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ATC Privatization Battle Lingers On

General aviation has spoken and along with top leaders throughout the industry including Capt. "Sully" Sullenberger, Sean D. Tucker, Apollo 13 astronaut Jim Lovell, nearly 200 general aviation groups, and their members and supporters have reached out to oppose ATC "privatization," generating more than 85,000 messages to members of Congress.

Rep. Bill Shuster's (R-Pa.) proposal to hand over the nation's air traffic control system to a non-profit entity that would be dominated by the airlines is ultimately not in the best interest of this country or general aviation.

The Congressional Budget Office revised cost estimate of the 21st Century AIRR Act (H.R. 2997) says that this legislation would increase the deficit by almost $100 billion. Along with handing over the air traffic control system to the airlines, this move would also leave American taxpayers on the hook if this too-big-to-fail monopoly eventually does fail.

The on-again, off-again nature of this push is not expected to end any time soon, and GA advocates should not take the postponement of any one vote as reason to think the issue is settled. We must continue to reach out to Congress and let them know that so-called privatization is bad for aviation and bad for our nation's economy.

You can help AOPA's effort to fight privatization by donating to the Aviation Advocacy Fund. Your contributions will be used toward the campaign to fight air traffic control privatization and advocate for general aviation in DC during this critical time. This fundraising effort is a joint project with other aviation associations, large and small, who are united in this effort and sharing the significant expense to educate the public about the dangers of privatizing air traffic control.

For more information, visit **www.aopa.org/advocacy/take-action** and to reach your Congressional representative call **1-855-383-7330** toll-free today!

Mark R. Baker
President & CEO, AOPA

*For more information on the Aircraft Owners and Pilots Association and the issues that affect your flying go to **www.aopa.org** today.

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Never Hesitate To Say "Unable!"

by Dave Weiman

I concur with *Midwest Flyer Magazine* "Instrument Flight" columnist, Michael J. "Mick" Kaufman, in his assessment of a fatal accident involving a pilot flying a small general aviation aircraft from Norman, Oklahoma (KOUN) to William P. Hobby-Houston Airport, Texas (KHOU) on June 9, 2016 (see article beginning on page 9). The controllers were clearly out of line, which likely contributed to the cause of this fatal accident. Clearly, the Federal Aviation Administration (FAA) needs to review its training and supervisory syllabi to change its policy in how controllers treat air traffic – the airlines versus general aviation.

The pilot was on approach to a commercial airport and because airline traffic was overtaking her from behind, she was vectored for a go-around, to which she agreed in a courteous manner. The problem was, as airline traffic continued inbound, she was vectored again, and again, and again to different runways by different controllers, until it became a highly stressful situation for the pilot, and she came in too high on at least one or two occasions. Finally, on the last missed approach, the pilot apparently turned too sharp, stalled, and spun the airplane into the ground.

Kaufman states: *"At the conclusion of this video, most of you will throw your hands in the air in disbelief, wondering how the pilot let ATC crash her airplane. I do not want to say that all air traffic controllers are from the evil-empire, because I credit them with saving my life in an emergency more than once. However, I have stated in several columns that we as pilots must be assertive when flying our aircraft, and had the pilot of this aircraft taken on the command role when asked to go around and used the words 'UNABLE,' (a term made famous by Capt. Chesley Burnett 'Sully' Sullenberger III of U.S. Airways Flight 1549, Miracle On The Hudson), she would be alive today."*

As Mick points out, air traffic controllers are usually on top of their game and do a fantastic job, but since when is it written or perceived policy that the airlines get priority at the expense of general aviation safety?

I think that most general aviation pilots do their best to accommodate the airlines whenever possible, but it appears that some FAA controllers and their supervisors are of the mindset that general aviation pilots should always yield to the big iron, and that's wrong!

Whether it is pressure from the airlines to keep their traffic flow going in an orderly fashion without delay, stress of the job, inexperience on the part of controllers, the fact that many controllers are not pilots themselves and lack understanding of what it is like to fly an airplane (we feel that every controller should be required to fly different aircraft each year as part of their remedial training), or attitude, controllers can and do make mistakes from time to time. That's only human, but to make such actions policy, is inexcusable, and that needs to change. In the meantime, never hesitate to say "UNABLE!"

See for yourself and come to your own conclusions: https://www.youtube.com/watch?v=xPo5yuLbvco. ❑

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The Latest Lycoming Engine Airworthiness Directive: What You Need To Know

by Greg Reigel
Attorney-At-Law


Greg Reigel

Are you one of the estimated 778 unfortunate aircraft owners affected by the latest Lycoming airworthiness directive ("AD")? If you are, I am hopeful this article will help you navigate your current situation.

The Airworthiness Directive

On August 4, 2017, Lycoming issued a "Mandatory Service Bulletin" ("MSB") requiring inspection, and potentially replacement, of connecting rod bushings in certain Lycoming engines that had been overhauled or repaired using replacement parts. The MSB identified the potentially affected engines and replacement parts, and it also included instructions for completing the inspection, as well as the installation of replacement connecting rod small end bushings. It also indicated that the inspection and/or replacement be performed within the next 10 hours of engine operation.

As we know, although a manufacturer may state that its service bulletin is "mandatory," for most operators flying their aircraft strictly under Part 91, service bulletins are not, in fact, mandatory. So, when it was issued, the MSB wasn't mandatory for most Part 91 operators.

Unfortunately, the FAA received five (5) reports of uncontained engine failures and in-flight shut downs due to failed connecting rods on certain Lycoming engine models identified in the MSB. Based upon its evaluation of the information available to it, the FAA determined that an unsafe condition existed or could develop in products of the same type design. As a result, on August 10, 2017, the FAA issued the airworthiness directive ("AD") with respect to the Lycoming engines requiring compliance with the MSB in order to prevent uncontained engine failure, total engine power loss, in-flight shut downs, and possible loss of the aircraft.

And, as we also know, an airworthiness directive

is mandatory, regardless of the particular regulations under which you are operating. So, if your aircraft's Lycoming engine is one of those specified in the MSB/AD, you have no choice but to comply with the AD if you want your aircraft to be airworthy.

Cost of Compliance

According to the AD, the FAA anticipates that initial compliance with the AD (the inspection of the connecting rod small bushings) will cost engine owners approximately $1,425 in parts and labor. If connecting rod replacement is required, the FAA estimates the additional parts and labor costs will range from $2,170.00 for a four-cylinder engine, up to $6,850.00 for an eight-cylinder engine. Of course, these are just estimates and they do not take into consideration any warranty coverage or variations in the costs of parts or labor.

Fortunately, this AD isn't as extensive, or expensive, as the 2006 Lycoming crankshaft airworthiness directive. That airworthiness directive required replacement of the crankshaft in approximately 3,774 engines to the tune of about $16,000 per engine. So, what are your options if this AD applies to your engine?

Warranty Coverage

One option is to pursue a warranty claim with Lycoming. Lycoming has several types of warranties: New and Rebuilt Engine Warranty; New Non-Certified Warranty; Overhauled Engine Warranty; and Replacement Parts Warranty. You will need to determine which warranty applies to your engine and then file a claim with Lycoming. Lycoming will then determine whether you have coverage and, if so, to what extent. Although I haven't reviewed Lycoming's various warranty programs, the coverage typically includes parts only. And it certainly does not cover loss of use or other losses an engine owner may suffer as a result of the AD.

Litigation

If you don't have warranty coverage, or if you are unsatisfied with the warranty coverage applicable to your engine, you could also consider suing Lycoming to try and recover the costs of complying with the AD and any other losses you suffer as a result of the AD. However, given the anticipated cost of compliance, unless you have other significant losses as a direct result of the AD, the cost of litigation would likely exceed your losses with no guaranty of recovery. (Although given the number of affected engines, I wouldn't be surprised if some owners attempted a class action lawsuit against Lycoming).

Also keep in mind that a manufacturer's warranty typically includes language making the warranty your sole remedy and excluding your ability to pursue other claims for recovery against the manufacturer. So, I would anticipate that Lycoming would raise this and other legal defenses in responding to any lawsuits. But litigation is certainly an option, although not necessarily a practical or preferred option.

As you may recall, the Lycoming crankshaft airworthiness directive resulted in numerous lawsuits brought by engine owners against Lycoming. Of course, the cost of compliance for that airworthiness directive was significantly higher than the current AD, which certainly made the economic analysis for litigation more attractive in that situation. Some lawsuits were brought by engine owners in their individual capacities, and others sought class action status on behalf of all affected engine owners. Lycoming also sued its crankshaft manufacturer, although it ultimately lost the case.

Conclusion

The bottom line for most engine owners affected by this AD is that they will need to comply in order for their aircraft to remain airworthy. How or whether they are able to recover their costs of compliance will initially depend upon how Lycoming handles the warranty issues. If Lycoming doesn't treat its customers fairly, I would anticipate at least some litigation. However, whether such litigation will be successful is hard to say at this point in time.

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@shackelfordlaw.net, or Twitter @ReigelLaw. ❑

Stabilized Approaches & Handling Autopilot Anomalies

by Michael J. "Mick" Kaufman


Michael Kaufman

In my column for this issue of *Midwest Flyer Magazine,* I selected two topics that I think are of interest to our readers – "The Stabilized Approach" and "Handling Autopilot Anomalies." The subject of stabilized approaches was one of the topics presented at the VFR/IFR seminars at Volk Field in Camp Douglas, Wis. in October, and presented by FAAST team member, Steve Mesner, of New Lisbon, Wis. The seminar was somewhat poorly attended due to weather and almost all of the pilots who attended drove to the program, as I did. Those who did attend were given briefings on military airspace with a new aviation acronym appearing (at least it was new to me) called a Temporary Restricted Area (TRA). Aviation weather and new briefing products were other topics covered.

As a flight instructor, we have all attempted to train our students to do stabilized approaches, whether they are flown VFR or IFR, and Steve pointed this out in his presentation. This is the desired way to teach, and as a pilot pursues a career as a professional pilot, this is the only way it is done.

Over the years, the philosophy of flying the traffic pattern has changed. As a student pilot of 50-plus years ago, I was taught to bring the engine to idle abeam of the touch down point and glide the rest of the way. If you should add power other than clearing the engine with a short burst of power on the base leg, it was a bad approach. The theory in those days was if a pilot made only power-off landings, he would be better prepared for a real engine failure. Having learned that technique, sometimes referred to as flying by the seat of your pants, has paid off for me as an instructor knowing how far to let a student pilot go, and be able to correct at the last second to save the airplane.

So, how does flying a stabilized approach apply to the instrument pilot? First, it is so important to develop a set of numbers for the aircraft you will be flying. I start with a chart (*See* FIG 1 *on page 10*) that you may have seen in some of my previous articles. If you do not have any input from a document, or another pilot familiar with this aircraft,

	Manifold Preasure	RPM	Pitch Setting	Airspeed	VSI	Gear/Flaps
Climb						
Cruise						
Cruise Descent						
Approach Gear Up						
Approach Gear Down						
Approach Descent Gear Down						
Non Preci Desc Gear Down						

FIG. 1

you should develop one yourself. It is so much easier to fly a stabilized approach with the correct set of numbers. I am sorry to say that a majority of pilots try to fly their aircraft too slow, rather than too fast, while air traffic control (ATC) is asking most pilots flying light single and twin-engine aircraft to speed up due to traffic behind them. One of the reasons pilots elect to fly on the slow side is because of the categories listed on the bottom of the approach chart.

For example, an aircraft like a Bonanza could fly the approach at 90 knots, making it a category A aircraft or faster, which would then make it a category B aircraft (FIG 2). In a few cases, the minimums are lower for

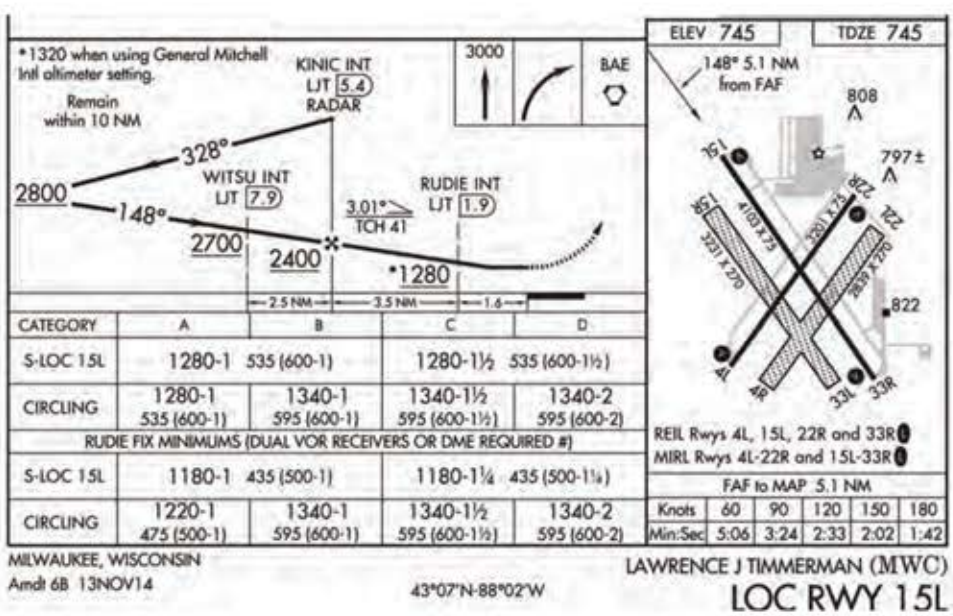

FIG. 2

Category A straight in approaches, but most apply to circling approaches. So why is faster better? On a precision approach of flying at what I refer to as the "ideal" airspeed, is any power adjustment necessary from the time of glide path intercept to the decision height, except for a manifold pressure reduction pre-planned half way down the descent path. This is due to the fact that as we descend, the engine produces more power on a normally aspirated piston engine aircraft, causing the airspeed to increase. If we attempted to fly on the slow side, we would be making numerous power adjustments on the glide path.

We can all recognize that the air is not always smooth as glass on approach, and the ideal airspeed will allow us to make corrections for turbulence while on the glide-path without sinking below the glide-path and unable to pitch up without getting too slow on airspeed or pitch down without gaining an excessive amount of speed. In Steve's seminar, he mentioned we should be on a stabilized approach a minimum of 1000 feet AGL for an instrument approach or 500 feet AGL for a VFR approach, or otherwise, a go-around should be executed. So, could I recommend not flying a stabilized approach, and the answer is NO. I have done it intentionally, but would not recommend it to our readers.

Years ago, when it was still financially affordable to land at Chicago O'Hare International Airport, I was often asked by the controller if I could do 150 knots until on a one-mile final and this was in a Piper Arrow. The Arrow could not do 150 knots in level cruise, let alone on approach, except in a dive with the gear up. To do this maneuver, you needed a decent ceiling and visibility for this non-stabilized maneuver, which needed to be done in VFR conditions. At the mile fix, power came all the way back. You pitched up abruptly to bleed off airspeed to hit gear speed, dropped the gear, hit flap speed, then full flaps, pitched down and landed. I knew the airplane well, and this was a seat of the pants maneuver, which was similar to Bob Hoover's style.

On another occasion, I was flying a Cessna 310 into Richmond, Virginia on a low instrument meteorological conditions (IMC) day and was being vectored for the ILS

approach. I was inside the outer marker and had contacted the tower and was cleared to land. The Cessna 310 has a very low gear speed, though I do not remember what it was, and I was aware of traffic following me on the approach. As I was breaking out right at minimums, the tower called for me to go around, and I did. I have been stewing about this incident for years, and the Volk seminar rekindled this fire. You see the go-around was called by the tower because the traffic behind me was overtaking me, and it was 45 minutes later before I actually landed, being vectored all around until they found a space I would fit in.

As part of the seminar, Steve played the audio recording from a fatal accident, which I encourage all of my readers to listen to: **https://www.youtube.com/watch?v=xPo5yuLbvco**

At the conclusion of this video, most of you will throw your hands in the air in disbelief as the participants did at the seminar wondering how the pilot let ATC crash her airplane. I do not want to say that all air traffic controllers are from the evil-empire because I credit them with saving my life in an emergency more than once. However, I have stated in several columns that we as pilots must be assertive when flying our aircraft, and had the pilot of this aircraft taken on the command role when asked to go around and used the words "UNABLE," (a term made famous by Capt. Chesley Burnett "Sully" Sullenberger III of U.S. Airways Flight 1549, Miracle On the Hudson), she would be alive today.

I just returned from a Bonanza/Baron Training (BPT) seminar in Norfolk, Virginia, where I had the opportunity to fly with some of the students. I was very pleased to see that the gentleman I was assigned to fly with proved to be an excellent instrument pilot.

The day of our flight was IMC to marginal VFR, so we were able to do some practice approaches in real IMC. I have mentioned many times in my column of the deteriorating skills of pilots being able to hand-fly an aircraft on instruments, but this was not true of Wendell Todd, Jr. of Atlanta, Georgia. Wendell has a Century II autopilot in his aircraft, which is capable of holding a heading and tracking a VOR radial or GPS course, but no approach coupler or altitude hold. During the flight, which included a rest break, we flew almost 4 hours, and the cumulated autopilot time was about 5 minutes. We even shot two Non-Directional Beacon (NDB) approaches without any reference to a GPS, and one was a partial panel. It sure made me happy to see a pilot who would survive should the autopilot quit.

In the title of this column, I mentioned non-commanded ***autopilot anomalies,*** as they do not happen often, but they do happen.

Several weeks ago, I was doing the final recommendation ride as an instructor to a soon-to-become instrument pilot.

We were at Oshkosh, Wisconsin doing the localizer (LOC) back course approach, and we were established on a stabilized approach on the autopilot, when we found ourselves in a 60-degree non-commanded roll to the left. The interesting thing on this was that the flight director did not command that roll. The pilot paying attention to what was happening disconnected the autopilot and recovered from the unusual attitude with minimum altitude lost. Puzzled as to what happened, we declared a missed approach and asked the tower to allow us to leave the area to sort out the problem. We reengaged the autopilot and all seemed well for about 10 minutes and then it happened again. This time when we reengaged the autopilot, nothing happened, and it appeared that something had quit completely.

For those who are familiar with a flight director system like this airplane had, I teach that the flight director is the smart part of the system and commands the servos to follow its directions. The servos of the autopilot are the muscle, and the pilot can hand fly the flight director and provide that muscle as well. So, here we had a rather unusual situation, but because of the vigilance of the pilot and his quick action, it showed a sign of a well-trained pilot. Should this situation have happened in hard IMC with a pilot with poor hand-flying skills, this would have been a fatal accident!

Till the next issue, keep those hand flying skills sharp!

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.

LETTERS

Dave.

I read your editorial about state trade groups. It reflects on your comment that today aviation trade groups and their members do not share the camaraderie of days long past. Recently, the New Mexico Pilots Association (NMPA) began a membership monthly ezine and I write a column on the history of the association. I was one of the co-founders in 1985, and have been a member, and a U.S. Pilots Association director or officer, since then. I also have a ton of files on what NMPA has done over the years. And what you mentioned about trade members no longer getting together, is what I have noticed with NMPA.

In the 1980s and 1990s, NMPA was involved in almost every aspect of aviation in the state. We worked with and spent considerable time with the FAA, the New Mexico Aviation Division, privately sponsored big aviation events in Albuquerque, and almost every month, went to some airport to present an FAA WINGS safety seminar. NMPA doesn't do this anymore. No more presenting safety seminars at airports, very little interaction with the New Mexico Aviation Division or the FAA, or sponsoring aviation events. NMPA is almost totally involved with the Recreational Aviation Foundation (RAF) and back-country airstrips, where they do have weekend camping fly-ins. They also promote various fly-ins (pancake breakfasts, etc.), but the close association with many aspects of aviation in New Mexico is gone!

I feel that the influx of electronic social media may have something to do with the lack of interaction with much of aviation in the state. But as a state organization, I presume they are doing what most members want done.

But it is interesting that your comments in your editorial echo what I am observing in NMPA – a definite lack of camaraderie that used to exist.

