to understand that the FAA merely records aircraft lien statements submitted by lien claimants. As long as the lien statement contains the required information, the FAA will accept and record the lien statement. However, the FAA registry will not take any position regarding the validity or enforceability of the lien claim, nor does it get involved with any dispute between the aircraft owner and lien claimant.

Conclusion

Lien statements can be tricky. Before you file, make sure you understand both the FAA and local requirements. And if you need help filing or enforcing an aircraft mechanic lien, please give me a call.

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. He has more than two decades of experience working with airlines, charter companies, fixed base operators, airports, repair stations, pilots, mechanics, and other aviation businesses in aircraft purchase and sales transactions, regulatory compliance including hazmat and drug and alcohol testing, contract negotiations, airport grant assurances, airport leasing, aircraft-related agreements, wet leasing, dry leasing, and FAA certificate and civil penalty actions. For assistance, call 214-780-1482, email: greigel@shackelford.law, or Twitter @ReigelLaw (www.shackelford.law).

Is Your Airplane A Tax Deduction? Can it be? Maybe!

by Bob Worthington
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hroughout my ownership of aircraft, every airplane was a tax deduction (a business expense). I was an instrument-rated private pilot, I did not possess



Bob Worthington

any aviation-related business, I was not a commercial pilot... I had full-time employment elsewhere. I will explain what I did, how I did it, and how I remained legal. Keep in mind that claiming your airplane as a tax

deduction comes under the purview of the Internal Revenue Service and the Federal Aviation Administration. Additionally, both state and local regulations may also apply. Appropriate resources are listed at the end of this column. Understand that a pilot with a Commercial Pilot Certificate will have more options for using their airplane in a business than a Private Pilot.

Having an airplane as a tax deduction is not a complex matter. To be safe, an aircraft owner should understand applicable IRS and FAA rules that regulate what you want to do. One must also be very adept at record keeping as that fact often separates winners from losers when justifying what you do with the federal government. To me, the biggest part of claiming your aircraft as a tax/business deduction is to be honest. Scheming to declare your airplane as a business expense when it is not, is just looking for trouble. Additionally, defending your business can be time consuming and expensive.

Here are some fast IRS rules. To claim your airplane as a business expense, then obviously, one must have a business. It can be full-time or part-time. A business should be designed to earn a profit (i.e. not a hobby). A business must be created to operate in a manner to make money. Now, there is no federal law requiring any business to be profitable, but the assumption is that the owner is doing everything possible to be profitable.

For many businesses, the path to making money may take years. For example, USA Today took almost five years to find income exceeding expenses.

What is an acceptable expense? The IRS says ordinary and necessary. Ordinary means common to managing the business. If one makes shoes, purchasing leather is an ordinary expense. Necessary refers to the cost of something that is helpful or appropriate to run the business. If one delivers fuel to gas stations, having a tanker truck is necessary. Being necessary does not mandate it to be indispensable or requisite for the business.

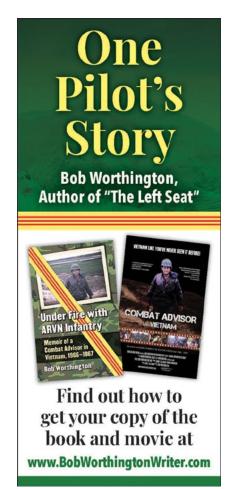
An example is a business that has a shaded patio outside the office. This is not directly related to what the business does. But indirectly, it can be a business expense as it provides a safe place for employees to eat lunch and keeps them out of the hot sun while taking a break outside.

What constitutes a business? For tax purposes, there are several forms such as a sole proprietorship (you are the only owner), partnership, and different types of corporations. For me, I was always a sole proprietor, requiring me only to say, I am in business (although state and municipal laws may have their own regulations to follow). If protection of personal assets is a concern, consider a Limited Liability Company (LLC). The structure of an LLC is governed by state statutes.

I became a pilot because my Army assignment required me to travel. Often going by commercial air would take most of a day when my destination would be only 4 hours or so by private aircraft. Pilot friends suggested flying myself would be quicker (and more fun). Thus, the Army paid me to fly my own airplane. Army reimbursements did not cover all my flying expenses, but at that time, the IRS allowed expenses beyond my compensation being tax deductible. About 70 to 80 percent of my flying was tax deductible. When I retired from the Army, my flying was no longer a tax deduction. So now I had to find another way to make, at least, part of my flying a legitimate expense for tax purposes.

I needed to find a business that paid, was legitimate, required my airplane, and could be done in my spare time (I was a full-time business professor). Since I was a writer (business, firearms, and psychology), I figured being an aviation writer might work

The editor and home office of a weekly aviation newspaper I subscribed to, was



less than 2 hours away by airplane. I wrote to him, seeking a writing job, but was told no positions were available. I asked if I could fly down to talk to him. Reluctantly he agreed, saying I could meet him at 4:30 p.m., but he would have to leave around 5:00 p.m.

We met, we talked and talked. I departed at dark and had a new job as the publication's business editor. I was a pilot, owned an airplane, was a business professor, and now was a paid aviation writer. I was a compensated professional aviation journalist (free-lance, not salaried) tasked with covering aviation conferences and airshows and wrote articles on various aviation businesses. Now the use of my airplane was once again ordinary and necessary for my sole proprietorship business. Soon thereafter I also began writing for other aviation periodicals. Since I had no employees and my job as a professor paid my Social Security contributions, bookkeeping was easy.

I keep a monthly file on every article or book I have written. Another file on income earned and a third file on expenses. This file can become tricky as the IRS may change what can qualify as a tax-deductible expense. For the airplane though, the expenses are easy to justify. Insurance, maintenance, parts, hangar rent, gas and oil, and away overnight parking fees are all collected in another file. For flying I used a separate logbook for every year. At the end of the year, I would total the hours flown and then note those hours flown for business. If I flew 300 hours and 250 were for business, then 83.3% of all my flying costs become a business expense.

The calculations of expenses, depreciation, etc., can be complex. That is why I always use an accounting firm and a CPA to do my taxes. Three times I have been audited. All three times were triggered by administrative errors -- none because of tax reports filed by me. The second time the IRS demanded a full examination of my last two years in the Army. For the first-year audit, my wife and I (with our records) spent 8 hours a day for 5 days being scrutinized at a nearby IRS office. This consisted of us justifying all claims cited and then documenting those claims. When it came to my airplane, the examiner noted all my claimed expenses and asked what flying I did. When I explained I flew for the Army in my own airplane, she then asked, "Did the Army require you to own an airplane to fly for them?" I replied no, explaining, "The Army does not require me to own Amtrac, American Airlines, or Greyhound; it just orders me to go somewhere on Army business. How I get there is my business." She asked if I had copies of those orders, which I showed her. All indicated travel by private air authorized. That ended any further inquiry into the airplane as a deduction.

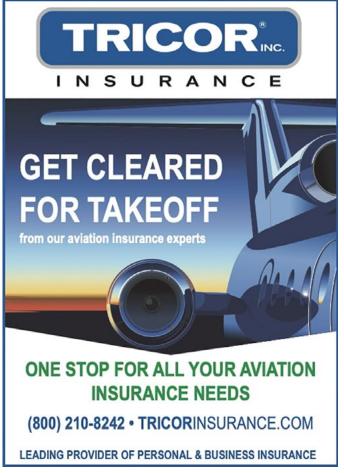
The audit took a week, and we owed the IRS \$40 (for a mistake by the accounting firm regarding expenses on an apartment building we owned and managed). The examiner commented on the preciseness and accuracy of all our files. The audit of the second year was cancelled and I was never audited again for any airplane deductions. The lesson learned

is that the accuracy and depth of files backing all claims is extremely important. I cannot emphasize that enough. A word of caution... Not everyone should represent themselves before the IRS.

The IRS does not view an airplane much different than other equipment or vehicles a business needs to earn a buck. Owning a Cessna Citation for a business whose sales area is confined to a 100-mile radius may be a stretch by the IRS. Owning a Cessna 182 for a contractor who builds throughout the state will most likely be accepted without question. Documents, such as a business plan or corporate minutes, can prove helpful with the IRS.

As a pilot (and aircraft owner), a variety of part-time jobs allowed me to use my airplanes as a business expense: as an aviation writer, I flew to cover airshows and aviation conventions; as a business writer, I flew to visit various businesspeople and their businesses; as a university professor, I flew to conferences to present papers; as a management consultant, I flew to meet with clients; and as a real estate developer, I flew to visit land and building projects. All legitimate part-time businesses.

In all cases the travel was a necessary aspect of my business, so I needed a means to get there, therefore using a private aircraft was considered by the IRS as an acceptable form of transportation.



Some words of caution... Using an accountant familiar with the business use of vehicles and IRS regs governing such usage can be vital, as opposed to doing your own taxes. Using an aircraft as a business expense can be complex in that other rules apply. If an airplane is used more than or less than 50% of the time, different accounting procedures must be followed. If the value of an airplane is depreciated over time, surprises may arise when the aircraft is sold or traded. If the sales value of the airplane is more than its depreciated value, then the owner may have to pay taxes on the gain. Recovery of depreciation is ordinary income. I have found that there are other depreciation concerns involved when selling or significantly changing the business use of the airplane. Also keep in mind that every year the IRS Code may have changes that impact you.

I have covered how I used my airplanes as a business deduction. All part-time businesses were created to make extra money (which they did for me) and the tax returns were honest. I maintained extensive files on every transaction involving my work and the use of my airplane. I possessed incontrovertible evidence to support every claim presented in my returns. This is the honest part.

Since I was always a sole proprietorship, all business taxes were filed, using a Schedule C as part of my personal tax return. Another suggestion: the IRS provides ample resources on how to create and manage a small business. But more information may be found through various industry-related associations, or the SBA (Small Business Administration) national network of organizations created to help small businesses such as SCORE (Service Corps of Retired Executives) and SBDC (Small Business Development Centers).

So, what kind of part-time work can you do that makes money, is fun, and requires an airplane to accomplish? One friend, on weekends, appraises land that farmers or ranchers want to sell. His clients are spread all over the state, so he flies over the land to be able to place a value on it. Two other friends, retired military officers (and GA pilots) own rental property in various locations where they were stationed. They would fly to their properties once or twice a year to make repairs on their investment. Another friend (an ex-military pilot) wanted to continue to fly (and deduct the cost), so he bought a Beechcraft Bonanza and became a part-time defense consultant with clients around the country.

What kind of part-time endeavor can you invest in which will require travel, using your airplane? Remember, it must have a profit motive, created to make money, it should be honest, maintain meticulous records, and having a CPA can go far in keeping the IRS away. One last reminder, two federal government agencies regulate your business usage of your airplane: the IRS and the FAA. For some businesses, state and local statutes may also apply. One must comply with all of them.

Thanks to my Certified Public Accountant, Christine, for reviewing this article and keeping the IRS at bay.

Suggested references for a pilot wanting to use an airplane for business.

All are available on the Internet.

IRS Publication 334 - Tax Guide for Small Businesses IRS Publication 463 - Travel, Entertainment, Gift, and Car Expenses

IRS Publication 535 - Business Expenses
IRS Publication 583 - Business Start-up
AOPA "The Pilot's Guide to Taxes."
14 CFR Part 61.113 - Private Pilot Privileges &
Limitations: Pilot in Command
FAA AC 61-142 - Sharing Aircraft Operating Expenses

https://www.irs.gov/businesses/small-businesses-self-employed/audit-techniques-guides-atgs This is a guide for IRS examiners to use during an audit to ensure the business owner has proper documentation to support compliance with IRS rules and regulations. A helpful guide for business and tax planning.

EDITOR'S NOTE: Pilot, Viet Nam veteran and former university professor, Bob Worthington of Las Cruces, New Mexico, is the author of "Under Fire with ARVN Infantry" (https://mcfarlandbooks.com/product/Under-Fire-with-ARVN-Infantry/), and producer of the 2019 film "Combat Advisor in Vietnam" (www.borderlandsmedia.com). Facebook: Bob Worthington Writer. Website: www.BobWorthingtonWriter.com. Bob Worthington has placed excerpts about combat flying in Vietnam (from his books) on his website. Here is a direct link to those excerpts: www.BobWorthingtonWriter.com/combat-flying-in-vietnam/. Every couple of months he will add another excerpt.

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Let's Make Instrument Flying Easy, By Prioritizing Tasks



Michael Kaufman

by Michael J. "Mick" Kaufman
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ver the many years of writing this column, I have put emphasis on making instrument flight easier. I have had some recent instructional flights where I watched pilots show me just how difficult a flight can be. We should use checklist flow patterns

and acronyms in the cockpit to do tasks in a logical manner. We should also know and understand the by-the-numbers concept that I also have written about previously in my column.

In this article, let's assume this is for single-pilot IFR, as it would be different with a two-pilot crew. I always use some sort of written checklist while on the ground, and I want to emphasize that this is in an aircraft that is not moving. The latest trend in accidents and incidents is running off the taxiway or running into something while taxiing and programming our navigators. While taxiing, all concentration should be on the task at hand as we humans are not good at multi-tasking. I find it very helpful to program the cleared route into the navigator while on the ramp and before starting the engine, if possible. As we have advanced in technology over the last few years, it is now possible to receive our expected clearance on our tablets with "ForeFlight." With Garmin "Flight Stream" and other similar devices, it is possible to transfer the data to our navigators.

On a recent trip from Wisconsin to the Los Angeles area, I am sure there were some 50-plus waypoints along my route, which were mostly on airways, especially those in mountainous terrain. As the technology advances, it will soon be possible to receive our route from ATC electronically and having it go directly to our navigators.

In this article, I will be referring to several procedures I use to make flying on instruments easier. They are called *by-the-numbers* and *the six configurations* of flight, and they work together and help reduce workload while flying on instruments and can be used in VFR flight as well.

When learning to fly on instruments, these are important concepts. However, as we lose proficiency and become complacent, we tend to forget them. As a review, we will look at these concepts in depth and, hopefully, they will reduce your workload on your next instrument flight.

Six Configurations of Flight

Takeoff and Climb Cruise Level Cruise Descent Approach Level Approach Descent Non-Precision Approach Descent Take-off and climb, in most normally aspirated piston aircraft, require full power and low pitch/high RPMs, full rich mixture (at sea level). Once at a safe altitude, I reduce the propeller for noise abatement; otherwise, full power with leaning above 5000 feet as necessary until reaching cruise altitude. This is so simple, yet I constantly see pilots trying to tweak engine parameters during the climb. It is not necessary and takes the pilot's concentration away from much more important tasks. This is also where I see pilots begin to start playing with their Primary Flight Display (PFD) and lose concentration on what comes next.

On my recent trip to California in my Bonanza, and on my departure clearance heading back home to Wisconsin, I was to fly the Riverside 2 Departure (RAL2.PDZ). This is an obstacle departure and was not in my GPS database.

The departure called for departing Runway 27, fly a heading of 255 degrees to intercept the 030-degree radial of the Paradise VOR (PDZ), and track it inbound to cross the VOR at or above 5000 feet. If not, we were to climb in a hold till reaching 5000 feet before proceeding on course. This was a *"fly the airplane"* departure, and the only engine adjustment was the propeller adjustment for noise abatement.

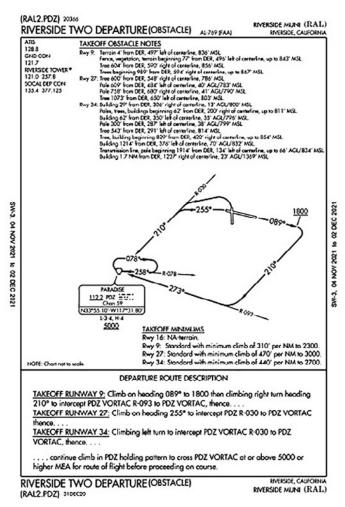
The "5 Ts"
Turn
Time
Twist/Track
Throttle
Talk

I had the frequency to the Paradise VOR set in my second radio with the 030-degree radial selected before takeoff. The 5Ts came into play upon intercepting the 030-degree radial with a turn to 210 degrees, nothing to time, a twist of the Omni Bearing Selector (OBS) to 210 degrees (as I have no HSI), track the radial to the VOR... No throttle as I was still climbing, and no talking with nothing to report at the time. I was able to meet the climb gradient to cross the VOR at 5000, so no hold was necessary. I was asked to report proceeding on-course after crossing Paradise, which I did, and now well on my way to the next waypoint, I engaged the autopilot GPS steering and did my first engine adjustment, which was leaning the mixture as I was on my way to 11000 feet.

After reading about my departure out over Riverside, California (KRAL) and looking at the departure procedure (FIG 1 - On Page 12), you may be questioning as to why I did certain things, thinking I could have done it an easier way.

For example, why not load the departure from the navigator's data base... why use the VOR at all... why dial in the 030-degree radial instead of putting in 210... why handfly this departure, and instead, use the autopilot?

To answer your questions, first, as I said, obstacle departures are not in the database on my navigator, but they may be in yours. Putting a VOR frequency in a legacy radio and setting a radial is very easy. It has always been



FIG₁

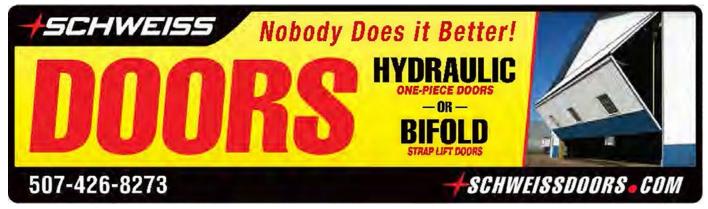
my preference to set in a radial when using a VOR. I can then choose whether to track it inbound or outbound when intercepting it. I personally like to hand-fly departures until a lower workload permits me to monitor the autopilot to make sure it is working and programmed properly. The by-thenumbers gave me the pitch attitude and airspeed I needed in the climb to reach the Paradise VOR above my target crossing altitude.

