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ON THE COVER: A 2015 Javron Experimental Cub on Wipline 2100 amphibious floats. When this photo was taken, the aircraft – powered by a 180 hp Lycoming O-360 engine – was built, owned and flown by Bill Rusk of Illinois. The aircraft is currently in southeast Alaska.

Brad Thornberg Photo

Brad Thornberg Photo

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Starting Them Out Right!

by Dave Weiman

'nless you have skis on your airplane, you are probably ready for spring as much as I am. Not only are we welcoming the warmer weather and look forward to flying more often, but our grandchildren are looking forward to going flying as well.

Our three-yearold granddaughter has energy to burn, especially after spending much of the winter cooped up indoors. Her latest thing is to walk around the house with her arms stretched out saying, "I'm flying!" This behavior started right after I told her that I would take her flying when it warms up! She is definitely excited, and so am I.

I am also anxious



Pedal planes help to get kids interested in flying at a very young age.

to get our 10-year-old grandson back flying with me and have been talking with flight instructors to get their feedback on how best to get him familiar with the basics. Do I cover everything at once, or show him one instrument at a time on each flight? Maybe I will just let him take the controls to get the feel of what happens when he pulls back on the yoke and pushes it forward, and makes some turns.

According to CFII Harold Green at Morey Airplane Company in Middleton, Wisconsin, our grandson doesn't need to adhere to any specific knowledge sequence. "It should be sufficient to show him a couple of gauges, such as airspeed and altimeter with the explanation that these instruments show how fast we are going, and how high we are. Those are two things a 10-year-old will be interested in immediately. Then let his curiosity take over. Answer his questions in a direct and simple manner. After a couple of flights, he will get to know what is what, probably faster than you think."

Green continues: "Frankly, the best thing you can teach him at this stage is simply to use the controls to make changes in airplane attitude and to use the horizon to hold level flight. If he gets that nailed down, the rest will be a piece of cake. Understanding true airspeed and the other stuff will come when it is time."

If our grandson enjoys flying enough to study the manuals, the next step will be to get him signed up for ground school.

Whether our grandchildren pursue a career in aviation will be up to them, but at least we want to make them aware of the opportunities that await them.

EDITOR'S NOTE: This issue of Midwest Flyer Magazine is dedicated in memory of my brother, Kenneth John Weiman (December 18, 1946 - February 29, 2020). RIP Ken!



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MIDWEST FLYER APRILMAY 2020 MAGAZINE

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ADS-B Compliance: The Potential Consequences of Violating Rule Airspace

by Greg Reigel, Esq.
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s most aircraft operators know, or should know, aircraft must now be equipped with ADS-B Out in order to fly in most airspace within the U.S. Although it is possible to take advantage of limited waivers or exceptions, generally speaking ADS-B Out is required for operations in "Rule Airspace."



Greg Reigel

In connection with this requirement, the FAA recently updated *Order* 2150.3C – FAA's Compliance and

Enforcement Program to explain potential sanctions for aircraft operations that do not comply with the ADS-B Out mandate. Specifically, Chapter 9 of the Order now identifies the FAA's sanction policy/guidance for ADS-B related violations.

It is important to understand that the FAA will be taking these violations seriously. For example, if the FAA believes an airman is transmitting inaccurate ADS-B Out or transponder information with the intent to deceive, or is operating an aircraft without an activated transponder or ADS-B Out transmission (except as provided in 14 C.F.R. §91.225(f)) for purposes of evading detection, it will revoke that airman's certificates. The sanctions for other violations are not as severe, but are nonetheless significant.

The FAA characterizes the severity of the violation based upon levels of 1, 2 or 3, with Severity Level 3 being the most serious. And depending upon whether the FAA views the violation as careless or reckless/intentional, the sanction range could vary from low to maximum.

The FAA evaluates violations based upon impact on safety. "Technical Noncompliance" involves violations where serious

injury, death, or severe damage could not realistically occur as a result of the violation conduct, even if theoretically possible. A violation with a "Potential Effect on Safety" occurs in a situation where serious injury, death, or severe damage could realistically result, but under the facts and circumstances would not often occur. Finally, a violation falls into the "Likely Effect on Safety" category where serious injury, death, or severe damage may occur more often as a result of the violation conduct.

When the operator fails to comply with ADS-B Out performance or broadcast requirements due to technical noncompliance, the violation is considered Severity Level 1. If the failure to comply with ADS-B Out performance or broadcast requirements has a possible effect on safety, then the violation is Severity Level 2. And, not surprisingly, when the failure to comply with ADS-B Out performance or broadcast requirements has a likely effect on safety, then it is a Severity Level 3 violation.

The specific sanction will also depend upon the type of violator. If the violation is by an individual certificate holder, the airman will likely be facing suspension of his or her certificates. An individual acting as an airman or a business entity will face a monetary civil penalty. In the case of a business, the amount will vary depending upon the size and revenue of the entity.

So, depending upon the circumstances, an individual certificate holder could face a suspension of his or her certificates for 20 -60 days, 60 -120 days, 90 -150 days, or 150 -270 days, depending upon whether the violation is in the low, medium, high, or maximum range, respectively. Other individuals and businesses could face civil penalties ranging from \$100 to \$34,174 per violation, depending upon the nature of the violator and how the FAA categorizes the violation.

In the event of multiple violations arising from the same act or omission, the FAA may give special consideration if the violation was careless, as opposed to reckless/intentional violations which receive no special consideration. For an individual certificate-holder, the suspension could be anywhere from 30 -90 days, 90 -150 days, or 120 -180 days, depending upon whether the violation is Severity Level 1, 2 or 3, respectively. And an individual acting as an airman could be assessed a civil penalty in the amount of \$5,000 -\$10,000, \$7,500 -\$15,000, or \$10,000 -\$20,000, again depending upon whether the violation is Severity Level 1, 2, or 3, respectively.

For other individuals, the civil penalty could range anywhere from \$50,000 to \$200,000. And business violators could be assessed civil penalties ranging from \$50,000 to





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- Sporting Clays at Sheboygan Falls Conservation Club: 12:00 p.m. (N6390 Meadowlark Rd, Sheboygan Falls)
- AOPA Rusty Pilot Seminar Villa Gottfried Room B: 1:00 4:00 p.m.
- Exhibit Hall Social Hour Grand Libelle Ballroom A&B: 4:30 5:30 p.m.
- Welcome Dinner with Exhibitors: 5:30 7:00 p.m.

SPECIAL SESSIONS: Monday, May 4, 2020

- Aviation Issues Panel Discussion with the FAA and Wisconsin Bureau of Aeronautics,
- One-on-One "Speed Dating" between Airports & FAA Chicago Airports District Office
- Drone/LAANC Technology
- Association Awards and Sponsor Recognition Luncheon
- Airport Fire Fighting Foam and PFA Environmental Update
- · Airport Project Planning
- Airports 101 AIP/CIP
- Solar Power/Going Green
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Concurrent AOPA Sessions For Pilots

- EAA AirVenture NOTAM updates
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SPECIAL SESSIONS: Tuesday, May 5, 2020

- · One-on-One "Speed Dating" between Airports & FAA Chicago Airports District Office
- Marketing Your Airport
- · Airport Project Planning
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CONTINUED FROM PAGE 8

\$600,000 depending upon the nature and size of the business, as well as the Severity Level of the violation.

Conclusion

Order 2150.3C provides the FAA inspectors and attorneys with a checklist for determining sanction in any given case involving an ADS-B violation. Unfortunately, when a case gets to the point where the FAA is determining sanction, the actual calculations and method for arriving at the final assessed civil penalty is usually withheld.

However, it is important to understand that the facts and

circumstances involved in any given case have an impact on both how the sanction is calculated, as well as the amount of the civil penalty assessed. If you find yourself defending against an alleged violation of Rule Airspace, knowing this information can help you defend yourself and, hopefully, successfully resolve the matter.

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



eKadet RC kit.

EAA Photo by Connor



Proposed Remote ID Rule Contains Concerning Requirements

OSHKOSH, WIS. – The Experimental Aircraft Association (EAA) is very concerned that the FAA's proposed rule on Remote Identification (RID) of Unmanned Aircraft Systems (UAS) could have a severe detrimental impact on traditional model aviation, and is preparing a full package of comments on the Notice of Proposed Rulemaking (NPRM).

The rule would require most UAS, no matter whether they are "drones" or traditional model aircraft, to carry equipment that identifies the device and broadcasts its location. Additionally, many would be required to be equipped with "geofencing" systems that autonomously contain the craft within a defined altitude and lateral boundary.

While EAA is primarily an organization that fosters and supports passion for manned flight, it recognizes the modeling community as an important pathway into aviation. In fact, last year EAA launched the Young Eagles Build and Fly Program, a chapter activity to guide youth in building their own electric radio controlled model, which they can then fly with a local Academy of Model Aeronautics (AMA) club.

There are many legitimate safety concerns surrounding drones, primarily those that are airborne camera platforms capable of flying beyond visual line-of-sight with little or no training by the operator, but traditional modeling has been operating trouble-free for nearly the entire history of manned flight. Despite this NPRM not directly impacting the manned flying community, we are concerned that regulatory overreach in the modeling world could easily set a precedent for future action against general aviation, such as an equipment mandate for the benefit of commercial UAS integration into the airspace.



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A Surprise On The Missed Approach

by Capt. Michael J. "Mick" Kaufman



hen doing instrument flight training in Instrument Meteorological Conditions (IMC), one can never know what to expect. I have in previous columns emphasized the importance of being able to hand fly an approach in IMC, but never thought of needing four hands to do it.

Michael Kaufman

To give our readers a better insight into some shortcomings of autopilots, I am passing on some

information that may save your life. The following incident occurred at a recent flight training clinic I was managing.

The airplane was a Beech Baron, the departure airport was Lakeland Linder International (KLAL) in Lakeland, Florida, and both the pilot and instructor were very experienced.

The weather for their departure was well above the minimum standard of circling minimums, which is the criteria we use at our training programs.

Because the weather was marginal, the pilot and instructor decided to concentrate the training on practicing instrument approaches in low IMC conditions. Brooksville-Tampa Bay Regional Airport (KBKV) became the destination, and the selected approach was the ILS for Runway 09.

The pilot was flying an autopilot-coupled approach after several previous approaches to the same runway. Upon reaching the published minimums for the approach and seeing nothing at minimums, the pilot decided to go missed.

The procedure is to disconnect the autopilot with a sequence of power up, pitch up, positive rate, gear up, flaps up and climb to the published altitude on the approach chart or alternate missed instructions from Air Traffic Control (ATC). All went well starting with the disconnect of the autopilot, which was a King KFC 200 with a flight director, but the pilot could not raise the nose, and requested assistance from

the instructor. The Baron has heavy elevator forces, and it took two pilots pulling on the yokes to establish a climb. The manual trim wheel was frozen, and it was pure muscle on the yokes from both pilots that kept the aircraft in a climb. After reaching a safe altitude and continuing to fight with an out-of-trim condition, the pilots decided to reactivate the electric trim as the manual trim was still frozen, and it worked!

What could have caused this condition in the first place? After flying around for some 30-plus minutes trying to figure out what had gone wrong, the pilots returned to Lakeland just as the weather cleared and landed safely.

We may ask ourselves, what if this happened to me, and I was all alone in the aircraft? Would the conclusion be labeled as "pilot error" if an accident occurred? How could this situation be prevented, or could it?

After landing, the pilot and instructor tried numerous times to duplicate the incident on the ground with no satisfaction – everything worked as normal. This was an anomaly and oftentimes we never do determine what causes something to happen with this or similar situations, but we must recognize that it could happen on a future flight.

The first thought from an autopilot expert led the aircraft owner to suspect that the trim servo clutch had malfunctioned, so he had the clutch examined at the avionics shop, which confirmed it was the clutch.

I have never seen the inside of an autopilot clutch, nor do I know exactly how it is supposed to work, but in this case, it was described as a broken gear tooth that caused the trim to jam.

It is important for pilots to become familiar with their autopilots and to read the autopilot supplement in their aircraft pilot operating handbook (POH). The POH will give ways to test the autopilot, and it needs to be noted that these tests are different among autopilots. There is a safety clutch on most of the autopilot servos that I am familiar with, which should be able to be overridden by the pilot and checked at periodic intervals.



Check out
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for previous articles
that you might have
missed or to revisit

Some autopilots have a disconnect on the yoke, some will disconnect if the electric trim is activated by the pilot while on autopilot, and some aircraft with flight directors on their autopilots will have a "Go Around" (GA) button, which will leave the flight director function working, while disconnecting the power to the servos. This is a great tool that will set a predetermined pitch attitude for a go around.

Another option with or without a flight director is "control wheel steering' (CWS), which will momentarily disconnect the autopilot to allow the pilot to make small altitude changes or make a momentary pitch or roll change without disconnecting the autopilot. While training, I find pilots who have owned a particular aircraft for years and never knew how to use the CWS button.

Fly safe, and for those of us living in the Midwest, we look forward to some great spring flying weather!

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

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

People In The News

Black Leaves Cirrus, **But Doesn't Go Too Far**

DULUTH, MINN. -Longtime Cirrus Aircraft test pilot and regional salesman, Gary Black, has left Cirrus Aircraft after being with the company for decades. He is now working at Aerista, a partner with Cirrus Aircraft in the preowned market.

Black will continue to reside in Duluth, and will initially focus on pre-owned Cirrus sales in his well-known territories in the Upper Midwest and Canada.

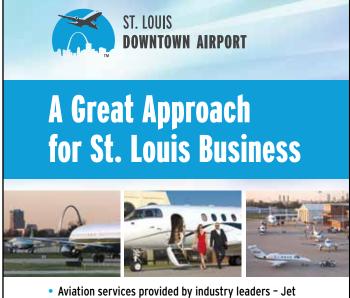


Garv Black

Anyone looking for a preowned Cirrus, or is looking to sell their Cirrus, may contact Gary Black at 612-810-4712 or gary@aerista.com.

Aerista is owned by Chris Eichman and Steve Schwartz, who began their aviation sales careers with Cirrus Aircraft in the early 2000s. In 2009, Eichman and Schwartz left Cirrus to found TAS Aircraft Sales – now known as Aerista – after identifying that there was a demand for quality, late-model pre-owned aircraft.

In addition to selling preowned Cirrus piston aircraft, Aerista established a turbine aircraft division in 2014, and now employs specialists in the Vision Jet, Piper PA-46 and Pilatus PC-12 markets. The company has eight offices nationwide, and is headquartered at Portland-Troutdale Airport in Troutdale, Oregon (https://www.aerista.com/).



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A Time-Based Perspective On Flight Training

by Harold Green

personal observations out of this column. However, with 60-plus years of perspective, the start may provide a reference point for what is happening today in aviation.

I took two check-rides for my private pilot certificate. No, I did not flunk the first one... I simply took it before passing the knowledge test. The reasons are not germane to this discussion.



Harold Green

The first, in November, 1957, included a then new requirement that the applicant demonstrate navigation by electronic means. At the time, the old Adcock ranges and automatic direction finders (ADF) were available, but generally only in larger airplanes. Till then, navigation in general aviation was only required to be by pilotage and dead reckoning.

To accomplish this new goal, we rented a Zenith transoceanic portable radio and placed it in the baggage compartment hammock of the Aeronca 7AC. With the radio ON and a station selected, the airplane was turned until the signal reached a null, pointed along a wing and said, "The station is that direction." Passed.

By the time the second, and final check-ride occurred in 1959 (this married, college student had to scratch for money to fly), things had changed. An Aeronca was used for the flight portion of the check-ride, but the navigation portion had changed. The requirement now was that the applicant must select a visual omni range (VOR) station, identify the radial on which the aircraft was located, and indicate the direction to fly to reach the station. The VOR receiver was a coffee grinder-type where you selected the band, turned the crank to the approximate frequency indicated on the movable scale, and watched the signal meter. When the meter peaked, you were on a station, but then it was necessary to identify it via the broadcast Morse code, since you could easily have

tuned in a station other than the one you thought. Then the OBS knob was turned until the needle was centered and the radial could be read from it. That was quite an advancement for two years.

As an added perspective, this check-ride included four new things for me: 1) The first time seeing, let alone using, a VOR receiver. While the examiner had a cup of coffee, the FBO checked me out on the VOR on the ground with no power applied. 2) First time flying an airplane with the training wheel up front. 3) First time flying an airplane with a control wheel instead of a stick. 4) First time flying a Piper Colt. The flight instructor at the FBO checked me out in the Colt by telling me what speeds to use on climb out and final with the admonition to keep the nose wheel off as long as possible when landing. No wasted time flying. I didn't bounce on landing, and the airplane was reusable without repair, so I passed. Since then things have progressed magnificently.

Navigation equipment progressed from low frequency beacons and non-directional beacons (NDB), to VORs and distance measuring equipment (DME), to Lorans and now global positioning systems (GPS). The low frequency beacons are currently and rapidly being phased out, VORs are on their way out, at least as a primary source of navigation and approaches, and Loran has been eliminated entirely.

Transponders, including altitude reporting, have become an almost universal device in airplanes. Transponders now have become the backbone of ADS-B that eventually will permit aircraft-to-aircraft traffic control.

Weather information has progressed from hand-prepared information by a large number of flight service stations, to automatically collected data and computer-generated forecasts. Flight service stations have been condensed into a contracted operation from whence all verbal information is dispensed. Computer programs provide up-to-date weather information and radar depictions are delivered to the cockpit. The problem now is that some people do not recognize that the depiction may be several minutes old, as compared with hours old in earlier years.

Radar coverage has become a staple for flying IFR today. In the bad old days, it was necessary to estimate the next reporting point to within 3 minutes. (You still are supposed to be able to do that in the event radar coverage is lost. Can you? Without GPS?) Today, if we fly out of radar coverage for even a few minutes, there is a sense of aloneness in instrument meteorological conditions (IMC).

With the advent of sophisticated autopilots in general aviation aircraft, coupled with current avionics, it only remains for an auto-throttle to be added to provide, in the technical sense, fully automated flight from takeoff to touchdown. FAA approval being another matter, but that is one of only delay, as reliable and consistent operation is confirmed, and regulations are added or existing ones modified to accommodate the new operations.



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Of course, in the intervening 60 years, there have been changes in regulations and insurance requirements accompanying the new capabilities and extended operations. However, these will be left to another venue to explore.

So, what is the purpose of this metaphorical tiptoeing through the aviation history tulips? Hopefully we can compare the load on pilots today with earlier times and maybe see what training is appropriate today, compared with

As we go through this, it is necessary to make one thing very clear. Although obviously on the far side of the average age of pilots, I am not against the new technology. Quite the contrary, I believe the outlook for safety and utilization is greatly increased due to the new capabilities offered. The concern is to ensure that pilot capabilities to handle unanticipated situations are not lost or that we don't place too much faith in our new toys without the ability to recover from inevitable failures.

