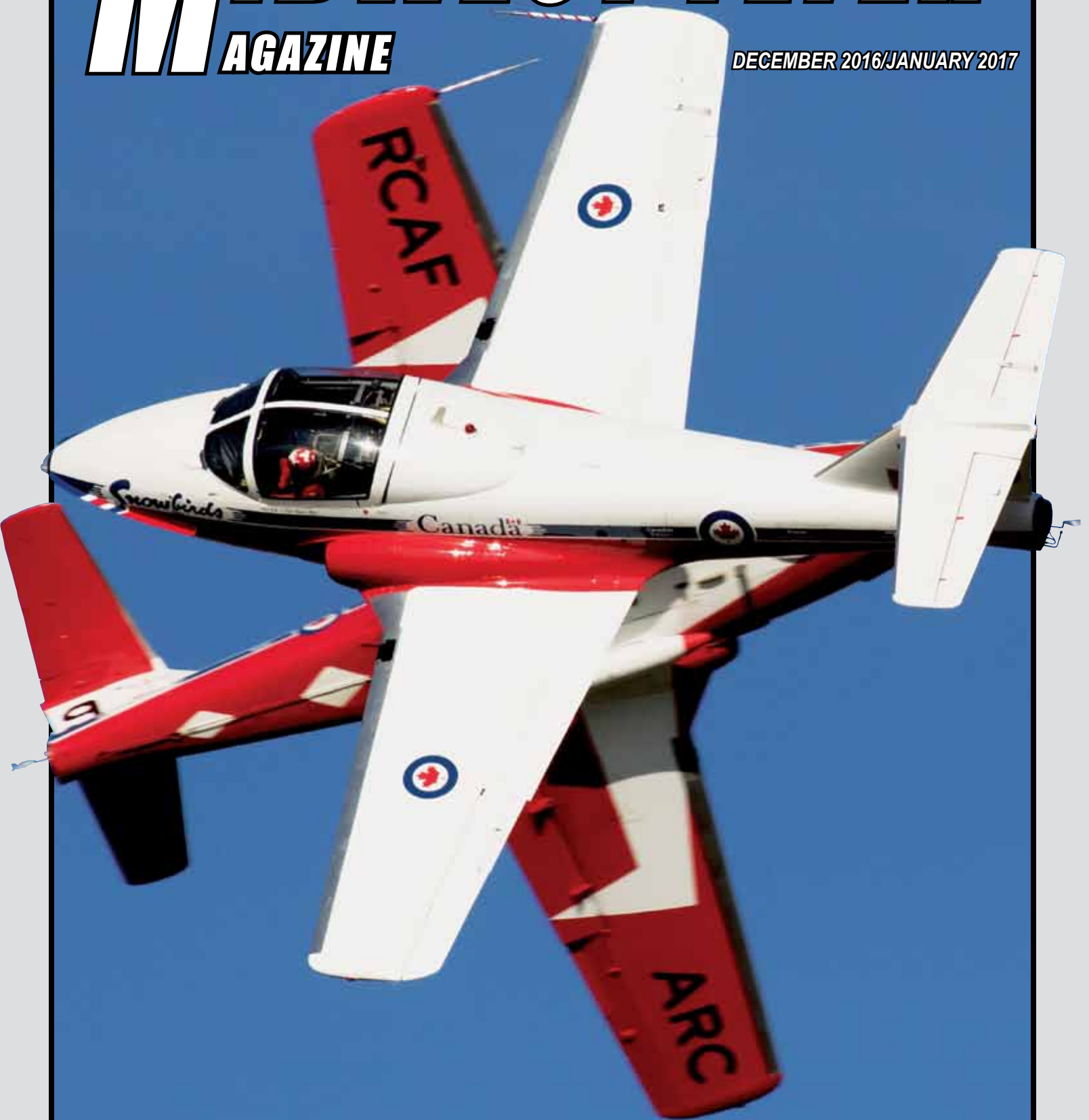
MIDWEST FLYER MAGAZINE

DECEMBER 2016/JANUARY 2017



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Building the tools to teach

AOPA is trying something that's never been done before, and we think it will open the door for thousands of young people to discover the fun, excitement, and opportunity that aviation can bring.

If you read this column regularly, you've heard of You Can Fly—the umbrella program AOPA launched in 2015 to get more people flying and keep them flying. Now AOPA's High School Initiative, which falls under the You Can Fly umbrella, is taking some bold steps forward.

AOPA is partnering with Purdue University to develop four-year aviation STEM (science, technology, engineering, and math) curricula for students in grades 9 through 12. The curricula will allow schools to offer up to four different career and technical education pathways —pilot, aerospace engineering, aviation technology, and unmanned aircraft systems (UAS). And each pathway will provide a full four-year course of study that builds on the skills and knowledge developed in each grade.

To get things started, we'll build the ninth-grade level classes. We expect to roll those out in time for the 2018-19 school year, with the higher grade level classes to follow until all four pathways are complete.

The classes are being carefully designed to meet not only the high math and science standards many states are implementing to improve student performance, but also the rigorous career and technical education requirements that will allow schools to apply for federal grant money to implement the programs.

We're doing this at a time when it's sorely needed. Job forecasts anticipate worker shortages in many aviation fields, and schools are scrambling to address growing science and technology skills gaps.

Here at AOPA, Cindy Hasselbring is leading the charge on our High School Initiative. She's a pilot, and a former math teacher who worked with the state of Maryland to bring STEM curricula into schools. As someone who's spent a lot of time in the classroom, she's driven to make sure these curricula get kids engaged by showing them just how fun, exciting, and useful math and science are, especially when they're paired with aviation.

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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ON THE COVER: The Canadian Forces 431 Air Demonstration Squadron, the "Snowbirds," perform a crossover head-on maneuver in their CT-114 jet trainers at EAA AirVenture Oshkosh 2016 in Oshkosh, Wisconsin. The squadron is based at 15 Wing, near Moose Jaw, Saskatchewan. The team performs in 11 CT-114 Tutors. Approximately 80 Canadian Forces personnel work in the squadron full-time, which includes 24 who travel on the air show circuit. Unlike all other major military demonstration teams, the Snowbirds do not have a support aircraft. *Chris Bildilli Photo*

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Plane People Are The Best People!

by Dave Weiman

In this issue of *Midwest Flyer Magazine,* you will read about a lot of people doing a lot of great things for aviation.

Pete Schoeninger helps us out with answers to our questions about aircraft ownership in his column, "Ask Pete," beginning on page 7.

Attorney Greg Reigel is trying his best to keep us out of trouble by explaining why we are required to report motor vehicle actions to the Federal Aviation Administration in his column, "Aviation Law – On Your Side," beginning on page 9.

Instrument flight instructor, Mick Kaufman, is also trying to keep us out of trouble by sharing what can go wrong with our avionics when we are most dependent on them in his column, "Instrument Flight," beginning on page 11.

Harold Green has been instructing since 1976 and explains why he is concerned with pilots who are not proficient in using advanced avionics in his column, "Pilot Proficiency," beginning on page 15.

Dr. Bill Blank reviews what we need to know and do before our next flight physical in his column, "High On Health," beginning on page 17.

AOPA President & CEO Mark Baker briefs us on why AOPA Regional Fly-Ins have been successful, attracting 44,000 people in just three years, in his column, "From AOPA Headquarters," beginning on page 19.

"People In The News" includes feature articles on air show performer, test pilot and military veteran, Bob Hoover, beginning on page 20; EAA Chairman & CEO Jack Pelton, beginning on page 22; and retired Pan Am Clipper pilot, Paul Johns, who just turned 103, beginning on page 33.

Our "Destinations" section continues to be a favorite, and in this issue, Yasmina Platt takes us to the Bahamas, beginning on page 38.

We hope you enjoy this issue of *Midwest Flyer Magazine.* Reader feedback is always welcomed! ❑

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Editor/Publisher
Dave Weiman

Production Director
Peggy Weiman

Photo Journalists
Chris Bildilli, Brad Thornberg,
Mike Nightengale, Don Winkler

Contributing Editors & Photographers

Randy Arneson	Cassandra Isackson
Mark Baker	Michael Kaufman
Jonathan Beck	Dan McDowell
Dr. Bill Blank	Wes Morefield
Rick Braunig	Rachel Obermoller
Karen Broitzman	Lorrie Penner
Hal Davis	Yasmina Platt
Harold Green	Greg Reigel
James Hanson	Pete Schoeninger

ADVERTISING
PHONE: (608) 772-1776
E-MAIL: dave@midwestflyer.com
www.MidwestFlyer.com

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Ask Pete!

by Pete Schoeninger


Pete Schoeninger

Q: I had the nose strut on my 172 improperly serviced at a distant airport. After servicing, it was obvious to me the nose was way too high. I figured I could fly the airplane home and have my mechanic correct the situation, but when I tried to taxi, I had no nose wheel steering. So instead of flying home that day, I spent the night there, and the next morning, had the strut properly serviced. Why wouldn't the nose steer when the nose strut was extended?

A: On many 172s, when your nose strut fully extends from over servicing with air or because you have lifted off a runway, there is a simple mechanism on the nose gear scissors, which keeps the nose wheel centered. So if your nose strut was too high, it was probably extended so far that the nose steering was blocked by the centering mechanism. You could steer by using differential braking only, but that is awkward and not recommended. You did the right thing by getting your nose strut re-serviced properly.

Q: On a cold day last winter, I "missed" the start on my engine…I mean, it ran for a couple of seconds and then died. All future attempts to start it were useless; I could not even get one pop from the engine. I put the airplane into a friend's heated hangar, and the next day it started normally and ran fine. A mechanic friend said I might have "frosted" the spark plugs. What's that? I've never had anything like that happen before with an airplane, or a car.

A: If your engine fired for a couple of seconds, it is possible a drop of condensation formed on the spark plug gap, and then quickly froze (you said it was winter). This is unlikely, but it does happen. The gap on many aviation spark plugs is much tighter than your car, perhaps .018 of an inch for your airplane and .055 of an inch for your car, so it is relatively easy for a tiny piece of frost, or crud, to short out that small gap.

Q: I'm a student pilot, and having a terrible time learning night landings. I just don't seem to be able to "get it" as far as depth perception is concerned. Any suggestions? At $140 per hour for dual instruction, I am going broke and not progressing. Your advice, please!

A: As a student pilot, you probably have not completely mastered landings yet, and now you have to learn night depth perception. Try riding along, NOT AS A PILOT, but as a

PASSENGER, when someone else goes up for an hour of night landings. Quite soon you should be able to tell when the wheels are going to hit the runway, because you are not also trying to land the airplane yourself. Once you have night depth perception mastered, night landings will become easier.

Q: Last week, in my Beech Sundowner, when I did my mag check before takeoff, one mag was very rough. I called unicom and the operator asked me to taxi back to their shop, running the engine on the rough mag only. I watched a mechanic remove the engine cowl, then quickly feel all four cylinders, and then he removed the bottom spark plug from cylinder #2, which turned out to have a tiny piece of crud shorting out the spark plug gap. That engine has eight (8) spark plugs. How did the mechanic know which plug was fouled, or was he just lucky?

A: The cylinder that was misfiring, or not firing at all four cylinders, would be significantly cooler than the other three by the time you got back to the shop. Usually with a fouled plug, the bottom plug is the villain, not the top plug. (Junk falls downhill… Ask any plumber!) Thus, the most probable cause of the rough mag check was that fouled plug, which your mechanic quickly found. Other causes of a rough mag check could be a failing mag, bad ignition wire, loose spark plug wire, etc., but often the most likely villain is – and was in your case – a spark plug problem.

Q: My 1975 Cessna 182 Skylane has an engine that is just about due for overhaul. I want to sell the airplane and get a Cessna 310. Would I be dollars ahead to sell it as is, or should I spend big bucks and get the engine overhauled, then sell it?

A: A couple of considerations are in order: 1) There will be few retail buyers for any airplane with a run-out engine. 2) There are not a lot of buyers for a used airplane with a freshly overhauled engine among retail private buyers. (They don't want to pay the premium price for their usual 50 -100 hours of yearly flying…a half-time engine would be more appropriate for them.) 3) Your airplane will be down from two to maybe eight weeks getting the engine either replaced or overhauled. In addition to the cost of the engine overhaul or replacement, expect to spend as much as another $4,000 on labor, hoses, baffling, etc. 4) Some airplanes, Cessna 172s in particular, are in such demand, people like to install larger engines to replace the original engine. Based solely on my experience, there have been less people willing to spend the money to have a larger engine installed in a 182, because the stock engine already has sufficient power, especially for flying in the Midwest.

Many folks will disagree with me, but I think you are often better to sell an airplane at a discounted price with a high-time engine, rather than undergo the expense of an overhaul or replacement.

Advertise your airplane heavily in at least three or four publications that have Internet presence, including *Midwest Flyer Magazine,* among other websites.

Q: A Piper PA-12 Super Cruiser has been for sale locally for over a year. But so far, no takers. Can you give the seller any pointers?

A: Two common mistakes I see over and over in situations like this: 1) the seller is not advertising the airplane enough, and/or his asking price is too high. Whether selling an airplane or a cow, or a ladder at a rummage sale, you need a willing buyer. Lots of advertising is needed to find the relatively rare buyer of such an airplane. Then, once someone is interested, the asking price must be reasonable. For some sellers who are emotionally attached to their airplane, that is a tough pill to swallow. With lots of good advertising and a reasonable price, you should have some responses within 30 days, and a sale closing within 90 to 120 days. If you have no responses with lots of ads, your price is too high, period.

I have seen instances where an elderly person quits flying, but will not sell his/her airplane for fair market value. After they pass, the heirs are left with that burden. The airplane perhaps will have sat for a few years before the heirs sell it, and will bring less money than if the elderly seller accepted reality and sold the airplane, himself.

EDITOR'S NOTE: Contact Pete Schoeninger at pete.harriet@gmail.com with your questions for this column or for consultation on other 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. ❑

As Long As You Hold An Airman Certificate, You Must Report Motor Vehicle Actions To The FAA

by Gregory J. Reigel
Attorney At Law


Greg Reigel

If you hold an airman certificate, you know, or at least you should know, that you are subject to the reporting requirements of 14 C.F.R. §61.15. That is, Section 61.15(e) requires an airman to report a motor vehicle action ("MVA") to the FAA Civil Aviation Security Division within 60 days. The written report must include: "(1) The person's name, address, date of birth, and airman certificate number; (2) The type of violation that resulted in the conviction or the administrative action; (3) The date of the conviction or administrative action; (4) The State that holds the record of conviction or administrative action; and (5) A statement of whether the motor vehicle action resulted from the same incident or arose out of the same factual circumstances related to a previously reported motor vehicle action."

What is an MVA? According to the regulation, an MVA is (1) a violation of any Federal or State statute relating to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug; (2) the cancellation, suspension, or revocation of a license to operate a motor vehicle, for a cause related to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug; or (3) the denial of an application for a license to operate a motor vehicle for a cause related to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug.