As we look at the concepts I used during my departure of by-the-numbers and the six configurations of flight, we can apply them to the entire flight, which we will do in future issues of Midwest Flyer Magazine. I made one change in the power setting during my initial climb and that was adjusting the prop for noise abatement. I made no screen changes on my Multi-Function Display (MFD); I was just hand-flying the airplane. The screen was set prior to departure and later zoomed out when on the autopilot and my workload permitted. Let's prioritize tasks – fly by-the-numbers and use the Five (5) Ts.

Until the next issue of Midwest Flyer Magazine, fly safe and more relaxed!

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

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



Winter Considerations & Operations

by Richard Morey
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well in the crisp, dense air, so long as you can get them started! Here in the Midwest we are "blessed" with long and generally cold winter weather, which adds challenges that we do not have in warmer weather. With a little foresight, planning and adjusting your preflight actions, winter flying need not be a chore.



Richard Morey

Dress for the weather.

Winter is cold. This seems a fairly obvious statement, but considering how some of my students dress for their winter lessons, it is not as well-known as it should be.

Simply stated, dress for the weather! Wear a winter coat, hat, gloves or mittens, long underwear, and boots that will not only keep your feet warm, but be up to walking through snow drifts if you have to make an off-field landing. Most aircraft have limited space in their flight deck. There just is not room to wear all the layers of cold weather gear in some aircraft. Placing your outer layers, such as heavy coat, boots and possibly snow pants in the back seat or baggage compartment, makes sense if you cannot fly comfortably with everything on.

Winter preflight inspections are similar to warm weather inspections in most areas, but have some cold weather specific items added. Snow, ice and the cold weather that brings them require a more careful approach to preflight. The following assumes that the aircraft is stored outside.

Don't slip!

Be sure of your footing. Ice, snow, and especially black ice can cause slippery conditions. I have taken more than one nasty fall due to slipping on ice I did not see. Look over the area and be especially careful if you have a high-wing aircraft and use the fueling steps to check your gas caps and fuel level. It is awkward enough coming down from those steps, and downright dangerous if you are stepping onto a slick surface.

Frost, Snow and Ice

If there is frost, snow or ice sticking to your aircraft, you need to remove it prior to flight. If it is light or wet snow, you may be able to brush or leaf-blow it off. I really like using a leaf blower for this as brushes can damage the paint and have been known to take off ELT antennas. If the snow/ice/frost is not easily brushed off, then you need to deice. At our airport, that means pulling the aircraft into a heated hangar and letting it melt.

Do remove as much of the contamination as reasonably possible prior to deicing. Once deiced, if you are pulling the wet aircraft into cold temperatures, expect the remaining water to freeze. It would be smart to leave the flaps down for your runup and pull them up just prior to take-off. This minimizes the possibility of the flaps freezing in the up position. Also, double check that the static source and pitot tube are clear and have not iced over.

Brakes

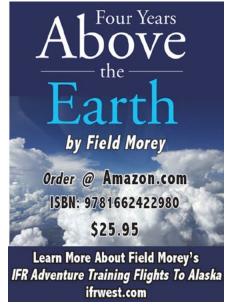
Brakes are another area that need special attention. I believe that wheel pants need to be removed for the winter. If you try to fly with the main gear wheel pants on, you will eventually have to deal with frozen brakes and wheel pants packed with snow. Even without wheel pants, aircraft brakes are prone to freezing up. Most

pilots apply brakes far more often than they need to during taxi. This heats the brake discs. If you taxi through snow with a hot brake disc, you will melt the snow, which once you stop moving, could freeze the brake pads to the disc. During preflight, the best way to tell if the brakes are frozen is to kick the tire. With a high-wing aircraft, this is easy, especially if the aircraft has a wing strut to hold onto. Kick the tire as if you are trying to get it to roll. If you hear a snap, you just broke ice freezing the brake pads to the disc. If the wheel moves freely, you did not have ice. It is also possible to freeze up your brakes while taxiing. If you must taxi through snow, be sure to minimize the use of brakes.

I have had to exit the aircraft and kick the tires after a taxi through snow that resulted in frozen brakes. Be sure to shut the engine down prior to exiting!

Hydrophilic Oils & Frozen Brakes

Brake fluid and engine oil are hydrophilic – they love (phallic) to soak up moisture (hydro). This can be a problem for brake function on very cold days. As part of the



preflight, brakes are tested by applying them prior to start up. There should be some give to the brakes until they come up hard. With toe brakes, the foot is flexed, and brake fluid compressed. If the brakes feel hard after some movement, they are likely good. If they feel spongy or soft, there could be air in the line or other issues. If they do not move at all, but rather are hard from the get-go, then the brake fluid has soaked up enough moisture to freeze. The ice formed blocks the brake line and does not allow the now solid brake fluid to do its job. There will be no braking action if this occurs. Do not start the aircraft if the brakes come up hard with no compression or movement. The aircraft now needs to go into a warm hangar to melt the frozen brake fluid/water mix. The old fluid will be completely drained and replaced with new.

Preheaters

Engine oil is hydrophilic as well. Water vapor is a byproduct of combustion, so there is a constant source of water vapor for the oil to absorb. When you heat oil, some of the water vapor evaporates. When the engine is running, this water vapor goes out the crank case breather vent tube. This is good, as having water in the engine promotes corrosion.

Most engine heaters work by heating up the oil in the oil pan of the engine. An electric heating element is bonded to the oil pan in standard installations. During this process, water vapor is released from the oil and moves throughout the engine, condensing in the colder areas of the cylinders and in Lycoming engines, on the camshaft. The best practice is to only heat the engine immediately prior to starting up if you have this type of heater.

Tanis-type heaters have heating elements on the oil pan, the cylinder heads and crank case.

If you have a Tanis engine heater, your problems with unwanted moisture during preheat are minimized. Still, I would preheat only prior to start up. One to two hours is generally sufficient, especially if there is a cowl cover or blanket wrapping the cowling.

Forced air heaters work by blowing heated air over the cylinders of the engine. These heaters work quickly, but do

not heat the oil as efficiently as the electric heating elements do. At my flight school, we have and use all three types of preheaters. Our company policy is to heat the engine if the outside air temperature is below 30 degrees if the aircraft is sitting outside. The best preheater is a heated hangar. Alas, most of us cannot afford heated hangars, so we make do with what is available.

To review:

Dress for the weather.

Don't slip.

Remove the aircraft's main gear wheel pants.

Brush or deice the aircraft to remove all ice, snow or frost prior to take-off.

Pay particular attention to the aircraft static source and pitot tube for ice blockage.

Check your brakes for freeze up, both on the pad/discs and in the lines.

And finally, preheat the aircraft's engine when the temperature requires, and for a reasonable time-period, prior to start up.

Safe Flying!

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EDITOR'S NOTE: Richard Morey was born into an aviation family. He is the third generation to operate the family FBO and flight school, Morey Airplane Company at Middleton Municipal Airport – Morey Field (C29). Among Richard's diverse roles include charter pilot, flight instructor, and airport manager. He holds an ATP, CFII, MEII, and is an Airframe and Powerplant Mechanic (A&P) with Inspection Authorization (IA). Richard has been an active flight instructor since 1991 with over 15,000 hours instructing, and almost 19,000 hours total time. Of his many roles, flight instruction is by far his favorite! Comments are welcomed via email at

Rich@moreyairport.com or by telephone at 608-836-1711. (www.MoreyAirport.com).





Certification Issues

by Dr. Bill Blank, MD © Copyright 2021. All rights reserved!



Dr. Bill Blank

hose of you who attended EAA AirVenture this year realized that the FAA had a markedly diminished presence. The FAA Aviation Center was closed. Only one FAA physician, the new Federal Air Surgeon, Dr. Susan E. Northrup, was officially in attendance. One other FAA physician came at his own expense. Normally, several FAA physicians would have been in attendance to help airmen with problems with their flight physicals.

As you saw in the last issue, Dr. Northrup is a retired Air Force physician. She is an MD and has an M.P.H. (Master's Degree in Public Health). After she retired from the U.S. Air Force (USAF), she first worked for Delta Airlines and then became the Regional Flight Surgeon in FAA's Southern Region. In addition, she served as the head Regional Flight Surgeon. She is a private pilot. She and her husband, a former F-16 pilot, and



Dr. Susan E. Northrup

retired airline captain, live on an airpark in Georgia. They flew together to Oshkosh in their Harvard Mark IV after their Stearman developed a problem about 30 miles from home. Her background as an active private pilot and regulatory physician makes her uniquely qualified for the position

Dr. Northrup worked quite hard at AirVenture, meeting with various stakeholders, including EAA officials and Aviation Medical Examiners (AMEs), seeking their input, and explaining her future vision for medical certification. She is well aware of the need to improve the certification process.

FAA form 8500-8, which we all complete for our flight physicals, has been unchanged for 13 years.

She is concerned about certification delays. Her goal is to reduce them to less than 60 days.

AMEs are currently limited to submitting no more than 10 pages of an airman's records electronically. The rest must be mailed. She wants to change that. All records must be scanned, an unnecessary step. During COVID, scanning took up to 35 days. No records are looked at until after scanning. Most AMEs use the pdf format. The government doesn't. This will necessitate converting all records to the government format, which complicates things. Many letters airmen receive are unduly threatening. Some are being re-written. Some of the legalese is still required but is being softened when possible.

The whole time I have been an AME, the FAA has refused to publish a list of approved medications. She plans to change that and make it available to airmen and AMEs.

Being an ophthalmologist, I pay particular attention to the visual standards. I give some of the ophthalmology lectures to new AMEs and also for AME recurrent training. Sometimes, while giving these lectures, I have wondered "why we are still doing it this way?" Several AMEs met with Dr. Northrup at Oshkosh and made some suggestions.

Recently AMEs received a questionnaire regarding the color vision tests they use. Because of some episodes of cheating by Air Force pilot applicants, the USAF has gone completely to computerized testing. Some form of that may be around the corner for civilian pilots. I am watching that closely. I'll keep you informed.

As you can see, Dr. Northrup has many issues to address. I wish her well. I think she is going in the right direction.

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.

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Aircraft Sales & Having Fun On Skis!

by Pete Schoeninger
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Q: Is the airplane market still strong? What do you hear from airplane sales professionals you know?

A: To get an up-to-the-minute report, I contacted aircraft broker, Jeff Baum, owner of Wisconsin Aviation in Madison, Watertown, and Juneau, Wisconsin; and Gavin Leake, an aircraft broker in Milwaukee and Burlington. As of October 14, 2021, this is what they had to say:

Baum: "The used airplane market has been acting very much like the housing market: good planes go immediately at exorbitant prices. Many first-time buyers are looking to buy an aircraft, particularly business aircraft. The inventory is very low. There are still reasonable prices on some older models, but buyers need to either really know aircraft or use a good broker. We are seeing many novice buyers making decisions based on what they have learned online and living to regret not getting professional advice."

Baum continued: "Manufacture production rates are still very low, and with a fair percentage of those aircraft going overseas, there simply are not enough airplanes to replace those being wrecked, economically destroyed or sold out of the country. Couple that with renewed interest in learning to fly and aircraft ownership, it will take a major economic downturn, or some punitive political legislation, to reverse this trend." For assistance, contact Jeff Baum at 920-261-4567.

Gavin Leake simply stated: "It's still hot as far as I can tell." For assistance, contact Gavin Leake at 218-280-2615.

Q: You have stated that airplane sales numbers typically drop a little in winter months. With this hot current market, what's your guess for this winter's activity?



Pete Schoeninger

A: I suspect volume may drop a little as the holidays and taxes sneak up on us, but I don't see any price decreases unless there are very difficult world events, or a big blast of Covid, major stock market decline, or other unforeseen problem. Let me add a caution for airplane buyers and I hear the same from real estate people: Don't be tempted to commit to buy something on first sight because you fear it might be sold out from under you. It is better to miss a good deal, than to buy a dud, which could bury you financially.



A 1982 F21 Taylorcraft, equipped with wheel penetration "Trick Air Snow Skis." Photo taken on a lake in the Adirondack Mountains in northeast New York by aircraft owner, Jim Baker of Rochester, New York. Trick Air Skis were invented by Rick and Sandy Discher of Weywauega, Wisconsin, but are now manufactured in Minnesota by Steve Schwister. Trick Air Skis have carbon-fiber strength and an aerodynamic shape that mimics a wing, giving the pilot confidence to take-off and land with ease in the backcountry. Trick Air Skis install quickly, and their wheel-penetration design gives the pilot flexibility to operate on both snow and pavement (https://trickair.com).

Q: What kind of skis would you recommend for my Citabria? I generally fly from a paved runway but would like to land on snow-covered frozen lakes and fields.

A: Your best bet would probably be "wheel penetration skis." There are three versions of skis for light planes:
1) Straight skis, which are only a ski. These offer the best performance (lightest, and less drag) on snow and cost less than other versions, but their drawback is you cannot move the airplane into a hangar, to a gas pump, etc., without some hassle. 2) Wheel

penetration skis are probably the most popular for light aircraft. A wheel sticks thru or next to the ski and extends just a bit below the ski. Thus, the wheel is always dragging just a bit through snow, which causes a bit more drag than a straight ski. Sometimes a small wheel will be installed on the rear of the ski, so when operating on a paved area, the ski does not drag. Wheel penetration skis cost more than straight skis, and are heavier, but offer the flexibility that you can move on pavement or snow using only engine power. 3) Retractable skis usually have a hydraulic or electric control to raise and lower the whole ski, so only the ski or tire will make ground contact. This allows a more efficient ski or wheel use, but it is usually heavier than other types of skis, and usually costs more.

Q: How accurate are bluebooks? A friend gets a couple of them and it seems their figures are much lower than current asking prices.

A: Bluebooks report history. Asking prices are not always indicative of selling prices. Two of the most popular bluebooks report every three months, so the amounts shown could reflect sale prices of many months ago. In a rising market, airplane bluebook figures will trail the real world. The same (but opposite) is true if the market drops suddenly. If you look at an average USA light aircraft, it will be about 45 years old. No two are alike in overall condition, hours flown, engine hours, quality of engine overhaul, avionics installed, damage history, paint and interior condition, maintenance records, etc., so value will be different on each airplane.

Q: Now that we have inflation starting in the U.S., aren't I better off hanging on to my airplane than selling it, until the economy levels off?

A: If you have good use for your airplane, keep it! As for when is it a good time to sell, besides considering current market conditions, you may want to have a talk with your tax preparer to look at the tax ramifications of a profitable sale, and then look closely at your overall financial picture, age, needs in retirement, etc.

If you are not using your airplane enough to justify owning it, then sell it. Idle airplanes depreciate in several ways: 1) An idle engine can begin to rust. 2) Engine overhaul periods, prop overhaul periods, and annual inspections come due based on calendar time, as well as sometimes hours flown. I feel keeping an airplane in storage rather than selling it is usually not a good idea.

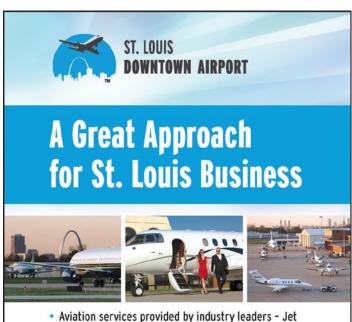
Q: An old-timer once told me if I pulled on carb heat on my J-3 Cub just before I reduced power to land, I could kill the engine, and would not know because the prop would continue to turn at glide speed. How could that be?

A: In your Cub, with a small Continental engine, it is possible to have a bit of ice in the carburetor, and you won't realize it at the time. When you pull on carb heat, some

ice could work lose from the throttle plate in your carburetor just as you reduce the power to land. With the throttle plate in the closed or almost closed position, plus some ice present, it is possible to choke off completely the fuel/air mixture your engine needs to continue to fire. Veteran Cub pilots apply carb heat well before power reduction to melt any ice, and you should too!

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.

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Unusual Attitudes... Playing the cards we're dealt

by Mark Baker
AOPA President and CEO

t some point, we've all been told to step outside of our comfort zones -- it's what breeds success, growth, and happiness. That step turned into a leap after a global pandemic disrupted our lives and threw our comfort zones into some unusual attitudes.



Mark Baker

COVID-19 has forced us all to embrace the challenges and play the cards we've been dealt. At AOPA, that

has meant making changes to the way we conduct business and the way we engage with members. It also meant grieving and overcoming loss within our own family. But it doesn't mean we have lost focus on our mission.

As I reflect on the accomplishments and experiences of the past 12 months, I see a chance to use those lessons to continue forging ahead. We may be heading into year 83 of protecting the freedom to fly, but we still carry a learning mindset – proud but never satisfied. We are always looking for new ways to exceed our members' expectations and do what's best for the GA community.

2021 forced us to look at things through a new lens. We took some leaps – we redesigned our tried-and-true *AOPA Pilot*, expanded our social media presence, and held events like we never had before.

While recovery has been slow for commercial aviation, GA continues to thrive. Pilots are consuming safety videos, participating in seminars, and improving their flying skills in record numbers. And 2021 is on track to be the safest year ever in GA. Now that's something to celebrate.

We also continued to expand on our founders' principles in ensuring the long-term health and viability of GA, by continuing to build the pilot community and protecting the interests of all our members. Thanks to generous donations to the AOPA Foundation, our You Can Fly program is stronger than ever.

We've created programs to support flying clubs, encourage best practices in flight training, get lapsed pilots back in the air, and help high schoolers learn about careers in aviation. In fact, our High School Aviation STEM curriculum is now in more than 300 schools in 44 states across the country, engaging more than 10,000 students. Because of its success,

AOPA's You Can Fly program received the prestigious <u>STEM.org</u> accreditation.

AOPA also has been hard at work fighting for commonsense legislation, saving our nation's airports, and making flying less burdensome and cost restrictive. After rallying support from members, and allies in Congress, our team in Washington, D.C., has fought back against the FAA's misguided interpretation of flight training, that requires operators of certain categories of aircraft to obtain a letter of deviation authority to conduct flight training. Progress is being made to overturn the FAA decision, thanks to an amendment in the National Defense Authorization Act. If all goes to plan, flight training can resume as normal and pilots won't need to undergo any more unnecessary and burdensome paperwork.