Keep in mind that failure rates apply to a flight. That is, the probability of failure is based on the duration of the flight. However, over the life of the equipment, a failure is virtually 100 percent probable. Further, the more pieces of equipment involved, the more likely the failure of something on any given flight. Yes, the newer equipment is much more reliable than in the olden days. Were it not, given the amount of

electronics in the plane today, it would not be probable that a flight of more than an hour or two could be accomplished without a failure. Therefore, it is well within reason to say that most of us will encounter one or more failures in our flying career.

The issue then becomes twofold: 1) How to recognize and isolate a failure. 2) What to do to circumvent the effect of the failure. For our purposes, we will only talk about instrument flight because VFR flight is definitely a piece of cake with modern avionics. That's because our attention does not need to be so focused on reading and interpreting instruments, since we have visual contact with the real world.

For a mind experiment, we will assume a cross-country flight of about 3 hours with an early morning departure, marginal en-route summer weather, and an instrument flight plan. We will compare the operation of the "legacy" equipment with the new or "newbie" equipment. Legacy equipment includes two VORs, and no autopilot or DME. Newbie equipment includes a fully technologically advanced aircraft (TAA), including autopilot, coupled to the navigation equipment.

Using legacy equipment starts the night before by checking the weather as a basis for evaluating tomorrow's weather. If there is any marginal weather, particular attention is focused on it. The next morning, the weather is checked again to see







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if the forecasts are holding true, and often they are not. The night before the best route was selected using victor airways, en route charts and knowledge of general weather patterns. Along the way, those areas likely to be useful in the event of the need to head for VFR conditions were identified.

Then the approach and en route charts to be carried were selected because carrying the charts for the entire United States involved a lot of paper and a lot of weight. Generally, these included the route, including any known alternates, and weather considerations, about 200 nautical miles either side of the route.

In the morning prior to the flight, weather was checked again and compared with the forecasts of the night before. Thirty minutes to an hour prior to desired departure, the flight plan is filed.

The flight plan could have been filed the night before if certain of departure time and route. If the flight departs from a towered airport, the clearance can be picked up via radio. If not, it will be picked up by landline telephone and a void time, along with initial heading, altitude and departure frequency, will be assigned, along with the admonition to contact FAA via landline if not airborne by the void time. Of course, picking up the clearance in the air, conditions permitting, was also an option. The clearance is read back, the time is noted, and the flight begins.

Today, the procedure is much simpler. The weather is checked using one of several available software packages on an iPad or similar device. The weather is more accurate than yore and interpreted with the text in readable characters without the mysterious symbols of yesterday. A route forecast is readily available. The software will pick a route after the starting point, any route mileposts, and the destination. The filing can be handled by computer as well. This can take place just a few minutes before departure. Approach plates and en route charts are included with the software. NOTAMS can be checked readily and the software will automatically include them, as well as flag any temporary flight restrictions (TFR).

After obtaining our respective clearance and reading it back to ATC, once airborne, we climb to our assigned altitude.

Legacy has filed for as high of an altitude as the plane and pilot are capable. This is desirable since radar is not that good in identifying individual build-ups in these early days and altitude means you can hopefully see light between the build ups. Legacy then, after carefully recording the departure time, establishes track on the assigned airway and hopefully finds a cross VOR radial to establish position and provide a basis for computing groundspeed. This process will be repeated several times throughout the flight.

Newbie, having programmed the avionics with the flight plan, takes off and turns on the autopilot, then watches as the plane climbs to the assigned altitude. The system notes the takeoff time and estimates the time to the next checkpoint.

Both flights encounter the forecast weather. Legacy and Newbie both check with the air route traffic control center (ARTCC) to find out what they are showing on radar. Newbie gets a much more accurate response than does Legacy. In addition, Newbie has a relatively recent weather radar depiction on the multi-function display (MFD).

Legacy makes the decision to divert from the planned route to circumvent the area that ARTCC indicates is active weather. Newbie asks permission to divert from the route to avoid the weather. Newbie then, recognizing that the weather depiction can be as much as 20 minutes old, circumvents the adverse weather and proceeds to the destination. In this scenario, both reach their destination safely. Newbie is certainly under less stress due to more accurate and current weather information, and as a result, probably flew fewer miles than Legacy.

Now let us assume that at about the time they needed to divert due to weather, each had a significant failure. Legacy loses the vacuum pump, while Newbie loses the Primary Flight Display (PFD) and autopilot (AP).

Legacy now must fly via compass heading for direction,



and needle and ball and airspeed for aircraft control. Assuming Legacy has received proper training, this is a tense situation, but is survivable.

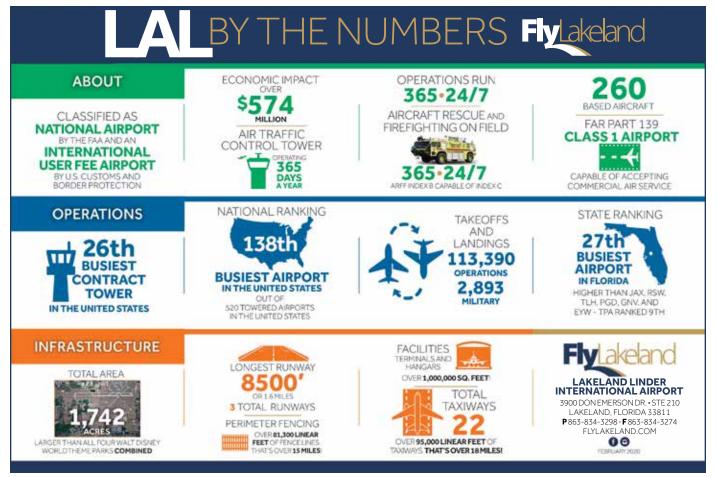
Newbie now must use a backup system to fly the airplane. We assume the autopilot is inoperable, so Newbie must now fly the plane manually and with reference to the GPS or VOR. Again, assuming proper training, this is a survivable situation. However, now the workload on Newbie has gone up significantly since it is now necessary to program the GPS step by step.

As each nears their destination, the difference in the workload on both becomes apparent. Legacy, after determining the destination weather and approaches in use, selects the appropriate approach chart, sets the radio/ navigation frequencies, and will probably receive no-gyro vectors from approach to either an Approach Surveillance Radar (ASR) or normal approach with assisting vectors. Once set up, Legacy only has to fly the airplane in accordance with the appropriate approach requirements.

The workload for Newbie has also increased. The appropriate approach must be entered into the Multi-Function Display (MFD) or on the iPad. In addition to selecting the approach, the transition must be selected, the approach loaded, and when appropriate, activated. In addition, the course deviation indicator (CDI) must be set to the appropriate mode: VLOC or GPS. Since there are several steps here and the tension is high, there is an increased risk of erroneous entries. When this occurs, it is necessary to backtrack to correct any error. This adds to the tension and hence increased risk. There is a potential further problem for Newbie. If, as is all too often the case, Newbie has been focused on the GPS magenta line without reference to the outside world, it is all too easy to become disoriented when necessary to reference flight to the actual geography.

In both cases, the key to success is the training of the pilot. Legacy has been trained from early on to fly with a minimum of instruments. In fact, flight in IMC with only needle and ball and airspeed is probably something done many times in training. In the case of Newbie, the training is also rigorous. However, one thing that has become apparent when instructing those folks whose training has been exclusively in technically advanced aircraft, is that they tend to relate to the GPS without reference to actual geography.

How can the instructor know if the student is focused on GPS to the possible exclusion of geo awareness? One technique, while on a cross-country flight, is to ask the student the route and time to a different destination, the location of which should be known to the student. If the first thing the student does is to check the GPS, the student is probably not maintaining appropriate situational awareness.



If, on the other hand the student gives an approximate bearing and an approximate distance and then checks the GPS for detail, this is a good thing!

The upshot of all this is that today's avionics information/control systems make life a lot easier for single-pilot instrument operations. In the bad old days, the pilot needed to be able to fly the airplane with minimum instruments while maintaining communication. In the good new days, the question is how well the pilot has been trained to operate with minimum equipment.

In practice, it would not be inappropriate to take away everything but the needle and ball and airspeed. No, that is not likely to happen in real life, but the goal is to build pilot competence and confidence in an emergency. Too often emergency training is based on equipment configuration, rather than pilot capability. Maybe we should change that. Perhaps we should find that equipment failure point at which

the pilot cannot function properly and train to extend that point and ability.

EDITOR'S NOTE: Harold Green is an Instrument and Multi-Engine Instrument Instructor (CFII, MEII) at Morey Airplane Company in Middleton, Wisconsin (C29). A flight instructor since 1976, Green was named "Flight Instructor of the Year" by the Federal Aviation Administration in 2011 and is a recipient of the "Wright Brothers Master Pilot Award." Questions, comments and suggestions for future topics are welcomed via email at harlgren@aol.com, or by telephone at 608-836-1711 (www.MoreyAirport.com).

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

Charlie Wiplinger Named CEO of Wipaire

SOUTH ST. PAUL, MINN. – Wipaire has announced that Bob "Wip" Wiplinger has entered semi-retirement and his son, Charlie Wiplinger, has been named to replace him as chief executive officer. Bob Wiplinger served as president

since 1979 when he purchased the company from his father and founder, Ben Wiplinger. Bob Wiplinger will continue to serve as chairman of the company. Charlie Wiplinger, who has held the title of president since 2011, will now be president and chief executive officer.



Understanding What Causes FAA Medical Certification Delays & What You Can Do To Speed Things Up!



Dr. Bill Blank

by Dr. Bill Blank, M.D., Senior AME

just returned from speaking at an FAA Aviation Medical Examiner (AME) refresher course in Nashville. AMEs are required to perform at least 10 flight physicals per

year, attend a 2 1/2 day refresher course every 3 years, and are graded on performance (i.e. the number of errors on exams). Too many errors can result in termination. There are approximately 2650 AMEs in the U.S., and this number has been gradually decreasing. Consequently, the FAA may need to start recruiting AMEs. Fewer new AMEs are pilots, so they have less understanding of the system and a pilot's needs.

In federal year 2019, there were 393,789 medical applications. This works out to about 32,000 per month. Approximately 35,000 "special issuances" were authorized in 2019. The FAA policy is to certify as many airmen as can safely be certified. This is time consuming.

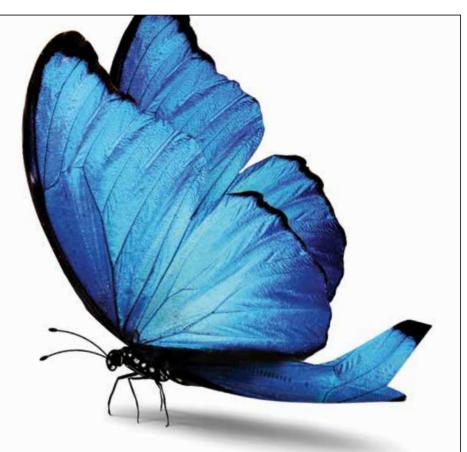
A major cause of certification delays is the obsolete system used. The major way the FAA receives medical records for special issuances is by paper copy mailed to them. Every page has to be scanned. That can take one to two weeks. No one looks at the records until they have been scanned into the computer system. There can easily be a one-month delay between the time the records have been scanned and mailed, and someone looks at them.

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Technicians called legal instrument examiners (LIEs) review the records. In many cases, the LIEs have everything needed and can authorize issuance under the signature of an FAA physician. An internal email is sent to the typing pool where it can take between one and two weeks to get the letter in the mail.

If more information is needed, a request letter will be sent. There is no phone number or email address on the letter in case you have questions. Of course, you will need to gather the data, mail it to them and have it go through the same process of scanning, etc. Most of these cases will need to be reviewed by a physician who can either issue the certificate or ask for further information. When the physician is satisfied, an authorization is sent to the typing pool. There are less than 50 FAA physicians who review these applications. First and Second-Class Medicals have priority.

You can see why it takes so long. Amazon wouldn't be where it is today with such a cumbersome system. Major hospital systems send millions of records daily at light speed, while the FAA is using the U.S. Postal Service.

What you can do to help speed up the medical certification process!

First, only submit information when it is absolutely necessary. The FAA prefers that AMEs certify as many airmen as possible. As I have previously written, when your AME enters your confirmation number in the FAA computer system and imports your application (Form 8500-8), the medical exam has started. Your AME is required to electronically submit your application within 14 days from the date of your examination. He has two choices – issue or defer. We are strongly advised to never deny.

You need to do your homework ahead of time. If you check YES to any of the questions on the 8500-8, your AME needs supporting information so that he/she can issue the certificate. If you reported a tonsillectomy when you were 5 years old and are now 46, nothing would be needed. Remember, though, that you need to report it on every exam. The question asks, "Have you ever?" I don't have the space to explain the logic of this. If you plan to check YES to something, I would go to the AOPA or FAA websites to see what will be needed.

AMEs use an online publication called "The AME Guide." It is available at http://www.faa.gov/go/ameguide. Go to "Decision Considerations." You may not be a physician, but it is clear enough for you to have an idea of what you will need and whether you can be certified via "Conditions AMEs Can Issue" (CACI), or if you will need a special issuance. If a CACI is needed, print out the worksheet, write your name at at the top, and take it to your treating physician. Ask him/her to answer the questions and sign and date it. Then take the worksheet to your AME. This can be= done up to 60 days ahead of time. Don't even start the exam until you have this information.

These days, you would have to be very lucky to see a physician and get a report within 14 days. If it has to go to Oklahoma City, you would be fortunate to have your medical in six (6) weeks. You sure don't want this to happen, if better planning could have prevented it. The last thing you want to do is send it in to see what the FAA wants.

Sometimes your AME will have to defer because you need a special issuance. Be sure to send EVERYTHING they ask for the first time! You don't want them to have to request additional information.

You will need a letter from your treating physician to apply for a special issuance. Be sure you read his letter. If he hasn't covered everything required, ask him to rewrite it. It will save time. Read all of the reports that you are sending. Make sure nothing is omitted! I wouldn't request a special issuance until I was reasonably sure it would be issued.

If things seem to be taking a long time, you can call and inquire. In most cases, calling the regional flight surgeon's office will be more helpful. You will not be permitted to talk to a physician. This is where a savvy AME can be a big help.

I wait one to two weeks to make sure all documents have been scanned, then call or email an FAA physician to see if the information has been received and whether anything else is needed. This requires that someone look at your application. By the time this has been done, the physician might put it on his to-do list and get it done. If more information is needed, you are weeks ahead of the process. You can be gathering the information before you ever receive the letter from them telling you what you need. If the information requested is not too long, your AME can FAX it to them.

Many FAA medical and administrative personnel are conscientious, professional and helpful, and are well aware of the system's shortcomings. As we all know, the government works slowly. By understanding the system and your options, you can make the system work as well as possible and help speed up your certification. At the same time, you are helping the FAA staff to be as efficient as possible.

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

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

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

Factors To Consider When Shopping For A Used Airplane

by Pete Schoeninger

Q: I need help deciding which of two Bonanzas to buy. Two friends are going to sell their 1980 and 1981 F33A Bonanzas and pool their resources to buy a turbine Bonanza. I am familiar with both airplanes, their maintenance, etc. Overall conditions are reasonably similar, total hours are about 3500 with complete logs, and neither aircraft has any damage history. I plan to invest a



Pete Schoeninger

substantial amount of money into either aircraft I buy. One airplane has a very low-time engine and a new three-blade prop, but with original ancient avionics (KX-175 stuff) that I would replace with a completely new glass panel at a cost of around \$65,000-plus. The other aircraft has a very recently installed new glass panel, but an engine that is just past TBO and is due right now for overhaul, as is the prop. Both aircraft have been offered to me at the same price. Which one should I buy?

A: Both Bonanzas sound like nice airplanes! The new

glass panel installation will cost more than the engine and prop overhauls. Avionics take a substantial hit in depreciation their first year, while engine overhaul/replacement depreciates slowly with hours accumulated and age. At the same price, I think I would pick the airplane with the recent panel and avionics, but the aircraft with the high-time engine might be a little better buy for you. Thanks to Jessica at New View Technologies at KOSH for helping on this question.

Q: I received an official-looking solicitation to renew my aircraft registration, for a fee of \$65. I thought a renewal for an FAA aircraft registration was only \$5. Has that changed?

A: No, you were probably solicitated by a third party who will submit your renewal of \$5, and put \$60 in their pocket as profit. Before your registration expires (currently every 3 years), you will get a postcard from the FAA addressed to the owner with the address of record. You can respond either by internet with a credit card, or mail a check for \$5.00.

Q: A friend said that Piper J-3 Cubs have several different type certificates? How could one model have different type certificates?



A: Three of several J-3 type certificates include A-691, A-692, and A-698. Each covers J-3s originally manufactured with either a Franklin, Lycoming or Continental engine. Gross weights vary from 1100 to 1220 lbs. You should have paperwork onboard your aircraft indicating your exact model, gross weight, etc. In much newer airplanes, this information would be in an Airplane Flight Manual, or Pilot's Operating Handbook, but J-3s are pretty simple airplanes and paperwork is very limited.

Q: I have looked at the Cessna 172S type certificate data sheet, and cannot find any mention of snow ski installation or an approval for installation. Yet, I saw a 172S in Lake Hood, Alaska, recently, with skis installed. How could that be legal?

A: The most common way would be for a ski manufacturer to obtain a supplemental type certificate (STC) from the FAA for the aircraft, approving their ski installation. You or your mechanic could then buy the skis and the STC paperwork from that manufacturer.

Q: An old-timer told me about the cat and duck method of emergency IFR flying for non-instrument rated pilots. Are you familiar with this method?

A: It is an old wise tale, not true, probably dreamed up in a saloon near an airport. It goes like this... If you are not instrument rated and happen to fly into IFR conditions, you proceed by throwing the cat up in the air every 10 seconds because cats always land right-side up. If the cat lands on your headliner, you're inverted... If the cat lands on your righthand door, you are in a 90-degree bank to the right, etc. Once in level flight, you then pull carb heat, reduce power, and start a descent. Hopefully when you break out of the clouds before hitting the ground, you throw the duck out the window and follow it. Ducks will always fly to water. Water will usually lead to a river, which eventually will lead to a town, which hopefully will have an airport! DISCLAIMER: THIS IS A FICTIONAL STORY ONLY! Don't ever try it, and never be cruel to cats or ducks either!

Q: I am considering investing in new, all-electric-powered gyros by replacing currently installed mechanical gyro instruments, of which some are electric driven, and some are vacuum driven. My avionics shop says I can reduce my empty weight by perhaps 25 lbs. by removing the vacuum pump, old gyros, hoses, filters, etc. Won't I lose the redundancy of having some instruments powered by electric and others powered by the vacuum pump, which right now will hopefully allow me to continue right-side up in instrument conditions if either source conks out?