It is important to realize that this definition includes more than just being arrested for or convicted of Driving While Intoxicated ("DWI"), Operating While Intoxicated ("OWI"), etc. A civil action that often accompanies a DWI arrest in most states, and that results in suspension of the driver's license, is also considered an MVA. Thus, an arrest for DWI could create the obligation for an airman to provide multiple reports to the FAA depending upon how the civil and criminal cases proceed. And if an airman fails to report an MVA, Section 61.15(f) states that he or she could be subject to (1) Denial of an application for any certificate or rating for a period of up to 1 year after the date of the arrest; or (2) Suspension or revocation of any certificate or rating.

But what happens if you hold an airman certificate, but you no longer hold a medical certificate, or you have "retired" from flying? Are you still subject to this reporting requirement? The short answer is "yes," as a recent National Transportation Safety Board ("NTSB") decision explains. In *Administrator v. Street,* the airman was an experienced airline pilot who failed to report four MVAs arising from two DWIs. When the FAA found out, it issued an order suspending the airman's Airline Transport Pilot ("ATP") Certificate for 240 days. On

appeal, the Administrative Law Judge ("ALJ") agreed that the airman had violated sections 61.15(d) and (e), but determined that the sanction should only be a 30-day suspension.

Not surprisingly, the FAA was unhappy with that decision and appealed to the full Board. The FAA argued that the 240 days should stick and, of course, the airman argued that the ALJ's decision should stand. Specifically, the airman argued that at the time of the violations, he did not have a medical certificate and was not actively flying, which should serve as mitigating factors in support of the lower sanction. However, the Board rejected that argument stating the reporting requirements of §61.15(e) are applicable to an airman who temporarily "retires" from flying, and upheld the FAA's original 240-day suspension.

The Board explained that "[w]hile respondent testified that he did not plan to return to flying, his obligation to comply with the FARs continued regardless of whether he was actively flying at the time the MVAs occurred. Sections 61.15(d) and (e) are exclusively concerned with conduct outside the scope of an airman's certificate. It is immaterial whether respondent was actively flying or had a medical certificate at the time the MVAs occurred because his status as an ATP certificate holder rendered the requirements of §§ 61.15(d) and (e) applicable to him."

So, the moral of the story is: If you hold an airman certificate, you need to be familiar with, and comply with, the requirements of §61.15. Until you no longer hold your airman certificate (whether the certificate has been surrendered, suspended or revoked), you will need to report any MVA to the FAA.

NOTE: The FAA issues orders of suspension/revocation and then NTSB (either an Administrative Law Judge or the full Board) decides appeals of those orders/decisions. An airman may also appeal an NTSB Board decision to either the U.S. Court of Appeals or to U.S. District Court.

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. ❑

Autopilot Wiring & Setup Problems, Plus Needle Ball & Airspeed Instruments

by Michael J. "Mick" Kaufman


Michael Kaufman

There are strange things done in the midnight sun." This is the first line of the poem, "The Cremation of Sam McGee," written by Robert W. Service, which makes me think of some of the installations of avionics I have seen in aircraft in recent years. In this issue of *Midwest Flyer Magazine,* my column will cover some recent avionics installation errors that I have experienced, along with some tips that will help the instrument pilot flying hard IFR without an autopilot and without state-of-the-art avionics.

If you are a regular reader of my column, you know that I refer to the autopilot as "George," and you may have seen some of my advice and warnings on flying IFR in an airplane that recently came out of the shop, or if you had never flown that particular aircraft before. I am not trying to undermine the mechanics or avionics technicians, but we are all human, just as pilots are, and mistakes can happen.

I recently had a call from a pilot named "Charles," who was having difficulties with his autopilot. We scheduled a date to fly, and Charles arrived with a beautiful Cessna 206, which had a King KAP-140 autopilot, Garmin 530 Navigator, and a six-pack of instruments. Before we went flying, we sat down and discussed a plan of action with the first sortie being a check out of George and the equipment installation. The next thing we did was ground session, so Charles could learn how to set up and operate his autopilot, followed by a second sortie flight.

During our preflight discussion, I came to the conclusion that Charles was a very accomplished pilot even though we had never flown together before. But "George," the auto-pilot, had some issues.

After departure from the Eagle River, Wisconsin airport, I had Charles turn on the autopilot during the climb to check out the altitude preselect feature, and then the heading bug with a VOR radial intercept. Everything worked great to this point. George's next task was to fly the ILS 09 approach to the Rhinelander, Wis. airport. We flew to the Rhinelander VOR, which was one of the initial approach fixes, then outbound for the procedure turn. We used GPS assist from the Garmin 530, and Charles guided George through the procedure turn using the

heading bug, as there was no GPSS module installed in the aircraft. As we intercepted the final approach course and switched to the VLOC mode on the 530, all looked well. The autopilot was in the approach mode, the localizer and glide-slope were alive on the CDI, the glide-slope was above us, and the indicator on George said altitude hold on and glide-slope armed. As we approached the final approach fix, with a glide-slope intercept, the CDI needle remained at the top of the display; however the altitude light and the glide-slope armed light went out on the autopilot. The glide-slope light came on, and we proceeded down the glide-slope with a full up glide-slope indicator on the HSI. We realized this was not right, but to further diagnose George's shortcomings, we decided to do a GPS approach to runway 27 at Rhinelander, which was an LPV approach. After intercepting the inbound course and crossing the intermediate approach fix (IF), the glide-slope needle came alive with the needle showing the slope above us. We had switched our input on the autopilot earlier and re-engaged the approach mode.

The King KFC-225 and KAP-140 require separate inputs for analogue and digital streams. There is normally a message light on the Garmin that tells us to do this, but it did not appear. George now showed all the correct indications – approach mode, altitude hold, glide-slope armed – but as we approached the glide-slope intercept point, nothing happened. The HSI glide-slope indicated we should fly up, and George flew the approach, but never descended. It became obvious that there would be no more training done that day, as George would need to see the doctor. I drew a simple wiring diagram for Charles to take to the avionics shop to explain the problem.

After reading the adventure of "George the autopilot," what did we learn? It reinforces my comment of never flying IFR in an aircraft that just came out of the shop. In this case, the aircraft was flying like this for some time, and Charles suspected something was wrong.

If you see an abnormality or something that does not seem right, get a flight instructor to help, who is very familiar with your equipment. Accept the fact that these interfaces with different manufacturers' equipment are difficult for any avionics shop.

Before leaving the autopilot topic, I would like to again give a warning to pilots who have the following equipment combination, as I am not sure whether the situation has been addressed and corrected by the manufacturers:

King KFC-150 Autopilot
Garmin 430 or 530 with WAAS
Altitude Pre-select Module
Electric Trim

I have written about this before, and even notified the FAA that this could be a deadly combination for an unsuspecting pilot. This is a design flaw and not an avionics shop error, which several other instructors in our Beechcraft training program and I have documented in numerous different aircraft so equipped.

While maneuvering at approach airspeed and intercepting the final approach course on an ILS approach when switching to VLOC mode (auto/manual), the autopilot will see the glide-slope needle come alive, disconnect the altitude function on the autopilot, and attempt to climb, thus stalling the aircraft. Should this happen to you, disconnect the autopilot immediately; you can expect the aircraft to be extremely out of trim.

In my last column in *Midwest Flyer Magazine,* I wrote about flying basic instruments using VOR, ILS and the six-pack. I also made reference to an article published by the National Transportation Safety Board (NTSB) on a study done comparing the six-pack with a glass cockpit. I am still doing some research on my own to make some better conclusions of the study, and reviewing some other studies, as well.

The results of the NTSB study showed an almost double fatal accident rate with glass panels: "Of the 266 total accidents looked at, conventional aircraft had 141 accidents with 23 (16%) of them being fatal. Of the 125 accidents involving glass cockpit aircraft, 39 (31%) of those were fatal." I will present additional facts in the next issue of *Midwest Flyer Magazine.*

Emergency Situations Due To Equipment Failure & How To Survive In IMC

If you have followed my column in previous issues, you already know I am a "tech guy" and love to fly new advanced equipment, and evaluate it for a future purchase for my own aircraft. On the flight instructor side, I often shake my head when I see pilots spend thousands of dollars on equipment, which is worthless in my opinion,

because there is little benefit and they never get training on how to use it. I have decided to devote the balance of this issue to emergency situations due to equipment failure and how to survive in instrument meteorological conditions (IMC).

As pilots, we can evaluate the equipment in our aircraft and make our equipment more redundant. In years past with steam gauges and no GPS, we practiced partial panel approaches using "Needle Ball & Airspeed." I have developed my own technique for the procedure sometimes called a "No Gyro Approach," which I will share at the end of this article, as this may be the last resort for you in some cases.

If you have an instrument six-pack, the most likely component failure is the "vacuum pump." This may be overcome by installing a "Precise Flight" standby vacuum system, or better yet, a wet vacuum pump as I have on my aircraft, as their failure rate is extremely low. Another option are "standby electric instruments." If you have an all-electric airplane with a glass panel, you may think you are less likely to have an instrument failure. That is true, but when you do, it is far worse and the odds are against you.

Most glass panel aircraft are equipped with dual electrical systems (batteries and alternators), but don't take that as total immunity to a total electrical failure. On a flight departing in low IMC, I declared an emergency and with fast thinking on my part and that of ATC, I survived what could have been a fatal accident. I had just departed Palo Alto, California for an IFR flight to Lake Tahoe and contacted San Jose Approach when the glass panel and everything electrical began to flash, and there was smoke in the cockpit. The only backup instrument was a peanut gyro that had its own battery. After declaring an emergency, the San Jose approach controller gave me vectors for intercept, altitudes, ILS frequency and the inbound course. I did not have a chart for the approach readily available, and my #1 job was flying the airplane. There is a lot to be said for prioritizing tasks…"Sully" can attest to that during his successful "Miracle On The Hudson" landing. My instruments continued to flash along with the radios, but held on until I broke out on the approach, and I shut off all electrical equipment and the master. As I touched down on the runway and rolled to a stop, the fire trucks and emergency equipment came up next to me. In conclusion, when the manufacturer changed avionics, a larger alternator was installed to handle the load, but the alternator bracket was not beefed up. I had flown this aircraft for over 30 hours with no problem, but the bracket finally bent under load and caused the alternator terminal to short out on the motor mount causing the arcing and smoke in the cockpit. Fast thinking,

some luck on my part and a fast-thinking air traffic controller kept this from being a tragedy. I intentionally omitted the aircraft model for legal and liability reasons, but similar situations can occur at any time in any aircraft.

There are so many emergency situations that can occur, and we cannot prepare for all of them, but knowing your equipment well will make you better prepared.

The following scenario is for training purposes, and you may have equipment in your aircraft, which would dictate an easier procedure. For the purpose of the article, your equipment is the six pack of instruments required for IFR flight (vacuum attitude and heading indicator, electric turn coordinator), a VOR/ILS radio and no GPS. A vacuum pump failure occurs, and you realize you have lost your two gyros (attitude and heading indicator). Your knowledge of the useable systems and how to use them, now comes in handy. You remember from your instrument training that the magnetic compass has lots of errors and decide it is only useable in straight and level flight and easiest to use on headings of east and west. You also remember the turn coordinator and when on the mark you turn at 3 degrees per second. You have to keep cool and remember, "Job #1" is to fly the airplane (heading and altitude); navigation is "Job #2." Your instructor taught you to fly "by the numbers," so power settings and airspeed are still there even if pitch is not, and the support of the altimeter and vertical speed indicator, along with gear and flap configuration, are helpful in controlling the aircraft.

I always take some instrument covers with me when flying IFR; I put them in my shirt pocket, so I do not have to hunt for them. It is important to cover failed instruments, as the brain will still scan them even though you told your brain they are not working. Now, we need to find an approach that will lead us to a nearby airport.

I prefer approaches with an inbound course as close as possible to east or west and try to avoid a north approach if at all possible. This is because of magnetic compass errors. There are three popular approaches to consider with the navigation equipment available – VOR, LOC and ILS. Known weather conditions may be an influencing factor to consider in your selection. Don't try to rush the approach unless fuel or other negative factors exist. Try to fly the full approach unless ATC can give you long vectors or a "No Gyros Approach." The more distance you have on the inbound course, the better you can tweak your heading and technique to follow your course. Now, it's time to begin the approach by flying to the initial approach fix (IAF).

You can begin by working on your technique at this point and learn about the wind. From your early instrument training, you should remember to bracket your course and not do an "S-turn" across the radial. You will be tracking to the IAF. The magnetic compass should be used only in straight and level flight, and we should make all of our turns based on standard rate on the turn coordinator based on time.

For an example, let's say we have an inbound course of 30 degrees to get to a VOR, and we have a negative wind correction factor. Our magnetic compass indicates 30 degrees; we are about 10 miles from the station and have a full left course deviation indicator (CDI). We think about this and decide to try a 30-degree intercept to center the CDI…doing a timed turn for 10 seconds to the left should make that happen. Being brisk on the roll in and roll out of the turn is the way to go and count to determine the 10 seconds instead of using the clock. I count the seconds I need on all turns of 45 degrees or less and use the second hand on the clock or electronic timer for larger turns.

Prior to reaching the IAF, I determine the direction, degrees of turn and the number of seconds to complete it, and proceed outbound for the procedure turn. After the turn is complete, I check the compass to see how I did and start the "5 Ts" – Turn, Time, Twist, Throttle, Talk. It is good procedure to go out as far as possible before making the procedure turn without exceeding the airspace protected for the approach. This will give you more time to tweak your heading while inbound on the approach, as bracketing is very important here to avoid "S-turns" across the course. Prior to reaching the final approach fix (FAF), the rest of the approach must be memorized, as a glance at the approach chart will lose your scan and concentration. Even with everything working and a full panel, I make all of my instrument student pilots memorize the remainder of the approach before reaching the FAF, and I take the chart away from them. If a pilot had learned by the numbers properly and know the numbers for the airplane, flying the vertical portion of this "No Gyros" approach will be easy. It's all based on power settings and flap and gear configuration, and should not be done any different than when flying with a full panel.

There are more helpful tidbits on doing a partial panel approach than what I covered here. If I would have had a working GPS, flying the course would have been a lot easier and no different than if I had a very accurate heading indicator, which compensated for wind. Learn your systems and practice different scenarios before they occur.

In the next issue of *Midwest Flyer Magazine,* I will cover some autopilot preflight tests and things you should know about autopilot runaway.

Fly safe and stay warm as winter flying will have begun when you read this column.

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. ❑

Accident Rate vs. Advanced Avionics

by Harold Green


Harold Green

Recently, concern has been expressed that technically advanced avionics – including autopilots – may not have produced a significant reduction in general aviation accident rates. Nonetheless, there has been a gradual reduction in accident rates over the past few years, while there has been no significant change in the cause of accidents over the past two decades. What this apparently tells us is that the advanced avionics in our aircraft have not produced the significant reduction in accidents that was expected.

There may be several reasons for this. Our expectations may not have been realistic, the new technology may not adequately address the issues that cause accidents in the first place, and perhaps there are new issues brought forth by the presence of the new technology. This discussion focuses principally on instrument flight because this is the most demanding in terms of pilot concentration and hence should be the most sensitive to any effect advanced electronics might have.