We're also always on the front lines when it comes to threats to our GA airports. Most recently, we secured a huge win for pilots and aviation businesses at Dillingham Airfield in Hawaii after it faced an impending closure threat. AOPA helped build a multi-front grassroots campaign that garnered support among lawmakers and was joined by more than 450 individuals, earning local media coverage of the issue. Thanks to the team effort, Dillingham will remain open for at least the next three years. AOPA will continue to educate officials on the economic benefits of keeping Dillingham, and all GA airports, open for the long term.

Additionally, we continue to encourage and push for online transparency of FBO prices and fees. More than 300 aviation organizations have joined us in support of the Know Before You Go program, an industry voluntary program that encourages fee and pricing transparency for pilots. We've made considerable progress, and applaud such major FBO chains as Atlantic Aviation and others, which have made their pricing transparent. Unfortunately, the lion's share of larger FBOs still do not post all their prices and fees online. We obviously have more work to do, and we will continue our efforts, especially with the remaining larger FBOs. Not only is this the right thing to do for FBOs, but pricing transparency will help pilots with their preflight planning, promote competition, and provide good customer service. One way or the other, we will get there.

Going into 2022, we still have many issues to tackle, such as the continued search for a fleetwide, drop-in unleaded fuel solution. But it's hard not to appreciate the wins that were made this past year – professionally and personally. Life is unpredictable, so we should take time to celebrate the positives. For me, that means appreciating every time I get to be in an airplane. So, I'll leave you with this: Cherish the freedom to fly and play the cards you're dealt. Blue skies and happy holidays!



Airport User Groups & Crosswind Runway Ineligibility

by Kyle Lewis
Regional Manager
Airports & State Advocacy • Great Lakes Region
Aircraft Owners & Pilots Association



Kyle Lewis

n a recent column I spoke of the importance of a local airport pilot or tenant association or user groups. These local groups are very important to the continued viability of any airport, and the planning decisions being made for the long term. Continuing in that theme, let's focus on the specific duties and interactions that a group like this may undertake.

As discussed, prior, the design of these groups can be structured across the spectrum from informal to formal. No matter what the structure really is, the key to success is finding a positive dialogue with airport management. In some cases, the airport management is a contracted FBO, or it may be a municipal run airport with city or county employees managing the day-to-day operations. In my experience, and this comes from discussions with airport managers at airports of all sizes, a local support group is WANTED! Airport managers rely on these support groups to be the positive influence at an airport. Negativity is not needed, and really does no one any good at all. Trust me, the bad needs to be aired, but there is a way to do it that provides a positive result.

So, you are a member of one these local support groups. What should that group be doing? Here is the laundry list, and we will discuss it in some detail:

- Be actively engaged in promoting the airport to the community.
- Interact with airport management and/or FBO personnel.
 - Take part in airport planning committees.
- Create an inviting community for new pilots or new mants.
- Have a mission or goal for the support group to accomplish.

The above items are mostly self-explanatory. However,

there are two items that are very important – not just for the airport, but for the group itself:

- 1) Promoting the airport to the community. This by far is the most important tool that an airport has. Noise complaints, perception issues, growth, and a negative drumbeat against the airport can all be dismayed by opening the doors and gates to the public and literally changing hearts and minds.
- 2) The mission or goal of the airport group can go hand-in-hand with promoting the airport. Airport managers want to show off the airport to the community, but in many cases, he or she is a staff of one, maybe two. They need help! A local user's group is the perfect way to organize an airport open house, community day, fly-in, food truck rally... well, you get the idea. There is always a way to make the public feel welcome and to want to be part of the airport. When the citizens are on the side of the airport, so follows the politics and the well-being of an airport.

Regional Airport Advocacy & Legislative News

An issue that has been percolating at a few airports over the last couple of years is becoming much more prevalent within the region – **crosswind runway ineligibility**. Dozens of airport sponsors across the region are facing tough planning decisions. FAA Airport Improvement Plan (AIP) discretionary funding is competitive and the FAA, along with airport sponsor input, must spend these dollars in the most effective way possible.

The FAA is looking closely at additional and crosswind runway eligibility based on wind studies at specific airports. This usually coincides with a master plan update, airport layout plan (ALP) update, or a specific project under consideration. In short, an additional or crosswind runway is recommended only when the wind coverage for a primary runway falls outside of 95 percent coverage. The specific operational situation at the given airport will dictate what timeframes (day or night) the wind velocity and direction are observed for data collection. Other factors used for eligibility are operational data. If the primary runway wind coverage is at or above the 95 percent, the FAA deems the crosswind or additional runway to be ineligible for FAA AIP funding. What does this mean? If ineligible for FAA AIP funding, any rehabilitation, reconstruction, obstruction removal, marking, lighting, etc. will be at the discretion of the local sponsor to fund.

With runway rehabilitation running easily into the millions of dollars, airport sponsors are electing to let the useful life of the runway pavement end and then close the runway. The property the runway occupies may open more land for aeronautical use development, such as hangars,

to bolster the airport's revenue and maintain financial sustainability into the future. In many cases, the closure of these runways has a significant safety impact to the ground operations by removing non-standard intersections or "hotspots" that are now commonplace to see on airport diagrams. AOPA is extensively involved in educating the airport users on what leads to the decision to close a crosswind runway and will help investigate if there are any beneficial reasons to maintain eligibility for funding.

On the legislative front, I will be actively engaged in a bill to be introduced any day (at time of writing) that will provide much needed language and procedural updates to Ohio's "Airport Protection Act." This law provides the foundation for the Ohio Department of Transportation, Office of Aviation's, tall structure permitting processes. The changes have been in the works for several years but finding the correct timing amid a myriad of other priorities has been challenging. I am working with the Ohio Aviation Association on garnering support and closely monitoring the bill's progress. Newly added provisions would give the local airport sponsor a stronger voice when it comes to the potential loss of airport utility (kyle.lewis@aopa.org).

AVIATION HISTORY

A Little Bit of Cold War History

by Jim Bildilli

bout half-way across Kansas, if you're VFR and following I-70 or the old National Road (U.S. 40), you'll eventually come across the town of Russell, Kansas. Some of us with graying and possibly thinning hair remember the town as the home of former senator and presidential candidate, Robert (Bob) Dole. In many locations around the country, the airports sometimes reflect the influence of a local famous politician, but the Russell municipal airport is very typical of a small-town airport that you'd find most anywhere in the U.S. It currently features a 5000 x 75 ft. northsouth concrete runway, and a 1600 x 300 ft. northeast-southwest turf runway. With GPS approaches to Runway 17-35, major airframe and powerplant repairs and 24-hour

fuel, it's a nice place to stop while traveling across the country. Like most small general aviation airports, there's no restaurant, although there is a courtesy car to make the short trip into town for a bite to eat or perhaps to conduct a little business.

When taxiing to the ramp, there is one structure that absolutely gets your attention. It's a 32 ft. high steel tower that is reminiscent of a short forest ranger tower that you would usually find near a national forest. However, this is not a forest ranger tower... it's a tower that was constructed and used in the mid-1940s and early 1950s as an enemy aircraft spotting tower.

Radar coverage in the northern hemisphere had not been developed then to the point where there was wide-area coverage to intercept incoming Russian bombers on their way

to wreak havoc on American cities with their new atomic bombs. Most of the towers were placed in less populated areas in the U.S. based on the belief that the Russians would avoid being spotted as easily, than if they flew over large population centers on the east and west coasts.

The tower supports an all-glass cab that was sparsely adorned with a countertop. Other than that, the other essentials included maps, binoculars, a location code, and a telephone to contact the Air Defense Filter Center which was located in Hutchinson, Kansas.

The spotting towers, of which few remain today, were staffed 24-7 by trained local volunteers that even included high school students. The ground observers training

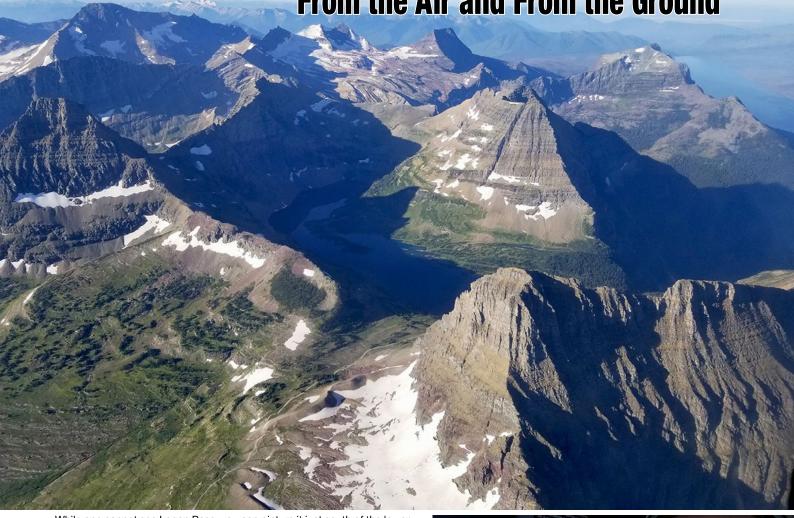
manual was published by the U.S. Air Force and contained pictures identifying both American and foreign aircraft. The spotters received a certificate of completion and a keepsake lapel pin to celebrate their accomplishment.

The historical observation tower, which was originally donated by the Shield Drilling Co. in late 1944, remains today, thanks to the restoration efforts of EAA chapter members, Phillip Schulz and Wayne Luff, both of whom have since gone west. Unfortunately, if you are looking forward to climbing the 48-step spiral stairway to the top, access is no longer permitted.





Same Places, Different Perspectives... From the Air and From the Ground



While one cannot see Logan Pass, you can picture it just south of the lower left corner of the picture. From there, one can follow the trail (partially paved and can be seen in the picture) to view Hidden Lake and its beautiful valley. The aerial view provides a great shot of it and its general area, including Sperry Glacier in the immediate distance.

Article & Photos by Yasmina Platt © Copyright 2021. All rights reserved!

he mountains are calling, and we must go... no matter how we get there! Although they are actually worth seeing from more than one perspective!

The 3D view from an aircraft provides a fantastic big picture of the area: its historical topography, its bearings (situation awareness)... its grandiosity. It is also a much easier way to visit; almost like viewing it from a couch.

However, stepping foot on the trails feels like being a part of the mountains; an extension of them! Hiking through and over the mountains is a great feeling for me. I love the experience, being in nature, disconnecting from everyday life, the exercise, the challenge, the views, the smell, the ability to stop at any moment and, yes, the wild animals, even though I prefer to see them from a good (safe) distance.



Yasmina Platt

Let's use a few examples from Glacier National Park to explain further. (Note that some of the aerial and ground pictures are from two different summers.) I'll start with Hidden Lake, one of Glacier's easiest and most popular hikes from Logan Pass.



It's not uncommon for mountain goats to be enjoying this same beautiful area as hikers. Unfortunately for some though, this trail is often closed due to "bear activity."



Some of the attractions at Glacier National Park, such as waterfalls, are not as evident from the air as they are from the ground.

From Logan Pass, one can follow a partially paved trail to view Hidden Lake and its beautiful valley. However, an aerial view provides a great shot of it, plus its general area, including Sperry Glacier in the immediate distance.

Being on the trail, though, allows you to be a part of the landscape. It puts you right in the middle of it all, even if it does not provide views of the area beyond the valley. It's also not uncommon for mountain goats to be enjoying this same beautiful area as hikers.

Continuing with famous trails... Grinnell Lake and Grinnell Glaciers are amongst visitor favorites. The hike to the lake is fairly easy, especially if shortened by taking a boat across Swiftcurrent Lake and another one (part of the same ticket) across Lake Josephine. But the hike to the glacier is moderate.

Flying over the area clearly shows the difference between Grinnell Lake and Grinnell Glacier. Many first-time visitors



Continuing with famous trails... Grinnell Lake and Grinnell Glaciers are amongst visitor favorites.



Glacier is also a great park to view moose, mountain goats, bighorn sheep, and bears of different types, but again, it's a bit harder to see them from an aircraft.

question this because they think Grinnell Lake is the one on top, when it's the one at the bottom. The lake up top is simply part of the glacier that is melting and receding.

One of my first thoughts when hiking to the glacier was that the waterfalls were not as evident from the air as they were from the ground. My second thought was that the Angel Wing (the mountain west of the waterfalls) is much bigger in actuality than the flight portrayed (even with the shadow). I still would have liked to hike up to it, but it was pretty rainy and stormy when we arrived at the glacier, so it's on the list again for a future trip.

Hiking directly to the glacier is not the only way to view it from the ground. The Highline Trail, also from Logan Pass, has a steep Grinnell Lake Overlook side trail (which may be scary to those afraid of heights), giving hikers a completely different viewpoint. One can look down onto the glacier. This is the longest of the hikes discussed, but it is also one of my favorites.

One of the reasons I enjoy flying over the mountains is to scout my next adventure. This was the case with Iceberg Lake. I loved the way the lake looked from the air, with its deep blue color and being surrounded by sheer glacier walls.



The sheer walls were honestly just as impressive, but in a different way, flying or hiking. Seeing their vertical nature from the air was impressive and seeing their rugged look up close from the trail was spectacular as well. My mom hiked it with me, making it even more special. It was a bit disappointing, though, that Iceberg Lake had no icebergs when we hiked it.

When I flew over Cracker Lake last year, it did not look as impressive to me as other lakes did, but it must have been because I flew too early in the day. The sun was not shining on its water yet, and as it turns out, Cracker Lake has the most beautiful water color of any lake I've visited or seen at Glacier National Park. It's very different seeing it in the shade and the sun. It was quite amazing to see the transition of water color on the lake as the sun rose up over the mountains. I had never seen anything quite like that before.

Glacier is also a great park to view moose, mountain goats (my favorite!), bighorn sheep, and bears of different types. But it's almost impossible to spot them from an aircraft while maintaining 2,000 feet from the ground, unless you have some good binoculars.

The details of things like the color of the rocks and the sediment in the water is also something one cannot perceive from the air.

There's no time to be bored in a world as beautiful as ours, so get out and explore! For more pictures related to this article, visit www.airtrails.weebly.com.

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.



Yasmina Platt



Aeronautics Report

Wisconsin Bureau of Aeronautics

P.O. Box 7914, Madison, WI 53707-7914

David M. Greene, Director

(608) 266-3351

www.wisconsindot.gov



Drones, Helping To Clear The Way For Airplanes In Wisconsin

by Hal Davis WisDOT Bureau of Aeronautics

or pilots, a freshly paved runway or new terminal building are airport improvements that are easy to recognize and appreciate. Conversely, obstruction clearing can be one of the most challenging improvements made at an airport, but often goes unnoticed by airport users. While many parts of Wisconsin are home to pristine forests, trees close to



Hal Davis

the runway can pose a hazard to aircraft. We may think of ourselves as capable backcountry pilots, but the truth is, a shallow, stable approach to the runway is generally safest for most pilots and aircraft. Clear approaches also increase the margin for error during the most critical phases of flight, which is especially important in poor weather conditions. For these reasons, identifying and mitigating trees and other obstructions is a never-ending project for many Wisconsin airports.

In Wisconsin, we require all public-use airports to provide a clear 20:1 approach slope to the runway threshold. This means for every 20 horizontal feet you move away from the threshold, the allowable height increases by 1 foot. For

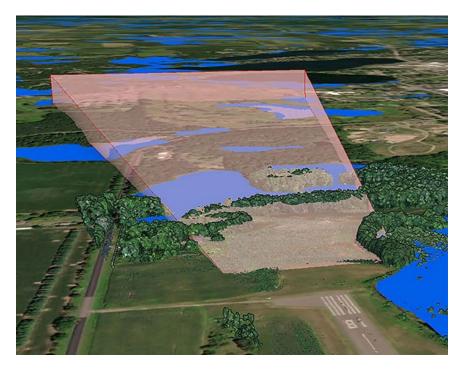


example, a tree 200 feet from the threshold can be a maximum height of 10 feet above the threshold elevation. For runways that serve larger aircraft and/or have instrument approach procedures, the slope is even shallower, and the size of the approach area is increased to provide an even greater margin for error.

To ensure compliance and help airports identify potential problems, the Wisconsin Bureau of Aeronautics (BOA) inspects all public-use airports at a minimum of once every three years. Historically, inspectors utilized simple ground-based tools to identify potential obstructions. These tools are excellent at quickly determining if a problem exists but struggle to provide a complete and accurate picture. To overcome these shortcomings, BOA has acquired a specialized drone which can conduct obstruction surveys from the air.

The process first involves digitally mapping the extent of the survey area and checking for potential flight conflicts with Federal Aviation Regulation Part 107. Flight planning software is then used to set mission parameters and create the drone's flight path. Once on location, the drone autonomously flies the mission, usually at 300 feet above the ground, and takes hundreds of precisely georeferenced photos along the way. During the flight, real-time positional corrections are provided to the drone via a high-precision Global Navigation Satellite System (GNSS) base station, and ground control points are used for further data refinement during postprocessing. Back in the office, specialized software stitches the images together into both a 2D orthomosaic map and a 3D model upon which further analysis can be performed.

The advantages of utilizing the drone are significant. Whereas previous obstruction evaluations were limited to line of sight from the ground, this process allows the inspector to comprehensively evaluate the entire approach area. In addition, data accuracy is improved over previous collection methods. Finally, additional analysis of the data can answer important questions like whose property is the obstruction on and how many trees need to be cleared. Useful maps can also be created to aid in obstruction reporting, decision-making, and eventually mitigation.



A three-dimensional view of the obstruction data and approach surface helps to better illustrate problem areas.



Although the proliferation of unmanned aircraft continues to present challenges to traditional manned aircraft operations, drones are here to stay. Fortunately, new innovations in drone technology should continue to improve our daily lives. We at the BOA think drones should be used to improve our lives as aviators as well and using drones to help clear approaches for aircraft is only step one.