A: Yes. Some owners have replaced their vacuum pumps and gyro instruments with all digital electric instruments, which are more reliable than mechanically-driven instruments. If your alternator conks out, you will now only have maybe 20-60 minutes of power in your storage battery, which may or may not be enough for your type of flying. Avionics shops can recommend a standalone attitude indicator, with at least a 60-minute backup for \$3-5,000, which you might consider. Ask your shop about possibly putting a second alternator in the new hole in your engine accessory case from the vacuum pump removal as a safety backup measure.

Q: Is it legal or safe to land on highways, provided there are no cars nearby?

A: In an emergency, a pilot can make the decision of where to go. If a road is your only choice, go for that over water or a forest. On the way down, do your best to look for utility poles which indicate the presence of wires.

In non-emergency situations, some states have specific laws prohibiting landing on roads. Others use the catch-all requirement to have a wide load permit if your wingspan is more than 8 feet. To my knowledge, the FAA still does not have a specific regulation against landing on roads, but they do have the catch-all "Careless and Reckless" charge waiting to be levied against a pilot if they wish, usually if something is damaged. Be sure to contact whatever law enforcement agency has authority over a particular road to get an okay before landing. (I know a guy who didn't get prior approval. He had to truck his plane away on a trailer to a nearby airfield.) And



be sure to walk the area, so you are aware of all wires, road signs, etc. Generally, roads make poor runways. They have cars, drainage ditches next to them, traffic signs, mailboxes, etc., that can pose a real hazard.

Q: Has the internet's worldwide acceptance changed sales and acquisition tactics for airplane salesmen?

A: Yes. In the old days when I was a young airplane salesman, all airplane ads were in print. Thus, it took a while from the time an ad was called into a sales paper (most often Trade-A-Plane), until the next edition was printed, and then mailed out to prospective airplane buyers. I used to pay extra \$\$ to get the FedEx overnight edition of Trade-A-Plane, so I had a day or two jump on possible bargains before many others got it through the mail. True story... There was one airplane salesman in Tennessee who always beat me and other salesmen to any bargains. One day I ran into him and asked him how he always beat the rest of us. It turned out the fellow had someone who was working at Trade-A-Plane's printer, who would obtain a copy and take it home to my Tennessee friend!

Now, with the internet, any ad called in to any sales publication is online for the world to see right away, often less than a day. Whereas in the "old days," it could take 2-3 weeks for an ad to reach the airplane buying world.

Q: I am trying to get my tailwheel endorsement. I own, and fly regularly, an Aeronca 7FC Tri-Traveler, which is a tricycle gear airplane. I am taking dual instruction in a Citabria, trying to catch on to flying conventional gear. I am based at a fairly busy airport, so we have to make big patterns, and in an hour of flying, maybe make only 8-9 landings. I fear I am not anywhere close to soloing after 4 hours, having problems with directional control. Is that normal?

A: The 7FC is reasonably similar to the Citabria, so your checkout will primarily be about the differences between tricycle and conventional landing gear ground handling. At a large airport, with big patterns, you get precious few minutes on the runway, which is where the landing gear differences show up. What some instructors do is find a runway or taxiway that is under used, and then have the student taxi on that runway or taxiway the entire length at low power at say 10 mph, then at 20 mph, then at 30 mph, emphasizing keeping the nose exactly aligned with the centerline of said runway or taxiway. If you do this, you will get lots of experience on the ground for your hour of dual, instead of just 5-10 minutes at best. Good luck with it. Be sure to get dual until you are comfortable with three-point and wheel landings in crosswinds.

Q: During my last biennial flight review, the flight instructor giving me the flight check asked what is my best power-off glide speed? In my airplane, it is 80 kts. He then asked what my best power-off glide speed was into a very strong wind? I answered still 80 kts, which wasn't the answer

he was looking for. I forgot to ask him for an explanation. Was he right, or was I?

A: To over simplify, if you were gliding at your best glidespeed in calm air of 80 kts into an 80-kt headwind, your groundspeed would be zero, thus your glide path would be straight down. If you pushed the nose down to any faster speed, you will begin to get some forward progress, even though your rate of descent will increase.

EDITOR'S NOTE: Pete Schoeninger appraises airplanes for estates, divorces, and partnership buyouts. He is a 40-year general aviation veteran, starting out as a line technician as a teenager, advancing through the ranks to become the co-owner and manager of a fixed base operation, and manager of an airport in a major metropolitan community. For aircraft appraisals, contact Pete at PeterSchoeningerLLC@gmail.com or call 262-533-3056 (peterschoeningerllc. wordpress.com).

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Warbirds I Have Flown (In)





Aviation writer and author, Bob Worthington, finally got his chance to fly a "warbird" from the front seat of this North American T-6 in 1998. Prior to this, he only went along for the ride.

by Bob Worthington
www.BobWorthingtonWriter.com

ast fall, I wrote an article on "warbirds" for a national aviation organization. One question arose: Have I ever flown in a warbird? My response was yes! But



Bob Worthington

it must be stipulated that because of my age, some of the warbirds I have flown in were "active" military aircraft at the time, yet today they are in museums. As a general aviation pilot, and not a military aviator, I relished my opportunity to fly in different military aircraft. Most of my flights occurred in the military (as a crewmember, never as a pilot), once in an airshow, and once as a pilot. Here is a summary of my experience with warbirds.

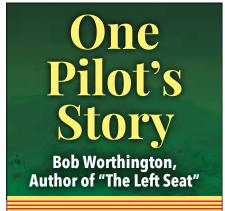
My first flight in a warbird was in mid-October 1958. I was a corporal in the Marine Corps, having just returned to Camp Lejeune, North Carolina from combat in the Middle

East. My girlfriend (now my wife) lived in Washington, D.C. and we had been apart for six months, so I was very eager to see her. I secured a seat on a Marine R4D (C-47). The Douglas twin-engine utility/cargo taildragger had a cruise speed of about 200 mph, so it was just under 3 hours to D.C. Delivered to the military in October 1938, it was the greatest transport of all times. Over 80 years old today, it is still being flown all over the world. The aircraft remained in the active military inventory until 2008 where it was last flown with the U.S. Air Force 6th Special Operations Squadron (a modified version, the Basler BT-67). Over 10,000 were built for World War II (WWII).

The canvas seats were not comfortable, the plane drafty and noisy, and it was a very crude ride compared to a civilian airliner. What was most unique about this flight was at the end. After we landed and parked, the two pilots stood up and removed their flight jackets. Both were enlisted, master sergeants, trained during WWII as part of the "Sergeant Pilots" program, where enlisted men were trained to fly combat aircraft. The last four Marine enlisted pilots retired in 1973. In 1958, all new military pilots had to be officers, so being flown by noncommissioned officers (NCO) was a historic moment for me.

In the summer of 1963, I flew (three times) in a Fairchild C-119 "Flying Boxcar" while attending the Army Airborne School for paratrooper training. The dollar nineteen was a twin-engine, high-wing cargo aircraft, with its unique twin-boom tail. Just under 1200 were built between 1947 and 1955 with its Air Force service lasting until 1973. These were the only times in my life when I was not in an airplane I departed in, upon landing.

Vietnam, November 1966. I experienced a flight in an Air Force L-19 "Bird Dog," a single-engine Cessna tail-dragger observation aircraft. I needed to recon the mountains surrounding the old French fort where the Vietnamese unit I advised was based. Both us and the enemy shared the same terrain.





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www.BobWorthingtonWriter.com

Introducing me to his tandem-seat aircraft, the pilot gave me a two-minute explanation of how to fly the plane if he was shot and incapacitated (at this time, I was not a pilot). The plane was loud, breezy, and very agile, yet at the same time, so very fragile. There was very little between me and the entire world out there. We flew over the North Vietnamese camps, sometimes only 1,000 feet above them, turning, twisting, and banking, so I could view them develop their defensive positions.

The pilot explained that the enemy seldom fired at his L-19 because they thought he was a Forward Air Controller (FAC) who would bring U.S. fighters down on them. If they did not shoot at him, he wouldn't unleash his fighters. It was a symbiotic relationship, foreign to me. Even today, I find it hard to comprehend the sensation of observing the enemy while they watch me, with neither shooting at the other.

During a vicious eight-day battle with a North Vietnamese Army regiment in October, we stayed alive because of the flares and fire power of "Spooky," the U.S. Air Force AC-47 gunship. A few weeks later I spent 8 hours aboard the gunship on a mission. Referred to as "Puff the magic dragon," because its three twinbarreled 7.62 mm mini guns could place one round in every 2 1/2 yards of a large football field in a three-second burst. The Air Force used these modified C-47s from 1965 to 1975, where 53 planes had been converted to gunships.

This flight surprised me because it was so cold. Before the flight I was given a field jacket to wear, which I found amusing because my year in Vietnam had been in the hot tropics.

But a few thousand feet in the air, at night, in the AC-47, twisting and bouncing, with numerous openings, it was extremely loud and very cold.

My experiences in both planes are described in my book, "Under Fire with ARVN Infantry." During my second tour (1968-69), I spent several hours in Air Force Cessna O-2 Skymasters, the "Oscar Deuce," a FAC aircraft also used for low-level reconnaissance missions, which I did. The O-2 was a front-and-rear engine twin Cessna 337, modified for military combat flying.

During my first flight, the aircraft's windows would not open, so it was very hot in the plane. After an hour of constant circles and steep banks so I could see the ground, I got airsick. Having no sick sacks, the pilot gave me his glove, which I promptly filled (and he discarded out a small opening in his window). Before our mission ended, I had to use his other glove. On subsequent flights, I was prepared as I carried plenty of plastic bags, but I



never got sick again.

During two tours in Vietnam, I spent time in various aircraft, but most of my flights were in the ubiquitous UH-1B Huey helicopter. During my first tour, I was not a big fan of flying, but for some reason during my second tour, I flew every chance I got. I ended my time in Vietnam with about 180 hours of flying time, the most memorable flight being a special ops mission I was running the night of 14 November 1968, on the Cambodian border using a Huey, when I was shot.

I became a pilot in 1975 and in 1981, an aviation writer, beginning as an editor for *General Aviation News*. As an aviation writer, I enjoyed two more rides in WWII aircraft.

In the fall of 1983, I was covering the annual airshow of the Confederate Air Force (CAF) in Harlingen, Texas. (The CAF is known today as the Commemorative Air Force, and is headquartered in Dallas, Texas.)

The CAF would allow aviation journalists to ride in their WWII aircraft during the show. I was assigned to N16KL, a PBY-6A Catalina bomber. It would depict the dive-bombing missions it flew in the Pacific, then it would fly a rectangular pattern at 100 to 300 feet above the ground. This part of the show included one other PBY and several single-engine dive bombers, all doing the same thing at the same time.

Produced by Consolidated Aircraft from 1935 to 1945, slightly over 3300 were built. Neither beautiful nor fast, the PBY was rugged, and could stay aloft for 18-24 hours. It was designed as a maritime bomber and for ocean search and rescue (SAR) missions. Cruising at 110 mph, this twin-engine flying boat was not very maneuverable, but for a shot down aircraft crew, drifting in the ocean, seeing the PBY landing in the water to rescue them, made it the most beautiful aircraft in the world!

One distinct aspect of this PBY was that it was the only WWII bomber in the CAF inventory that had flown combat missions in the war. N16KL had a unique background. During WWII, in the Navy's Pacific bomber patrol squadron VPB-53, it flew 14 combat missions, to include a SAR mission seeking USS Indianapolis survivors after it was sunk by a Japanese submarine. The ship had just delivered the first Atomic bomb to the B-29 base at Tinian. The Navy declared this PBY-6A surplus in 1950.

The Danish Navy bought the PBY where it served for many years. Declared surplus once again in the 1970s, it was purchased by a private foundation and used in films, "Midway" being one of them. In 1982, the Lone Star Wing of the CAF, in Tyler, Texas, acquired the aircraft as a donation. Fourteen months and 1700 man-hours later, the plane was restored to its military configuration of the 1940s. The 1983 CAF airshow was the first for N16KL, which is the one I flew in.

With a crew of four and seven passengers, we flew in the show between 90 and 95 mph. While the other passengers watched the show from the aircraft's windows, I was crouched down between the two pilots. The airplane was slow and very

loud as it bounced and clattered following its scripted routine in the show. Being a pilot, I was in awe over the skill and ability of the crew to maneuver this heavy, awkward aircraft, while remaining aware of all the other planes in the routine, and fly in perfect formation during a sequence that appeared as very chaotic and unrehearsed to the spectators on the ground. In nine minutes, our performance was over, and we landed.

N16KL was slated to fly in the 1984 CAF airshow and I was invited again to participate. Prior to the show, because of its large clamshell window bays protruding from each side, it became a photo plane flying over the lagoon which laid between the Texas coastline and a few miles away, lower Padre Island. The lagoon was a favored fishing spot for local folks. Some people would drive long, thick posts into the lagoon bed, so they could tie their boats up while fishing.

On 13 October, the PBY flew as a photo plane, and on one pass over the lagoon, five feet above the water, it hit one of the poles in the water. It ripped the hull, causing the aircraft to crash, killing six with four survivors. This was the end of N16KL, having been destroyed.

In September 1998, I attended an aviation conference in Orlando, Florida. At the airport in Kissimmee (KISM), I visited "Warbird Adventures" to write a story. Introduced to Thom Richards, CFI, founder and co-owner of this vintage flight school and museum, he said we would fly in an AT-6 Texan on a training flight for me.

The North American T-6 advanced trainer has two tandem seats – student in front with the instructor in the rear. The entire top of the plane is a completely glassed canopy. Military production began in 1937 (the year I was born) and 15,495 aircraft were built. This plane was used as both a trainer and combat aircraft into the early 1960s.

Before climbing into the front cockpit, I was given a WWII-style tan cloth helmet with ear receivers and a microphone. We departed KISM and flew at about 130 mph to our practice area.

My logbook of 14 September 1998 indicates that in over a half hour, we did rolls, loops, a Cuban 8, an Immelmann, and a Split-S, with one takeoff and landing. It was a lot of fun, an easy plane to maneuver, and the only warbird I have flown as a pilot. This was also my last flight in a warbird.

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

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

Giving "George" A BreakAutomation is a powerful tool

by Mark Baker

AOPA President & CEO

e all know him, some of us even fly regularly with him. The go-to guy on long cross-country flights, the way-more-precise pilot than you could ever be, and one who doesn't crack under pressure. He's even been featured, although satirically, in cult aviation movie classics like *Airplane!* Yes,



Mark Baker

I'm talking about George—the world-renowned autopilot and trusty ally of the aviation community.

George has been around for decades, but pilots still speculate on where the name originated. Some believe it's a nickname referencing George De Beeson, the man who patented the first autopilot in the 1930s. Others swear it dates to World War II when Royal Air Force pilots referred to their aircraft as "George" after King George VI, who "owned" the entire fleet. Whatever theory you believe, there's no doubt that George has been making air travel safer and more efficient for pilots and passengers alike.

According to research firm MarketsandMarkets, the artificial intelligence (AI) industry is set to grow to \$190 billion by 2025. Additionally, companies using AI have seen increased efficiency, cost reductions, and revenue growth. But as impressive as it is, and as AI continues to become more mainstream in our daily lives, we have to ask ourselves—is it really helping us or hurting us?

When we look to aviation, commercial flights have become more reliant on computers to handle most flight operations between takeoff and landing. In fact, according to The *New York Times*, the average flight of a Boeing aircraft involves only seven minutes of hand-flying—something the FAA is now urging pilots to do more of.

In a formal request to the International Civil Aviation Organization, the FAA stated that pilots have become too dependent on aircraft systems and haven't learned or maintained the ability to manually control the aircraft—especially during emergencies. This became more apparent following the 2009 Air France disaster in which a sudden disengagement of the autopilot system led to crew confusion on how to properly recover from a stall. It's a

prime example of the downfalls of automation.

Although appreciated among pilots worldwide, there are instances when George, like other advancements in the cockpit, may be too much of a good thing. As we move up from light aircraft to larger jets, the amount of hand-flying tends to decrease while the autopilot's capabilities increase—significantly compromising our basic stick and rudder skills.

I'll be the first to admit, I am a huge fan of automation and actively support advancements in cockpit tools and technology. At our fingertips, information about an aircraft's position, altitude, speed, route, engine performance, nearby terrain, traffic, and weather are all neatly projected. Combined, these systems have decreased pilot workload and improved situational awareness.

What's more, the declining cost of safety-enhancing equipment like autopilots has made these capabilities more accessible. Only a few years ago, a two-axis autopilot would cost \$40,000. Today, you can get a non-TSO'd digital autopilot with envelope protection for less than \$10,000.

That being said, overreliance on technology can lead to complacency. When I learned to fly, glass cockpits didn't exist, leaving me with a panel of what are now considered antiquated steam gauges. While far from the sleek and shiny look of a modern Garmin G5000, these gauges taught me everything I know about GA flying and what it takes to be a good, skilled pilot. We all love to debate primary training avionics and what makes a better pilot. But the answer is neither. The panel doesn't affect the flight characteristics of the aircraft—it's all about the fundamentals.

It's important to embrace the new technological advancements available to us, but feel free to give George a break every once in a while. When a real emergency strikes—be it weather, engine failure, or electrical problems—we need to rely on the basics.



Grassroots Advocacy Takes Dedication, Education & Passion



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

www.aopa.org

rassroots advocacy. What do you think that means? One might picture walking door to door passing out brochures or giving a 30-second memorized blank stare speech about a specific issue. Local politics in a sense. Grassroots advocacy in aviation is a little different; it takes much more dedication, more education, and passion. In my daily arena, especially in the airport advocacy business, every airport "problem" is local. I can't justify using the word problem, because in many cases, the problems are actually "opportunities."

I would like to share with you an experience I recently had while attending a small-town city council meeting. Just for awareness, my duties include attending small (and large) township, city council, and county commission meetings and the like, when the issue facing the local aviation community warrants our involvement.

Back to this specific case, the airport is undergoing a masterplan update and has faced some changes in operations from a commercial-run FBO, to a city-run FBO. There is a skydive operation at the airport; a beautiful turf runway, complementing a 6,100-foot paved runway; and tenants made up of homebuilders, antique aircraft owners and restorers, an active flight school, and maintenance facilities. It is really a picture-perfect general aviation facility – on the surface.

The Green Earth Deicer Company, Inc. Specializing In Environmentally Friendly "Runway and Non-Airside De-icing Products" 414-379-0601 or 920-238-0482 Without going into too much detail about specifics of all the players involved, the local users are concerned of losing the turf runway as part of the master plan update, and the parachute operation is concerned about losing their drop zone, which has been in place for over a decade. I attended the city council meeting, as the agenda called for public comments on the proposed drop zone changes, which one proposal suggested using a city park (on airport property) as an alternative. Other proposals moved the drop zone on or near the turf runway. I am sure you can imagine the angst over that.

