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ON THE COVER: The North American B-25 Mitchell Bomber, "Panchito," does a flyby at EAA AirVenture Oshkosh. During World War II, B-25s flew a crew of six -- pilot, copilot, navigator/bombardier, turret gunner/engineer, radio operator/waist gunner, and tail gunner. The aircraft is powered by two Wright R-2600 engines, 1,700 hp each. Maximum speed: 328 mph. Cruise Speed: 233 mph. Range: 2,500 miles (with auxiliary fuel tanks). Maximum weight: 29,300 lbs. Length: 52 feet 11 inches. Wingspan: 67 feet 7 inches. Height: 16 feet 9 inches. Panchito is owned by the Delaware Aviation Museum Foundation in Georgetown, Delaware.

Photo taken prior to 2022 by Geoff Sobering.

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Time Flies, and So Do Families

by Dave Weiman

In 1978 when Peggy and I started *Wisconsin Flyer Magazine*, which evolved to become *Midwest Flyer Magazine* in 1980, we met a lot of wonderful people, also operating small aviation businesses. One such business was “Mitchell Aircraft Instruments,” located in the old Wisconsin Air National Guard building at General Mitchell International Airport in Milwaukee,



Wisconsin.

We received a call from Jeff Bales, who operated the business with his dad, Phil, and brothers Jon and Chris. Forty-four (44) years later, I received an email from Jon Bales asking if I thought a story about a family of 10 children, most of whom chose aviation careers, would interest our readers. I will let you be the judge of that beginning on page 35.

Another article in this issue features a “father and son” who set out to earn leather flight jackets for flying to – and

landing – at all 125 public-use airports in Wisconsin.

The “Fly Wisconsin Airport Passport Program” promotes safety and education by promoting recreational flying, general aviation airports, area businesses and tourism. It is a collaborative effort by the Wisconsin Department of Transportation (WisDOT) Bureau of Aeronautics (BOA) and the Wisconsin Airport Management Association (WAMA).

Any licensed pilot, from any state, and their passenger(s), may participate. There are three different levels of awards that can be earned by flying to airports, attending FAA safety seminars, and visiting Wisconsin aviation attractions.

Minnesota has its “Fly Minnesota Airport Passport Program,” and the Petersons have already set their sights on landing at a minimum of 130 of that state’s 134 public-use airports.

For additional information on both passport programs, go to wisconsindot.gov/flywi and mndot.gov/aero.

The question I have is, what are the Petersons going to do with all those flight jackets? Yes, a family photo session is already in the works. See article on page 42. □

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PRIA, PRD and the Part 91 Business Aircraft Operator

by Gregory J. Reigel, Esq.

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PRIA History

Business aircraft operators' private flight operations under 14 C.F.R. Part 91 (Part 91) are now a little less private. Under newly promulgated 14 C.F.R. Part 111 (Part 111), certain Part 91 business aircraft operators must now comply with certain requirements under the Pilot Records Improvement Act (PRIA) and the electronic Pilot Records Database (PRD) regulations. These operators must now disclose, upon request, records they maintain with respect to their pilot hiring, training and checks, and employment termination.



Greg Reigel

Specifically, aircraft operators conducting flights under Part 91 using two or more aircraft in furtherance of, or incidental to, their business where the aircraft either (a) require a type rating or (b) are turbine helicopters ("Business Aircraft Operators") are now subject to several of the requirements under PRIA and the PRD.

Congress enacted PRIA to ensure that air carriers are able to adequately investigate each pilot's employment background and other information pertaining to pilot performance before making a hiring decision and allowing that individual to serve as a flight crew member in air carrier operations. Importantly, the requirements of PRIA initially applied only to air carriers – that is, aircraft operators certificated under 14 C.F.R. Part 119 (Part 119) and authorized to conduct 14 C.F.R. Part 121 (Part 121) or 14 C.F.R. Part 135 (Part 135) operations. Originally and for two decades, PRIA did not apply to Part 91 operators.

Under PRIA, prior to allowing an individual to begin service as a pilot, air carriers must (i) make certain requests for pilot-related records from the Federal Aviation Administration (FAA) and the pilot's employers during the five-year period preceding the date of the employment application and (ii) receive that information. The records that must be requested and received include those pertaining to the individual's performance as a pilot and that relate to:

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- the training, qualifications, proficiency, or professional competence of the individual, including comments and evaluations made by a check airman;
- any disciplinary action taken with respect to the individual that was not subsequently overturned; and
- any release from employment or resignation, termination, or disqualification with respect to employment.

Air carriers must also request information regarding the pilot applicant from the FAA and the National Driver Register (NDR).

PRD History

The Airline Safety and Federal Aviation Administration Extension Act of 2010 (the Act) amended PRIA to require the FAA to create a pilot records database containing various types of pilot records provided by (i) the FAA, air carriers, and other employers of pilots; and (ii) the NDR. Under the Act, air carriers are to have access to the PRD to review and evaluate a pilot's records before allowing that individual to begin service for them as a pilot. The FAA must maintain a pilot's records in this database until it receives notice that the pilot is deceased.

On March 30, 2020, three years after the statutory deadline for establishing the electronic PRD, the FAA published the PRD notice of proposed rulemaking (NPRM) in the Federal Register. On June 10, 2021, the FAA published the PRIA/PRD final rule establishing Part 111. Part 111 contains four subparts regulating various aspects of PRIA and the PRD:

- Subpart A contains the general requirements of Part 111, including how to submit an application for database access and other details about user roles within the PRD.
- Subpart B provides requirements for operators reviewing records -- in particular, details regarding employer obligations during the records-review process.
- Subpart C contains provisions for record reporting, including which records to report and timelines for reporting records.

- Subpart D provides requirements and information regarding pilots' access to the PRD.

Part 111 requires Part 119 certificate holders, Part 91K fractional operators, and 14 C.F.R. § 91.147 air tour operators to submit information to and review information in the PRD. Additionally, the PRIA/PRD final rule subjects Business Aircraft Operators to the PRD.

As a result, Business Aircraft Operators, public aircraft operators, and certain 14 C.F.R. Part 125 (Part 125) operators must maintain reportable records and report them upon request. However, unlike Part 119 certificate holders, fractional operators, and air tour operators are not required to review pilot records via the PRD prior to putting an individual into service as a pilot.

The timing requirements for compliance with the new PRD rules are complicated, and attention to the details of the rules is very important for a business operator to timely satisfy the requirements imposed by the rule. Here are important PRD deadlines:

- Compliance with subpart B of Part 111 has been required since June 10, 2022, except the air carriers' review and evaluation requirements in section 111.105(b)(1), for which compliance has been required since December 7, 2021.
- Compliance with subpart C has been required since June 10, 2022. Under section 111.255, compliance for reporting historical records dated on or after January 1, 2015, is required by June 12, 2023.
- Compliance for reporting historical records dated before January 1, 2015, is required by September 9, 2024.
- Concurrent compliance with PRIA requirements will end on September 9, 2024. As a result, operators who must obtain and review pre-hire records will need to use both PRD and PRIA processes until that time.

The PRD will identify the records that exist about a pilot; the operator is responsible for determining if it is necessary to obtain further information prior to permitting an individual to begin service as a pilot.

How Does PRIA/PRD Work?

So, how does PRIA/PRD work for Part 91 business aircraft operators?

Access to the PRD. Covered Part 91 business aircraft operators must submit an application to access the PRD at least 30 days before the operator initiates aircraft operations. Application is made through the FAA's PRD website. The application must include the name of the operator and the full name, job title, telephone number, and email address of the "responsible person."

The responsible person is "an individual authorized to sign and submit the application required by this section who is employed by the operator and whose identity the



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Administrator has verified.” Once approved, the responsible person may access the PRD on behalf of the Part 91 business aircraft operator and may delegate PRD access to authorized users and proxies. Any change to the application information requires an amendment within 30 days of the change.

Reporting to the PRD. Part 91 business aircraft operators already operating on June 10, 2022, are required to submit their responses to PRIA requests using the PRD after that date or, if operations are commenced after June 10, 2022, within 30 days of commencing operations. Within 14 days of receiving a request for pilot information, Part 91 operators subject to the rule will be required to provide to the PRD information on:

- drug and alcohol testing (if applicable);
- pilot training, qualifications, and proficiency;
- final disciplinary actions related to pilot performance;
- final separation from employment; and
- certain historical data (which is voluntary).

However, Business Aircraft Operators will only have to submit this data if they possess the information. If they do not possess responsive records, the Part 91 business aircraft operators must provide a statement to that effect. Once produced, this information will be available for review by pilots who may access their own records and air carriers that have a pilot’s consent to access those same records.

Business Aircraft Operators are not required to review or access the PRD when they hire pilots. However, if an operator is going to review the PRD records for a pilot, the operator must obtain the pilot’s consent. The FAA will maintain the PRD records for the life of the pilot.

If the operator discovers or is advised of an alleged error or inaccuracy in information previously reported

to the PRD, it must correct that record in the PRD within 10 days or initiate an investigation to address and resolve any dispute over the accuracy of the record within 30 days. In the latter circumstance, upon completion of the investigation, the record must be corrected in the PRD, or, if the operator determines that no correction is required, the disposition of the investigation must be reported to the PRD.

Conclusion

Business Aircraft Operators subject to Part 111 need to review the regulations to understand their new reporting obligations. In addition to the new regulations, FAA letters of interpretation issued by the FAA’s Office of the Chief Counsel discussing PRIA, FAA Advisory Circular 120-68J, and the FAA’s PRD website are also recommended reading to understand the PRIA/PRD obligations. Finally, covered operators should review their record-keeping practices to determine not only what records need to be reported, but also what records they may or may not want to create in the first place.

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](https://twitter.com/ReigelLaw) (www.shackelford.law). 



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The Pilot's New Panel

by Michael J. (Mick) Kaufman

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Michael Kaufman

As I continue to have pilots tell me about and show me the new avionics suites they have in their airplanes, I think of this childhood story called the *“Emperor's New Clothes,”* written by Hans Christian Andersen and published in 1837. This story is about an emperor who was sold a magnificent set of clothes by two swindlers. The moral of this story is,

we can't let pride keep us from speaking up when we know the truth!

For those of you who have never read the story, it is how it applies to getting that dream panel in your airplane. In short, people who are pilots like to let the world know they are pilots – it is an accomplishment. I have the tendency to tell people I was the mayor of my city for the same reason...it was an accomplishment. But I would think long and hard before becoming the mayor again.

Some pilots like to brag to other pilots telling them how good of pilots they are, their ratings, the type of airplanes they fly, and now, what kind of avionics they have in their airplanes. If that pilot spends 70-plus thousands of dollars on a new panel and it does not work, or they do not like it, they still like to brag it up, rather than admit they made a mistake having it installed.

This is a two-issue article because of its length, and to keep our readers in suspense. This issue explains the pros and cons of upgrading your panel, and what my last upgrade was like. The next issue will cover what to look for in different equipment to help you decide if you want to do the upgrade, and if so, what works and what does not.

Don't get the wrong idea that I am against avionics upgrades, as I am an electronic “geek,” amateur radio operator and love new technology. But I try to be practical and promote flight safety. In fact, in a previous column, I described how I almost became a victim of CFIT (controlled flight into terrain) while trying to program a waypoint on a touch screen in heavy turbulence. I decided to write this article to inform fellow pilots of what may be involved in a panel update and have them see some of the pros and cons involved.

An example of a “con” involved a Cessna 414 pilot from Wisconsin who decided to do a complete panel upgrade. He went to a reputable avionics shop and got a quote for what he

decided to have installed. The quote was high, so he found another somewhat reputable shop in the state of Georgia that was 10K less and went with the low bid. His airplane has been sitting in that shop all torn apart and the question now is whether to finish doing the upgrade or calling Wentworth Aircraft Salvage to pick up the airplane. So how can things like that happen? Once a shop opens the panel and sees what needs to be done, it may require way more labor and parts than expected to make things work, and we are dealing with pressure bulkheads in a Cessna 414.

A few years ago, when Automatic Dependent Surveillance–Broadcast (ADS-B) came out, and there was a big push to get the entire GA fleet equipped, it became apparent to me that it was time to do upgrade my panel in my Bonanza. My wife gave me an allowance of 5K to spend and we all know that would not go far. So, the following is what I did have in my panel. Further below is what I have now:

- S-Tec 50 Autopilot with a yaw damper.
- Two King KX 175 Nav Coms, one with MAC conversion.
- Apollo 618 Loran.
- King KR 87 ADF.
- King KT 76 Transponder.
- King KMA 24 H Audio panel.
- Garmin 396 GPS with XM Weather.
- Century Slaved Compass System.
- JPI 700 engine analyzer with fuel computer.

It was quite a challenge with only 5K to spend, so I knew I wasn't going to get everything I wanted, so I had to compromise.

First was ADS-B, and I found a derelict **NavWorx ADS600B** in and out box on E-Bay for \$200.00. Seeing that it needed an approved data source to be compliant, I solved two issues by purchasing a Garmin GNS480 for \$900.00, which included a WX10A stormscoop that I did not install.

Next came a remote Garmin transponder to match the Garmin 480 for \$200.00, again on E-Bay, along with a DAC GPS steering module for \$250.00. This was really all I needed, but there was the installation cost that needed to be figured in and there was still several thousands of dollars left in the budget. I now have covered the ADS-B traffic issue, but I wanted to have weather on my iPad displayed on ForeFlight and from my experience, Sirius XM weather was far superior to ADS-B weather, so I chose a Garmin GDL-52 weather box. It connects via Bluetooth to ForeFlight and provides an AHARS source for the ForeFlight synthetic vision. My avionics tech friend suggested adding a Garmin Aera 660 as the Garmin 396 will not interface with Foreflight. I now

consider the Garmin Aera 660 the best Garmin device for the dollar on the market for around \$700.00. I am lucky that the Garmin Aera 660 takes the same panel space as my old Garmin 396 did. The Garmin Aera 660 was the key to making all the avionics devices work in harmony with one another. I will dedicate an entire column to the Garmin Aera 660 in a future issue of *Midwest Flyer Magazine*.

My panel now has the following equipment in it, and even though I am happy, I am still in the last century panel-wise:

- S-Tec 50 Autopilot with a yaw damper.
- One King KX 175 Nav Com with MAC conversion.
- King KR 87 ADF.
- Garmin 480 (GPS Navigator & Com).
- Garmin GDL-52 (ADS-B & Sirius XM WX & Music),
plus AHARS.
- King KMA 24 H Audio Panel.
- Garmin Aera 660 GPS (with XM Music Selector).
- DAC (GPS Steering Module)
- Century Slaved Compass System.
- JPI 700 engine analyzer with fuel computer.
- Navworks (ADS-B in and out).
- Garmin (Remote Transponder).
- Global Star (satellite phone interface).

There are some cons to what I did that need to be mentioned for those thinking about copying my budget panel install. My biggest savings was my navigator, the Garmin 480, which I could not recommend to most pilots. Yes, I got it cheap, but I know the box well from flying with customers, and it is not Garmin user-friendly as it was designed by Apollo (UPS Technology) and sold to Garmin. It was way ahead of its time and had more capability than the Garmin 650/750 when they were first released with first generation firmware. There is no support for the Garmin 480 should it need to be repaired by Garmin if it fails. If Jeppesen decides to discontinue data base support, it will take \$2.00 and a Garmin 480 box to purchase a cup of coffee at Starbucks. All the items I purchased on E-Bay worked -- another chance I took. The pros go to the installer who is a close friend and has a PhD in aviation electronics, and he went the extra mile in doing it right. All the components and interfaces were hard wired, rather than use a Bluetooth connection for reliability, except to the iPad for ForeFlight, which is Bluetooth. Yes, I got lucky as everything works perfectly as it is supposed to... simple and practical. Yes, there are some things I would have changed if the budget would have allowed, and I can do everything that the 70K panel will do with good redundancy and no frills.

In my continuation of this subject in the next issue of *Midwest Flyer Magazine*, I will give my opinion of some of the newer avionics on the market, along with pros and cons from some of my customers and pilot friends, so you won't need to decide if I should finish my dream panel or call Wentworth Aircraft salvage company once the project is underway.

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. □

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by Richard Morey

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My introduction to flying was unconventional. As previously mentioned in prior articles, I grew up in an aviation family, handling the controls of aircraft at a very young age. I was so young that I could not see over the instrument panel, nor reach the rudder pedals. The advantage of this was, I became somewhat adept at, or at least comfortable with, instrument flying. The disadvantage was, I did not learn how to use the “rudder” until I started flight training! In this, I was no better nor worse off than every other student pilot. We all must learn how to use the rudder when we start flying.



Richard Morey

Years of driving cars teach us skill sets that are counterproductive to pilots. As any new student will soon discover when they embark on their first taxi, the desire to “steer” with the yoke is something that must be overcome.

Driving the aircraft versus flying the aircraft.

The yoke looks like a steering wheel. We are used to steering a car, thus student pilots, as well as more experienced pilots, tend to overuse the yoke and underuse rudder. Here is a classic example, which happens often on takeoff.

The pilot begins the takeoff roll and more-or-less keeps the aircraft on centerline. On rotation, the nose of the aircraft moves to the left. This is due to gyroscopic precession, torque, and asymmetric thrust of the propeller (P factor). The student pilot then banks the aircraft right, to offset the left drift. This “works,” in that it keeps the aircraft from turning further to the left, but results in an uncoordinated climb. The correct response to the left-turning tendency is to apply right rudder to the extent needed to keep the aircraft from turning in the first place. Use the ailerons to keep the wings level in a straight climb. This results in coordinated flight, which gives better climb performance.

“A conditioned response is an automatic response established by training to an ordinary neutral stimulus.” (Oxford dictionary.)