AERONAUTICS BULLETIN



INNESOTA

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

Cassandra Isackson, Director

Minnesota DOT Office of Aeronautics 395 John Ireland Blvd, MS 410 • St. Paul, MN 55155 651-234-7200 or (toll free) 1-800-657-3922

Click, Click, Click – Nothing! Pilot-Controlled Lighting Tips & Reporting

by Casey Carlson
Airport Lighting Coordinator
MnDOT Aeronautics – NavAids Group

ost folks who are not involved with aviation wouldn't know that a radio pulse sequence is used to "key-up" the runway lighting system, as the pilot is on approach. The average citizen may think that the pilot "calls" down with their radio to somebody at the tower or arrival/departure building and instructs them to "turn on the lights." Of course, in the aero world we know this is not the case because most airports don't have staff present around the clock.

The "pilot-controlled lighting" (PCL) system puts the power into the pilot's hands to control the airport lighting system on the ground, from the aircraft.

The radio receiver that controls the PCL system at each airport is constantly monitoring the radio traffic on the local airport radio frequency and is watching for clicks. A click is made by simply tapping the microphone's transmit button on an air-band radio transmitter, and then releasing it right away. If you tap three times within a five-second duration, the lights should turn on at low intensity. Five clicks activate medium airfield light intensity, and seven clicks brings up high intensity. If you are flying at night and need to decrease the intensity, simply click the appropriate number of times for the desired intensity and the lighting system will adjust. Do not click too fast though! The radio controller needs a slight window between clicks to interpret the input as a pulse.

What if you encounter a PCL problem?

Have you flown into one of Minnesota's airports and had very inconsistent results when keying up the airport lighting systems? Or, have you tried to switch the intensity of the lights, and it seems to take more clicks of the radio than it should? This is a problem that should be addressed as soon as possible, to restore the system to its intended parameters.

We are asking pilots to take notice of any abnormalities and pass them along to the airport manager. When MnDOT's

NavAids group performs maintenance checks of the PCL radio receiver, we can use our handheld equipment to test the functionality of the system. But the best testing procedure is done from the air at a longer range. For that reason, it's best if pilots report any potential problems directly to the airport's manager. Many of our Minnesota airport managers are experienced and able to correct problems in-house. Airport managers who run into tricky outage scenarios are welcome to reach out to MnDOT's NavAids group for additional troubleshooting assistance. Below is a list of a few of the issues that may cause outages to the PCL system, and some possible solutions airports might take to get everything back up and running.

Radio Equipment: Pilot-controlled lighting systems are very dependable most of the time, but every component has its own inherent service life. Some of the items that can cause issues are as follows:

Problem: The PCL radio receiver can start to lose its range as components wear out. As this happens, it can drop the system out of its designed tolerances and become unreliable.

Possible Solution: A precision signal generator is brought out to the site. The signal generator plugs directly into the radio receiver and can feed precise signal feeds to determine if the radio is properly adjusted to tolerances.

Problem: The electrical relays inside the radio assembly can get weak and might not engage firmly at the connection points. The relay points can accumulate some corrosion or charring as well.

Possible Solution: Some brands of radio receivers allow for the replacement of components as they begin to wear out. This isn't always an option, and sometimes the whole receiver itself must be changed.

Problem: The radio transmitter itself can create issues. This may be the radio transmitter in an aircraft, vehicle, or handheld.

Possible Solution: Pilots must verify that the aircraft's radio is putting out the proper signal strength and characteristics. One simple way to do this is to run a test with the suspect radio, alongside a similar radio that is known to be working well. Do they act the same? Give the same kind of

range?

Changes to the airport environment: It's easy to only consider the problem to be with the equipment at the airport. Sometimes the signal itself can be disturbed by an outside factor, such as:

Problem: A local AM/FM radio station could unknowingly create interference because of a problem with their own equipment.

Possible Solution: The airport, along with NavAids, would look to isolate what's causing the disturbance and contact the appropriate party.

Problem: A large obstruction nearby might affect the radio's efficacy. Perhaps the construction of a big factory, bridge or overpass could cause interference.

Possible Solution: Since it's likely not possible to remove the building, on an issue like this, a radio engineer gets involved to determine a corrective action. Adjustments may be made to the antenna array, or by installing a different array

altogether.

In Summary: When pilot-controlled radio systems are not working properly, a pilot has fewer resources available to assist with carrying out safe operations at the airport. Realistically, there will always be outages from time to time as equipment ages. Our MnDOT Aeronautics NavAids group strives to accurately report when the systems are down, by using the NOTAM system. We want all pilots to be aware of any systems that are acting up or taken offline for repairs.

What can you do to help ensure PCL systems are operating as they should, and keeping pilots and their passengers safe?

We are calling on you folks who travel through the skies, to help us. Activate (test) those airfield lights. If you notice an issue, bring it to your airport manager's attention. The next pilot who is coming in behind you might have lower visibility and may be counting on those lights.

Flight Risk Assessment Tools and You

by Joe Anderson
Pilot, MnDOT Aeronautics

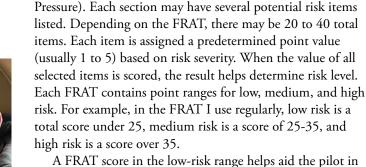
s aviators, we know flying can be a highly rewarding activity. The sense of accomplishment which results from a well-executed flight is hard to beat. However, flying can also be a high-risk activity. Weather, terrain, aircraft unfamiliarity, pilot experience and many other factors all contribute to the overall risk picture.

Do you have a tool you use to help Joe Anderson determine your risk level prior to flying?
A Flight Risk Assessment Tool (FRAT) is an essential item with which all pilots should be familiar.

A FRAT is a required part of a Safety Management System. Many commercial operators are mandated to have a Safety Management System, and numerous other non-mandated operators also have a Safety Management System. For these pilots, using a FRAT is a routine part of their preflight work.

A FRAT is a simple form usually integrated in an online application which lists common risk factors. The pilot utilizes the form by selecting the risks which are applicable to the flight. The result (or score) of the FRAT is returned as a numerical value. Some FRAT applications will color code the score as green, yellow, or red, for low, medium, or high risk, respectively.

A FRAT is typically divided into sections based on the FAA's PAVE acronym (Pilot, Aircraft, enVironment, External



A FRAT score in the low-risk range helps aid the pilot in making a more well-informed go decision. However, a FRAT total on the higher end of the low-risk range should cause the pilot to proceed cautiously, knowing multiple risk factors are in play.

If the total FRAT score is in the medium-risk range, some type of risk mitigation needs to take place before making the go decision. For example, a planned night flight could be delayed until daylight arrives. If lack of experience in a particular aircraft is a risk factor, perhaps a friend or flight instructor with more experience in the make and model could come along on the flight. There are many good mitigation strategies to help combat the factors which produce a higher risk value.

A FRAT with a score in the high-risk range is a clear indicator to the pilot that the flight should not go.

As with other preflight items, such as weather, fuel planning, and weight and balance, the FRAT calculation should happen as early as possible in the planning process. The goal is to allow sufficient time to understand the risk level of the flight and to plan mitigation strategies if necessary.

The FRAT serves as a type of risk checklist as it aids in

proactive hazard identification. It does not make a go or no-go decision for the pilot, but it is a great tool as it helps the pilot perceive risks which may not otherwise be considered.

For example, the risk factor may be elevated when the airport's temperature and dewpoint are within two degrees Celsius of each other. As the pilot sees this item in the FRAT list during his/her preflight risk assessment, the pilot may need to look more closely at the weather to determine if the temperature-dewpoint spread is that close. Without seeing this item on the FRAT, the pilot may have neglected to realize that the temperature-dewpoint spread was close, and the resulting potential for fog which the narrow spread creates.

Some common risk items found on FRATs are the following: pilot with less than 200 hours in type; uncontrolled airport; winter operation; night operation; low-level windshear; moderate or greater turbulence; icing; surface winds greater than 25 knots; and inoperative equipment.

The items on a FRAT form are not standardized and can

be unique depending on the creator. Some FRAT providers allow for customization of items on the form. Keep in mind that no FRAT can account for all possible risk factors, but the most common items are typically included.

FRATs are available through various online providers for a fee. There are also some free FRAT apps available for mobile devices. The FAA offers a free FRAT spreadsheet for both Mac and Windows at http://go.usa.gov/xkhJK. A very simple way to start using a FRAT is to print a FRAT worksheet and keep it handy to manually calculate a total risk score while flight planning.

A FRAT is an excellent way to better understand risk factors before endeavoring into the air. I encourage you, if you are not currently using a FRAT, to find a solution you like. After using a FRAT for a while, it will become part of your normal preflight routine. You will find yourself becoming more risk-aware, which will help you become a safer pilot.

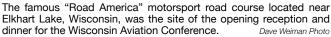
Wisconsin Aviation Conference

65th Wisconsin Aviation Conference Well Attended!



The beautiful Osthoff Resort in Elkhart Lake, Wisconsin, was the site of the Wisconsin Aviation Conference.







7 ith the uncertainty of the pandemic over the past 18 months or so, the Wisconsin Aviation Conference (WAC) moved from its traditional spring dates to October 17-19, 2021, and it was well worth the wait. The conference was held at the Osthoff Resort in Elkhart Lake and cosponsored by the Wisconsin Airport Management Association (WAMA), Wisconsin Aviation Trades Association (WATA), and airport engineers and support services with primary leadership coming from WAMA (www.wiama.org). Hosting the conference was the City of Sheboygan, and Sheboygan County Memorial Airport (KSBM).

A team of dedicated volunteers organized the conference. With the retirement of its former executive director, the board of directors of WAMA pitched in and got the job done to everyone's satisfaction!

Attendees and exhibitors were welcomed by Adam Payne, Sheboygan County Administrator, and Wisconsin Secretary of Transportation, Craig Thompson. Wisconsin Bureau of Aeronautics Director David Greene emceed a panel of state and federal officials who brief attendees on current funding, projects, and procedures, and welcomed dialogue. Among the questions posed during the session was a suggestion that the approval process for airport projects be streamlined to save time and money. But a regional FAA official who was patched in via



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Sheboygan County Memorial Airport (KSBM) was the host airport for the 2021 Wisconsin Aviation Conference. Matthew Grenoble, Superintendent.



(L/R) Brian Grefe, C.M., Director of Central Wisconsin Airport, Mosinee, Wisconsin, received WAMA's President's Award for his leadership of the organization since 2019. Charity Zich, C.M., Director at Chippewa Valley Regional Airport (KEAU), Eau Claire, Wisconsin, received the Person of the Year Award. **David Drozd**, Assistant Airport Director – Finance at Central Wisconsin Airport, Mosinee, Wisconsin, won WAMA's "Sporting Clays" competition. Mike Paffel, a member of the Cumberland Airport Commission, received the Distinguished Service Award. David Jensen, who served as Deputy Director at Dane County Regional Airport (KMSN), Madison, Wisconsin, until he retired in 2020, received the Lifetime Service Award. Kevin Kunde of Mead & Hunt, Inc., received the Airport Engineer Award. Dave Weiman Photo



As part of the "Fly Wisconsin" airport passport program sponsored by the Wisconsin DOT Bureau of Aeronautics and supported by the Wisconsin Airport Management Association (WAMA), five pilots were presented leather flight jackets for having landed at all Wisconsin public-use airports. (L/R) Recognizing this accomplishment at the conference was Kurt Stanich, Director of Waukesha County Airport (KUES). Pilots included Larry Gordon, Lyle Banser, Paul Buss, Dan Marlenga, and Dan Schmid. For full details and registration, go to wisconsindot.gov/FlyWI Dave Weiman Photo

teleconferencing, stated that the process in place, such as environmental assessments which can take months or years to complete, are done in the best interests of airport sponsors.

In addition to seminars and exhibits, "speed dating" with the FAA Chicago Airports District Office returned this year, but appointments were limited.

Breakout session topics included commercial airline service, the future of aviation education, marketing one's airport, Transportation Security Administration updates, existing airport geometry justification and eligibility, airport emergency plans, fueling regulations and best practices, hangar development, discussion for general aviation airports, general aviation airport driver training, solar power and going green, airport electrical safety, and polyfluoroalkyl substances and the environment. AOPA Great Lakes Regional Manager of Government Affairs & Airport Advocacy, Kyle



AOPA Great Lakes Manager of Government Affairs & Airport Advocacy, Kyle Lewis, continued his discussion on the benefits of "tenant/user groups," featured in the October/November 2021 issue of Midwest Flyer Magazine. Dave Weiman Photo

Lewis, continued the discussion on the benefits of "Airport Tenant/User Groups," featured in the October/November 2021 issue of Midwest Flyer Magazine.

At the awards luncheon, the Wisconsin Airport Management Association made the following presentations:

Airport Engineer Award

Kevin Kunde of Mead & Hunt, Inc. was recognized for providing over 40 years of significant professional contributions to airport engineering in Wisconsin and across the nation, including developing expertise in Airport Traffic Control Towers (ATCT), snow removal equipment facilities, hangars, operations centers, fueling stations, electrical vaults, and various specialty structures associated with airports. He is known for his ability to successfully execute complex, highprofile projects with award-winning and innovative solutions.

Distinguished Service Award

Mike Paffel of the Cumberland Airport Commission has been a member of the commission for 30 years, serving as chairman for the past 25 years. During his tenure, Paffel has overseen the development of 20 hangars from an initial







four hangars, plus two very successful private businesses at the airport. Paffel is an expert in federal and state airport programs, which led to the construction of new runways, a new fuel delivery system, ATIS weather reporting, a new arrival and departure building, and construction of a new hangar development area for future expansion. Paffel holds a Private Pilot Certificate and has been an aircraft owner.

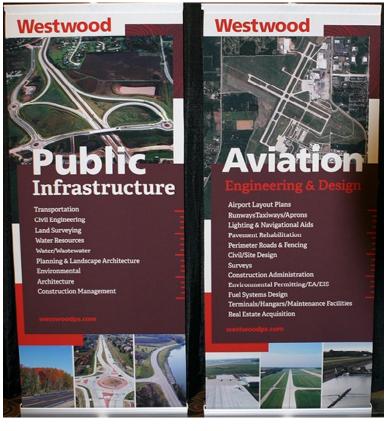
Lifetime Service Award

David Jensen, Deputy Director at Dane County Regional Airport (KMSN), Madison, Wisconsin, served in the Wisconsin Air National Guard for more than 23 years, retiring as a Lieutenant Colonel. He

joined Dane County Regional Airport as an airport operations supervisor in 1991, and served in various roles within WAMA, including president from 1999-2002. That was a busy time for the organization as WAMA worked closely with multiple lobbyists and state elected officials. Jensen spent many hours testifying before numerous committees representing the best interests of Wisconsin airports. Additionally, he helped hire WAMA's first executive director. He served on the WAMA board until he retired from Dane County.

Person of the Year Award

Charity Zich, C.M., Director at Chippewa Valley Regional Airport (KEAU), Eau Claire, Wisconsin, has successfully managed the airport for the past 15 years. During that time, she has held a variety of leadership roles within WAMA, including president.















Zich has maintained and improved WAMA's website, ensured timely and accurate communication, led WAMA's executive director recruitment, was a proponent of increased aviation funding in the state, planned airshows in Eau Claire, and ensured the financial and operational sustainability of the airport through a global pandemic.

Zich is excited to host the

Zich is excited to host the Wisconsin Aviation Conference in Eau Claire once again, October 2-4, 2022.

Other Awards & Recognition

Brian Grefe, C.M., Director of Central Wisconsin Airport, Mosinee, Wisconsin, received WAMA's President's Award for his leadership of the organization since

2019. Milwaukee Mitchell International Airport was recognized by the United States Department of Agriculture Milwaukee Office for the airport's outstanding commitment, support, and leadership as a partner with the Wisconsin Wildlife Services Program. Several "Fly Wisconsin" participants flew in to be congratulated for completing flights to all Wisconsin public-use airports, a program supported by WAMA and the Wisconsin DOT Bureau of Aeronautics. As a reward, each pilot received a leather flight jacket.



Greg Cullen Elected WAMA President

Greg Cullen of Southern Wisconsin Regional Airport (KJVL) in Janesville, Wisconsin, was elected president of WAMA, and the 2021-2022 executive committee and board was confirmed at the general membership meeting. Rachel Engeler, Assistant Airport Director, Green Bay/Austin Straubel International Airport (KGRB), was elected vice president; Jim Schell, C.M., Airport Director, Wittman Regional Airport (KOSH), was elected treasurer; and Matt Grenoble, Airport Superintendent, Sheboygan









County Memorial Airport (KSBM), was elected secretary. WAMA board members include Brian Grefe, A.A.E., Airport Director, Central Wisconsin Airport; Charity Zich, C.M., Airport Director, Chippewa Valley Regional Airport; Abe Weber, A.A.E., Airport Director, Appleton International Airport; Kurt Stanich, Airport Manager, Waukesha County Airport; Matthew Leitner, Airport Director, Rhinelander/ Oneida County Airport; Harold Mester, Director of Marketing and Public Affairs, General Mitchell International Airport; Michael Stephens, Director of Operations and Public Safety, Dane County Regional Airport; Richard Brekke, Airport Manager, Cumberland Municipal Airport.

To view the conference program, go to: https://wiama.org/resources/Documents/WAMA%2065%20Conference%20Program.pdf

To view conference presentations, go to: https://wiama.org/conference-agenda/11679160

The 2022 conference will again be held in the fall, October 2-4, and hosted by Chippewa Valley Regional Airport in Eau Claire, Wisconsin. The clean
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(L/R) WAHF inductees Donald G. Kiel (2021); Scott Brackett, representing his father, 2020 inductee Robert R. Brackett (1926-2008); Lt. Gen. Tad J. Oelstrom (2020); Dr. William A. Blank (2021); Daniel T. Knutson (2021); and Dr. Sherwood Williams (2020). Not shown is John Moody (2020).

Dave Weiman Photo

Wisconsin Aviation Hall of Fame 2021



The Experimental Aircraft Association Museum and Headquarters, Oshkosh, Wisconsin.