The city council meeting began with the usual pleasantries of law enforcement updates, contract approvals, and then the public comment period began. I did not plan to speak; this was more of a "recon mission" to get a feel for how the public felt about the issue overall. Several pilots and tenants spoke passionately about the airport, its history, how safety is a top concern, and the importance of the turf runway to the aviation community. The owner of the skydive operation made his case – the best he could in a few minutes – but he did not lack emotion or passion! This is not just a hobby for him and his family... it is their livelihood.

Residents voiced concern of the possibility of losing access to a park where annual soccer tournaments are held if it was made into a parachute drop zone. Some citizens were even angry that it would even be considered.

Comments made which may not have been 100 percent accurate, moved me to offer comments as well. AOPA understands the concerns on all sides, and is empathetic to the tough job elected officials face when making decisions on complex aviation-related topics. I simply offered AOPA's expertise on the subject matter and would like to see a thorough and transparent decision-making process that is fair to all parties involved, and which is in line with FAA policies and grant assurances.

This scenario that played out is grassroots advocacy. I was pleased to see a large turnout from the local aviation community, even if some of the tenants and pilots are not residents of the city that operate and sponsor the airport. Even a local airport is bigger than the real estate it occupies, and it is important on a regional and national level. That is the education factor that local decision-makers need to know and experience firsthand!

Another heartwarming moment in all of this was that there was no finger pointing amongst the local users of the airport. The common thread is coexistence and a compromise that will work for everyone. That's what is truly being asked of the city council. Perhaps the best answer is to do nothing. Even the FAA deems the "do-nothing" approach as a satisfactory alternative. We will see. The issue is still playing out!

In other AOPA regional business, I will be attending several events and functions in the early spring of 2020.

- As the airshow and fly-in season kicks off, I will be staffing the AOPA area at Sun 'n Fun Aerospace Expo in Lakeland, Florida, March 31-April 5, the latter part of the week, so if you are a member or pilot from the Midwest, please stop by and say hello!
- AOPA will be well represented at the Great Minnesota Aviation Gathering (GMAG), April 24-25, at Buffalo Municipal Airport (KCFE). Andy Miller will be joining me onsite for a Rusty Pilot seminar, and I will be presenting a topical discussion on airport advocacy.
- The very next week, April 29-May 1, I will be attending the Minnesota Airports Conference at the Mayo Civic Center in Rochester, Minnesota. The conference is hosted by the Minnesota Department of Transportation (MnDOT) and Minnesota Council of Airports (MCOA), and facilitated by the University of Minnesota and its Airport Technical Assistance Program (AirTAP). For details, see article elsewhere in this issue of *Midwest Flyer Magazine*.
 - Moving into May, the Minnesota Seaplane Pilots

Association (MSPA) will once again host its annual safety seminar at Madden's on Gull Lake, near Brainerd, May 15-17. In addition to the many educational and informative sessions, I am looking forward to the "spot landing contest."

• Directly following that event, AOPA staff will be convening at the 2020 Recreational Aviation Foundation (RAF) national conference in Pewaukee, Wisconsin, May 18-20. AOPA works closely with the RAF on airport advocacy issues, and this event will allow for other AOPA regional managers like myself to learn more about the RAF's approach to airstrip preservation and assistance. The RAF was founded to preserve and protect recreational airstrips, which are usually private or held by the government for access to back-country areas. Their outreach has now expanded to small community airports, not usually eligible for state or federal funds, that require special assistance to remain open.

Have a safe and enjoyable spring, and I look forward to seeing many of you throughout the season. It is a privilege to serve you!

Kyle Lewis. Email: kyle.lewis@aopa.org. Office: 301.695.2229. Cell: 740.418.8950.

AOPA Regional Fly-Ins For 2020

Texas Two-Step San Marcos, Texas, May 29-30, 2020

Cowboy Up! Casper, Wyoming, June 19-20, 2020 **Picture This** Rochester, New York, September 11-12, 2020



Rochester International Airport

Meeting The Air Transportation Needs of The Mayo Clinic, Local Pilots & Businesses





Rochester International Airport Rochester, Minnesota

by Dave Weiman

ome airports have the unique status of including "regional" in their names, thereby serving more than one municipality or a region within a specific geographic area. The title "international" is reserved for those airports that accommodate international flights, and either have their own U.S. Customs & Border Protection facility, or are served by U.S. Customs from a neighboring community.

Rochester International Airport (KRST) is one of a handful of airports in Minnesota that serve not only their local community, but also the international community. The airport and city of Rochester are best known for the *Mayo Clinic*, whose roots in Rochester can be traced back to 1864 when Dr. William Mayo came to the area. Last year, patients from all 50 states and 139 countries visited the clinic, with many of these patients arriving by air, either on commercial airline flights or in private aircraft.

The hospital's research, teaching, and training activities are augmented by the airport, as the hospital relies on just-in-time shipments of various supplies that arrive by air. The Mayo Clinic Health System has dozens of locations in southeast Minnesota, and doctors from Rochester are sometimes flown to these outlying medical facilities.

The Mayo Clinic also has an affiliated air ambulance service that supports emergency medical flights to Rochester. Mayo Clinic physicians also could not perform lifesaving transplants without the teams of doctors who fly from Rochester to harvest organs to support life-saving operations. The Mayo Clinic has an estimated 33,500 employees in Rochester, and the clinic is expected to grow in the years ahead.

Always on the cutting edge of medical science and service, the Mayo Clinic is introducing "Destination Medical Center" (DMC) – a unique 20-year economic development initiative. The \$5.6 billion plan in private investments (the largest in Minnesota's history), DMC will provide the public financing necessary to build the infrastructure and other projects needed to help support the Mayo Clinic as a global medical destination center (https://dmc.mn/what-is-dmc/). Rochester International Airport will continue to play an important role in this initiative.

History of Rochester International Airport

The airport was originally founded in southeast Rochester by Drs. William and Charles Mayo in 1928. The airport resided on 285 acres and was owned and operated by the Mayo Foundation.

The airfield was officially dedicated as "Rochester Airport" in 1929. That same year, Rochester Airport Company was founded as a subsidiary of the Mayo Foundation.

In 1940, the Rochester Airport Company improved the facility with paved runways, and 85 additional acres were acquired to bring its total acreage to 370.

In 1945, the Mayo Foundation gave the airport to the City of Rochester because as a private corporation, the foundation was not eligible for federal grants for airport improvements. The Rochester Airport Company continued to operate the airport under an operating agreement with the City of Rochester.

In 1952, the airport was officially renamed "Lobb Field," and moved to its present location in 1960 where it was renamed "Rochester Municipal Airport." The airport was

renamed again in 1995 as "Rochester International Airport" with the addition of a U.S. Customs facility.

Currently, Rochester International Airport is located on approximately 2,400 acres, and is served by three major air carriers with scheduled daily service: American Airlines, United Airlines and Delta Air Lines. Federal Express also has scheduled service. The airport features an industrial park and a business park.

Business Use of Rochester International Airport

Besides serving the airlines, Rochester International Airport also serves general aviation, from single-engine piston aircraft, to Boeing 777s used by foreign dignitaries.

Over 100 local businesses have adopted "Fly Local" policies, committing to utilize the airport for commercial air travel, significantly increasing commercial passenger volumes to record levels in recent years.

The Department of Natural Resources (DNR) uses the airport for aerial inspections and monitoring wildlife, parks, forests, fishing, and water resources, covering an area of nearly 8,750 square miles. Other agencies and organizations that benefit from the airport include the Rochester Police Department, Minnesota Air National Guard, and Civil Air Patrol.

Rochester is the second busiest airport in Minnesota with 370,000 commercial passengers, 23 million lbs. of cargo, 50,000 control tower operations, and 200 diversions handled from Minneapolis-St. Paul International Airport. Some 200 international aircraft clear U.S Customs at Rochester each year. It is also one of the busiest air ambulance facilities in the U.S.

John Reed is the airport's Executive Director. Reed began his career at Rochester in 2015. Previously, Reed served as Assistant Airport Director at Austin Straubel International Airport in Green Bay, Wisconsin for 13 years. Prior to his position in Green Bay, he was the Assistant Director of Aviation at Brownsville/South Padre Island International Airport in Texas from 1997 to 2002.



John Reed

Reed began his career in aviation as an airport planner and airport inspector in Nevada and Missouri. He has served on both the Minnesota Council of Airports (MCOA) and Wisconsin Airport Management Association (WAMA) boards of directors, and has worked to ensure the success of the airport conferences in both states.



At Our Airports

Reed holds a Master's Degree in Aviation Safety from the University of Central Missouri, and a Bachelor's Degree in Aviation Science from The College of the Ozarks. He is an Accredited Airport Executive (A.A.E.), and a member of the American Association of Airport Executives (AAAE) and its Great Lakes Chapter.

Reed is assisted by **Kurt Claussen**, Deputy Airport Director, who has dedicated nearly 30 years of his career to the success of Rochester International Airport.

Minnesota Airports Conference

Rochester International Airport is the "host airport" for this year's Minnesota Airports Conference to be held April 29-May 1, 2020 *(CANCELED)* at the Mayo Civic Center.

The conference will focus on airport management, operations and maintenance, but is open to anyone interested in aviation. To register, email ccapsreg@umn.edu or call 612-625-2900. For additional information, email Mark Knoff at admin@mnairports.org or call 507-995-3051. For hotel reservations, contact either the Kahler Grand Hotel at

507-280-6200 (\$129-\$159 per night), or the Hilton Garden Inn at 507-285-1234 (\$149 per night).

Rochester International Airport can be reached at (507) 282-2328. The airport is served by Signature Flight Support, which can be reached at (507) 282-1717. Both full and self-serve fuel is available. Contact either Signature or airport administration concerning general aviation parking and any fees that may apply. There are no ramp fees with the purchase of either full-service or self-serve fuel.

"Los Arcos Kitchen & Cantina" is located in the business park adjacent to the airport. "Tailwind Concessions," offering food and beverage in the main terminal, was remodeling at press time with limited services, and will reopen with a full-service restaurant later this spring.

Ground transportation is available from Med-City Taxi (507) 282-8294 and Rochester Shuttle Service (507) 216-6354.

The Minnesota Airports Conference is sponsored by the Minnesota Council of Airports and the Minnesota Department of Transportation, and facilitated by the Airport Technical Assistance Program (AirTAP).

SEH Names Benita Crow To Lead Operations In Minnesota, Iowa, North Dakota, South Dakota & Nebraska

ST. PAUL, MINN. – Short Elliott Hendrickson Inc. (SEH*) has named Benita Crow to lead the firm's operations in Minnesota, Iowa, North Dakota, South Dakota and Nebraska. Prior to stepping into the role, Crow led the Airport Planning and Design group for the same region.

By promoting Crow, SEH is positioning itself to better assist its clients with engineering, architectural, environmental and planning services, as well as hire new talent to join its growing workforce.

"This appointment is great for both our clients and employee-owners" said Dave Ott, SEH CEO. "Benita has been an integral part our company and has a proven track record of success. She has a collaborative leadership approach and has the ability to engage those around her. She is the perfect choice to lead our teams in solving our clients'



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engineering, architectural, planning and environmental challenges, and to grow our firm by bringing those services to new clients as well."

Crow is also excited about the new opportunity to not only explore ways to better serve clients, but to help SEH employee-owners grow and develop in their careers.

"It's exciting... I feel so much positive energy and momentum within our company," Crow says. "Looking around, I see not only the great work we're doing for our clients, but the teams of individuals from different backgrounds coming together to find new and innovative ways to help our clients solve their challenges."

Crow holds a B.S. and M.S. in Civil Engineering, both from the University of Minnesota, and is a professional engineer in Minnesota and Wisconsin. While with SEH, she has led everything from multi-million-dollar projects in large cities with commercial airports to small communities with grass runways. Through her experience, she has developed client relationships that span decades. It's these relationships and the diversity of services airport projects entail that will allow Benita Crow to better serve SEH clients.

SEH is a 100% employee-owned company that, for more than 90 years, has been building trusted relationships throughout Minnesota and the U.S. as a whole, providing surveying, engineering, architectural, planning and environmental services to public and private clients alike. The company's mission revolves around Building a Better World for All of Us[®] (http://www.sehinc.com).

New James H Connell Excellence In Aviation Scholarship Seeks Applicants

INDEPENDENCE, IOWA -Connell Aviation Group and the

Connell family are memorializing the passing of their patriarch, James H. Connell, with the announcement of a new aviation-based scholarship. Flight and maintenance programs are



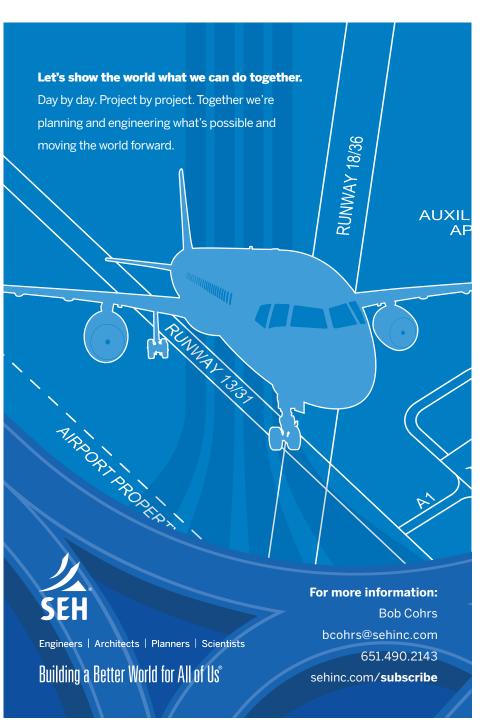
James H. Connell

eligible. Candidates will be evaluated on personal drive, passion and dedication to the aviation industry.

"James Connell dedicated his life to not only advancing flight, but to sharing his aviation legacy with others," said Alyssa Connell, chief executive officer of Connell Aviation Group, and Connell's granddaughter. James Connell was an accomplished pilot, mechanic and airport manager for more than 50 years in Independence, Iowa.

The scholarship will be awarded on or around June 23, 2020 with special recognition at EAA Air Venture Oshkosh 2020. Scholarship applications must be submitted/postmarked by May 1, 2020. Application information is available by email at scholarship@ connellaviationgroup.com.

In the spring of 2019, the City of Independence, Iowa, officially renamed the Enhanced Services Airport (KIIB), James H Connell Field in Connell's honor.



Sheboygan County Memorial Airport To Host 65th Annual Wisconsin Aviation Conference

by Dave Weiman

or many airports in Wisconsin, hosting the annual state aviation conference comes around once in a manager's career. The conference is rotated around the state to give as many communities the opportunity to host the event, and showcase their local airport. This year, Sheboygan County Memorial Airport in Sheboygan, Wisconsin, and its superintendent, Matt Grenoble, will host the 65th Annual Wisconsin Aviation Conference, May 3-5, 2020 (CANCELED) at the Osthoff Resort, Elkhart Lake, Wisconsin.

The Wisconsin Aviation Conference is the premier educational and networking event of the year for airport managers, commission members, fixed base operators, tenants, consultants, and state and federal aviation officials. They come together to share their expertise and concerns, network, and mutually address issues. Anyone who has a stake in aviation in Wisconsin will want to attend this conference. For a complete conference schedule, refer to the advertisement on page 9 of this issue of *Midwest Flyer Magazine*.

Register online at https://wiama.wildapricot.org/register. For hotel reservations, go to https://www.osthoff.com/rates or call (833) 219-8583. Special rates apply! Businesses interested in exhibiting may contact Bob O'Brien at 608-739-2011.

The Wisconsin Aviation Conference is sponsored by the Wisconsin Airport Management Association (WAMA), Wisconsin Aviation Trades Association (WATA), and Wisconsin Business Aviation Association (WBAA).

Sheboygan County Memorial Airport

Sheboygan County's airport opened in 1960 and was dedicated and named Sheboygan County Memorial Airport (KSBM) in 1962. The late Harry R. Chaplin, Sr. (06/03/1922 to 02/21/1988) was the airport's first manager and he spent 24 years at the helm. In addition to Sheboygan, Chaplin was instrumental in the development of four other airports -- Chaplin Airport (1946), Waupaca Municipal (1949), Manitowoc County (1969), and Baraboo-Dells (1970).

Harry Chaplin not only managed these airports, but he and his wife, Carol, also owned and operated the fixed base operations at each airport.

Harry Chaplin served on the boards of directors of both WAMA and WATA, and helped organized the Wisconsin Aviation Conference and WATA Convention. Chaplin was inducted into the Wisconsin Aviation Hall of Fame in 1990.

The original length of both runways at Sheboygan was 3600 feet, but multiple extensions throughout the years have

increased their length to 6800 feet for Runway 04/22 and 5002 feet for Runway 13/31. Land acquisitions for these runway expansions has increased the acreage from 500 in 1960, to 787 today.

With approximately 40,000 aircraft operations a year, Sheboygan County Memorial Airport is the fifth busiest general aviation (GA) airport in Wisconsin, and the eighth



Matthew Grenoble

busiest airport in Wisconsin, overall.

Prior to his appointment as airport superintendent at Sheboygan in October 2019, Matthew Grenoble worked at airports in Virginia, Florida, Utah, and Washington state. Previous to working in airport management, Grenoble was a



The grounds at Sheboygan County Memorial Airport are kept in tip-top shape thanks to Grenoble's operations/maintenance crew.

corporate pilot flying Lear 35s and King Air 200s.

The grounds at Sheboygan County Memorial Airport are kept in tip-top shape thanks to Grenoble's operations/maintenance crew, including Mike Wieck, Lee Gordon, and Wayne Schorer. In the winter, the crew works tirelessly to keep the airfield clear of snow and ice. In the summer, the grounds rival some of the local world-famous golf courses!

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A new general aviation terminal is currently under construction.

Sheboygan County Memorial Airport has five instrument approaches, including an ILS for Runway 22, along with fourlight PAPIs for each runway. Runway 22 also has a medium intensity approach lighting system with runway alignment indicator lights (MALSR).

Sheboygan County Memorial Airport is home to 82 based aircraft, including five jets. Burrows Aviation is the fixed base operator. The airport has one 12-unit T-hangar and 38 individual private hangars. Aircraft services include fuel, tie-downs, heated hangars, de-icing, a ground power unit, lavatory service, and rental cars. Self-serve 100LL avfuel is also available. Airworthy Aviation provides aircraft maintenance for small general aviation aircraft, up to medium size twins.

The "Aviation Heritage Center of Wisconsin" is located at Sheboygan County Memorial Airport. The center, in conjunction with EAA Chapter 766, hosts multiple aviation events throughout the year, including the extremely popular "Wings and Wheels Fly-In" on Father's Day weekend.