For the most part, pilots are aware of the aircraft turning left on climb out and can tell you about P factor. They see the nose drift and respond. Seeing is half the battle, but not the full picture. The second half of the battle is to suppress any conditioned responses from driving and execute the correct response. To be a proficient pilot, one needs to develop a new skill set. Pilots must overcome their conditioned responses developed as a result of driving an automobile, often called muscle memory, and develop a new set of flying-conditioned responses. One of the most important is this: *the rudder is there to put and keep the aircraft's nose where you want it.* Read that again: *the rudder is there to put and keep the nose of the aircraft where you want it.* The ailerons are there to bank the aircraft. These are not one and the same.

Using the ailerons in an attempt to steer the aircraft is at best sloppy flying, and at worst, dangerous. A dangerous scenario can occur during crosswind landings. This can present itself in a couple of ways, both of which could easily result in the aircraft being blown off the runway if crosswinds are strong. The first scenario can occur in transition from crab to slip. On final, in a crab, the nose of the aircraft is offset from the runway centerline into the wind. Many pilots erroneously use ailerons and enter a turn away from the wind to align the nose with the runway centerline. This raises the upwind wing and will result in the aircraft being blown downwind. The correct technique is to pull the nose of the aircraft in alignment with rudder, then bank into the wind to the extent required to offset wind drift.

The second scenario occurs during flare. Assuming the aircraft is in alignment with the runway in a side slip offsetting the crosswind drift, when the nose comes up during round-off and flare, gyroscopic precession will cause the nose to turn left. The engine and propeller act as a very large gyroscope. Pushing a gyroscope upwards results in a left deflection. Pilots often try to correct for this by steering with the ailerons, raising the left wing. If the crosswind is from the left, this will result in the aircraft being blown downwind, as it

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was in the crab-to-slip example. This is a common scenario in which an instructor would find themselves assisting or taking over a landing. The rudder is there to put and keep the nose where you want it. In the flare, if the nose moves to the left, apply right rudder to the extent necessary to put and keep the aircraft's nose where you want it to be!

How do we develop rudder as a conditioned response?

Anyone who has taken an introductory flight lesson with me recently knows that most of the lesson is flown with hands off the yoke. The reason for this is to introduce the use of the rudder, trim, and how power affects flight. A simple drill can make you more rudder-aware.

Start at cruise power and trimmed for straight-and-level flight, then sit on your hands and fly the aircraft with your feet. It is simpler than it seems. Press left to go left, press right to go right. The yaw induced by rudder deflection pulls the inside wing back slightly and pushes the outside wing forward slightly. This reduces lift on the inside wing and increases lift on the outside, causing the aircraft to bank into the turn.

Practice flying with your feet. Start with straight and level, adding opposite rudder when a wing drops. Progress to turns, keeping the bank angle about 15 degrees or so. Practice using rudder only for straight and level flight and turns until using your feet becomes automatic (i.e., a conditioned response). Then go back to using rudder and ailerons in coordination.

Pilots have the voices of their instructors forever in their minds. You undoubtedly heard your flight instructor in the back of your head during your first solo? CFIs are no exception to this. In my case, I have been privileged to fly with a number of excellent instructors. One of the better ones was Scott Capener, my flight instructor for instrument, commercial, and flight instructor. His voice often comes to my mind as I teach: *"Lead a turn with your feet,"* and *"Rolling out of a turn is simply starting a turn in the opposite direction."* Keep this in mind while practicing with rudder only and with rudder and aileron.

Another of Scott Capener's sayings was, *"A landing is just a transition from flying to taxiing... the closer you are to the runway, the closer you are to taxiing."* What this translates to is use rudder more on final and ailerons less. Many pilots revert to "steering" with ailerons on final, rather than using rudder to put and keep the nose of the aircraft where they want it. If you tend to wander on final, try using rudder to keep the aircraft's nose straight and aileron to keep the wings level, assuming that winds are down the runway or calm.

In summary, many pilots overuse aileron and underuse rudder. This is caused by the conditioned reflex of steering, developed by years of driving a car. To become more rudder-aware, pilots need to develop a new set of conditioned responses based on the correct use of the rudder. Practicing flying with rudder alone will develop the required conditioned response necessary to stop driving the aircraft and start flying it.

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).

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. □

The poster for the Fagen Fighters WWII Museum's 'Pride of the Pacific' Ray Fagen Memorial Airshow & June 18, 2022*, features a collage of vintage aircraft in flight. The central focus is a blue and white biplane. Below the title, a red star logo with 'FAGEN FIGHTERS WWII MUSEUM' is prominent. The poster includes an admission section with prices for adults, current military, and children, a schedule for gates opening at 10:30 AM, an airshow at 3:00 PM, a concert at 7:00 PM, and a night airshow. It also lists various attractions like 'TORA TORA TORA', 'YOUNKIN AIRSHOWS', 'AEROBATIC PERFORMANCES', 'WINGS OF THE NORTH MUSEUM', 'DAKOTA TERRITORY AIR MUSEUM', and '...AND MANY MORE WARBIRDS'. A QR code is provided for more information, and a section for 'GET CONNECTED!' encourages following the museum on Facebook. The bottom of the poster mentions the location at the Middleton Municipal Airport and provides contact information.

Engine Upgrades, Rag Bags & Clones

by Pete Schoeninger
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Q My 1976 Cessna 182P with a 230 hp Continental 0-470 engine needs an overhaul. My mechanic is suggesting I consider a possible upgrade to a larger HP engine that would include fuel injection. But it sounds awfully expensive. What do you think?

A There are many questions only you can answer. Do you need more than the 230 hp you currently have? If you're happy with your current engine, consider sticking with it.

The first possible upgrade to a fuel-injected engine would be to the 260 hp Continental IO-470. Fuel injection eliminates the problem of carburetor ice and provides a significant fuel savings of perhaps 1-1 1/2 gallon per hour. At current gas prices, that's at least \$10.00 an hour. If you save \$10.00 an hour over a 1500-hour engine run, you pay for much of the additional cost of the engine upgrade.

The next possible upgrade would be to one of the many versions of the Continental 520 engine. Some have carbs and some are fuel injected. All offer significant increases in performance.

Things to think about if upgrading: 1) Do you operate out of remote strips frequently? Be aware that many fuel-injected engines need an electric powered primer to start, and sometimes fuel injected engines (especially when hot) may be difficult to start. In my experience, as six-cylinder engines go, the carb equipped 0-470 can be hand-started relatively easily if you have been given good instruction in that task. These issues mean you may want to consider carrying a backup battery or other starting aide not available at remote sites. Also, some upgrades may require a change to a different prop, a major expense.

Q An old-timer once told me "Rag Bags" can be expensive to maintain. I am new to aviation and did not want to show my ignorance. What is a "Rag Bag," and why are they expensive?

A Rag Bag is a somewhat derogatory nickname given to airplanes covered with fabric. Unlike aluminum-covered aircraft, fabric on airplanes needs to be changed every 20-30 years or so, at a cost of perhaps \$25,000 - \$35,000.

Q A friend has a Stinson which has been "metalized." What does that mean?

A Stinsons, and many other airplanes from the 1940s, were



Pete Schoeninger

originally covered with Grade A cotton or Irish Linen fabric, which had a lifespan of 5 - 10 years. When the airplanes needed recovering, some owners opted to have the airplanes partially or completely covered with aluminum. Newer fabric (usually some type of Dacron) lasts longer than original Cotton or Irish Linen, so converting to aluminum is not as attractive as it once was.

Q What do you see of the current airplane market? What do you think inflation and rising gas prices will do to prices?

A From what I see and hear (mid-June), the market is still strong, although prices are perhaps leveling off a little. The summer 2022 Aircraft Bluebook lists Cessna 172RGs up \$10,000.00 and Cessna 182RGs up a whopping \$30,000.00 in value. Perhaps this is because these airplanes have the good characteristics of their fixed-winged brothers but are faster with about the same fuel burn per hour. I am smart enough to know I am too dumb to predict future aviation price trends given recent interest rate rises and numerous other variables.

Q I saw a guy hand-propping what looked like a Cessna 140. Later I talked to him, and he said he hand-propped the airplane because it had no electric system, thus no starter. Is that possible?

A You were probably looking at a Cessna 120, which was the economy version of the Cessna 140. The C120 has the same 85 hp Continental engine, but no flaps and no electrical system and no rear window. Most, but not all, Cessna 120s have since been converted to an electrical system. Without an electrical system and flaps, the Cessna 120 is about 35-40 pounds lighter than the Cessna 140.

Q I have seen what appear to be clones of Piper J-3 Cubs with EXPERIMENTAL on the door and panel. It appears they were NOT made by Piper, but rather, built by individuals. They also seem to sell for a little less money than the "real" thing. Comments please.

A Quality of construction by individuals can vary quite a bit, so a good pre-purchase inspection is in order if you are looking to buy any non-manufactured aircraft. Any aircraft for that matter. Experimentally licensed airplanes cannot be used for commercial purposes. An advantage of owning an experimental airplane is that the regulations are not as tight as far as replacement parts and modifications. Generally, but not always, they bring a little less money than the manufactured versions they copied.

Q My son is nearing the end of his 4-year college degree program and has an interest in becoming an airline pilot. Neither he, nor his mother or me, are wealthy. The cost of

learning to fly and accumulate enough hours to get a good job in aviation appears almost unobtainable to us. A friend of ours suggested he look at military flight training.

A) Lots of airline pilots learned to fly in the military, and many are still flying for their local Air National Guard or Reserve unit when not flying their airline job. Uncle Sam may require a 10-year service obligation for teaching your son to fly, but here's the good part: Uncle Sam PAYS him to learn to fly and provides an airplane and instructor. If he has serious interest, I suggest he or you contact a local military recruiter for each branch of service, as obligations and requirements vary between them and change frequently.

Q) You have adamantly stressed that an airplane buyer should have a prepurchase inspection performed by a competent mechanic, preferably by the mechanic that will maintain the new purchase. But putting that contingent in written offers has lost me two nice airplanes because other buyers did not insist on the inspection. What peril do I face buying an airplane without a prepurchase inspection?

A) One of many would be the crankshaft in the engine. SOME, but not all, Continental and Lycoming engines, have had issues with crankshafts. In some cases, applicable engines are identified by specific serial number, not by visual inspection. In some cases, there is some help from the engine manufacturer, but this may be time limited. It is possible that you could be in for a \$10,000.00 surprise if you buy an airplane with this situation. Do an internet search "Continental aircraft engine VAR crankshaft" and "Lycoming 0-540 crankshaft ADs."

Q) My 1975 Skylane has been

a good mount for me for many years. But now, as I age, I have the itch, and almost enough money, to get a new one. Are the new ones worth that huge price difference? What late model single-engine airplanes could I get for \$400 - \$500K?

A) The answer depends on your desire for a good warranty, brand new high-tech avionics, and new airplane smell, versus how big your wallet is. Other options would be to upgrade to a used Bonanza, Cessna 206, or Piper Saratoga.

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 about aircraft ownership via email at PeterSchoeningerLLC@gmail.com. □

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Tracking Your Medical Application

by Dr. Bill Blank, MD

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Dr. Bill Blank

Until recently, it was difficult to track your medical application. It required a call to Oklahoma City or your Regional Flight Surgeon and, usually, a long wait on the phone. That has changed recently. The new Federal Air Surgeon,

Dr. Susan Northrup, has set out to improve the certification process. She has said, "If you can track where your rideshare car is, or the status of a company delivering your package, pilots should be able to see online the real-time status of their application." You can now do it via **MedXPress**.

Why would you want to track the application? Most applicants receive their certificates the day of the exam. Sometimes, however, the AME (Aviation Medical Examiner) defers the exam. These applicants are interested in the status of the application and the time needed for certification. I will tell you how to track your exam and explain the steps to certification.

Go to MedXPress and log in. Click on the Application Status tab. There are five possible states: Submitted, Imported, Transmitted, In Review/Action Required, and Certification Status. These are shown horizontally under the Application Status tab. I will discuss each.

Submitted means you have completed the 8500-8 online and submitted it. This is when you get the confirmation number. If you didn't receive a confirmation number, it hasn't been properly completed and submitted. This application is good for 60 days. After that, it is no longer valid, and you will need to complete another one.

Your AME imports your exam to his computer so that

he can record his findings on the 8500-8 and transmit them. When he imports the 8500-8, the FAA considers the exam to have started. The AME has 14 days from the date of importation to transmit it. I have emphasized several times that I would never give my confirmation to the AME until the day of the exam. That way you don't lose time, if for some reason the exam is delayed. This can become important, if it is necessary to obtain records. After 14 days, the AME essentially has two choices -- approve or defer. AMEs are strongly encouraged to never deny. From your point of view, nothing will happen until the exam has been transmitted. I always transmit exams the day of the exam unless there is a reason for delaying doing so. MedXPress gives you the date of transmission.

After transmission MedXPress will indicate "In Review/Action Required." Sometimes this is called "In Certification." Your application is first reviewed by a Legal Instrument Examiner (LIE), a non-physician trained to do so. In some cases, the LIE has the needed information and can authorize issuance. If not, the LIE can request further information which will delay everything. If the LIE is not authorized to issue in your situation, it will be sent to an FAA physician, called a Medical Review Officer (MRO) who can request additional information, issue, or deny. If the In Review/Action Required tab changes to a yellow triangular warning signal, that indicates more information is needed from you. The FAA will mail you a letter via the U.S. Postal Service requesting what additional information is needed. The FAA cannot make this request via email. In many cases, an estimate is given regarding how long the review is expected to take. A telephone number is provided to call if that period has been exceeded. The last state is "Certification Status." Hopefully, that will indicate that your medical has been approved and issued.

If you would like more detailed information than I can provide here, go to MedXPress and click on the "help" tab. You do not need to log in.

Happy Flying!

EDITOR'S NOTE: Columnist William A. Blank is a physician in La Crosse, Wisconsin, and has been an Aviation Medical Examiner (AME) since 1978, and a Senior AME since 1985. Dr. Blank is a retired Ophthalmologist, but still gives some of the ophthalmology lectures at AME renewal seminars. Flying-wise, Dr. Blank holds an Airline Transport Pilot Certificate and has 6000 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. He was inducted into the Wisconsin Aviation Hall of Fame in 2021.

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AOPA's Rusty Pilots Seminars

by Bob Worthington

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As the U.S. pilot population slipped a decade into the 21st century, the leaders of the Aircraft Owners Pilots Association (AOPA) decided to counter that trend, and initiate programs to get more people into flying. By 2013, AOPA began to invest resources to bring more people into aviation. Programs for flying clubs, high school STEM classes, flight training, and seminars to entice “inactive” pilots to return to the left seat were established. Long-time AOPA member and advocate, Hal Shevers, founder of Sporty's Pilot Shop, joined the initiative by becoming a sponsor of AOPA's efforts called “You Can Fly.”

Inactive refers to the fact that an FAA certificate never expires. To legally execute the privileges of the certificate, however, a pilot must be medically qualified to fly and current (as validated by a certified flight instructor and FAA regulations). The “Rusty Pilots Seminar” is for pilots who quit flying due to career, family, finances, or just life, so they may become active again. Today, over 42,000 pilots have attended Rusty Pilots Seminars with almost 25% (over 10,000) becoming active aviators again.

Part of this effort to get pilots back flying, is a three-hour audio-visual tutorial designed to acquaint former pilots with what it takes to return to the cockpit. In June, I attended a local seminar hosted by the Las Cruces Aviators Flying Club at Las Cruces International Airport (KLRU) in Las Cruces, New Mexico. While the seminar was created to lure lapsed pilots back, it is an excellent review for any pilot. The charge was \$79 but it's free to all AOPA members! The presentation had almost two dozen attendees.

Rusty Pilots Seminar presenters are aviation experts and excellent presenters. I know two personally (both aviation writers). One presenter is Yasmina Platt, a fellow columnist for *Midwest Flyer Magazine*.

The instructor for my seminar, William Dubois, was prepared, informal, and a superb speaker. The presentation was easy to follow and understand. The handouts were great and the visuals informative.

I must point out, I am not a Rusty Pilots Seminar candidate. Agent Orange (Vietnam War) has destroyed my heart such that if I placed my butt in the left seat again, solo, and started the engine, I would be violating at least eight Federal Aviation Regulations. Rather, I attended the course for two reasons: Research for my next book (working title: **“Forty Years in the Sky: A Pilot's Guide to General Aviation”**), and to check out the seminar for this column.

What is the Rusty Pilots Seminar?

This seminar was first presented in 2014 to provide “inactive” pilots with all the information necessary to get current again. This tutorial also qualifies as the one-hour ground school portion required of the “Flight Review.”

When the FAA originally mandated this requirement in 1997, it was referred to as a “Biennial Flight Review,” or “BFR.” It was changed to simply “Flight Review” because the word “biennial” suggested that pilots only needed a review of their skills and currency, once every two years. Safety training should be an ongoing occurrence, not just a one-time experience every 24 months, so the word “biennial” was deleted.

For details on the Flight Review, see FAA Advisory Circular 61-98D. By the

way, this seminar qualifies as 3 hours of ground instruction for the Flight Review, and you can receive FAA WINGS credit.

The Rusty Pilots Seminar consists of three components. First is the instructor. Second are the audio-visual displays of text, charts, maps, and other illustrations of what the instructor is covering. The third are the handouts provided.

One handout is a two-page checklist of everything a pilot must accomplish to get back in the cockpit. It details the process needed to become current and proficient.

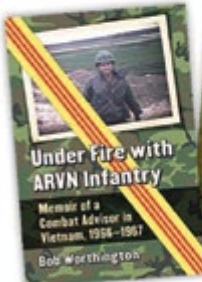

Next are the scenario handouts, a single book of 14 pages depicting charts, graphs, logbook examples, weather information, radar pictures of



Bob Worthington

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weather – everything that was shown on the screen during the seminar. This allows the attendee to have the important details at hand, even if the data on the screen passed. More information to assist the memory. The last handout is the “Resource Guide.” This 42-page booklet covers regulatory requirements, flight planning, airport operations, radio operations, airspace and charts, and provides a list as to where to get additional information. This list covers a variety of organizations and vendors catering to pilot needs. And all of this is “free” to AOPA members.

What the course covers.

The instructor covers the information required to get back in the left seat. One needs a medical clearance to fly. Depending on what kind of flying one does, that dictates what medical proof is needed.