Dave Weiman Photo

OSHKOSH, WIS. – The Wisconsin Aviation Hall of Fame banquet was held October 23, 2021, at the EAA Aviation Museum in Oshkosh, Wisconsin. "Individually, those inducted have accomplished a great deal. Collectively, they have contributed a great deal to the aviation community." (WAHF)

Those inducted included William A. Blank, Daniel T. Knutson, Tad J. Oelstrom, John Moody, Robert R. Brackett, Dr. Sherwood Williams, and Donald G. Kiel.

William A. Blank, MD of La Crosse, Wisconsin, grew up watching airplanes fly over his childhood home in Illinois from a nearby Air Force Base. His first flight was on a Lockheed Constellation on a trip to Europe just prior to starting medical school. While an intern, Blank learned to fly at Anoka County/Blaine Airport in Minneapolis in 1968. While he was an ophthalmology resident in Philadelphia, Blank got a tailwheel endorsement in a J-3 Cub at Van Sant Airport, Erwinna, Pa.



2021 WAHF inductee, Dr. William A. Blank of La Crosse, WIsconsin.

Dave Weiman Photo



Accepting the WAHF plaque on behalf of 2020 inductee, Robert Brackett, were his son, Scott Brackett of Kingman, Arizona, and daughter, Jill Fetters of Bakersfield, California.

Skot Weidemann Photo (www.WeidemannPhoto.com).

from a barnstormer who had flown in airshows and learned to fly in a Curtiss Jenny. His pilot's license number was 1000. That's when Blank was first exposed to aerobatics – a skill he would later become known for at airshows throughout the Midwest.

When Bill and his wife, Judy, moved to La Crosse in 1973, they purchased a 1946 Cessna 140. He got a Commercial Pilot Certificate in 1979, an Instrument Rating in 1981, and a Seaplane Rating in 2002. Blank took a 10-hour aerobatic course from Pete Myers of Chicago in Myers' Decathlon at the recommendation of Tom Poberezny of EAA and the Eagles Aerobatic Team. Myers was a retired L-1011 pilot, an airshow performer, and a World War II flight instructor.

From that point on, Blank was hooked on aerobatics and went out and bought a 150 hp Decathlon. He became a Certified Flight Instructor so he could share his love for aerobatics with others.

In 1987, another friend asked Blank if he would put on



2021 WAHF inductee, Donald G. Kiel of Whitelaw, Wisconsin. Skot Weidemann Photo (www.WeidemannPhoto.com).

an aerobatic demonstration at a pancake breakfast. That led to Blank getting an airshow waiver (Statement of Aerobatic Competency). Pilots are required to prove their aerobatic competency first from a minimum safe altitude, then as they gain experience, they can work their way down to the surface. Blank held a surface-level waiver for 27 of the 30 years he held an airshow waiver. He flew his last airshow performance in 2014. During his career, Blank flew 200 performances.

But retiring from learning new skills was not in Blank's vocabulary. When he was 71, he got a multiengine Airline Transport Pilot Certificate. When he was 72, he learned to fly helicopters, and since the hall of fame banquet, he started flying gliders!

Throughout his career, Blank – who is an ophthalmologist by profession -- has been committed to aviation medicine and has been an Aviation Medical Examiner (AME) for most of his career. To this day, he regularly gives seminars to other AMEs and advises whoever holds the title of "Federal Air



2021 WAHF inductee, Daniel T. Knutson, and his wife, Mary, of Lodi, Wis.

Skot Weidemann Photo (www.WeidemannPhoto.com).



Patti Meier of Waupaca, Wis., and Jay Baeten of De Pere, Wis. Skot Weidemann Photo (www.WeidemannPhoto.com).

WISCONSIN AVIATION HALL OF FAME

Surgeon." As of 2021, Blank has been an AME for 42 years and a Senior AME for 35 years. He has also been an FAA ophthalmology consultant for about 25 vears.

Bill Blank was the vice chairman of the La Crosse Regional Airport Board for 5 years. He is a past president of the La Crosse Area Flyers and EAA Chapter 307, and two of their three sons are pilots.

The 6000-hour pilot continues to teach flying, and unbeknown to Blank at the time, among the thousands of spectators in the audience at the Deke Slayton Airfest in La Crosse watching him perform, was Dave Weiman, the publisher of Midwest Flyer Magazine. A few years ago, Weiman invited Blank to become a contributing editor for the magazine. Blank agreed, and today he is the featured columnist for the magazine's "High On Health" column.

Daniel T. Knutson of Lodi, Wisconsin was exposed to aviation since the age of 5 as his father restored aircraft. Like his father, Knutson restored aircraft and flew out of grass airstrips. His meticulous skill and interest made him an expert in aircraft restoration. From the late 1990s to 2006, Knutson was the chief judge of all Piper categories from the Sentimental Journey Fly-Ins. He was also asked to judge airplanes at EAA Air Venture Oshkosh. In 2012, EAA AirVenture Oshkosh celebrated the 75th anniversary of the J-3 Cub and Knutson's J-3 Cub led 175 Cubs from Hartford, Wisconsin where they gathered from throughout the country, to Oshkosh for the monumental fly-in. Knutson's Cub was then displayed at Piper's exhibit as the number one Cub available in the country!

Tad J. Oelstrom of Milwaukee and Waukesha, Wisconsin attended the Air Force Academy in 1961 where he received a Bachelor of Science degree in Engineering. Upon graduation in 1965, he was commissioned a second lieutenant, and assigned to pilot training at Vance Air Force Base in Oklahoma, where he excelled at flying the T-37 Tweet and T-38 Talon jets.

Upon graduation, he flew the F-4 Phantom, and began his 30-plus-year career as a fighter pilot.

During his career, Oelstrom flew 20 types of aircraft which included the A-10 Thunderbolt II, F-15 Eagle, F-16 Fighting Falcon, and the British Hawker Hunter. He served in Southeast Asia, completed 220 combat missions, and concluded his military career amassing more than 4400 flight hours.

Awards and decorations Oelstrom has received include the Distinguished Service Medal, Defense Superior Service Medal, Legion of Merit, two Distinguished Flying Crosses with oak leaf cluster, Meritorious Service Medal with four oak leaf clusters, and the Air Medal with 15 oak leaf clusters.

Oelstrom was promoted through the ranks, serving as squadron and wing commander, and vice commander of the 9th Air Force, ending his flight





(L/R) 1994 WAHF inductee Archie H. Henkelmann with his son, David, and daughter-in-law, April. Skot Weidemann Photo (www.WeidemannPhoto.com).

assignments while commanding the 3rd Air Force. From 1997 to 2000, Oelstrom served as the 14th Superintendent of the U.S. Air Force Academy. He retired in 2000 as a Lieutenant

John Moody is considered by many to be the "Father of Modern Ultralight Aviation." He began his inventive career as a mechanical and development engineer in Milwaukee.

On March 15, 1975, above a frozen lake southwest of Milwaukee, Moody made aviation history by flying a device that looked a little like a nose-less and tailless biplane about 30 feet above the ice.

Moody pioneered the popularity of powered ultralight aviation by starting his business, Ultra Flying Machines of Wisconsin. From his experimentation, Moody has mixed various hang gliders with different engines and control surfaces and innovated the design of several ultralight aircraft. Additionally, he has performed at various airshows and has promoted the sport of ultralight flying through his teaching activities and speeches.

In 1999, Moody was inducted into the EAA Ultralight Hall of Fame. He also received the John F. Moody Award, named in his honor by the U.S. Ultralight Association.

It has been said that John Moody made it possible for humans to fly "almost" like a bird.

Robert R. "Bob" Brackett was the inventor of the universal "Brackett Aircraft Tow Bar," and designed and built induction air filter frames for several general aviation aircraft.



Brackett was born in Waukegan, Ill., on July 28, 1926, and after graduating from high school, he enlisted into the Army Air Corps as an aviation cadet from 1944 to 1946. Post WWII, he graduated from Spartan School of Aeronautics as an A&E mechanic and flight engineer. In 1950, he was reactivated into the Air Force to serve as a crew chief and flew 66 combat cargo missions in Korea. He was released back to the states for pilot training, then returned to Korea as a fighter pilot in F-86 Sabres to fly an additional 60 missions before the war ended. Brackett returned to the states as a First Lieutenant and was chosen as one of the first pilots to fly the supersonic F-100 "Super Sabre" with the 435th Fighter Squadron at George Air Force Base, Calif.

Brackett's love of aviation continued throughout his life. In 1954, he was in an automobile accident during his leave in Texas and met his future wife, Nancy, during his hospital recuperation. He then returned to Illinois to become the personal pilot for P.K. Wrigley of Wrigley Gum Company in Chicago, and flew DC3s for North Central Airlines out of Chicago Midway Airport. In 1959, he became the first airport manager and fixed base operator in Kenosha, Wis., operating Kenosha Aviation Services. There, he flew Twin Beeches, hauling cargo for American Motors, and operated a Part 141 flight school.

In a 1992 interview, Brackett told Midwest Flyer Magazine that while he was at Kenosha, he had a dozen different tow bars – one for each type of aircraft they serviced. "There was a spot on the wall for each tow bar, but they would still often get misplaced, and the mechanics could never find the one they needed, when they needed it," said Brackett. So that's when Brackett invented a universal tow bar that would fit all aircraft. And then came invention number two!

During the Vietnam conflict, jets were experiencing engine failures after only 200 hours of use because of all the dirt in the air. General Motors (GM) designed and began manufacturing a large air filter, which extended the life of the engine considerably. Brackett suggested to the Federal Aviation Administration that the air filters be approved for general aviation aircraft, but was told that the military specs made the design too costly. With a few modifications, Brackett met with General Motors in Flint, Mich., and proposed the new design to them. They liked the design and contracted with Brackett's company to manufacture the brackets.

In 1975, the small sideline business of manufacturing airplane tow bars and air filters became full time, and Brackett moved Brackett Aircraft to Mesa, Arizona. He eventually expanded into helicopter ground support equipment because of his interest in helicopters. He earned his helicopter pilot certificate on his 65th birthday. He then moved his company to Kingman, Ariz. in 1984, where it was the third business established at the airport, now Kingman Airport Industrial Park.

In 1978, General Motors sold the entire line of air filters to Brackett Aircraft, their AC spark plugs to Auburn, and their fuel pumps to Lycoming. Since then, Brackett Aircraft



Dr. George Bolon of Winona State University and Win Air Aviation Services, Winona, Minn.; Dave Weiman of Midwest Flyer Magazine; and Jim Freeman of Helicopter Specialties, Janesville, Wis. Dave Weiman Photo

has added more than 80 new models of air filters.

Over the years, Bob Brackett has been a member of numerous flying organizations. He was a member of the Quiet Birdmen (QBs), Experimental Aircraft Association, Kingman Airport Authority Board, and Wisconsin Aviation Trades Association (WATA), and formed the Kingman Aero Club. In 1998, Brackett was awarded the "Charles Taylor Master Mechanic Award" by the FAA, and in 2005, he received the "Wright Brothers Master Pilot Award," also from the FAA. His flying adventures included circumnavigating the United States in 1992, and flying the Arizona state flag from Kingman, Ariz. to Kitty Hawk, N.C. in 2003, as Arizona's official delegate to the Centennial of Flight Celebration of the Wright Brothers. Brackett also participated in the 2005 Canada Fishing Fly-Out promoted by Midwest Flyer Magazine. At age 79, Brackett and his life-long friend and fellow aviator, retired Eastern Airlines Capt. Roy Peltz, 81, of Miami, Florida, flew Brackett's Beechcraft Baron from Kingman, Arizona to Fort Francis, Ontario in one day, flying VFR, and made a perfect textbook landing, arriving in time for dinner. Brackett also built and flew a "Kit Fox" airplane in 1994.

Bob Brackett passed away in 2008. He and his wife of 52 years, Nancy, had four children: Sheryl Brackett, Scott Brackett, Roy Brackett, and Jill Fetters, and his family continues to operate Brackett Aircraft Company and Brackett Aero Filters, as they have since 1968.





WAHF attendees, Rosie Duckworth of Alma, Michigan, and Luke Lachendro of Watertown, WIsconsin.

Skot Weidemann Photo (www.WeidemannPhoto.com)



Photographer, Skot Weidemann.

Dave Weiman Photo

Dr. Sherwood Williams was a high school math and mechanical engineering teacher by profession and had never ridden in an airplane until he was given an introductory flight lesson as a birthday gift when he turned 50. After that he started flying lessons, soloed, and was on his way to an exciting career in aviation.

Dr. Williams served as a consultant to teachers at the University of Wisconsin - Green Bay, and at Viterbo University in La Crosse for over 25 years. His graduate-level continuing





(L/R) 2017 WAHF inductee Chuck Swain of Beaver Dam, Wis. and 2005 WAHF inductee Duane Esse of Waunakee, Wis.

Skot Weidemann Photo (www.WeidemannPhoto.com).

education courses are aimed at improving aviation teaching techniques. He has developed curricula, taught courses, created a website, and wrote a variety of publications, all aimed at improving the delivery of aviation education in Wisconsin.

Dr. Williams also owned CAVU Flight Academy, for which he was chief instructor. He has earned all 10 phases of the FAA Pilot Proficiency Award Program. He also has a Gold Seal on his flight instructor certificate and over 9000 hours of flight time. Dr. Williams was a Designated Pilot Examiner (DPE) from 2003 to 2018. He has flown as a charter pilot out of Green Bay and been a consultant to the EAA Youth Aviation Program, where he trains teachers about aviation. Dr. Williams currently serves as the National Aerospace Education Manager for the Civil Air Patrol.

Donald G. Kiel was born in Whitelaw, Wisconsin in 1945, and signed enlistment papers for the U.S. Air Force at his high school graduation party in 1963. He was assigned to the 90th Minuteman Missile Squadron and promoted to Airman First Class, leading a team of missile maintenance mechanics to 200 Minuteman Missile sites in Wyoming, Nebraska, and Colorado.

During this time, Kiel joined the base flying club and took flying lessons, earning his private, commercial, multi-engine and instructor ratings which helped him land his first flying job with Overland Air Service in Sidney, Nebraska following the service.

After working his way through several crop dusting and airmail jobs, Kiel started flying for Air Wisconsin, then for North Central Airlines, retiring with Northwest Airlines in 2005 after flying 10 different airplanes, from the Convair 580 domestically, to the Airbus A330-300 internationally. Kiel has logged over 30,000 flight hours in more than 100 aircraft types and has owned numerous antique and classic aircraft.

Aside from his airline career, Kiel has served as vice president of EAA Chapter 383, chairman of Manitowoc Aviation Day, and on the Manitowoc Airport Advisory Committee. Most notably, Kiel was among a small group of individuals who championed a change in Wisconsin law to protect private airport owners from frivolous lawsuits (Wisconsin Statute 895.52).

31st Annual Minnesota Aviation Hall of Fame

Photos by Randy Arneson

BLOOMINGTON, MINN. – The Minnesota Aviation Hall of Fame Induction Ceremonies was held October 30, 2021, at the DoubleTree by Hilton Hotel Bloomington - Minneapolis South. Persons inducted included Eugene R. Andreotti, Jr., Dr. Harold H. Brown, Chester W. Hazelton, Glenn L. Hovland, Barbara J. Wiley-Lindquist, James T. Hancock, and William A. Mayencamp.



2020 MAHF inductee, Maj. Gen. (Ret) Eugene R. Andreotti, Jr. (center).

Eugene Andreotti, Jr. (Maj Gen Ret), long associated with the Minnesota Air National Guard, was Minnesota Adjutant General, 1988-2003. Andreotti was born in St. Paul, Minnesota and earned a bachelor's degree in Political Science from the University of Minnesota. He worked briefly for North Central Airlines and later for Blue Cross/Blue Shield.

Joining the Minnesota Air National Guard, Andreotti was commissioned after graduation from pilot training at Laughlin Air Force Base, Texas. In 1971, he began flying the Boeing C-97 Stratofreighter. He was an air technician and held many positions, including Chief Safety and Maintenance Group Commander for the 133rd Airlift Wing (AW). Andreotti later transitioned to the C-130 Hercules and logged over 5,000 hours of flight time.

In 1988, Minnesota Governor Rudy Perpich appointed Andreotti Minnesota Adjutant General; the first and only Air National Guard member to be appointed to that position, which he held thru 2003.

Andreotti advocated for and installed at Minneapolis and Duluth, the Starbase Minnesota education program, which has served over 50,000 inner city students,

teaching them technology and aeronautics through the Science, Technology, Engineering and Math (STEM) Program.

Dr. Harold H. Brown was a Tuskegee Airman during World War II, served in the Korean War, and was a pilot with the Strategic Air Command (SAC), college vice president, lecturer, and book author.

Brown was born in Minneapolis, Minnesota, and is a graduate of Minneapolis North High School. He took his first airplane ride at Wold-Chamberlain Field in 1941 and soloed at Moton Field in Tuskegee, Alabama, after enlisting in the Army Air Corps.

Brown trained in the PT-17, BT-13 and AT-6 and was assigned to fly fighter aircraft. He went on to fly combat missions in the P-47N Thunderbolt, P-38

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(L/R) MAHF 2020 inductee, Dr. Harold H. Brown, with the banquet emcee and host of the radio program *The World of Aviation*, Al Malmberg. Dr. Brown's wife, Dr. Marsha S. Bordner, received the 2020 "Aviation Writer of the Year Award" for her book *Keep Your Air Speed Up* about her husband who was a Tuskegee Airman during World War II.

Lightning and the P-51C/D Mustang. His first assignment was with the 332nd Fighter Group at Ramitelli Airfield, Italy. Flying his 30th mission in Italy, he was strafing a German train when the locomotive's boiler blew up and shrapnel damaged his engine, forcing him to bail out. He was captured and spent the last few weeks of the war in a German prisoner of war camp.