A new general aviation terminal is currently under construction and is slated to open in July 2020. In addition to the airport supervisor's office, the building will house a new U.S. Customs office.

For additional information about Sheboygan County Memorial Airport, email Matt Grenoble at matthew.grenoble@ sheboygancounty.com, or call 920-467-8052 (office) or 920-946-2062 (cell).

Prince Mural Livens Up MSP's Terminal 1

MINNEAPOLIS/ST. PAUL, MINN. - "Prince" fans have yet another tribute to the famous Minnesota-based artist at Minneapolis-St. Paul International Airport (MSP).

In January, a 16-foot by 24-foot mural of the music legend was installed on the Tram level of MSP's Terminal 1 below the Blue and Red parking ramps and will be on display for a year.

"It's almost like seeing him perform on stage," said Sam Fuentes, exhibitions coordinator for Arts@MSP, a program of Airport Foundation MSP, which helped arrange and install the exhibit. "It's a perfect perspective."

It's the second larger-than-life art installation at MSP to be displayed outside the rotating exhibit spaces at the airport (art scrolls by artist Anne Labovitz is the other) curated by Arts@MSP, whose mission is to enrich the experience of the traveling public through arts and culture.

The work was created by artist Rock Martinez, who began his career as a graffiti artist in Tucson, Ariz., but has since become a well-known muralist in the tradition of Mexico-born artist Diego Rivera with studios in both Tucson and the Twin Cities.

"I'm a huge Prince fan – I grew up on old rock," said the 40-year-old Martinez. "Prince and Michael Jackson were everything to me."

Although Martinez has painted murals in high traffic areas before, they pale in comparison with the 39.6 million people who passed through MSP in 2019. So that guarantees the mural will be seen in the city Prince made famous with his "Minneapolis sound."

Sheboygan County Memorial Airport

Host Airport of The 65th Annual Wisconsin Aviation Conference May 3-5, 2020

Osthoff Resort Elkhart Lake, Wisconsin



Featuring

- 6800 & 5002 Ft. Runways
- Restaurant & 100LL Self-Serve@FBO
- Aviation Heritage Center of Wisconsin

Coming Soon

• New U.S. Customs & Border Protection Facility

> Matt Grenoble, C.M. Airport Superintendent

920-467-2978 matthew.grenoble@sheboygancounty.com

OMNNI Associates & Westwood Professional Services Join Forces To Provide Expanded Capabilities

n July of 2019, OMNNI Associates (omnni.com) was acquired by Minneapolis-based, Westwood Professional Services, Inc. (westwoodps.com), a multi-disciplined surveying and engineering firm. Westwood provides services to both private and public sector clients for land development, infrastructure and renewable energy projects.

As an actively growing company, Westwood was searching for the best company to help diversify its portfolio of services by expanding the public infrastructure market in the Midwest and beyond. OMNNI Associates (Appleton, Wisconsin), a provider of engineering, architecture and environmental services to public and private clients throughout Wisconsin, offered the right leadership, experience and culture.



Jason McCarty

OMNNI Associates is currently in the process of transitioning to **OMNNI Associates**, a **Westwood company**. The transition is estimated to take one year, and during this time, the company will continue to operate in the same capacity as it has in the past. Changes will be taking place internally, but clients shouldn't notice any obvious changes to the way business is conducted. What clients may notice, however, is that they have more services available to them.

Jason McCarty, P.E., is Vice President of Westwood's Land Division. He is responsible for implementing growth strategies in collaboration with the commercial, residential and public infrastructure leaders in Westwood's north region. He anticipates OMNNI's clients benefitting greatly from the expanded services and expertise the Westwood team will provide.

"Expansion of the public infrastructure market gives our clients more resources to tackle the challenges facing them, such as aging infrastructure and tight budgets," says Jason McCarty, P.E., Vice President, Land Division. "OMNNI will now have the opportunity to call on experts companywide to fill their clients' needs, including planners, landscape architects, electrical engineers, and water and wastewater engineers."

Expanded Service Capabilities for Airport Clients

OMNNI provides planning, engineering and construction administration services to commercial and general aviation airports throughout Wisconsin. Projects range from the design of taxiways, runways and aprons, to parking lots, fuel farms, architectural facilities and real estate acquisition. For over 30 years, OMNNI has worked on hundreds of airport projects striving to meet the needs of growing communities, while maintaining the highest safety standards.

Aaron Stewart, P.E., is program manager for all of OMNNI's airport projects. With over 25 years of experience in airport design and construction, Stewart has received numerous aviation awards due to his design expertise and attention to detail.

Aaron Stewart looks forward to the opportunity to offer additional services to his airport clients. One



Aaron Stewart

be of interest is "renewable energy." The Westwo

area that he believes may

energy." The Westwood team has a large group of renewable energy experts who consult throughout the United States.

"Airports may be looking for cleaner and cheaper energy initiatives and solar energy may be a good choice for them," says Stewart. "Working closely with our Westwood renewable energy team, we can provide our clients with the expertise to plan and design a system that will fit their facilities' needs."







3-D rendering shows a rescue training scenario at the Air Rescue Fire Fighting training facility.

Installation of the steel Boeing 777 airplane trainer at the site.

Another area of interest to airport managers may be the addition of land development services, notes Stewart. Westwood's planners and landscape architects can help balance existing and future infrastructure demands against current economic conditions and development potential.

Expansion of the Existing Aviation Market

Currently, OMNNI's engineers are working on 20 active airport projects throughout Wisconsin. Some featured projects include:

• Air Rescue Fire Fighting Facility, Appleton,

Wisconsin. OMNNI has been the engineer-of-record at Appleton International Airport for over 20 years. Currently, OMNNI is working on a very unique project that includes the engineering and design of a new regional Air Rescue Fire Fighting (ARFF) facility, which will be operated by Fox Valley Technical College as part of their Public Safety Training Center. The facility will provide training for Midwest area airport firefighters and first responders on how to respond to airport ground emergencies. This training is required by the FAA for completion of the Part 139 training program.

The project includes design of the building and control center which consists of a 7,500-square-foot, pre-engineered metal frame building with a 1,650-square-foot second story mezzanine housing the fire control center and all mechanical systems. The design includes two truck bays, two classrooms, six overhead roll-up doors, water distribution for filling trucks, restrooms and storage areas.

Site design for the project includes a Specialized Aircraft Fire Trainer (SAFT), which is a mock-up Boeing 777, and a Spill Fire Trainer (SFT). The site has two steel airplane trainers (the Boeing 777 and a Cessna 172), an underground liquid propane fuel distribution system, a 20,000-squarefoot maneuvering pad for fire trucks, a drive-on wet deck for simulating a fuel spill, the control building with classrooms and ARFF bays, and a small parking area.

Connecting the building to the SAFT area are 14 separate conduit connections for power, communications and controls, not including the standard sewer, water, power and data connections to the building. Two 30,000-gallon liquid propane tanks were installed with a pumping system and

4-inch welded steel distribution lines to the SAFT.

The airplane trainer includes a 152 x 18 ft. mock-up, Boeing 777 made out of 1/2-inch Corten steel and a mock-up Cesna fire trainer. The Boeing aircraft has areas where various cab, engine, and breakfire training scenerios can be simulated. Below the plane is the Spill Fire Trainer that consists of a controlled wet deck with steel grates located 1 inch below the water level. Propane distribution lines controlled by pneumatic valves disburse propane to the top of the water to simulate a fuel spill fire. The entire project used over one million pounds of steel to construct and is scheduled for completion in the spring of 2020.



At Our Airports



A photo of the completed project at Sheboygan County Memorial Airport, taken from OMNNI's unmanned aircraft system.



On January 30, 2020, OMNNI was honored with the 2019 Annual Award for "Excellence in Airport Construction" for the Sheboygan County Memorial Airport project by the Wisconsin Department of Transportation, Bureau of Aeronautics. (L/R) Scot Becker, Wisconsin Department of Transportation, Bureau of Aeronautics; Ben Backus, OMNNI Resident Engineer and award recipient; Jeff Maples and Bill Gamble of Vinton Construction; and Pat Goss, Wisconsin Transportation Builders Association.

• General Aviation Apron and Taxiways, Sheboygan,

Wisconsin. OMNNI recently completed engineering and design services, including drainage improvements, for the reconstruction of the general aviation apron and taxiways at Sheboygan County Memorial Airport. The project reconstructed and upgraded a portion of the terminal apron and three taxiways, greatly enhancing the transportation facility for air travelers, airport tenants, and clientele. Construction affected 52 hangars, and access to a runway and fueling area. In order to maintain access, the project was split into three phases. Extensive communication with the tenants and fixed base operator was critical.

On January 30, 2020, OMNNI was honored with the 2019 Annual Award for "Excellence in Airport Construction" for the Sheboygan County Memorial Airport project by the Wisconsin Department of Transportation, Bureau of Aeronautics.

• U.S. Customs and Terminal Facility, Sheboygan, Wisconsin. OMNNI is currently providing engineering and design services for a U.S. Customs and Border Protection facility and terminal building at Sheboygan County Memorial Airport. The \$ 4.8 million, 8,000-square-foot building includes dual facilities for airport administration, as well as a

processing area for U.S. Customs. The facility will be able to process international flights for general aviation aircraft owned by local businesses and visiting tourists flying into the area to attend events, such as the Ryder Cup in September 2020.

Design includes a central lobby space that acts as a gateway to the county, connecting the departure airside vestibule and the landside vestibule. The lobby includes a passenger waiting area, laptop charging stations, a fireplace, and a skylight for natural lighting. Each entrance is protected by arched polycarbonate panel canopies.

In addition to OMNN's existing aviation projects, Westwood's Las Vegas and Phoenix offices provide services to airports. A sampling of projects include:

- The Las Vegas office team provided McCarran Airport with vehicle barrier systems at Terminal 1, multiple fueling areas and at areas around the perimeter security fencing.
- The Phoenix office team is currently working as a subconsultant for survey services on the Sky Train project, which is an automated train that transports travelers between the rental car facility to the terminals.
- As projects arise in other office locations, OMNNI employees will have the opportunity to collaborate and provide their expertise on projects.

OMNNI and Westwood. Better Together.

As always, strong client relationships are very important to OMNNI. As part of the Westwood team, they continue to be committed to providing their clients with quality services, experienced project managers and innovative project solutions. In addition, the collaborative culture at Westwood benefits employees, as well as clients. Empowering employees allow them the opportunity to grow professionally and thrive in a team setting, which results in higher quality and innovative projects for their clients.



Airport Engineering Services

Aaron Stewart, P.E.

920-735-6900

Appleton, WI · omnni.com

ENGINEERING · ARCHITECTURE · ENVIRONMENTAL





3-D renderings show the exterior and interior of the new U.S. Customs facility and terminal building at Sheboygan County Memorial Airport.

"I see only blue skies ahead for OMNNI, as the company continues its transition to OMNNI Associates, a Westwood company," says McCarty. "Our clients can look forward to benefitting from strong project collaborations and expanded services, especially in the aviation market sector."

For more information on OMNNI Associates, a Westwood company, contact Aaron Stewart at 800-571-6677 or email him at aaron.stewart@omnni.com. Also, visit the following websites: www.omnni.com and www.westwoodps.com.

Sweet Aviation Adds Cirrus Jet To Charter Fleet

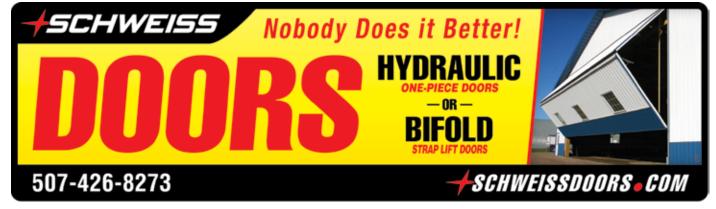


FORT WAYNE, INDIANA - Sweet Aviation, an airplane charter, flight training, aircraft rental, and aircraft maintenance company located at Smith Field Airport in Fort Wayne, Indiana, has added a Cirrus Vision Jet to their Part 135 Charter Certificate.

The Vision Jet is the "world's first single-engine Personal JetTM," according to Cirrus Aircraft with headquarters in Duluth, Minnesota. With seating for up to six passengers, the Vision Jet is designed to be a less-expensive and convenient alternative to traditional private jets.

According to Sweet Aviation, their Vision Jet which they bought in 2018, is the 25th Vision Jet built, and Sweet Aviation is one of only two companies approved to use the jet for charter.

Sweet Aviation is owned by Chuck Surack, president of Sweetwater, the world's leading music technology and instrument retailer. Joel Pierce is general manager (www.sweetaviation.com).



Aeronautics Report

Wisconsin Bureau of Aeronautics

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

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Pardon Our Dust: Annual Airport Construction Update

by Hal Davis
WisDOT Bureau of Aeronautics

etween planning, design and construction, airport projects often take several years to make it from inception to ribbon cutting. In 2019, we celebrated the completion of a couple projects that were a bit more involved than the typical airport improvement project. First, Runway 11/29 at Hartford Municipal Airport, Hartford, Wis., was extended and realigned to become Runway 09/27.



Hal Davis

Second, the long-anticipated Instrument Landing System (ILS) for Runway 21 began service at Sawyer County Airport, Hayward, Wis. We thank and congratulate everyone who played a role in any of our airport improvement projects last year.

Other significant airfield pavement improvements were made at Sheboygan, La Crosse, Green Bay and Wisconsin Rapids.

In 2018, the FAA provided a supplemental \$1 billion in discretionary grants for airport improvement projects. As one of the recipients of this supplemental funding, Central Wisconsin Airport (Mosinee, Wis.) was able to make improvements to their terminal, including the installation of new passenger boarding bridges.



Photo Courtesy of Fox Valley Technical College

At Appleton International Airport (Appleton, Wis.), work was completed on a state-of-the-art airport rescue and firefighting (ARFF) training facility. The facility features a live burn area and realistic Boeing 777 and Cessna Skyhawk training props, designed to provide trainees with real-world, hands-on experience with aircraft-specific firefighting and rescue scenarios. This unique facility is

expected to serve a critical role in the certification of ARFF personnel

in Wisconsin, the country, and

Realignment of Runway 11/29 to Runway 09/27 at Hartford Municipal Airport.

2019 Recap

In addition to the Hartford runway project, other runway reconstruction projects were completed at Burnett County (Siren, Wis.) and Langlade County (Antigo, Wis.) airports.

throughout the world.

In total, WisDOT funded 46 different projects at 34 airports last year, not counting all the planning and design work for future projects.

40 APRIL/MAY 2020 MIDWEST FLYER MAGAZINE

2020 Outlook

Full airport closures are expected at Viroqua, Land O'Lakes, and Monroe airports this summer due to runway reconstruction projects. The reconstruction and extension of Runway 7L/25R will also cause some major impacts to Kenosha Regional Airport (Kenosha, Wis.). Elsewhere, the ongoing, multi-year Taxiway M project at Dane County Regional Airport (Madison Wis.) will wrap up this summer, along with some other improvements to Taxiways B and J. A plethora of airfield improvements are also slated for Burlington, Timmerman, General Mitchell, Oshkosh, East Troy, and Adams County. As always, check NOTAMs before your flight to make sure there are no unwelcomed surprises.

In addition to the airfield improvement projects, there will be several projects across the state which focus on improvements to airport facilities. Extensive upgrades are planned for the Rhinelander terminal, while Appleton will be installing new passenger boarding bridges. Richland Airport (Sextonville, Wis.) will be receiving a new terminal building altogether. Finally, customs facilities will be constructed at both Sheboygan and Kenosha airports.

For more information on past and future airport development projects, including the Wisconsin Bureau of Aeronautics' Five-Year Airport Improvement Program, visit the Wisconsin Department of Transportation website at wisconsindot.gov and type in "airport five-year plan" in the search bar or call (608) 266-3351.

Meet Teresa Klein

Airport Land Program Manager **WisDOT Bureau of Aeronautics**

'n October 2019, Teresa Klein joined the Wisconsin Department of Transportation (WisDOT), Bureau of Aeronautics (BOA), as the Airport Land Program Manager. Klein is responsible for land acquisitions, releases and program development within BOA, including quality assurance and interpretation of federal and state eminent domain law. She selects and manages the land program service providers and is responsible for the contracting and financial

recordkeeping of land program projects.

Before joining BOA, Klein worked for the WisDOT, Bureau of Technical Services, for 13 years as a Real Estate Specialist Senior, where her primary responsibilities were acquisitions, preparing complex and non-complex appraisals, managing project budgets, relocations, and condemnation and litigation matters. She provided guidance and training to region and statewide real estate specialists and consultants in all aspects of acquisitions and negotiations, and she served as expert in the READS database for the SW Region offices.

For any questions concerning the BOA land program, email Teresa Klein at teresa.klein@dot.wi.gov or call (608) 266-3092.

Wisconsin Governor Signs Mechanics Lien Law

APPLETON, WIS. - Wisconsin Gov. Tony Evers made a visit to Appleton International Airport February 21, 2020, to sign a bill that will help the aviation business community. Evers signed Wisconsin Act 103 regarding liens for aircraft and aircraft engines. The governor says it will bring the state into compliance with FAA requirements.

"This bill will benefit Wisconsin's aviation community by enabling Wisconsin buyers and sellers to utilize the FAA's registry before a transaction, potentially preventing costly legal disputes over titles and ownership in the future," said

Gov. Evers. "I am happy to sign this bipartisan bill today to bring Wisconsin's laws into compliance with the FAA's requirements to help folks further enjoy this industry and pastime."

Assembly Bill 611, now 2019 Wisconsin Act 103, establishes aircraft lien laws that conform with the Federal Aviation Administration's requirements by creating a separate lien process for aircraft and aircraft engines for any reasonable charges for services provided, such as repairing, storing, or servicing.

New CEO At Women In Aviation International

Tomen in Aviation International (WAI) has a new chief executive officer. Allison McKay, formerly vice president of the Helicopter Association International Foundation, has joined the 14,500-member strong organization, and will oversee the board of directors, professional staff, and daily operations. McKay takes over for WAI founder and former president and CEO, Dr. Peggy Chabrian, who served WAI for the last 25 years since the organization was founded. The organization is headquartered in West Alexandria, Ohio.



AERONAUTICS BULLETIN



INNESOTA

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

Cassandra Isackson, Director

Minnesota DOT Office of Aeronautics 222 East Plato Boulevard • St. Paul, MN 55107-1618 651-234-7200 or (toll free) 1-800-657-3922

A Discussion of Take Off

by Rick Braunig

Manager of Aviation Safety & Enforcement

MnDOT Office of Aeronautics

hire pilots for our office and one of my favorite questions is: How do you know you have enough runway when taking off on a turf runway? About the best answer I get is to check the performance charts in the aircraft operator's manual and then add some safety factor like 20%. Of course, this doesn't take into account the length of the grass, nor whether the grass is wet or even how close the aircraft's performance matches to the numbers you



Rick Braunia

get from the charts in the book. The answer I'm looking for is "three quarters by one half." If you have three quarters of your takeoff speed by the time you reach halfway down the runway, you can feel confident that you will be able to takeoff in the remaining portion of the runway. If not, you have the second half of the runway to get stopped.