Our expectations were probably raised beyond what was realistic. Initially, the hype was: "Gee, this whiz bang toy with a Primary Flight Display (PFD), and a Multi Function Display (MFD), showing us a map and all the instruments in a compact group, is really great and my flying will be so much easier." Well, yes, it is neat, but based on cursory review of the latest Joseph T. Nall Report,* the practical effect to date has been marginal at best.

First, think of the "six-pack" instruments. While the PFD does bring the information closer together, it does not appreciably reduce the scan requirements for the pilot. And this, in my opinion, is in large part due to the fact that we really don't scan the way the textbooks say we do. Of course, when we are first learning, we do what the instructor says. However, once we get past the learning stage, our scan consists of speed-reading a pattern. That is, we don't really read the numbers on the gauges until there is a reason to. We

just note the position of the needles, like speed-reading, and we read the numbers only when they move, but even then we react before we read them. Therefore, having an altitude and airspeed tape, which displays numbers only, is of little value for those who learned with the six-pack. While most tapes include a trend indicator, it takes awhile for pilots to include this indicator in their scan. The trend indicators are sensitive and jump around a bit.

There are still more pilots out there who have learned on the six-pack than have learned on the glass cockpit. These folks learned to scan the instruments via speed-reading, and find it more difficult to adapt to the speed and altitude tapes, than new pilots who have not developed a scan that needs to be modified. Therefore, I contend that for the majority of pilots, the PFD display offers little or no advantage in flying the airplane until experience has been gained. Even then the results in terms of aircraft flight are about the same as with the six-pack.

The next question is whether or not new technology addresses the issues that cause accidents. While we don't have specific data to confirm or deny this issue, there is one point, which must be addressed. That is, most accidents are, and have been since records have been kept, the result of pilot misjudgment, rather than a problem with instrument interpretation or lack of flight data. We still try to fly longer than our fuel supply permits. We still mess up landings and we still fly into bad weather. And it still happens that someone attempts to park their airplane in a hunk of rock. Most of these causes are not related to ignorance or instrument interpretation on the part of the pilot. The actual cause lies within us. We cannot expect technology to correct these flaws in our makeup.

There is also the question as to whether or not new issues arise because of the presence of the new technology. One of the issues that arise with almost everyone, particularly flight instructors, is the time pilots spend looking at information, particularly on the MFD, where engine and navigation data is displayed.

For example, the time spent staring at a Lean Assist operation can be extensive. While the amount of information available is tremendous, the steps, and therefore, time and attention, necessary to access that information, can be extensive. This has the potential to distract pilots from traffic avoidance duties. However, there is no obvious indication in the Nall Report that this has had a deleterious effect.

The MFD provides a plethora of information, but also requires heavy pilot attention. In fact, the MFD is most likely to cause pilot distraction for several reasons.

First, the MFD requires multiple steps to access the information, which it contains. Second, the information contained in the MFD is not directly related to aircraft control, even though it is necessary to conduct the flight. However, based on accident reports, it is virtually impossible to determine what impact the MFD might have had leading up to the event. This is NOT to decry the advantage of knowing weather, having airport data, and approach plates or en-route charts at hand in front of your eyes.

Another issue, which is not addressed by an accident summary, such as the Nall Report, is the type of flying we as general aviation pilots are doing these days. While the number of pilots in the U.S. continues to decrease, I do not have data concerning the number of hours spent flying IFR. The reason this could be important is that both the benefits and disadvantages of technically advanced aircraft are most evident in flight in instrument conditions.

A very distinct advantage that may be a significant factor in this whole issue is the autopilot. Today's technically advanced aircraft usually include a very capable autopilot. This autopilot goes well beyond the old wing leveler of yore. Today's autopilot is capable of coupling with the navigational aids; flying a complete instrument approach; providing a constant airspeed function, defined rate of ascent and descent; and generally holding the pilot's hand while attention is devoted to advanced information systems.

In conclusion, I believe the jury is still out on whether or not new technology has provided a safety advantage. Yet, intuitively, we feel that it should. It may well be that due to changing flight habits, along with a changing experience base on the part of today's pilots, it has prevented the accident rate from increasing. However, there is no question that modern avionics are a convenience, and that they have the potential to achieve the goals we assumed for them. We will examine this issue further in future issues of *Midwest Flyer Magazine*.

* The Aircraft Owners and Pilots Association publishes the Joseph T. Nall Report annually.

EDITOR'S NOTE: Harold Green is an Instrument and Multi-Engine Flight 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). ❑

GA Community Encouraged To Attend Air Show Convention

LEESBURG, VA. – The International Council of Air Shows (ICAS) will hold its 49th annual convention, December 5-8, 2016, at Paris Las Vegas on the famous Las Vegas Strip. In addition to air show producers and performers, the organization is encouraging airport managers and anyone else from the general aviation community who may be interested in hosting an air show, or becoming a performer, to attend.

For additional information, visit www.airshows.aero or call 703-779-8510 or email icas@airshows.aero. ❑

The Medical Certification Process

by Dr. Bill Blank, M.D.


Dr. Bill Blank

In the last issue, I talked about how some pilots who will soon be permitted to fly without an FAA-issued medical certificate, while the majority of pilots will continue to fly with FAA-issued medical certificates.

Most of us don't think much about the certification process until some health problem occurs. It is important to understand the process. This helps the airman and his physician to provide the FAA the needed information so that certification can be quickly attained in as many cases as possible.

In order to be certified, the applicant completes an online form on MedXPress and submits it electronically. The applicant should then print a copy of it to bring to his/her Aviation Medical Examiner (AME), along with the confirmation number. If the applicant does not bring the confirmation number, the exam cannot be completed. If the applicant does not receive a confirmation number, he/she has not submitted it!

In my case, I look at the form before I ever go to the computer. If I see something, which will prevent certification, I tell the airman we cannot do the exam today. We need some clarification. If I am not given the printed-out form, I need to open up the application on the FAA website using the confirmation number. Once I have done that I have essentially two choices: issue or defer. In some cases, that is pointless and a waste of time. If there are no problems with the form, I perform the exam, print and sign the medical certificate, then enter my exam information on the form and submit it. This is what the FAA calls a Regular Issuance (RI).

In most cases, that's it until the next medical. For quality assurance, the FAA

randomly reviews a small percentage of these medicals. If they find a problem, the applicant and the AME get a letter requesting further information.

What if there are medical issues? Now the question becomes what are the medical conditions and how serious are they. The answer determines how they are resolved. By regulation, there are 15 specific disqualifying conditions:

- Angina Pectoris
- Bipolar Disease
- Coronary heart disease that has been treated or, if untreated, that has been symptomatic or clinically significant.
- Diabetes Mellitus requiring hypoglycemic medications.
- Disturbance of consciousness without satisfactory explanation of cause.
- Epilepsy
- Heart Replacement
- Myocardial Infarction
- Permanent cardiac pacemaker
- Cardiac valve replacement
- Personality Disorder
- Psychosis
- Substance Abuse
- Substance Dependence
- Transient loss of control of nervous system function(s) without satisfactory explanation of cause.

You may sometimes be certified with one or more of these conditions if you meet certain requirements. These requirements can be found online either at the FAA or AOPA websites. You or your AME need to provide this information to the FAA. I cannot emphasize enough the importance of providing the information they ask for.

The biggest problem I see is the failure of the treating physician to write a complete letter. I recommend that you print out the information requested, underline the subjects to be covered, and ask your physician to comment specifically on each item. When you get the letter, read it and make sure that everything has been covered. Otherwise, have it redone. If you do not do this, you will receive a letter from the FAA requesting further information. This can easily waste two or three months. I suggest to my airmen that they show me the letter before it is submitted. That way, if it is incomplete, we can fix the problem.

If the FAA decides that certification is appropriate, you will receive a Special Issuance authorization letter. It will specify what information you will need to provide to the FAA, usually, annually. In most cases, you can provide it to your AME who can issue the interim certificate and forward the information to the FAA. Another choice is to send the information directly to the FAA. That is free, but takes a lot longer. The authorization letter has an expiration date, usually 5 years. You need to make sure that you get a new authorization letter as needed.

Always take the authorization letter to your AME. He may not have a copy of it.

What if you have a medical condition not requiring an Special Issuance?

The FAA has made a big improvement via the CACI program. CACI stands for Conditions AMEs Can Issue.

There are worksheets available online for each of these conditions. Google: AME Guide Worksheets. Current CACI conditions:

- Arthritis
- Asthma
- Bladder Cancer
- Chronic Kidney Disease
- Colitis
- Glaucoma
- Hepatitis C – Chronic
- Hypertension
- Hypothyroidism
- Migraine and Chronic Headache
- Mitral Valve Repair
- Pre-Diabetes
- Prostate Cancer
- Renal Cancer
- Retained Kidney Stone(s)
- Testicular Cancer

Print out the one or ones that you need, write your name at the top and take it to your physician. Ask him to check the answers to the condition and sign it and date it. This can be done anytime within 60 days prior to seeing your AME. You don't need to do it a week or two before the exam. As long as the answers are the desired ones, the AME can issue your certificate via Regular Issuance (RI). All he needs to do is write on the 8500-8, "Conditions AMEs Can Issue (CACI) Qualified for the Condition." Interestingly, the Pilot's Bill of Rights II contains a provision requiring the FAA to identify and implement more CACI conditions. It even requires the FAA to seek input from physicians outside the FAA on developing these worksheets!

In some situations, you will have a non-CACI condition. In that case, your AME can frequently work with the FAA to obtain certification.

In the next issue of *Midwest Flyer Magazine,* I plan to talk more about the CACI process. I hope that you now have a better understanding of medical certification.

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. Blank is a retired Ophthalmologist, but still gives some of the ophthalmology lectures at AME renewal seminars. Flying-wise, Blank holds an Airline Transport Pilot Certificate and has 5300 hours. He is a Certified Instrument Flight Instructor (CFII), and has given over 1200 hours of aerobatic instruction. In addition, Blank was an airshow performer through the 2014 season, and held a Statement of Aerobatic Competency (SAC) since 1987. ❑

Pentastar Aviation To Manage EC-135 Helicopter Operation

WATERFORD, MICH. – Pentastar Aviation has been selected as a provider of management services and direct air carrier operations for Superior Air-Ground Ambulance's EC-135 helicopter. The aircraft will be based at Oakland County International Airport (KPTK), with operations primarily supporting the Henry Ford Health System. ❑

Another great year to go flying!

by Mark R. Baker
President & CEO
Aircraft Owners & Pilots Association


Mark Baker

It's a little hard for me to believe that our third year of AOPA Fly-Ins is behind us. These events are so fun and exciting for us that they just seem to "fly" by.

We started these fly-ins so we could meet more of our members. We wanted to come to you, to see the places where you fly, and learn more about the issues that matter to you. We didn't want you to have to take time away from work and family or travel halfway across the country to get to know your association in person. We wanted to bring AOPA to you.

And boy have you responded. Not only have we met more than 44,000 of you in the past three years, almost three-quarters of our fly-in attendees say they'd never been to an AOPA event before. That means we're seeing members—including thousands of folks who have been members for years or decades—for the very first time. And that feels really good. You shouldn't have to live near our Maryland headquarters to feel a personal connection to our team and the work we do on your behalf.

We also wanted our fly-ins to be fun. Of course there's always room for serious learning—and we do offer great seminars on important safety and educational topics—but there's also room just to hang out with other pilots, bring the kids and let them get an up-close look at airplanes, enjoy some food and music, and get ideas for your next flying adventure.

One of the best things about our fly-ins is the number of pilots who actually fly there, whether from a few miles or a few states away. One fly-in last year brought in more than 650 aircraft, and so far over the course of 16 fly-ins, we've landed 6,026 aircraft. The number of people who turn out to volunteer for these events is another highlight for me. These are AOPA members who spend a few hours or a couple of days doing everything from setting up tables and chairs, to cooking and serving pancakes, to marshaling aircraft and parking cars. We average between 250 and 300 volunteers at every fly-in and I'm not exaggerating when I say we truly couldn't do it without them.

Our fly-ins have even had a tangible effect on getting more pilots into the air. I can't tell you how many folks stop me to say they've attended a free Rusty Pilots seminar at one of our fly-ins after years or decades out of the cockpit and now they're back in the air and thrilled to be flying again.

Planning is well under way for 2017, when we'll host four new fly-ins at four new locations. We'll announce the locations very soon and we'll unveil some enhancements for next year's events at the same time. Stay tuned, it's going to be another great year! ❑

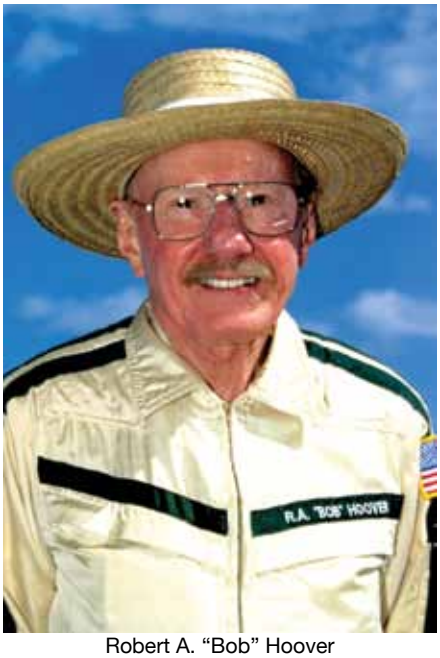
The Bob Hoover Legacy Lives On!

by Dave Weiman

On October 25, 2016, the aviation community lost its mentor, Robert A. "Bob" Hoover, 94.

Bob knew he was loved, and appreciated our admiration as friends and fans, and the special events held each year in his honor, whether it was at Oshkosh, Chantilly, Dayton, Beverly Hills or elsewhere.

Born in Nashville, Tennessee, Bob learned to fly at Nashville's Berry Field while working at a local grocery store to pay for flying lessons. We can just imagine the smile on his flight instructor's face, once he realized he was practicing touch and goes and turns about a point with aviation's finest!



Robert A. "Bob" Hoover
EAA Photo

During World War II, Bob enlisted in the Tennessee National Guard and was sent to flight school with the U.S. Army. His first major assignment was flight-testing new aircraft in Casablanca. Later he was assigned to the Spitfire-equipped 52nd Fighter Group in Sicily.

It was on his 59th mission, on February 9, 1944, that his Mark V Spitfire malfunctioned and he was shot down and held captive in a Nazi prisoner of war camp for 16 months. When the opportunity presented itself, Bob managed to escape and steal a Focke-Wulf Fw 190 and fly to safety in the Netherlands.

After the war, Bob was assigned to flight-test duty at Wright Field where he met fellow test pilot, Chuck Yeager.

Robert A. "Bob" Hoover performs in the Shrike Commander at EAA AirVenture Oshkosh.
EAA Photo

Yeager requested and got Bob to be his backup pilot on the Bell X-1. Bob flew chase in a Lockheed P-80 Shooting Star for that historic flight in which Yeager reached Mach 1, and again 50 years later in an F-16 Falcon for the 50th anniversary of that flight.

Bob left the Air Force in 1948 to work for the Allison Engine Company, and then as a test and demonstration pilot for North American Aviation, where one of his first assignments was to teach pilots to dive-bomb in the F-86 Sabre.