After the war, Brown received orders to be an instructor at Lockbourne Air Force Base, Columbus, Ohio. At the start of the Korean War, Brown was transferred to the Far East Material Command at Tachikawa, Japan. He flew missions from Taegu, Pusan, and Seoul bases in Korea. During one flight, he experienced an explosive decompression while flying an F-80 Shooting Star jet fighter. The canopy departed the aircraft, taking the rudder with it... also leaving a two-inch gash along Brown's flight helmet. The canopy almost took his head off! Brown was able to safely land the aircraft.

Following the Korean War, with his unit still segregated, Brown was again assigned to Tuskegee Army Airfield as a flight instructor. He went on to earn qualifications as a bombardier/navigator while stationed at Lockbourne AFB a second time. He then advanced to become an electronics instructor and then supervised other instructors as the chief of basic electronics. As a senior pilot, Brown was selected to serve in the Strategic Air Command where he qualified as a B-47 pilot. In January of 1958, his unit's mission transitioned from reconnaissance to electronic countermeasures. Eventually Brown became a flight instructor on the B-47. In 1961, he was hand selected to be a SAC Command Post Controller.

In 1965, Brown transitioned from active duty as a Lt. Colonel and attended Ohio University, receiving a degree in Mathematics. He went on to obtain his doctoral degree and taught at Columbus Area Technical School. He became chair of the Electrical Engineering Program and eventually vice president of Columbus State Community College.

Chester W. Hazelton (1910-2001) was an aerial photographer with Mark Hurd Aerial Surveys, and a global photographer. He was born in Minneapolis, Minnesota, and



(L/R) Clyde Hazelton and Stephen Hazelton accept the MAHF plaque on behalf of their father and 2020 inductee, Chester W. (Bill) Hazelton (1910-2001).

began flying at Freeman Aircraft Service in 1933 in an OX-5 Travel Air. He received his Private, Commercial and Transport Pilot Certificates the same year. He worked briefly at Freeman Aircraft Service as an instructor and special assignment pilot.

Hazelton spent the largest part of his career flying aerial photography missions. He joined the Mark Hurd Aerial Survey Company in 1938, flying missions for the Soil Conservation Service and the U.S. Geological Survey. Based out of St. Cloud, Minnesota, Hazelton flew mapping flights over northern Minnesota, and in New York, Massachusetts, Pennsylvania, and Maine.

When World War II broke out, the government had absorbed most of the Hurd employees and aircraft. Because of that, Hazelton joined Pratt & Whitney's aircraft service department, training military mechanics on the installation of engines. Later he worked for Springfield Flying Service in Springfield, Missouri, ferrying new Cessna aircraft to customers. Following the war, Hazelton returned to the Twin Cities and worked at Northwest Airlines for one year, then returned to the Mark Hurd Aerial Survey Company in 1955.

At the time of his death in 2001, Hazelton had accumulated over 20,000 hours of flight time.

Glenn L. Hovland (1920 – 1994) was a World War II flight instructor, balloon flight support pilot, and corporate pilot.

A native of Austin, Minnesota, he enlisted in the Army Air Corps in 1941, and became a flight cadet, soloing in 1942. He went on to earn his wings and a commission as a 2nd Lieutenant. He was assigned duties as a flight instructor at Yuma, Arizona; Pecos, Texas; and Lincoln, Nebraska, accumulating over 2,200 flight hours.

After he transitioned out of the Air Corps in 1945, Hovland embarked on an extensive aviation career beginning as

MINNESOTA AVIATION HALL OF FAME



Kaaren (Hovland) Wuertz (center) accepts the plaque on behalf of her father, 2020 MAHF inductee, Glenn L. Hovland (1920-94), along with other family members: (L/R) John Hovland, Hedy (Hovland) Downing, Kaaren (Hovland) Wuertz, Bruce Hovland, Jenny (Hovland) Karow, and Scott Hovland.

a civilian instructor at Oxnard, California. In 1946, he moved back to Austin, Minnesota, where he flew charter flights across the country for local businesses in a Navion, which was named "Spam Town" after his hometown's most famous product. He partnered with Austin Aero Service and continued flight instructing while serving as a Civil Air Patrol commander.

During this period, Hovland flew charter flights for several well-known politicians, including Adlai Stevenson, Estes Kefauver and President Dwight D. Eisenhower.

In September 1955, Hovland was hired to ferry Lockheed Lodestars from Spain to Minneapolis where they were to be demilitarized and sold for civilian use. It was during this time that he worked as a chase plane pilot for high-altitude balloons. Among the balloons Hovland tracked was the balloon piloted by Joseph Kittinger in "Project Manhigh," a pre-space aeromedical project of the U.S. Air Force from 1955-1958. Hovland tracked the balloon from South St. Paul, which reached an altitude of 95,000 feet. Under a follow-up project, Hovland tracked Major David Simons on another epic flight that topped an altitude of 101,000 feet.

Hovland later worked for Minnesota Airmotive and became a corporate pilot for Hormel Company. Hovland flew at least 6,800 hours chasing balloons and over 40,000 hours in all when he retired in 1982.





Retired air traffic controller, Al Lindquist, with his wife and 2020 MAHF inductee, Barbara J. Wiley Lindquist, and 2008 MAHF inductee, Waldo R. Anderson.

Barbara J. Wiley-Lindquist is a native of Robbinsdale, Minnesota. Her father gave Wiley her first airplane ride at Minneapolis-Crystal Airport. She later soloed a Cessna 150 in 1965 and earned her Private Pilot Certificate a year later. By 1971, she went on to earn her Instrument, Seaplane, Instructor and Air Transport Pilot Certificates, a Bachelor of Science Degree in Education from the University of Minnesota, and taught in the Osseo, Minnesota School District.

Once Wiley accumulated 4000 hours of flight time instructing and flying charter at Crystal Shamrock, she applied at North Central Airlines. Because she was a woman seeking a job in a male-dominated occupation, she masked her gender on the application by only using her first initial and last name.

Wiley was hired by North Central Airlines in 1974 as a First Officer and flew the Convair 580, becoming one of the first women hired by a major airline to fly "right seat."

Wiley's pioneering career continued with her becoming a DC-9 first officer in 1977, Convair 580 captain in 1979, DC-9 captain in 1984, and an Airbus A320 captain in 1991. She achieved the rank of captain on the Boeing 747-400 in 2004. Following her retirement from the airlines in 2005, Wiley transitioned to screening and interviewing prospective

pilots for Compass and Endeavor Airlines.

James T. Hancock is a Vietnam veteran, was a captain with Northwest Airlines, a pilot examiner with the Federal Aviation Administration, an aircraft homebuilder, and made 1,000 parachute jumps. During his flying career, Hancock accumulated over 19,000 flight hours.



2020 MAHF inductee, James Hancock.

William A. Mavencamp of Maple Lake, Minnesota, was involved in Vocational Flight Training from 1970 until 1978. An FAA-designated examiner from 1972-2010, Mavencamp gave more than 20,000 checkrides during his career. He passed away in 2015.

In addition to the inductees, the Minnesota Aviation Hall of Fame recognized **Marsha S. Bordner** as "Best Aviation Writer of The Year" for her book "Keep Your Airspeed Up," and sculptor

Nicholas

Year."

Legeros, as

"Best Aviation

Artist of The



Mary Alverson of the MAHF Planning Committee presents the 2020 MAHF Aviation Art Award to Nicholas Legeros of Edina, Minnesota.



Bill Mavencamp of St. Cloud Aviation accepts the award on behalf of his father, William A. Mavencamp, Sr. (1927-2015), who is a 2020 MAHF inductee.

The master of ceremonies for the event was the host of the radio program "World of Aviation," Al Malmberg.
The program is sponsored by Academy College and Thunderbird Aviation and is heard each Sunday morning at 10:05 a.m. (CT) on am1280ThePatriot.com (www.

academycollege.edu and www. thunderbirdaviation.com).

Minnesota Aviation Hall of Fame sponsors include the MSP

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The **2022 Minnesota Aviation Hall of Fame** banquet will be held Saturday, April 23, 2022, at the InterContinental Minneapolis – St. Paul Airport Hotel, 5005 Glumack Dr, Minneapolis. Ezra Benham "Ben" Curry, Duane Edelman, Kathy Vesely, Dale Klapmeier, Martin Knutson, and Tim Callister will be inducted.

Ezra Benham "Ben" Curry (1896 – 1991) was born in St. Paul, Minnesota. He began his career as a railroad locomotive cleaner and was recruited as a civilian in 1917 by the Norton-Harjes Ambulance Service of France to drive battlefield ambulances. He had hoped to join the French Army but returned to St. Paul later that year when the ambulance service



was disbanded. Curry then returned to St. Paul and enlisted in the U.S. Army Signal Corps Reserve, where he soloed a Curtiss Jenny in 1918 and served as an engineer.



Cheri Rohlfing, MAHF Chairperson.



The President of Academy College, Nancy Grazzini -Olson (right), presents one of two "Sherm Booen Legacy Scholarships" to Brianna Regan (left). Casey Decker also received a scholarship. Academy College, located in Bloomington, Minnesota, sponsors the scholarships each year, valued at \$5,000 each. The scholarships are presented to students pursuing a professional pilot career to honor and continue the legacy of Minnesota aviator, Sherm Booen, the original producer of *The World of Aviation*.



Family members of 2020 MAHF inductee,

Maryalice and Jim Hanson of Albert Lea Airport, Albert Lea, Minnesota. Jim Hanson was inducted into the MAHF in 2005.



Julie E. Clark and Mike Brewer. Clark was inducted into the MAHF in 2016.



2019 MAHF inductee, Glenn A. Kinneberg (R), with his son and daughter-in-law, Russell and Jody Kinneberg.

In 1942, Curry was hired by Northwest Airlines and assigned the General Manager of Northwest Airlines' Vandalia, Ohio B-24 Modification Center. In 1944, he was transferred to the Holman Field, St. Paul Modification Center. Under his supervision, B-24s were retrofitted with radar units, and converted to tankers and camera ships. In 1946, following the war, Curry's family bought Island View Lodge on Gull Lake near Brainerd and he returned to work for Northwest Airlines as the contract manager at the Boeing plant in Seattle to build B-377 Stratocruisers. When he returned to Minnesota, he became the supervisor of line maintenance, and in 1951, he became manager of the

mechanical division. In 1952, he resigned to work at the family lodge full-time. In 1962, Curry got current again and joined the Crow Wing Flying Club at Brainerd and flew a Beechcraft Bonanza. He retired from active flying at age 74. Curry's original pilot's license was 4651.





Duane V. Edelman (1941 -) grew up on a dairy farm near Clintonville, Wisconsin. As a young boy, he saw a North Central Airlines DC-3 fly overhead and announced to his brother and father "that's what I'm going to do when I grow up" and he did. He enlisted in the U.S. Air Force straight out of high school in 1959 and became an aircraft crew chief, eventually maintaining F-100s for the U.S. Air

Force Thunderbirds demonstration team. Edelman moved to Sioux City, Iowa to learn to fly and received his Commercial Pilot Certificate in 1964. He flew skydivers and made mortuary flights to build time, receiving his Airline Transport Pilot Certificate in 1966. He was hired by North Central Air Lines and flew DC-3s, the very aircraft and airline that had inspired him as a kid. He lived in Minnesota and worked for the airline for 38 years through its mergers with Republic and Northwest, flying the Convair 440 and 580, DC-9, and Boeing 727, 757 and 747.

Numerous letters of support list the many non-flying positions Edelman held with the airlines. At the time of the merger with Northwest Airlines, he held the title of Director of Flight Operations, while continuing to fly the line. Northwest then appointed him Director of Flight Technical, where he worked on the implementation of the electronic flight bag, electronic clearance and taxi clearance. He was then given the title of Temporary Vice President in order to become Chairman of the SAE S7 Committee for the International Air Transport Association (IATA), writing guidelines for international operations. For this work, Northwest Airlines awarded him the "President's Award."

After retiring from Northwest Airlines, Edelman started his own company, Aircraft Data Fusion. The company worked on launch and recoverable space vehicles for the X-Prize competition, and with Honeywell on human factors. He worked on the concept of Free Flight, which would allow aircraft to control themselves to separate from other traffic, and the integration of supersonic aircraft into an airline operation (www.aircraftdf.com).

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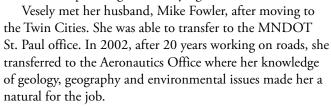
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Edelman has served with the following associations: ATA Airport Surface Movement Committee, Windshear Detection System working group, University of Minnesota Aeronautics Advisory Curriculum Committee, Space Transportation Association Advisory Board for business cases for commercial space tourism, Pratt & Whitney Advanced Engine Design Advisory Board, and Rockwell Collins Pilot Advisory Board. He is a member of the association of pilots, Quiet Birdman (QB), and continues to fly his own Cessna 182 Skylane.

Kathleen R. Vesely (1954 -) of Golden Valley, Minnesota was born in Bemidji, Minnesota. She got her first airplane ride from an itinerant seaplane pilot at the city's seaplane docks on Lake Bemidji in 1964. She went to college in Bemidji, where she studied Geology and Geography, and Planning and Environmental Studies. She began her career working for the Minnesota Department of Transportation (MNDOT) in Bemidji on highway construction planning and surveying.



Vesely was able to guide airport operators with their planning and compliance with MNDOT funding requirements. Her skills in coordinating the two elements – funding and airport needs – were central to her ability to get things done. She emphasized long-range planning, allowing both funding agencies and airports to see 10 or 20 years into the future.

Vesely was appointed Assistant Aeronautics Director under Cassandra Isackson. She then canvassed every airport in Minnesota to help determine their future needs. The FAA was so impressed with her work that it allowed her to coordinate Minnesota airports with federal funding needs.

Vesely retired from MNDOT in 2020 after 41 years of service, including 18 years with the Minnesota Office of Aeronautics.

Vesely bought her husband flying lessons for his 40th birthday. After the couple purchased and restored a Cessna Cardinal, they both took flying lessons.

Born in DeKalb, Illinois, **Dale E. Klapmeier** (1961 -) attended the University of Wisconsin-Stevens Point, graduating with degrees in Business Administration and Economics. Growing up he built model airplanes, frequented the local airport, and dreamed of designing his own airplane. He started flying at age



MINNESOTA AVIATION HALL OF FAME

15 in a Cessna 140 he and his brother, Alan, bought together. The brothers then rebuilt a wrecked Aeronca Champion and built a Glasair homebuilt aircraft.

In 1984, the Klapmeier brothers founded Cirrus Design Corporation in the lower level of their parents' rural dairy barn. Their first design was the VK30, a pusher-type aircraft, which they built at their Baraboo, Wisconsin facilities. Along with their aircraft designs, the Klapmeiers pioneered an emergency parachute recovery system for aircraft, designed to lower a nonfunctioning aircraft to the ground, saving the lives of its occupants. The concept has also become a major marketing tool.

In 1998, the Cirrus SR20 was certified, followed by the SR22 in 2000. The aircraft design continued to evolve, the number of manufacturing employees kept increasing, and the production plant continued to grow. The Klapmeiers soon outgrew their Baraboo, Wisconsin facilities and they moved to Duluth International Airport in Minnesota, and later established another facility in Grand Forks, North Dakota. The SR20 and SR22 feature all-composite airframes, full glass cockpits and side-stick controls. By 2003, the SR22 had become the highest selling general aviation aircraft in the world! The company's most recent design is the SF50 Vision

Jet, a single-engine personal jet aircraft, which was certified in 2016. In 2011, Cirrus was sold to China Aviation Industry General Aircraft (CAIGA), but Dale Klapmeier remained the company's CEO until 2019.

Martin Knutson (1930 – 2013) was born in Minneapolis, Minnesota. He graduated from St. Louis Park High School and attended the University of Minnesota majoring in Electrical Engineering in the Navy's Holloway Plan, which was a program that paid for college while the student served in the military. While working in the Pacific Fleet during the summer of 1949, Knutson took



his first airplane ride in the ball turret of a Grumman TBM Avenger. It was after that flight he decided it would be better to be in the cockpit where the controls were.

In 1950 Knutson transferred to the Air Force for flight training, where he trained in the T-28 and F-80A. Upon graduation, he was assigned to a jet fighter squadron and deployed to Korea where he flew combat missions in the F-80 and F-86.

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

Following Korea, Knutson was assigned to the Strategic Air Command (SAC) as a fighter pilot stationed at Turner AFB, Georgia, where he flew the Republic F-84, training for long-range nuclear strike missions. In 1955, Knutson volunteered for assignment to the Central Intelligence Agency (CIA) where he participated in the flight testing of the Lockheed U-2, nicknamed "Dragon Lady," a single-engine, high-altitude jet reconnaissance aircraft. He was then deployed to Europe and flew missions over the Soviet Union. Knutson continued to fly covert missions over 'denied territory' throughout the world until his retirement from the Air Force in 1970.

Following his retirement, Knutson joined the National Aeronautics and Space Administration (NASA) Ames Research Center in California as Manager of Earth Resources Projects. There he helped develop airborne remote sensing equipment for observation satellites. He helped modify U-2 aircraft for earth sensing missions regarding sea and land ice, wildlife habitat, ozone depletion, air pollution, typhoon dynamic structure, and other environmental projects.

Knutson moved on to become the NASA Site Manager at the Dryden Test Flight Facility. This was during the beginning of the Space Shuttle program when most of the Shuttle landings were made at Edwards Air Force Base. At Dryden, he participated in many unique test programs and was responsible for NASA obtaining three SR-71 aircraft for environmental missions, after the Air Force had retired them. At the age of 67, Knutson flew an SR-71 to a speed of Mach 3.275. He retired from NASA in 1997.

Knutson served a combined 47 years with the Air Force, CIA and NASA. He amassed over 4000 flight hours in the U-2 during his 29 years flying the aircraft.

A native Minnesotan, **Timothy C. Callister** (1947 -) was born in Owatonna and raised on a farm in West Concord. At the age of 7, he decided he wanted to be an airline pilot. As a gift from his parents, he experienced his first airplane ride on a North Central Airlines flight from Minneapolis to Rochester. Callister later decided he wanted to become a Department of Natural Resources



Conservation Officer; however, world events disrupted that plan. The U.S. involvement in Vietnam was escalating and in 1968, he joined the U.S. Army. As a Warrant Officer, he served in the 189th Assault Helicopter Company in Vietnam. During his time in Vietnam, he was awarded the Distinguished Flying Cross for his heroic actions in suppressing heavy enemy fire during a rescue mission. He was also awarded the Bronze Star and the Air Medal.