I do think it is a good idea to run through the performance charts. The question then is, how closely does my performance match the book numbers? I wouldn't expect the performance on my 1984 Bonanza to be better than what the company pilots got when the aircraft was factory fresh, but how much luster have I lost? Has1,800 feet become 2,000 feet? After all, the time to figure out if you can take off on that short runway is before you land there. It is really embarrassing to have to pull the wings off and get your aircraft trucked to a different airport, costly too. So, if you want to check your numbers, one way to do it is to count runway lights. Runway lights are normally spaced 200 feet apart. You should run the numbers and then test it on takeoff to get a feel for the difference between what the book says and

your actual performance.

Knowing how your aircraft normally acts on takeoff can also help you to catch when something isn't quite right. I took off one day and noticed my airspeeds were lower than normal. I made a precautionary landing short of my destination and when they opened up the engine only five of the six cylinders were running. The sound was normal and there was no vibration, but the performance was off. Knowing what is normal allowed me to get the aircraft on the ground before I was at a point where the engine was failing. Even better would have been to stay on the ground and not have gotten airborne at all.

Conditions change, temperatures rise and fall, pressure altitude changes, so only by running the numbers regularly and checking how closely your aircraft matches to the numbers, do we get an appreciation for what to expect. Even if you don't operate off short runways, you want to catch a change in your performance that may indicate a problem before it becomes an emergency.

What role does a crosswind play on your takeoff role? On approach a crosswind requires wing down and opposite rudder which increases drag. On takeoff you need to estimate the aileron correction for the crosswind and in a strong or gusty crosswind you may want to delay your liftoff to ensure you can keep flying and to prevent being blown off centerline, resulting in the tap dance towards the runway lights. That extends your ground roll. How much? Increase your lift off speed and use the three quarters by one half guideline.

I always say helicopters are more sophisticated than airplanes. In the helicopter, you pull up on the collective and if you reach the top and the machine isn't flying, you lower the collective and kick someone or something out. In an airplane, you go as fast as you can towards those trees at the end of the runway and hope that the machine will fly before you get there. Use this tool. It has a better success rate than hope. Now I have to find another question for my interviews.

Where are you based?

by Rick Braunig

Manager of Aviation Safety & Enforcement

MnDOT Office of Aeronautics

few years back the FAA started a new program to track where aircraft are based. The FAA made a significant investment to gather this information. The FAA now has a database of based aircraft for all airports eligible for federal funds except those with commercial service. It is detailed enough to pick out when the same

aircraft is listed as located at two different airports. Occasionally, we will see a snowbird aircraft listed as based at an airport in Minnesota and another airport in Florida. The based aircraft program is found at a website creatively named: basedaircraft.com. Airport managers need a password to access and update the information which they can get at that same website.

When an airport lists an aircraft as based at their airport, they list the N-number, the aircraft type/make/model and the owner's information. The FAA provides a report by airport that shows this information on the left side of the report and corresponding FAA information for each N-number shows up on the right side. There is a lot we can learn from looking at this report. Occasionally a Cessna 172 in the airport information will show up as a Boeing 747 in the FAA data. I assume this is because a '5' and an 'S' look similar as do a '1' and an 'I'. It is also possible that the number entered in by the airport manager does not exist in the FAA database. Knowing that N-numbers are always numbers and then letters can help an airport manager to catch some errors. There is also an easy look up site for aircraft information at: https://registry.faa. gov/aircraftinquiry/.

In looking at these reports it is not uncommon to see that the owner listed by the airport is different from the owner shown on the FAA registry. It used to be that once an aircraft was registered, that registration never had to be renewed. In 2010, the rules changed so that aircraft registration has to be renewed every three years. So, if you have an aircraft that was built in the 1980s and the registration wasn't updated at each sale, the re-registration paperwork was sent to the owner in the FAA database which could be three or four owners prior to you. We've been through more than one round of the three-year renewal cycle, so now I'm seeing a lot of aircraft where the FAA says the N-number was deregistered. The FAA says that in these cases where you don't have a valid registration number, that the aircraft is unairworthy. Remember that website for looking up N-numbers? If you haven't seen reregistration paperwork, I recommend looking up your N-number to see who the FAA has as the owner. The registration fee is only \$5 and keeping your registration current can prevent other events that are much more costly.

For airport managers, knowing who owns what aircraft and which hangar they are in can be a great time saver. Occasionally a pilot will forget to close a flight plan and the FAA starts looking for them. If they can't reach the pilot, the next call is to the airport where they were headed. About half of all the flights made by your tenants are to your airport, so there is a good chance they are calling you. Knowing which hangar to look in allows you to figure out pretty quickly if the aircraft is at your airport. Of course, it does you no good to know the hangar if you can't get into it. Minnesota Statute 360.018 gives certain officials the right to examine buildings and other structures on an airport. We encourage airports to include a right of access to all buildings in their leases regardless of who owns the building. As part of the emergency action plan, airport managers should also do an inspection of hangars annually to ensure that they don't turn into fire hazards.

From the aircraft owner's view, having the airport manager understand your aircraft and your operations allows them to serve you better. If you have a regular flight that departs early mornings and there has been snow the night before, the airport manager could put your taxilane earlier on the plow list to allow you to keep your schedule. If the airport manager knows you, it is easier for them to tell if something is out of the ordinary. If someone else is accessing your hangar, if your hangar door is open when you are not around, if someone else is getting into your aircraft and if they see these things, they should have a good number to contact you.

There is one more reason why it is important for the airport manager to know about your aircraft and that is funding. The FAA provides non-primary entitlement dollars to airports that are eligible for federal funds, but do not have commercial service. This is normally \$150,000 a year that each airport can tap to pay for eligible projects. These funds are important to the health of the airport. The FAA will normally fund around 90% of eligible costs on projects like runway reconstruction or extensions. If the number of based aircraft falls below 10, the FAA has started taking away access to those dollars. So, help your airport manager to keep the based aircraft report up to date to help keep your home airport in good shape.

Minnesota Airport Directory in ForeFlight

by Jim McCanney Aviation Representative MnDOT Office of Aeronautics

'nDOT creates a "Minnesota Airport Directory and Travel Guide" every year. Our goal is to provide the public with some general aviation information and a guide to all the public airports and public seaplane bases

in Minnesota. We give some general airport information, a map of the airport layout with runway numbers, and length/ width. We also provide travel information, such as local attractions, lodging, restaurants, camping, and airport events. Until last year, we had only made this guide in print form. In recent years, the iPad has become a more affordable and essential tool in the cockpit. With that in mind, we set out to see how we could expand our guide to be more accessible

to a broader audience and take advantage of the technology available. That doesn't mean the print version is going away; this is just another option.

In 2018, ForeFlight developed "content packs" in Version 10.6 for all users. Content packs would allow the user to "Create and share custom bundles of maps, waypoints, procedures, and documents that enhance your planning with ForeFlight." So far, ForeFlight has seen the use of content packs by flight schools, charter, and pipeline flyers.

I talked to ForeFlight about the concept of content packs and what the idea was behind them. They developed content packs to "give users control over the type of critical information they need to see in ForeFlight for things like wildfire fighting, backcountry flying, custom procedures and charts, custom PDFs, flight training, sightseeing tours, and more." They'd like to see more state and local agencies use these features.

Our content pack began with Rylan Juran, our planning director, seeing the possibilities when he heard about ForeFlight's new 10.6 feature. In previous years, the directory was mostly seen by people in Minnesota. Our goal was to take what we already developed (the book) and put it in ForeFlight to reach a broader audience and make it more accessible. He took the first step and separated the airport directory into individual PDFs for the content pack. I ultimately took it over and started experimenting with different pieces of the text and implementation into ForeFlight mobile. We edited the PDFs to make every phone number, email address, and website a hyperlink. If you needed to call someone or email an airport manager, you wouldn't have to copy and paste; you could one-click in the app, and it would open your mail or phone app.

To download our content pack, go to https://www.dot.state.mn.us/aero/airportdirectory/ on your iPad preferably, and open the content pack (into ForeFlight) from the website. You can also email it to yourself and open "in ForeFlight." ForeFlight has a pretty good description of how to import the files if you get stuck, and we reference that on our site. To use

the content pack, you can click on an airport in the map tab or click on the airport tab and search for an airport. Once in the airport tab, scroll down to the "Procedures" section, and you should see a tab for "MN Airport Directory."

We are releasing a new content pack this spring for Seaplane Pilots. We have taken the public seaplane bases in Minnesota and added water contour lines to show water depth. Some lakes will also show the longest stretch of waterway to give pilots a landing zone reference. This pack is slightly different than the current one. It will be georeferenced. As you move the map around, zoom in and out, the lines will adjust and stay to the specified lakes. This pack will act as a layer that you can enable or disable as you want it. We are excited about this release. I haven't seen anything like this for seaplane pilots before. We will also be updating our current Airport Directory content pack with the updated data we collected over the last year.

In the future, we hope to have a quicker update process. We'd love to update the information (content pack) faster. We are also working on a system to get comments, recommendations, and errors that pilots are finding while using the app. We would love to get feedback as far as restaurants closing, or places that aren't yet in the directory. One of our restrictions with the paper travel guide is we can only fit as much information as the page allows. With the digital form, we could make the amount of data as big as the public would want. We could add new categories and sections we haven't used in the past. If someone opens a new business, we'd like to add that as soon as possible. If the public uses the tool a lot and gives good feedback, I think we'll have no problem updating this information monthly.

Next time you're thinking of flying to or through Minnesota, and you're a ForeFlight user, please download our content pack. Please email me with your thoughts and suggestions on how it could change to make flying better for the public. I hope you find it useful and it makes your travel experience in our state more enjoyable.

NOTAM TO MINNESOTA AIRPORT MANAGERS, PILOTS, & AVIATION BUSINESS OWNERS & OPERATORS

Minnesota Aviation Day At The Capitol 2020 DATE CHANGE TO: TUFFOR 12020 L 21st

Meet at Holman Taby & Figure William Airport Terminal - 644 Bayfield Street Breakfast with Legislators starting at 7:00 a.m. & ending at 9:30 a.m.

Contact Tim Cossalter to register or for more information: timcossalter@outlook.com or call 651-269-1221

Fond Farewell

From Kathy Vesely Assistant Director, MnDOT Aeronautics

n the year 2000, already 22 years into my MnDOT career, LI applied for a transfer to the Airport Development Section (ADS) of the Aeronautics Office.

I thought I might have "fun at work" in an office where my job and hobby would match; my husband Mikey and I were already flying a 1968 Cessna

Cardinal "for fun". At the time, I imagined I'd stay long

enough to qualify for the state's early retirement formula and then head out. With my new job, I actually got PAID to fly in airplanes and visit airports! How COOL was that?

You might remember that 2000 was the first





focused on the immediate project at hand, rather than the long range. By 2001 all of "my" airports had a 5 to 7-year CIP which qualified them for a full entitlement of \$150,000. FAA grant workload skyrocketed. Later, as Planning Director, it became obvious that 5 to 7 years of project planning was still not enough. As work on the 2012 State Aviation System Plan (SASP) went on, our team thoughtfully delivered an easy to read, informative plan. However big gaps still existed in project lists for the system 10 to 20 years out. As a result, we were unable to inform the Minnesota Legislature and the U.S. Congress of the true monetary cost estimate of the future needs for the system.

Since Cassandra Isackson became Aeronautics Director, and selected me as Assistant Director, we've been able to

> create changes. After inviting ourselves to a "Needs Meeting" hosted at each airport in the state, a 20-year statewide CIP developed, illustrating the cash demand for airport projects. With the return of \$15 million, borrowed by the general fund in



year the U.S. Congress rolled out General Aviation (GA) Entitlement. That meant more of Minnesota's airports could get an FAA grant every year – like 97 of them, almost all of which had never had a federal grant before. We

(Aeronautics ADS) decided to roll out a GA Entitlement training program and hold regional classes around the state. I also made it a point to meet one to one with each airport in my region - I'd attend an airport commission meeting or get together with the airport manager to develop a proposed Capital Improvement Plan (CIP) for consideration by the city's elected officials. I would also use the opportunity to ask about the community's hopes and dreams for the airport (it usually only took one question to start a good conversation). In this way I would learn about the longer term needs for the airport and we could begin to plan for them. My job got to be "personal" and I was privileged to meet some of the heroes our Minnesota airports are named after.

Part of the GA Entitlement training focused on building a realistic qualifying CIP. In the early 2000s CIPs were only

earlier deficit years, we were able to add a 5% State share to FAA grant projects, increase participation rates for state-only airports so they had percentages similar to FAA supported projects,



recalculate the Maintenance & Operation (M&O) grant program infrastructure and add dollars to the M&O base, and successfully request two increases to the base for the State Airports Fund (SAF) budget at the Minnesota Legislature. These are things a strong team can accomplish only when all are working together - airports, consultants, federal, state, and local governments, and you!

All of the work in my past has been challenging; therefore, interesting and fun. Now, here I am in the year 2020, and although I am STILL having fun at work, it's time to retire so Mikey and I can fly more often. I will truly miss all the folks I've worked with at airports across the state and am incredibly grateful for everything I've learned from you! Hopefully we'll see each other again soon, when Mikey and I land at your airport.



NORTHLAND

northlandcollege.edu/aerospace

First-Ever Robotics Aerial Drone Competition For Middle & High School Students



An all-girls team, "Win-E-Mac," won the Racing Champion title.

by Chelsea J. Bladow

here's a new buzz growing around the state of Minnesota and the nation. The buzz in this case is not the sound coming from the small drones being used, but it does involve using them. The first-ever Robotics Aerial Drone (RAD) competition recently took place in St. Cloud, Minnesota on January 31, 2020. The top two teams were invited to compete in the first-ever World Championships scheduled for April 26-28, 2020 in Louisville, Kentucky.

For those familiar with VEX Robotics, RAD is a newly-formed drone model ran by the Robotics Education & Competition (REC) Committee, the same organization as VEX. REC is a non-profit educational organization that operates and supports competitions and is primarily responsible for establishing game rules and assisting schools or clubs to get involved and find funding resources to start clubs.

This past summer, the REC Committee took it upon itself to form a national model for a drone competition. Many localized drone competitions exist in different parts of the country, but RAD focuses to standardize the drone competition model and skills required across the board to feed a national level competition. RAD partnered with For The Win (FTW) Robotics, using the Parrot Mambo indoor drone as the baseline competition model. FTW also developed a competition field with set game pieces and events that every drone team must compete in.



Students from Lincoln High School in Thief River Falls, Minnesota, won the Package Delivery skills event.

The competition this year was based on two events – a visual line-of-sight race consisting of three laps around a set field with six arches and four hoops. This head-to-head race consisted of two teams starting half a lap apart.

The first team to complete three laps and land back on their launch pad won and advanced to the next round. Teams competed until only two teams remained and then went headto-head for the title of Racing Champion!

The second event was a Package Delivery Competition. Each team was given two attempts to navigate through one-half of the race course and drop their package on the target on the opposite side, then return their drone back to the starting point. The team with the lowest time won! These two events combined determined the overall ACE award winner for the competition.

This year, 13 teams competed for the Minnesota State Championship, which was amazing considering teams had less than 30 days to practice for the tournament. Newfolden High School won the ACE award for "Best Overall Performance," while an all-girls team, Win-E-Mac, won the Racing Champion title. Lincoln High School in Thief River Falls, Minnesota, won the Package Delivery skills event. Both Newfolden and Win-E-Mac received invites to the World Championships in April and will represent the state of Minnesota.

Since this was the first year of the RAD competition, states were rushed to get a tournament put together. Currently,

14 states have held similar state tournaments to qualify for the World Championships. It is expected that this event will grow massively as schools and students learn and see what it's all about. Like VEX, the games will change every year based on REC rules.

The Parrot Mambo drone is programmable, meaning it can be coded for autonomous flight, so we fully expect to see that integrated into competitions in the future. In addition, there is a first-person view (FPV) camera attachment which allows the drone to be raced with virtual reality goggles from the drone point of view. A business pitch will be implemented into the competition next year requiring teams to build a short presentation on how they believe drones impact careers, such as law enforcement and agriculture.

The sky is the limit as the game evolves to include much larger outdoor drones where perhaps thermal imaging and mapping events may be introduced.

RAD is currently limited to middle and high school students, but there are plans to expand to include elementary school students, as well as college divisions. Any teacher or student interested in competing in future RAD tournaments can visit the REC website at https://www.roboticseducation.org/ rad/ for more information and to see the current game manual. The 2020-2021 game manual will be released in late summer 2020, which will allow teams ample time to practice for fall competitions with the state tournament being in January/February 2021.

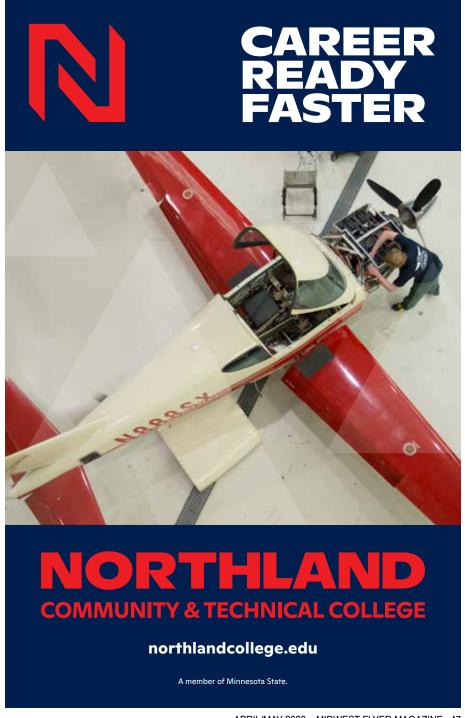
The National Center for Autonomous Technologies (NCAT) will continue to sponsor the Minnesota State RAD Competition in 2021. As the current event partner for Minnesota RAD, NCAT will train all coaches and teams that are interested in joining.

There will be a three-day Educator Workshop at the Aerospace Campus in Thief River Falls, Minnesota, August 3-5, where educators/coaches will learn the ins-and-outs of starting a drone program at their school, as well as how to get involved with RAD. Registration and details about the workshop can be

found at https://www.ncatech.org/takingyourdronetoschool. NCAT can also do on-site regional workshops at schools for interested event partners or coaches for RAD. So, if anyone is looking to get RADical this year, drop us a line at ncat@northlandcollege.edu or call (218) 683-8801 and we will help get you started!