During the 1950s, Bob flew flight tests in the FJ-1 Fury, F-86 Sabre, and the F-100 Super Sabre, and demonstrated the capabilities of each aircraft to military pilots.

Beginning in the 1960s, Bob began flying the North American P-51 Mustang at air shows, then later the twin-piston Shrike Aero Commander, and eventually the Jet Commander. The reason for demonstrating executive aircraft in air shows was to show their strength and maneuverability. Bob would demonstrate the usual loops and rolls like any other air show performer, then single-engine performance, and eventually the aircraft's power-off capabilities, executing a loop and an eight-point hesitation slow roll as he headed back to the runway, touching down on one wheel, then the other, before landing and taxiing to show center where he would get out of the aircraft, remove his straw hat, and take his bows.

I remember a show I co-announced in Michigan, where Bob performed in both the Shrike Aero Commander and Jet Commander. Following Bob's performance on Sunday, he took off in the Jet Commander and flew back to Los Angeles, while his personal announcer, Jimmie Driskell, followed behind in the Shrike Commander.

Bob set records for transcontinental and time-to-climb and speed, and personally knew such aviation greats as Orville Wright, Eddie Rickenbacker, Charles Lindbergh, Jimmy Doolittle, Jacqueline Cochran, Neil Armstrong, and Yuri Gagarin. Bob Hoover was

Robert A. "Bob" Hoover was among friends at Aerospace America in Oklahoma City, Oklahoma, June 17, 1995. (L/R) Steve Oliver of the Pepsi Aerial Entertainers; Attorney F. Lee Bailey; Robert A. Hoover; Sean D. Tucker of Team Oracle; 1980 World Aerobatic Champion Leo Loudenslager of the Bud Light Air Force; and Dave Weiman, airshow commentator and publisher of *Midwest Flyer Magazine*. *Wes Morefield Photo*

considered one of the founding fathers of modern aerobatics and was described by Jimmy Doolittle as *"the greatest stick-and-rudder man who ever lived."*

It was Bob's showmanship that earned him the "Bill Barber Award For Showmanship," which I had the pleasure of presenting to him in 1995 at EAA AirVenture Oshkosh. Waiting back stage with us at EAA's Theater in the Woods was U.S. Air Force Captain Scott O'Grady who was the featured speaker that evening. If you recall, Capt. O'Grady was shot down in the skies over Bosnia earlier that year, and evaded enemy capture for nearly a week until U.S. forces could pick him up. I asked Scott if he would like to meet Bob Hoover, and his eyes lit up. The two fighter pilots had much in common.

In addition to receiving the Barber Award, Hoover was inducted into the National Aviation Hall of Fame in 1988, the Air Show Hall of Fame in 1995, and received the Wright Brothers Memorial Trophy in 2014. A life-size bronze statue of Hoover was installed at the National Air and Space Museum's Steven F. Udvar-Hazy Center in Chantilly, Virginia, in April 2016, where Bob's Shrike Commander is displayed. The new Bob Hoover Trophy will be awarded annually to the living aviator who exhibits airmanship, leadership, and passion for aviation and life demonstrated by Bob during his distinguished career as a pilot and aviation advocate, while also serving as a source of inspiration and encouragement for current and prospective aviators.

Bob Hoover flew his last aerobatic performance in 1999, but his last non-aerobatic show was in 2000 at Sun 'n Fun in Lakeland, Fla. To read more about Bob Hoover's incredible life, purchase his autobiography "Forever Flying."

Family and friends joined together for the Bob Hoover Celebration of Life, November 18, 2016, hosted by Clay Lacy at his facility in Van Nuys, Calif. Air show performer, Sean D. Tucker, and air show announcer, Danny Clisham, were the masters of ceremonies. Bob Hoover's wife, Colleen, passed away in March 2016. ❑

A Fireside Chat With EAA Chairman & CEO Jack Pelton

The Goals, Partnerships & Challenges of Running The World's Largest Sport Aviation Association

by Dave Weiman

EAA Chairman & CEO Jack Pelton
EAA Photo

Recently, I had the opportunity to sit down with Experimental Aircraft Association (EAA) Chairman and CEO Jack Pelton at EAA headquarters at Wittman Regional Airport in Oshkosh, Wisconsin, and get a briefing on where the organization is leadership-wise, program-wise and financially. EAA Director of Communications Dick Knapinski joined us.

I have known Jack since he was at the helm of Cessna Aircraft, and know him as a straight-up/no non-sense/intelligent/fun-loving general aviation pilot and aircraft owner. I have also known and worked with Jack's predecessors at EAA, beginning with Paul Poberezny when he invited Peggy and I to the old Hales Corners, Wisconsin museum and offices when we first started publishing the magazine in 1978; his son, Tom Poberezny; and Rod Hightower.

Each time the leadership torch has been passed since EAA was founded in the basement of Paul's home in 1953, the organization went through some adjustments, but continued to serve its members with representation, a world-class museum, and the largest general aviation fly-in and air show in the world – EAA AirVenture Oshkosh.

I began our conversation on October 6, 2016, by saying to Jack that a lot of people know him as the current EAA Chairman & CEO, and the former President, Chairman & CEO of Cessna Aircraft, but few people know his background prior to joining Cessna. He proceeded to share with me how he got to where he is today:

JACK: At a very young age, I started working for Douglas Aircraft Company in Long Beach, California, where I was from. I worked there for over 20 years, went to Munich, Germany with Dornier aircraft, then got recruited by Cessna. I've been flying since I was a little kid. My dad had a Cessna 140A, so I was in the right seat of that since I could barely walk. I have been one-dimensional. People often ask me, *"Have you ever thought about taking a different career,"* and I tell them, nope…I wouldn't know what to do.

DAVE: How many and what types of aircraft do you personally own, and which airplane is your favorite and why?

JACK: I have owned various types over the years, but currently, I have a Stearman that was my retirement present from my wife. That was because the airport where I keep my aircraft is Stearman Field in Wichita, Kansas, and all my buddies have Stearmans. My goal when I retired was to hang out with them because they barnstormed around during the day, and thought this was going to be my life. That lasted about a year.

I have a Ryan PT 22, which is historically significant in that it is the plane my father got his wings in the Army Air Corps at Sequoia Field in Visalia, California. So, my son is named "Ryan." That plane has significant history in our family.

I have a Cessna 195, which was owned by Dwane Wallace, who was Clyde Cessna's nephew, who ran Cessna from the '30s up to 1975. The aircraft had been parked, and his widow and the family didn't want to keep it, so we finagled a deal to get it back to Oshkosh where he had won the Bronze Lindy in 1987. I won the same award in 2007. I also own a Cessna 414 – I'll call it my SUV or station wagon for transportation – and my wife has the first 162 Skycatcher that was ever produced.

DAVE: How many Skycatchers were produced?

JACK: I want to say the number was around 300. They still have 80 of them in various versions that are incomplete, but they don't want to continue delivering any of them.

DAVE: I really commend you for getting GA airplanes

back in production. That was a good effort. I remember here at Oshkosh that there was quite a backlog of orders.

JACK: We had a thousand orders.

DAVE: My gosh!

JACK: In a way as things down turned, the corporation did not like the low margin business. They wanted everything to have Citation-like margins.

I viewed it differently. I viewed it as an ecosystem, where you get people into your brand when they start taking flying lessons. Then someday when they become successful, and are working for a company or own a business themselves, you are going to be the brand of choice. And there were many stories like that. The guy comes back and says that his boss wants to buy a jet and I'm taking him to Cessna, because I learned to fly in a Cessna 172 or 152. It is just a tough market and business to be in nowadays.

DAVE: What do you like best about being EAA Chairman and CEO?

JACK: I think it is an opportunity to do something to give back. While I am a compensated employee and prior to that, a volunteer for many years, I needed to figure out the right thing where I could get involved where I had a passion. It was always with EAA, whether it was on the grounds, or wherever. They had some issues I thought I had some skills I could help them get through. I just wanted to make sure the legacy of EAA continued, and I could be a small piece of that history.

DAVE: Do you think the majority of EAA members realize the role you played, and how you stepped in and really helped out at a time in need, or do you think that members are just glad the organization is still around, and really don't care about the specifics?

JACK: I don't think they understand or know. Some might, but I think it is more like being the guy after Bear Bryant (longtime head coach of the University of Alabama football team). There is a history here that clearly Paul and Tom have created and established, and I recognize that my duty is to preserve and keep that going. It is not about me, or whether the members care. It is more about making sure EAA is delivering on what they were used to and expect. I could be like the New Orleans Saints guy and have a paper bag over my head, and so long as I get the job done and preserve that, that's the important piece of the whole puzzle. That's the fun part of it, and seeing things going along well is very, very gratifying.

DAVE: What do you like least about being EAA Chairman and CEO?

JACK: I don't have any downsides, or otherwise I just wouldn't do it. Oh, there are the little things that certainly anyone reading this could really care less about, like going to too many meetings…those sort of things. But all the rest of it, we're doing great things. So long as I continue to make a difference, I should wake up every day excited and energized to go to work or go find something else to do. At least I've always lived by that rule and will continue to do so.

DAVE: As a fellow EAA member, it appeared that EAA was doing well for years under the leadership of Paul and Tom Poberezny, and then following Tom's abrupt departure on July 26, 2011, everything seemed to be in disarray – morale was at an all-time low among staff, longtime staff members were resigning or getting fired, volunteers no longer felt appreciated and were not returning to AirVenture, and EAA was hurting financially. Then you volunteered to become chairman, identified problem areas, and seemingly got the house back in order. Does that sum things up accurately, Jack, and if so, what are you doing differently than your predecessors to build EAA?

JACK: I think the way you are characterizing this is probably a good outside perspective. I think from an inside perspective, I think there was this ugly thing called leadership transition that would have to occur in some way or somehow, and that means you had to bring in somebody at some point to allow Tom to retire. You said his abrupt departure…well he was in a transition and outwardly it did look like he just upped and quit. What basically happened was that they just had a terrible transition, the wrong chemistry, the wrong mix, they picked the wrong guy to replace him, and it just didn't go well, and I think for both parties. Tom said, I'm out of here…I can't put up with any of this, and the board finally said, now what are we going to do?

DAVE: *Call Jack!*

JACK: Well, I had actually only been on the board for about six months. I had just joined prior to AirVenture and I did not know what was going on because my history and time goes back to Tom. We're friends. I knew the stress he was under. He was struggling with the transition. He and I talked about it because I was transitioning out of Cessna, too. So what do you do next? How do you do it? But I had no idea internally what decisions were being

made.

When you kind of turn the curtain back, you say holy cow! I didn't know they had laid off all those people. So as a board member, I got up to speed as to what was going on.

The board basically said, well, you are the retired guy with time on your hands…why don't we make you chairman and you go figure out what to do. So I thought, okay! For three or four months, I will get things kind of organized and go back to flying my Stearman, and life will be good. But I just can't do things half way. I'm either all in or not.

When you get all in and find out there is a lot that needs to be done, and there's a lot of great stuff that can be repaired quickly, you kind of get sucked into it. Before you know it, you're in year number three, and I said to the board, I didn't really sign up to do this for more than a couple of years. What's our plan? What's the next transition plan?

Probably the most difficult period I went through was trying to figure out how we could do this and not have it fall apart again. So we talked about it, thought about the candidates, the people, and they said, well, would you consider staying on and doing it, and I talked to my wife and I think she had the best quote when she said, *"You can't screw this up. You better think long and hard about it because you aren't going to unplug yourself, and I know that you will not be able to live with letting that happen. You're just not the kind of guy to say goodbye and let it go back down, so you probably better stay involved."*

DAVE: Do you have a horizon when you plan on departing? You probably don't have a date figured out.

JACK: I don't. So we get to the interim period, we get things going good, we get the team built, and they asked me to stay – not on a commitment for any given time. I'm committed, so long as I can stay healthy and maintain a good balance and enjoy coming to work every day. I am not putting any horizon on it.

DAVE: That will put all of us at ease.

JACK: Well, I hope! And we've tried finding ways to communicate that.

I'm committed for life. I don't have an age that at 65, I'm going to quit and do something else. I don't know, so we'll see. I'm two weeks from year one, and that's gone by incredibly fast, and there's still so much more to learn and do. That's kind of endless around here, because every July, you start all over again.

So I think the concern about EAA and where it is now, we got the house back in order. I think the morale is better, membership is strong – the numbers are showing that – and financially, we are on good footing. So, it is how you keep the engine going.

DAVE: What has EAA done to convince the general public to invest in GA airports?

JACK: That's not our strong suit, so we try to partner and collaborate with AOPA and NBAA on those kinds of initiatives. We are so good at getting advocacy things done, but I don't feel people realize how few resources we have to do that. What we have is literally three people that are full time, doing advocacy work here in Oshkosh, plus one person in Washington. Then we try to reach out and leverage our membership and our chapters for these issues dealing with airports or any other kinds of regulatory reform to get their voices to make our voice sound even larger. It's worked well. It's a multiplying effect.

We sit with the other associations and look at what the agenda looks like. Take for example Santa Monica Airport and what's going on out there. The biggest and loudest and the organization with the most shareholders is NBAA (National Business Aviation Association) because it's such a heavy business jet organization, with AOPA next that has a very on-purpose airport protection program called the "Airport Support Network." So when I sit and talk with Mark Baker (AOPA) and Ed Bolen (NBAA), they keep us informed and tell us how we can use our membership to help on these issues. But as far as boots on the ground and financial support, that's just not specifically in our wheelhouse.

DAVE: Do you have a chapter in Santa Monica?

JACK: We do, and we have several other chapters right in the area.

I came from and learned to fly and did most of my flying in the southern California area, so I know the issues well. Personally, I think Santa Monica is going to be a tough one to win. I think at some point they are going to slowly bleed everyone out of the airport.

I have a friend now who has a hangar there, who has elected to go build a hangar somewhere else because they are not billing him…they're basically saying, we don't want you here, and we are going to make it as untenable as possible. So at some point they're going to say, *"Hmmm, nobody wants to be here any more. We are going to turn it into something else."*

DAVE: How long are the grant assurances for Santa Monica?

JACK: I think 2020 is all it is, so it's not that far away. They're just going to wear everyone out. That's basically how I see it happening.

DAVE: And the city has built right up to it?

JACK: Yes. It's a plateau in the middle of some of the most

expensive real estate in southern California.

DICK: We were talking the other day about this. Those people who are against the airport should be careful what they wish for, because once it has developed, now you have that much more traffic…that many more people. If their thinking is going to be that they will have an ideal setting…

JACK: No. Capitalism will trump the ideal city because there are too many people who can put large buildings that produce lots of tax revenue for the City of Santa Monica. It has a lot of these things going against it.

But generally, we try to communicate the story of what GA is all about. EAA does a great job through its chapters to beat the drum about how important rural general aviation is and what it is all about. When we got into the privacy of ATC issue recently, that was one of the things we wanted people to understand. That the funding for those airports can go away, and the negative economic impact on a city or community would occur because they would not have the funding to keep the airport going. We work hard on that, but again, that's a point we need to make people understand. Our associations do work very, very close on all of the issues, and try to bolt together and be a big voice.