A Sport Pilot only needs a current state driver’s license. Private Pilots can fly using “Basic Med” (requiring only your personal or family physician examining you and filling out forms), or the FAA Class III Medical Certificate, which requires an examination by an Aviation Medical Examiner (AME). One must also be current in the plane intended to fly. Depending on the length of time the pilot has not flown, a regular Flight Review flight may suffice or time with a flight instructor and spending some time reviewing regulations, etc., will get an inactive pilot back flying. It is recommended that the Rusty Pilot take a flight with a flight instructor to assess current knowledge and pilot skills, then proceed from there. The rest of the seminar covers current rules, regulations, and flight planning preparation.

Throughout the seminar I attended, the instructor constantly referred to what we may have learned way back when, and how that has changed to what is required today. Some attendees learned to fly when cross-country navigation was from VOR to VOR. Others used LORAN. Today, it is GPS. Often our presenter explained these changes, and how and why, so we could better understand (or appreciate) the new or current systems.

Most of us trained and flew with steam gauges (analogue systems), but the modern cockpit, today, is “digital.” Confounding this is the fact that most general aviation aircraft today are still of the analogue era with cockpits in front of the pilot festooned with round dials and moving needles, providing the information needed to fly the plane. Yet planes used for instrument flying or cross-country flights will most likely have some form of digital equipment in the center portion of the instrument panel. It may be an older GPS navigator system or a larger multi-function screen with even more data displayed. Our instructor addressed all of this, allowing us students to recognize how the technical world of aviation and flying might have changed during our absence.

The Rusty Pilots Seminar is presented in three formats. First is the in-person seminar I attended. This same seminar is always available via the AOPA website as an online course.

Additionally, once a quarter, AOPA also conducts this seminar as a live webinar. As an AOPA member, you can participate in all three, free of charge!

If this information becomes overwhelming to the Rusty Pilot, he or she can go online and return to the Internet connected seminar and review it as often as needed. AOPA has also created “flash cards” covering every aspect of a plane’s performance specifications and procedures to follow during emergencies. But the actual performance specs are blank. You can download the cards, and using your Pilot’s Operating Handbook, enter the correct data for your airplane.

The value of this seminar.

How valuable this seminar is to return to flying really depends on your level of experience when you quit, and how long you did not fly. If, for example, you had 500 hours and quit a couple years ago, this seminar, spending some time reviewing what the seminar covered, and a few hours flying with an instructor, plus getting a current medical, may be all you need to get current and be safe. But if you had 100 hours and have not flown in a decade, you will need much more than this seminar. Still, this seminar will show you what you don’t know, and the handouts can map your course to return to flying.

Even if you are a current pilot, this seminar is an excellent review of aviation rules and regulations and the system we must fly in today. Rusty Pilots Seminars are available continually around the nation. The AOPA website provides information on where and when these seminars are being provided.

I have always been an advocate of aviation safety and often participated in safety training. In fact, my constant training saved my life and that of my passenger, more than once. The Rusty Pilots Seminar can become another arrow in your quiver of aviation safety. Checkout the AOPA website, and if a seminar is near you, sign up. You will not regret it.

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 adds another excerpt.

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The best of times for general aviation!

by AOPA President Mark Baker

It's hard to fathom where much of the United States was in 2020, and even just last year. Quite frankly, I'd rather not go there. I'm always focusing on the positive, and there's a lot of that going around right now in our general aviation community.



Mark Baker

I often talk about how GA came through COVID-19 stronger than ever despite the many challenges. We have seen healthy operations numbers, full flight schools, many certificates issued, and a very robust aircraft sales market.

But the most important measure of GA's health—to me, at least—is how many of our members and aviators I get to see in my travels around the country. And by the crowds at the fly-ins, aviation celebrations, and airport events I have attended, and just around the FBOs, there is no doubt that we are living in the best of times for general aviation. And when we talk about the best of times, discussions start with Oshkosh.

Seeing thousands of our members at EAA AirVenture, reconnecting with old friends, making new connections, taking part in a variety of important discussions, seeing some of the world's best aerobatic champions, and just sharing stories (some of them true!)—it just doesn't get any better. While the crowds were back at Wittman Regional Airport in 2021, this year's event was even better!

The AOPA main tent had a fresh new look, offering our members (and those who should be!) valuable resources to enhance their aviation experiences. We

also had a larger “39 Lounge” attached to our main tent with daily meet-and-greets with a wide range of experts, aviation media personalities, and influencers.

Our events team assembled a world-class schedule in our AOPA Program Pavilion, starting on Monday, July 25, and running through the entire week. Once again, these sessions ran the gamut. Topics included best-practice aviation techniques and procedures; vital safety education; new product intros to help you make the most of your flying experience; updates on how AOPA is protecting the freedom to fly, as well as your local airports; career tips; and inspiring stories of GA travel and destinations.

We welcomed all our members and aviators to our annual Pilot Town Hall, where I was joined by senior AOPA leaders to discuss the latest developments at AOPA and in general aviation, and how these issues impact and enhance your freedom to fly every day. In addition, we had a dedicated Rusty Pilots Seminar on Wednesday morning, helping pilots to get back into the left seat after some time off.

Those of you in the flight training world were able to check out the hands-on demonstrations we scheduled for the AOPA Flight Training Advantage (AFTA) platform, designed to help make the process of training more effective for students, CFIs, and flight schools. AFTA is built to directly boost the completion rate of flight training.

And if you think this year's Sweepstakes Tiger Grumman was a real head-turner, our next sweepstakes is even more exciting! If you are a backcountry pilot, or just love amazing vintage aircraft, our pavilion featured the airplane that will be awarded in 2022.

Like every year, I have that last week in July blocked off for one of my favorite experiences of the year. Whether you are planning your first trip to Oshkosh or you're a seasoned veteran, I'm sure that like me, you can already feel the buzz for AirVenture 2023. When you arrive, I invite you to stop by our tent to say hello and learn about all the ways AOPA continues to protect your freedom to fly. Until then, blue skies. □

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Historic Stinson Municipal Airport (KSSF), San Antonio, Texas

Biking Around San Antonio

by Yasmina Platt

Even though biking has, traditionally, been one of the most unsafe activities I've engaged in, I still love it and practice it often. I do enjoy a good route on a bike, especially to spend a day out and about. However, I try to look for bike lanes or trails (and avoid public roads) as much as possible. San Antonio, Texas is a great city for just that: a day trip to get some exercise, soak in a little history, and/or have some good food.

You can three-wheel (fly your airplane) your two-wheel (with your bicycle) into town via the cute and historic Stinson Municipal Airport (KSSF). The airport is proud to be the second oldest General Aviation airport (after College Park) in continuous operation in the country. In 2015, Stinson celebrated its 100-year anniversary.



While Google Maps' biking option is certainly a good tool to use to get around, the city of San Antonio has developed some helpful biking trail maps.

From Stinson, one should start with the Mission Trail Out & Back one. The 20-mile trail (from end to end) encompasses four Spanish colonial missions built along the San Antonio River to house Spanish missionaries and local Coahuiltecan Indians beginning in the 1720s. This trail is almost entirely on bicycle paths.

Two of the four missions are south of Stinson and the other two are north of the airport. Each mission is about 2.5 miles from the next and, along with the Alamo, these missions have collectively been designated the first UNESCO World Heritage Site in Texas.

Depending on how much time you have, how many miles you want to ride, and/or what



Bicycle trails in relation to Stinson Municipal Airport.

other activities you want to indulge in (such as walking the riverwalk, golfing, picnic, kayaking, or eating at a restaurant), one can design different routes.

The Mission Trail, to the north, joins in with downtown San Antonio and four other established bike routes (though not entirely on bike lanes or paths):

1. The Alamo HemisFair Loop is 1.7 miles long and highlights the city's best-known landmarks.
2. The Brackenridge Park Loop is 6.9 miles and connects the Main Plaza with the vast Brackenridge Golf Course and Park. The San Antonio Zoo and the Japanese Tea Garden are also in that direction.
3. The Pearl Brewery Out & Back Trail is 3.2 miles. The Pearl Brewery complex is a mixed-use development offering restaurants and shopping along with commercial and residential spaces. The Culinary Institute of America has its home there.
4. The King William Loop is 3.6 miles. A leisurely roll through the King William Historic District will make you feel like you're traveling back through time. The mansions were built for German business and civic leaders by the city's most prominent architects in the late 1800s and feature a variety of architectural styles.

For more information and maps, visit <https://www.sanantonio.gov/Portals/0/Files/SABikes/BikeRoutes/>

SABikeRides_WEB.pdf If you cannot bring your bicycle in your airplane (due to lack of space or weight and balance, for example), there's nothing to worry about. KSSF has a convenient bicycle rental station at 8535 Mission Road, immediately in front of the FBO. If, for whatever reason that station is out of bicycles, there are two others (Acequia Park and Mission San Juan) within a mile. All three stations have both classic bikes and electric bikes for those longer rides.

There are many great restaurants along all of the trails mentioned, but especially downtown, along the riverwalk, and in the Pearl Brewery complex. However, keep in mind Stinson has a restaurant at the old terminal, too. It's called Gate One. Fly and bike, safe and often!



ABOUT THE AUTHOR: Yasmina Platt's full-time 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, or by going to the "Archives" section, then "Columns," then "Destinations."

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A Bright Spot On The Prairie



by Jim Bildilli

S ometime if you find yourself over the seemingly endless flatlands of Kansas and about halfway between Wichita and Tucumcari, you might look down and notice the town of Liberal, Kansas. Just west of the town, there's a large tract of land that looks a lot like one of the "standard" airport layouts that were constructed during WWII. Most were built as triangles with center taxiways, but those with four runways usually had them aligned with 45-degree separations. Numerous facilities were constructed around the country; however, there was a larger concentration in the southern states due to better weather for flight training.

In the case of Liberal, the Army Air Corps constructed a facility on 1,947 acres that would be home to the Second Air Force's B-24 training command. In fact, during a period of just over 27 months, 4,468 pilots graduated from the facility or approximately 1/3 of all the B-24 pilots trained during WWII. For those of you who are history buffs and sporting some grey hair, one of those trained as a B-24 Commander was former Senator and Presidential Candidate, George McGovern.

The pilot candidates were all newly commissioned officers who had just graduated from one of the Training Command's Advanced Twin-Engine Flying Schools. B-24 pilot training lasted 9 weeks; however, a new class was initiated every 4 ½ weeks. Because the training was for "heavy" bombers, the runways were 7,000 feet long by 150 feet wide. Serving the runways were 100 ft. wide full parallel taxiways. About a year after the first three runways were built, the Training Command constructed three additional parallel runways and a perimeter taxiway that encompassed all the runway ends to handle the traffic.

Like many former WWII Army Airfields, they became surplus property after the war. Some totally disappeared from existence, but many were turned over to local governmental units. Excess buildings and demilitarized equipment were sold or shipped to other military facilities. The remaining students and B-24 aircraft were transferred to Hondo Army Airfield to complete their training. At the completion of the "inactivation," Liberal Army Airfield was turned over to the City of Liberal. Nice, but not so nice. Military bases have a lot more pavement to maintain than is needed which requires more expense than small towns can usually afford. As such,



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the city chose to maintain two of the original runways, 17-35 which is 7105 x 100 ft. and 4-22 at 5,000 x 75 ft. Runway 35 has an ILS and high intensity lights and runways 4, 22 and 17 have RNAV/GPS approaches with Runway 4-22 having a medium intensity lighting system. Both runways are in excellent condition. Today, FBO services are provided by Lyddon Aero Center, Inc.

In 1951, Beechcraft leased some of the old hangars and were contracted to build aircraft wings for Lockheed Aviation. Later, in the 1960s and 1970s, Beechcraft started building several of their single-engine aircraft at Liberal, notably the Sierra, Musketeer, Sundowner and Skipper, and the twin-engine Duchess and Baron.

When Beechcraft consolidated their manufacturing facilities, they left a relatively new building near the south end of the original 60-acre airport ramp. It is now the home to a "bright spot on the Prairie," the Mid-America Air Museum. It started out small in the 1980s, but with a donation of 53 aircraft to the City of Liberal by Col. Tom Thomas in 1997, it became one of the largest air museums in the country. Since 1998, the collection has nearly doubled with over 100 aircraft on display and a few more in storage awaiting restoration. Included in the collection are several aircraft "on loan" from various branches of the military.

The doors open from 9:00 a.m. until 6:00 p.m., Tuesday through Saturday, and from 1:00 p.m. until 4:00 p.m., on Sundays. The collection covers nearly 90 years of aviation history, and the collection is comprised of roughly 1/3 warbirds, 1/3 commercial-built aircraft by companies like Cessna, Piper and Beechcraft, and 1/3 experimental

aircraft. One "unique" aircraft in the collection is an Aero Commander (L-26), like the one that served as the "smallest" Air Force One that was flown by President Eisenhower between Washington, DC and his farm at Gettysburg, Pennsylvania. Another is a record-setting Piper Comanche that was flown 7,668 miles non-stop from Africa to Los Angeles by Max Conrad of Winona, Minnesota. Along with the aircraft, there are many displays that are educational and interactive including a whole area devoted to educating kids while helping them burn off some of their excess energy.

Admission is \$7.00 for adults over 18 years of age, \$5.00 for seniors over 62 years of age, \$3.00 for youth 6-18 years of age, and free for kids under 6 years of age, veterans, and active-duty military. The museum also periodically conducts educational "camps" for youth 8-12 years of age, where Science, Technology, Engineering and Math (STEM) principles are employed. The museum is fully handicap compliant, and for those who are "challenged" by a lot of

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The Pereira X-28 Osprey was a military light flying boat prototype intended to be used in Vietnam. Originally, George Pereira designed the Osprey 1 for the home-built civilian plane market, but it soon attracted the attention of the military. Because the Osprey 1 was

light and fast, it was considered a perfect candidate for Project Air Skimmer. This project aimed to find an ideal plane to serve as a flying police boat in Southeast Asia.

During testing, the Osprey 1, now called the X-28A, performed very well. The plane did have some problems—it lacked sophisticated instruments and could not take off from land—but it fit perfectly into its intended role. Best of all, learning how to fly the plane was very easy, making it an ideal option for use by South Vietnamese police. The Osprey's homebuilt origins also meant that it could be easily shipped to Vietnam in kits and constructed there. However, just when it seemed that the X-28 was going to enter production, the Vietnam War ended. Project Air Skimmer was closed, and no further X-28s were ever produced. The sole X-28 is displayed in this museum.

In civilian markets, the Osprey 1 was never sold as a kit, and was instead offered as plans. These plans included the design both for the Osprey 1 and for the trailer required to launch it. Osprey 1 Plans are still available for purchase. Far more popular, however, is the Osprey 2, Pereira's improved design. Featuring 2 seats and the ability to take off from land, the Osprey 2 is an adapted version of the original Osprey.

Text by Nathan Cowell, LMS '16 KSU '20



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1984.85.1//SERIAL #15876

- Top speed: 135 mph
- Length: 17' 75"
- First flight: August 12, 1976
- Engine type: Continental O-200
- Designer: Eut Tileston

standing and walking, there are wheelchairs available. At the entrance, they have a well-equipped gift shop with items that are appropriate for every age and reasonably priced. In

fact, you can even purchase a weathervane, topped with your favorite aircraft silhouette or military branch created in metal.

For those who are unable to visit the museum by flying, it is located just off U.S. Route 54. Just follow the signs. If you happen to miss the signs and go another 3-4 miles west, you will be looking at one that says, "Welcome to Oklahoma."

No matter how you get there, it's a great place to stretch your legs and "get in your "cardio steps" for the day. The staff, headed by museum director, Bob Immell, is very informed, helpful and can even suggest good places to eat or stay in Liberal.

If you're interested in learning more about the museum, its contents and programs, there are videos on YouTube, as well as on its website: <http://www.kansastravel.org/airmuseum.htm>.

They are also on Facebook at <https://www.facebook.com/midamericaairmuseum/>. □

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The Devil's Triangle

by Dean Zakos

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In my years of flying, I never thought much about ghosts or the supernatural. Something in August 1980 assuredly changed my mind.

I grew up in a small, rural community. There were 13 in my high school graduating class. I wanted to see more of the world. I attended a community college in Atlanta. While in school, I was employed part time with Eastern Airlines. That job was my introduction to aviation and, indirectly, my path to becoming a pilot. While working at the airline, I came to know its operations, the aircraft I routinely would see and service on the ramp, and how to do weight and balance calculations for transport category aircraft.

One day, my supervisor discovered that I had never flown in an airplane. He arranged for a first-class ticket for me on an afternoon flight, round trip from Atlanta to Miami, on a Boeing 727-200, the "Whisper Jet." The only stipulation was, I had to be back for the start of my shift later that same day. Once off the ground, I could hardly believe what I was seeing outside my window seat. The flight, first in and out of clouds during the climb, then cruising high above a solid layer, opened up a whole new world to me. I still remember my reaction to the experience. I thought to myself, "If I am having this much fun flying as a passenger, it must really be



Dean Zakos

fun to be a pilot."

With that flight, my focus and goals changed from school to flight lessons. I located a small Part 141 school at Tamiami Airport (KTMB) in Florida, and soon found myself behind the controls of Cessna 150s and 172s. Aircraft rates were \$8 - \$10 per hour. My primary instructor was a good teacher, and she was a former national aerobatic champion. After I obtained my ratings, I went back to Atlanta to work for a charter company, flying cargo and passengers in twin Cessnas. I also joined a U.S. Army reserve unit. I indicated my preference was to fly. I had almost 2,000 hours by then. The Army, recognizing what they had, allowed me to advance a few levels in their flight training, and put me in fixed-wing aircraft – the C12 Huron (Beech King Air), the U6A (de Havilland Beaver), and the L19/01 (Cessna Bird Dog).