Following his service in Vietnam, Callister returned to Minnesota and attended St. Cloud State, graduating with a degree in Transportation and Urban Planning. While attending the university, he joined the Minnesota Army National Guard and became a helicopter instructor for the 47th Aviation Battalion, St. Paul, and as a member of the 2-147th Aviation Battalion, State Area Readiness Command. He retired from the National Guard in 1991.

In 1974, Callister joined the Metropolitan Airports Commission (MAC) and interned in the planning and engineering department, eventually becoming the Manager of the Reliever Airport System, responsible for six general aviation airports, with 750,000 operations a year. In 1986, he was hired as the Minneapolis-St. Paul International Airport Assistant Airport Director. In 1996, Callister moved into the Airport Director's position, overseeing 250 airport staffers, and was involved in planning, designing and implementation of a \$3.1 billion expansion and upgrade to the airport.

In 2004, Callister retired from the Metropolitan Airports Commission and joined Mead & Hunt as a Senior Project Planner for Aviation Services. He also cofounded the Minnesota Council of Airports (MCOA). Callister is also a member of the American Association of Airport Executives (AAAE), and the Vietnam Helicopter Pilots Association in which he served as President of the Upper Midwest Chapter from 2019 to 2020.

Tim Callister has spent his retirement promoting airport matters in Minnesota by speaking on their behalf, serving as an airport tour guide, and mentoring aviation students in finding careers in the airport industry.



Midwest Flyer Magazine contributing photographer, Randy Arneson, and his wife, Becky. Randy Arneson was the 2005 Minnesota Aviation Hall of Fame "Artist of the Year" and provided all the photographs published with this article on the 2021 MAHF Induction Ceremonies.

Banquet Registration & Hotel Reservations

To register for the 2022 banquet or to make donations, email MAHOFBanquetReservations@gmail.com or call 952-906-2833 (www.mnaviationhalloffame.org).

For hotel reservations, call the InterContinental Minneapolis – St. Paul Airport Hotel, 5005 Glumack Dr., Minneapolis, MN 55450 at 612-725-0500.

UND Aerospace Hall of Fame Inductees Recognized During Homecoming Week

GRAND FORKS, N.D. – On October 22, 2021, the John D. Odegard School of Aerospace Sciences recognized seven distinguished alumni as the latest inductees in the UND Aerospace Hall of Fame. The group represented both the 2020 and 2021 classes of inductees, the third and fourth classes since the UND Aerospace Hall of Fame's establishment in 2018. Robert Kraus, Dean of UND Aerospace, said the Hall of Fame is the college's way of recognizing the significant accomplishments and contributions of UND's outstanding aerospace alumni.

"This year, we were happy to induct the Hall of Fame classes of 2020 and 2021," Kraus said. "Reading through the nomination packages was a true pleasure. They highlighted the foundation that the University of North Dakota, the John D. Odegard School of Aerospace Sciences and its predecessors laid for lifetime success."

The 2020 inductees into the UND Aerospace Hall of Fame are as follows:

Donald Dubuque '81

From 1979 through 2018, Dubuque's roles at the University of North Dakota included Chief Flight Instructor, Assistant Director of Flight Operations and Director of Extension Programs. He helped establish eight extension sites on behalf of the UND Aerospace Foundation to provide flight training, which included



partnerships with the U.S. Space and Rocket Center, as well as Cirrus Aircraft. Currently, the Phoenix extension site flies more than 45,000 flight hours annually.

Dubuque is also credited with buying and selling more than 300 aircraft for the university, and his strategy of owning rather than leasing aircraft saved millions of dollars for UND.

Larry Martin '71

Serving as Chairman of the Board for the UND Aerospace Foundation since 2008, Martin spent many years of his career in airline leadership positions. In 1980, he joined the team that founded People Express Airlines, where he served as Managing Officer and helped lead the airline to \$1 billion in revenue, 5,000 employees and 130 aircraft in just five years.



After merging with Continental Airlines and acquiring Frontier Airlines in 1986, Martin would go on to serve as President for Frontier and later as Regional Vice-President for Continental. He is also credited with establishing the first university pilot bridge program between an airline and UND in the early 1980s.

While at UND, Martin was the first student president of the Student Aviation Advisory Council in 1969 and was on the first UND Flying Team to compete in the annual NIFA SAFECON competition.

Lamar Haugaard '85

Since his graduation in 1985, Haugaard has served as a Captain, Director of Pilot Hiring and System Chief Pilot for Horizon Air. Before finishing at UND, Haugaard also worked as a flight instructor and charter pilot for Northern Airway.



UND Aerospace recognized Haugaard for his role in bringing

more than 500 UND alumni to fly for Horizon Air via a university partnership valuing academic experiences for aspiring pilots. He's credited with mentoring many professionals in the industry, as well as serving as an Industry Trustee on the Board of Directors of the Aviation Accreditation Board International for 12 years.

Jeff Boerboon '92

Boerboon is perhaps best known as an airshow performer, having flown in more than 100 events and creating the one-of-a-kind Yak 110 – a combination of two Yak 55 aircraft with a jet engine. Since 1999, Boerboon has flown for Delta Air Lines as an Airbus 320 captain.



Before joining Delta, he flew for Grand Canyon Air Tours and American Eagle Airlines between 1992 and 1999. Boerboon won the U.S. National Aerobatic Championship in 2003 and 2007 in the Advanced Category, as well as in 2010 in the Unlimited Category. He has been a member of both the U.S. Advanced and Unlimited Aerobatic teams, having flown in multiple World Aerobatic Championships, receiving numerous awards and accolades.

While at UND, Boerboon was an aerobatic flight instructor and a member of the 1989 and 1990 NIFA National Championship teams.

The 2021 UND Aerospace Hall of Fame inductees are as follows:

Jeffrey D. Hart '79

Since graduating in 1979, Hart has more than 42 years of airline operations experience. Until 2009, Hart held a variety of directing roles at Northwest Airlines, Inc. with expertise in operations control, passenger service, aircraft servicing, international operations, government and airport relations, facilities, and flight dispatch.



Since 2009, Hart has worked for Delta Air Lines as General Manager for Airman Certification Standards at Minneapolis-St. Paul International Airport. He has also served as the team leader of the Frozen Flyers since 2008 for the Minnesota Polar Bear Plunge, which benefits the Special Olympics.

In 2020, Hart's team raised more than \$270,000, and more than \$1 million since joining the Frozen Flyers.

James Koslosky '76

Starting his career in the United States Air Force, attaining the rank of Staff Sergeant as an Air Traffic Control Specialist, Koslosky went on to serve as a Planning Supervisor, Operations Manager and Executive Director for multiple airports in Wisconsin and Michigan.



From 1986 to 1991, he was Executive Director of the Fort Wayne-Allen County Airport Authority before being named Executive Director of Gerald R. Ford International Airport, located in Grand Rapids, Mich., a position he held until 2012.

Koslosky was directly involved in the creation of two degree programs at UND: Airport Administration granted through the Nistler College of Business & Public Administration, and Aeronautical Studies granted through the College of Arts & Sciences.

Hal E. Adams '75

Adams has more than 40 years of civil and military aerospace experience, specializing in business development and strategies support with emphasis in avionics. He served the United States Air Force as a B-52 combat flight crewmember during the Vietnam conflict, where he was awarded the USAF Air Medal with three oak leaf clusters.



Adams would go on to co-found Accord Technology, where, during his tenure as COO, he achieved FAA approval for the industry's first advanced GPS sensors used in ADS-B technologies.

In 2015, Adams co-founded Aerospace Business
Development, where he has since served as Managing
Director. Four years later, in 2019, he co-founded AviaGlobal
Group, another aerospace business development venture.

People In The News

Shelly Simi To Receive 2021 Brewer Trophy For Aerospace Education

WASHINGTON, DC – The National Aeronautic Association (NAA) has announced that Shelly Simi has been selected the recipient of the 2021 Frank G. Brewer Trophy. The trophy was established in 1943 to honor "... significant contributions of enduring value to aerospace education in the United States." Past award recipients include Senator Barry Goldwater, AOPA's You Can Fly Program, Astronaut Donald Thomas, Barrington Irving, The Ninety-Nines, and the 2020 recipient, Professor James Gregory, Ph.D.



Shelly Simi

Shelly Simi is being recognized for "... her professional leadership and unwavering dedication in promoting aviation and aerospace education through industry partnerships, workforce initiatives, and organizations dedicated to aviation across the United States."

As a professional communicator and collaborator, Simi is known for going above and beyond to expand and promote aviation education outreach efforts that encourage students to choose aviation as a career. By working with colleges and universities,

teachers, lawmakers, government partners and aerospace manufacturers, she has long demonstrated her ability to create programs and initiatives that have lasting effects on the industry.

Simi is a co-founder of the National Coalition for Aviation and Space Education (NCASE) which began as a partnership with FAA and other organizations to create a clearinghouse of resources for teachers. She helped create the national learn-to-fly program, "Be a Pilot," where over 100 General Aviation Manufacturers Association (GAMA) members worked with other industry association groups to attract new pilots and reverse the trending decline in student starts. Simi is a founding board member of Women in Aviation, International, an organization created by Dr. Peggy Chabrian to bring more young women into aviation through mentorships, educational outreach and scholarships now exceeding \$13.2 million.

"The Brewer Trophy represents the best in aviation education, and the fact that it resides in the nation's premier educational institution, The Smithsonian, is evidence of that," said NAA President Greg Principato. "Shelly throughout her career, in a variety of roles, has made the promotion of aviation education a high priority. Whether attracting and training new pilots, helping start Women in Aviation, International, and her participation in Girls in Aviation Day or a variety of other roles, Shelly's passion and energy have left a lasting impact."

"I'm honored to be this year's recipient of the Frank Brewer Trophy. Having the encouragement of so many mentors like Phil Woodruff, it is exciting to know that we are making a difference in young lives through our efforts to promote aviation education," noted Simi.

Serving on the 2021 Brewer Trophy selection committee were: Frank Brewer, the Brewer Family; Robert Brewer, the Brewer Family; Shella Condino, 2011 National Aviation Hall of Fame Aerospace Teacher of the Year; Deborah Gallaway, 2004 Brewer Trophy recipient; Professor James Gregory, Ph.D., 2020 Brewer Trophy recipient; and Robert Stangarone, NAA Board of Directors member.

The Brewer Trophy will be presented at the NAA Fall Awards Dinner on December 6, 2021, in Arlington, Virginia. For more information or to view a complete list of previous recipients, visit www.naa.aero.

The National Aeronautic Association is a nonprofit membership organization devoted to fostering opportunities to participate fully in aviation activities and to promoting public understanding of the importance of aviation and space flight to the United States. NAA is the caretaker of some of the most important aviation awards in the world and certifies all aviation records set in the United States. For information, visit www.naa.aero.

Son of U-2 Spy Plane Pilot Speaks At EAA Chapter Meeting

AA Chapter 25 in Lakeville, Minnesota, sponsored a banquet October 3, 2021, featuring guest speaker, Gary Powers, Jr., son of Francis Gary Powers, Sr., who was shot down over Russia in 1960 while flying a U-2 spy plane. The FAA presented two Wright Brothers Master Pilot Awards that evening - one to Jerry Schiroo, and the other to Jerry Farrell.



(L/R) Wright Brothers Master Pilot Award recipient Jerry Schiroo, EAA Chapter 25 Banquet Chairman Patrick Halligan, guest speaker Gary Powers, Jr., and Wright Brothers Master Pilot Award recipient Jerry Farrell.

WATA DIFFERENCE Wisconsin Aviation Trades Association

Blackhawk Airways Founder & Hall of Famer, Dick Wixom

September 29, 1929 - October 17, 2021



(L/R) Richard "Dick" Wixom, Joan Wixom and Kevin Wixom with a Beech 18 in the background at Blackhawk Airways, Janesville, Wisconsin.

Dave Weiman Photo

ames Richard "Dick" Wixom, 92, died of heart failure on October 17, 2021, in the care of Agrace Hospice in Fitchburg, Wisconsin. Wixom grew up on a dairy farm and worked in Janesville, Wisconsin. He and his wife, Joan, were married 60 years before her passing in 2012.

In the 1950s while farming, Dick Wixom knew he wanted to pursue an aviation career, so he enrolled at Janesville Vocational School (now Blackhawk Technical College), where he earned his Airframe and Powerplant Certificate with

Inspector Authorization. During this time, he became a flight instructor at Hodge Aero at what is now Southern Wisconsin Regional Airport in Janesville, and purchased his first aircraft, a Taylorcraft, which he kept on his farm.

In 1958, Wixom finally left the farm to become a corporate pilot for Parker Pen until they closed their flight department. In 1965, he became the chief pilot at Midwest Aviation, and by 1970, he started his own charter airline, Blackhawk Airways. Blackhawk Airways flew General Motors

auto parts all over the Midwest, had scheduled service for Emery Air Freight and the New York Times to several Midwestern cities, flew donor organs to the Mayo Clinic in Rochester, Minnesota, and flew air charter.

As the business grew, Wixom's sons – Kevin and Larry – along with his wife, Joan, built the business to a thriving aviation company with 20 aircraft and dozens of employees. Part of their business included restoring World War II aircraft. Wixom was very proud of the World War II Curtis P-40 he restored after it was recovered from Lake Michigan, and of course proud of his 1943 Beechcraft Staggerwing which he restored from a pile of parts. Dick and Joan Wixom sold Blackhawk Airways in 1996 and retired.

In retirement Dick Wixom continued to fly as a corporate and independent pilot. He and Joan would also fly their Staggerwing from coast-to-coast displaying the aircraft at numerous airshows.

Wixom contributed to numerous organizations and was actively involved in the Blackhawk Technical College Advisory Board, Yankee Air Force, Beechcraft Heritage Museum, Experimental Aircraft Association (EAA) Warbirds and Antique Divisions, and numerous local civic organizations.

Dick Wixom won the EAA Antique Restoration Award for the quality work on his Staggerwing restoration in 1986. In 2005, the Federal Aviation Administration awarded him the Wright Brothers Master Pilot Award for 50 years of flying without an accident. He was inducted into the Wisconsin Aviation Hall of Fame in 2010 and received the Beechcraft Heritage Museum's Merit Award in 2018 for helping to preserve the legacy of Beechcraft.

Avfuel Welcomes Two New Carver Aero FBOs To Branded Network



Carver Aero, Chicago/Aurora, Illinois.

arver Aero recently selected Avfuel as its branded fuel supply partner for its two new FBOs in Janesville, Wis. (KJVL), and Chicago/Aurora, Ill. (KARR). The agreement extends the partnership between the companies as Avfuel also provides branded fuel supply services to Carver Aero's Iowa locations: Council Bluffs (KCBF), Davenport (KDVN) and Muscatine (KMUT).

The acquisitions marked Carver Aero's first expansion outside of Iowa. Carver Aero acquired Janesville Jet Center at Southern Wisconsin Regional Airport in July. In August, Carver Aero announced its acquisition of Lumanair Aviation Services, one of two FBOs at Aurora Municipal Airport. Carver Aero is owned by CL Enterprises.



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The Challenge Was On!

Spot Landing Contest At Milwaukee Timmerman Airport



Spring City Aviation, Lawrence J. Timmerman Airport (KMWC), Milwaukee, Wisconsin. Dave Weiman Photo

Zach Davies of Waukesha, Wis., flying a 2002 Cessna 172S Skyhawk, may have placed second in the Spot Landing Contest, September 18, 2021, at Milwaukee Timmerman Airport, but this photo of him landing won first-place in the Midwest Flyer Magazine Photo Contest.

Lawrence J. Timmerman Airport Photo

by Dave Weiman

t's not often I get to participate in the aviation events I promote and cover for Midwest Flyer Magazine. But I thought the "Spot Landing Contest" September 18, 2021, at Milwaukee Timmerman Airport (KMWC), would be fun, so I challenged a few friends and participated.

I don't think anyone was in it for the \$200.00 prize money, but that added to the fun! Competing was more of a personal challenge for participants. The contest was sponsored by Milwaukee County and Spring City Aviation (formerly Gran-Aire) to promote safety and the airport.

We arrived at Timmerman by 10:00 a.m. for a mandatory safety briefing, with the contest getting underway at 10:15 a.m.

Each contestant was given two attempts to get as close beyond the white target line without touching it, and only the best landing counted. Any landing on the white line could not be counted, and landing short was also not acceptable. The pilot who landed closest beyond the line, won!

Pilots had their choice between executing a touch-and-go to reenter the pattern for their second attempt, or landing to a full stop, then taxiing back to takeoff again.

Power and flap adjustments could be used to make the most accurate landing, but flaps could not be raised unless executing a go-around.

Legitimate go-arounds were okay, as safety was the focus of the contest. But go-arounds were not to be used to cheat.

Jamming, slamming, or deliberately landing hard on the runway was not acceptable. Only normal, descent landings counted. The judges adjusted scores for any such landings



Milwaukee Timmerman Airport Spot Landing Contest winners (L/R): 1st Place - Phil Walthers of Whitefish Bay, Wis. - 13 feet; 2nd Place - Zach Davies of Waukesha, Wis. - 14 feet; and 3rd Place - Walter Bauer of Neenah, Wis. - 17 feet.



Milwaukee County officials came out to support the event. (L/R) Brian Dranzik, Airport Director, Milwaukee County; David Crowley, Milwaukee County Executive; and Harold Mester, Director of Public Affairs and Marketing, Milwaukee County Airports Division, and an active GA pilot himself.

Dave Weiman Photo





that resulted in bouncing, side-loads or porpoising.

Only three aircraft could be in the pattern at any one time, and the judges' decisions were final.