DAVE: You knew Mark Baker before he became president of AOPA, right?

JACK: I did. In fact, Mark and I just had a conversation on Saturday, face to face at his fly-in, about Santa Monica and these other issues.

I was in a volunteer role when he got approached about the AOPA position, and he immediately called me and said, *"Okay, Jack, you've been there about six months. Tell me what's it like running a membership organization."* We both came out of shareholder/high-margin expectations, with large numbers of employees.

I walked him through it, and said *"Mark, you are going to have to get your head on right. You now work for members! Every member has an opinion and every member has a voice, and it is a lot different than employees where you are the voice, and they follow your directions."*

I had done a lot of non-profit work throughout my career, so I was at least familiar with the different types of leadership styles you have to have to work in a non-profit versus a profit corporation. I think that has really helped me because it wasn't a foreign concept to me. The problem can come when you have someone come in that is going to drive high-profit business principles and high productivity. That's just not what we are all about.

DAVE: I was concerned about that, too, initially, but Mark has done a marvelous job, and has kept his members first and foremost.

JACK: I felt okay with Mark in that position because he has that one piece of his DNA that is so aviation centric. He is a grassroots kind of guy on his personal/private side. His whole private life was aviation. He gets it, and he hangs out at the airports, and does all that. If he was only the Mark Baker I knew at Gander Mountain and Scotts and all that, I would have thought, hmmm…this is just going to be a business type affair.

DAVE: As a long-time EAA and AOPA member, I am encouraged when I see the two organizations working together for a common cause, and I commend you for working with AOPA to expand their presence at EAA AirVenture Oshkosh. Other than the "Pilot's Bill of Rights II" that was passed by Congress and signed into law by the President, what is EAA and AOPA currently working on to protect and promote GA?

EAA Chairman & CEO Jack Pelton (left) was invited by AOPA President & CEO Mark Baker (right) to speak at the AOPA Great Lakes Regional Fly-In, September 17, 2016, in Battle Creek, Michigan.
Dave Weiman Photo

JACK: Mark and I try to get together about once a month and look at what are the important things both organizations are doing, so we don't step on each other's toes, but join together when we can get more oomph on items.

We are working on the commercial part list approach to get features in airplanes, which we did with the Dynon. He's working on the PMA approach to it. He did the Garmin product. Two different paths, same result, but not competitive because it's a different product. We are both working on the flying club concept.

We're both going to have an interesting time next year when FAA reauthorization is up again in September to see what that mess looks like, and which side of the mess we are going to be on. That's important!

And I think we recognize the importance of working together. I go to all of his fly-ins, and Mark comes to Oshkosh and holds his town hall meetings here. He gives me time to talk to his members, and when their fly-ins are over, we have chapter meetings at the airports. That's how we play tag team, which works pretty well.

DAVE: There has been a lot of reluctance on the part of aircraft owners, flying clubs, and flight schools to make their aircraft "ADS-B Out" compliant for a number of reasons – cost being the primary reason, but also because they are not confident that the system is ready yet…that there will be further price reductions and incentives…that ADS-B may be another FAA blunder, like the Microwave Landing System, Transponder Landing System, Loran C, and Traffic Information Service…that ADS-B will forever eliminate privacy and make it potentially easier for the FAA to fine those pilots who violate airspace restrictions and Federal Aviation Regulations. Many see ADS-B also as a way to squeeze GA out of the skies – at least, out of controlled airspace. How do you feel the GA community should proceed with ADS-B – equip or not equip – and why or why not?

JACK: I am an advocate for equipping aircraft with ADS-B Out if you are going to be flying in the environment that you need it. It's a mandatory thing, so do it! The advantages from a safety standpoint are also really good. The Stratus ADS-B system and some of those pieces of equipment give you the weather, they give you traffic, and I think that's nice to have. I am sensitive if you are flying a $15,000

airplane and putting a $5,000 piece of equipment in it. In my household and my budget and finances, it doesn't play. The rebates have been a nice shot in the arm. I think we have done a fantastic job sharing with the experimental homebuilt guy and helped the Part 123 guys by giving them a very economical way to get in there. But it is still a tough hurdle. I like the technology, but the price point is still a big concern. That's a big chunk of change, whether it is $3,000 or $5,000.

DAVE: What has EAA done to convince young people to pursue a career in aviation, other than introducing them to aviation through EAA Young Eagles and the EAA Air Academy?

JACK: That's where I say there is so much work to be done, and we're working hard on figuring that out.

The introductory flight is great and it's probably as good for the volunteer pilot as it is for the young person, because it helps to keep a pilot flying and interested in aviation. We have lots of scholarships and other programs we try to promote for young people. We changed our mission statement specifically to say to create aviation enthusiasts to drive away the concept that we are only interested in pilots. So we are hoping the programs we put in place will grow pilots, but also encourage people to become aviation mechanics, accountants in aviation businesses…just involved in aviation in some way. Or maybe just to enjoy the recreational aviation community…the fellowship and fun piece of that.

Our biggest challenge is learning what's it going to take to connect young people to that. We have things we've done, but now the challenge is getting in the psyche of kids of the generation after the millennials. I can try through my grand kids to figure that out. They are my lab rats in figuring out how they think, and how best to approach them.

It is a whole different animal than when we were kids. You got on your bike and went to the ballpark or the airport, or wherever your interest was, and you could bum a ride… you could hang out. That's not there anymore, and you are competing against the new marketing approach.

It's not that people have shorter attention spans. That sounds like people are flawed. Rather, it is the new marketing approach being used today and how people are throwing stuff at people like bursts of 3-minute YouTube videos, and video games and experiences. Aviation is a big capital-intensive program and to get involved, it doesn't happen overnight. It's kind of slow. The payoff is fantastic from what you get out of it, but it takes a long time. It's not instant gratification.

DAVE: Do you think drones are going to be our answer to try and get more people involved in taking flying lessons?

JACK: I thought that at one time when they required commercial drone operators to have a pilot's license, and when they changed that rule, I was sick, because I thought there's a built-in new market we are creating. We thought we would get them a Light Sport license and get people interested in aviation. Now they changed that and you don't have to.

Will some percentage of them spark an interest in aviation? They might. They have to go through the educational process, learning airspace and all that. I'm not as bullish as that being a feeder, however.

I loved building models as a kid, whether it was freeflight or radio control. Drones are a new version of that, with less mechanical, hands-on skills, which I think is unfortunate. I think it is a new technology feeder that exists in space that's already there.

When you say what's out there that is going to get people flying? To go out there and take a GPS-driven drone and fly it around, it's just not the same. I'm not real optimistic about that. We will see where it evolves. Is it going to be one of those things that peak, because the rules are going to get more and more stringent where you just can't throw one of these things up in the air. And they have sold so darn many of them already! So is it pent up demand done, and now where do we go?

DAVE: What else can EAA and the other aviation organizations do to encourage more young people to pursue a career in aviation to replace those pilots, mechanics and air traffic controllers now retiring?

JACK: Absolutely the worst aviation marketing department in the world is often the pilot community. I say that because we have to be careful in how we introduce the topic of flying because we usually talk about how expensive it is; how hard it is. Gee, the regulatory environment is getting worse; you can't go visit an airport. We don't talk about what is it for us personally that is really the satisfying piece of why we are involved in it. If it was that bad, we would have all left.

So what I continue to encourage is that you have to be a salesman. You have to get people out there and introduce them to aviation the way you were introduced to aviation… you have to keep them engaged in aviation as a mentor to them. Take them to events, but don't sit around and talk about all the downsides. You can do the same thing about any hobby. Oh, golf takes too long, the clubs are too expensive. Is that going to get anyone interested in golf, as opposed to saying, *"Man, you should have seen when I hit that ball with the seven iron right on the screws,"* (which isn't true for me any

more), *"and it landed right up there and I made the putt."* But in aviation, it's usually about some neat experiences we've had, like *"I had the chance to fly up to Door County, and boy, what a beautiful day that was. I could not have done that any other way and see the turning of the leaves."* Those kinds of things we have to get people promoting.

From a career standpoint, I think it is important we look beyond pilots and communicate to kids that aviation in general is an exciting career. If you look at it as just becoming a pilot, that may not resonate well. Maybe that's a lifestyle someone does not want, to be seven days on, three days off. But the travel industry is pretty darn exciting! You can be involved in the airline industry with all the perks and a lot of other things. Those interested in technology will find some fascinating and extremely challenging fields to work in as mechanics and engineers. Air traffic controllers…that's a heck of a career! I have a lot of friends who are retired air traffic controllers, and most of them came from the Midwest, so they had pretty good duties. They weren't pulling their hair out at O'Hare, but had great pay, great benefits, and a good work life. There are those kinds of things we just have to get people exposed to.

DAVE: There are very few people, Jack, that I come across who are not excited about aviation. Just the general public, when they find out I publish *Midwest Flyer Magazine,* they want to know more. I try telling them to go out to Morey's, or Wisconsin Aviation in Madison, and they can set them up with an introductory flight lesson. That's kind of where it stops for most of them.

JACK: It does, and it's funny you should bring that up. We are taking the strategic initiative for this next year to really work on that. We've looked at all the programs. There are some things we need to reinvent, but for the most part, the wheel has been invented, and we need to figure out where were the flat spots on the wheel and get rid of them. So to your point, the "Be A Pilot" program that was out there for years…we send somebody out, we give them a voucher, they go take a flight, but it's not a complete enough system to keep them engaged and involved. So we are working on some ideas through our chapters because we have this group that is already committed.

There are over 880 of them, now, to where a person's flight experience can be through a chapter where we have a support network of like-minded thinking people who are passionate about aviation. I'm not talking about for kids…I'm talking about adults. Find ways for chapters to create flying clubs, so we can get the cost piece of it down below from what it is at a conventional flight school.

Data has shown that the dropout rate is so high when someone just goes and takes that flight and the flight instructor says to the student, go book a flight with me next week. You don't have any connectivity. I was fortunate; I came from a family where my father was a pilot, and so was my mother, so aviation was in the household.

My neighbor's kid, whose dad is an accountant, has a real bug to go flying. I don't know how his family gets him through that process and keeps him engaged. If the kid comes home the next day and says that he is really more interested in lacrosse, mom and dad say, *"Okay, then go play lacrosse."* So we have to find that community to keep them in aviation.

DAVE: It's mentorship.

JACK: It is. It's stories like that of "Aaron" from Alabama who tells this fantastic story. A former Young Eagle. His family is not an aviation family. He takes a Young Eagles flight and thinks, *"Wow… This is really neat!"* He goes to the Air Academy, graduates, gets his pilot's license, goes on and gets an engineering degree, spends his summers coming back to AirVenture every year teaching at the Air Academy. From 16 on up, he gets his first career in an aerospace company…I think it was Rocket Boosters in Alabama. He starts an EAA chapter, which he is president, and he tells the story that the chapter is his aviation family. With that and what all we have brought to his life, he's hooked. He's out doing fantastic things.

DAVE: Has Aaron spoken at AirVenture at all?

JACK: He has. The first time he spoke I heard his story and then we asked him to come to the Gathering one night to tell his story about his Young Eagles, because I was so inspired by hearing his story. And now he is off trying to invent something called the "Skyboard" or something like that. He's got the innovation and EAA kind of bug in him to do something that may or may not pan out. But we have lots of those success stories.

We've been talking about some of the programs, and why they have come and gone. I think the problem is that we have too many people who are fixated on wanting to solve world hunger, and want to see big results and big numbers. You just have to chip away at this. You cannot go and fly a million Young Eagles each year, but you can fly 70,000, which is really, really a lot. You can bring just so many kids through the Air Academy. Don't try to do more than what is really feasible and accept that. If you do that, you can really celebrate the results more, something we do not do enough.

DAVE: I wrote an editorial about a year ago on "mentorship." That's how I got involved in flying. I was sitting in a college library looking at a flying magazine, when the

student across from me said he had his pilot's license and belonged to a flying club, and wondered if I wanted to go flying and split the cost. I said, yes! So we went flying and I joined the club as soon as we got back. I was ready…I was ready a long time before that, but I didn't know how to take that first step.

JACK: Right, and that's where we are at with a big document we started working on this past weekend. Identifying that as a path, we have to help people find their way. What's the way? We are not going to go out and open a bunch of flying clubs, but we will try to use our chapter network that already has people there who have done that, and help them find a way to bring people in and take them all the way through the process. So that's going to be very important for us.

DAVE: Have you seen the motion picture "Sully," and if so, what did you think of it?

JACK: I saw it… I really enjoyed it. It's been two weeks ago that I saw it here in Oshkosh with my wife, and knowing Jeff (Skiles) and Sully (Chesley Burnett "Sully" Sullenberger III, i.e. US Airways Flight 1549, "Miracle On The Hudson"), I was not aware of them getting pulled through the knot hole…second guessing, did they make the right decision? I was not that familiar with that piece of the story. I think Jeff told me when the movie was getting ready to come out that Sully actually handled it emotionally all much better. The movie dramatized a lot of that, which makes for a good movie, but I thought that was fascinating. I can't imagine the hearings that were basically saying, *"Well, you could have made it to an airport."*

I have flown the simulation. My last recurrent ride in a Citation 10 was after the event, so at Flight Safety they said, *"Okay, you're done with your training, now try this. You're going to fly the exact same profile, we'll give you vectors and turn you, and you are going to hit the geese and lose the engines, and what are you going to do?"*

Seeing the movie really helped me understand more. Yeah, knowing where I was, knowing what my options were, I landed at Teterboro. There is no way I could have landed at Teterboro if I didn't know. I was just flying along fat, dumb and happy thinking I had thrust. I would have gotten out the checklist, I would have started the engines, and I would have been somewhere in the drink or somewhere in the middle of the city.

DAVE: I think Sully made the right decision, without a doubt.

JACK: I do, too. It was an incredibly gutsy call. The decision he made was the decision, I can make with the highest probability, and that probability is kind of low. We are going to survive and everyone is going to be okay, and the airplane is not going to break up, but you look at the river versus all that congestion in the city.

DAVE: Jeff did a special showing of the movie two weeks ago in Beloit, Wisconsin, and he did a great job. He's a great public speaker as you know, and someone asked him if he was concerned about dying that day, and he said he was never concerned about not surviving. I don't know about Sully.

JACK: Sully is a pretty technical guy because of the way he was trained. It was part of that decision, *"I will minimize the loss of life."* Any other place he could have parked, he could have lost between 150 and 1,000 or more lives, immediately. So, I thought the movie was well done, and to see Tom Hanks want to be a part of that, and Clint Eastwood to produce it, I think that says a lot about that event and those people. Because they can pick and choose what movies they want to do.

DAVE: But Clint is a pilot, you know.

JACK: Yeah. Now we have to get Tom Hanks to AirVenture. This year when we show "Sully" at the Ford Fly-In Outdoor Theater, we have to get somebody to introduce the movie. We will try to get him here.

DAVE: We all know what actors Harrison Ford, and the late Cliff Robertson, did to help promote GA as the chairmen of EAA Young Eagles. What has EAA done lately to get other pilot actors involved in EAA, and in promoting and protecting GA?