After leaving the Army, I tried several flying jobs in the hope of finding the one that best fit me. For a period of time, I flew for Eastern Airlines, then I went north to Alaska and flew the Consolidated PB4Y-2 "Privateer" (B-24 Liberator with a single, straight tail) and the Fairchild C-119 "Flying Boxcar," firebombing in remote regions of the state. Five seasons later, I flew a Rockwell Turbo Commander for a Virginia-based charter company, traveling the continental U.S., and into Central and South America, all single pilot. I had amassed almost 6,000 hours at this point.

In August 1980, I was in Florida at Miami-Opa Locka Executive (KOPF). It was, as it was on most days in South Florida, hot and humid with scattered clouds. The ramp outside the FBO shimmered in the afternoon heat. Sitting in the air-conditioned FBO waiting for my passengers to

arrive, I listened to "Sailing" by Christopher Cross on the FBO's speakers as I flipped through a few flying magazines. My charter flight that day, in a Cessna 414A Chancellor, was Opa Locka direct Virginia Beach (42VA). Scheduled to depart at 2:30 pm, five passengers were onboard. The weather did not appear to be a concern. Forecast was for some possible scattered thunderstorms along the Florida and Carolina coasts. The flight looked to be routine, but it was not routine. I have never had another flight like it – before or since.

The 414A is a light, pressurized, twin-engine transport aircraft. It is powered by two wing-mounted 310 hp (231 kW) Continental TSIO-520-J horizontally opposed, six-cylinder, turbocharged engines, and can carry up to eight passengers. Its length is a little over 36 feet and its wingspan is 44 feet. Gross takeoff weight is 6,750 lbs. Maximum speed is 275 mph. Service ceiling is 30,800 feet.

Most of my flights in the 414A were flown in the high teens or low-to-mid-twenties. The 414A had great visibility for the pilot and passengers, with two large windshields up front, and 10 oval windows for those seated in back. For hauling passengers, I liked the large, open cabin, and the ample baggage/cargo areas. The passengers always enjoyed the aircraft. The 414A enjoyed a good safety record, one of the best for light twins, and was easy to fly if you were a capable and confident pilot.

The departure and climb out were uneventful; however, the scenery spreading out below us was as spectacular as always in South Florida, with a bright blue sky and the stunning aqua greens and blues of the Atlantic, with sailboat, charter, and cruise ship traffic dotting the light waves, driven by mild breezes. Four of the passengers sat in the club seats in the back of the 414A, animatedly playing cards and talking among themselves. The fifth passenger sat up front with me in the right seat.

I filed for Flight Level 250 for my cruise altitude. After being vectored east out over the ocean, Miami Center turned us north. Our track would take us out about 140 miles from the shoreline. Although I gave it no thought at the time, the route would take us into the Bermuda Triangle, also known as the "Devil's Triangle."

For decades, the fabled Bermuda Triangle has captured the imagination, or raised the concern, of sailors, pilots, and the public with unexplained disappearances of ships, planes, and people. The Triangle is bounded roughly by Miami, Florida, San Juan, Puerto Rico, and Bermuda. The flight this afternoon would proceed through the far western corner of the Triangle.

The autopilot was engaged. We were level at 25,000 feet. After a handoff to Jacksonville Center (JAX), I was already thinking about my plans after we landed in Virginia Beach. I was alert, but relaxed, chatting amiably with the passenger in the right seat. Suddenly, without warning, the aircraft's nose pitched up about 10 degrees. Not expecting any sudden deviation from straight and level flight, the action instantly captured my full attention.

My immediate thought, "What is going on here?" A quick glance confirmed that the autopilot was still engaged. A moment later, the nose pitched down sharply. Rate of descent quickly passed a thousand feet a minute and we descended below our assigned altitude by almost 2,000 feet. I disengaged the autopilot and called JAX Center: "JAX Center, Chancellor One Tango Alpha, we are in descent."

My second thought, identical to my first, but more emphatically, "What in the hell is going on here?" I wanted to remain calm, as I did not want to overly alarm my right seat passenger. A quick scan showed all engine instruments were normal. The aircraft was trimmed for level flight. Pulling on the yoke returned the aircraft to straight and level. I did not think it was a control problem. I considered a left turn toward the coastline. A few seconds later, an imposing, solid-appearing wall of thick clouds, suddenly appeared in front of us. The clouds towered over us and descended vertically well below our current altitude. Where did these clouds come from? I could swear that they were not there just a moment ago.

We proceeded into the clouds. Are we on the edge of the thunderstorms that were forecast? How could these clouds have developed so quickly? The clouds were neither dark nor foreboding. A bright, milky white, they were as thick as any I have ever flown through. In the strange, opaque mist, I had trouble making out the engine nacelles, prop spinners, and wing tips just a few feet from my side windows. I leave the autopilot off. I am hand-flying. I need to sort out what I am seeing and what is going on. Thankfully, the ride was as smooth as can be. No turbulence. As smooth as any air I have flown in. No ice in these clouds, even though the outside air temperature was below the freezing level.

Red "inop" flags start popping up on the instrument panel. The HSI and flight director go off-line. The lateral deviation bar on the HSI has lost the TO radial I was tracking and is pegged to the side of the instrument. The whiskey compass appears to be slowly turning aimlessly. I attempt to contact JAX Center. "JAX Center, Chancellor One Tango Alpha." I repeat the call. No response from JAX Center. No radio chatter. I check the frequency on my comm one. Yes, it is correct. I tune the second comm radio and repeat the call. Still no response. I check the audio panel and volume controls. Then, I examine the electrical system. Amps and breakers are good. I try one last time, even trying the guard frequency. I have lost radio contact with JAX Center, and with the rest of the world. I can't explain it. I reach over and change my transponder squawk code from the assigned four digits to 7600.

There are times, even after logging thousands of hours, that I am still grateful to my primary instructor for the lessons she instilled in me. "Despite everything that is happening around you, fly the airplane," she told me firmly and repeatedly in the cramped, sweltering cockpit of the C150. "Even if the airplane quits on you, you don't quit on the airplane." I am heeding her words now.

I transmit in the blind, “Any station, be advised Chancellor One Tango Alpha, level at two-five zero, has lost comm with JAX Center.”

Then, something starts to come over me or, more accurately, creep up on me. The little hairs on the back of my neck are standing up. My body is tingling. It isn't fear, or the kind of stress that builds in you as you realize that an engine has quit, or the gear won't operate after you have moved the gear lever to the down position. It is a different feeling. Something strange is going on here – but I have no idea what. It is almost as if there is an electrical current in the air. It was not there; and then, as we entered the freakish clouds, it was. It is palpable; I can sense it, I can feel it running through me, but I cannot identify it. My right seat passenger has noticed it too. He has gone quiet; stopped fidgeting in his seat. I say to him, “I have never seen this before,” but I assured him that, although there is something going on with the instruments, “We are in no immediate danger.” If only I knew that to be true.

I wasn't as concerned for myself as I was for my passengers. As PIC, it was my duty to see to the safety and comfort of my passengers. It is disconcerting to not be confident in identifying what the nature of a problem is, and to not be in a position to determine the correct response. I felt compelled to do something to address what we were facing but, under the circumstances, I did not know what to try.

For some reason, I remembered the old jokes about pilots' last words, “Hey, why is that happening?” or simply “Oh, s#&t!” I am not so amused now by these macabre punchlines in my present, humorless predicament.

The compass is useless. Our last course was approximately 360 degrees. To the west was the coastline. Although the clouds seem as thick as middle fair cotton, there was a lighter spot off the left wing. I surmised that the source of the light was the sun, which should be on our left. I decided I would make a slow turn to the left, toward the light. I held standard rate in the turn for about

30 seconds. We flew on in the dense, murky white for several more minutes. From where I was sitting – an eternity.

Then, we exited the strange clouds as quickly as we flew into them. It was as if we were flying in one world, a solid white, silent, threatening, difficult to understand world, and then flew back into the other – the world we came from, which was familiar, predictable, and comfortable. The peculiar electricity which I so acutely felt in me and around me had dissipated.

The instruments in the panel all came back on-line, the inop flags disappearing back into the bezels. I could clearly hear chatter on the JAX Center frequency. My comm and nav radios were back in business. “JAX Center, Chancellor One Tango Alpha, I had trouble with my radios. How do you read me?” “Loud and clear,” came the response. “Glad to know you are back with us.”



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Although everything now appeared to be operating normally again, I determined it was best not to press my good fortune and continue to fly over the ocean. Instead, I believed amending the flight plan to allow me to remain over land was the best course of action, considering all the circumstances. Once on the ground, I would have the time I needed to review the situation and more thoroughly check the aircraft out.

"JAX Center, Chancellor One Tango Alpha wishes to amend our flight plan. Request that we now proceed direct Hatteras, direct Cofield, direct Norfolk, then direct Virginia Beach."

"One Tango Alpha, do you wish to declare an emergency?" JAX Center inquired.

"No, sir. Negative. Not at this time. One Tango Alpha."

Now on course for Hatteras, the autopilot engaged, I was confident the remainder of the flight would go well. I had a moment to reflect on the unplanned and inexplicable journey into the strange clouds. This was the moment when I made the connection with the Bermuda Triangle. I had not thought about it before. I must have flown through that same area at least a hundred times in the past on various charter flights without incident.

I have never regretted my decision to make flying my career. I have never regretted a single flight I have made. The memorable moments, the challenges, the angry storm cloud formations, the photo-op sunsets and sunrises, the planes I had a chance to fly, the destinations I was able to visit, the pilots and people I have met, far outweighed the few scary moments I have experienced. Yes, in a lifetime of flying, I certainly recognize there were times when I wished I would have, or could have, made some better decisions, but looking back, I gave the best that I could to my flying. So far, my best has always been good enough.

Admittedly, luck plays a role too, sometimes an outsized one. I could not always tell you how or why it may have favored me.

I have heard the stories about the Bermuda Triangle. If you fly regularly in South Florida, or to San Juan, Puerto Rico, or to Bermuda, you know the tales that are re-told or, perhaps, you have a tale or two of your own.

Explanations for the strange nature of the area abound, some supernatural and some natural.

Beneath the waves, some people say, are remnants of ancient but advanced technologies from the lost city of Atlantis, which to this day interfere with powerplants,

controls, and avionics. Is there an underwater UFO base, with strange incidents being caused by alien beings, and meant as warnings to passing ships and aircraft to stay away?

Compass problems in the Triangle have been theorized to result from local magnetic abnormalities. Such abnormalities have not been conclusively established.

The Triangle is a graveyard, containing the lost hulks of many ships and planes. However, some studies suggest the area contains no more wrecks than any other area. Hence, the Triangle should not present any greater theoretical risk to ships or aircraft than any other patch of open ocean. Now, however, after my remarkable flight in the Triangle, I choose to accord this particular graveyard a certain amount of respect and deference, particularly when, to this day, I cannot explain the unexplainable.

After my experience, I had a greater appreciation for the stories of lost aircraft in the Triangle. If I would not have been able to control the un-commanded climb and rapid descent of my airplane, if I had not been able to fly out of the bizarre, suddenly-appearing clouds, if my radios and instruments would not have come back on, would I be here today to relate this story? What if . . .

After landing in Virginia Beach, attending to the passengers, explaining to them the unusual nature of the event we experienced, the necessity to change our route, and checking the aircraft out, I called JAX Center to talk with the air traffic controller who handled our flight.

I got him on the line. I apologized for the altitude deviations and the loss of my comm radios. He was understanding and sympathetic. Then he said something extraordinary. "You don't have to apologize," he explained. "There is a problem out there. We have seen so many incidents similar to yours over time that we have stopped logging them. Glad you are OK."

EDITOR'S NOTE: Dean Zakos (Private Pilot ASEL, Instrument) of Madison, Wisconsin, is the author of "Laughing with the Wind, Practical Advice and Personal Stories from a General Aviation Pilot." Mr. Zakos has also written numerous short stories and flying articles for *Midwest Flyer Magazine* and other aviation publications.

DISCLAIMER: This article involves creative writing, and therefore the information presented may contain fictional information, and should not be used for flight, or misconstrued as instructional material. Readers are urged to consult with their flight instructor about anything discussed herein. □



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For the first time in aviation history, a CORSIA certified batch of sustainable aviation fuel (SAF) was delivered to a commercial airline. The announcement was made July 12, 2022.

Neste, the world's leading SAF producer, delivered a batch of its Neste MY Sustainable Aviation Fuel™ to American Airlines at San Francisco International Airport. This was part of a pilot program to certify SAF as a CORSIA eligible fuel that can be used by an airline to meet its emissions obligation under CORSIA.

The Carbon Offsetting and Reduction Scheme for International Aviation ("CORSIA") is a carbon offset and carbon reduction scheme to lower CO2 emissions for international flights, to curb the aviation impact on climate change. It was developed by the International Civil Aviation Organization (ICAO). But until now, no airline in the world has taken delivery of CORSIA-certified SAF, making this delivery a first.

Neste has been working together closely with aviation stakeholders to accelerate the use of SAF and has a long-

standing partnership with American Airlines. Both companies support CORSIA's emissions reduction goals, but as the SAF certification process under CORSIA is new, they decided to set up a pilot project to certify a batch of SAF and use that process to understand its challenges.

"Sustainable aviation fuel is widely acknowledged as a key element in achieving the aviation industry's goals of carbon neutral growth from 2020 and reaching net-zero emissions by 2050," says Thorsten Lange, Neste's Executive Vice President, Renewable Aviation. "The pilot with American Airlines was a perfect opportunity for proving the feasibility of delivering CORSIA certified SAF and gaining useful insights into setting up the process and the challenges we need to overcome to enable the implementation of CORSIA."

Compliance with the CORSIA sustainability criteria requires independent attestation by an ICAO-approved Sustainability Certification Scheme (SCS). Neste decided to pursue this certification from the International Sustainability and Carbon Certification (ISCC) system. □



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Wisconsin Creates New Youth Apprenticeship Program In Aviation



Wisconsin Youth Apprentice Arthur Anderson with his mentor (and father) Matt Anderson at Matt Anderson Helicopter Repair in Janesville.

by Olivia Conklin

(Wisconsin Department of Workforce Development)

& Meredith Alt

(Wisconsin Department of Transportation)

Through a partnership with the Wisconsin Department of Transportation, Bureau of Aeronautics and statewide aviation and aerospace employers, the

Wisconsin Department of Workforce Development - Bureau of Apprenticeship Standards, recently developed four new pathways in aviation. The new pathways are the first of their kind in aviation in Wisconsin and will be available to interested high school students and employers this summer 2022. The new pathways offer Youth Apprenticeship opportunities in **Aviation Maintenance Fundamentals, Airframe and Powerplant (A&P), Avionics, and Airport**

Operations and Management.

With over 30 years of success, Wisconsin's Youth Apprenticeship program is a work-based learning program that combines work experience and classroom instruction in 11 different occupation areas. Apprenticeships offer paid, on-the-job learning experience that benefits apprentices and employers in many ways. Beyond work experience and education, apprentices also gain skills, build relationships with mentors, and get a head start on their careers. Additionally, apprentices may be eligible for college credit by participating in Youth Apprenticeship. The new aviation apprenticeship pathways allow students to explore and gain real-world experience in the aviation industry.

Employers also receive benefits through the Youth Apprenticeship program. Youth Apprenticeship gives

employers access to motivated students interested in the aviation industry. Employers' recruitment and development strategies improve as they train the next generation of their workforce. Apprentices bring innovative ideas and a strong desire to learn, which are critical commodities in today's workplace. More than 75% of youth apprentices receive permanent job offers at the end of their apprenticeship experience, showing the success Youth Apprenticeship brings.

With a strong need for skilled workers across the aviation industry, we in Wisconsin are eager to see how Youth Apprenticeship will help build the pipeline into the aviation industry. Students and employers interested in an aviation youth apprenticeship program should visit WisconsinApprenticeship.com or connect with staff at ya@dwd.wisconsin.gov. □

Meet Brandon Benjamin - Airport System Planner

Brandon Benjamin joined the Wisconsin Department of Transportation Bureau of Aeronautics (BOA) in April 2022 as the Airport System Planner. He is responsible for implementing and maintaining the State Airport System Plan. His duties include managing project petition documents received from airports for conformance with state statutes, leading different types of studies of Wisconsin's airports, as well as coordinating with fellow BOA employees to prepare grant applications. Additionally, he leads multi-disciplinary teams compiled of DOT, FAA, BOA, and engineering consultants to review the development of the airport system.

Brandon is a Certified Member of the American Association of Airport Executives and holds a degree in Airport Management from the University of North Dakota.

Brandon brings with him different experiences from a variety of roles, such as Airport Operations and Emergency Communications Management, all the way to Storm Water Prevention Planning/Spill Prevention Control Countermeasures and Aircraft Rescue Firefighting. His first job in aviation was as a dispatcher for the University of North Dakota's Aerospace Department where he dispatched their fleet of 125 planes, drones, and helicopters.

Brandon is excited about the move to Wisconsin because of all the possible outdoor activities and is looking forward to assist in the continued success of the state's airports.

You can reach Brandon Benjamin at **608-267-5256** or at brandon.benjamin@dot.wi.gov. □



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

Ryan E. Gaug, Interim Director
Minnesota DOT Office of Aeronautics
395 John Ireland Blvd. • St. Paul, MN 55155-1800
651-296-3000

Change is in the air at MnDOT Aeronautics *(Really, a lot has changed.)*

by Ryan Gaug
Interim Director, MnDOT Aeronautics

If you are a regular customer or partner of MnDOT's Office of Aeronautics, then you are likely already aware of the long-term staffing transition that began several years ago and is very much still in process today. My goal in writing this article is to bring you up to speed regarding these changes, but also to share a bit of what is yet to come.

One of the biggest changes to share, and most impactful to me personally, is that effective April 25, 2022, I became Interim Director of Aeronautics, following the retirement of our long-time director, Cassandra Isackson. Cassandra's last day working in Aeronautics was April 22 and I am honored to be asked to take on this role while a national search is conducted to find Cassandra's permanent replacement.