Bob Worthington
Lt. Col. U.S. Army (retired)
Las Cruces, New Mexico

CORRECTION HEREBY NOTED

The feature article in the October/November 2017 issue of *Midwest Flyer Magazine* entitled *"EAA AirVenture Oshkosh 2017 – The Year of the Bomber,"* incorrectly described the Bell P-39 "Airacobra" as having a 1710 Continental straight line engine. The P-39 used the Allison V-1710 engine and not a Continental engine. Additionally, it was incorrectly stated that the Bell P-63 "Kingcobra" used a Rolls Royce engine, when in fact, the P-63 also used the Allison V-1710 engine. Special thanks to Robert L. Taylor, President Emeritus of the Antique Airplane Association, Ottumwa, Iowa, for his friendship and for bringing this error to our attention. ❑

How Much Fun Is A Currency Ride?

by Harold Green


Harold Green

Remember when you passed your private pilot checkride? The odds are the examiner said something like: ***"Congratulations. You are now a Private Pilot and you now have a license to learn for the rest of your life."***

There are plenty of opportunities to aid our learning process. Among others, the FAA, EAA, and AOPA all provide opportunities to learn. There are numerous seminars, mostly free, provided by these organizations, along with other opportunities offered by local and aircraft-type oriented organizations. A large number of pilots of my acquaintance take advantage of these. That is a good thing. For the participant, the comforting thing about these programs is that one can sit and listen or not as may be desired. There is usually good conversation and frequently free refreshments. Further, there is no one checking the attendees' learning. That is, there are no tests. However, this still leaves the issue of airplane control and judgment in flight operations. For this, life gives tests.

There are minimum requirements placed on us for maintaining our flight proficiency. We all have the biennial flight review (BFR), now known as the 61.56 check, to contend with. Some will need an Instrument Proficiency Check (IPC). More and more frequently, if we rent our ride, we need to fly with some frequency in order to continue to rent the airplane. If not, a ride with an instructor is necessary. If we own an advanced airplane, the insurance company will require periodic checks in addition to other requirements. However, for most of us, it is likely we will only have to do a check ride every 24 months.

First, let's agree that checkrides are just that…a check on our ability to meet objective, relatively inflexible, standards set by the FAA, with the hope of achieving a new rating. On the other hand, the BFR, IPC, etc., are "currency rides" intended to provide instruction and assistance in maintaining our proficiency. The goals are somewhat arbitrary, being up to the judgment of the instructor within guidelines provided by the FAA. As evidence of this, remember that we cannot fail a BFR, or for that matter, any currency ride. We may not complete it in the time we thought, but there is no such thing as a fail. So, we will refer to these

as currency rides,

While there doesn't appear to be reliable up-to-date statistics on the subject, it is a fair bet that the majority of private pilots put in less than 100 hours/year. Whether that is sufficient or not depends, in part, on the pilot, how that time is used, and the airplane being flown. In this column, we have encouraged pilots to put their valuable flying time to good use by having a goal in mind and practicing while going for the hundred-dollar hamburger or whatever they do to enjoy their flying. There is also an opportunity available when it comes time for a currency ride. All too often these are looked on as just another stupid bureaucratic requirement and unneeded expense. In fact, since we have to spend the money anyway, why don't we try to get the most out of it? To do that we obviously need the participation of the flight instructor and, we need to have a plan in mind. We will discuss the participation part later, but for now, we'll focus on the plan.

Our plan should involve knowing in what area(s) we are deficient. None of us is an objective judge of our own shortcomings, but on the other hand, we aren't totally ignorant of them either. Therefore, we need to decide which of our concerns we would like to work on during our currency ride. Also, we need to try to determine what it would take to remove our concern.

Then comes the participatory part of the game. Before the flight, we need to discuss our concerns with our instructor and ask if they can be addressed. Particularly if we have flown with this instructor before, we need to consider simply asking the instructor for his/her opinion regarding areas we should focus on. In most cases, the response will be very positive and the instructor may display a little shock that we have given the subject that much thought. The instructor will still want to see us perform his or her selected maneuvers to the normal standards, but will usually modify the program to cover what we want to cover. This applies to both VFR and IFR flight.

It is my belief that currency rides should stretch the student's capabilities. That means that the lower limit of the performance scale is the FAA acceptance guidelines. The upper limit is whatever the student can accomplish during the ride. The reason for this is simple: For most pilots, this is the only opportunity they have to stretch their capabilities while under safety supervision. The reaction of students to the idea of the currency ride provides interesting insight into their approach to flying and ranges from interested enthusiasm to reluctant compliance.

The extent and type of maneuvers flown depends on the student's attitude, rating(s), observed pilot capabilities and the airplane being flown. For students without an instrument rating, instructors tend to work on standard maneuvers for the Private Pilot checkride. Once these are executed successfully, we go to the commercial standards. For example, a steep turn is done to 60 degrees of bank, rather than 45. Perhaps we introduce chandelles or pylon eights. If there is a reasonably strong wind, we practice crosswinds.

A similar approach is taken to IFR flight. If the student is instrument rated, they will spend time with IFR flight, and if instrument meteorological conditions (IMC) exist, they will take advantage of that, providing the instructor knows the specific airplane they are flying.

For IFR, the idea is to not only fly the airplane correctly, but to also provide a heavy workload of navigation and communications for the pilot. Naturally, partial panel or emergency backup gauges in the case of a glass cockpit, play a major role in all of this. In this case, the goal is to provide the student with a stress producing environment beyond what is likely to be encountered in normal flight, while the instructor is there to assist and provide a safety factor. In reality, the stress level will naturally be higher in flight without the instructor present to "bail us out."

Of course, throughout, we try to have fun. Student reaction to challenges is a good indicator as to the quality of their piloting. Those who like the idea of being challenged tend to be better pilots than those who resent the idea and just want to get the ride over with.

While most students react favorably, a few keep asking, "What's the point?" or "When would I ever use this?" My personal favorite is, "I don't need this because I would never be in this situation." My response is usually, "When you schedule your next emergency, please let me know so I can watch."

Now, just to put perspective on the issue, we will review those things often in need of improvement and common to the majority of pilots.

For everyone not flying regularly from a towered airport, we need to be honest with ourselves: Are we really proficient in radio communications?

For VFR flight, here are four issues I have found to be commonly in need of improvement:

a. Coordination: Climbing with the inclinometer ball skewed to one side.

b. Chasing the airspeed needle, instead of holding pitch attitude with the airspeed used as a guide.

c. Airspeed control in the pattern, particularly on final. Students typically jockey the throttle and elevator excessively and to counter purposes.

Fixes for these:

a. Remember, when pitch goes up or throttle goes forward, so does the right foot.

b. Think back to our first lessons. Recall the instructor telling us to watch the horizon line and where it crossed the windshield posts and/or check the attitude indicator. Do that most of the time and just use the airspeed to confirm we are, in fact, holding the correct pitch.

c. Same as pitch control on climb out, but now we should have a routine that calls for specific power settings and airspeeds on downwind, base and final. These may all be the same, but this should be routine with every landing unless tower instructions dictate otherwise.

For IFR flight, the following are common deficiencies.

a. Scan, Scan, Scan.

b. Fails to set up equipment in advance and/or when workload is lightest. Particularly true if there is GPS involved.

c. Doesn't check instrument operation while taxiing.

d. Cockpit organization.

e. Lack of final check before takeoff.

Here are some fixes for IFR flight.

a. Simply practice our scan every time we fly, even in severe clear. We might even shoot an approach, even in VFR, for practice.

b. Do everything we possibly can before we taxi. That includes setting up the navigation equipment, including autopilot if we have one.

c. Check the flight instruments, particularly the Turn Coordinator and Directional Gyro while taxiing.

d. Have all of our charts and electronic devices where we can reach them without having to climb into the backseat.

e. Just remember to check all instruments and settings before charging down the runway. Make up our mind what to do if: The engine quits before liftoff or just after, and picture in our mind the first few minutes of the fight, including the need to switch frequencies.

Finally, the most disturbing is the pilot who is inflexible in reaction to changing situations. These folks will often simply lock their mind and become resentful of anything new or unexpected. These are almost exclusively from the group that says, "I would never be in a situation like this," or words to that effect. These are the ones that are the most stressful to sign off on their currency ride. If they meet the pass standards for flying the airplane, it is difficult for an instructor not to sign them off. But, suspecting what their reaction would be to a true emergency, does give one pause. It's like teaching judgment: No matter how hard the instructor tries, there is no way of knowing for sure how the student will do in an emergency until it happens.

In any event, however, we do it,

don't waste an opportunity to brush up on our piloting skills, and perhaps learn something new. Who knows? We might even enjoy it.

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 other instructional materials before attempting any procedures discussed herein. ❑

Ask Pete

Ask Pete!

by Pete Schoeninger


Pete Schoeninger

Q: Continuing the question that appeared in the October/November 2017 issue about extending range in a Cessna 172N, you did not mention adding auxiliary fuel tanks. What about them?

A: You can add auxiliary fuel tank(s) to the wings, or the baggage compartment as permanent installations, but permanent installations add weight, and cost several thousand dollars to install.

Q: With winter here, what tips do you have for us pilots which are not commonly given?

A: 1) If you use an electric engine heater, don't unplug it until necessary. I have seen pilots open their hangar door, then unplug the engine heater before doing any preflight work, programming any onboard navigation device, loading gear, etc. Remember, the engine is designed to shed heat rapidly, so keep that heater going while still safe to do so.

2) When you drain a fuel sample, if the drain will not work, it probably has some water which is frozen. STOP AND DO NOT FLY until you solve the issue because you don't know how much water/ice is in the fuel lines and tank, and if fuel will flow normally into the engine.

3) In consultation with your aircraft technician, consider removing wheel pants to prevent runway slush from freezing your tire to your wheel pant, possibly causing a tire blowout on landing.

Q: You have said that one of many obstacles in running an FBO is dealing with local non-aviation politicians. Could you give an example?

A: At many smaller airports, there is only one FBO, who usually leases building(s) from the government landlord, who usually owns the airport. I am familiar with an FBO in Wisconsin who succeeded after the two previous FBOs went out of business. The local fathers were delighted to have the new operator, and at first were happy that they were profitable. But after many years there, as the sole FBO, they were deemed by some as getting rich at the expense of taxpayers. So, they were sort of victims of their own success as the landlord insisted on raising the rent.

Q: A friend purchased a very rusty barn find of a Piper PA-12 Super Cruiser. He and his mechanic found that it was more economical (and maybe safer) to replace, rather than repair the rusty fuselage and damaged wings. In effect, he now has a practically new airplane with only the data tag being 70 years old. But his mechanic says he cannot say zero total time in the logbooks. What can be done to reflect this "like new" airplane?

A: When the airplane is returned to service, the certifying mechanic completes airframe logs and FAA 337 major repair forms, and puts this paperwork in the aircraft maintenance

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Pilots & Cataracts

by Dr. Bill Blank, M.D.


Dr. Bill Blank

Cataracts are a common result of aging. Over 24 million Americans over 40, one-sixth of that population, have cataracts. More than half the people over 80 have them. Almost 4 million cataract operations are performed annually in the U.S.

I decided to write this article for two reasons. First, cataracts are a common problem and can impact aviation safety. Second, because of a fatal Cessna 172 accident in 2013 in which early cataracts played a role (NTSB #WPR14FA078), the FAA has been emphasizing the symptoms of cataracts, especially early ones, to AMEs.

What is a cataract? It is simply a clouding or opacification of the lens of the eye. The lens should be clear like a window. Cataract surgery involves removing the opaque lens and replacing it with a plastic one, called an intraocular lens implant or IOL. The most common cause of cataracts is age. Others are heredity, medication side effects (high dose steroids is an example), diabetes, some other diseases, and smoking.

There is an aviation connection to interocular lens implants. Gordon "Mouse" Cleaver was a World War II Battle of Britain Hawker Hurricane Ace. On his last flight, he forgot to wear his goggles. His canopy exploded resulting in plastic inside of his eye. His ophthalmologist realized that the plastic was causing no inflammation of the eye. This led him to conclude that it might be possible to make a plastic lens to put inside the eye. At that time, the cataractous lens was removed and not replaced. After surgery, the patient had to wear thick glasses which distorted vision. The first intraocular lens was implanted in England in 1950 and in the U.S. in 1952. Since then, the surgical technique and lens technology has gradually evolved. Modern cataract surgery is done under topical or local anesthesia and takes about 10 minutes. The recovery is rapid and the vision is generally excellent. Because refractive surgery techniques are frequently combined with cataract surgery, patients often wind up with weaker, more advantageous prescriptions for glasses than they ever had.

Some of the symptoms of cataracts are blurred vision, glare, halos, loss of contrast, dimming of colors, and trouble reading. From a certification point of view, the problem is that many people with early cataracts still have 20/20 vision. They can pass their flight physical, but are truly visually handicapped. They can be blinded by oncoming headlights or runway lights. If you have trouble driving at night or no longer do it, you probably don't meet the FAA visual standards and shouldn't fly.

If you have early cataracts, not causing symptoms, can your AME certify you? Sure, he should write in his remarks "early cataracts, not visually significant."

What are the certification requirements after cataract surgery? It depends on the type of implant. If your implant is single vision, for distance only, and you need glasses to read, there is no waiting period. Your vision must be stable and you must be able to meet the standard. For implants designed to correct for distance and near vision, there is a 3-month waiting period. The FAA feels that it takes that long to adjust to these implants. One disadvantage to this type of IOL is that there are vision trade-offs. The vision frequently isn't as sharp as with single-vision implants. Some people may not be able to meet the 20/20 requirement for 1st or 2nd class certification.

I hope this article has given you a better understanding of cataracts and FAA certification after surgery.

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. ❑

ASK PETE CONTINUED FROM PAGE 16

records, as well as sends the Federal Aviation Administration a copy. If anyone questions the age/total hours on your friend's like-new airplane, he should show them the items replaced, when, and the hour meter reading. But a word of caution here…some after-market firms offer replacement wings and fuselages that may or may not be legal for certified airplanes. So, don't buy a non-certified $12,000 fuselage for a certified airplane because it could only legally go on an experimental airplane. More than one guy has been jolted by this.

Q: My friend only flies his airplane about 40 hours a year, and would like to see more hours on it to reduce engine rusting. He has offered to let me use the airplane and only asked that I replace gas used. He has said he will even add me as an approved pilot on his insurance policy. That sounds like a good deal, right?

A: Whoa! To be able to fly an airplane for the price of gas alone, is a good deal, BUT STOP! If you smack your friend's airplane, the fact that you are a named pilot on the owner's policy means the owner's insurance company is obligated to fix the airplane for your friend. That policy probably provides NO insurance for you! BE SURE to ask your aviation insurance agent or an aviation attorney for clarification on this issue, and also inquire about non-owner liability insurance.

Q: My hangar neighbor has a nice Mooney 201. He recently lost his medical permanently. I have indicated a desire to buy the airplane, and he is very willing to sell it. We are pretty close in agreement on the price, but he feels the ADF and the DME installed add about $2,000 in value to a typical 201 without these avionics?

A: In my opinion, the ADF and DME no longer add any value, and to a slight degree may degrade value if they are taking up space in the panel, and add needlessly to empty weight.

Q: Our local airport has one 3,000 X 75 ft. asphalt runway, and snow removal is handled by the village Department of Public Works (DPW). They are nice guys, but have no aviation knowledge. They plow snow the full width of the runway exactly to the edge of the runway and not beyond. After a couple of significant snowfalls, there sometimes is a snowbank 2 or 3 feet high right at the edge of the runway. I feel this is a hazard, especially to low-wing aircraft. What can be done to reduce this hazard?

A: Snow removal is not rocket science, but it is different from plowing roads because airplanes have wings. Snow blowers are great for blowing snow off the edge of runways, but are not always available at small airports. What some people do is plow a small amount of snow to the edge of the runway, then make a high-speed pass throwing the snow beyond the runway lights, then take another bite of snow, push it to the edge, then fling that snow, etc. In your case, you could suggest to the DPW drivers to plow 1/3 of the runway to the edge, then sling that, repeat with middle third, then the same with the last third. When doing this, care is required so the snow being thrown does not hit and damage runway lights. Another possibility after the ground freezes is to push snow beyond the runway lights with the blade on the front of a plow truck. The FAA has an advisory circular on the subject for certified (airline) airports, AC 150/5200-30D.

EDITOR'S NOTE: Contact Pete Schoeninger at pete.harriet@gmail.com with your questions for this column or for consultation on aviation business and airport matters. Pete has four decades of experience as a line technician, airplane salesman (300 aircraft sold thus far), appraiser, snow removal supervisor, airport manager, and as the manager/co-owner of a fixed base operation.

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, Aeronautical Information Manual, Pilot's Operating Handbook for the airplane(s) they fly, and other instructional materials before attempting any procedures discussed herein. ❑

Big Names & Small Towns

by Mark Baker
AOPA President & CEO


Mark Baker

More often than not, when we make plans to fly somewhere, the name attached to the airport is more of an afterthought than anything else. How often do we take the time to learn about the person behind the name? Such a prestigious honor as having an airport named after you isn't something that's handed out to just anyone.

Thankfully for Rushford, Minnesota, there's Robert W. Bunke, without whom, Rushford would not have an airport to begin with.

In July of this year, I had the honor of traveling to Rushford to present Robert Bunke, a Marine Corps veteran and general aviation pilot, with an AOPA Presidential Citation Award during a naming ceremony and fly-in of 90 aircraft – all organized to recognize one relentless man, in his hometown. Forty years after Bunke's tireless work to bring an airport to his town, Rushford Municipal Airport would now be named Robert W. Bunke Field.

Bunke soloed at age 17 back in 1945 and trained in a variety of taildraggers he rented for about $7 an hour. Later in life, he took on business challenges to merge small rural telephone systems into a regional cooperative, and created a Wisconsin management and engineering services firm. He was able to incorporate his love of flying with his professional life – and eventually brought aviation to Rushford.

At first, Bunke's small town rejected the idea of an airport, arguing there were no airplanes in Rushford, so an airport wasn't necessary. Luckily, Bunke kept a Field of Dreams mentality of, "Build it and they will come." He persisted and after more than 10 years of advocating for an airport, his vision would eventually become reality.

As advocates for general aviation, we must work to embody the spirit and honor the contributions of people like Bunke.

Many times, we take for granted small airports that allow us the access essential for growing businesses and reaching countless places across the globe. Many smaller towns across America still struggle to keep their airports running or are still searching for ways to build new ones. Yet, the importance of small airports was never as well demonstrated as during the recent hurricane relief efforts in Texas, Florida, and Puerto Rico.

The next time you're flying to a rural town or even a big city, take a moment to reflect on the person that airport is named for. You might be surprised to hear the story of that person's journey. Even better, take the time to learn about your airport's history, the people responsible for it, and consider honoring them for their contributions. ❑

AOPA GREAT LAKES REGIONAL REPORT

Some Good Legislation, Some Not So Good, Planned For The Great Lakes Region

by Kyle Lewis
Regional Manager For Government Affairs & Airport Advocacy
Aircraft Owners & Pilots Association


Kyle Lewis

As 2017 winds down, the 2018 legislative sessions are ready to swing into high gear. I have already had preliminary meetings with state legislators and other advocacy groups to get a head start on what will be a busy season. Nearly all the Great Lakes states resume regular session during the first two weeks of January 2018. North Dakota is the only exception, with no regular session scheduled. I will give you a briefing on what I am working on for the new year.

• Michigan House Bills 4350/4351: These two "sister" pieces of legislation are very important to aircraft owners and aircraft maintenance shops in Michigan. They will provide a sales tax exemption on parts and labor for aircraft registered in Michigan. Currently, a trend has occurred allowing Michigan aircraft owners to take their business out of state and receive sales tax exemptions in the surrounding states of Ohio, Indiana, and Wisconsin. Maintenance shops in Michigan have suffered, and this legislation will level the playing field, allowing aircraft owners to stay in their home state and do business. On October 3rd, Bill White, Aerospace Services & Products, and Greg Schmidt, Pentastar Aviation, testified before the Senate Finance Committee and in turn 4350 and 4351 were unanimously voted out of the Senate Finance Committee and will go before the full Senate. The Michigan Business Aviation Association has been leading the charge advocating these bills, and I have provided testimony on behalf of AOPA. If you are a Michigan aircraft owner, this could have an impact on your future maintenance costs.