JACK: There's been a few when you look at musicians. Dierks Bentley is a pilot and is willing to work for GA. It's kind of hard to find them and pick and choose who to sign up and get involved. I don't think there is anyone on the current

radar that has done as much as Harrison Ford, and what Harrison has continued to do. We know Tom Cruise is a pilot. Some of these guys don't take on causes in their private and personal lives.

DICK: We lost a great one a week ago in Arnold Palmer.

JACK: Talk about a guy who was front and center. He really was.

DAVE: What about Kurt Russell?

JACK: Kurt enjoys flying, and enjoys aviation. What's the best way to characterize him? I don't think he is as organized to be a guy to take on a cause or to get out there in front. It's just not his thing.

I've had conversations with him at the Hilton. He wanted me to design a single-engine turboprop for his next airplane. These types of individuals have a personal brand, and they have brand equity, so they need to decide where they are going to spend that brand equity. You get a guy like Harrison. For him his flying is as equal of a support as is his acting…probably more so. That's what he would rather be doing everyday, and he'll tell you that. He likes to train, he likes to fly, and the other thing pays for it. That's how he characterizes it. You have to find somebody like that so it's real to them. They're not phony about it.

(L/R): Tom Poberezny, Arnold Palmer, Rose Pelton and Jack Pelton at EAA AirVenture Oshkosh 2008. Palmer was an avid supporter of general aviation. *EAA Photo*

DAVE: Cliff Robertson was the same way. When I wrote something about him, it was always pilot/actor.

JACK: Morgan Freeman has done a little bit. He is an aviation enthusiast. In fact I was in Flight Safety with him once for a Citation 500. But for him, flying is a means of transportation. Not like Harrison who wants to jump in a Beaver and enjoy flying and seeing the coastline. It's hard to find.

DAVE: EAA has just reached the 200,000 mark in membership. How many of these members are certified pilots, aircraft owners, or just aviation enthusiasts?

JACK: If we breakdown the 200,000, about 30,000 are students. Our Young Eagles are counted as students if they want the membership. Of the other 170,000 members, it is about 80 percent. Then we think there are a large number of non-members who come here with friends who are aviation enthusiasts. So we are really trying to reach out as an association.

My two brothers and sister are not pilots, but they spent summer vacations at air shows, because that's where our dad was taking us. As my sister would say, *"I get to stand under a wing on a 100-degree day and drink Orange Crush. I can't wait to go back and tell the kids at school."*

But she tried to learn to fly and had a bad experience. Bad experience models are one thing we are trying to fix in teaching people to fly. She went down to sign up, and was in her 20s at the time, and she had a bad chemistry match with an instructor.

My sister is an incredibly bright person. She became a lawyer, and she was with a kind of a crusty military guy who was not, I would say, supportive of women's rights. They went out for a few lessons, and she said to me, *"Jack, I love flying with dad, and I love being around it and the history, but…"* My brother was the same way. So how do we get that whole collection of folks to be a part of EAA?

DAVE: What is the single most important thing EAA members can do to promote GA?

JACK: Getting their friends out to the airport and engaged in the activity. They might not like it at first, but you have to be there. Get them to experience it. Get them out to a pancake breakfast. It's kind of like fishing; you have to have a lot of lures in the water to be able to catch one fish. We could all do that. I think it is important opening those doors.

As for promoting aviation, when we put out the call to members that we need their help on issues, we get tremendous response from that. I applaud them for doing that, and I think that's probably the best help we can get. There's nothing

better than to walk into Washington and say, *"We represent 200,000 members and 20,000 or 30,000 of them have written you (congressmen) letters."* They then say, *"Mr. Pelton, when can I meet with you?"*

Even at the local level, most communities have an airport commission and there's some local involvement. The first thing you want to know from the people is where they stand on general aviation? *"Are you here to keep this airport open and make it live and be good, or aren't you? If not, I'm not going to vote for you. You are the wrong person to be involved in it."* It is amazing what an impact this can have, even at the local city council level. You can change people's perspective on aviation.

DAVE: What is the single most important thing EAA members can do to protect GA?

JACK: As far as protecting GA, it is hard to pick one thing. When there are issues we think are threatened, we really have to be together as a big, loud voice. That's probably the most important thing. Protecting sounds defensive, so I also look at promoting as being equally important. So if we can do a better job of promoting GA, it will be protected.

DAVE: What role do you feel manufacturers can play in promoting GA?

JACK: Manufacturers as a group do a really good job, and I think the most important role they can play is just focusing on the economic impact aviation is all about. When you get those facts and the number of jobs that are added to our economy, that's a selling point. Because even if you don't understand aviation, the facts speak for themselves, and it helps people to make informed decisions.

DAVE: EAA chapters and flying clubs do a good job of raising money to help support their organizations. Do you feel that these groups should be making a financial contribution to their airports, and the community they live in? Why or why not?

JACK: I struggle with making financial contributions to public airports. Private airports might be different. I would not feel compelled to write a check to Winnebago County Airport or the City of Oshkosh, for instance.

DAVE: The purpose of this question is to try to encourage pilots to make a contribution to their community outside of aviation, such as to the local chamber of commerce, to demonstrate that aviation supports its community in appreciation for its support.

JACK: That I really do endorse, and we are even happy to do that locally. If you get non-aviation people out to the airport, whether they are city council members or others, you need to have a stump speech to describe what a chapter does, and why it's vital and how it helps the airport. That messaging has to be there, or otherwise they are going to say, *"What does this airport really do for me? Why do we have this airport?"* So I am a big believer in that. I personally used to talk to Rotary Club and the reaction often was, *"I did not know what aviation was all about."* They may not become pilots, but at least they become advocates.

DAVE: I have a photo of Paul Poberezny affectionately holding our daughter when she was 9 months old, and another of him holding our grandson 25 years later when he was a toddler. Paul liked people, and always believed in the importance of involving family in aviation and especially in AirVenture, and treated all EAA members as an extension of his own family. What has EAA done – if anything – since Paul died to ensure that families remain a focal point of the organization?

JACK: Our core and everything you will hear in these halls and in our chapters is all about that Paul Poberezny principle on family and community. I think that's why we are involved, is that they come back to see the airplanes and the people. That's what I love about this place. That's why I like coming back every year. So we really try to instill that in everything we do, and be as inviting and open as we can. It's little things like wearing your chapter badge so people know your name and can say hi. That's just what it is all about.

We have all seen a "Pober Pixie" and a P-51, so why then do you want to come back here, year after year? To see your friends you haven't seen for a year. And we are sticking to that as our core culture. That's why we are so focused on the chapters. That's what EAA is all about. That's why I wear my name badge during AirVenture, so members feel that I am approachable.

DAVE: Speaking of children, how many children do you have, and are any of them pilots or in aviation careers?

JACK: I have two children: a daughter who's not married and lives in New York City. She has a career there. And a son who is married and has three children, and I have three grandsons as a result. Our children are not involved in aviation careers. One is a minister and one is in fashion design, so their careers are as far away as they can be. Our grandsons, though, we are not letting them not be involved in aviation.

My son is actually a "Gen Xer"… he is 37. He still lives under the baby boomer rules of independence. You get a job, get your education and pay for whatever you are going to do. There are no free handouts, and dad is not going to buy you an airplane so you can do something you really can't afford. So he's a really solid guy. He is at a point in life that he says, *"Okay dad, I think I am financially in a position where I want to learn to fly,"* so he is on that path now. But he had to get that core stuff done first. And that's where my dad was… *"Learn to fly, but you are paying for it, so you better have a job."* But we are helping like you always do for your kids, like using an airplane and some other things to help him out.

My son and I have had some long discussions about it. You hate to start it and then not be able to continue. You have to make sure you are in a position where you can. You need the support infrastructure, the capabilities, whether in a flying club or with a friend. But to go to all that effort and then not be able to fly, wouldn't be good. We don't live near each other, so that's his concern. "I don't want to waste the time and effort and not continue."

DAVE: EAA AirVenture Oshkosh never fails to amaze us with unique aircraft, such as the "Martin Mars" that appeared this year, military demos, and outdoor concerts performed by some of the best in the music entertainment industry. What are some of the big attractions lined up for EAA AirVenture Oshkosh 2017?

JACK: We plan to have the 80th anniversary of the Piper Cub, the largest gathering of B-25s since World War II, the 25th anniversary of our Young Eagles program, the 90th anniversary of Charles Lindbergh's flight, a viewing of the motion picture "Sully" in the Ford Fly-In Outdoor Theater, and the musical group "Barenaked Ladies" for the opening night concert on Monday, July 24, 2017, featuring pilot/lead singer Ed Robertson. And much more coming that we will be announcing.

EDITOR'S NOTE: That concluded my interview with EAA Chairman & CEO Jack Pelton. He had another meeting scheduled to discuss updates to the EAA Seaplane Base, but I left Jack's office that day thinking that he is without a doubt the best person for the job at this time in the history of EAA. ❑

Aviation & Golf Champion, Arnold Palmer

Arnold Palmer, a man remembered as "The King" of the fairways and as an accomplished pilot, died of heart complications Sept. 25 at age 87, according to Reuters. Palmer cut a swath through the golfing world in the 1960s as he ushered the sport into prime time during a four-year roll of dominance. He was named Sports Illustrated magazine's "Sportsman of the Year" in 1960. Later in life, he set several aviation records. Known to his army of fans simply as "Arnie," Palmer has both a golf tournament and an airport named after him.

His success on the links allowed Palmer to begin flight lessons in a Cessna 172 at his Latrobe, Pennsylvania, hometown airfield, which is now named Arnold Palmer Regional Airport. Near Palmer's hometown and the golf course where he learned as a youth, his presence among aviators will be forever secured by the airport's Pleez Two departure that directs pilots past the ARNIE intersection southwest of Palmer tower near the Allegheny VOR.

Palmer later went on to fly twins and jets, connecting the golf and aviation worlds by flying to tournaments worldwide. He piloted a Cessna Citation X to a closed-course speed record of 476 knots in 1997, and set a round-the-world speed record in 1976 when he circumnavigated the globe in 57 hours, 25 minutes, and 42 seconds, according to Golf Digest.

"We all know what a tremendous golfer Arnold Palmer was, but he was also immensely respected as an aviator," said AOPA President & CEO Mark Baker. "He understood the value of general aviation and was a vocal advocate for personal and business flying. As a longtime supporter of AOPA, and a charter member of the AOPA Foundation President's Council, he took a leading role in promoting the safety and utility of general aviation. I count myself lucky to have known him. He will be deeply missed by the GA community."

EAA Chairman & CEO Jack Pelton cemented a long friendship with Palmer when Pelton was the CEO of Cessna Aircraft. "So sad to hear today we lost a golf legend, one of the greatest gentleman I have ever known, and an advocate for general aviation," said Pelton. "Arnold Palmer was a supporter of EAA. More importantly for me, he was the hero and role model for all the things our country was founded on. Thank you Arnie." ❑

Pan Am Clipper Pilot Turns 103

IOLA, WIS. – The Central County Flyers celebrated the 103rd birthday of one of their members – Paul Johns of Iola, Wisconsin – on October 14, 2016 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 Johns' 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).

While Johns appreciates people's interest in his flying career, he does not put himself in the same category as Jimmy Doolittle and Charles Lindbergh, although he was inducted into the Wisconsin Aviation Hall of Fame in 2009.

(L/R) Paul Johns with AOPA Great Lakes Ambassador Andy Miller, who presented Johns with a certificate of appreciation for his many years of service to the aviation community as a pilot, leader, and role model. *Dave Weiman Photo*

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' many years of service to the aviation community as a pilot, leader, and role model, the Aircraft Owners & Pilots Association presented him with a certification of appreciation, signed by AOPA President & CEO Mark R. Baker.

Each Friday, the Central County Flyers Association puts on a lunch for pilots that 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. The 2017 Iola Car Show, July 6-8, will feature the 50th anniversary of the Camaro and Firebird, as well as Trans-Am Series Ponycars. For additional information, visit www.iolaoldcarshow.com. ❑

More Than 1900 Turn Out For AOPA Great Lakes Regional Fly-In

BATTLE CREEK, MICH. – The AOPA Great Lakes Regional Fly-In held Sept. 16-17, 2016 at W. K. Kellogg Airport, Battle Creek, Mich., began Friday evening with a barnstormers party sponsored by Jeppesen. Saturday morning featured a pancake breakfast and seminars, safety briefings, aircraft displays, commercial exhibitors, and a Pilot Town Hall Meeting with AOPA President & CEO Mark Baker. Baker told members that AOPA is committed to increasing the pilot population by decreasing costs with remanufactured aircraft; STC'd instruments for certified aircraft, previously approved only for experimental aircraft; and by promoting flying clubs.

The Waco Classic Aircraft Co., based at Kellogg Field, had a fleet of new Waco YMF-5 biplanes on display, and its Great Lakes by Waco biplane. Textron Aviation brought a new G58 Baron, Cessna 182, and Cessna Caravan; Cirrus its SR-22T; Pilatus its new PC-12NG; Eclipse its Eclipse SE demonstrator; Mooney its new Ovation; and an Aero Vodochody L-29 Delphin was on display, as was the Yankee Air Force B-25. The Recreational Aviation Foundation brought a Piper Cherokee, tent and makeshift campsite to simulate that organization's efforts to preserve recreational airstrips. Paradise Bound Ministries had its Peterson-modified Cessna 182, complete with cowl-mounted canard and 300-horsepower engine.

A modern WACO YMF-5 built by Waco Aircraft Corp. in Battle Creek, Michigan. *Dave Weiman Photo*

The pilot seminars were very well attended, including a Rusty Pilots seminar; "Mind Over Matter" seminar presented by the AOPA Air Safety Institute; and a seminar on night flying, among many other topics.

AOPA President Mark Baker wrapped up the fly-in by briefing members on the passage of the Pilot's Bill of Rights II. The legislation includes Third Class Medical Reform. Baker shared the stage with EAA Chairman & CEO Jack Pelton, and AOPA Senior Vice President of Governmental Affairs Jim Coon.

Baker announced that more than 37,000 people have attended AOPA Regional Fly-Ins since the first event was held in 2014.

General Aviation is responsible for contributing 1.1 million jobs and $219 billion to the U.S. economy, and 23,300 jobs and $1.99 billion to the Michigan economy.

W. K. Kellogg Airport contributes 2,578 jobs in Michigan, and $229 million to the Michigan economy. AOPA fly-ins contribute $680,000 to the local economy.

An estimated 172 aircraft flew in for the event. Several hundred cars were parked near Centennial Aircraft Services, the site of the fly-in. Duncan Aviation provided fuel, car rental and aircraft parking.

Performing at the Saturday evening banquet was Tommy Vale & The Torpedo's.