When it was my turn to compete, I contacted Timmerman Ground and informed the controller that I was in the contest and ready to taxi to Runway 04L (3201×75 feet asphalt).

Pilots taxied out in assigned groups of three to avoid congestion on the taxiway, but procedurally, there were no shortcuts. Pilots did their normal preflight checks and runups at the end of the runway.

The airport remained open during the competition, and participants got excellent cooperation from the tower. Transient aircraft were given the right-of-way, so as not to disrupt normal operations.

My best landing was good, but there were at least three pilots who did better, and they are to be congratulated. The winners were Phil Walthers of Whitefish Bay, Wis. at 13 feet, Zach Davies of Waukesha, Wis. at 14 feet, and Walter Bauer of Neenah, Wis. at 17 feet.

The event was livestreamed with play-by-play announcing at https://www.facebook.com/TimmermanAirport/

Next year's contests at Milwaukee Timmerman Airport will include a "Flour Drop Contest" on June 4, 2022, beginning at 10:00 a.m., and the "Spot Landing Contest" on September 10, 2022, also beginning at 10:00 a.m. Both events are free and will again include food and refreshments at no charge!



Mead & Hunt Announces the Acquisition of Colorado-based Ambient Energy



Mead & Hunt's national headquarters, Middleton, Wisconsin.

The acquisition allows Mead & Hunt to expand its sustainability services while providing Ambient Energy a larger platform to make a greater environmental impact.

ead & Hunt, a national, full-service architectural-engineering firm, has completed the acquisition of Ambient Energy, Inc., a Colorado-based firm specializing in commissioning, energy analysis, and sustainable design services. This move allows Mead & Hunt to expand its sustainability services while simultaneously giving Ambient Energy a larger platform to serve current and future clients.

"We have been searching for ways to expand the sustainability practice of our firm," said Andy Platz, CEO of Mead & Hunt. "We have always worked to do the right thing and do what makes sense. Not only does incorporating sustainable solutions into our work make good business sense, it is also imperative as we face a growing population and a changing climate."

Founded in 2004, Ambient Energy began as a boutique consulting firm specializing in sustainable design and energy consulting and commissioning services. Their focus has been on helping clients achieve resilient,

regenerative, and sustainable goals in new and existing buildings, improving occupant comfort, and reducing utility bills. The firm serves diverse markets, including aviation, transportation, K-12 and higher education, laboratory, multifamily, federal, and state.

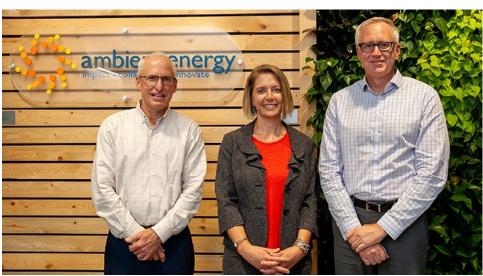
Ambient Energy's experience in commissioning, sustainable design, and building performance engineering will help expand Mead & Hunt's services provided for clients 56 DECEMBER 2021/JANUARY 2022 MIDWEST FLYER MAGAZINE

throughout the country. Specializing in zero net energy project performance, greenhouse gas emissions analysis, sustainability planning, and electrification planning, Ambient Energy now has a further geographic and market reach to positively impact climate change. This acquisition demonstrates Mead & Hunt's continued commitment to expanding its focus on sustainability.

According to Jeff Mason, Mead & Hunt Architecture & Building Engineering Group Leader, "Our team understands the need for sustainability in our industry. Ambient Energy's impressive portfolio of zero net energy, LEED, Green Globes, and WELL projects will allow us to be responsible

stewards of the communities we serve. Culturally, we've always been committed to taking care of people, and incorporating sustainable design solutions is a vital part of this."

"Joining Mead & Hunt comes with a common vision of how both firms are committed to creating a sustainable future and helping improve people's lives," said Renee Azerbegi, previously founder and president of Ambient Energy and current National Sustainability Market Leader of Mead & Hunt. "I am excited to continue to provide exceptional sustainability services to our existing clients and further our



(L/R) Andy Platz, Renee Azerbegi, and Jeff Mason.

environmental impact with an expanded client base."

Founded in 1900, Mead & Hunt now provides diversified services nationwide and ranks #97 on ENR's Top 100 Design Firms, as well as #12 on Zweig Group's Hot Firms list tracking growth. With a team of 900 professionals in over 40 offices across the U.S., Mead & Hunt supports several key markets, including aviation, water, transportation, food and beverage, and federal, state, and local government.

St. Louis Downtown Airport Recognized As Illinois Reliever Airport of the Year

CAHOKIA HEIGHTS/ SAUGET, ILL. - St. Louis Downtown Airport (KCPS) was named the 2020 Reliever Airport of the Year by the Illinois Department of Transportation (IDOT) Division of Aeronautics. The award was presented at a special ceremony on September 27, 2021, during the Illinois Public Airports Association Fall Conference in Galena, Illinois, where 12 airports were recognized in various categories. Due to the pandemic canceling last year's conference, awards were based on the



(L/R) Erick Dahl, Director, St. Louis Downtown Airport, accepts the award for "Reliever Airport of the Year" for 2020 from the Deputy Director of Aeronautics for the State of Illinois, Clayton Stambaugh.

awards were based on the achievements of the last two years.

The airports recognized were selected because of their accomplishments, including an outstanding partnership with IDOT and a strong commitment to customer safety and satisfaction. Among the award considerations are cooperation and coordination with the state, safety record, maintenance of the facility, and promotion of aviation and educational events.

"Director Erick Dahl and his team work diligently every day to ensure that every customer and pilot flying in and out of St. Louis Downtown Airport have the best experience possible," said Taulby Roach, Bi-State Development President and CEO. Bi-State Development owns and operates the airport which is located just east of downtown St. Louis in the communities of Cahokia Heights and Sauget, Illinois. "This award is a testament to the fact that they continue to deliver exceptional, professional service, while maintaining a safe environment."

St. Louis Downtown Airport serves major corporations in a variety of industries, ranging from transportation and energy to food and beverage. KCPS is also home to the nation's oldest flight school – St. Louis University's Parks College of Engineering, Aviation and Technology – and serves as a major transfer point for patients and transplant organs in transit to and from the region's many medical centers. Over the course of its 80-plus-year history, the airport has developed numerous partnerships with all types of businesses that now operate at the airport, ranging from general aviation, personal use and training schools to maintenance, manufacturing, helicopter operations and more. With all this activity, St. Louis Downtown Airport ranks as the second busiest

general aviation airport in the bi-state region behind St. Louis Lambert International Airport, and it is the busiest general aviation airport in Illinois outside of Chicago.

"My staff and I are proud to be selected as the reliever airport of the year and of the role we play in contributing to the vitality of the state's aviation system," said Erick Dahl. "Our unmatched proximity to downtown St. Louis, and commitment to discretion, bring customers to our facility, but having our customer service and safety record recognized by

IDOT provides another reason to choose KCPS."

Illinois has 107 public/private airports and 4,800 registered aircraft which support more than 492,000 jobs, with a combined payroll of \$21.9 billion and a total economic impact of \$95.4 billion. Across the state, there are more than 750 aviation facilities, including heliport and grass landing strips, as well as balloon, glider, and ultralight landing facilities.

"Aviation is one of the key components that goes into making Illinois the transportation hub of North America," said Illinois Transportation Secretary Omer Osman. "Our aviation partners take great pride in the work they do supporting transportation, jobs and quality of life in their communities. These awards highlight their efforts, as well as those of the entire Illinois aviation community."

To learn more about St. Louis Downtown Airport, visit www.stlouisdowntownairport.com. To learn more about aviation in Illinois and the Illinois Aviation System Plan, visit www.ilaviation.com.

Bi-State Development (BSD) owns and operates St. Louis Downtown Airport and the Gateway Arch Riverboats and operates the Gateway Arch Revenue Collections Center and Gateway Arch trams. BSD is the operator of the Metro public transportation system for the St. Louis region, which includes the 87-vehicle, 46-mile MetroLink light rail system; a MetroBus fleet of nearly 400 clean-burning diesel and battery electric vehicles that operate on 68 MetroBus routes; and Metro Call-A-Ride, a paratransit fleet of 125 vans. BSD also operates the St. Louis Regional Freightway, the two-state region's freight district.

Overland Aviation Cuts Ribbon On New Terminal & Customs Facility





Overland Aviation cuts the ribbon to its new terminal and customs facility at Williston Basin International Airport (KXWA), Williston, North Dakota.

WILLISTON, N.D. - Flights from all corners of the globe can now fly in and fuel up at Overland Aviation as they opened a new terminal and U.S. Customs facility at Williston Basin International Airport (KXWA), Williston, N.D.

Overland Aviation cut the ribbon on the new facility on September 11, 2021, during the Williston Basin International Airport's first airshow, celebrating with aviation enthusiasts throughout the Williston community.

"Today's milestone celebrates the culmination of years of planning and development on our mission to deliver industry-leading tech stops to a global market. We are excited to welcome travelers from all over the world to Williston Basin International Airport, and we sincerely thank those individuals who traveled near and far to celebrate this milestone for our community and our industry," said Tanner Overland, president and founder of Overland Aviation.



(L/R) Tanner Overland, Josh Diggs, and Kyle Black of Overland Aviation

The 51,000-square-foot executive terminal and hangar complex marries industrial architecture with natural wood elements for a high-end aviation experience. It is complete with an executive passenger terminal and pilot lounge, a private terminal for oil-laborer crew-change flights, management and rental office space, a heated hangar to accommodate aircraft up to a Gulfstream G650, and a U.S. Customs facility to accommodate international flights.

Conveniently located directly under the Great Circle Route between Europe and the western portion of the United States, Overland Aviation is in a prime position for international stopovers.

Overland Aviation is a true "fee-free" tech stop — free of landing fees, handling fees, security fees and infrastructure fees. In addition, ramp and international garbage fees are always waived with a fuel purchase. And with a tech-stop best price guarantee, operators can be assured they're receiving the best service at the best price.

KXWA features a 7501 x 150 ft. grooved, concrete runway, complete with ILS/GPS/VOR approaches.

Overland Aviation is an Avfuel distributor.

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FEBRUARY 2022

WISCONSIN DELLS, WIS, - 2022 Wisconsin Aviation Maintenance and IA Refresher Conference at the Glacier Canyon Conference Center at the Wilderness Resort, 45 Hillman Road. For more Info https://wisconsindot.gov/Pages/doing-bus/aeronautics/trng-evnts/ mech-ia.aspx

MARCH 2022

- 17-19 Nashville, Tenn. 2022 International Women In Aviation Conference at Gaylord Opryland Resort & Convention Center. https://www.wai.org/
- 28-29* BROOKLYN CENTER, MINN. 2022 Minnesota Aviation Maintenance Technician and IA Renewal Conference at the Earle Brown Heritage Center, darlene, dahlseide@state, mn.us

APRIL 2022

- 5-10 Lakeland, Fla. Sun n Fun Aerospace Expo. flysnf.org/
- ROCHESTER, MINN. Minnesota Airports Conference at the Mayo Civic Center. For more information, please visit the conference web page or contact Katherine Stanley at sell0146@umn.edu or 612-626-1023.
- 23* MINNEAPOLIS, MINN. - 2022 Minnesota Aviation Hall of Fame at the InterContinental Minneapolis-St. Paul Airport Hotel, 5005 Glumack Dr. Minneapolis, MN 55450 at 612-725-0500. To register for the 2022 banquet or to make donations, email MAHOFBanquetReservations@gmail.com or call 952-906-2833 (www.mnaviationhalloffame.org).

MAY 2022

- 3-5 SAN ANTONIO, TEXAS - NBAA Maintenance Conference, nbaa.org/ JUNE 2022
- MILWAUKEE (KMWC), Wis. Flour Drop Contest 10am Lawrence J. Timmerman Airport. Timmermanairport.com 414-461-3222

JULY 2022

5-10 Оsнкоsн, Wis. - AirVenture Oshkosh 2022. www.eaa.org/airventure

AUGUST 2022

8-17 Ontario, Canada - A flying fishing adventure to Miminiska Lodge TRIP #1: (3-Night/2-Day Trip): August 8 - 11, 2022 - BOOKED! TRIP #2: (3-Night/2-Day Trip): August 11 - 14, 2022 - BOOKED! TRIP #3: (5-Night/4-Day Trip): August 8 - 13, 2022 - BOOKED! TRIP #4: (3-Night/2-Day Trip): August 14- 17, 2022 -

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SEPTEMBER 2022

- MILWAUKEE (KMWC), Wis. Sport Landing Contest 10am Lawrence J. Timmerman Airport. Timmermanairport.com 414-461-3222 OCTOBER 2022
- 2-4* EAU CLAIRE, Wis. - 66th Wisconsin Aviation Conference. Chippewa Valley Regional Airport, host airport.

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Indiana Seaplane Pilots Association 2021 Splash-In

by Randy Strebig, President Indiana Seaplane Pilots Association

he Seaplane Gods waved their magic wand for us once again, delivering our "splash-in" yet another magical weekend of good weather and an incredible lineup of volunteers, pilots, and beautiful waterbirds.

The 19th Annual Indiana Seaplane Pilots Association (ISPA) Splash-In was held September 18-19, 2021, at Pokagon State Park in Angola, Indiana. The event continued its 100 percent safety record with 27 aircraft participating from all over the Midwest, and as far as Pennsylvania and Wisconsin.

Returning for his second visit was Rick Kaskel of Evansville, Indiana in his Republic RC-3 SeaBee. Also attending were
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many variants of Cessna and Piper seaplanes, SeaReys, and a Lake Amphib, Aeronca, Maule, Volmer VJ-22 Sportsman, and several very cool arrivals, including a Kenmore restored de Havilland DHC-2 Beaver, and our first-ever AirCam and Kingfisher. Truly an aircraft enthusiast's lineup.

This was no challenge for our professional announcer, Jakob McKenney, who is a walking Google search of aircraft knowledge. Those who arrived early heard the familiar voice of Randy Rhodes, who has had a 40-year – and counting – bar-setting splash-in in northern Michigan. Randy, his daughter, Sara, and Scott Millard handled the record-setting Saturday arrivals at the park with fine-tuned finesse. Many thanks to them and others who manned the beach on Saturday.



Thanks also to eight very generous pilots, we were able to provide more than three rounds of morning rides for people selected through a free raffle. All in all, we were able to share the experience of seaplane flight with at least 50 guests. The pilots also honored seven veterans with a complimentary flight.

After the lunch break, many pilots submitted a bio for the announcer and flew a demo. This kept the water ops and sky filled with the beautiful sights and sounds of airplanes.

I would like to extend my appreciation to the community for coming out to Pokagon State Park and the Potawatomi Inn to enjoy our annual event, and again, some of the most perfect weather we have ever experienced.

The volunteer team just continues to amaze me and gets stronger every year. There is absolutely no way we could do this splash-in without the uncompromised selfless participation from the volunteer team.

Additionally, I would like to thank the Indiana Department of Natural Resources, the State Parks Administration, the staff of Pokagon State Park and manager Ted Bohman, and Potawatomi Inn Manager Emily Burris and her staff who attended to our needs with a complimentary meal for our pilots.

Terry Hallet, who manages Tri-State Steuben County Airport (KANQ), and his staff attended to our "wheel plane" and "amphibian aircraft" needs, and provided shuttle service to and from the park.

We had a beautiful barbecue and bonfire Saturday evening at my airport on the other side of the lake with the local Land





of Lakes Lions Club preparing the meal. We dropped two loads of skydivers into our grass strip (myself-included) from our seaplane, flown by Allison Wheaton, and the Gravity Powered Sports 182 jump plane.

The Lake James Association, which has been a supporter and sponsor of the splash-in all 19 years running, and the Steuben County Visitors and Tourism Bureau, provided financial underwriting support. We are also grateful for the exposure and stories provided by the Herald Republican newspaper.

We will be looking forward to next year's splash-in as this will be our 20th anniversary and we hope to do something special to commemorate the event. Dates and details to be announced.







Minnesota Seaplane Pilots Association Seminar A Success!

Photos by Brad Thornberg

BRAINERD, MINN. – "The 2021 Minnesota Seaplane Pilots Association (MSPA) Safety Seminar, September 17-19, 2021, is in the books," announced MSPA President Steve Guetter in a message to members. The annual event is held at Madden's on Gull Lake. "My thanks go out to all of our sponsors, vendors and attendees for a great weekend of seaplanes and friends!"

The beach at Madden's was full, at least 17 aircraft landed at East Gull Lake Airport (9Y2), and the Saturday evening banquet was sold out!

Besides a great lineup of seminar speakers, Wipaire hosted their second annual poker run! Prizes included an Electro Air E-Mag system and half off someone's registration fees. Through the poker run, Wipaire donated over \$1,400.00 to MSPA.

A silent auction raised a staggering amount of money for the association. A bidding war broke out between Tanis Aircraft and Air Trek North. Both companies ended up

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donating \$5,000.00 for a pair of AOPA-donated "Windsock Socks."

MSPA has received overwhelming feedback that attendees like the September timing for the seminar. In the past, the seminar was held in the spring, but due to the pandemic, the dates were changed to the fall. The dates for the 2022 seminar will be announced soon.

Check out episodes 31 and 38 of the Seaplane Pilots Association (SPA) Water Flying podcasts, both highlighting floatplane flying in Minnesota and the MSPA Safety Seminar (https://seaplanepilotsassociation.org/captivate-podcast/).

The seminar is one of two major events sponsored by MSPA each year. The other event is a pig roast held in August. For additional information, visit www.mnseaplanes.com.

The purpose of the Minnesota Seaplane Pilots Association is to promote seaplane flying and safety programs throughout the state of Minnesota. MSPA approaches governmental agencies to educate officials, the legislature and the public in the understanding of seaplane operations, and to create safe and compatible seaplane base facilities in the state.



On approach to East Gull Lake Airport (K9Y2), East Gull Lake, Minnesota.



On approach to Madden's on Gull Lake, Brainerd, Minnesota.





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