• Ohio House Bill 183: Creates the Ohio Aviation Hall of Fame. Can you believe the "Birthplace of Aviation" does not have a hall of fame? HB 183 looks to correct that. The bill was introduced in April of 2017 by Rep. Rick Perales of Ohio's 73rd District and has been passed out of initial committee and will be up for a vote on the house floor in 2018. The bill will create a governing board of the Ohio Aviation Hall of Fame and Learning Center for the purpose of establishing the hall and inducting persons into it. AOPA will be supporting the bill.

• Ohio House Bill 256: Introduced on May 24, 2017, the bill creates the Major Air Hub Council; requires the Council to construct two commercial service airports, one in Fayette County and one in Portage County; and creates the Southern Ohio Airport Authority and the Northern Ohio Airport Authority to operate the airports. This legislation is problematic from my viewpoint. I question as to why two (2) new airports are needed when Ohio has multiple commercial service airports already in existence, none of which are currently "airline hubs." There are logistical concerns of building the airports and airspace factors that would certainly hinder GA air traffic in both regions. The legislation is still in the Transportation and Public Safety Committee, and AOPA will be opposing. I would ask that the monies spent on two new airports be invested in GA airports across Ohio.

Among the above listed items, others are in the works that I do not have enough information on at this time. Included is legislation in Michigan that will protect seaplane operations,

and legislation in Illinois that will put funding into GA from fuel sales tax. Other items being watched are changes in the Michigan aircraft registration fees (currently a "penny per pound"). Minnesota will be looking at zoning policy updates for compatible land use around airports, and I have had preliminary discussions on the subject and look forward to working on bringing the changes into effect. I hope to work with state officials in Ohio on holding an official state aviation day to promote the value of General Aviation to lawmakers and the citizens of that state.

I would like to switch topics and bring attention to a very important program AOPA has administered for a long time. The "Airport Support Network" (ASN), and the volunteers that make up the program are instrumental in our airport advocacy work here at AOPA. As we approach the end of 2017, I would like to thank all the volunteers in my region, and those who have assisted in gathering information or providing insight on issues that have been ongoing. Our volunteers come from many backgrounds with a variety of aviation experience, but all are passionate about their airports and their freedom to fly. I am looking forward to some positive changes that will be coming to the program in 2018, and I will highlight those changes once they are implemented. If you would like to volunteer to be AOPA's eyes and ears for an airport, please contact me and I can get you started on the process.

To highlight how relevant the ASN program is, AOPA has been involved with ongoing work at Coleman A. Young International Airport (formerly Detroit City Airport until 2003 - KDET). The Coleman A. Young International Airport Education Association has been formed to educate the community and city administration on the value of the airport. KDET has been neglected to a point of concern by previous and current city administrations. AOPA's ASN volunteer sits on the coalition and provides feedback to AOPA and the members of the association on what course of action is needed. AOPA strongly supports the work of the coalition and has already started a media campaign to bring attention to the situation. Visit the association's website at www.supportkdet.org to learn more.

I am looking forward to the positive influence we can bring to General Aviation in 2018 and hope to see some of you in my travels across the Great Lakes Region. I am here to serve you! (kyle.lewis@aopa.org) ❑

AOPA's Rusty Pilots Seminars

All too often, we complain about things that go wrong in the aviation world. We fail to look at the big picture—that despite all of our complaints, we still have access to the greatest aviation system in the world. This series of articles entitled "When things go RIGHT," aims to point out the SUCCESSES in our industry.

by Jim Hanson


Jim Hanson

Last summer, Albert Lea Airport, Inc. in Albert Lea, Minnesota, and our associated flight school, Accelerated Aviation Instruction, decided to host an ***AOPA Rusty Pilots Seminar.*** The goal of the Rusty Pilots program is to return lapsed pilots—those who for one reason or another haven't flown in years—to the cockpit. It's a laudable goal—many pilots have had to take a break from flying due to finances, family commitments, health reasons, or work. They may have had only a few hours when they started, or they may have been fully licensed, but they never forgot that they were a pilot at one time, and their interest in flying remained strong. "Once a pilot, ALWAYS a pilot," is the old adage. "Once you can ride a bicycle, you will always remember how to ride it. It may require some coaching and retraining, but you will always be able to get "back in the saddle."

WHY have these pilots not returned to flying before? Some cite uncertainty: *"I don't know if I'll remember how to do it…" "I don't know if I can pass the medical…" "I thought I'd have to start all over again…" "I still can't afford a plane anyway."* Some even cite the old excuse, *"My wife won't let me"* (usually as a way to deflect the real reason). In running multiple FBOs over the years, I've heard most every excuse, yet most lapsed pilots would LOVE to be able to fly again. AOPA has made it a point to answer questions about returning to fly with a series of Rusty Pilots programs to tell people how to get back into flying through AOPA's "flying club" initiative to make flying affordable, and through "education" to tell former pilots about the changes that may have caused them to stop flying in the first place.

The Rusty Pilots program is "low hanging fruit"—an easy and relatively fast way to increase the number of active pilots. According to AOPA, this new program has already been responsible for returning more than 4,400 pilots to the cockpit. A visit to the AOPA website made the program easy to set up, list the sponsor, the location of the seminar, and what facility would be used. AOPA gave tips on how to organize and promote the seminar, and even agreed to help promote it! In our case, AOPA booked the seminar 3 months out. We held it on Saturday, November 4, 2017.

True to their promise, AOPA promoted the seminar, and we had 16 pilots pre-registered, but that was only for pilots that AOPA was aware of in our local area. It is up to the sponsoring organization to promote the program within its community.

We were unsure just how many might attend, so we set up the hangar for 30 attendees. AOPA scheduled Great Lakes Ambassador Andy Miller to conduct the seminar. AOPA would provide the instructor and printed materials for attendees. We would provide the space, tables and chairs, and light refreshments. Cost per attendee is $69, but it is FREE to AOPA members, and AOPA membership just happens to also be $69. In other words, join AOPA and begin receiving all of the benefits of membership—the magazine, seminar material, telephone consultation – all designed to make it easy for a Rusty Pilot to get back into flying!

Despite rain and drizzle, we did get our expected 30 attendees. Andy set the crowd at ease. He would show them how to get back into flying, introduced flying clubs and other affordable options for flying, and reassured them that getting back into flying was indeed an attainable goal. Rather than 3 hours of lectures (Andy described that scenario as "death by PowerPoint!"), he set a realistic scenario…a projected family trip of a few hundred miles. He masterfully wove into the narrative some of the requirements and changes that may have happened since the pilots were last active—licensing requirements, medical procedures (Andy set most people's minds at ease by thoroughly explaining the options, including "BasicMed," and the fact that over 23,000 pilots are now flying under the new program.

Andy reviewed aircraft documents required, pilot currency requirements, and aircraft inspections (including owner-performed maintenance). He segued into airspace requirements, ATC procedures, and the use of onboard avionics and tablets for charting purposes. I started to take note of the group dynamics; there was a notable shift of confidence in the room as Rusty Pilots realized, "Hey, I can do this!" In good ground instruction form, Andy asked questions of the group to make sure they understood, and his questions were immediately answered.

Andy continued on his metaphorical journey, taking the group into other changes since they were last involved, including radio procedures, requirements for entering controlled airspace, runway incursions (an FAA hot topic), and other real-world procedures. The group was so involved that they went 2 full hours before breaking for coffee and snacks, and all were in their seats at the end of the 10-minute break, eager to get on with the figurative journey.

Along the way, Andy slipped in quick references to good aircraft operating procedures, cloud clearance minimums, and many of the other questions normally associated with a Flight Review. To assure that the group understood the subject, he occasionally would bring up questions on the screen for the

group to discuss. Andy discussed changes to the FAA itself in using training for rehabilitation, rather than enforcement actions, and the use of the Wings program (the Rusty Pilots seminar itself is eligible for Wings credit), all helping to put lapsed pilots' minds at ease.

At the end of the presentation, he invited questions, and it seemed that everyone had at least one. The most common theme was medical certification—one of the reasons that had kept pilots grounded in the first place. Andy was ready with answers, and took the group through many possible scenarios and showing where AOPA was ready with free advice for their situation. Several people mentioned that they were unsure whether their own physician would sign off on BasicMed medicals. Andy informed them where to download the medical checklist from AOPA, and an informational brochure for physicians not yet familiar with BasicMed, advising the attendees to submit it to their doctor a week before their examination. Something I was not aware of…AOPA even has a "Doctor-to-Doctor" consultation service (no charge) where if a physician is unsure about doing BasicMed exams, AOPA's doctors are available to help educate that physician so he or she will be willing to do the examination. AOPA is really doing all of the **right things** in helping to get pilots back in the air!

At the end of the seminar, Andy provided the all-important signoff, *"I certify that John Doe has received 3 hours of ground instruction in the areas required of a flight review 14 CFR 61.56(a)(1) by participating in the AOPA Rusty Pilots Seminar at Albert Lea Municipal Airport (KAEL) on November 4, 2017,"* and affixing his name and CFI information. The applicant can take that sign-off to the instructor of their choice to complete the flight portion of their Flight Review.

As I watched this masterful demonstration, I couldn't help but think, "This is the way Flight Reviews SHOULD be conducted, even by individual flight instructors. It is a system that puts the pilot at ease, it is non-threatening, it focuses on changes and what pilots need to know, it is a reminder of things they may have forgotten, it is structured (instead of "what should we talk about?"). At the end of the presentation, the applicant has received all of the background information, and is encouraged to simply ask the instructor completing their Flight Review questions they may be unsure of. All they have to do is complete the flight portion.

Afterward, I asked Andy if this was a "canned" presentation, or something he had come up with. He explained, "AOPA came up with the idea, brought the people together, provided the audio-visuals and a framework for me to follow, but leaves it up to the individual presenters to explain the material." I couldn't help but again think, "This is the way things ought to be!"

I asked Andy about other AOPA services available to aviation groups in the same vein. He explained, "Yes, we have 'Forming A Flying Club' seminars, where we discuss why and how to form flying clubs. AOPA has assisted in the formation of 61 flying clubs to date (27 so far in 2017 alone as of this writing), thanks to this new program." I asked for other specific new programs, and he answered "Yes, we just did a Safety Seminar on 'Fly-By-Night' at over 100 locations across the country, and we'll have a new seminar on 'Collision Avoidance' that will be shared across the country starting in January.

These are great programs, and aside from imparting knowledge, they are great entertainment!

If you are a fixed base operator, flight school, flying club, or aviation group, consider sponsoring one of these seminars. It's a good social mixer (one of the things that is still lacking in aviation), and as your elders may have told you, *"You might LEARN SOMETHING!"*

EDITOR'S NOTE: Jim Hanson is the fixed base operator and airport manager in Albert Lea, Minnesota. He is in his 56th year of flying, with over 30,000 hours in 342 models of airplanes. He flies airplanes, single and multi-engine seaplanes, gliders, helicopters, balloons, taildraggers, and ultralights, and is type-rated in six jets. He has been a contributing editor to Midwest Flyer Magazine for years, usually about the state of the aviation industry. He can be reached at his airport office at 507-373-0608, or via email at jimhanson@deskmedia.com.

Accelerated Aviation Instruction specializes in one-on-one flight instruction. They dedicate an instructor and airplane to YOU until your course is finished—usually in a matter of DAYS, not months. While specializing in advanced courses (Commercial, Instrument, Multi-Engine, Airline Transport, and all three Flight Instructor courses), they do offer an accelerated Private Pilot course. Contact Accelerated Aviation Instruction at accelerated-aviation.com or 507-383-5710 to discuss costs to take you from where you

are now, to where you want to be!

Andy Miller is a nationally recognized aviation educator, and is the Aircraft Owners and Pilots Association (AOPA) Great Lakes Ambassador. Based in the region, he works with flying clubs, flight schools, airports, secondary schools, and aviation organizations to increase the number of active pilots. He travels to events and meetings around the Great Lakes in N104UC, one of AOPA's Reimagined Cessna 152s, as part of AOPA's "You Can Fly" initiative. Reach Andy at andy.miller@aopa.org. ❑

FLY-INS & AIRSHOWS

Carbondale, Illinois To Host 2018 AOPA Fly-In

FREDERICK, MD – The Aircraft Owners and Pilots Association (AOPA) has released its much anticipated 2018 fly-in locations. The popular two-day events will kick off June 15 and 16 in Missoula, Montana, then head to Santa Fe, New Mexico, Sept. 14 and 15; Carbondale, Illinois, Oct. 5 and 6; and Gulf Shores, Alabama, Oct. 26 and 27.

Each location has been designed to provide gateways to explore the mountain northwest, high desert mountains, a cutting-edge center for the automobile and aviation industries in the Midwest, and a relaxed beach town along the Gulf Coast – all great family vacation destinations, all strategically located within an easy flight for tens of thousands of AOPA members.

AOPA's two-day fly-ins will continue with in-depth workshops on Fridays before the main Saturday event.

"We are working on a new slate of workshops for 2018 that will offer hands-on experiences for pilots to improve their aviation knowledge, safety, and skills," said AOPA Director of Outreach and Events Chris Eads.

Since AOPA launched the regional fly-ins in 2014, the association has hosted 18 events in 14 states. The association has connected with more than 50,000 pilots where they fly. More than 5,500 AOPA members and aviation enthusiasts have volunteered over the past three years to help make the events run smoothly for attendees. ❑

Piper's 80th Anniversary Fly-In Showcased Expanded Production To Meet Growing Demand

by Bill Blake

Piper Aircraft held an 80th Anniversary Fly-In, November 11, 2017, at its factory on Vero Beach Regional Airport, Vero Beach, Florida (KVRB). Invited guests included Piper aircraft owners, pilots and exhibitors. Some 300 individuals and 100 aircraft preregistered for the event, but weather somewhat reduced the number of aircraft that flew in.

Following a continental breakfast, there were factory tours and seminars presented by Garmin, ForeFlight, Advocate Consulting Legal Group, Pratt and Whitney, and presentations on specific aircraft models and engines.

Piper has seen a 25% increase in the number of aircraft deliveries in 2017 over 2016, and will increase production by 29% in 2018 over 2017. Many of the aircraft orders are from colleges and universities worldwide, which are anticipating enrollment to increase to meet the growing demand for pilots. As a result of this growing demand for new aircraft, Piper has hired 230 new employees, bringing the total work force to 850.

Recognizing the need for personnel knowledgeable about the industry, Piper has developed an "internship" program. The internships will be a work/study program in conjunction with Indian River State College in Vero Beach. Interns will receive training in all phases of business, including the trades, program management, and business administration. When fully implemented, there will be 40 interns in the program.

The factory tour showed recent equipment purchases and new procedures to improve production, while keeping costs in line. A management team meets once a week to develop ways to improve production and efficiency.

Piper's employees, vendors, and customers are excited about the future of the company and the industry as a whole – no doubt a reflection of a booming worldwide economy.

For additional information about Piper Aircraft, visit www.piper.com.

For Piper sales and service in the Midwest, contact Des Moines Flying Service or Chicago Piper at 800-622-8311 (www.DMFS.com). ❑

Pan Am Clipper Pilot Turns 104

Pilots Paul Johns (104) and Dave Weiman of *Midwest Flyer Magazine*, at Paul Johns Field, Iola, Wisconsin.

Hundreds of friends and admirers showed up to celebrate Paul Johns' 104th birthday.

Central County Airport - Paul Johns Field (68C)

The Central County Flyers celebrated the 104th birthday of one of their members – Paul Johns of Iola, Wisconsin – on October 13, 2017 at the airport named in his honor – Central County Airport – Paul Johns Field (68C). Johns, who was born on October 11, 1913, flew a Boeing 314A Clipper for Pan Am during World War II. Some 57 airplanes and 200 people came out to celebrate his birthday.

Johns soloed a glider in 1929 at age 15 after three 15-minute flying lessons. Two years later, he went on to obtain both his commercial and airline transport pilot certificates. He then joined the Naval Reserve where he obtained both maintenance and radio repair certificates, and became a flight instructor for the U.S. Navy and United Airlines.

Johns was hired by Pan Am in 1939 to set up an instrument flight-training program for pilots flying to Europe via South America. He then started flying Pan Am's DC-3s in Central and South America. By 1944, he was flying the Pan Am Clipper flying boat across the Pacific from San Francisco to Honolulu, logging 220 flights using only celestial navigation.

Each flight would carry 40 passengers and 3,800 gallons of fuel. Johns would typically depart San Francisco before sunset, and would see "Diamond Head" by sunrise.

Following his career at Pan Am, Johns became a corporate pilot in Wisconsin, and did some acoustic research and development with Walker Exhaust in Racine, Wisconsin. Johns quit flying his homebuilt Kitfox at age 85, but at age 90, he took a course in computer repair, and is not in the least intimidated by modern cyber-technology. He is also a licensed ham radio operator (KF9ZN).

Johns appreciates the love and respect of his fellow aviators and their families, and repeatedly thanked everyone at his 104th birthday celebration.

The Central County Flyers has a display cabinet in the main hangar with artifacts and memorabilia donated by Paul Johns, which describe his career and the aircraft he flew. In honor of Paul Johns' accomplishments in aviation, he was inducted into the Wisconsin Aviation Hall of Fame in 2009.

Each Friday, the Central County Flyers Association puts on a lunch for pilots who fly in and local residents who are registered members. A lifetime membership is $10.00, payable at the door. The only requirement is that you are a proponent of general aviation. For additional information, visit http://centralcountyflyers.org/

The airport also provides a shuttle between the airport and the Iola Car Show each July, which is one of the largest car shows and swap meets in the U.S., featuring 2500 show cars (www.iolaoldcarshow.com). ❑

History of Black Aviators Shared Through Special Exhibit

We've all heard of Amelia Earhart, but have you ever heard of Bessie Coleman? Both were adventurous young women who soon found themselves captive of the dream, aspiration, and sheer love of the world of flight. In contrast to Earhart who trained stateside, Coleman, who was black, had to make her way to France where, in only seven months, she would earn her international pilot's license." Al Whitaker, a pilot himself and the son of a Tuskegee airman, would relate this rather disturbing fact when speaking to the general public on the subject of African-American aviation history.

Attorney, pilot, aircraft owner and private airport owner, Al Whitaker, describes the challenges and contributions of black aviators during World War II. *Photo by Jo Winkler-Bley*

The origin of Whitaker's efforts to enlighten the public on black involvement, contributions and achievements in aviation stem from an Experimental Aircraft Association (EAA) goal to fly a million youngsters ("Young Eagles") before the centennial of the Wright Brothers' first flight, December 17, 2003. As a volunteer pilot at his first EAA Young Eagles fly-in, Whitaker noted: "By the end of the day, more than 100 boys and girls had been flown, none of whom were minorities."

Recognizing the value of the Young Eagles program, Whitaker took it upon himself to bring this positive experience to the African-American community in Madison, Wisconsin. He contacted fellow airmen willing to donate their time and airplanes. Neighbors and friends grilled burgers, guided the attendees, and guarded them against accidental injury. For three consecutive years, at his private airport (Der Schwarzwald Aerodrome), just northwest of Waterloo, Wisconsin, Whitaker held Young Eagles fly-ins. In support, Madison area vendors donated food and beverage and local church groups identified prospective attendees. Those Young Eagles were schooled in the basics of aerodynamics, navigation, communications, and meteorology before receiving their flight. Additionally, with the permission of the Smithsonian Museum, Whitaker was able to assemble a photo exhibit of pioneer black aviators. This array provided a visual aid useful for acquainting participants with knowledge of their aviation heritage. Recently, the exhibit was put on display in the gallery of the Overture Center in Madison. A well-attended reception for the exhibit took place in the rotunda lobby on November 4, 2017. It was followed by the screening of "The Flying Ace," a 1926 film produced and directed by an African-American, featuring an all-black cast.