AOPA Pilot Editor In Chief Tom Haines introduces AOPA President & CEO Mark Baker at the Friday evening Barnstormers Party.
Dave Weiman Photo

AOPA President & CEO Mark Baker welcomes members to the AOPA Great Lakes Regional Fly-In.
Dave Weiman Photo

Performing at the Friday evening Barnstormers Party was Tommy Vale & The Torpedo's.
Dave Weiman Photo

AOPA members lined up for the Friday night Barnstormers Party.
Dave Weiman Photo

A Cirrus SR-22 Turbo on display.
Dave Weiman Photo

The 2017 AOPA Regional Fly-In schedule will be announced in a future issue of *Midwest Flyer Magazine* (www.aopa.org). ❑

2016 Kansas Air Tour Focuses On Students

TOPEKA, KAN. – More than six hundred students from various elementary and middle schools from communities all across the state of Kansas participated in the 2016 Kansas Air Tour held at nine different airports, September 29 through October 1.

Forty general aviation aircraft took part in the event sponsored by the Kansas Commission on Aerospace Education. Kansas Aviation Director, Merrill Atwater, took the opportunity to fly with a number of different pilots as they made their way across the state. Lindsey Dreiling, also with the Kansas Division of Aviation, was recognized by Atwater and interim Kansas Secretary of Transportation Richard Carlson for doing an outstanding job organizing the event.

The 2016 Fly Kansas Air Tour marks the continuation of an event that was first held during aviation's golden era in the 1930s. Governor Sam Brownback was on hand to address the pilots, aviation enthusiasts and Topeka area Girl Scouts at the Combat Air Museum, located at Forbes Field in Topeka. Ed Young, a driving force behind the air tour, was also on hand throughout the event representing the Kansas Commission on Aerospace Education (NASAO). ❑

Springfield, Ohio – Ramping Up For The Future

SPRINGFIELD, OHIO – The City of Springfield, Ohio, has contracted with Woolpert to provide a Federal Aviation Administration (FAA) Airport Master Plan and an Airport Layout Plan for Springfield-Beckley Municipal Airport. The plan will outline and detail the existing configuration of the airport, as well as how it will evolve over the next 15-20 years. The project will evaluate existing and future airport infrastructure needs, including roadways, runways, taxiways, navigational aids and buildings. It will also look at the airport's administrative functions, finances, economic development opportunities, environment and wildlife management, modernization and sustainability, facility alternatives and implementation, and public outreach.

The 178th Wing, a unit of the Ohio Air National Guard (ANG), stationed at the airport, transformed from a Fighter Wing to an Intelligence Surveillance and Reconnaissance Wing. It supports the Predator Unmanned Aircraft Systems (UAS) Combat sorties abroad and is home to a NASIC unit connected to Wright-Patterson Air Force Base.

Airport Manager Don Smith said the airport is ramping up its support of UAS flight activity, especially with the Air Force Research Lab and various educational/research partners, and is trying to attract more UAS activity to the airport. Sinclair Community College is a teaming partner with Woolpert on the Master Plan project, lending its expertise to the UAS planning aspects. ❑

Springfield-Beckley Municipal Airport
Springfield, Ohio

Wisconsin & Iowa Pilots Win At 2016 U.S. National Aerobatic Contest

by Lorrie Penner

Friday, September 30, was the final day of the very successful U.S. National Aerobatic Championships. Special congratulations to Rob Holland in his sixth consecutive championship win in the Unlimited Power Category!

Winners include: Primary: Nick Meyer (Decathlon). Sportsman Power Champion: Cory Johnson (Pitts S-1C). Sportsman Glider Champion: Merrick Isely (DG1001). Intermediate Power Champion: David Taylor (Staudacher S600). Intermediate Glider Champion: Trevor Rogers (DG1001). Advanced Power Champion: Aaron McCartan (S-330P). Advanced Glider Champion: Guy Acheson (MDM Fox). U.S. National Aerobatic Champion (Unlimited Power Category): Rob Holland (MXS-RH). U.S. National Glider Aerobatic Champion (Glider Unlimited Category): Eric Lentz-Gauthier (MDM Fox).

The USA Unlimited Team members were announced and will be participating in the 2017 World Aerobatic Championships in Hoedspruit, South Africa, August 16 to 26, 2017.

L/R: Cory Johnson of Dodgeville, Wis., won the Sportsman Power Category flying a Pitts S-1C, and Aaron McCartan of Pocahontas, Iowa, won the Advanced Power Category in a Panzl S-330P. ❑

AOPA Honors Flight Instructors & Flight Schools

FREDERICK, MD – The Aircraft Owners and Pilots Association (AOPA) has announced the recipients of its "AOPA Flight Training Excellence Awards." The awards are based on the results of the 2016 Flight Training Poll and recognize and celebrate those who provide a customer experience that supports student pilots and facilitates their entry into all aspects of the aviation community. The Flight Training Poll is conducted using an online survey process, which 11,356 individuals completed in 2016, an increase of 60% from 2015.

Flight Training Professionals of Orlando, Florida, was named Best Flight School and Brenda Tibbs of Bravo Flight Training in Frederick, Maryland, was named Best Flight Instructor. The Student's Choice Award was given to Paragon Flight of Fort Myers, Florida, as the flight school that received the highest number of positive nominations. This year's President's Choice Award went to Take Flight Aviation of Montgomery, New York, selected by AOPA President Mark Baker for significant and innovative contributions to the flight training community.

Nine additional flight schools and 10 more flight instructors were judged to be "outstanding" by their students; 60 flight schools and 50 flight instructors were also recognized as being on the flight training "honor roll."

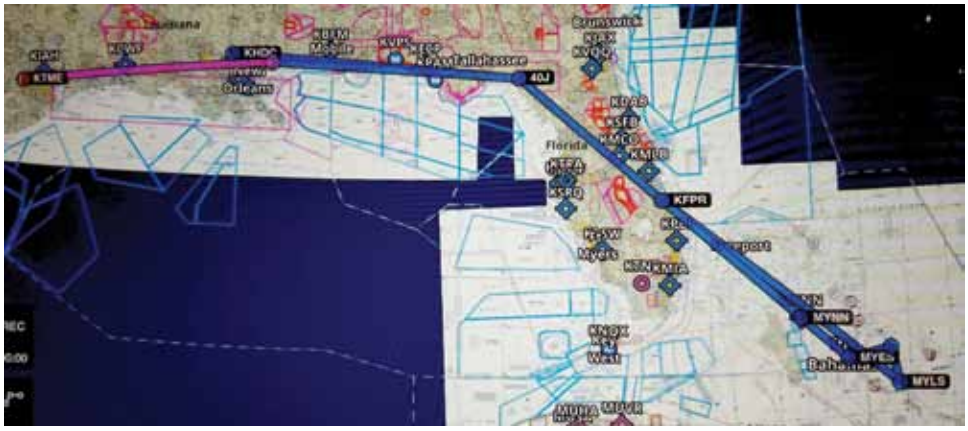
Flight schools that received awards, including those on the "honor roll," represent the top 9% of the flight schools mentioned by respondents in the poll and the top 3% nationwide. Flight instructors who received awards are in the top 3% of the flight instructors mentioned by respondents in the poll and top 1% nationwide.

Among those individuals named to the Flight Instructor Honor Roll is Jeffrey Anderson of Wisconsin Aviation, Inc., located at Dodge County Airport, Juneau, Wis. Wisconsin Aviation, itself, was named to the Flight School Honor Roll.

The Flight Training Excellence Awards are part of AOPA's "You Can Fly" program launched in January 2015 to build a vibrant, growing, and self-sustaining community of active pilots (www.aopa.org). ❑

Island Hopping In The Bahamas

by Yasmina Platt



Hurricane season just ended November 30, 2016. Winter is here! Brrrr…. And so is the holiday season, with more PTO and time to spend with family. There's no better time to "escape down" to… the Bahamas! With a little bit of preparation, it is not as hard as it may seem at first and the reward is incredible!

With over 700 islands and cays and approximately 60 airports to choose from, the opportunities in the nearby coral-based archipelago are endless. In this article, I summarize the trip my husband "Jared" and I took there in June, as an example.

Our route was KTME/TX – KHSA/MS – 40J/FL – KFPR/FL – MYNN (Nassau) – MYES (Staniel Cay) – MYCB (Cat Island) – MYLS (Long Island) – KFPR/FL – 40J/FL – KHDC/LA – business stops – KTME/TX. I will only talk about the international legs here and mostly only about the "aviation part" of our trip. You can read a full blog about it (with pictures) at http://www.airtrails.weebly.com.

Our original intention was to only fly to the "outer islands" and skip the busier, more touristic, and more expensive locations; however, enroute weather made us plan our first stop to Nassau instead of Fresh Creek (MYAF). Getting fuel and clearing Customs at MYLS was truly a non-event.

We filed our first international (ICAO) flight plan with Flight Service over the telephone while in Fort Pierce, but filed an international flight plan back using ForeFlight.

We were able to talk with either Nassau Approach or Miami Center throughout the majority of the flight. We enjoyed having them on the frequency in case something happened and for the eventual traffic advisory. We also always monitored 122.8 Mhz on the second radio (and had 121.5 Mhz on standby), as it is the Common Traffic Advisory Frequency (CTAF) for all the airports we went to (and maybe all non-towered Bahamian airports).

One of the best benefits of flying yourself is the ability to sightsee from the air and spot places to visit later from the ground.

Happy pilots flying to the Bahamas.

Landing at Nassau, Bahamas.

Clearing Customs at KFPR was also a non-event, but a lot more involved. We had to park in a certain area of the ramp, unload all of our luggage, and take ourselves and the luggage through the scanners at the Customs facility. An agent walked out to the airplane and looked through the windows also.

Here are some general planning tips, but I recommend you visit https://www.aopa.org/go-fly/destinations/international-travel/bahamas and http://www.bahamas.com/private-flying for details:

- Ensure you have all necessary paperwork for you (pilot), your passengers, your luggage, and your aircraft.

- Ensure you have the appropriate equipment for the aircraft and all those onboard (i.e. life vests, life raft).

- Become familiar with the Electronic Advance Passenger Information System (eAPIS). AOPA has a free online course you can take. You will have to file an eAPIS flight manifest (at least one hour prior to departure) when leaving and returning to the U.S.

- Hotels are scarce in the outer islands. If not actually booking reservations prior to the trip, you at least want to make sure they have availability and consider their minimum night stay requirements.

- Bring some cash (U.S. dollars are accepted everywhere) with you. You will at least need some cash to pay the $29/person Bahamian departure fee.

- Most flight planning apps (again, we used ForeFlight) provide all the information you need, from charts (WACs are best), to airport information, to filing flight plans. If you have ADS-B, it will work within 50 nm or so off the coast. Do some preliminary flight planning, especially to determine longest distance over water and "point of no return." With over 700 islands and proper planning, you can almost always be within, at least, 25 nm of land.

- Consider departing from and arriving back at one of the U.S. Airports of Entry, where Customs & Border Protection inspections services are normally available, which also offer raft rentals, life vests, fuel, and anything else you may need.

- Arrive at and depart from one of 20 Airports of Entry (AOE) in the Bahamas.

- Avgas is currently available at nine (9) Bahamian airports, but you are never more than 20 minutes flying time away from fuel. We found that fuel is not any more expensive than at any of the larger FBOs in the United States.

- Only Nassau (MYNN) and Freeport (MYGF) have IFR approaches. Night VFR flying is prohibited in the islands. You should plan on "day, VFR flying" only!

- All aircraft must file a flight plan (VFR or IFR) within 25 nm of Nassau.

- Practice your crosswind landings and be ready for fairly changing winds while landing in the Bahamas.

- Review water ditching procedures. Not that you will need them, but better safe (or prepared) than sorry. While you are doing this, calculate your aircraft's gliding capabilities and determine what altitude you feel comfortable flying at over water.

- Looking for information on a specific island or activity (beaches, boating, diving, sightseeing…)? You can find everything you need here: www.bahamas.com/directory

We loved our Bahamas trip and we are already thinking about a future visit to some of the other islands we did not get to on this trip, like Marsh Harbour (MYAM) and The Abacos, referred to as the "Boating Capital of the World." Go fly! Enjoy this awesome freedom we, pilots, have! This type of trip would not have been possible for us without GA.

Air-to-ground versus ground-to-ground photos of a beautiful deserted island. ❑

MINNESOTA AERONAUTICS BULLETIN
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THE STATE OF MINNESOTA PROVIDES THIS TECHNICAL BULLETIN IN THE INTEREST OF AVIATION SAFETY AND TO PROMOTE AERONAUTICAL PROGRESS IN THE STATE AND THE NATION
Cassandra Isackson, Director **Dan McDowell, Editor**
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651-234-7200 or 1-800-657-3922

Your Advice & Involvement Is Important!

by Cassandra Isackson
Director, Minnesota DOT Office of Aeronautics


Cassandra Isackson

This has been a very busy year for us at your Minnesota Office of Aeronautics, and 2017 looks even busier.

We had a great experience at EAA AirVenture Oshkosh 2016 where we shared an exhibit with volunteers from Minnesota airport communities. Together, we spoke and engaged with hundreds of folks to encourage flying in Minnesota, either as a destination, or on the way home from Oshkosh. It was exciting! We will continue to ask for your advice and involvement on ways to add energy to our outreach on behalf of Minnesota's excellent airport system.

We are also evaluating other aviation education, promotion, communication, and marketing activities we have been involved with over the past many years. We rely on several partner organizations (that we collectively call the Alphabet Soup Group) for inspiration and assistance. As we continue these activities, modify our approach, or develop new opportunities for interaction, we hope to ensure our efforts:

- Encourage and embrace an intermodal system.
- Partner to bring focus to aviation in economic development.
- Facilitate workforce connections.
- Focus on education we are uniquely positioned to provide.

Thank you if you participated in our aviation education study. Please feel welcome to join us as our work in these areas continues to evolve.

It is also wonderful to see progress on airport construction projects around the state. We have had another record year of FAA and State dollars put under grant to accomplish needed aviation infrastructure improvements at locations throughout Minnesota.

Please invite us to your project or community celebration – we'll make every effort to be there. We have a few new faces in our office staff, and they are looking forward to meeting and working with you.

Keep flying and please do so with special attention to safety. We will be working "Toward Zero Deaths in Aviation" (TZD) to sharpen our focus on safety. Enjoy the changing seasons, while remembering to share ideas that help Fly Minnesota Safely! ❑

TZD Initiative - Airside

by Rick Braunig
Manager, Aviation Safety & Enforcement


Rick Braunig

I don't know how many people are still flying that remember seeing Ken Patz and Verdon Kleimenhagen doing safety seminars throughout Minnesota. Probably more of you remember Mark Schreier, Steve Szymanski, Marlan Perhus and me making the circuit, but even that is more years back than I care to talk about. The point is, we have a long history of trying to affect the aviation accident rate.

We have data that suggests that when we do safety seminars, we are preaching to the choir. The people that attend have the right attitude about safety and they are not the ones having accidents. Now that is not to say safety seminars are worthless…we all need to sharpen our saws occasionally and there are always changes in equipment, regulations and processes that we need to communicate. We also like to get out and hear from the pilot community. We have a lot of respect for pilots that give up their free time to come talk with us. We want to hear about your challenges and

those things that are causing you concern.