Cassandra accomplished many things in her career and specifically as Director of Aeronautics. She was known to be one of MnDOT's most strategic thinkers, and excelled at creating effective partnerships in aviation. But what she enjoyed most was flying to visit airport communities to talk with leaders and citizens about their goals for their airport and how the state could help. We all wish her well in this next phase of her life.

At the time of this writing, there is also change happening at the "assistant director" level due to my temporary assignment as director. Several years ago, the office began a transition to a two assistant director office management model, but we are yet to have both of those roles filled permanently at the same time, and that trend will likely continue for some time. The agency is in an active hiring process for one of those two assistant director positions now and hopes to have both assistant director positions filled permanently within a year.

Beyond those office leadership positions that are in flux, we've said goodbye to several long-time staff, and welcomed



Ryan Gaug

many new faces to our ranks. Speaking of new faces, due to the pandemic, there are a handful of our staff that I have never had the opportunity to meet in person, and I hope that changes soon. But for now, most of our team is still teleworking.

Many of us were able to gather at the Minnesota Airports Conference in April at the Mayo Civic Center in Rochester. It was great to shake hands again, get reacquainted with long-time friends and colleagues, and meet new people. It was my honor to provide an update to the event attendees, and provide a "deep dive" into our organizational structure and all the changes we have been and will be experiencing. Having almost 25 percent of the workforce vacant certainly creates challenges, but also is an opportunity to bring us back to full staffing.

Getting MnDOT Aeronautics fully staffed will be one of our office's highest priorities so we can continue to meet your expectations today and into the future. We already have a great team in place, and building on that solid foundation will make MnDOT stronger and better able to deliver the services you've come to rely upon and expect.

One final note of change to share relates to our physical location, which becomes even more important and relevant once more of us are back in the office. Please note that **we have moved!** While the office remains closed to the public, we are now co-located with MnDOT's central office in the Transportation Building near the Capitol Building in St. Paul. It's just a short distance from our former office on Plato Boulevard, but the neighborhood couldn't be more different. Parking won't be as easy in the new location, so be sure to plan ahead if you have scheduled a meeting with us that is not virtual.

Please feel free to drop me an email, send a letter, or call if there's anything you'd like to discuss. Here's my information, including the new office address:

Ryan Gaug
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612-422-8601



The Ins and Outs of an AWOS System

by Nate Sievert

Airport Operations Program Administrator - MnDOT Office of Aeronautics



Nate Sievert

Airports around the world provide pilots – and the general public – with current weather and climatology information to ensure safe and efficient aviation operations. While many pilots refer to this weather information system as an Automated Surface Observing System (ASOS), in this article we will be discussing the specifics of an Automated Weather Observation System (AWOS).

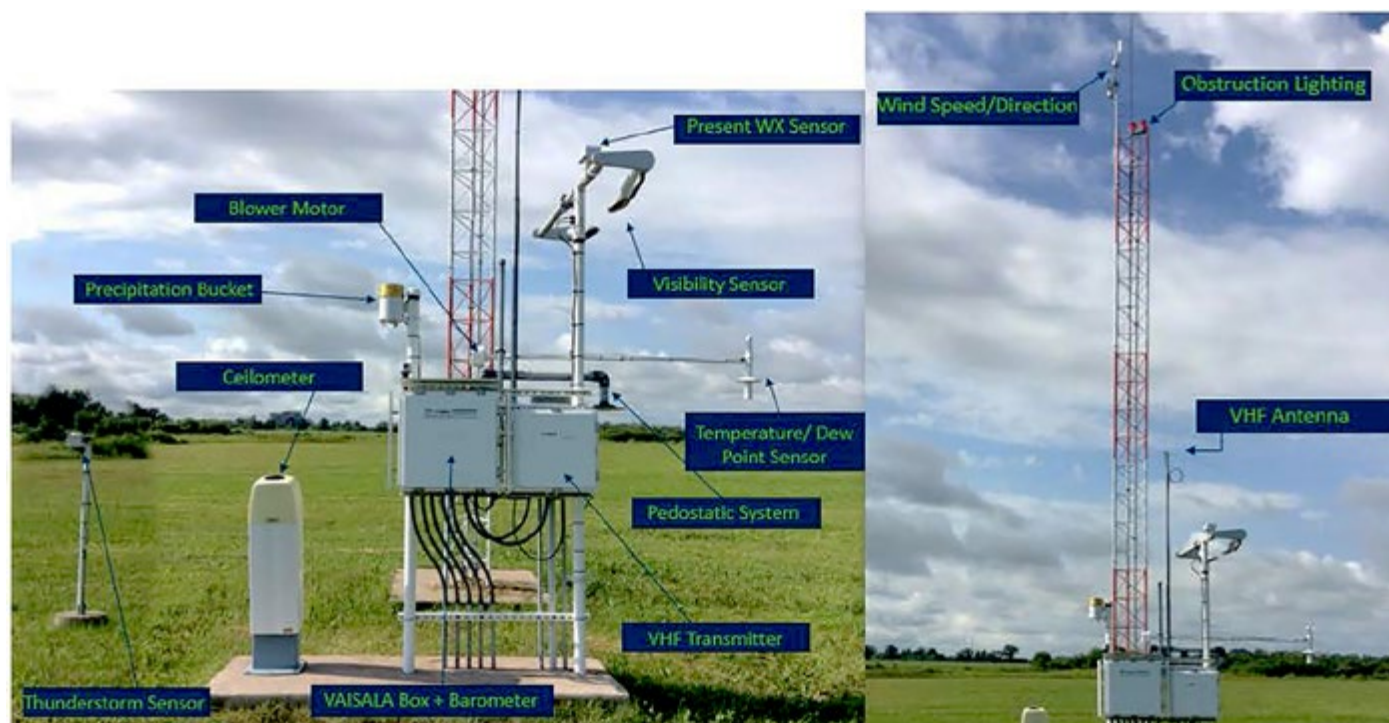
Nearly all pilots are familiar with the METAR (**Meteorological Aerodrome Report**), which is the automated system that provides pilots and others with all the weather information for a given AWOS site. The METAR is based on the information collected by the AWOS weather station and includes information from visibility to wind speed. A METAR is broadcast over the airwaves and distributed over the internet.

A METAR typically looks like this example:

METAR KANE 151519Z AUTO 21008KT 10SM CLR 04/M02 A3018 RMK A02

Parts of an AWOS

There are many systems and sensors that come together to create an AWOS system that provides the information in a METAR.



The photo above shows most of the major components that come together to create a functional, accurate, state-owned AWOS that provides METARs from airports in Minnesota. There are eight major components, discussed below.

One of the major components is the wind speed/direction sensor that sits atop the main tower of the AWOS system. That sensor is equipped with a wind vane and cup system that measures wind direction in degrees, along with windspeed in knots. In the METAR example above, this information is provided as “**21008KT**,” which means the wind is at 210 degrees, at a speed of 8 knots.

Following the wind information in the METAR is the “site visibility.” Site visibility is provided by the kindly-named visibility sensor located on the side of the system’s base. The visibility sensor uses infrared light to measure visibility in statute miles. In the METAR example above, site visibility is indicated by “**10SM**.”

The next two sensors are more specific to the types of weather the general population is familiar with, like rain and snow. The present weather sensor (or “WX”) can differentiate seven different types of precipitation, while the thunderstorm sensor detects changes in the local electrical field to determine lightning strikes. These sensors give information such as SN in our METAR

above, which indicates “snow.” Other conditions the WX sensor measures and broadcasts through METARs include:

– RA, Rain – SH, Showers – SN, Snow – GR, Hail – BR, Mist – FG, Fog – FZ, Freezing Rain

Pilots also rely on AWOS systems to measure “cloud cover.” The AWOS’s ceilometer calculates cloud height with a laser that can reach up to 25,000 feet above the ground. The ceilometer calculates the average cloud cover over 30 minutes to determine the current cloud ceiling. When there are no clouds – like in our example METAR – the METAR would broadcast “CLR” for clear. If there were clouds, the AWOS would produce a METAR that looks something like “OVC008” which indicates “overcast clouds at 800 feet.”

Following the cloud cover information on the METAR is the “temperature and dewpoint” readings. In our METAR example above, those readings are broadcast as “04/M02,” which means the temperature is 4 degrees Celsius, and the dewpoint is -2 degrees Celsius. The temperature and dewpoint sensor hangs off the side of the main component box of the AWOS. This sensor gathers the information while processing a multitude of equations before broadcasting the temperature and dewpoint readings.

The final component that is an integral part of the METAR is the “barometer” which provides an altimeter setting in inches of Mercury. The altimeter setting is calculated using barometric pressure, site elevation, and air temperature. The METAR example above gives the altimeter setting “A3018.”

There are many other pieces of equipment that are needed to make an AWOS run efficiently and correctly that aren’t necessarily mentioned in the METAR itself.

Data Display and Resources

Beyond the METAR, the information from the AWOS is broadcast to many different outlets at the airport, and online. At the airport, a direct data feed runs from the AWOS to a display in the airport’s arrival departure building. That display provides a live feed of current weather.

The AWOS data is also uploaded online to www.anyawos.com. Minnesota currently has 79 AWOS systems live on **anyawos.com**, and each system may be found using the associated airport’s identifier – for example: **www.anyawos.com/KANE**. An example of the interface is shown below:



Minnesota’s statewide AWOS system, and the METARs it generates, are vital to pilots, a safe aviation system and others outside of aviation who use AWOS information in their work. The many components and subsystems of an AWOS cohesively create and display a great amount of weather data. Pilots and the public can use AWOS to stay informed, stay safe, and remain aware of current conditions with accurate and current data.

To see current weather information at Minnesota’s airports for free online, visit

mndot.gov/aero/navigationsystems/awos-map-online.html





Phil Bales as chief pilot for Northwestern Mutual life insurance company with their Dassault Falcon 10.

A Flying Family's Legacy Lives On

When Phil Bales retired as chief pilot for Northwestern Mutual life insurance company, his contribution to the aviation community in Wisconsin was just beginning. Phil and his wife, Wanda, herself having soloed, raised six sons and four daughters, nearly all of whom contributed in some way to aviation. Most were pilots and aircraft owners, and in some cases, owners of aviation-related businesses. This is how it all started.

When Phil was 17 years old, he broke his leg in a skiing accident. Largely immobilized, he began hanging out at the Waukegan, Illinois airport (KUGN) while he healed. Soon he was a student pilot and eventually became proficient enough to be hired by the Army Air Corps which needed pilots during World War II.

After Phil and Wanda got married, they moved to Pine Bluff, Arkansas, where Phil was a flight instructor. This led to Phil being hired by Pan American-Grace Airways, better known as "Panagra," which sent him to Lima, Peru, to fly DC-3s throughout South America. Seeking a more local flying job, he returned to his hometown of Zion, Illinois. Eventually, Phil was hired by Trostel Tannery in Milwaukee as a corporate pilot, which led to his career flying for Northwestern Mutual.

Phil didn't particularly encourage his kids to fly, but they all seemed to naturally gravitate in that direction when he would occasionally take them on trips.

For 21 years straight, at least one of the 10 Bales kids walked the halls of Bay View High School.

Oldest son, Dwight, was the first to leave the nest and



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Phil and Wanda Bales with their 10 children, most of whom chose careers in aviation.

become a pilot for United Airlines. He began taking flying lessons in high school and was offered a job even before he earned his Commercial Pilot Certificate.

Second son, Jon, graduated from the University of Wisconsin-Milwaukee, then earned his Navy wings. He was first assigned as a basic jet flight instructor, then later became carrier qualified flying the Grumman A-6 Intruder, an all-weather, low-level nuclear attack jet aircraft.

Jon went into real estate, investing in several apartment buildings. He says his happiest days were working on the bench at Mitchell Aircraft Instruments, fixing artificial horizons and directional gyros.

Oldest daughter, Bonnie, was a flight attendant for United. That was back in the day when being a "stewardess" was a glamorous job.

Third and fourth sons, Jeff, and Peter, became Army pilots during the Vietnam War. Jeff flew fixed-wing aircraft, and Peter, helicopters. The Bales brothers managed to survive being shot down and crash landings.

Second daughter, Katie, earned her Commercial Pilot Certificate and became an instructor of aircraft systems for United in Denver.

Third daughter, Maggie, worked as a ticket and gate agent for Eastern Airlines at General Mitchell International Airport in Milwaukee until that airline dissolved.

Tracy, the only one who didn't work in aviation, got her license to drive semi-tractor trailers.

Fifth son, Chris, is currently a senior pilot with United. Jeff taught Chris to fly, and Chris built hours flying the WTMJ radio traffic watch and delivering checks for the U.S. Federal Reserve flying Beechcraft King Airs.

Finally, baby brother, Andy, along with his wife, Sondra, pursued flight attendant careers. Several aviation-related businesses grew out of the family's love of flying.



Jeff Bales flew fixed-wing aircraft for the U.S. Army during the Vietnam War.



Jon Bales with the Grumman A-6 Intruder he flew in the U.S. Navy.



Jeff Bales with his grandson, Jeffrey Boudreau, in the family's Cessna 150. The aircraft is currently owned by Chris Bales and his daughter, Ally.

Phil and several of his sons purchased Mitchell Aircraft Instruments in 1975, a repair facility housed in the old Wisconsin Air National Guard building at General Mitchell International Airport on Howell Avenue in Milwaukee. Jeff was instrumental in founding the trade organization "Aircraft Instrument Association," and also started an aircraft charter business. Peter used his knowledge of helicopters and now owns Tradewind International, a helicopter parts company in Janesville, Wisconsin.

Altogether, seven of Phil and Wanda's 10 children hold at least a Commercial Pilot Certificate.

The legacy has become a dynasty!

Now generations three and four are exploding on the scene. Whereas the 10 siblings were primarily based in Milwaukee, their kids and grandchildren are scattered around the country.

Dwight's grandsons, Sam and Jack, are pilots. Sam is currently in training to fly for U.S. Customs and Border Protection. Jack flew drones for the military and is now an aircraft mechanic.

Jon's son-in-law, Tim Bobinski, retired from the U.S. Air Force as an F-15 pilot, and now flies for United Parcel Service.

Jeff's daughter, Natalie Boudreau, is training to become a flight attendant with United Airlines. Incidentally, Natalie has a Private Pilot Certificate.



Peter Bales flew helicopters for the U.S. Army during the Vietnam War. He now owns "Tradewind International, LLC," a helicopter parts company in Janesville, Wisconsin. Tradewind International stocks 25 million parts for helicopters (www.tradewindinternational.com).

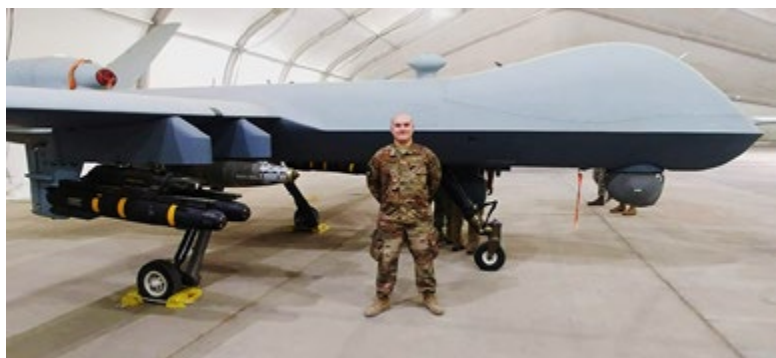
Jeff's grandson, Jeffrey Boudreau, learned to fly before joining the Air Force. He is now in the pilot program at the University of North Dakota in Grand Forks.

Peter's grandsons, Michael and Nicholas Prindiville, are in the Air Force. Michael is a loadmaster on a Lockheed C-130, and Nicholas is a computer specialist with a search and rescue unit, currently serving in Japan.

Maggie's son, Garrett Hennig, is a private pilot and an aerospace engineer working on electric flight aircraft and drones.



Peter Bales flying his OH6A helicopter painted in U.S. Army colors. "My OH6A has an interesting story," says Bales. "It was in my unit in Vietnam but got shot down 9 months before I arrived in country. It took about a year to find and talk to the pilot who was flying that day."



Peter Bale's grandson, Nicholas Prindiville, is a computer specialist with a search and rescue unit in the U.S. Air Force.



Peter Bale's grandson, Michael Prindiville, is a loadmaster on a Lockheed C-130 in the U.S. Air Force.



Andy Bales (center) and his sons, Evan and AJ, with a previously flown New Shepard Rocket at the “Blue Origin” plant in Merritt Island, Fla



(L/R) Evan and his dad, Andy, worked briefly together as mechanics at “SpaceX” in Cape Canaveral, Florida.

Andy and his son, Evan, worked briefly together as mechanics for “SpaceX” in Cape Canaveral, Florida. Andy’s other son, AJ, worked as a mechanic with “Starfighters” at NASA’s Kennedy Space Center. Starfighters operates the only fleet of flight-ready, supersonic Lockheed F-104 Starfighter aircraft in the world and feature the aircraft in a civilian demonstration team. The Starfighters aircraft are available for a variety of government and commercial missions. The boys then changed jobs to work for “Blue Origin,” then AJ went back to work at Starfighters.



Evan Bales with the spacecraft “Blue Origin.”



"Starfighters" operates the only fleet of flight-ready, supersonic Lockheed F-104 Starfighter aircraft in the world and are based at NASA's Kennedy Space Center.

Pete Clukey Photo



Andrew (Andy) Bales when he was a crew chief with Starfighters.



Andy Bales' son, AJ, is currently a crew chief with Starfighters.



Andy Bales congratulates his son, AJ, for becoming the newest member of the exclusive and unofficial "F-104 Riders Club" following AJ's first flight in the backseat of an F-104 Starfighter.



AJ Bales (center) with his parents, Andy and Sondra.

Chris' daughter, Ally, is a new hire at United, flying the 787. Chris hopes to fly a trip with her before he retires next May.

It's amazing that a high school student's broken leg could lead that student to learning how to fly and starting an aviation family legacy!



Chris Bales' daughter, Ally, is a new hire at United Airlines, flying the Boeing 787. She is seen here with her dad at her "wing pinning" ceremony in June 2022. As a senior pilot with United, Chris hopes to fly a trip with her before he retires next May.