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Midwest Seaplane Pilot

Training I Hope I Never Need To Use But Glad I Experienced

by Yasmina Soria Platt

recently participated in Survival Systems USA's Aviation Survival and Egress Training (ASET) 3 course in Groton, Connecticut, where we learned how to survive an unsuccessful water landing. In their words, the "accelerated program addressed the risks associated with frequent travel over or near water



Yasmina Soria Platt

by providing pilots, aircrew, and passengers with preflight, inflight, and post aircraft ditching knowledge and survival skills, including use of Emergency Breathing Devices (EBDs)."

"Ditching, ditching, ditching..." is what I heard all night for a few nights after the class, as I was dreaming about all the scenarios and procedures we had performed.

It was nothing like watching Bear Grylls while sitting on a couch in the comfort of my own home... It was one of those "once in a lifetime" experiences (best with some recurrent training to keep the skills fresh though) you hope you never

Minnesota Seaplane Pilots Association Spring Safety Seminar May 15-17, 2020

Madden's on Gull Lake - Brainerd, Minnesota

This year featuring keynote speaker and fellow seaplane pilot, Doug Rozendaal of Mason City, Iowa, who will share his experience flying the Commemorative Air Force C-47 "That's All Brother" from the United States across the Atlantic to Normandy, France to reenact that aircraft's involvement in leading the D-Day Invasion 75 years ago!

Seminar topics will interest both seaplane pilots and pilots who fly with wheels. To register and for hotel reservations, contact Madden's: 800-642-5363.

Minnesota Seaplane Pilots Association Annual Pig Roast August 9, 2020 Surfside Seaplane Base Lino Lakes, Minnesota



Brad Thornberg Photo

The purpose of the Minnesota Seaplane Pilots Association is to promote seaplane flying and safety programs pertaining to seaplane operations throughout the state of Minnesota... to promote a forum for the purpose of approaching governmental agencies and to educate said agencies, the legislature and the pubic in understanding seaplane operations... and to create safe and compatible seaplane base facilities in Minnesota.

For additional information, contact
Steve Guetter, President @ 952-484-9457 - or - email steve@penguinflight.net
www.mnseaplanes.com/contact.php



Different types of aircraft door inserts.





Aircraft dunking module and structure.

actually need to use. But one is better off with the training than without it!

We had roughly four hours of ground and four hours of pool practice. During ground, the instructor taught us some physiology concepts and we discussed everything we were going to do in the pool, learned best techniques for bracing, went through procedures and tips for exiting the aircraft, heard about lessons learned from their ongoing research and development (such as breathing techniques, clearing techniques, and disorientation), talked about survival equipment, etc.

During the second portion, after passing a written exam, we did a number of "dunking" runs with different:

- Aircraft types (airplane vs helicopter).
- Seats (different seat types, left vs right, pilot vs passenger).
- Seat belt types (four and five-point harnesses).
- Door/window types (different handles, different shapes, etc.).
- Locations within the aircraft (which had different layouts, obstacles, number of seats, etc.).
- Environmental conditions (day time vs nighttime, and good weather vs bad weather).
- Position angles (up to a full upside-down position).

We did them in the training chair (Shallow Water Egress Trainer or SWET, as they call it) first, and then moved to the Modular Egress Training Simulator (METS). We did them exiting through our closest exit first and then simulating if our closest exit was not available (locked, jammed, etc.) and had to go across the aircraft to another exit. We did them holding our breath first, and then did the more difficult ones with compressed air.

Additionally, they showed us what a life raft usually comes with, how to open it, how to get in and out of it based on the number of people available, etc., and how to get hoisted out of a helicopter using a basket and a winch with a harness.



Success! Feeling better "after" than "before" training.

The excitement never stopped. You can read more about what I learned in the training in a blog I have written. Visit www.airtrails.weebly.com and click on "Other." More specifically, I list the procedures we followed during every submersion, highlight the most important things I learned, and describe some of the preconceptions I had going into the training and what I actually found.

The training was honestly invaluable. I highly recommend that everyone (especially seaplane pilots and those flying over open/large bodies of water) take it.

In addition to learning the material and practicing real-world survival scenarios, I also learned about myself and overcame some fears. I am confident that I am now more likely to survive an otherwise unlikely and very unfortunate accident.

For additional information contact Survival Systems USA, Inc., 144 Tower Avenue, Groton CT 06340: 860-405-0002, 888-386-5371 or sales@survivalsystemsinc.com.

Before I close, I want to give BIG props to the Whirly-Girls and Survival Systems for giving me the opportunity to take this training and for just simply being amazing!

You know the phrase... "a pilot is always learning" and, as my dad would say, knowledge doesn't occupy space; it's the best investment one can make.

What's your next training going to be? Survival? Flight review? High-altitude chamber? Another rating (an instrument rating is especially good!)? A higher certificate?

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





Airplane campers at the Isle, Minnesota airport.



The grass airstrip in Isle, Minnesota, provides access to this small northern Minnesota community.

Northern Minnesota Airport Faces Possible Closure, Seeks Support From Midwest Aviation Community

ISLE, MINN. – Membership in the Isle Airport Association has increased to 140 members, the organization had an extremely successful fly-in breakfast this past year, a survey was completed recently that proved positive economic benefit to the Isle area, and the association maintains the airport, so there is little or no expense to the City of Isle. Still, there are those on the city council who want to close the airport.

At a recent meeting between the city, Minnesota DOT Office of Aeronautics, and the airport association, the issue of tall trees on private property to the south was discussed. An air-easement exists giving the city authority to clear these tall trees, and the State of Minnesota has offered to pay 80 to 90 percent of the cost, with the airport association willing to pay the remainder of the cost.

These trees are the last remaining obstacle for the Isle airport to once again become a "public-use" airport and the State's offer is dependent on the airport becoming public. The city was also informed of the state funds available for maintaining the airport once public status is granted.

So, this sounds like a no-brainer, right? Wrong! Some city officials are not in favor of the airport. At the conclusion of the meeting, the MnDOT Office of Aeronautics told the city that it must vote to enforce the air-easement and clear the



The annual fly-in attracts local interest.

hazardous trees or the State would revoke the airport's current private airport license and close it.

The city's opposition to the airport boils down to economics – the city council does not see an economic value to the airport or perhaps elected officials see a more profitable use for the airport land.

As a pilot, whether you currently use the airport or not, are urged to write a letter to the City of Isle expressing your support of the airport for "economic reasons." The airport is used by local residents and tourists who fly and spend money with local businesses. With a decline in tourism and businesses in the area, due to fishing restrictions on nearby Mille Lacs, the airport does and can play a major role in generating economic development in the area. If the tall trees on the end of the runway is a concern, state that as well in your letter.

Mail your letter to:

City of Isle P.O. Box 427 Isle MN 56342

The city council will vote whether to keep the airport or close it at its April 14th meeting. Dave Retka of the Isle Airport Association is leading the save the airport campaign.



608-604-6515 eleineweber@goldenageaeroworks.com www.goldenageaeroworks.com



Piper M600

Piper Aircraft Increases Deliveries Worldwide!

VERO BEACH, FLA. - Piper Aircraft, Inc. has announced a 27% increase in aircraft deliveries for 2019. The continued growth was driven by a 70% YOY increase of Piper Archer single-engine, primary trainer aircraft, and an 8% increase of multi-engine Seminole trainers. The production of Piper's flagship M600, shifted to the new M600 SLS, provisioned with the HALO(TM) Safety System, and Garmin Autoland in the second half of the year. This planned change resulted in a slight decline in delivery numbers as the company continues with final certification for the HALO system. Both the SETP M500 and pressurized M350 also saw positive volume growth in 2019. International deliveries of Piper products showed continued growth of 5% over 2018 with 29% of Piper products being shipped to countries outside of North America.

In addition to Piper's sales success, the company continued to invest in its production capabilities with the expansion of its additive manufacturing program, which includes the 3-D printing of nearly 400 parts. The company continued with capital investments in new equipment and facilities totaling more than \$10 million during 2019. The continued rise in demand for Piper products has resulted in order backlog orders touching 2027. The increased volumes also bodes well for the Vero Beach, Fla. community with a 10% increase in the local workforce.

"We continue to focus on product development and production efficiencies which help position Piper Aircraft to continue a stable and sustainable financial growth trend," said Piper President and CEO Simon Caldecott. "As we look toward 2020, we are excited about the upcoming certification of the new, valued-priced Pilot 100 which offers optimal economics for all operators, as well as the continued demand from both existing and new customers for the Archer TX and the Seminole."

For additional information about Piper Aircraft sales and service, contact Des Moines Flying Service at 515-256-5300 (www.DMFS.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.

MATA - The Choice & Voice of Aviation Businesses Since 1945

Illinois To Update Its Aviation Systems Plan & Economic Impact Report

by Clayton Stambaugh, James Bildilli & Zach DeVeau

fter nearly 25 years, the Illinois Department of
Transportation (IDOT) has embarked on a project
to analyze the current Illinois Aviation System Plan

(IASP) to determine where changes need to be made to

remain competitive with today's aviation environment. As we all try to keep abreast of the numerous changes to flying by attending recurrent training sessions, the aviation system itself needs to be periodically assessed to ensure that it truly reflects changes that have occurred. Since its last publication, there have been many: the adoption of GPS for navigation, the introduction of Light Sport Aircraft, electrically-powered flight and a myriad of technological changes to aircraft, airports and how those systems are utilized. In short, today's aviation environment is no longer your "father's" system.

Hand-in-hand with the updating of the "concrete and steel" aspects we all see, is the analyzing of the economic impact of that system and its users on the Illinois economy. It has been the goal of IDOT to provide innovative, sustainable and multimodal transportation solutions that support local goals and to grow the economy. By studying the needs

and economic impacts together, it will provide a future vision for airport development across the state and provide essential data for program delivery, asset management and the overall impact that aviation has on Illinois communities.

As stakeholders in the aviation community, you may be wondering how these studies will affect you or how you use airports across the state. Starting in the late 1940s with the FAA's Federal Aid to Airport Program (FAAP) and continuing today with the Airport Improvement Program (AIP), Illinois has been responsible for administering not only federal, but also state airport development funds. This is carried out through state legislative authority that gives IDOT discretion in planning, programming, and oversight for funding. As such, unlike many other states, Illinois serves as an industry partner to ensure that project selection and delivery is done in the safest, most effective, efficient, and accountable way possible.

Recently, the Illinois legislature approved Governor J.B. Pritzker's "Rebuild Illinois," which increases capital funding for eligible system airports, an additional \$144

million. Coupled with the ongoing support of the federal funds available through AIP, Illinois has the ability to make increased investments in aviation facilities throughout the state – providing aviators and stakeholders around the country with safe and improved airport facilities.

As you may surmise, the updating of the system and



economic analysis is a complex project. As such, IDOT has selected the firm of Kimley-Horn to lead the project. As part of the effort, the project team will be conducting statewide data collection, including in-person site visits at every publicly-owned, public-use airport in Illinois. These data will be used to provide insight into the system's strength and how airports might be further developed to satisfy the demands of safety, compliance, standardization, and alignment within the overarching strategic goals of the department. This includes identifying facility needs and how they might be supported through applicable programs. Overall, this project will guide planning and implementation decisions, evaluate and recommend policy changes, support investment platforms, and educate those who oversee the system – including local, state, and federal policy-makers.

To ensure that the study effort results are consistent with the goals, the studies require a substantial amount of input from Illinois aviation stakeholders, and not just airport managers/owners and department staffers. Understanding

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your issues and needs is critically important in developing a holistic and comprehensive plan for the Illinois Aviation System. To assist IDOT in this effort, we ask that you please visit www.ILaviation.com to read about the project, review current (and all future) developed task white papers, and most importantly, provide input to the project team. Some of the issues for which we are soliciting your input include:

- Issues currently affecting airports in Illinois (and the Midwest).
- Recommended system enhancements.
- Unique businesses or services located/provided at airports in Illinois.
- Suggestions for feature airport case studies.
- Or, any other input believed to be helpful to the project or system.

Sample outcomes from system plans developed for other states include items such as funding for terminal development, construction or installation of key safety projects like clearing obstructions, changes in airfield geometry, construction of fuel facilities or something as simple as security lighting.

IDOT is excited to have the opportunity to complete this project on behalf of Illinois aviation system users and invites input from all stakeholders to ensure that the IASP is developed to meet or exceed its goals. Please be engaged and provide your frontline input through the project website or by talking with your local airport management or policymakers. As the project proceeds, we will keep you informed through future articles.

EDITOR'S NOTE: Zach DeVeau, ACIP, is an aviation planner with Kimley-Horn and has experience in airport and aviation systems planning projects. DeVeau possesses advanced degrees in Economics and Urban and Regional Planning from Florida State University. Clayton Stambaugh is a facilities specialist and program manager with the Illinois Department of Transportation and is experienced in airport management. Stambaugh possesses advanced degrees in Aviation, a Master's Degree in Public Administration, and holds a Commercial Pilot Certificate and Instrument and Multiengine Ratings. Jim Bildilli is a former official with the Illinois Division of Aeronautics, an airport consultant and inspector, a leader in the Boy Scouts of America Aviation Explorer Program, and a contributing editor to Midwest Flyer Magazine.

New Director At MidAmerica St. Louis Airport

MASCOUTAH, ILL. - The St. Clair County Public Building Commission (PBC), which oversees the operations at MidAmerica St. Louis Airport (KBLV) in Mascoutah, Ill., has announced that Bryan Johnson has been selected to serve as the airport's new director, effective April 3. Johnson is assuming the leadership position of Tim Cantwell, who is retiring after 17 years of service. Cantwell led the charge to grow the airport's passenger and cargo operations, while also attracting new tenants and continuing to operate the airport as a joint-use facility, partnering with Scott Air Force Base.

Johnson most recently served as a senior consultant for Aviation Management Consulting Group (AMCG) in Centennial, Colo., and has more than 25 years of aviation and transportation experience. Immediately prior to joining AMCG, he served as airport director at Rocky Mountain Metropolitan Airport (KBJC) in Broomfield, Colo., and prior to that he was the assistant director of aviation at Quad City International Airport (KMLI) in Moline, Ill.



Bryan Johnson





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For Membership Application Call 920-303-0709 wataonline.org

A Flight To End Polio

Photos republished with permission © 2020, The Gazette, Cedar Rapids, Iowa

If you ask Peter Teahen of Cedar Rapids, Iowa, why he is flying a single-engine airplane around the world, he will smile and softly say, "I was inspired as a young pilot."

Teahen recalled once hearing a fellow pilot and his son at a local flying club describe their adventure flying their Cessna 172 from Iowa to Alaska. It was then that Teahen first got inspired to likewise fly on a lifetime adventure to Alaska. More recently, Teahen recalled reading the stories of pilots who had flown around the world.

"I read that only 700 pilots in history had circumnavigated the globe in a single-engine aircraft, and that fewer than 300 of those pilots are still living."

As a funeral director, Teahen witnessed way too many people who never fulfilled their lifelong dreams. As he read



Peter Teahen taxiing his 1978 Piper Lance.

Teahen laughs as he recalls telling his wife that he was going to fly their Piper Lance solo around the world. She smiled, saying it was a wonderful idea and that she couldn't wait to hear about how the plans develop. Teahen didn't sense

the proverbial pat on the head until about 3 months later. After sharing his vision of the flight with his wife, she realized her husband was serious and said something to the effect of, "No, you are not flying 20,000 miles and visiting 17 countries in a single-engine airplane by yourself. That's crazy!" That got Teahen thinking of who else might make the trip with him. He thought of pilots he has known over the years, and casually mentioned the flight to a few. Everyone found the idea interesting, but took a pass, except for John Ockenfels, a retired business executive from Iowa City, Iowa. Over the years, Teahen and Ockenfels who were cousins through marriage, would often share stories about flying. Ockenfels is a veteran aviator with

nearly 4000 hours of flight time. He holds a commercial pilot certificate and an instrument rating.

The one strong commonality between Teahen and Ockenfels is their personal belief in humanitarian volunteer service to others. Teahen has been a volunteer disaster



Peter Teahen at the controls of his 1978 Piper Lance.

about those 700 pilots, he realized that after 48 years of flying, it was time to make his dream of adventure come true. But simply flying from Iowa to Alaska would not be enough. Teahen started making plans to fly to Alaska, but in a roundabout way – around the world!



responder for more than 30 years, and Ockenfels has been extensively involved in supporting and meeting the needs of charitable organizations within his community.

As members of the International Fellowship of Flying Rotarians, Teahen and Ockenfels knew immediately that they would use the global flight as a fundraiser for Rotary International's three-decade quest to finally eradicate polio. The two pilots set a goal to raise \$1 million with 100% of the proceeds going directly to Rotary International's "Polio Plus" program. All flight expenses will be paid by Teahen and Ockenfels.

At press time, the planned departure date from Eastern Iowa Airport in Cedar Rapids, Iowa, was March 24, 2020, but all was dependent on the spread of the Coronavirus. The virus threatened their access to some countries and the number of countries affected might have easily increased by then.

"We have been talking with U.S. health officials and our contacts overseas, who are suggesting warmer weather could diminish the threat enough not to impact our departure," said Teahen. "We anticipate that the worse-case scenario would mean a delay of no more than 30 days."

Teahen stated that the dates may also change due to other issues along their route which are out of their control.

"The 20,000-mile eastbound route has us facing one of our biggest challenges almost immediately, as we fly nearly 10 hours across the North Atlantic between St. John's Newfoundland to the Azores," said Teahen.

On their flights over hazardous water, Teahen and Ockenfels will be wearing immersion suits, and packing a five-man raft with emergency supplies, satellite phones and personal tracking devices. "Once the flight is underway, everyone will be able to visit our website at www.

flighttoendpolio.com, and with only a 5-minute delay, see exactly where we are," said Teahen. For this tracking, the pilots will be using services from FlightAware,

CONTINUED ON PAGE 62



Calendar

Include the DATE, TIMES, LOCATION (CITY, STATE & AIRPORT NAME & I.D.), and CONTACT PERSON'S TELEPHONE NUMBER, as well as that person's address & email address for reference. First 15 words FREE. \$.75 for each additional word.

Go to "Calendar" at www.MidwestFlyer.com and post your aviation event.

You can also email: info@midwestflyer.com – Or – Mail To: Midwest Flyer Magazine, 6031 Lawry Court, Oregon, WI 53575 NOTAM: Pilots, be sure to call events in advance to confirm dates and for traffic advisories and NOTAMs.

Also, use only current aeronautical charts, etc., for navigation and not calendar listing information.

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* INDICATES ANY NEW OR UPDATED CALENDAR LISTINGS SINCE THE PREVIOUS ISSUE.

PLEASE CHECK IF THE EVENT IS STILL HAPPENING BECAUSE OF THE CORONAVIRUS.