From the outset, Whitaker's commitment to this project has been out of respect for his father, his father's fellow Tuskegee airmen, and the pioneer African-American aviators who have gone before him. ❑

ADS-B Proves Valuable On Canada Trip

by Dave Weiman

When I started flying to Canada on fishing trips in 1981, we navigated by dead reckoning, sectional charts, and Automatic Directional Finders (ADFs) using Non-Directional Beacons (NDBs) and commercial radio station frequencies. Seldom were we within range of a VOR. Today, I use GPS (Global Positioning System), but I still carry a set of sectional charts as a backup and still have an ADF. This year we added ADS–B (Automatic Dependent Surveillance – Broadcast), and keeping track of everyone on our flight from Thunder Bay (CYQT) to Miminiska Lodge, Ontario (CPS5), was much easier.

Our group trip to Miminiska Lodge, Ontario (CPS5) this year began on Sunday, August 6, 2017, with pilots flying direct from their home bases to Thunder Bay International Airport (CYQT) to clear Canada Customs. We arrived by 3:00 pm, and parked at Maintair Aviation, the Shell dealer on the field, which is the only general aviation operator at Thunder Bay that sells 100LL.

Prior to departing the U.S., we called Canada Customs as required with our ETAs to Thunder Bay, using the 1-888-CAN-PASS system. Upon our arrival, Canada Border Services (CBS) officers did not meet us, which is not uncommon. In these circumstances, the pilot-in-command may get out of his aircraft and go inside the fixed base operator and clear customs over the telephone by again calling 1-888-CAN-PASS. Thanks to cell phone technology and extended coverages, I simply called Canada Customs while

Aircraft line the airstrip at Miminiska Lodge.

Looking towards the north at Miminiska's east/west runway.

standing by my aircraft, and once I received a Clearance Report Number from CBS, I and my passenger were cleared, and he too could get out of the aircraft. I recommend to always get the badge number whenever you speak with a Canada or U.S. Customs officer, and note the date and time you contacted them, so there can never be any doubt you notified them and received clearance to be in the country.

Remember, too, that neither the pilot-in-command, nor passengers, may get out of the aircraft when they return to the U.S., until they are met by a Custom's officer, and he gives them the okay.

Once we cleared Canada Customs, and fueled and tied down our aircraft, we called the Valhalla Inn for a shuttle.

While we could fly all the way to Miminiska Lodge in the same day, located 196 nm north of Thunder Bay, we wouldn't arrive until late in the day. Instead, by flying to Thunder Bay a day before arriving at Miminiska Lodge, we get an early start the next morning and arrive before 12:00 noon, in time for lunch and a half-day of fishing, complements of the lodge.

There are very few Canada fishing lodges that have their own airstrip, and fewer as remote as Miminiska, 62 nm from any roads. This makes Miminiska Lodge especially appealing to pilots and true outdoorsmen.

We departed Thunder Bay on Monday, August 7, 2017 with the fastest aircraft in the lead, spacing ourselves at least 10 miles apart. We stayed in radio contact with one another on 122.75 Mhz, and the weather cooperated, so we could maintain any altitude. About every 50 nm or so, we had roll call, recording each other's altitude, groundspeed and ETA to "MIM," but again, all but one aircraft in our group was equipped with ADS-B in and out, so we all knew each other's position all of the time by looking at our GPS nav/coms, iPads or both.

Any pilot flying 25 nm beyond their departure point is required by Transport Canada to file a "flight plan," unless a "flight itinerary" is filed with a responsible person who has agreed to notify air search and rescue if their aircraft is overdue.

This year, all pilots in our group again called the Wilderness North office in Thunder Bay and filed a flight itinerary with management just prior to departing Thunder Bay, and between the office and the lodge, they knew we were enroute. Upon our arrival at Miminiska Lodge, the manager notified the Wilderness North office via email that we had arrived.

The problem with a flight itinerary is that if we don't show up, Winnipeg Flight Service will not initiate air search and rescue, because they would not have a flight plan for us. That responsibility would fall on the shoulders of Wilderness North. So, while radio communications in remote regions of Canada can be a little iffy, we have had success now two years in a row in reaching Winnipeg Flight Service at Miminiska if at least 5000 feet MSL or higher, so filing and canceling a flight plan is an option. Of course, the best way to cancel a flight plan is to have a satellite telephone and cancel on the ground upon your arrival.

The two remote communications outlets (RCOs) in the vicinity of Miminiska Lodge to contact Winnipeg Flight Service are at Pickle Lake (CYPL), 62 nm to the west on 123.475 Mhz, and at Lansdowne House (CYLH), 43 nm to the northeast on 123.375 Mhz. We were able to reach Winnipeg Radio at Pickle Lake, but not at Lansdowne House. We can also try reaching Thunder Bay Radio (FSS) at Pickle Lake on a different frequency. Refer to the Canada Flight Supplement for procedures and frequencies.

Shore Lunch Island

Mark Peterson of Oregon, Wisconsin, with a trophy Northern Pike.

A 39-inch Northern Pike caught by first-time guest, Michele Connelly of Osceola, Wisconsin.

If all else fails, Internet and Skype are also available at the lodge, and while we cannot cancel a flight plan with Winnipeg Flight Service via email, pilots can email the Wilderness North office and staff can call Winnipeg and cancel their flight plans for them.

After a final check for winds using the windsock on the sand point in front of the lodge (sponsored by our friends at *PilotMall.com*), we made our traffic announcements and touched down on Runway 27 at Miminiska Lodge, where we were greeted by lodge managers, Kate and Brian, and their staff, who took our gear to our cabins.

Once settled into our cabins, we had lunch and were briefed by Kate and Brian about all things good, then rigged our tackle for a half day of fishing. The opening reception was held at 5:00 pm and dinner was served at 6:00 pm.

Miminiska Lodge is Wilderness North's premier American plan lodge and one of Ontario, Canada's most respected full-service fishing destinations.

Located on the Albany River Watershed in northwest Ontario, and miles from the nearest road, Miminiska Lodge offers guests the opportunity to experience the raw beauty of pristine boreal wilderness. Northern Pike and Walleye are caught in abundance. Brook Trout can be caught at the mouth of the Albany River.

This was the first year we had a "floatplane" join our group, which was flown by Paul Durand of Star Prairie, Wisconsin. Paul flew his Super Cub on amphibious floats, first landing on the water and beaching on the sand shore, then on the airstrip to tie down.

Guests are only allowed to keep Northern Pike under 27 inches in length, and Walleyes under 18 inches, to preserve the quality fishing.

Miminiska has 16 ft. Lund boats with 25 hp Yamaha 4-stroke, electric start motors and fish finders. In the lodge, you will find Wi-Fi Internet, a full bar, pool table, and satellite television. There is also a sauna by the lake, canoes, kayaks, and paddle boards.

Meals are professionally prepared and were superb, whether in the lodge or at "Shore Lunch Island." We even had a birthday party for longtime participant, Phil Peterson of Oregon, Wisconsin.

Our Flight Home

Guests have their choice of either a 3-night/2-day trip, or a 5-night/4-day trip, so our departure days varied somewhat, as did our routes of flight going home. Most pilots opted to fly to Pickle Lake, Ontario (CYPL) for fuel. The pilots with Bonanzas, a Piper Malibu and the light twin filed IFR via the Internet and flew direct to their airports of entry in the U.S.

Not only did we welcome some newcomers on the trip, but the pilots and passengers of two other aircraft who had read about Miminiska Lodge in *Midwest Flyer Magazine,* showed up on their own, and want to officially join our group in 2018.

Upon our arrival at Pickle Lake, we called U.S. Customs at Duluth, Minnesota, to change our airport of entry to International Falls, Minnesota (KINL), due to fog in Duluth.

Dinner, combined with a birthday party in the lodge.

The view of the dock from the lodge.

We then called U.S. Customs at International Falls to confirm our ETAs. The U.S. Customs officers at both airports were extremely professional, polite and accommodating.

It is 212 nm between Pickle Lake and International Falls, and we had the option of filing either VFR or IFR. If you file IFR, Winnipeg Center can pick you up on radar 170 nm north of International Falls at 7,000 feet and above. Again, all aircraft in our group maintained radio contact with one another on 122.75 Mhz and we tracked each other using ADS-B.

If you are on an instrument flight plan, you already have a transponder code which is required of all aircraft to cross the border. Otherwise, you need to get a transponder code from either Minneapolis Center or Princeton Flight Service. You also need to be talking to either Center or Flight Service as you cross the border.

Upon our arrival at International Falls, the U.S. Customs officer met us promptly at our aircraft, and checked our passports, pilot certificates and medicals. Unlike some of the other airports of entry along the border, both International Falls and Duluth have U.S. Customs offices at the airport, so you know that an officer will be there upon your arrival. Some of the other airports of entry along the border, do not have that luxury.

Hanging out around the campfire.

Thor Einarson and his staff at Einarson Flying Service at Falls International-Einarson Field greeted us upon our arrival and offered us a courtesy car if we wanted to go into town for

Sunsets at Miminiska Lodge cannot be beat.

lunch. Thanks to the staff at Miminiska Lodge, who packed each of us a lunch, the courtesy car was not needed.

Canada Fishing Fly-Out 2018

The 2018 Canada Fishing Fly-Out to Miminiska Lodge will be held the week of August 9 – 15, with three trips being offered:

TRIP #1: (3-Night/2-Day Trip): **August 9 - 12, 2018.** Arrive at Miminiska Lodge on Thursday, August 9th, and depart on Sunday, August 12th.

TRIP #2: (3-Night/2-Day Trip): **August 12 - 15, 2018.** Arrive at Miminiska Lodge on Sunday, August 12th, and depart on Wednesday, August 15th.

TRIP #3: (5-Night/4-Day Trip): **August 9 - 14, 2018.** Arrive at Miminiska Lodge on Thursday, August 9th, and depart on Tuesday, August 14th.

For rates, email me at **info@midwestflyer.com.**

For reservations, call Lynette Mish at Wilderness North toll free at **1-888-465-3474.**

Aircraft parking is limited to the first 10 aircraft that register.

Some people go on this trip for the fishing, and others for the adventure of the flight, but most go for the total experience! *And whether on wheels or floats, this Canada fishing trip is for you!*

EDITOR'S NOTE: The Canada Fishing Fly-Out To Miminiska Lodge is a service of Wilderness North. Neither *Midwest Flyer Magazine,* Flyer Publications, Inc., nor their staffs and owners, or anyone else affiliated with the magazine, assume any responsibility for the reliance upon the information contained herein or elsewhere, or liability for anyone's participation on the trip or for the trip itself. ❑

The windsock on the sand point in front of the lodge, complements of PilotMall.com.

Remembering Beautiful People, On A Beautiful Island

Washington Island Airport (2P2).

by Dave Weiman

Nestled between the beautiful turquoise blue waters of Lake Michigan to the east, and Green Bay to the west, with hilly topography and rock outcroppings, and beautiful, green deciduous and pine forests, is Washington Island, off the tip of the Door County Peninsula in northeast Wisconsin. The island is also located north of the tension line (the line marking the halfway point between the Equator and the North Pole). The island was founded in 1850 and became home to immigrants who established the second oldest Icelandic settlement in the U.S. It is Wisconsin's largest island (36 square miles) and dubbed "The Crown Jewel" of Door County.

The French named the treacherous waters separating Washington Island from the Door County Peninsula, "Portes des Morts" or Door of Death. This is where Door County gets its name.

One day a group of 350 Pottawatomie Indians tried canoeing between the Door County Peninsula and Washington Island and drowned in the process. Today, you can fly to Washington Island, or cross Death's Door in a ferry. I prefer to fly!

Washington Island's First Aviator

The first aviator on Washington Island was Claude C. Cornell, son of veteran fisherman John W. Cornell of the fishing company J.W. Cornell & Sons. Cornell owned a cabin-class Stinson, powered by a 125 hp Kinner engine.

Washington Island Airport

Washington Island Airport

Known today throughout the Midwest for its Annual Fish Boil Fly-In in July, the airport (2P2) was established in 1935 and features two turf runways: Runway 14/32, 2232 X 150 feet, and Runway 02/20, 2250 X 150 feet.

When we called the airport this fall, we were sadden to learn that long-time Washington Island Airport Manager, Walt Nehlsen, 86, passed away on July 24, 2017, after a brief illness. He was preceded in death by his wife, Evelyn. The Nehlsens are survived by their three children: Marilee (Jeff) Nelson of S. Beloit, Illinois; David (Linda) Nehlsen of Whitewater, Wisconsin; and Peter (Leila) Nehlsen of Washington Island, Wis.; 10 grandchildren, 17 great grandchildren, and hundreds of friends in the aviation community.

Memorials to Walt Nehlsen may be given in his name and will be used for several causes he fully supported, including WIChip (Service/Support on Washington Island), and Leader Dogs for the Blind. Condolences may be sent to the family in care of Peter Nehlsen, 1141 Old West Harbor Road, Washington Island WI 54246.


Evelyn and Walt Nehlsen

The Nehlsens retired to Washington Island in 1998 from Whitewater, Wisconsin, where Walt was a farmer and an electrician, and Evelyn, a loving mother and homemaker. Walt continued flying on the island, and served as airport manager up to the time of his death. He worked hard for his community and loved aviation. He was also sensitive to our serviceman, especially those who served and died in World War II. It meant a lot to him to visit the American cemeteries at Normandy, France and Pearl Harbor.

Walt saw the airport not only as an important lifeline for residents, but as a source of economic development when pilots visited the island on vacation.


Washington Island Airport Manager, Dick Donnelly, at home with his collection of radio controlled aircraft.

The new airport manager is Richard (Dick) Donnelly, who learned to fly in the 1960s, and once had aspirations of becoming an aircraft mechanic.

Dick first came to Washington Island with his wife, Judy, 34 years ago. The Donnellys became full-time residents 20 years ago when Dick retired as a computer programmer for Caterpillar in Joliet, Illinois.

The airport has runway lights for Runway 2/20, and as soon as the trees are removed on the approach end of Runway 32, lights will be available there, as well. Other improvements planned for the airport include a new terminal building for pilots, a new lawnmower, and better tie-downs. There are no plans to pave the runways.

Washington Island Attractions

Attractions on Washington Island include water sports, bicycling miles of trails, golfing, fine and casual dining, a performing arts center, boat cruises, ferry rides between the various islands, lighthouse tours and historical museums, caves, quality art and antique shops, and wonderful scenery.

No worries about ground transportation upon your arrival. Bicycles are available to pilots at the airport free of charge, thanks to the generosity of local pilot, Mike Burger, as is a van owned by the local Lions Club. The bicycles and van are both on a first come, first serve basis.

"The Airport Van," courtesy of the Washington Island Lions Club.

Bicycles can also be rented at **Island Rides Bicycles,** and they will deliver and pick-up the bikes at the airport. Call **920-847-2126.**

If biking is not to your liking, call ahead and board the **Cherry Train** for a narrated tour of the island at **920-847-2546 (www.cherrytraintours.com).**

Jackson Harbor Soup. Dining is available inside or outside on the deck overlooking Jackson Harbor.

Of course, I arrived in time for lunch, so Dick drove me to a relatively new restaurant called **Jackson Harbor Soup.** Dining is available inside or outside on the deck overlooking Jackson Harbor, where you can catch the ferry over to scenic Rock Island, a primitive 912-acre pedestrian-only island where you can take a walking tour of **Rock Island State Park,** and tour the **Pottawatomie Lighthouse** (Wisconsin's oldest lighthouse), and stone buildings built by a wealthy inventor who owned the island between 1910-45. You can hike 10 miles of trails, a one-mile interpretive trail, and 5,000 feet of beach **(www.dnr.state.wi.us/org/land/parks/specific/rockisland/index.html).**

Sites on Washington Island are many.

The **Art & Nature Center** features a working beehive, bird calling station, exhibits, and artifacts in a circa 1904 school house building.

Jackson Harbor Maritime Museum

The **Jackson Harbor Maritime Museum** includes refurbished buildings of a former fishing village with artifacts from the commercial fishing past, and photographs and videos on local maritime history. Coast Guard, ferryline and area shipwreck displays are also featured. Open daily, 10 a.m. to 4 p.m., Memorial Day weekend through Columbus Day.

The **Farm Museum** showcases life on a Washington Island farm in the 1880s, including original buildings moved to the museum site from island locations, and old-time agricultural implements.

The **Stavkirke** is a church built by island craftsmen who incorporated shipbuilding techniques and ancient Norse tradition. The structure lives and breathes like a Viking ship.

Schoolhouse Beach has the distinction of being one of only five beaches in the world with all white limestone "polished" rocks, and is part of the Niagara Escarpment. Schoolhouse Beach is a protected harbor area and the island's original shipping port. The swimming is excellent there, if you don't mind cold water, and the beach is marked and features a diving raft.

Red Barn Park/Gislason Public Beach has a playground, picnic area, grills, trails, and benches. The Red Barn offers summer events, such as Family Storytime beginning at 7:00 p.m. on Thursday, and live entertainment on Friday. Local and visiting artists perform original music and theatrical events.

Sand Dunes Beach allows picnic lunches, but no campfires.

Trail riding with hypoallergenic Icelandic horses is available at **Field Wood Farm,** or walk with butterflies and moths in the gardens of the **Butterfly House.**

Mark your calendar for the **2018 Washington Island Fish Boil Fly-In,** Saturday, July 21 from 11:00 a.m. to 1:00 p.m., sponsored by the Washington Island Lions Club. We suggest arriving early to avoid the rush!

Hotel Washington & Studio Restaurant (920-847-3010).

For additional information on Washington Island and Washington Island Airport, call Dick Donnelly at **920-535-0546 (cell) or 920-847-2553 (home),** and visit the following websites: **www.WashingtonIsland-wi.gov**, and **www.VisitWashingtonIsland.com**. We suggest that you download a map at **http://WashingtonIsland-wi.com/island-map/**, and check the weather at www.Weather-wi2P2.com. Fuel is not available on Washington Island, but it is available on the mainland at Ephraim-Gibraltar Airport (3D2).

EDITOR'S NOTE: Pilots are encouraged to call the airport manager in advance to check on the availability of bicycles at the airport, and the availability of the Lions Club courtesy van, **as both are available on a *seasonal basis* only!** See contact information above for Dick Donnelly, airport manager. ❑

Another Beautiful Day Flying In The Colorado Mountains

by Yasmina Platt


Yasmina Platt

It's October 15, 2017, and the "end" of Colorado's best mountain flying season is fast approaching, so I had to take advantage of another beautiful morning to fly before potentially hibernating my mountain flying skills until next year.

I had an idea of the route I wanted to fly; however, the forecast for high winds and turbulence was very present for the early afternoon, so I decided to be flexible and just go "check it out," with the mindset that we would turn around at the first sight of bad turbulence.

We ended up flying a loop from Front Range (KFTG) to Gunnison and back around. From KFTG, we flew by Devil's Head Fire Lookout/Tower southwest of Castle Rock, which has an interesting history. Later that afternoon, I hiked for a different perspective and experience, over Cheesman Lake, right over Harriet Alexander Field Airport (KANK) in Salida. Harriet reminded me of Sedona's Airport (KSEZ), as they are both on mesas, south of Monarch Pass, and around towards Gunnison. From there, we flew over Taylor Park Reservoir, up beautiful Cottonwood Pass (my favorite part!), and down towards Buena Vista before heading back towards KFTG.

This flight was intended more for sightseeing than training, so no landings were made along the route to ensure we got back to lower ground before the winds picked up, causing moderate turbulence. However, we always have room for improvement and learning or experiencing something new, right? This flight was no different.

Two pressure fronts, a cold and a warm, came close to each other at about the mid-point of our flight. In meteorology classes, we learn that cold fronts and warm fronts cannot mix or collide because of the difference in temperatures and densities. Warm air, being lighter, will usually be pushed atop the colder air. The air cools as it rises and the water vapor in it condenses. Precipitation, clouds and storms can be found in these scenarios. Fortunately, the formation of any type of visible moisture was not forecasted for the duration of our flight; however, the next day, on October 9th, almost the entire state of Colorado welcomed snow – the first snow of the season for Denver.

But, what we did experience was quite interesting! Upon reaching the mid-point of our route, our altimeter setting went from 29.77" to 30.21" of Hg in a matter of seconds (ok, maybe a few short minutes) between two nearby weather stations. Do you know what that meant? A 400-plus ft. difference in altitude! Wow!