(L/R) United Airlines pilots, brothers Chris Bales, Jeff Bales and Dwight Bales.



How A Father & Son Flew 100 Hours Together During The COVID Shutdown

by Phil & Mark Peterson

We wanted to fly during the pandemic, but not stay overnight at any one location, so we enrolled in the “Fly Wisconsin Airport Passport Program.” You fly to all 125 participating airports, get your Wisconsin Airport Passport stamped, and receive prizes at different levels of participation, with the Gold Level being a leather flight jacket. This personal challenge started back in 2018. We got really serious in 2020-2021 during the pandemic. Yes, we flew over 100 hours in 2021.

It was interesting to try and locate where airports stored their passport stamps in order to make them available 24/7. Some stamps were in a mailbox on the side of the airport office or hangar, and others by a pipe in the ground out by the windsock or fuel pump. One stamp was even located in the manager’s pickup truck. Without asking someone at the airports, or seeing a note on the door to the office, who was to know?

During our mission, we were impressed by the number of new fixed base operations around the state, with many new buildings, and how their local communities supported them. Many airports provided courtesy cars and bikes and encouraged overnight camping in the airport office, outside in your tent, or at nearby hotels. Tourism and commerce must be the drivers.

We would advise our fellow pilots enrolled in the “Fly Wisconsin Airport Passport Program” to do their homework before starting out, including reviewing all the basics on their flight training checklist. If you fly to 10-15 airports in a day, many without AWOS or ATIS, it can stress your comfort level. But most of the time, it is just you and the airport, all to yourself.

There are a lot of improvements being made at Wisconsin airports, from new or resurfaced runways and taxiways to the removal of trees and brush along the side of runways, upgrades to 24-hour self-serve fuel systems, and new offices and hangars.

The best part of our journey were the people we met, and the stories we heard on how the airports came about, the people involved, and how our aviation communities are linked together. Unbelievable! Each state and region is truly an aviation community!

For those who use Facebook, there is a *Fly Wisconsin* Facebook page to monitor for updates to the program, as well as suggestions from participants on how to make a day of it when visiting certain airports.



Phil & Mark Peterson

EDITOR'S NOTE: An earlier version of this article was published in the November/December 2021 issue of the *International Flying Farmer* magazine, as the Petersons are both members. Always on the lookout for a new challenge, the Petersons are now enrolled in the “Fly Minnesota Airport Passport Program” offered through the Minnesota Department of Transportation Office of Aeronautics and plan to land at a minimum of 130 of Minnesota’s 134 public-use airports to earn even more rewards. □



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ACE Welcomes Education Director Kimberly Brewer

LAKELAND, FLA. –

Kimberly Brewer is no shy woman when it comes to inspiring the next generation of aerospace professionals. As a Polk County native, Kimberly has grown up on the SUN 'n FUN campus, where she has made significant contributions beginning at the young age of 11. Now 20 years and almost a doctorate later, Kimberly is tenaciously serving the greater Polk County area in a role that is truly one of a kind. As the Aerospace Center for Excellence Education Director, Kimberly is championing strategic initiatives set forth by newly appointed SUN 'n FUN & ACE CEO Gene Conrad.

“Kimberly’s passion for aviation education is unrivaled and began when she was a child,” said Conrad. “After many years of watching her older brother attend our aviation summer camps, Kimberly began her own journey with our



Kimberly Brewer

organization when she was 11 years old. Our programs drew out the curious leader within Kimberly and sparked a flame of leadership in her life. I can’t think of a better person to lead our educational programming, and I know Kimberly will drive our outreach and partnerships to new heights.”

Kimberly’s tenure with Polk County Public Schools has already proven successful in impacting the lives of students and teachers.

“Kimberly has a great understanding of the aerospace community, as well as the Polk County Public Schools education system,” said PCPS Science and Social Studies Director Jeff Hancock. “Her ability to create meaningful connections throughout both industries is outstanding. I look forward to getting to observe the wonderful educational experience that Kimberly and her team are constructing at ACE for all students.”

ACE Executive Director Eric Crump, will be leading the educational charge with Kimberly.

Kimberly resides in Lakeland with her husband, NOAA Air Corps pilot Kennieth Brewer. Kimberly also serves as an adjunct professor at Florida Southern College, where she is simultaneously obtaining her doctorate in education. □

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So, go to your computer and enjoy your [FREE SUBSCRIPTION](#) to *Midwest Flyer Magazine*!



Craig R. Sincock Receives Top NATA Honor

WASHINGTON, D.C. – The National Air Transportation Association (NATA) has announced the recipient of its highest annual honor, The William A. “Bill” Ong Memorial Award, to aviation entrepreneur, Craig R. Sincock, owner, president, and CEO of Avfuel. The award will be presented during a luncheon November 3, held in conjunction with the NATA 2022 Aviation Business Conference in Miami. Given in honor and memory of the association’s co-founder and first president, the William A. “Bill” Ong Memorial Award recognizes extraordinary achievement and extended meritorious service to the general aviation industry.

“Craig Sincock is a prominent aviation business leader, philanthropist and visionary who has spent his entire career connecting people, businesses, and cultures. It is a pleasure to honor his drive, leadership, passion, and propensity for giving back with NATA’s highest honor,” stated NATA President and CEO Timothy Obitts.

Sincock acquired Avfuel Corporation in 1985. Under his leadership, the company has grown from a regional fuel supplier to its current position as a leading independent global supplier of aviation fuel and services. Avfuel currently serves more than 5,500 aviation customers at more than 3,000 worldwide fueling locations, and supplies fuel and comprehensive services to all six major aviation consumer groups: fixed base operators (FBOs), corporate flight departments, airlines, helicopter operators, cargo haulers and the military.

Sincock accomplished this growth through a strategic mix of more than 30 acquisitions (four of which were aviation



Craig R. Sincock

divestitures from publicly traded energy companies), internal sales growth, and marketing alliances. Today, Avfuel touches virtually every aspect of the aviation industry with its innovative lineup of programs and solutions, including industry-leading sustainability programs, and through various subsidiary corporations, including Avtank, Avlease, Avsurance and Avplan. Sincock continues to focus on further international expansion and the next generation of aviation.

The passion for aviation that led Sincock to purchase Avfuel is evident through his continued devotion to the company’s success, as well as through his advocacy efforts. Past positions he has held include seats on the Pride Refining Inc. Board of Directors (PRF: NYSE), Duncan Aviation Board of Advisors, and National Business Aviation Association (NBAA) Board of Directors, along with serving as

chairman of NBAA’s Associate Member Advisory Committee. Sincock is a member of the World Presidents’ Organization (WPO), an international organization fostering educational development and networking opportunities for company leaders. He has also been an active participant in leading aviation groups, including NATA, NBAA, the General Aviation Manufacturers Association (GAMA), Experimental Aircraft Association (EAA), and the Aircraft Owners and Pilots Association (AOPA). Additionally, Sincock is a pilot with an ATP rating and frequently pilots the company’s Falcon 2000LXS and Cessna Citation XLS+.

Sincock recently received the 2022 Kenn Ricci Lifetime Aviation Entrepreneur Award at the 19th Annual Living Legends of Aviation Awards banquet, during which he was also inducted into the Living Legends of Aviation.

Sincock graduated from the University of Michigan and resides in Ann Arbor with his wife, Sue. The Sincocks’ philanthropic efforts extend well beyond the aviation community; they are also staunch supporters of health care and education organizations.

The National Air Transportation Association (NATA) has been the voice of aviation business for 80 years. Representing nearly 3,700 aviation businesses, NATA’s member companies provide a broad range of services to general aviation, the airlines, and the military. NATA serves as the public policy group representing the interests of aviation businesses before Congress and federal agencies (www.nata.aero). □



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Symbiont Joins Mead & Hunt

Symbiont, an engineering, procurement, and construction (EPC) firm based out of Milwaukee, Wisconsin, joined Mead & Hunt, a Top 100 national architectural-engineering firm, on June 1st, 2022. This move allows both Mead & Hunt and Symbiont to offer enhanced services to clients and expand their geographic and market reach, specifically in the areas of water, renewable energy (biogas), and food and beverage, furthering the strategic vision of both firms.

“This merger not only holds enormous benefit for both our companies, but for our clients as well,” said Andy Platz, CEO and President of Mead & Hunt. “We continuously work to provide our clients with new and expanded services. This move combines Mead & Hunt’s and Symbiont’s resources and project experience to support and grow our food and beverage and municipal markets.” He continues, “This union represents an ideal cultural fit. Both companies share values that put our communities, clients, partners, and employees first.”

Symbiont is an engineering, design-build, and construction firm founded in 1981. Providing innovative engineering technologies that optimize environmental and sustainability goals, they have grown steadily in size, offerings, and geography.

Joining forces with Mead & Hunt allows Symbiont to offer clients expanded services along with the benefits of a national, full-service firm. Similarly, Mead & Hunt clients will reap the benefits of Symbiont’s design-build, renewable natural gas (RNG), and process design experience.

“Our vision for Symbiont’s future made this the perfect fit,” said Tom Bachman, previously CEO and President of Symbiont and now Group Leader at Mead & Hunt. “With expanded resources and a greater geographic and market reach, we can better holistically serve our current and future clients. In addition, Mead & Hunt shares our strong commitment to sustainability and growth to make our planet better, one project at a time.”

Founded in Wisconsin in 1900, Mead & Hunt has since expanded significantly in size and geographic reach. The firm now provides diversified services nationwide and ranks #91 on ENR’s Top 100 Design Firms. With a team of over 1200 professionals in more than 40 offices across the U.S., Mead & Hunt supports several key markets, including aviation, transportation, food and beverage, federal, state and local governments, and water.

Mead & Hunt’s website: www.meadhunt.com

Symbiont’s website: <https://www.symbiontonline.com/> □

Former Wisconsin Aeronautics Official, Mark Pfundheller

Sept. 18, 1955 - July 2, 2022

Mark D. Pfundheller, 66, of Edgerton, Wisconsin, passed away July 2, 2022, surrounded by his family. After fighting Churg-Strauss Syndrome for 12 years, complications from Covid pushed his lungs to the brink and led to his death.

Pfundheller was born in Stoughton, Wisconsin, the son of Douglas and Ardys (Holtan) Pfundheller.

As a youngster, Pfundheller never sat still. He rode a unicycle to school every morning, wrestled in the smallest weight class, danced (and flipped) in the Stoughton Norwegian Dancers and loved to golf and ski. His family spent summers on the lake, where he learned to sail,



Mark Pfundheller

developed a love of boating, and became an excellent water skier, swimmer, and diver.

Following in his father’s footsteps and inspiring his son, Nick, to do the same, Pfundheller got his pilot’s license in high school and built a single cockpit Pitts biplane with friends and family. His exceptional spatial awareness propelled him to become a great pilot, and he flew in airshows and aerobatic demonstrations around the state. But most remember him for doing impromptu shows over local Lake Kegonsa, waving his wings at the end.

After graduating from Stoughton High School in 1973, Pfundheller took a year-long sojourn to Colorado where he enjoyed life as a ski bum before earning a bachelor’s degree in Cartography from UW-Madison. He worked for 33 years as a pilot and aviation consultant for the Wisconsin Department of Transportation Bureau of Aeronautics until his retirement in 2017.

But the job he was most proud of – and the one that kept him busiest – was being a dad. Pfundheller raised his children solo, and he was always there...never missing an event, never burdened by single parenthood, never making his kids feel

that he or they were sacrificing. Pfundheller quietly demonstrated what a parent should be.

In 2004, Pfundheller married the love of his life, Kelli L. Manson. In a ceremony in their backyard, they both rode “down the aisle” in golf carts. The wedding was filled with music, dancing, laughter, family, and friends – the way they lived out their life together.

The Pfundhellers camped at EAA AirVenture Oshkosh each summer where they made life-long friends, traveled to Africa, Mexico, Australia and beyond. They made each other's lives – and the lives of those around them – brighter and more fun.

Mark Pfundheller is survived by his wife, Kelli; four children: Kevin (Renee)

Stokstad, Lindsey (Jake) Lentz, Jamie Pfundheller, and Nicholas (Katelyn) Pfundheller; 10 grandchildren: Kaden, Kellan, Alex, Kenley, Tatum, Ruby, Lily, Freya, Friedrik, and Finnicks; two siblings, Marjie Hanssen and Karen (Greg) Gilbert; as well as nieces, nephews, aunts, uncles, and cousins. He was preceded in death by his parents and grandparents. □

NBAA Welcomes Nomination of Phil Washington As Next FAA Administrator

WASHINGTON, DC – On July 7, 2022, the National Business Aviation Association (NBAA) welcomed the nomination of Phil Washington to be the next administrator of the Federal Aviation Administration (FAA), noting the value of having a confirmed administrator for providing consistent leadership at the agency.

Washington has served as CEO of Denver International Airport (DEN) since July 2021. In 2009, he was named CEO of the Denver Regional Transportation District after serving as the public transportation service's assistant general manager since 1999. He later led the Los Angeles County Metropolitan Transportation Authority (Metro) from March 2015 to May 2021, overseeing an agency of 11,000 employees charged with transporting 1.2 million boarding bus and rail passengers daily.

Under Washington's leadership, in 2021, Metro was named to the DiversityInc Top 50 Employer competition for the first time in the agency's history. He has also been honored with the Los Angeles County Economic Development Corporation's Eddy Award for outstanding leadership in economic development and the Coro Crystal Eagle Award for leadership.

If confirmed by the U.S. Senate, Washington would lead the FAA of 45,000 employees with an annual budget of \$24 billion. Capt. Billy Nolen has served as the FAA's Acting Administrator since April, following the retirement of previous administrator Steve Dickson.

Washington is a 24-year veteran of the U.S. Army, retiring from active duty with the rank of Command Sergeant Major. He is a disabled veteran and was awarded

the Defense Superior Service Medal, recognizing superior meritorious service in a position of significant responsibility.

In 2020 and 2021, Washington co-chaired the Biden/Harris Infrastructure Policy Committee and later led the Biden/Harris Transportation Transition Teams. He holds a B.A. in Business from Columbia College, an M.A. in Management from Webster University, and is a graduate of the Harvard University Kennedy School for Senior Executives in State and Local Government. □

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Aviation Summer Academy Returns, Complete with Flight Opportunities for Students



A flight instructor from Saint Louis University's (SLU) Oliver L. Parks Department of Aviation, and a student, prepare for a flight during the Aviation Summer Academy. Students had the opportunity to participate in short discovery flights over the downtown St. Louis area on June 28. The following day, students went flying for longer, cross-country flights, during which they flew to a different airport and landed before returning to St. Louis Downtown Airport.



While touring St. Louis Downtown Airport during the Aviation Summer Academy, groups of students had the opportunity to take a short bus trip to see the runway and taxiways from a unique vantage point as they learned about the role of the fire department and the maintenance team in always maintaining a safe operating environment. The students also walked around on the runway and experienced it outside the cockpit, something that highlighted the unmatched proximity to the Gateway Arch, which is only minutes west of the airport.

Participants from 11 states spent a week learning about different aspects of aviation and related careers and experienced the thrill of taking to the skies from St. Louis Downtown Airport.

ST. LOUIS, MO. – More than two dozen high school students from around the country and the bi-state area converged on St. Louis Downtown Airport (KCPS) the last week in June as part of a weeklong event to learn more about careers in aviation. High school juniors and seniors participated in the Aviation Summer Academy, which was held and hosted by Saint Louis University's (SLU) Oliver L. Park Department of Aviation. This was the first in-person Aviation Summer Academy since 2019.

On June 28, the students spent time using the university's flight simulators and took short discovery flights over downtown St. Louis. The students then went flying with flight instructors from

SLU the next day, for longer, cross-country flights, during which they flew to a different airport and landed before returning to St. Louis Downtown Airport. While many of the students had experienced discovery flights before, for some, the flights represented the first time as a passenger in a small aircraft. And for all, the longer, cross-country flights integrated some of the aerial navigation planning skills they had learned earlier that day, such as reading a sectional chart, mapping out the course, identifying waypoints, and calculating fuel and times.

Stevie Potter, a student at Kirkwood (MO) High School, was impressed with the depth of SLU's aviation program and excited at the opportunity to fly.

An advertisement for Bolton & Menk. It features a background image of a runway stretching into the distance under a clear sky. Overlaid on the left is a white box with the text: "When it comes to our clients' projects... ...the sky's the limit!". Below this is a QR code and the text "Learn more about our aviation services!". In the bottom right corner, the Bolton & Menk logo is displayed with the tagline "Real People. Real Solutions." and the website "Bolton-Menk.com".



Allison Jackson, who travelled all the way from Massachusetts to participate in the Aviation Summer Academy, took advantage of the opportunity to climb into the cab of St. Louis Downtown Airport's fire truck. The vehicle is 39 feet long and weighs 80,000 lbs. when fully loaded with all firefighting agents.

"I think it's very cool they have 15 airplanes and three different types of aircraft, (including multi-engine aircraft)," said Potter.

While getting to fly was a thrill, another highlight of the Aviation Summer Academy came when firefighter Terry Bowman took the students out on the runway in the Incident Support Bus. The short trip provided them the opportunity to see the runway and taxiways from a unique vantage point as Bowman talked about the role of his department and the maintenance team in always maintaining a safe operating environment. The students also walked around on the runway and experienced it outside of a cockpit, something that highlighted the unmatched proximity to the Gateway Arch, which is only a few minutes west of the airport.

The academy also included a tour of other facilities at the airport, including the fire station, where the students got an up-close look at the airport's firefighting equipment for aircraft. The students were impressed that the 2009 Rosenbauer Panther 6X6 ARFF Vehicle can hold 3,000 gallons of water, 400 gallons of foam, 500 lbs. of dry chemical, and 460 lbs. of Halo Tron. The vehicle is 39 feet long and weighs 80,000 lbs. when fully loaded with all firefighting agents.