APRIL 2020

- 1-5 LAKELAND, FLA. CHANGED DATE May 5-10 Sun 'n Fun Aerospace Expo. www.flysnf.org/sun-n-fun-intl-fly-expo/
- 8* St. Paul MINN. Minnesota Aviation Day At The Capitol 2020. DATE CANCELED.
- MINNEAPOLIS, MINN. Minnesota Aviation Hall of Fame Inductee Banquet will be held at InterContinental Hotel, 5005 Glumack Drive, Minneapolis, Minnesota 4:45 pm Social Hour & Silent Auction. 6pm Dinner with award program following. Purchase tickets online www.eventbrite.com by April 11th.
- 18* Oshkosh (KOSH), Wis. S.J. Wittman Birthday Fly-in Pancake Breakfast at the Wittman Airport Terminal 7:30-11am. 920-810-1046.
- 21* ST. PAUL MINN. CANCELED Minnesota Aviation Day At The Capitol 2020. Contact Tim Cossalter to register - timcossalter@ outlook.com or call 651-269-1221.
- 21-23 WATERLOO, IOWA IPAA (Iowa Public Airports Association) Airports Conference. www.iowaairports.org/
- 22* MADISON (KMSN), Wis. AOPA Safety Seminar, "More Difficult Decisions: Choices and Consequences" at Wisconsin Aviation -Dane County Regional Airport. 800-594-5359 / 608-268-5000.
- 25* CHICAGO (KMTO), ILL. Comanche Fly-In Safety Seminar and Lunch. Plan to arrive by 11:00am to meet with your fellow Comanche pilots. Presentation from 12:00 to 2:00pm. 312-357-9400 sspector@spectorllc.com
- **29-5/1** ROCHESTER, (KRST) MINN. CANCELED 2020 Minnesota Airports Conference at the Mayo Center.
- **30-5/3** Branson Mo. United States Pilots Association (USPA) Spring FlyOut. 417-338-2225 www.USPilots.org

MAY 2020

- 1-3 Branson Mo. United States Pilots Association (USPA) Spring FlyOut. 417-338-2225 www.USPilots.org
- 2* BREEZY POINT, (8MN3) MINN. Aviation Days 10am-2pm. Pig Roast at Commander Bar Lot at Noon. Static Display, Classic Car Show. Breezy Point is a private airport. Pilots MUST call for permission and visit our website for a pilot briefing BEFORE landing. Contact Cliff 218-838-3434, 122.9 www.breezypointairport.com.
- 3-5 ELKHART LAKE, Wis. CANCELED 65th Annual Wisconsin Aviation Conference sponsor by the Sheboygan County Memorial Airport (KSBM) will be held at The Osthoff Resort. (https://wiama.org).
- **5-10*** Lakeland, Fla. Sun 'n Fun Aerospace Expo. www.flysnf.org/sun-n-fun-intl-fly-expo/
- 15-17 Brainerd, Minn. MN Seaplane Spring Safety Seminar at Madden's. For additional information 952-484-9457 or email steve@penguinflight.net. www.mnseaplanes.com/contact/php
- 20-21 St. Charles, Ill. 2020 Illinois Aviation Conference at the Hilton Garden Inn. www.illinoisaviation.org
- 21* WATERTOWN (KRYN), Wis. Flying Hamburger Social 5-7pm at Wisconsin Aviation, Watertown Municipal Airport. 920-261-4567.
- MADISON (KMSN), Wis. Commercial Drone Ground School 8am-4pm at Wisconsin Aviation - Dane County Regional Airport. 800-594-5359 / 608-268-5000. To register/prepay: WisconsinAviation.

- com/drones-training-certification.
- 29-30 SAN MARCOS (KHYI), TEXAS 2020 AOPA Fly-In. Friday night Flightline Cookout, short takeoff and landing (STOL) invitational, drone show, seminars, exhibits, and more! www.aopa.org JUNE 2020
- 6* MILWAUKEE (KMWC), Wis. 4th Annual Flour Drop Contest at Timmerman Airport, Spring City Aviation, starting at 10am. 414-461-3222, TimmermanAirport.com
- **S**TEVENS POINT, **W**Is. Stevens Point Bi-Annual Air Show. The event will include breakfast (starts at 7am) & lunch with airshow beginning at 1pm. 715-345-8989.
- 9* JUNEAU (UNU), Wis. Flying Social Taco Tuesday 5-7pm at Wisconsin Aviation, Dodge County Airport. 920-386-2402 / 800-319-0907.
- 11* Superior (KSUW), Wis. Fall Pancake Breakfast & Young Eagles Rides 7:30am-Noon, 320-250-2163.
- Oмана (KMLE), Nевнаяка Aviation STEM Day. Career Opportunities In Aviation from Cockpit to Ground Support, Regulators to Air Traffic Management. www.AviationSTEMDay. org. Pancake Breakfast 7-11am CDT. General Public 8am-3pm for exhibits and many activities. 402-510-3528. Hague.Howey@AviationSTEMDAY.org
- 14* Rush City (KROS), MINN. Rush City Lion's Pancake Breakfast 8:00 am- Noon. 8:00 am-2:00 pm (estimated) Warbirds, Vendors, Plane rides, Helicopter Rides, Classic Cars, Antique Tractors, Afternoon Food. 320-358-4743.
- 14* JUNEAU (UNU), Wis. Pancake Breakfast & Open House 8am-Noon at Wisconsin Aviation, Dodge County Airport. 920-386-2402 / 800-319-0907.
- 14* Montevideo (KMVE), Minn. EAA Chapter 688 Fly-In Breakfast served 8am-1pm, free breakfast for PICs. Free Young Eagles rides for ages 8-17. Ping pong ball drop for ages 0-10. 612-751-4360.
- 14* WILD Rose (W23), Wis. Wild Rose Annual Spring Fly-In/Drive-In at The Idlewild Airport 7:30am-1:30pm. Breakfast 7:30-11:00am hot pancakes, sausages, scrambled eggs and apple sauce, plus a variety of homemade treats. Lunch 11:30am-1pm hot pulled pork and beef sandwiches, various side dishes.
- 18* WATERTOWN (KRYN), Wis. Flying Hamburger Social 5-7pm at Wisconsin Aviation, Watertown Municipal Airport. 920-261-4567.
- 19-20 Casper (KCPR), Wyo. 2020 AOPA Fly-In. Friday night Flightline Cookout, short takeoff and landing (STOL) invitational, drone show, seminars, exhibits, and more! www.aopa.org
- 21* WAUPACA (KPCZ)), Wis. Pancakes, eggs, sausages, potatoes & beverage breakfast 7am-Noon.
- **28** Pender (**0C4**), Nebraska Breakfast 8am-Noon. 816-210-2081.
- 28* Redwood Falls, (KRWF) Minn. Rotary Club 42nd Annual Breakfast 8am-Noon. 507-430-8872.

JULY 2020

3-5* RED WING (KRGK), MINN. - EAA B-17 Tour over the Mississippi River to honor our veterans over the July 4th weekend, come tour and fly in EAA's B-17 "Aluminum Overcast" over the Mississippi

- River out of the Red Wing Airport. For more information: https://www.eaa.org/shop/Flights/B17.aspx Hosted by EAA Chapter 1518
- 15-18 Wausau (KAUW), Wis. National Ercoupe Convention. Syd Cohen 715-842-7814 Cell: 715-573-7063 sydlois@charter.net or Arden Krueger 715-842-9055 Cell: 715-574-0319 abk@fabco.com
- 17-19* JANESVILLE (KJVL), Wis. Janesville Warbird Weekend at Southern Wisconsin Regional Airport 9am-5pm. 913-850-1522 avitengineer@vahoo.com www.JVL20.splashthat.com
- 20-26 Oshkosh, Wis. EAA AirVenture Oshkosh 2020. www.eaa.org / airventure
- **22-24 CLINTON, Iowa -** 20th Annual Cessna 150-152 Fly-In. cessna150152flyin.org
- 25-26 MILWAUKEE, Wis. Milwaukee Air and Water Show. mkeairwatershow.com

AUGUST 2020

- Longville (KXVG), Minn. Pancake Breakfast 8am-Noon. 218-821-0779.
- 2* AITKIN (KAIT), MINN. - Pancake Breakfast 8am-4pm coinciding with Aitkin Riverboat Days.
- AMES (KAMW), Iowa Youth STEM Aviation Rally (6th), Fly-In/ 6-8 Drive-In breakfast, pilot safety seminar, exhibits, displays and airshow (8th). Chuck 515-964-1398 chuckdsmcc@aol.com
- 8 AMES (KAMW), Iowa - Fly Iowa 2020. Youth STEM Aviation 515-292-9056 www.centraliowaair.com
- PAYNESVILLE (KPEX), MINN. Paynesville 2020 Airshow 10am to 3pm. Airshow at 1pm. Free lunch to pilots in command www.pexfriends.com for more info.
- MIMINISKA LODGE, ONTARIO, CANADA Canada Fishing Fly-Out -9-15 GROUP TRIPS ARE BOOKED. But for reservations for going on your own, contact Lynette Mish at Wilderness North toll free: 1-888-465-3474.
- JUNEAU (UNU), Wis. Flying Social Taco Tuesday 5-7pm at 11* Wisconsin Aviation, Dodge County Airport. 920-386-2402 / 800-319-0907.
- 15-16 CHICAGO, ILL. Chicago Air and Water Show. The show can be

- viewed along the lakefront from Fullerton to Oak Street, with North Avenue Beach as the focal point.
- 20* WATERTOWN (KRYN), Wis. - Flying Hamburger Social 5-7pm at Wisconsin Aviation Watertown Municipal Airport. 920-261-4567.
- 30* JUNEAU (UNU), Wis. - Lions Club Pancake Breakfast 8am-Noon at Wisconsin Aviation, Dodge County Airport.
- 30* Boscobel (KOVS), Wis. - Pancake, bacon, sausage, scrambled eggs, hash-brown casserole, juice, coffee & milk breakfast. 608-375-5232. Airport will use Ground Communications Frequency 121.9 on Fly-In Day.

SEPTEMBER 2020

- 11-12 ROCHESTER (KROC), New YORK 2020 AOPA Fly-In. Friday night Flightline Cookout, short takeoff and landing (STOL) invitational, drone show, seminars, exhibits, and more! www.aopa.org
- 12* Osнкosн (KOSH), Wis. - Pancake Breakfast & Airport Expo. 920-810-1046.
- 12* Superior (KSUW), Wis. - Fall Pancake Breakfast & Young Eagles Rides 7:30am-Noon. 320-250-2163.
- 12* Brainerd (KBRD), Minn. - 5th Annual Grass is a Gas Poker Run. Start at Brainerd, fly to 4 grass strips to pickup cards, return to Brainerd to play your hand. Food, fellowship and great flying. Registration opens at 7:00 am, get there early, limited to 52 players first come first served. 612-750-2981.
- WATERTOWN (KRYN), Wis. Pancake Breakfast & Aviation Community Day 8am-3pm at Wisconsin Aviation, Watertown Municipal Airport. 920-261-4567.
- 13-16 GREENVILLE, SOUTH CAROLINA The 89th Annual NASAO Convention & Trade Show will be held September 13-16, 2020 at the Hyatt Regency. (www.nasao.org

OCTOBER 2020

JUNEAU (UNU), Wis. - 6th Annual Pumpkin Drop Contest 9am-3pm at Wisconsin Aviation, Dodge County Airport, 920-386-2402 / 800-319-0907.

DECEMBER 2020

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

Van Brunt Named Minneapolis FSDO "CFI of the Year"



Paul Van Brunt

LAKEVILLE, MINN. - Paul Van Brunt of Lakeville, Minnesota, has been named the 2020 "CFI of the Year" by Minneapolis Flight Standards District Office (FSDO) GL15. He also received the FSDO's "FAAST Team Award."

Van Brunt is a Certified Instrument Flight Instructor (CFII), Multi-Engine Instructor (MEI), Instrument Ground Instructor (IGI), and Advance Ground Instructor (AGI)

with over 5,000 hours instructing in all types of aircraft, from tail-draggers to multi-engine aircraft. Van Brunt works for Air Trek North as a flight instructor and Airframe and Powerplant mechanic (A&P). He has an impressive record with more than 30 students passing their check-rides in 2019. Van Brunt is also a major in the Civil Air Patrol 130th Squadron in Lakeville.



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HANGAR FOR SALE W23, WILD ROSE, WISCONSIN. 40 x 40. Concrete floor, bifold door, 10 years old. \$36K. dsbarno@yahoo.com 920-344-8890.

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

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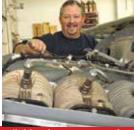
GET THREE MONTHS FREE RENT ON HANGARS at Southern Wisconsin Regional Airport (JVL), Janesville, WI. Available on T-hangar units #25-#44 only (1-year commitment required). Check out our website www.jvlairport.com for airport amenities and call 608-757-5768 for current availability. Better yet, fly in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

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A FLIGHT TO END POLIO FROM P. 57

AirNavRadarBox, and Flightradar24. The flight is estimated to take more than 135 hours of actual flight time over the course of 51 days.

When N36194 takes off from Cedar Rapids, it will become the "Flight to End Polio." At each of the 29 stops in 17 countries, the pilots will raise awareness by meeting with other Rotary members, humanitarian workers, and government officials to discuss the progress of polio eradication and the ongoing need for assistance for families still affected by the devastating disease.

While in Pakistan, Teahen and Ockenfels plan to meet with medical providers and victims suffering with polio. This will help them to better understand the needs of care teams and individuals afflicted by polio, so they can share those results with Rotary International.

While there have been great strides made in eliminating polio in the United States, it remains a highly infectious, savage disease, attacking thousands of people around the world. Polio most commonly affects children under the age of 5 and can spread from person to person, often through contaminated water. There is no cure, but polio is preventable with a simple vaccine. Ockenfels said, "Even though we've got all these countries that are polio-free, they have to keep vaccinating all of the kids that are born for years to come to ensure that it remains that way."

The "Flight to End Polio" fundraiser has a huge helping hand from "The Bill and Melinda Gates Foundation," which is donating \$2 for each \$1 pledged before, during, and after the flight. Both Rotary and The Gates Foundation are recognized as a leading force in the reduction of polio cases.

HOW YOU CAN HELP!

Fellow pilots are urged to "like" and "share" the *Flight to End Polio* Facebook page and make a donation to help end polio forever at www.flighttoendpolio.com.

THE AIRCRAFT

Teahen purchased his 1978 PA-32RT-300 Piper Lance in 1990. The Lance is a single-engine, low-wing retractable gear aircraft, powered by a 300 horsepower Lycoming IO-540 engine. The Lance has a cruising speed of 150 knots and a 5-hour range. Teahen installed a 165-gallon fuel tank inside the airplane to supplement the 94 gallons in the wings.

Due to the lack of aviation fuel in most parts of the world, 62 APRIL/MAY 2020 MIDWEST FLYER MAGAZINE



Peter Teahen (left) and John Ockenfels (right).

over 50% of their fuel stops will require the pilots to hand pump fuel from 55-gallon drums that have been shipped to airports along their route in advance by train or cargo ship.

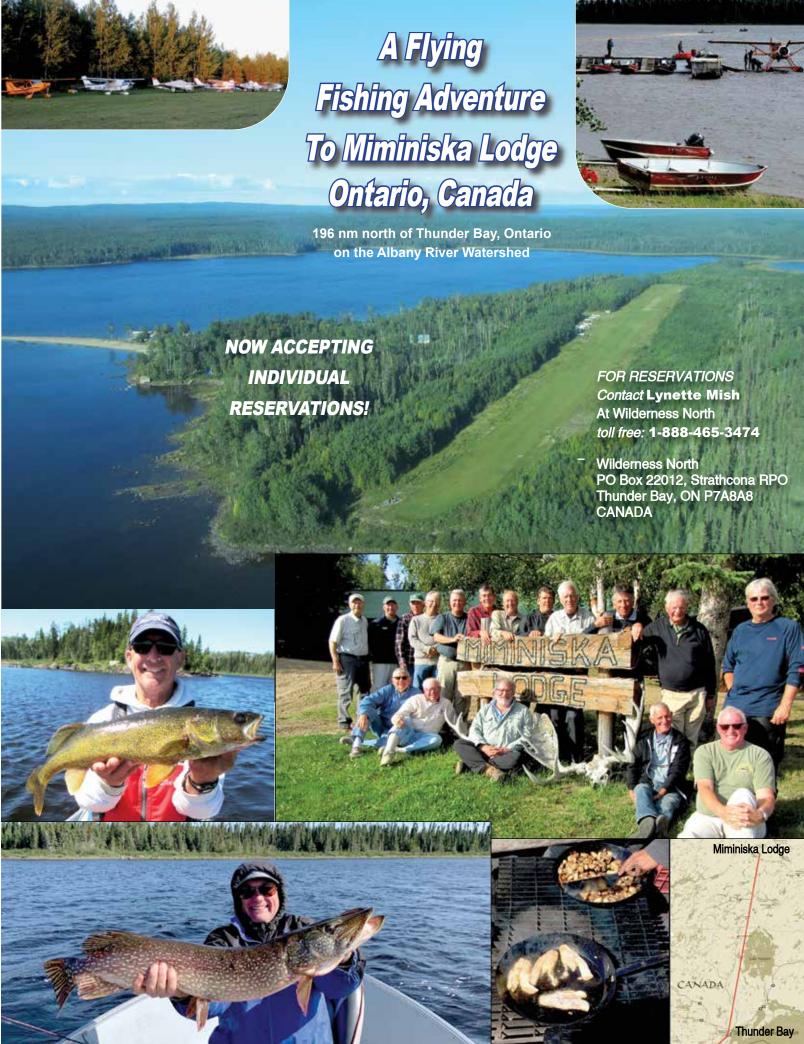
ABOUT THE PILOTS

PETER TEAHEN is president of Teahen Funeral Home in Cedar Rapids, Iowa, an author, and a mental health professional. He serves on the faculty at the University of Iowa and is the founder of the Cedar Rapids Freedom Festival.

Teahen has served in leadership roles on 67 major disasters throughout the world. He is recognized for his work on aviation disasters and is internationally known for his work in critical incident stress management and the psycho-social impact of disasters. He has served for 19 years as a national media spokesperson for the American Red Cross.

JOHN OCKENFELS maintains World War II aircraft, including his own North American Aviation T-6, a Boeing Stearman, and a Cessna 182 Skylane. Prior to his retirement, Ockenfels was the chief executive officer of City Carton Recycling, based in Iowa City, Iowa. He attended the University of Iowa and served in the United States Air Force from 1972 to 1976. For two of his four years in the Air Force, he was a crewmember onboard an AC-130 Hercules in Thailand.

Despite all the preparations, technical knowledge, and flight skill, Teahen and Ockenfels remain focused on their mission – ending polio forever! No child anywhere is safe until every child has been vaccinated. Teahen added, "Studies show that unless we end polio within 10 years, as many as 200,000 new cases could occur around the world each year."



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