I had noticed a big altitude discrepancy between my indicated altitude and ForeFlight's (my iPad's) altitude, but which one was accurate? I know the source of an altimeter's information and how it works. An altimeter measures Outside Air Pressure (OAP) from the static source, which gets converted to an altitude and the setting obtained from air traffic control or weather stations corrects it for changing air pressure. After manually adjusting the altimeter with the setting from the next weather station, it read correctly and ForeFlight was dead on, accurate, the entire time. Good to know! I assume ForeFlight must be automatically inserting the latest altimeter setting into the application since I had an ADS-B In unit connected to it.

In the mountains, when you already don't have too much clearance from the ground as it is, a 400-500 ft. difference in altitude is a huge difference. It did not present a safety concern for us because we were in visual conditions and we judged our altitude based on charts and looking out the window. But, can you imagine if we would have been in instrument conditions? Would we have noticed or picked up (from a weather station) the large change in pressure before it was too late (causing a Controlled Flight Into Terrain or CFIT accident)? I, once again, want to thank the Colorado Department of Transportation and, in particular, the Division of Aeronautics, for installing and maintaining wonderful AWOS stations on top of critical mountain tops/passes throughout the state. They are not only convenient and "nice to have," but can be lifesaving as well.

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Eagle River Union Airport Reopens Primary Runway

(L/R) Ken Anderson, Secretary, Eagle River Union Airport Commission; Jerry Dahl, Pilot, Cole Publishing; Carl Ruedebusch, Chairman, Vilas County Economic Development Corporation; Ron LaMarche, Member, Eagle River Union Airport Commission; Mike Flaherty, Line Technician, Eagle River Union Airport; Rob Hom, Manager, Eagle River Union Airport; Bill Hassey, Board Member, Town of Lincoln; Roger Shadick, Member, Eagle River Union Airport Commission; Jim Eagan, Chairman, Town of Washington; Brian Uttech, Board Member, Town of Lincoln; and Brian Dominick, Chairman, Eagle River Union Airport Commission.

Dave Weiman Photo

Eagle River Union Airport Manager, Rob Hom, with the Premier Jet flown in by Jerry Dahl of Cole Publishing, to rededicate Runway 04/22 on October 6, 2017.

Dave Weiman Photo

EAGLE RIVER, WIS. – Eagle River Union Airport completed reconstruction of its primary runway, Runway 04/22 (5000 X 75 feet) and reopened the runway on October 6, 2017. The airport is a medium-class general aviation public-use facility, which serves residents and property owners in Vilas and Oneida Counties, including the communities of Eagle River, and Lincoln and Washington Townships.

Eagle River Union Airport features 72 hangars – 68 of which are owned by tenants – and is home to 56 based aircraft, including one jet, four twins, and 51 single-engine aircraft. The airport also serves many transient visitors each year, as the counties are in the heart of the northwoods and lake country. There are between 12,000 and 15,000 flight operations each year.

The airport has an economic impact of $13 million per year, and directly supports four based businesses: Eagle Fuel Cells, Noble Aviation, Wilderness Aviation, and Northwoods Aviation.

Reconstruction of Runway 04/22 included new LED runway edge lights, end identifier lights and directional signs. The pavement design includes new 4-inch bituminous pavement (Type E-3), and over-pulverized existing bituminous and existing base course for 12-inches of base course. This reconstruction method raised the grade of the runway 4 inches and required re-grading the safety area adjacent to the runway to maintain FAA criteria for cross-slope. The improved base course increases the weight bearing capacity of the pavement from 12,500 lbs. to 60,000 lbs., enabling the airport to safely handle all visiting aircraft.

The airport commission expressed its appreciation to the Federal Aviation Administration, Wisconsin Bureau of Aeronautics, City of Eagle River, Town of Lincoln, and Town of Washington for their support and investment in their communities, and to tenants and visitors who support the airport. The total cost of the project was $1,817,714.22.

Eagle River's secondary runway is Runway 31/13 at 3400 X 60 feet. The airport also has a helipad, 100LL and Jet A fuel, and a modern terminal building with an office, conference room, lounge, pilot briefing room, and restrooms. A courtesy car as well as car rental, is available.

For additional information call 715-479-7442, and visit www. erairport.com. ❑

New Terminal Building Opens In International Falls

INTERNATIONAL FALLS, MINN. – Travelers will now arrive and depart from the newly constructed Falls International Airport terminal located in International Falls, Minnesota on the United States/Canada border. The airport serves as one of Minnesota's international airports of entry into the United States, and approximately 15,000 passengers arrive and depart from the airport daily. The airport is also one of nine airports in Minnesota that offers commercial airline service.

The new 18,000-square-foot terminal opened on October 4, 2017, and the community celebrated with an official ribbon cutting hosted by International Falls Mayor Bob Anderson on October 10. Minnesota Lieutenant Governor Tina Smith, along with state legislators, airport commission members, Koochiching County officials and City of International Falls Council Members, attended the event.

Completion of the airport terminal concludes phase one of the two-phase airport improvement project. The first phase replaces approximately two-thirds of the old terminal. Improvements include expanded secure passenger waiting areas with vending and bathrooms, baggage processing, car rental facilities, TSA passenger screening, airline ticket office counter and back office, secure passenger hold room, utility upgrades and a jet bridge to allow passengers to board aircraft protected from weather elements. Phase two, expected to commence in May 2018, includes demolition of the old terminal building, and adding on to the new facility with expanded areas for customs and border protection passenger screening and processing, airport administrative offices, a public conference room, TSA office and an office for the National Weather Service. The entire project, including building, site design and landscape, is designed to meet Minnesota's B3 Sustainable Building (SB) 2030 Energy Standards to significantly reduce the energy and carbon footprint.

"Travelers arriving and departing from the new Falls International Airport will have a much different experience, a much more pleasant experience," says SEH Project Manager Bob Cohrs. "Boarding the planes without having to weather cold, wind or heat will create a better experience, as will the upgraded areas to pass through screening and wait for airplanes to arrive or depart. We've been working with the City of International Falls and Koochiching County for more than 25 years and made several much-needed improvements throughout the years. The new terminal is one of the highlights."

SEH is leading the project, providing overall project management, structural, environmental and civil engineering and landscape architecture, as well as assistance in obtaining federal, state and bond funds totaling $9.1 million. SEH is partnering with the following companies to complete the project:

- Alliance – architecture
- Bartlett & Associates – mechanical engineering
- LHB – electrical engineering
- Kraus Anderson – on-site construction manager

Short Elliott Hendrickson Inc. (SEH®) is an 800-person company comprised of engineers, architects, planners and scientists with 31 offices across nine states. SEH focuses its work on renewing infrastructure, creating better places, engineering clean water and improving mobility with the core purpose of Building a Better World for All of Us®. ❑

AOPA Applauds Cedar Rapids For Promoting Competition, Access

CEDAR RAPIDS, IOWA – Pilots refueling at Eastern Iowa Airport in Cedar Rapids, Iowa, have a cheaper option for avgas: A new self-service fueling option for 100LL is more than $2 per gallon cheaper than buying fuel through the airport's single fixed-base operator. The move is the latest positive development in AOPA's efforts to ensure airports are providing reasonable access. The Cedar Rapids Airport Commission is also taking critical steps to provide ramp space for transient operators to park their aircraft as an alternative to parking at the fixed base operator.

Following these recent moves, AOPA President and CEO Mark Baker commended the airport commission in a letter, explaining, "These are imperative steps for airport operators to take in their role as an oversight body responsible for ensuring that prices for critical aeronautical services are reasonable, fair, and not discriminatory." Baker emphasized that "more than 37,000 operations at Eastern Iowa Airport rely on access, and unreasonable prices and fees deter pilots and operators from airports.

"Introducing competitive options for parking and fueling services at Eastern Iowa Airport will serve as a beacon for the entire general aviation community as an airport willing to take action and protect affordable access to our nation's public-use airports," Baker stated in the letter. Baker also recommended the airport consider offering a Jet A self-service fueling option for pilots to increase competition.

After an almost yearlong campaign to collect information from members and pilots regarding egregious FBO pricing and fees, AOPA has started working with leadership at certain airports across the country to bring about more transparency and improve access for local and transient pilots.

In August, AOPA filed three FAA Part 13 complaints against Waukegan National Airport in Waukegan, Illinois, North Carolina's Asheville Regional Airport, and Florida's Key West International Airport over unreasonable FBO pricing and fees. Each airport included in the complaints has a single, monopoly FBO with significant power over access to the airport. In response to the complaints, the FAA is seeking information from each of the airport sponsors. (Joe Kildea, AOPA) ❑

MSP's Economic Impact On Region Is Large, Study Finds

Minneapolis-St. Paul International Airport (MSP) supports 86,900 jobs, creates $2.5 billion in annual spending by visitors to the area, and generates $15.9 billion in total economic output annually, according to an economic impact study just completed by InterVISTAS Consulting, Inc.

"MSP International Airport does more than get people and cargo from point to point. It serves as a powerful catalyst for the area economy," said Brian Ryks, executive director and CEO.

"We tend to take air service for granted in a city with a thriving major airport, but the value of that service to our economy underscores the need to continue investing in airport infrastructure, and partnering with airlines to initiate or expand service."

The study used 2016 data to measure the direct, indirect and induced economic impacts of MSP, as well as visitor spending impacts on the seven-county Minneapolis-St. Paul metropolitan economy. ❑

Air BP Supplies Customers With Biojet During "Fly Green Day" At Chicago O'Hare

CHICAGO, ILL. – Air BP, the international aviation fuel products and service supplier, supplied biojet to its customers at Chicago O'Hare International Airport (KORD) in support of the "Fly Green Day" initiative, which took place on November 8, 2017 as part of the company's broader commitment to a lower-carbon future. This marks the first time that biojet was delivered via the airport's existing fueling infrastructure to customers at one of the world's busiest airports.

Biojet is a blend of conventional jet fuel and renewable jet fuel made from alcohol or plant and vegetable oils.

Fly Green Day is an event organized by U.S. advanced renewable fuels company Gevo, Inc., in collaboration with Chicago O'Hare International, to help boost the commercialization of biojet. Air BP worked with Gevo to bring a demonstration batch of biojet produced from bio-isobutanol (an alcohol derived from renewable feedstocks) to customers at the airport. ❑

Schweiss Doors Founder Mike Schweiss Featured On Minneapolis WCCO Television

FAIRFAX, MINN. – Mike Schweiss, founder and owner of Schweiss Doors, was recently featured in a television news feature titled, "Small Town Minnesota Door Business Goes Galactic."

In the interview produced by WCCO-TV in Minneapolis, Schweiss explains how he got into the business and how it's grown. During the three-minute feature, WCCO reporter, John Lauritsen, details some of Schweiss' project highlights, including manufacturing doors for NASCAR, the NBA's Sacramento Kings and SpaceX. To see the interview, visit http://minnesota.cbslocal.com/2017/10/08/fm-schweiss-doors/

Schweiss Doors is a manufacturer of hydraulic and bifold liftstrap doors for aircraft hangars and other buildings. Doors are custom made to any size for any type of new or existing building for architects, builders and aircraft owners. Schweiss also offers a cable to liftstrap conversion package. For more information, visit www.bifold.com.

❑

EAA AirVenture Oshkosh Contributes More Than $170 Million In Economic Benefit To Fox Valley

OSHKOSH, WIS. – EAA AirVenture Oshkosh, the world's largest annual fly-in gathering and one of Wisconsin's tourism crown jewels, is also an economic powerhouse for the state. A new University of Wisconsin Oshkosh study concludes the annual event contributes $170 million of economic benefit to the state's Fox Valley Region each year.

The UW Oshkosh Business Success Center conducted the study during EAA AirVenture Oshkosh 2017, which was held July 24-30 at Wittman Regional Airport in Oshkosh, Wis. Dr. David Fuller from the UW Oshkosh Department of Economics led the study team, which surveyed hundreds of guests and exhibitors regarding their spending patterns during the weeklong event.

"The thorough, independent review of EAA AirVenture's regional economic impact fortified what many understood for a long time – that hundreds of businesses and thousands of individuals benefit from the presence of this world-renowned event in Oshkosh," said Jack J. Pelton, CEO and Chairman of the Experimental Aircraft Association, which hosts the fly-in. "When the world comes to Oshkosh and Wisconsin's Fox Valley region each year, residents of the state all win through additional business income, new jobs, and direct tax revenue to local governments."

The UW Oshkosh study showed direct spending by AirVenture visitors and exhibitors totaled $121 million in the five-county Fox Valley region (Winnebago, Fond du Lac, Outagamie, Calumet, and Brown counties). That spending created additional spending of nearly $50 million for area business, based on established and recognized regional

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The legendary Breitling DC-3 flies over Chicago during its historic world tour.

The Breitling DC-3 Completes World Tour

Having departed from Geneva in March 2017, the Breitling DC-3 made its grand return to Switzerland after circling the globe, landing in Sion where 100,000 passionate enthusiasts were set to attend the Breitling Sion Airshow, September 15-17. This legendary plane celebrated its 77th birthday in 2017.

To share its passion for aviation with a broad audience around the planet, Breitling launched its DC-3 on a world tour in stages that notably included the Balkans, the Middle East, India, Southeast Asia, the Pacific and North America.

This "Breitling DC-3 World Tour" came to a fitting conclusion in Sion, where the propeller-driven twin-engine plane arrived, escorted by the Frecce Tricolori, the elite Italian Air Force demonstration team. A press conference enabled the aircraft's captain, Francisco Agullo, to present the key challenges and stages of this journey spanning 45,374 km (24,500 nautical miles). Breitling has in fact chosen to donate two Swiss francs to UNICEF for each mile covered.

The Breitling DC-3 shared star billing with other formations and ambassadors of the brand at the Breitling Sion Airshow, such as the Breitling Jet Team, the Breitling Wingwalkers and the flying man, Franky Zapata, on his Flyboard® Air.

The crew and certain privileged passengers were not the only ones to have flown aboard the Breitling DC-3. To mark the event, Breitling also created a limited edition of its famous Navitimer aviation chronograph, the cult watch among pilots and aeronautical enthusiasts since 1952, and decided to have it travel around the world in the aircraft, thus ensuring it was truly part of this adventure, and shared every stopover and its finest airborne moments. The 500 Navitimer "Breitling DC-3 World Tour" chronographs will be delivered to their lucky owners with a logbook signed by the captain notably listing all the takeoff and landing times, flight times, and the names of the pilots, as well as the weather conditions at each stage of the flight. This is a graphic means of reliving step by step the entire odyssey of both the plane and the watch. ❑

Wipaire Receives Chinese Approval For Wipline 13000 Floats, Expands Gear Advisory Approvals

SOUTH ST. PAUL, MINN. – The Civil Aviation Administration of China (CAAC) has granted approval for Supplemental Type Certificate SA2CH for the installation of Wipline® 13000 floats on the Viking Series 400 Twin Otter. Approval for Wipaire's Amphibian Gear Advisory System (Supplemental Type Certificate SA39CH) was also expanded to the Cessna 172R and 172S. The system is also available in China on the Cessna 208 Caravan, 208B Grand Caravan, Quest Kodiak, Air Tractor AT-802/802A, and the Viking Series 400 Twin Otter.

"We're committed to supporting our growing international customer base with new approvals around the world. Our ever-changing list of international approvals underscores our ability to engineer, manufacture, and deliver innovative products on a global scale," stated Clint Clouatre, Vice President of Marketing and Sales.

"This latest validation highlights the broad range of aircraft we serve, from some of the smallest to some of the largest. The breadth of floats we hold international validations for remains unmatched by any other manufacturer—a testament to our dedication to our customers, wherever they may be based."

First certified in 1992, Wipline 13000 floats are available in both amphibious and seaplane versions. Over 100 sets of Wipline 13000 floats are in operation around the world on legacy Twin Otters and the Viking Series 400. The world's largest commercial seaplane operator, Trans Maldivian Airways, selected Wipline 13000 floats to replace and upgrade their fleet.

Wipaire's Amphibian Gear Advisory System has been available for nearly 25 years on a variety of aircraft, and is standard equipment with all amphibious Wipline float purchases. The Amphibian Gear Advisory System can

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Aeronautics Report

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Deciphering Notices To Airmen (NOTAMs)

by Hal Davis
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WisDOT Bureau of Aeronautics


Hal Davis

Any pilot worth their weight in 100LL, knows to check NOTAMs before every flight. Historically, the Federal Aviation Administration's (FAA) NOTAM system left something to be desired. A flight between two large airports could literally require pilots to decipher hundreds of NOTAMs. While that problem hasn't entirely gone away, progress has been made to make the system more user-friendly.

Additionally, with the advent of services like "ForeFlight," getting NOTAMs has never been easier. However, getting pilots to check NOTAMs is only half the battle. Airports still need personnel with sufficient understanding of airport operations to identify information worth disseminating and the training to promptly and accurately publish that information in the NOTAM system. At small airports, this can be a real challenge.

Why Issue NOTAMs?

In general, NOTAMs are used to disseminate time-critical aeronautical information to pilots which could affect their decision to make a particular flight. Common examples include: runway conditions, temporary closures of airport surfaces, identification of hazardous obstructions, and changes to navigational aids or communication procedures. As with these examples, the NOTAM system is used to transmit information that is temporary in nature or not sufficiently known in advance to allow for publication in traditional FAA publications, such as sectional charts or the airport/facility directory. By checking NOTAMs before a flight, pilots can adjust their flight plan on the ground and avoid unwelcomed surprises.


A pilot who always checks NOTAMs before a flight will be less likely to be surprised by a runway closure.

NOTAM Categories

In the United States, NOTAMs are classified into five categories.

NOTAM (D)

The first, and most common category is NOTAM (D). These NOTAMs contain information concerning the establishment, condition, or change in any aeronautical facility, enroute navigational aids, services, procedures, hazards and civil public-use airports.

FDC NOTAM

The FAA National Flight Data Center (NFDC) is responsible for the dissemination of aeronautical information using publications, such as charts and instrument approach procedures. Occasionally, the NFDC will need to amend a publication prior to its expiration. To do so, NFDC issues a FDC NOTAM. Unlike other NOTAM categories, the information contained in an FDC NOTAM is regulatory in nature. Examples include changes to IFR charts, instrument approach procedures and temporary flight restrictions (TFRs).

Pointer NOTAM

At times, you may run across a Pointer NOTAM. Pointer NOTAMs are issued by an FAA Flight Service Station (FSS) to bring attention to another NOTAM. Generally, this is done because the original NOTAM affects a large area, rather than a single facility. Examples might include TFRs or the decommissioning of a navigational aid.

Other NOTAM Categories

The other categories of NOTAMs are military, which pertain to the navigational aids and airports of the armed forces, and special advisory airspace (SAA) NOTAMs. SAA NOTAMs identify when special activity airspace, such as military operating areas, will be active outside the published schedules.

How NOTAMs Are Issued

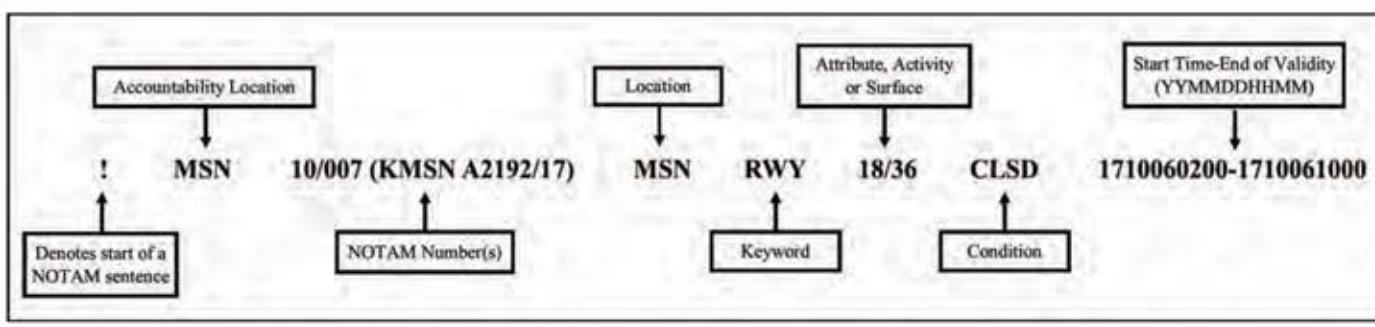
Of the NOTAMs issued for civilian-use, NOTAM (D) are the only category of NOTAM not issued by the FAA directly. Airport operators are responsible for observing and reporting this information. While anyone can report NOTAM-worthy information to an FSS, the FAA will only publish a NOTAM confirmed by an authorized representative of the airport operator. Airport operators are responsible for providing the FAA an up-to-date list of airport representatives who are authorized to issue NOTAMs. If you don't know who is authorized to issue NOTAMs at your airport, now is a good time to find out.