"I didn't know St. Louis Downtown Airport was such a big deal, with a firehouse and everything," Potter said. "I thought it was just a tiny airport."

St. Louis Downtown Airport Director Sandra Shore shared additional information about the airport with the students that underscored its significance as a \$422 million regional economic engine.

"In Illinois alone, the airport industry has a \$95 billion impact," said Shore. "I'm here with a staff of 10, but we support hundreds of thousands of flight operations every year. We're the third busiest airport in Illinois behind Chicago, O'Hare and Midway. All these planes, businesses and tenants rely on us to operate the airport and that's where our economic impact comes in."

Amy Preis, outreach coordinator for Saint Louis University's Oliver L. Parks Dept. of Aviation, explained that, while having the opportunity to fly is by far the biggest draw



Participants in the Aviation Summer Academy had the opportunity to spend time in the flight simulators at St. Louis Downtown Airport that are used by students at Saint Louis University's Oliver L. Parks Department of Aviation.

of the academy, the overall goal is to take the students outside of just flying careers and introduce them to other aviation careers that they might not have known about, or may not have considered, if they were not introduced to them. Shore helped to reinforce those opportunities in her conversation with the students:

"What you find is that everybody usually gets into this industry to be a pilot and then realize there is so much more than that. There is air traffic control, airport management, aircraft servicing, mechanics and more. It's just way bigger than you'll ever imagine."

Participants in the Aviation Summer Academy came from California, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Missouri, New Jersey, New York, Oregon, and Texas.

St. Louis Downtown Airport is located just east of downtown St. Louis on more than 1,000 acres in the Illinois municipalities of Cahokia Heights and Sauget.

About Bi-State Development: *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 main public transportation system in eastern Missouri and southwestern Illinois, which includes the 87-vehicle, 46-mile MetroLink light rail system; a MetroBus vehicle fleet of approximately 24 battery electric vehicles and nearly 400 clean-burning diesel buses that operate on 59 MetroBus routes; and Metro Call-A-Ride, a paratransit fleet of 123 vans. BSD also operates the St. Louis Regional Freightway, the region's freight district. To learn more about St. Louis Downtown Airport, visit www.stlouisdowntownairport.com* □

New Academy College Learning Institute Course Certifies Charter Flight Coordinators

BLOOMINGTON, MINN. – On May 26, 2022, the Academy College Learning Institute launched the Charter Flight Coordinator Course — a two-week, 40-hour intensive online course designed for members of the charter industry, specifically charter-flight followers, and non-certified flight operation representatives, to achieve certification as a Charter Flight Coordinator. The Charter Flight Coordinator Course focuses strategically on the day-to-day aspect of Part 135 operations, covering a multitude of aircraft types, air charter regulatory compliance, and the charter sales process, as well as addressing how to accelerate growth in charter operations.

“We are incredibly excited about the opportunity to provide this course to charter operators,” said Nancy Grazzini-Olson, President of Academy College. “Paired with our aircraft dispatcher experience, we are confident of the value this course will create.”

“Based on industry feedback, we see the need for quality and timely training for charter coordinators to gain an understanding of the full scope and daily demands of this crucial position,” stated NATA Senior Vice President Ryan Waguespack. “As workforce retention and recruitment are top of mind for the aviation business industry, we look forward to the advantages programs like these will bring to individuals

and businesses.”

Academy College is accredited by the Accrediting Commission of Career Schools and Colleges to award Bachelor of Science Degrees, Associate Degrees, and Certificates. The Accrediting Commission for Career Schools and Colleges is listed as a nationally recognized accrediting agency by the U.S. Department of Education. Its accreditation of degree-granting institutions also is recognized by the Council for Higher Education Accreditation.

Academy College is registered with the Minnesota Office of Higher Education pursuant to Minnesota Statutes sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions. Academy College is approved by the Minnesota State Approving Agency for Veterans Educational benefits. It is also approved by the State of Minnesota for education under the Vocational Rehabilitation Education program and is approved by the FAA under FAR Part 141. Academy College is a member of the Association of Private Sector Colleges & Universities (APSCU).

For more information, contact Alicia Olson-Strilzuck, Campus Director: **952-851-0631**.

aolson@thunderbirdaviation.com



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.



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AA Safety Team | Safer Skies Through Education

New Part 147 Regulations, Aviation Maintenance Technician Schools

Published May 24, 2022
Notice Number: NOTC2403

On December 27, 2020, Congress enacted the Consolidated Appropriations Act, which contained the Aircraft Certification, Safety, and Accountability Act (the Act). Section 135 of the Act directed the FAA to publish interim final regulations to establish requirements for issuing aviation maintenance technician school (AMTS) certificates and ratings and general operating requirements for holders of such certificates. The improvements provided by the interim final rule (IFR) will help educate the future aviation maintenance workforce and meet the demands of the evolving aviation community. Under the new rule, AMTS will revise their curriculum and incorporate technical training that aligns with the mechanic airman certification standards.

The IFR was published in the Federal Register on May 24, 2022. The new regulations will be effective on September 21, 2022. AMTS must continue to conduct training operations to meet the currently effective Part 147 regulations, until 9/21/2022.

The interim final rule, containing the new regulations and preamble, can be found in the rulemaking Docket here: <https://www.regulations.gov/docket/FAA-2021-0237>

FAA-S-ACS-1, Aviation Mechanic General, Airframe, and Powerplant Airman Certification Standards, dated November 1, 2021, incorporated by reference into Part 65 and Part 147, can be found at www.faa.gov/training_testing/testing and in the rulemaking docket referenced above.

FAA-S-8081-26B, Aviation Mechanic General, Airframe, and Powerplant Practical Test Standards, dated November 1, 2021, incorporated by reference into Part 65, can be found at www.faa.gov/training_testing/testing and in the rulemaking docket

referenced above.

Guidance Information: The revised Advisory Circular AC 147-3C, Certification and Operation of Aviation Maintenance Technician Schools, is available in the rulemaking docket referenced above and here:

Before September 21, 2022: https://www.faa.gov/aircraft/draft_docs/afs_ac/

After September 21, 2022: https://www.faa.gov/regulations_policies/advisory_circulars/

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KMDH Southern Illinois Airport

The Office of Safety Standards, Aircraft Maintenance Division (AFS-300), has developed Notice N8900.616, Part 147 Aviation Maintenance Technician Schools (AMTS) New Regulations and OpSpecs.

The notice announces the revisions to operations specifications (OpSpecs) and related guidance regarding the IFR and contains instructions for GA Safety Assurance office personnel to ensure all Part 147 AMTS meet the new regulations upon September 21, 2022, the effective date of the IFR.

The notice is directed at FAA personnel who have responsibilities related to Part 147 AMTS.

All Part 147 certification and surveillance guidance sections in FAA Order 8900.1 have been revised. Prior

to September 21, 2022, these sections are made available through this notice.

This notice is available on the Federal Aviation Administration's (FAA) website at https://www.faa.gov/regulations_policies/orders_notices, and the Dynamic Regulatory System at <https://drs.faa.gov>.

After September 21, 2022, the revised Part 147 guidance will be published in Order 8900.1 and available in the Dynamic Regulatory System at <https://drs.faa.gov>.

To access frequently asked questions, select this link. <https://www.faasafety.gov/files/notices/2022/May/FAQ.pdf>

For more information, contact FAA Office of Safety Standards, Aircraft Maintenance Division at **202-267-1675**, or **9-AWA-AFS-300-Correspondence@faa.gov** □

Amy Kloster Receives Arrowhead Eagles Scholarship



Amy Kloster with Arrowhead Eagles board members (L/R) Rodney Roy, Tim Norman, Amy Kloster, Mike Raymond and John Barton.

Amy Kloster of Silver Bay, Minnesota, has been awarded the Arrowhead Eagles 2022 Aviation Scholarship. The scholarship is offered annually by the Arrowhead Eagles aviation organization based out of Grand Marais/Cook County Airport (KCKC). The 501(c)(3) organization works to enhance aviation opportunities and support the Grand Marais airport. Kloster's application was selected by the Eagles Board of Directors and the scholarship certificate was awarded at their annual meeting on May 14, 2022.

"I am very excited and thankful to the Arrowhead Eagles Aviation Organization for the generous grant to advance my flying career," said Kloster, who has been working on her

private pilot certificate for the past year. Kloster's interest in aviation grew from knowing friends who were taking flying lessons and from her grandfather, who was working to restore a vintage Piper Cub, before he passed away. Kloster inherited the project and hopes to carry forward its restoration someday.

"It's exciting to see Amy receive this scholarship to help advance her aviation ambitions," said Mike Raymond, Eagles President. "She's been taking flight lessons as time and finances allow. This will be a good boost to her progress towards earning a pilot license."

For information on the Arrowhead Eagles and future scholarship awards, email or call Mike Raymond at mjrpine@icloud.com; **218-370-0373**. □



Jake Peterson Photo

RAF Volunteers Attend Conference In Wisconsin

“RAF 2022 – The RAF Way” was a three-day conference held May 15-17 in the Milwaukee suburb of Pewaukee, Wisconsin.

EAA CEO Jack Pelton welcomed early arrivals at Pioneer Field, and when the educational sessions began, the group included 110 attendees from as far away as south Florida and Alaska. “The rewards from our meeting are more than I can count,” Alaska Liaison Al Clayton said. “New focus and clarity on the RAF mission...detailed information and examples from others on ways to achieve our mission – a very substantive and beneficial meeting,” Clayton added.

Speakers included AOPA President Mark Baker and Great Lakes Regional Manager Kyle Lewis; Greg Pecoraro, CEO of National Association of State Aviation Officials; consultant

Jerry Wilke, and several RAF directors and liaisons shared experiences, setbacks and successes while advancing the RAF mission.

Washington State Liaison Dave Whitelaw said, “This year’s conference was our best yet. The presenters’ topics were spot on for helping each of us understand and further our mission.”

Many had flown their own aircraft to the conference, landing at either Waukesha or Capitol Drive Airports, departing May 18 under overcast skies.

The RAF continues to focus on the mission of preserving, improving and creating airstrips for recreational access. □

MidAmerica St. Louis Airport Awarded Grant For New Aircraft Rescue & Firefighting Vehicle

MASCOUTAH, ILL. – MidAmerica St. Louis Airport (KBLV) will receive a \$678,127 grant from the Federal Aviation Administration’s Airport Improvement Program to purchase a new aircraft rescue firefighting truck that will replace an existing 23-year-old vehicle. On June 8, U.S. Senators Tammy Duckworth (D-IL) and Dick Durbin (D-IL) announced the grant, along with four other grants going to other Illinois airports, totaling \$14,912,204.

MidAmerica St. Louis Airport is a joint use military/civilian facility including MidAmerica St. Louis Airport and Scott Air Force Base (SAFB) and is governed by the St.

Clair County Public Building Commission. In addition to significant air carrier activity, the airport sees regular use by corporate/business, military, air cargo operations, aerospace manufacturing, and aerospace technology research.

The 41,000-square-foot terminal expansion project underway is expected to be completed by late 2022. The new space includes a new security screening area, two additional boarding bridges, a service animal relief area, family restrooms, a nursing room, an expanded departure lounge, added room for concessions, and renovations to accommodate people with disabilities (www.flymidamerica.com). □

St. Louis Downtown Airport Sees Flight Operations Climb Back Above 100,000 During 2021 With Trend Continuing In 2022

Number of flight operations surpasses 2019 pre-pandemic total

ST. LOUIS, MO, May 18, 2022 – St. Louis Downtown Airport (KCPS) has announced that flight operations at the airport increased to a total of 101,938 during 2021, the highest total for the airport in the past five years. The total number of flight operations exceeds 2019 numbers by more than 5%, which is significant considering the coronavirus pandemic continued to significantly impact air travel in 2021. It represents a 31.2% increase over the 2020 flight operations, a strong signal private and business travel customers returned to the skies and flew in and out of the closest airport to downtown St. Louis.

“The overall trend for the first quarter of 2022 confirmed the rebound is continuing and is likely to see even greater acceleration due to key events drawing more travelers to the region in the coming months,” said Mary Lamie, Executive Vice President of Multi Modal Enterprises for Bi-State Development. Bi-State Development owns and operates the busiest general aviation airport in Illinois, which is located on 1,000 acres in Cahokia Heights and Sauget. Airport operations were impacted by winter storms for a few days in February this year, but so far that is the only drop in flight operations that have been recorded in 2022.

“Our aviation customers choose to fly to St. Louis Downtown Airport for convenient access to the central business district, educational institutions, major sporting events, concerts, races and more,” said Sandra Shore, Director of St. Louis Downtown Airport. “They also appreciate the great service offered by a professional team that discreetly accommodates their varying needs in a pleasant environment that’s convenient and uncongested.”

Future growth at the airport will be supported by the \$5 million state grant recently awarded to the airport from the \$45 billion Rebuild Illinois capital infrastructure plan Governor JB Pritzker signed into law in 2019. The funding will cover the cost of building a Ground Engine Run-Up facility, which is a critical improvement that will benefit four aircraft maintenance providers operating at St. Louis Downtown Airport. This project will support more than 450 high-tech aerospace manufacturing jobs by improving production safety, reliability, and efficiency, improving airport businesses, and increasing global competitiveness for Southwestern Illinois and the State of Illinois. The project has been in the works for several years and construction is expected to begin later this year.

According to a study by the State of Illinois, St. Louis Downtown Airport (KCPS) contributed more than \$422 million in economic impact for the region in 2019, including factors such as on-airport activity and visitor spending. The

airport supports significant activity from recreational, charter and business flying, as well as flight instruction from St. Louis University Parks College, the nation’s oldest flight school still in operation. Additional activities supported by the airport include government operations, military training, real estate tours, medical transport, aerospace technology research, and glider flying.

Given its strategic location just east of downtown St. Louis, the airport serves as a Gateway to the Metropolitan area and tourist attractions and amenities that landed St. Louis a spot on the list of World’s Greatest Places of 2021 by TIME Magazine. Recognizing the wealth of attractions and destinations within a 15-mile radius of its terminal, St. Louis Downtown Airport offers a Visitors Guide, which is available for download at <https://www.stlouisdowntownairport.com/visit/>. The guide provides suggestions for different types of places to visit, ranging from museums, parks and stadiums to casinos, breweries, and a host of other unique attractions. It also includes a handy list of hotels in the heart of the city and a map to see at a glance where everything is located in relation to St. Louis Downtown Airport.

To learn more about St. Louis Downtown Airport, visit www.stlouisdowntownairport.com.

Bi-State Development (BSD) owns and operates St. Louis Downtown Airport and the Gateway Arch Riverboats, as well as operates the Gateway Arch Revenue Collections Center and Gateway Arch trams. BSD is the operator of the Metro public transportation system in eastern Missouri and southwestern Illinois, which includes the 87-vehicle, 46-mile MetroLink light rail system; a MetroBus vehicle fleet of approximately 18 battery electric vehicles and nearly 400 clean-burning diesel buses that operate on 59 MetroBus routes; and Metro Call-A-Ride, a paratransit fleet of 123 vans. BSD also operates the St. Louis Regional Freightway, the region’s freight district. □