Authorized airport personnel have two options for issuing NOTAMs. The FAA-preferred and most effective method for entering a NOTAM into the system is FAA's web-based application known as NOTAM Manager. NOTAM Manager uses a series of dropdown menus which helps to promote consistency and reduce the overall time it takes to get the NOTAM published. Airports not currently using NOTAM Manager can register online at https://notams.aim.faa.gov/dnotam. Alternatively, airports can file a NOTAM the old-fashioned way by calling FAA's Flight Services NOTAM line at 1-877-4-US-NTMS (1-877-487-6867).

Along with observing and reporting, airport operators are also responsible for cancelling the NOTAM promptly when the reported condition no longer exists. In addition, all NOTAMs expire after a certain period of time. Airport managers must be cognizant of these expiration dates and reissue NOTAMs as needed.

NOTAM Anatomy

In general, the information contained in a NOTAM (D) could involve any condition within 5 miles of the airport that may impact air traffic. To ensure consistency among NOTAMs conveying a broad variety of information, the NOTAM format is highly standardized. Below is an example of NOTAM (D) with each part of a typical NOTAM identified.



Basic NOTAM composition includes a minimum of nine parts. Several more may be added as needed to provide additional detail and reasoning. To start, all NOTAMs begin with an exclamation point which simply denotes the beginning of a NOTAM sentence. The exclamation point is immediately followed by the identifier for the accountability location. For NOTAM (D), such as the example above, the accountability location is the airport identifier. For an FDC NOTAM, FDC is listed as the accountability location.

Next, NOTAM (D) and an FDC NOTAM will contain a NOTAM number or numbers. The example above contains two NOTAM number sets, either of which can be used to refer to the specific NOTAM. The first number set, 10/07, means the NOTAM was published in October (the 10th month) and was the 7th NOTAM published in the month for the facility. The second NOTAM number set, located in the parentheses, includes the airport identifier, as well as a computer-generated 5-digit alphanumerical code, followed by a backslash and the two-digit year the NOTAM was published. Understanding how a NOTAM is numbered can provide insight into its age, making it a bit easier to identify new versus old NOTAMs. In addition, a Pointer NOTAM will use this number to reference another NOTAM.

Following the NOTAM number(s) is the identifier for the affected location, most commonly an airport, navigational aid, or an air route traffic control center. This is followed by the NOTAM's keyword. Understanding keywords, and which ones apply to your type of flight, can help you focus on which NOTAMs are important to a particular flight. NOTAM (D) keywords and definitions can be found in the table below. Similarly, FDC NOTAMs have their own set of keywords. They include: CHART, DATA, IAP (Instrument Approach Procedure), VFP (Visual Flight Procedure), ROUTE, SPECIAL, and SECURITY.

Keyword	Definition	Refers to a temporary change or hazard…
AD	Aerodrome	On or within five miles of the airport.
APRON	Apron	Associated with an apron or ramp.
COM	Communications	Associated with a communications outlet or radio frequencies.
NAV	Navigational Aids	Associated with ground-based and Global Navigation Satellite Systems.
OBST	Obstructions	Associated with obstructions, such as towers and cranes, as well as obstruction light outages.
RWY	Runway	Associated with the surface, lighting, signage, markings and any other attributes associated with a specific runway.
TWY	Taxiway	Associated with the surface, lighting, signage, markings and any other attributes associated with a single or multiple taxiways.
SVC	Services	Associated with service levels such as operating hours, air traffic management, or airport services.
AIRSPACE	Airspace	Associated with a section of defined airspace.
ODP	Obstacle Departure Procedures	Associated with a specific obstacle departure procedure.
SID	Standard Instrument	Associated with a specific standard instrument departure procedure.

Following the keyword is the attribute, activity, or affected surface. For example, a keyword of TWY will be followed by the affected taxiway(s) and a keyword of NAV will be followed by the affected navigational aid, such as an ILS.

Next, the condition for the identified attribute, activity or surface is reported. Examples include field conditions, closures, decommissionings, and many more. This section often causes pilots the most frustration as unintuitive contractions can be difficult to decipher. The official list of FAA-approved contractions can be found in FAA Order JO 7340.2D. There are far too many to even begin listing them here. Fortunately, many lists of common contractions can be found online, including in the FAA's Aeronautical Information Manual (AIM).

The final part of the NOTAM is the start time and end of validity. Essentially, this is when the hazard or change is in effect. Both the start and end times employ a 10-digit date-time group formatted as YYMMDDHHMM in Coordinated Universal Time (UTC) and separated by a hyphen. In some cases, the end date/time will be followed by the contraction "EST" or estimate, when the duration is not certain. "Until Further Notice" is no longer accepted. Additionally, a NOTAM that reflects permanent changes not yet included in an FAA publication, will replace the end of validity date/time with the contraction "PERM" to indicate a permanent change. All NOTAMs will automatically expire at their end of validity, unless "PERM" is indicated. Furthermore, a NOTAM can be issued a maximum of three days before the condition is expected to occur. In other words, you may come across a NOTAM reporting a condition that is not yet in effect.

Checking NOTAMs

To check NOTAMs, all you need is a phone or computer. Traditionally, pilots would call flight service at 1-800-WX-BRIEF and receive NOTAMs along with weather and other information from a briefer. While that service is still available, NOTAMs are arguably more easily digested in written form.

The FAA has two official NOTAM websites. The first is pilotweb.nas.faa.gov. Pilot Web allows a search for NOTAMs by location, flight path, and radius. In addition, it also allows retrieved NOTAMs to be sorted by creation date, effective date, expiration date, and keyword. FAA's alternative NOTAM website is notams.aim.faa.gov/notamsearch. This website provides much of the same functionality as Pilot Web, however, it also provides an archive search and plain language translation options. I recommend trying both to see which website you prefer.

Of course, there is a myriad of other online options for checking NOTAMs. Many online flight planning tools allow the user to check NOTAMs. The State's weather reporting service through Schneider Electric is one such example. Information on how to register for this free service can be found on our website.

Finally, electronic flight bag applications, such as ForeFlight, provide perhaps the most user-friendly NOTAM experience by automatically categorizing and translating NOTAM text into plain language.

On The Horizon

The best way to improve your NOTAM deciphering skills is to do it regularly. Unfortunately, changes in how NOTAMs are reported can confuse even the most experienced NOTAM decoders.

In the next issue of the WisDOT Bureau of Aeronautics Report, I'll take an in-depth look at field condition NOTAMs and how recent changes have affected them. To find out more about NOTAMs in general, refer to FAA Order JO 7930.2R and Advisory Circular 150/5200-28F. ❑

Fly Wisconsin Airport Passport Program

The "Fly Wisconsin Airport Passport" program is a collaborative effort of the Wisconsin Department of Transportation Bureau of Aeronautics and the Wisconsin Airport Management Association (WAMA). The program promotes safety and education by encouraging recreational flying to Wisconsin's 127 public-use airports. It also supports general aviation airports, fixed base operators, area businesses and tourism.

The passport program is open to all pilots and their passenger(s). Register online at https://2.selectsurvey.net/wisdot/TakeSurvey.aspx?SurveyID=FlyWI#. For additional information, go to http://wisconsindot.gov/Pages/travel/air/pilot-info/flywi-howto.aspx, email flywi@dot.wi.gov or call (608) 266-3351.

When you receive your passport, be sure to print your name and contact information on the front page. When you visit a participating airport, aviation attraction or participate in an FAA safety seminar, have your passport stamped or signed in the appropriate space. Once you have obtained the proper number of stamps for the level of recognition you wish to achieve, submit your passport (it will be returned) to: Fly Wisconsin, WisDOT - Bureau of Aeronautics, P.O. Box 7914, Madison, WI 53707-7914.

Many airports have courtesy and rental cars available to explore the community. Check TravelWisconsin.com or call 800-432-8747 to request a travel guide to attractions and activities in the area you are visiting. Check the airport website for other area attractions. You may also want to note the date of your flight, weather conditions and any other memorable details of your flight in the airport box.

Other Midwest states that have passport programs include Minnesota, North Dakota and South Dakota. ❑

90th Annual AAAE Conference & Exposition To Be Held In San Diego

The 90th Annual American Association of Airport Executives (AAAE) Conference & Exposition will be held April 15-18, 2018 at the San Diego Convention Center, San Diego, Calif. Airport executives and other industry professionals may register online at www.aaae.org or email aaaemeetings@aaae.org. Blocks of rooms are being held at the Hilton San Diego Bayfront, One Park Blvd., San Diego, CA 92101, Phone: 619-564-3333, and the Omni San Diego Hotel, 675 L Street, San Diego, CA 92101, Phone: 619-231-6664. For further information, call Natalie Fleet at AAAE at 703-578-2505, or email natalie.fleet@aaae.org. ❑

Great Lakes Airport Operations & Maintenance Conference

The Great Lakes Chapter of the American Association of Airport Executives (AAAE) is hosting an Airport Operations and Maintenance Conference, October 15-17, 2018 in Chicago, Illinois. For details, call Natalie Fleet at AAAE at 703.578.2505, or email natalie.fleet@aaae.org. ❑

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Your Needs / Your Airport Needs

by Cassandra Isackson
Director, Minnesota DOT Office of Aeronautics


Cassandra Isackson

Have you ever attended a "Needs Meeting" for your airport? Nearly two-thirds of Minnesota's publicly-owned airports have completed their needs meetings for this first cycle.

What is a Needs Meeting, you might ask? Well, many people know what a Capital Improvement Program (CIP) is, but in case you aren't sure, a CIP is used to plan and program the projects that will preserve and develop Minnesota's system of publicly-owned airports. Airport Needs Meetings are a larger, more detailed conversation including a wider range of topics than the traditional CIP.

At a Needs Meeting, we'd like to learn the airport sponsor's view on: existing airport conditions, financial support, technical support, community vision, navigation systems and a 20-year future!

The larger conversation involves more participants. This is when we would like to see representation from the local government including:

- Elected Officials (City/County) / Airport Board Members
- Zoning Administrator and/or Local Planner
- City Administrator or City Clerk
- Airport Manager
- Airport Consultant

The MnDOT's Office of Aeronautics staff will include:

- The Director (Cassandra Isackson) or Assistant Director (Kathy Vesely)
- Airport Development Regional Team Member
- Regional Planner
- Aviation Representative

With more people involved in the meeting and a wider range of topics, it is likely that the meeting could take between two and three hours to complete, depending upon the interest of the participants and the complexity of the issues.

The things we can learn from talking to the decision-makers of your airport and community will help us develop a more complete picture of Minnesota's airport system needs. We'll use that picture to better inform other partners at MnDOT, the State Legislature, the FAA, and our U.S. Congress.

For those who haven't yet had a Needs Meeting, we look forward to hearing from you about possible days/times to meet with you. Thanks! Have a great holiday season! ❑

Being Winter-Wise

EDITOR'S NOTE: Here are a few tips taken directly from the FAA's General Aviation Accident Prevention Program guide: **TIPS ON WINTER FLYING,** FAA-P-8740-24, AFS-800 0879

Winter flying in most parts of the United States can adversely affect flight operations. Poor weather conditions with fast moving fronts, strong and gusty winds, blowing and drifting snow, and icing conditions are just part of the conditions that require careful planning in order to minimize their effects. Operation in this environment requires special winter operating procedures.

These pages are designed to refresh the pilot's memory in cold weather operations. Pilots should assure themselves that they have obtained adequate cold weather knowledge appropriate to the aircraft used, and the geographical and weather environment. Winter flying is not particularly hazardous if the pilot will use a little extra caution and exercise good judgment in analyzing weather situations.

The material presented here has been taken from many discussions of winter flying techniques with highly qualified pilots in various parts of the United States. The experience gained in accident investigations has also been included in this guide.

Core of Batteries

Wet cell batteries require some special consideration during cold weather. It is recommended that they be kept fully charged or removed from the aircraft when parked outside to prevent loss of power caused by cold temperatures and the possibility of freezing.

Engine Starts

Be sure to follow the manufacturer's procedures.

In moderately cold weather, engines are sometimes started without preheat. Particular care is recommended during this type of start. Oil is partially congealed and turning engines is difficult for the starter or by hand.

There is a tendency to over-prime which results in washed-down cylinder walls and possible scouring of the walls. This also results in poor compression and, consequently, harder starting. Sometimes aircraft fires have been started by over-priming, when the engine fires (ignites) and the exhaust system contains raw fuel. Other fires are caused by backfires through the carburetor. It is good practice to have a fireguard (someone with a fire extinguisher or fire blanket) standing by during these starts.

Another cold start problem that plagues an un-preheated engine is icing over the spark plug electrodes. This happens when an engine only fires a few revolutions and then quits.

There has been sufficient combustion to cause some water in the cylinders, but insufficient combustion to heat them up. This little bit of water condenses on the spark plug electrodes, freezes to ice, and shorts them out. The only remedy is heat. When no large heat source is available, the plugs are removed from the engine and heated to the point where no more moisture is present.

Engines can quit during prolonged idling because sufficient heat is not produced to keep the plugs from fouling out. Engines which quit under these circumstances are frequently found to have iced-over plugs.

After the engine starts, use of carburetor heat may assist in fuel vaporization until the engine obtains sufficient heat. Use carburetor heat as required. In some cases, it is necessary to use heat to vaporize the fuel. Gasoline does not vaporize readily at very cold temperatures. Do not use carburetor heat in such a manner that it raises the mixture temperature barely to freezing or just a little below. In such cases, it may be inducing carburetor icing. An accurate mixture temperature gauge is a good investment for cold weather operation. It may be best to use carburetor heat on takeoff in very cold weather in extreme cases.

Fuel Vents

Fuel tank vents should be checked before each flight. A vent plugged by ice or snow can cause engine stoppage, collapse of the tank, and possibly very expensive damage.

The guide is filled with good information that every aviator should be familiar with and utilize. You can download the entire guide from: https://www.faasafety.gov/gslac/alc/libview_normal.aspx?id=10520 or https://www.aopa.org/training-and-safety/pic-archive/operations/winter-flying-(2).

Please plan ahead and be winter-wise when you fly! ❑

Fatal GA Accident Rates... Better, But Not Quite There Yet

In late August 2017, the 26th Joseph T. Nall Report was released. This report is a review of general aviation (GA) accidents for the most recent year where essentially complete data was available. In this case, the year was 2014. The report is published by the Aircraft Owners and Pilots Association (AOPA) Air Safety Institute.

The good news is, there was a 3% decrease in the number of fatal GA accidents over the previous year (2013). The bad news is, there were still 229 fatal GA accidents that caused 354 individual fatalities. According to AOPA Air Safety Institute Executive Director Richard McSpadden in his Publisher's View in the Nall Report, "Overall, the results indicate that the significant improvements and historically low accident rates registered in 2013 'proved not to be a one-time statistical anomaly.'" He added, "Across the general aviation community, we can take pride that our collaborative efforts appear to be having a positive, sustained impact."

The report went on to say that comparing year to year, GA accident causes generally do not vary significantly. Approximately 75% of all GA accidents are pilot-related. The report states that 20% of those accidents are fatal. The pilot-related accidents referred to occurred during landing, takeoff and climb, maneuvering at low altitude, and issues with fuel mismanagement. It is interesting to note that according to the Nall Report, fuel-mismanagement accidents were up 10% over the previous year.

Executive Director McSpadden said, "… there is more work to do and further improvements are well within our capability. Troubling and stubborn accident categories remain. The wide discrepancy between pilot-related and other types of accident causes and the notable differences in accident rates between commercial and personal flying illustrate that

further improvements in general aviation safety are needed and achievable." McSpadden continued, "The overwhelming majority of these accidents are avoidable, so if we can convince more pilots to access safety information, we can drive the accident rate even lower, and save lives."

The Air Safety Institute also released a statistical summary of the Nall Report's data. Their report is called the 2015-2016 GA Accident Scorecard. The summary report notes that "after arresting a seven-year decline, noncommercial fixed-wing flight time increased more than 5% in 2015, while the rate of accidents remained at the low level achieved the previous year. The number of fatal accidents declined by two."

The report goes on to say, "In 2016, there was a 3% increase in accidents, but fatal accidents declined from 20% of the total to 16%. For the fourth straight year, 2016 had fewer than 1,000 noncommercial fixed-wing accidents, of which fewer than 200 were fatal, "levels not previously seen in the post-World War II era. There were 156 (sic..fatal accidents) in 2016, 6% below the previous record low of 167 recorded three years earlier."

So the good news is, we are doing better, but we are not quite there yet, at zero deaths!

Think safety first and always.

For copies of the **Nall Report** go to **https://www.aopa.org/training-and-safety/air-safety-institute/accident-analysis/joseph-t-nall-report**

For copies of the GA Scorecard, go to: **http://download.aopa.org/advocacy/0822_GA_scorecard.pdf** ❑

121.500 MHz... FOR EMERGENCY USE ONLY!

Every pilot, and likely most people who have anything to do with the flying side of aviation, know that frequency **121.500 MHz** (VHF) is dedicated to emergencies and distress calls, specifically. It couldn't be more clearly stated than that. But apparently enough folks have been misusing 121.500 for general conversation and other non-appropriate chatter, causing the Federal Communications Commission (FCC) to issue an FCC Enforcement Advisory (EA). It was the first FCC issued EA for 2017.

The Advisory (DA 17-747, EA Number 2017-01)* was issued August 8, 2017. This came about in direct response to the Federal Aviation Administration (FAA) after they advised the FCC of impairment of their ability to properly monitor 121.500 due to an increase in improper and inappropriate use of that frequency. The advisory clearly states, "Of particular importance, Section 87.173 of the FCC's rules mandates that **121.500 MHz** be used solely for emergency and distress purposes.

The Advisory goes on to state: "The FAA continually monitors 121.500 MHz and treats any distress call received as an emergency to be investigated immediately." But it also states quite clearly that, "**Prohibited** communications on 121.500 MHz include: false distress or emergency messages, superfluous communications, messages containing obscene, indecent, or profane words or meaning, general calls (calls not addressed to a particular station), routine messages, radio tests, and transmission of recorded audio (such as music or spoken text). Misuse of 121.500 MHz can distract FAA personnel monitoring the channel from hearing transmissions related to actual emergencies and, as a result, poses a threat to life and property."

You need to know that the FAA and the FCC take this very seriously. The Advisory points out that, "Interference to an aviation distress and safety frequency, including 121.500 MHz, is a violation of the most critical nature, with the potential to obscure genuine distress transmissions. The Enforcement Bureau intends to aggressively enforce violations of the FCC's aviation radio communications rules."

It further lays out what could befall the abuser, saying, "Violators may be subject to the penalties authorized by the Communications Act, including, but not limited to, substantial monetary fines (up to **$19,246.00** per single violation and up to **$144,344.00** for an ongoing violation), an *in rem*** action to seize the offending radio equipment, and criminal sanctions."

So how does one avoid a significant fine like those just mentioned? Easy! *Remember to follow the rules.* They were created to enhance your safety, especially during emergencies. And by the way, in case you are flying out over the ocean or a significant body of water and frequency 121.5 MHz is quiet, don't make the mistake of thinking it can be used for anything other than emergency or distress calls. You should know that 121.500 MHz is also used for maritime distress, as well as search and rescue communications. In addition, it is also used for direction-finding with respect to emergency radio beacons at sea, as well as on land.

So, remember, **121.500** is **for emergency use only!**

*The actual Advisor can be obtained from: **https://www.fcc.gov/document/enforcement-advisory-121500-mhz-reserved-emergency-use-only**

** *in rem:* a legal term describing the power a court may exercise over property (either real or personal), is a Proceeding Against Property. ❑

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St. Cloud State Graduate Receives 2017 MATA Scholarship

ST. CLOUD, MINN. – A graduate of St. Cloud State University and a student pilot at Wright Aero, Gjertine Maj Bagent, has received the 2017 Minnesota Aviation Trades Association Scholarship. Bagent is using the money to help pay for Certified Flight Instructor training at Wright Aero at St. Cloud Regional Airport (KSTC). She holds a Private Pilot Certificate and an Instrument Rating, and is currently working on her Commercial Pilot Certificate. Bagent earned her Bachelor's Degree at St. Cloud State University.

In her application for the scholarship, Bagent wrote the following essay:

Bill Mavencamp, President of Wright Aero, congratulates, Gjertine Maj Bagent on receiving the Minnesota Aviation Trades Association's 2017 Scholarship.

I have been fascinated with the idea of flying ever since I was a little girl listening to my "Grandpa Roy" tell stories about flying. My grandpa was a fighter pilot in World War II in the Beagle Squadron and flew P51D Mustangs. Although he never talked much about all his buddies who died in battle, nor how hard being in a war must have been, he mostly focused on funny stories and stories about flying. He told me how he and his buddies would play tag in the clouds (I have no idea how you would do this, nor do I think it's a safe way to fly in and out of clouds), about strafing sheep and having the sheep herder shake his cane at him, as well as escorting bombers. Whenever he talked about flying, you would see his smile lines grow deeper and a twinkle in his eyes. Even though my grandpa didn't fly much after the war, I could see there was something magical in flying, something he loved and was passionate about, something freeing…it said something to me about the human spirit.

We, as humans, are inspired by greatness, and my grandpa was great to me; he was my hero. And listening to him tell his stories of flight, I fell in love with the idea of flying before I ever set foot in a plane.

We went to my first air show in August 2011 in Willmar, Minnesota. I was 16. There I was amazed by the aerobatics and thrilled to be there with my grandpa who said he had done all of what we saw and more. After the air show, Experimental Aircraft Association members gave Young Eagles rides and my Grandpa Roy told me that he would wait for me if I wanted to go for a ride. I was so excited I could barely wait. In the time, while I was waiting, grandpa came back with a Mountain Dew and told me he got it for himself, but he couldn't drink it, so I should have it. He had found my second cousin, Ted, who was a pilot, and the grandson of my grandpa's brother, "Uncle Dick," as we affectionately referred to him. Uncle Dick was a navigator during World War II.

Finally, the moment had come…it was my turn to ride in a plane. I got bumped up because there were no other single riders, so I got to skip up through about two-thirds of the line. I rode with a mother and her young child. The pilot was a silver haired gentleman and he asked me if I wanted to wear the headset so he could explain to me what he was doing after showing me how to buckle up. I told him that would be great and I put the headset on. He walked me through taxiing, takeoff and when he got to around 2000 ft. AGL, he asked me if I wanted to take over the controls. I was so excited to fly a plane, and I thought surely that this was the best day of my life! The pilot showed me that by pushing forward on the yoke, you go down, and by pulling back, you go up.

I also remember the pilot showing me the rudder pedals, and he had me talk on the headset with him. He asked me if I wanted to land and I declined to do so out of fear, but he still explained what he was doing as he was coming in to land. By the time we landed, I told my grandpa that I wanted to be a pilot someday and he told me that I should.

I decided to become a pilot shortly after Grandpa Roy passed away. I always had dreams about flying growing up and I felt like I wanted to share something with him. I did my Private Pilot training down at Holman Field in St. Paul, first with Wings, and finished up with Twin Cities Aviation. After my Private Pilot Certificate, I started my Bachelor's Degree at St. Cloud State University and worked on my Instrument training. I also received financial aid to complete my Commercial Pilot Certificate, which has helped me out tremendously.

My short-term goal is to finish my Commercial Pilot Certificate, then get my Certified Flight Instructor (CFI) Certificate. My long-term goal is to fly for some non-profit organization like the Red Cross, Doctors or Engineers Without Borders, or for disaster relief. But in order to get there, I want to work as a flight instructor and get my multi-engine rating, then complete mountain training and learn to fly internationally.

Minnesota Aviation Trades Association

The Minnesota Aviation Trades Association (MATA) strives to be the voice of the Minnesota aviation industry. Through its board of directors, conferences, and legal and lobbying services, MATA aims to assist its members in building ethical, strong, and competitive aviation businesses. Through scholarships, MATA helps to create tomorrow's aviation professionals. Above all else, MATA earnestly desires to see general aviation continue to grow - locally, statewide, and nationally.

In an effort to encourage an interest in flying and support the Minnesota aviation community, MATA awards a $2,000 scholarship each year. Scholarship applicants are reviewed by the MATA Scholarship Committee. Candidate requirements are as follows:

- Applicant must be currently enrolled in a flight training curriculum at a Minnesota flight school that is a member of MATA.
- The applicant must write a 1-2-page essay on why he/she wants to learn to fly or continue their training.

All completed materials must be received by June 30th at mnavtrades@gmail.com. ❑

Minnesota Aviation Hall of Fame Scholarships Available For 2018

BLOOMINGTON, MINN. – The Minnesota Aviation Hall of Fame will award three $1500 scholarships at its annual induction banquet in April 2018. The scholarships will be awarded to individuals who are pursuing a career in the aviation industry.

The three scholarships include the Minnesota Aviation Hall of Fame Scholarship, Hinz Family Red Tail Scholarship, and Kenneth Dahlberg Family Scholarship.

For information, go to www.mnaviationhalloffame.org. Applications are due on or before January 31, 2018. ❑

Premier Jet Center Becomes Pilatus Service Center

EDEN PRAIRIE, MINN. – Premier Jet Center (PJC), located at Flying Cloud Airport (KFCM) in Eden Prairie, Minn., has been designated an authorized Pilatus service center by KCAC Aviation, allowing it to serve that company's sales territory, which includes Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, Oklahoma, and Wisconsin. Premier Jet Center is a subsidiary of Fargo Jet Center in Fargo, North Dakota. ❑

Malibu Aerospace Opens New Facility At Anoka County-Blaine Airport

Ketti and Chad Menne of Malibu Aerospace in their new 70,000 sq. ft. facility at Anoka County-Blaine Airport (KANE) in the Twin Cities.
Dave Weiman Photos

BLAINE, MINN. - Malibu Aerospace, located at Anoka County-Blaine Airport (KANE) in the Twin Cities, opened its new 70,000 sq. ft. facility on the southwest side of the airport, south of the control tower. Malibu Aerospace provides maintenance and inspection services for all PA46 variants, as well as other engineering, testing, prototyping, training and aircraft management services. The company is constantly striving to make the PA46 as good as it can be, and to make good airplanes great airplanes!

Malibu Aerospace is also an aerospace research and development company that partners with aircraft, avionics and engine manufacturers to develop and deliver highly researched solutions that work in real-world operations.

The company has the capabilities to engineer a solution, integrate a new system, modify an individual aircraft or use its project-management expertise to coordinate full certification programs.

Malibu Aerospace owns and operates its own aircraft as part of its corporate flight department, flown and managed by professional crews.

Owners Chad Menne, Patrick Minge and members of their staff of technicians are themselves Malibu pilots, so they don't only work on planes…they fly them. That means they understand both the needs of the individual owner-pilot and the stresses of corporate flight operations.

At Malibu Aerospace, research is at the core of everything they do. It starts between the ears of their engineers and progresses into state-of-the-art software systems, then out into the real world for testing.

As an example, Malibu Aerospace engineers examined and analyzed dozens of existing engine mounts, cross-checking the data using two fundamentally different Finite Element Analysis programs to determine the stress factors. During the analysis, they discovered that the stock engine mounts were likely to fail between 2,000 and 2,500 hours, regardless of when they were last overhauled. Malibu Aerospace used this information to design and deliver a new mount that is expected to last the life of the airplane. They believe that the more research they do, the better their solutions will be in maintaining the PA46.

At their core, Malibu Aerospace has significant engineering resources available as needed, such as Uni-Systems, which designs, builds, installs and maintains everything from manufacturing and maintenance systems for the Boeing 777, to retractable stadium roofs. Malibu Aerospace utilizes the robust design, engineering and project-management power of Uni-Systems, as well as its network of FAA Designated Engineering Representatives, to augment their engineering staff as needed, while staying small, agile and efficient.

Malibu Aerospace flys hundreds of hours each year, testing their designs and gathering data. A custom data acquisition system allows their technicians to monitor hundreds of parameters in flight. After each test flight, their engineers have instant access to the data they need to evaluate performance, along with hundreds of hours of historical data to measure improvements under real-world conditions.

Chad Menne is Director of Sales and Engineering and has over 10,000 hours logged, most of which are in the Malibu, Mirage, Meridian and JetPROP. Chad's wife and company cofounder, Ketti Menne, is Marketing Manager. Other staff members include Brad Ludlow, Doug Hiltz, Dan Degnan, Jaime Olesen, Wilder Morey, Mark Anderson, Tom Leppke-Hennig, Bob Laughery, Bill Perry, Paul Wallace, Jennifer Jara, John Gregg, Nathan Hamment, Jesse Wilken, and Lydell Newby.

Malibu Aerospace held an open house of their new facilities on October 14, 2017. For additional information or an appointment, call 877-662-5428 or email cwmenne@malibuaerospace.com (www.MalibuAerospace.com). ❑

WATA Difference

WISCONSIN AVIATION TRADES ASSOCIATION

From Washington To Washington

(L/R) Field Morey and Conrad Teitell with Morey's 2017 Cessna Corvalis TTx at Middleton Municipal Airport – Morey Field in Middleton, Wis. (C29). *Dave Weiman Photo*

Field Morey (center) with his daughter, Debbie (Morey) Maier, and his son, Richard Morey, at Morey Airplane Company, Middleton Municipal Airport – Morey Field in Middleton, Wis. (C29). The airport was founded by Field Morey's father, Howard Morey, in 1942. *Dave Weiman Photo*

Field Morey, an FAA-Certified Flight Instructor from Medford, Oregon, with roots in Wisconsin, and Conrad Teitell of Greenwich, Connecticut, an attorney with Cummings & Lockwood, successfully flew to all 49 state capitals in the lower 48 states, plus Alaska, in just two weeks in 2014. On November 8, 2017, Morey and Teitell teamed

up again and flew from Renton, Washington to Dulles International Airport, Washington, DC. Their flight-time was 9 hours 59 minutes, including fuel stops. The previous record for a single-engine piston aircraft was 13 hours 48 minutes by a Cessna 210.

The flight was flown in Morey's 2017 Cessna Corvalis TTx. The aircraft has a maximum cruising speed of 235 knots. Morey and Teitell flew most of the route at or above 19,000 feet, and made only two fuel stops – Miles City, Montana (KMLS), and Morey's namesake airport, Middleton Municipal Airport – Morey Field in Middleton, Wis. (C29).

N241FR is Morey's third Corvalis, and plans are to buy a 2020 model in a couple of years. (He already has a buyer for his 2017 aircraft.)

All of Morey's Corvalis aircraft are nicknamed *"The Green Hornet,"* because of their lime green color. Each aircraft is equipped with the latest in Garmin avionics. Morey's current Corvalis has a G2000 glass panel; NEXRAD weather radar; anti-ice, terrain and traffic avoidance equipment; an autopilot; and a Mountain High O2D2 oxygen regulator that uses the aircraft's built-in tank.

Whether for business or pleasure, Field Morey, 79, has always used general aviation aircraft to go anywhere and everywhere, on his schedule, including flying to Scotland and England in a Cessna Turbo 210 in September 1980 with Nobel Laureate, Dr. Oliver Smithies.

Morey Airplane Company has been in the Morey family since 1932 when it was founded by Morey's father, Howard Morey. Howard Morey founded the airport, Morey Field, in 1942. Field Morey took over the business in 1968 and moved to Medford, Oregon in 2002 with his wife, Karen, at which time his son, Richard Morey, took over the business and became the airport manager for the City of Middleton, which bought the airport in the mid-1990s.

Field Morey is known for his mountain and instrument flight training programs, "Morey West Coast Adventures" and "IFR West." For additional information, visit www.ifrwest.com or call 541-772-4582. In addition to the Cessna Corvalis TTx, Morey's flight school operates a Cessna Turbo Skylane T182T. Both aircraft are equipped with Garmin glass panels.

Morey Airplane Company is known for its flight training, aircraft maintenance, air charter services, and fuel sales. Morey Airplane Company has a complete fleet of Cessna aircraft, from singles to twins, and provides both 100LL and Jet A self-service and full-service fuel sales. For additional information, visit www.moreyairport.com or call 608-836-1711. ❑

Awards & Recognition

Batten & Rowland Awarded Congressional Medals of Honor

RACINE, WIS. – During World War II, John H. Batten, after whom John H. Batten International Airport in Racine, Wis., is named, and John S. Rowland, also of Racine, did a lot of flying for the Civil Air Patrol (CAP).

On January 3, 2014, the 113th Congress of the United States of America awarded the Congressional Gold Medal to the nearly 300,000 civilian volunteers. Among them are more than 4,600 aviators, men and women.

Batten and Rowland were among the recipients, but never actually received the medal until September 30, 2017 at John H. Batten International Airport. Col. John H. Batten, CAP, was represented by his grandson, John Batten, his wife and family, mother Gloria, and Batten's daughter, Linda Batten Barrington. Lt. John S. Rowland, CAP, was represented by his son, J. David Rowland, grandchildren John Rowland, Mike and Betsy Walton, John and Meg Daniels, and family. The ceremony was held in the Experimental Aircraft Association Building at the airport.

Anticipating America's entry into World War II, Gill Robb Wilson established the Civil Air Patrol on December 1, 1941. After the attack on Pearl Harbor, the CAP stepped in to spot and even attack Germany U-boats torpedoing and sinking U.S. ships, often within sight of our Atlantic shores.

The CAP proved invaluable and operations quickly expanded into 21 bases from as far north as Bar Harbor, Maine south to Corpus Christi, Texas. By war's end, CAP coastal patrol pilots flew one-quarter million mission hours, and amassed 24 million flight miles, but not without risk and losses. Sixty-five (65) CAP members gave their lives, 26 of whom were pilots, and 90 aircraft were lost.

These CAP pilots provided essential wartime duties. They trained more than 10,000 CAP cadets, who, as they matured, were urgently needed as aviators for our armed forces, towed targets for anti-aircraft gunnery practice, tested urban air defenses by providing mock attacks on U.S. coastal cities, flew essential – often top secret – courier service, and performed search and rescue operations, saving hundreds of lives.

In 1943, the War Department transferred CAP volunteers to the Armed Forces under the Army Air Corps. After the war, the CAP became a congressionally chartered corporation and the official auxiliary of the newly created United States Air Force in 1947. In August of 2016, the Secretary of the Air Force moved the CAP to Air Combat Command, First Air Force - North American Air Defense Command, known as NORAD. The Secretary declared the CAP part of the "Total Force" of active duty, reserve, guard, and now, auxiliary. The CAP flies 75% of NORAD's non-combat missions on a daily basis.

John Rowland recruited a dozen pilots from southeast Wisconsin, half from the Racine area. They formed the CAP Racine Squadron in early March of 1942, just three months after the CAP was formed. Because Nazi U-boats ravaged shipping and killed American seamen up and down the Atlantic coast, upon joining the CAP, Rowland and Batten were assigned to St. Simons Island, Georgia, a coastal town approximately 60 miles south of Savannah. Three others

joined them, with the remainder of the Racine Squadron assigned to Bar Harbor, Maine.

Batten was given the rank of 1st Lieutenant and the title of mission pilot. Rowland was given the rank of 2nd Lieutenant and the title of mission copilot and observer. They flew together on a number of missions off the U.S. southern coast.

Boldly, German U-boats made beach landings on American soil at several nearby islands near St. Simons Island, so the Nazi crews could rest and have lunch, unconcerned about an attack from a badly stretched and ill-equipped U.S. military in those first six-months of World War II. But not for long.

The Stinson 10A Batten and Rowland flew is a similar aircraft to the Fairchild 24 hanging in EAA 838's museum at John H. Batten International Airport.

The 100-pound bombs to equip the Stinson Batten and Rowland flew had yet to be delivered to their St. Simons Island CAP Base when, in May 1942, Batten and Rowland spotted a suspicious, partially submerged, oil tank anchored 20 miles off the coast of Sapelo Island, north of St. Simons. They immediately radioed the U.S. Coast Guard for assistance, and orbited the tank until an armed Coast Guard Cutter arrived. It was determined after the flight, that someone positioned the oil tank, full of diesel fuel, to allow Nazi U-boats to refuel right off the U.S. coast. Batten wrote in his monograph: "people of doubtful national loyalty" purchased this for the enemy. The refueling tank was destroyed, denying the enemy that valuable resource.

A month later in June 1942, Batten and Rowland spotted a U-boat submerging 40-miles off St. Simons Island. They still had not been issued bombs, so they radioed the Navy, dropped smoke canisters, and remained with the enemy submarine as long as they could. Finally, a reluctant Navy, not believing a CAP plane could spot the enemy, tasked a Catalina Patrol Bomber, which arrived too late to spot the now deeply submerged enemy submarine and make a successful attack.

This was just one of several instances that convinced the War Department to get CAP planes equipped with bombs quickly, and get pilots trained to drop them. In the meantime, Batten and Rowland figured out how to rig a 100-pound bomb to the belly of a Stinson with a 90 hp engine.

By September of 1942, the German U-boat threat moved farther away from the American coast into the Atlantic because our armed forces were growing in numbers. Nevertheless, after Germany's surrender in 1945, Rear Admiral Karl Doenitz, now a prisoner charged with war crimes, who commanded the Nazi U-boat fleet, was asked why he pulled his submarines off American shores in September of 1942. He stated, "It was because of those damnable red and yellow airplanes," which sank two U-Boats, bombed and thus chased away or perhaps even damaged another 57 submarines, and radioed in 173 U-boat sightings to U.S. armed forces.

Batten remained an active pilot for many years after the war as a flight instructor, and became the CAP Wisconsin Wing Commander in the early 1950s, making the Racine airport his headquarters. He then went on to command the CAP Great Lakes Region with oversight over Wisconsin, Illinois, Indiana, Michigan, Ohio and Kentucky. He did this until 1958, retiring from CAP as a colonel.

Batten and Rowland laid the foundation for CAP in southeast Wisconsin that continues to this day. ❑

EAA Halls of Fame Honor Five Aviators

OSHKOSH, WIS. – The Experimental Aircraft Association (EAA) recognized the contributions made to the world of flight by five people as they were inducted into the EAA Sport Aviation Halls of Fame, November 9, 2017, during a ceremony at the EAA Aviation Center in Oshkosh, Wisconsin.

Selected by their peers, the five inductees represent a spectrum of aviation within the EAA community and have achieved notable successes within their particular realm of flight, including Rob Hickman of Canby, Oregon, EAA Homebuilders Hall of Fame; Frank Christensen of Wilson, Wyoming, International Aerobatic Club Hall of Fame; Clarence E. "Bud" Anderson of Auburn, California, Warbirds of America Hall of Fame; Mary Jones of Oshkosh, Wisconsin, EAA Ultralight Hall of Fame; and Jim Moss (posthumous), Vintage Aircraft Association Hall of Fame. In addition, Lon Nanke of Oshkosh, received the "Henry Kimberly Spirit of Leadership Award," as a longtime EAA Aviation Museum docent. ❑

National Aviation Hall of Fame Names A. Scott Crossfield Aerospace Educator of The Year

DAYTON, OHIO – The National Aviation Hall of Fame (NAHF) has announced that Velvet Thomas of Golden Poppy Elementary School, Palmdale, Calif., is the recipient of the "A. Scott Crossfield Aerospace Educator of The Year Award" for 2017. The award was presented October 28, 2017 during NAHF's 55th Annual Enshrinement Dinner and Ceremony in Fort Worth, Texas.