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AUGUST 2022

- 4 WASECA (KACQ), MINN.** - Fly-In/Drive-In starting at 5:30-7:30pm rain or shine. Bring your own meat/drink/ dish to pass. A grill and paper products will be provided. Contact: David Ziegler 507-838-8915 or Andrew Fisher 612-743-2253.
- 4* NARY, MINN.** - Burgers at Nary Airport – Sheffand Field 5-7pm. EAA Chapter 1397 is flying out to different airports every Thursday evening for burgers this summer. We will be flying to “Nary International” to grill some burgers 5-7pm! Bring a plane, bring a chair, and come enjoy the fellowship of your fellow aviators! Contact: eaachapter.1397@gmail.com
- 6* IOWA FALLS (KIFA), IOWA** - FLY IOWA (rain date 7th). 641-648-3191 - Craig Coon. Email: airport@cityofiowafalls.com www.cityofiowafalls.com/iowa-falls-municipal-airport.html
- 7 LINO LAKES, MINN.** - Minnesota Seaplane Pilots Association Pig Roast at Surfside. mnseaplanes.com
- 7 LONGVILLE (KXVG), MINN.** - Longville Flyers Annual Pancake Breakfast 8am-Noon. Discounted avgas! Cars from “our” era, static displays (wx permitting). Contact Steve Shallbetter 218-682-2268.
- 7* HUMBOLDT (K0K7), IOWA** - Humboldt Rotary Club’s 20th Annual Flight Breakfast 7am-Noon. Free to PIC. Big breakfast and live entertainment from 9-11am. Contact: Dave Dodgen, dave@growthland.com, 515-368-1714.
- 7* CRESCO, IOWA** - The Cresco Chamber invites you to come out to Ellen Church Field (Airport) for 40th Annual Fly-In Breakfast from 7:30am - Noon for all you can eat omelets, pancakes, and beverages. Tickets are \$10. Pilots and passengers eat free. Airplanes will be on display, and rides will be available! Contact: Jason Passmore, 563-547-3434, hcbt@cedausa.com.
- 7* AITKIN (KAIT), MINN.** - Annual Fly-in Wild Rice Pancake Breakfast! Pancakes, sausage, bacon, juice, coffee! The most delicious pancakes ever! Event starts at 8 a.m. and runs until we are out of food! Contact: trudiamundson@yahoo.com
- 7* COUNCIL BLUFFS (KCBF), IOWA** - Great Plains Wing CAF Flight Breakfast/Open House. Military museum will be open. Breakfast 8-11am. Food trucks 11am-2pm. 402-981-4633 Jeff Hutcheson. Email: jeffhutcheson3@gmail.com
- 8 EDEN PRAIRIE (FCM), MINN.** - Private Pilot/Instrument Ground School at Thunderbird Aviation, Inc. Call to register 952-941-1212. fly@thunderbirdaviation.com
- 8-17 ONTARIO, CANADA** - A flying fishing adventure to Miminiska Lodge (CPS5)
 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 -
Space Limited, But Still Available!
 Contact Krista Cheeseman At Wilderness North 1-888-465-3474
- 13 NECEDAH (KDAF), WIS.** - EAA Young Eagles Rally & Brennand Airport Fly-In 9am-3pm. www.eaa41.org 612-756-4495. Free Airplane Rides for youth ages 8-17. youngeaglesday.org?2879
- 13* FOREST LAKE (K25D), MINN.** - Forest Lake Airport Open House and Pancake Breakfast 8am-Noon. \$9 per person. Ages five and under are free. PICs are free. More information: forestlakeairport.org
- 13* ROCHESTER (KRST), MINN.** - AOPA Rusty Pilots Seminar 9am–Noon <https://pic.aopa.org/events/item/52/3671>
- 13* HOOKER (K045), OKLA.** - EAA 377 Breakfast 9am.
- 14* MAHNOMEN (K3N8), MINN.** - Breakfast 8am-Noon at the Mahnomen County Airport. 218-280-1585
- 14* ALBERT LEA (KAEL), MINN.** - Come enjoy breakfast at the recently renovated Albert Lea Airport! Breakfast 8am-Noon. Pancakes, scrambled eggs, sausage, OJ, and coffee. PIC eats free, adults (ages 12+) \$8, children 12 and under \$5, children 2 and under Free. Veterans, EMTs, law enforcement, and fire fighters get 50% off. Contact: Jenny Mulholland 507-383-7144
- 14* WAUKON (KY01), IOWA** - Fly-in breakfast 7am-Noon PIC eats free 563-568-7220 Jim Wadsworth. Email: jim@jwkitchens.com
- 17* COUNCIL BLUFFS (KCBF), IOWA** - Great Plains Wing CAF Flight Cookout 5:30-7pm. 402-981-4633 Jeff Hutcheson. Email: jeffhutcheson3@gmail.com
- 19-20* BEMIDJI, MINN. TURF: MN13 | WATER: 96M** - EAA Chapter 1397 Moberg Fly-In. Brat cookout, bonfire, and underwing camping Friday night. Coffee and pastries Saturday morning. Pulled pork with corn on the cob Noon lunch Saturday. Moberg’s Airbase accommodates both wheel and seaplanes. Water landing 5280 feet, Grass strip 2114 feet. Shuttle from nearby BJL airport (1 mile away), Use 122.8 BJL unicom frequency, Lavatory & fuel available on field, Bring your own tie-downs and chocks. Moberg Contact: Gary Gregg 218-556-1611 Fly-In Contact: Sam Walsh 805-325-3464
- 20 SHAWANO (KEZS), WIS.** - Fly-in, Drive-in event 9am-2pm. Rain date 8/21). The event will feature Antiques, Classics, Warbirds, Modern Aircraft, Young Eagles Flights, Introductory Flights, Equipment Displays, and Collector Cars. Public welcomed. Food and beverages available on site. For more information and updates, see the airport website at www.shawanoairport.com.
- 20* GOLDSBY (K1K4), OKLA.** - Pancake Breakfast at the David J. Perry 8-10am.
- 20* COLLINSVILLE (OK93), OKLA.** - Wings, Wheels & Wishes – Fly-In and Car Show at the Airman Acres Airport. www.facebook.com/wings.wheels.wishes
- 21* MANKATO (KMKT), MINN.** - Mankato Fly-In Breakfast 7:30am-12:30pm at Mankato Municipal Airport - Sohler Field. Warbirds, Classic Cars & Motorcycles, Live Music, Dick’s special pancake recipe, Eggs your way, Sausage, Real Maple Syrup from Skinny Sticks, Coffee, Juice, All you can eat. PIC Free, Airplane Rides. Compliments of EAA Chapter 642 Funds Used to Award Aviation Scholarships. Tickets \$10.00 Children 5 and under-free. Contact: Tony 507-380-8377, Jon 507-317-1958, Doug 507-420-4881, Gary 507-388-3222
- 21* FREEMONT (KFET), NEBR.** - Fly-in breakfast 7:30am-12:30pm. Pilot in command eats free. 402-720-3536 Joe Sajevec. Email: sajevj01@gmail.com
- 24* KANSAS CITY, MO.** - FAA/4-States Airport Conference. 816-289-7218 Ed Noyallis. Email: enoyallis@sbcglobal.net www.4statesairportconference.com
- 25-26* KANSAS CITY, MO.** - 4 States Airport Conference at the Kansas City Marriott Downtown. Email: enoyallis@sbcglobal.net www.4statesairportconference.com
- 27* PRESTON (KFKA), MINN.** - Fillmore County Fly In Breakfast 8-11am. served by B&B Bowl \$10 adults \$5 kids. Enjoy Classic cars by

To get more dates, locations and times for *The Flying Hamburger Socials* and other aviation events in the Midwest, go to <http://www.moonlightflight.com/flysocal/index.html>

Fins and Films. Red Baron Flyers will also be giving rides for \$40/ person. Contact: bkohn@co.fillmore.mn.us 507-951-7451

- 27* **PAYNESVILLE (KPEX), MINN.** - 2022 Paynesville Airshow 9am-5pm featuring Craig Gifford, Galen Kilam, and RAD Aerosports. Band and Beer Garden following the Airshow. Underwing Camping Available. Flour Drop Contest. Contact: thomas.fread@gmail.com
- 27* **GREENFIELD (KGFZ), IOWA** - Fly-In at the Greenfield Municipal Airport 7:30-11am. Hall of Fame Induction (following breakfast) 641-343-7184 Greg Schildberg. Email: aviation@iowatelecom.net www.flyingmuseum.com
- 28* **GRYGLA (K3G2), MINN.** - Annual Roland Klamar Fly-in Pancake Breakfast 7am-Noon. Breakfast serving hot pancakes, sausage, scrambled eggs, coffee, and juice. PIC eat free. Sponsored by Grygla Lions Club. Contact: Brent Klamar, 218-689-4364.
- 28* **IOWA CITY (K1OW), IOWA** - Fly-In Breakfast 7am-Noon. Pilot in command eats free. 319-331-7044 Jim McCarragher. Email: jamesm@meardonlaw.com

SEPTEMBER 2022

- 1* **WASECA (KACQ), MINN.** - Fly-In/Drive starting at 5:30-7:30pm rain or shine. Bring your own meat/drink/ dish to pass. A grill and paper products will be provided. Contact: David Ziegler 507-838-8915 or Andrew Fisher 612-743-2253.
- 3* **GLENCOE (KGYL), MINN.** - EAA Chapter 1658 Glencoe Flyers Annual Sweet Corn & Brat Fly-In 10am-2pm at the Glencoe Municipal Airport. PICs eat free. Welcome Classic Cars, Antique Tractors. Drawing for free airplane rides. Contact: Stuart 320-583-8367, Jim 320-310-8522, Ray 320-864-5805
- 10 **MILWAUKEE (KMWC), Wis.** - Spot Landing Contest 10am Lawrence J. Timmerman Airport. timmermanairport.com 414-461-3222
- 10* **OSHKOSH (KOSH), Wis.** - Wittman Airport Fly-In Breakfast & Airport Expo 7:30-11am. The pancake breakfast will include sausage, scrambled eggs, milk, juice, coffee, and all of the pancakes you can eat. Free Airplane Rides! (EAA Young Eagles Event) For kids ages 8 to 17 weather permitting. Register Young Eagles at: <http://youngeaglesday.org> 920-810-1046 EAA252@gmail.com
- 10* **BRainerd, MINN.** - Back by popular demand.... 2022 Grass is a Gas Poker Run 7:30am-2pm. Start and finish at Brainerd, fly to four grass strips in northern Minnesota, play your hand when you return. Great prizes for best 3 hands and many, many prizes by drawing. Registration opens at 7:30 a.m., briefing at 8:15 a.m. and return to Brainerd by 1:30 p.m. One hand per person, max of two hands per aircraft. Strictly limited to 52 total hands, get there early to assure your spot. Sponsored by Brainerd EAA Chapter 1610. Contact: Mike Petersen 612-750-2981 Winger701@gmail.com
- 10* **CLAREMORE (KGCM), OKLA.** - Greene County Aero Fest Fly-In at the Claremore Regional Airport. Breakfast 8-10:30am – Lunch 11:30am-2pm. 918-645-2635 Joel Howard. joel@aircraftspecialties.aero
- 10* **WELLINGTON, (KEGT) KANS.** - EAA CHAPTER 1631 fly-in at Wellington KS Airport. We will have a fly in breakfast and young eagle rides. Matthew D. Wiebe, Airport Manager – 620-440-2213
- 11* **NEW ULM (KULM), MINN.** - Lions Fly-In Breakfast 7am-12:30pm. Serving All You Can Eat Pancakes, Sausages, Apple Sauce, Coffee, Milk and Juice. Adults Advance \$10, at the door \$11. Children 5-12 \$. Children 4 and under free. Free Breakfast for all fly-in pilots. Supporting the Sight, Hearing and Diabetes Impaired. Contact: 612-501-2719 or bbschir@comcast.net
- 11* **CARROLL (KCIN), IOWA** - Flight Breakfast 7am-Noon. Free to pilots and fly-in passengers. 712-792-4980 Don Mensen, Carroll Aviation. Email: don@carrollaviation.com
- 11* **WEBSTER CITY (KEBS), IOWA** - Fly-in breakfast 7am-Noon. Mark Gillette 515-835-0287. Email: mgillette056@gmail.com
- 16-18 **BRainerd (KBRD), MINN.** - Minnesota Seaplane Pilots Association

- 17* **Oconto, Wis.** - Oconto Fly-In Hosted by the Oconto Elks Lodge 9am-4pm. Opening Ceremony Honoring our Veterans at 10am. Huge Car Show, Antique Tractors, Youth activities & amusements, Military displays & encampment, Vendors from the community, RC model planes, Variety of Food Vendors, Music and large tents with picnic table area. TBM Avenger display & rides, Large Warbird display, Plane rides, Helicopter rides, FREE for 12 & under and those that Fly In for the event; \$ 5.00 for all ages that walk-in or drive-in Mobile fuel trailer and discount on 100LL for those that Fly-In. 920-373-6948 or Airport at 920-834-7727 ocontoflyin@gmail.com
- 18* **NEW HOLSTEIN, Wis.** - Wings & Wheels Fly-in Breakfast, food, plane rides, car show 7am-3pm. 920-898-5211
- 21* **COUNCIL BLUFFS (KCBF), IOWA** - Great Plains Wing CAF Flight Cookout 5:30-7pm. 402-981-4633 Jeff Hutcheson. Email: jeffhutcheson3@gmail.com
- 22-25* **BARTLESVILLE (KBVO), OKLA.** - 5th All Bellanca Fly-In. Looking to welcome Vikings/Super Vikings/14-19-2/3s, 14-13s, 260s, Decathlons/Citabrias, Triple Tails, Cruisair/Cruise Master. Please register with the RSVP function on the event website. There will be plenty of opportunities to visit with other owners and enthusiasts as most of the time will be spent at the airport. We will even be cooking at least a couple of the evening meals at the hangar. A landing fee and evening meals will be charged to help with the costs of the fly-in. Register at the following link to let us know you are coming, and to get the details for the hotels and other activities associated with the fly-in. <https://aeon-petro.com> September 24 – 10am-2pm – \$5 Donation suggested. This year's 2022 All Bellanca Fly-In is set for Weds Sept 21st-Sun 25th. Public day is Sat for those non aviators who are curious. Stephen Dunbar 918-851-1598. Email: vikingsok@lycos.com
- 23-25 **ANGOLA, IND.** - Indiana Seaplane Pilots Association Splash-In at Pokagon State Park on the banks of Lake James and Potawatomi Inn. For more information contact randy.strebig@strebigconstruction.com. For accommodations contact Potawatomi Inn 877-768-2928.
- 23* **BOWSTRING (K9Y0), MINN.** - ANNUAL BOWSTRING AIRPORT FALL COLORS - Sept 23 through Sept 25. Fly-In/Drive-In/Camp-Out. There is no weather date. Friday evening: 5-7pm, burgers and brats; campfire. Saturday: 7-10am: pancakes, eggs and sausage; noon-3 pm: burgers, brats and potato salad; 4-6pm: fish and spuds; campfire. Sunday: 7-10am: pancakes, eggs and sausage; noon-3pm: chili; Contact: Ken Reichert, 218-244-6328
- 24 **EDEN PRAIRIE (KFCM), MINN.** - Girls In Aviation Day at Flying Cloud Airport. <https://starsofthenorth.org/girls-in-aviation-day>
- 24* **OMAHA (KMLE), NEBR.** - Fly-in Breakfast & Luncheon 7am-3pm at Millard Airport. 402-510-3528 Hague Howey. Email: hague.howey@aviationstemaha.org www.AviationstemAha.org

OCTOBER 2022

- 3-5* **EAU CLAIRE, Wis.** - 66th Wisconsin Aviation Conference. Chippewa Valley Regional Airport, host airport. wiama.org
- 8* **BOONE (KBNW), IOWA** - Chili Feed Fly-in at the Boone Municipal Airport 10am-2pm. Pilots-in-command eat free. 515-291-5094 Dale Farnham. Email: defarnham@msn.com www.farnhamaviation.com
- 19* **COUNCIL BLUFFS (KCBF), IOWA** - Great Plains Wing CAF Flight Cookout 5:30-7pm. 402-981-4633 Jeff Hutcheson. Email: jeffhutcheson3@gmail.com

NOVEMBER 2022

- 5 **BRODHEAD (C37), Wis.** - Chili Lunch Fly-In 11am-2pm. www.eaa431.org

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Dates Set For 20th Anniversary Indiana Seaplane Splash-In

ANGOLA, IND. – This year will mark the 20th anniversary of the Indiana Seaplane Pilots Association Annual Splash-In, a three-day event to be held September 23-25, 2022, at the traditional location: Pokagon State Park on Lake James in Angola, Indiana, located in the far northeastern corner of the state. The splash-in will start with arrivals on Friday, September 23, and a barbecue that evening at the Potawatomie Inn. Saturday will feature various pilot activities and an evening banquet and reunion of pilots at the inn. Sunday will be a day at the park when, as participants do every year, share seaplanes with the community to foster more knowledge of seaplane operations, and thus, support from the community.

The Indiana Seaplane Pilots Association Splash-In was founded as an advocacy event to show the Indiana Department of Natural Resources, recreational boaters, and

others that all the common myths that seaplanes do not make good neighbors on public freshwater lakes, are just that – myths! Organizers of the splash-in have convincingly demonstrated this point, as well as created one of the most popular events in the Indiana State Park system.

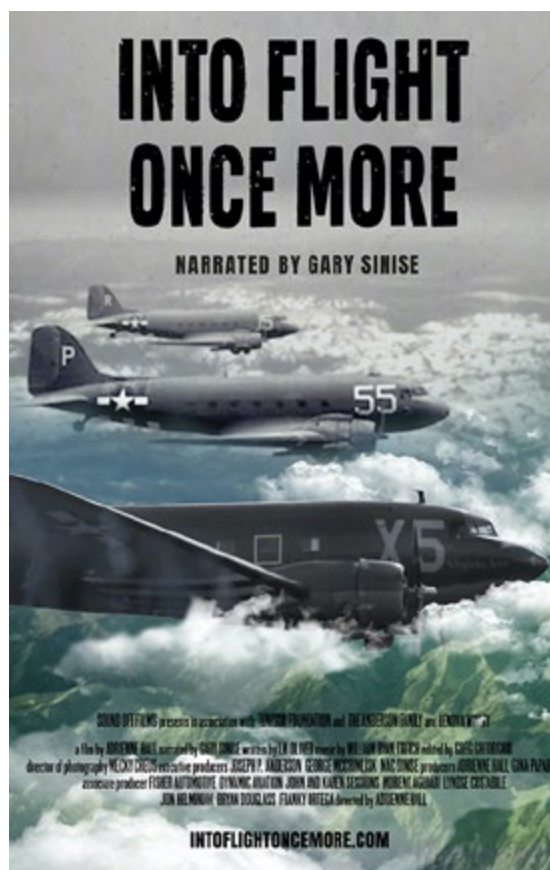
Seaplane flying in Indiana is alive and well and growing, and a big reason for that is the fabulous effort that has been made by all the pilots who come to the Indiana Splash-In to share their airplanes with the public and educate them about seaplanes and seaplane flying, and thus create invaluable goodwill in the community.

For more information about attending the Indiana Seaplane Pilots Association 20th Anniversary Splash-In, September 23-25, 2022, contact association president, Randy Strebig at randy.strebig@strebigconstruction.com. □

D-Day Squadron Re-Maps Their Historic Journey Across The North Atlantic In 75-Year-Old Airplanes To Honor The 75th Anniversary of D-Day

Sound Off Films is now offering digital streaming of the new documentary, “INTO FLIGHT ONCE MORE.” A unique and moving tribute to one of the world’s most historic events, the picturesque and patriotic new documentary follows the D-Day Squadron, made up of 15 dedicated groups of pilots, mechanics, history buffs and veterans from not only World War II, but also more recent wars, who devoted themselves to locating and restoring vintage DC-3 aircraft to recreate their heroic wartime flights on the 75th Anniversary of D-Day.

Directed and produced by Emmy nominee Adrienne Hall in her feature documentary directorial debut and narrated by Academy Award® nominee and veterans’ advocate, Gary Sinise (1995 Best Actor in a Supporting Role Forrest Gump), INTO FLIGHT ONCE MORE flies to wide digital streaming availability on the wings of a screening at the D-Day Celebration at the Air Force Museum on June 4th where it received a standing ovation from the audience of military veterans and their families and sold-out screenings at film festivals around the country. The film is now available on all major retail streaming platforms.





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SPECIAL GROUP RATE TRIPS

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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 -

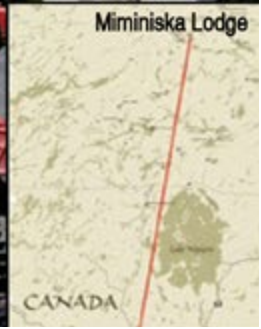
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