The Crossfield Award, founded in 1986 by NAHF enshrinee, engineer and test pilot, A. Scott Crossfield (1921-2006), to recognize a K-12 teacher for his or her exemplary use of aerospace in their classroom curricula.

Velvet Thomas currently teaches third grade, and is celebrated for her hands-on approach to aviation education. Her non-traditional lessons have included taking students to watch the space shuttle re-enter the atmosphere and visit the Sage Planetarium. Thomas has also held takeoff and landing simulations in class and even taught students the pilot's alphabet. ❑

Boundaries Defined by Technology

by Jonathan Beck
UAS Instructor
Northland Community & Technical College
NSF ATE DroneTECH Principal Investigator


Jonathan Beck

It was the shoot down of a Korean passenger jet in 1983 that prompted President Reagan to release Global Positioning System (GPS) technology. The intent of opening GPS technology to the public was to provide pilots with a better means of navigation to prevent future tragedies. GPS technology has allowed us to do remarkable things in the last few decades. It has become common in the cockpit, automobile and cell phones in our pockets. GPS technology has had a broad impact into almost every industry.

It has only been in recent years that GPS technology has become common place in drones. GPS technology in drones has many benefits including situational awareness. Some drone systems provide visual reports about aircraft position onto a ground control station or "heads up display." Calculations can provide information about the position of the drone related to the Remote Pilot-In-Command (RPIC). It can also provide the RPIC with details about the flight operations area. This data can include airspace and flight restrictions to consider during mission planning. Smart device applications can also provide this type of information. Some flight planning applications include: KnowB4Ufly, UAV Forecast, Kittyhawk, DroneLogbook, ForeFlight and many more.

This information is important for a RPIC to consider during mission planning. According to the FAA, reports of drone sightings by pilots have increased dramatically. The FAA now receives more than 100 such reports each month. The agency wants to send out a clear message: Operating drones around airplanes, helicopters and airports is dangerous and illegal. Unauthorized operators may be subject to stiff fines and criminal charges. Education and the use of flight planning resources can help ensure that professional users of drones follow the rules of the sky.

Engineers of drone systems invent new designs and operating features every day. Some of these developments assist in airspace de-confliction. Many manufacturers recognize the hazards in airport environments, temporary flight restrictions (TFRs), and flying at distances and altitudes not allowing the operator to visually monitor the aircraft. As a result, many drone systems now employ "geo-referenced notifications" defined by GPS in relation to certain areas. These notifications are incorporated into the ground control stations and the autopilot systems.

Some manufacturers have gone as far as building restriction zones based on airports, airways and critical areas, such as TFRs. DJI (Dà-Jiāng Innovations Science and Technology Co., Ltd) has three primary classifications for their "GEO system." These include: Warning, Authorization and Restricted Zones. These zones do not conform to standard definitions you are likely familiar with.

According to DJI's website, the "GEO System" is a geospatial information system. The "GEO System" provides drone operators with information helping to make smart decisions about where and when to fly. It combines up-to-date airspace information, a warning and flight-restriction system, and a mechanism for unlocking (self-authorizing) drone flights in locations. The GEO system uses AirMap for this feature. According to AirMap's website, leading drone manufacturers, including DJI, Intel, Sensefly, Aeryon Labs, and more, power their drones with the AirMap platform.

"Warning Zones" provide operators a heads up about areas that may have special mission planning considerations. The RPIC does not have any specific action that must be taken, but receives information to consider, such as wildlife areas. "Authorization Zones" are typically built around airports. In "Authorization Zones," the Remote PIC must acknowledge the flight using a verified account. These accounts are setup with a standard log-in username and password and connected to minimal personal information for identification of the RPIC. "Restricted Zones" are areas that potentially have a security hazard or other significant reason that prevent the aircraft from any operation in those areas without special authorization.

A key piece of crew resource management is using all resources you have access to. Tools like this are assisting RPIC in decision-making and considerations in the flight environments. In an age of technological advancement, it is

important to consider the various impact new technology creates. Many impacts are very positive, but they can also create concerns. Software and systems for drones continue to expand the capabilities. With this expansion, safety must remain a primary focus. This is the beginning of a much larger change. Education and information will be key to cultivating a positive environment for all.

EDITOR'S NOTE: Jonathan Beck is the UAS Instructor/Program Manager at Northland Community and Technical College, Thief River Falls, Minnesota. This material is based in part upon work supported by the National Science Foundation (DUE 1501629). Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. ❑

EDUCATION

Aircraft Certification Courses For Industry Professionals At Kansas State University Polytechnic Campus

SALINA, KAN. – Kansas State University Polytechnic Campus is expanding its offerings in aviation to provide much-needed education for professionals in the field of aircraft certification. The school is launching a professional development program centered on the understanding and application of Federal Aviation Administration regulations and processes used in aircraft type and production certification. The courses will be taught as a combination of online and in person, instruction, with instruction beginning in January 2018 for the first offering. After completion, which can be achieved in one year, students will receive a certificate from Kansas State Polytechnic's professional education and outreach office and have the opportunity to earn a total of 180 professional development hours.

To register, visit polytechnic.k-state.edu/profed/aircraftcertification. For questions concerning the courses, contact the professional education and outreach office at 855-552-0079 or profed@k-state.edu. ❑

New Technology Education Degree Program At Kansas State University Polytechnic Campus

SALINA, KAN. – Kansas State University Polytechnic Campus is expanding its degree options for individuals interested in teaching technology at the high school level. A Bachelor of Science in secondary education with a technology education endorsement is being launched at Kansas State Polytechnic in the fall of 2018. The degree option is a collaboration with the university's College of Education and is designed to help address state and national needs for more science, technology, engineering and math (STEM) educators. Enrolled students will study mechanical, electronic and computer systems curriculum through Kansas State Polytechnic's engineering technology program, while the education pedagogy will be supported by the College of Education. For more information, call 785-826-2640 or email polytechnic@k-state.edu. ❑

TECHNOLOGY

GAMA Marks Over 40,000 Aircraft Equipped With ADS-B

WASHINGTON, DC – The General Aviation Manufacturers Association (GAMA) announced that as of September 1, 2017, rule-compliant Automatic Dependent Surveillance-Broadcast (ADS-B) equipment is now onboard over 40,000 aircraft in the United States. Air traffic control system modernization is accelerating worldwide to comply with emerging and existing regulatory mandates. The Federal Aviation Administration (FAA) has estimated that 100,000 to 160,000 general aviation aircraft will need to be equipped with ADS-B Out before the January 1, 2020, mandate.

"We're now just over two years out from the FAA compliance deadline," said GAMA President and CEO Pete Bunce. "As we move forward, knowing that date will not change, it is essential that those operators who haven't yet, make a plan for equipage to avoid having their aircraft grounded and losing its residual value."

Since the FAA announced the mandate, general aviation manufacturers have worked hard to design, develop, certify and make available ADS-B products that enhance safety for operators at a reasonable cost. Some solutions for light general aviation aircraft are available for a range from $1,200 to $4,000, each providing significant safety benefits when presented on an ADS-B IN capable display. For more information about equipping your aircraft with ADS-B, please visit the GAMA website www.GAMA.aero. ❑

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.

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NOTAM: Pilots, be sure to call events in advance to confirm dates and for traffic advisories and NOTAMs. Also, use only current aeronautical charts, etc., for navigation and not calendar listing information.

Midwest Flyer Magazine is not responsible for the accuracy of, or reliance on, any information published.

* Indicates any new or updated calendar listings since the previous issue.

DECEMBER 2017

2* Oshkosh, Wis. - Christmas In The Air Open House at the EAA Aviation Center 10am-4pm.

2* Oshkosh, Wis. - Movie: The Red Baron at the EAA Aviation Center 6:30pm.

8 Oshkosh (KOSH) Wis. - Wright Brothers Memorial Banquet at the EAA Aviation Museum featuring Astronaut Joe Engle as speaker. Purchase tickets at EAA.org/WrightBrothers. 920-426-6510.

10 Watertown (RYV), Wis. - 99's Pancake Breakfast from 8am-Noon at the Watertown Airport.

JANUARY 2018

24-27 Sebring, Fla. - U.S. Sport Aviation Expo at Sebring Regional Airport.

FEBRUARY 2018

3* Brodhead (C37), Wis. - Groundhog Chili Ski Fly-In 10am-2pm. Check field conditions at eaa431.org.

11 Mondovi, Wis. - Log Cabin Airport Winter Fly-In. 44-34-29.8700N 091-32-49.5600W Elevation 850' Frequency 122.90 logcabinairport@tcc.coop

25* Warroad (KRRT), Minn. - Ski Plane Fly-in & Breakfast. Ski Planes land on the Warroad River and Wheel Planes at the Warroad Airport. Shuttle Service Available 8am-Noon. 218-386-1818 or 218-386-2098.

MARCH 2018

4-6* Fargo, ND - Upper Midwest Aviation Symposium (701-328-9650) at the Delta Hotels by Marriott (701-277-9000).

19-20* Minneapolis, Minn. - 2018 MN Aviation Maintenance Technician Conference. This conference is for aviation maintenance professionals for continuing education, networking, employer recruiting, and IA Renewal. It will include exhibits featuring the latest and best in aviation products, technology, career opportunities and aviation awards. Register online at www.regonline.com/2050972 or contact Darlene for more information: Darlene.dahlseide@state.mn.us

APRIL 2018

18-20* Duluth, Minn. - Minnesota Airport Conference at the Duluth Entertainment Convention Center 350 Harbor Dr. The conference, held in conjunction with the Minnesota Council of Airports annual meeting, also includes technical and safety presentations, an industry trade show, and an awards and recognition program. http://www.airtap.umn.edu/events/airportsconference/2018/

21 Bloomington, Minn. - Minnesota Aviation Hall of Fame at the Hyatt Regency Hotel. Registration is available January 1. www.mnaviationhalloffame.org

28 Oshkosh (KOSH), Wis. - French Toast Breakfast & explore the aviation training hangar and labs, visit with faculty and try out our full-motion Redbird flight simulators at S.J. Spanbauer Aviation & Industrial Center 8am-Noon. 920-236-6112. frost@fvtc.edu

MAY 2018

18-20 Brainerd, Minn. - Minnesota Seaplane Pilots Association (MSPA) Safety Seminar, Madden's on Gull Lake. www.mnseaplanes.com

JUNE 2018

2-3 Blaine (KANE), Minn. - Discover Aviation Days at Anoka County - Blaine Airport. 763-568-6072.

3* Wild Rose (W23), Wis. - Pancake, Sausage & Egg Breakfast 7:30-11am and Pork, Beef Roast, Potato Salad & Beans 11:30am-2pm at the Wild Rose Idlewild Airport. Rain or Shine. 920-851-0271.

15-16* Missoula, Montana - AOPA Regional Fly-In. www.aopa.org

JULY 2018

7 Starbuck (D32), Minn. - Pancakes by Chris Cases, sausage, coffee & water 7am-Noon. Floatplanes welcomed to land on Lake Minnewaska. Held in conjunction with Heritage Days, a short 1/4-mile walk. Overnight camping with modern AD building with showers.

21* Washington Island, Wis. - Fish Boil serving from 11am-1pm. www.WashingtonIsland-wi.gov

23-29 Oshkosh (KOSH), Wis. - EAA AirVenture Oshkosh 2018. EAA.org/WrightBrothers 920-426-6510.

AUGUST 2018

9-12* Miminiska Lodge, Ontario Canada - Canada Fishing Fly-Out 3-Night/2-Day Trip. FOR RESERVATIONS: Contact Lynette Mish at Wilderness North toll free: 1-888-465-3474.

9-14* Miminiska Lodge, Ontario Canada - Canada Fishing Fly-Out 5-Night/4-Day Trip. FOR RESERVATIONS: Contact Lynette Mish at Wilderness North toll free: 1-888-465-3474.

12-15* Miminiska Lodge, Ontario Canada - Canada Fishing Fly-Out 3-Night/2-Day Trip. FOR RESERVATIONS: Contact Lynette Mish at Wilderness North toll free: 1-888-465-3474.

19* Lino Lakes (8Y4), Minn. - Minnesota Seaplane Pilots Association Pig Roast at Surfside Seaplane Base.

SEPTEMBER 2017

14-15* Santa Fe, NM - AOPA Regional Fly-In. www.aopa.org

OCTOBER 2017

5-6* Carbondale, ILL. - AOPA Regional Fly-In. www.aopa.org

26-27* Gulf Shores, Ala. - AOPA Regional Fly-In. www.aopa.org

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Thank You!

New Aerospace Association Launched In Michigan

ROCHESTER, MICH. – The newly formed *Aerospace Industry Association of Michigan* (AIAM) officially launched with the organization's inaugural Board of Director's meeting in August 2017. AIAM serves to be the voice of the 600-plus aerospace companies and organizations that already call Michigan home.

Michigan's heritage in the aerospace industry spans more than 100 years with the University of Michigan's aerospace engineering program, the oldest in the nation, that began not long after the historic Wright Brothers' flight at Kitty Hawk. The aerospace and automotive industry joined forces in 1941 during World War II when Ford Motor Company's Willow Run plant was converted into an aircraft assembly line where 42,000 workers produced one (1) B-24 Liberator bomber per hour. The rest is history, as some would say, and the aerospace industry continued to quietly grow in Michigan in the shadows of the automotive industry for the next 75 years.


Tony Vernaci

Tony Vernaci, President of AIAM, commented, "With PricewaterhouseCoopers (PwC) naming Michigan #2 in the nation, two out of the last three years for aerospace manufacturing attractiveness, it put our state on the map globally in this industry.

"The density of the aerospace industry in Michigan, along with our availability of talent for the industry, are some of the main drivers that contributed to such an impressive ranking. Other factors, such as Michigan's effective tax rate and overall cost of operations, heavily influenced PwC's decision.

"The crossover benefits from Michigan's dominance in the automotive industry places us in a very unique position unlike anywhere in the world."

From engineering and design, to rapid prototyping, and simulation to mass production, Michigan is recognized globally as a manufacturing powerhouse and known for "making things."

Vernaci stated, "As Michigan progresses in the light-weighting, connected/autonomous technology and cybersecurity, the global aerospace industry will be a natural beneficiary of these technological advances.

"The other asset is our workforce. Michigan continues to graduate more engineers per capita than anywhere else in the United States, so we have the talent ecosystem advantage for decades to come."

AIAM's Board of Directors are influential leaders in the global Aerospace Industry and its supply chain in Michigan. They include Matt Eurich, President, Wineman Technology Inc.; Daniel Inman and Clarence "Kelly" Johnson, Collegiate Professor and Chair, University of Michigan Aerospace Engineering; George Kiefer, VP/GM, Avionics – Computer & Networking, GE Aviation; Kevin Michaels, Managing Director, Aero Dynamic Advisory; Mark Schmidt, Vice President Aftermarket Business, Eaton; Jeff Simek, General Manager of Operations, RCO Aerospace and RCO Engineering; Glen Simula, President and Founder, GS Engineering, Inc.; Mike Stratton, Product Line Manager, Combustion, Woodward; Alex Vlielander, President, Liebherr; and Conor Tracy, General Manager, AutoAir, Pratt & Whitney.

Top priorities for AIAM include talent attraction and development, legislative advocacy in Lansing, representation at key aerospace events around the world, and numerous business networking opportunities.

Membership in AIAM is open to companies in the aerospace industry, as well as non-aerospace companies considering an expansion of their products and services into the industry. For additional information, go to http://aiamnow.com

The Aerospace Industry Association of Michigan is a non-profit, member-driven industry organization. It is a platform for aerospace leaders in the state to work together on a common set of priorities to strengthen and support the continued growth in the industry through talent attraction and new investment in Michigan. ❑

Classifieds

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Flying In The Colorado Mountains From Page 35

One other thing that is quite interesting and that we need to pay attention to when flying at high altitudes is the difference between true airspeed and indicated airspeed. Early on in our flight training, we learn that true airspeed (TAS) is indicated airspeed (IAS), or what the airspeed indicator in the airplane shows us, corrected for altitude and temperature. At sea level on a 15°C day, IAS will be the same as TAS. However, as the temperature or altitude increases, the air density will decrease, causing the IAS to read lower than TAS. A good rule of thumb to approximate the difference between IAS and TAS without looking at specific temperatures, a chart, or a calculator, is to increase IAS by 2% per 1,000 feet of increase in altitude.

At one point in the flight, when going over Cottonwood Pass, we reached 14,000 feet to clear it. Our indicated airspeed was showing 110 kts, while our true airspeed was 28% more or 140 kts, and our groundspeed reached 173 kts.

As for the rest of the flight… it was beautiful as always and surprisingly very smooth. The Cessna 182 did a fantastic job, and climbed without constraints. Those Rocky Mountains sure are beautiful, especially since they had fresh, white snow and the fall colors (in particular the popular Aspens) are still very much at play. We also saw interesting landscapes formed by glaciers, several 14ers (mountain peaks over 14,000 feet in elevation), and the Moon delighted us with its presence throughout the flight and made for some nice pictures, as did sand blowing towards the Great Sand Dunes National Park in the San Luis Valley.

Fly safe and fly often!
Life is short, so we have to enjoy every minute of it! ❑

EAA AirVenture Oshkosh From Page 39

economic models. In addition, EAA AirVenture supported more than 2,000 jobs in the region. Additional AirVenture-based spending through the rest of Wisconsin contributed millions of dollars of added economic benefit statewide.

This economic impact has grown faster than the rate of inflation over the past decade, indicating that the event's effect on the regional economy has grown considerably.

The benefit to Wisconsin is magnified as approximately 70 percent of all AirVenture attendees come from outside the state, bringing "new money" to Wisconsin. Lodging and camping account for 35 percent of the average daily spending per day for each visitor, and includes those staying in hotels, campgrounds, college dormitories, and private housing. Food, entertainment, clothing/retail, and fuel are also major benefactors of the economic impact, along with unexpected spending in such areas as event staffing, landscaping, and many other linked industries.

With a total attendance of 590,000 people from 80 countries in 2017, EAA AirVenture Oshkosh remains one of Wisconsin's largest annual tourism attractions.

EAA AirVenture Oshkosh 2018 will be held July 23-29 (www.eaa.org). ❑

Wipline 13000 Floats From Page 41

function as a standalone system or can be coupled with Wipaire's exclusive Laser Gear Advisory (where available). The Laser Gear Advisory utilizes laser technology to detect if the aircraft is over land or water to issue alerts only when a mismatch between landing gear position and landing surface is detected, reducing repetitive alerts.

For over 55 years, Wipaire has been engineering and manufacturing a full line of aircraft floats for all sizes of aircraft from the Piper Cub to the Viking Twin Otter, including most single-engine Cessna aircraft.

In addition, Wipaire has engineered over 100 Supplemental Type Certificated modifications for improved performance, convenience, and reliability. As a leading aircraft service provider, Wipaire offers maintenance, avionics installation and repair, custom interior design and installation, and exterior paint refinishing across locations in South Saint Paul, Minnesota, and Leesburg, Florida. Wipaire is recognized for its quality products and engineering expertise worldwide (www.wipaire.com). ❑

Books & Novels

Author Dennis R. Jenkins Receives 2017 Combs Gates Award

Dennis R. Jenkins' three-volume work, "Space Shuttle: Developing an Icon 1972-2013," has earned its author the 15th Annual Combs Gates Award by the National Aviation Hall of Fame (NAHF). Jenkins was presented the $20,000 cash prize on October 10, 2017 at the National Business Aviation Association's (NBAA's) 70th annual Business Aviation Convention & Exhibition in Las Vegas, Nev.

"Space Shuttle: Developing an Icon 1972-2013" recounts the shuttles' 30 years and 135 missions. Having carried more crew members to orbit than all other launch systems, from all other countries combined, as well as more than 4.5 million pounds of payload, the shuttle celebrated a staggering record of successes. Unfortunately, it was also accompanied by a tragic record of failure, with two accidents claiming the lives of 14 astronauts, as well as other incidents claiming several ground personnel.

Author Dennis R. Jenkins served as an engineer and project manager on the space shuttle program for 33 years. The Combs Award, its original title, grew out of a donation to the NAHF by the late Harry Combs, a 1996 Enshrinee of the NAHF. ❑

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