Still, we would like to have the general aviation accident rate not be 10 times worse than the airlines, so we have started a new initiative titled "Toward Zero Deaths" (TZD) in Aviation. The highway side of MnDOT has been working on a Toward Zero Death initiative for a number of years now and they have data that shows their actions have reduced the crashes and fatalities on our highways. We would like to be able to have a similar impact on the GA accident rate.

There is an old saying that goes something like "Insanity is doing the same thing and expecting different results." Clearly we have been doing safety seminars and that is not bending the graph downward. The accident and death rates appear to fluctuate with what a statistician might describe as normal variation. To move toward our goal, we need to look at what other things we might do to have an impact, so we've pulled together a team of some of our sharpest folks and we are partnering with the FAA and looking for other partners that would like to help.

We are looking at the data, and there is good data on the causes of accidents, who is having accidents by certificate type and flight hours, and mission. Until recently, the location data for accidents wasn't very good. GPS is improving that, just as it has impacted the rest of aviation. We want to take a deeper dive into the data to better understand our target audience and the locations where the need is greatest.

Then we have to try new tactics to see what works. Here is where we are looking beyond the aviation industry to others like our TZD folks on the highway side to learn more about the things they have had success with and where they are going. Additionally, we have some ideas that are aviation specific that haven't been tried. We are open to all ideas that come forward. We realize that this isn't going to be easy, but we think it is important work and we are inspired by the results TZD has achieved on the highway side.

If you'd like to join the effort or just throw your two cents worth in on the subject, we'd love to hear from you. Drop me an e-mail at rick.braunig@state.mn.us, and if I can't get back to you, someone else on our team will. ❑

An Insidious Threat

by Dan McDowell

Ask any aviator what he/she likes to do most, and 9 out of 10 times they will say, with little or no hesitation "FLYING!" For many, it is pure recreation. For others, it is a serious hobby, and for still others, it is a career. But the common thread between them all is a deep-seated, unshakable love of flight. Another common thread among aviators is the to frequent problem of *"pilot fatigue."*

In the words of Dr. Stanley R. Mohler, M.D., "Fatigue is defined as a subjective feeling of tiredness that makes concentration on a task, difficult." John A. Caldwell, PhD, wrote in a May 1999 Flying Safety magazine succinctly stating, "As the pilot's fatigue levels increase, accuracy and timing degrade, lower standards of performance are unconsciously accepted, the ability to integrate information from the individual's flight instruments into a meaningful overall pattern is degraded, and a narrowing of attention occurs that leads to forgetting or ignoring important aspects of flight tasks." Caldwell adds, "In addition, the fatigued pilot...loses the ability to effectively divide their mental resources among different tasks."

Fatigue, like complacency, is an insidious threat. Clearly it can be seen in the previous paragraph how a pilot's fatigued condition can and will affect one's abilities in the cockpit. It is possible for the fatigued pilot to involuntarily fall asleep especially during periods of lower cockpit workloads. The constant hum of the engine and buzz of the electronics can

easily lull a fatigued pilot into sleep. That pilot will not remember falling asleep, and will likely have no idea how long he/she was asleep.

Fatigue frequently causes a noticeable change of a person's mood. The individual can become uncharacteristically argumentative and irritable. As might be expected, the fatigued individual most likely will not recognize their own impairments and may in fact think they are fully capable, alert, and functional. These feelings can be falsely enhanced if the individual has used stimulants like caffeine or over-the-counter medicines that may contain amphetamines.

To help avoid falling into this condition, every pilot should do everything possible to maintain a very healthy and active lifestyle. This includes developing and maintaining a proper and adequate diet; proper and regular sleep; planned and regular exercise; no smoking; and very limited use of alcoholic beverages. The choice is yours.

When you go for your flight physical, for instance, take time to talk to your doctor about effects of fatigue on the mind and body. Let your medical professionals design a diet and exercise program that is right for you. That will help ensure that you will be healthy, enjoying and sharing flying for a long time, while avoiding an insidious threat. ❑

Are you ready?

Starting **January 1, 2020,** you must be equipped with ADS-B Out to fly in most controlled airspace. Federal Regulations 14 CFR 91.225 and 14 CFR 91.227 contain the details.

Quite simply, Automatic Dependent Surveillance–Broadcast (ADS-B) is a precise satellite-based surveillance system. ADS-B Out uses GPS technology to determine an aircraft's location, airspeed and other data, and broadcasts that information to a network of ground stations, which relays the data to air traffic control displays and to nearby aircraft equipped to receive the data via ADS-B In. Operators of aircraft equipped with ADS-B In can receive weather and traffic position information delivered directly to the cockpit.

For additional information, visit the FAA website: **https://www.faa.gov/nextgen/programs/adsb/**

The most immediate benefits of ADS-B in/out technology include:

- Improved situational awareness.
- Enhanced traffic information.
- Improved weather data.
- Improved collision avoidance information.
- Overall enhancement to flying safety.
- Numerous free services via the Universal Access Transceiver (UAT)*.

Do you still have questions? Go to: **http://www.faa.gov/nextgen/equipadsb/faq/**

*ADS-B Flight Information Services-Broadcast (FIS-B) weather and flight information service is only available to UAT-equipped aircraft. All larger commercial and business aircraft that operate at higher altitudes are required to have a Mode-S transponder operating on a 1090 MHz frequency with extended squitter. ADS-B In systems receive FIS-B weather and data services only on the 978 MHz frequency. Please note that UAT is only permissible as the sole ADS-B equipment up to 18,000 feet. ❑

Did you know...

Boeing forecasts that between 2016 and 2035, the world's commercial aviation industry will require approximately:

- 617,000 new commercial airline pilots.
- 679,000 new commercial airline maintenance technicians.
- 814,000 new cabin crew.

The 2016 outlook shows a growth of 10.5 percent for pilots over the 2015 outlook, and 11.3 percent for maintenance technicians. New pilot demand is primarily driven by new airplane deliveries and fleet mix, while new technician demand is primarily driven by fleet growth.

"The Pilot and Technician Outlook has become a resource for the industry to determine demand for successful airline operations," said Sherry Carbary, vice president, Boeing Flight Services. "Cabin crew are an integral part of operating an airline, and while Boeing does not train cabin crew like pilots and technicians, we believe the industry can use these numbers for planning purposes."

Taken from: http://www.boeing.com/commercial/market/long-term-market/pilot-and-technician-outlook/ ❑

Airplanes & Cars Make Good Companions

When you are an independent systems engineer working on one of the largest, most sophisticated airplanes in the world, you deserve – and can afford – to have some toys and a place to keep them. Larry Robbins, formerly of Rockford, Illinois, spent 10 years on the road supporting the development of the Boeing 787 Dreamliner. He now spends all of his free time at his home in his Deerfield Resort subdivision, nestled between the Cumberland Mountains and the foothills of the Great Smoky Mountains on the peninsula of Norris Lake, north of Knoxville, Tenn. There he has a large hangar that houses his airplanes, a motorcycle and a vintage car.

Parked within the hangar are his 1946 J3 Piper Cub and Glasair 1 that he built himself. Robbins' "Pilot Cave" is something to behold. The entire 3,600 square feet of floor is tiled and has a full-scale inlaid replica of a P-51 Mustang, complete with machine guns. Also in his hangar is a 1969 Plymouth Barracuda Fastback with 28,000 original miles. His first car was also a 1969 Barracuda.

In 1980, the kitplane industry was revolutionized with the introduction of the Glasair, the world's first pre-molded composite kitplane. The Glasair is capable of aerobatics and has a maximum speed of 260 mph.

"I built the Glasair in my basement," Robbins says. "I quit keeping track of time when I saw how long it was taking. It was a 10-year project from start to finish."

Robbins also owns a J3 Piper Cub that his dad bought damaged in 1955 for $175, including the engine. It had been sitting on floats on the Illinois River when a storm came through and blew one wing down into the river.

"Dad bought the Cub as a basket case," said Robbins. "Later on when he told me where he got it and how little he paid for it, I told him he should have bought the EDO 1320 floats to go with it for an additional $500. But his dad didn't have the money at the time for the floats or to restore the plane, so it hung from the rafters in his machine shed until Robbins restored it in 1975.

Robbins' hangar and those of his neighbors are all equipped with Schweiss bifold liftstrap doors and auto latches and a remote opener. Schweiss Doors is located in Fairfax, Minnesota. For additional information, visit www.bifold.com. ❑

Aeronautics Report

Wisconsin Bureau of Aeronautics
P.O. Box 7914, Madison, WI 53707-7914

David M. Greene, Director
(608) 266-3351

www.wisconsindot.gov

The Power of Paint - Runway Markings

by Hal Davis
Airport Compliance Manager
WisDOT Bureau of Aeronautics


Hal Davis

In our industry, we continually strive to improve safety. While much of the focus rightly remains on in-flight safety and preventing occurrences like loss of control or controlled flight into terrain, it's important not to overlook safety on the ground. Safely navigating the airport environment is a fundamental skill all pilots are taught from the very beginning. However, incidents, such as runway incursions, continue to pose a significant challenge. In the Great Lakes Region alone, 96 pilot deviations were reported from October 1, 2015 to September 30, 2016. Lack of airport familiarity is one of the leading causes of these types of incidents according to the Federal Aviation Administration (FAA).

At a familiar airport, it's easy to take airport markings, lights, and signs for granted. A pilot may know which runway is which and how to get there without so much as a glance at any visual aid. In contrast, markings, lights, and signs are vital for navigating an unfamiliar airport.

Whether you are an experienced pilot, or still learning to fly, I believe it's valuable to take a moment to review airport markings, lights, and signs, what they mean, and how they can keep you out of trouble. Over the course of the next few issues of *"Aeronautics Report,"* I'll cover various airport visual aids in greater depth – starting with runway markings.

Two Common Elements

All paved runways share at least two runway marking elements. Can you name them?

The first is the runway landing designator, also known as "the numbers." The designator is white and consists of a one or two digit runway landing designation number. As most readers probably know, the designation number is the magnetic heading along the runway centerline when viewed from the direction of the approach, rounded to the nearest one-tenth of the magnetic azimuth. For example, a runway with a magnetic heading of 173° would receive a designator of 17, while a runway heading of 178° would receive a designator of 18.

For parallel runways, each runway landing designator number will be accompanied by a letter, in order from left to right when viewed from the direction of the approach. Letters include "L" for left, "C" for center, and "R" for right.

Should an airport have more than three (3) parallel runways, additional runway designators are rounded to the next nearest one-tenth of the magnetic azimuth and given a letter (e.g. 18L, 18R, 19L, 19R).

The second runway marking element shared by all paved runways is the runway centerline. The centerline identifies the physical center of the runway width allowing for alignment during takeoff and landing. The centerline is marked by white uniformly spaced stripes.

Runway Marking Schemes

Whether or not a runway has any additional markings depends on a few factors, but the most significant factor is related to the type of instrument approach available on a particular runway. The table below lists the three runway marking schemes and the criteria for each:

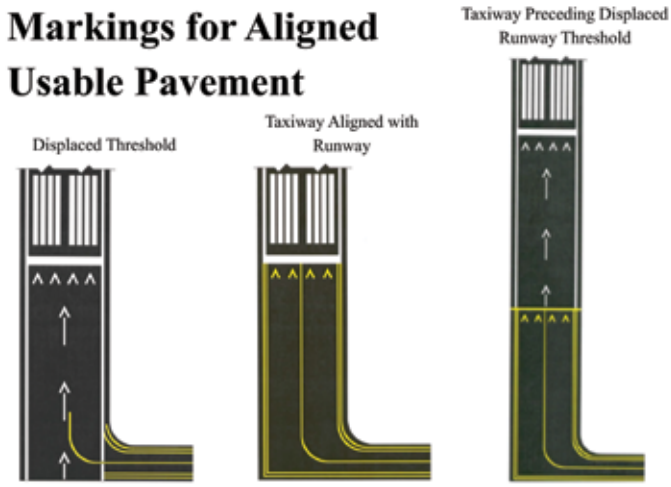
Runway Marking Scheme	Criteria
Visual Runway	No instrument approach
Non-Precision Runway	Instrument approach without vertical guidance -or- Instrument approach with vertical guidance and ¾ mile visibility minimum or greater
Precision Runway	Instrument approach with vertical guidance and less than ¾ mile visibility minimum

Many visual runways are only required to have a designator and centerline markings. However, visual runways serving aircraft with final approach speeds greater than 120 knots are also required to have threshold markings. Threshold markings help pilots identify the beginning of the runway. Threshold markings are located 20 feet from the physical start of the runway threshold and consist of a pattern of white, longitudinal stripes spaced symmetrically about the runway centerline. All non-precision and precision runways are also required to have threshold markings.

All precision runways, as well as visual and non-precision runways over 4,200 feet long, are also required to have aiming point markings. As you can probably guess, the aiming point markings serve as a visual aiming point during landing. Under normal circumstances, the aiming points are located 1,020 feet from the runway threshold and are marked by two white rectangles located symmetrically on each side of the runway centerline.

There are three general runway marking schemes – visual, non-precision and precision. The touchdown zone markings on this runway mean this is a precision runway.

Finally, runway edge markings are also required for all precision runways or for any other runway when the full



runway pavement width is not available for use as a runway. The runway edge marking consists of a continuous white stripe with the outer edge of each stripe approximately on the edge of the paved useable runway.

Displaced Thresholds & Aligned Taxiways

Many airports have paved surfaces aligned with the runway, which may or may not be used for different phases of flight. Knowing the difference will not only save you from embarrassment, but could also save your life.

Perhaps one of the most common runway markings that adds a bit of complexity is the "displaced threshold." A displaced threshold is a threshold located at a point along the runway other than the physical beginning of the runway. Typically, a threshold is displaced for obstacle clearance reasons on approach. Therefore, the portion of runway prior to the displaced threshold is unusable for landing. However, the area may be used for takeoff in either direction or landing rollout from the opposite direction.

A displaced threshold is marked by a white, 10 ft. wide threshold bar across the width of the runway. White arrows are also located along the centerline in the area between the beginning of the runway and the displaced threshold.

In other cases, the aligned pavement preceding a threshold may be unusable for landing and takeoff, but is available as a taxiway. Accordingly, this area is painted differently than a displaced threshold. Where the aligned taxiway abuts useable runway, yellow arrowheads spanning the width of the pavement are used along with a painted bar. A yellow bar, known as a demarcation bar, indicates the beginning of a runway with a displaced threshold, while a white bar indicates the runway threshold.

Chevrons & X's

Often, airports will install pavement adjacent to the runway, which is unusable for aircraft operations. These areas typically serve one or two purposes.

First, the area may act as a "blast pad," protecting the surrounding area from erosion caused by engine blast. Second, it may act as a "stopway." A stopway is an area beyond the runway end able to support an airplane during an aborted takeoff, without causing structural damage to the airplane. Similarly, an "engineered materials arresting system" (EMAS) is designed to stop an overrunning aircraft by absorbing the aircraft's energy as it reliably and predictably crushes under the weight of the aircraft. Blast pads, stopways, and engineered materials arresting systems are all marked by large yellow chevrons spanning the width of the pavement.

Similar in purpose to a blast pad, airports, which serve large jet traffic, may also construct runway shoulders to further reduce erosion caused by engine blast. Accordingly, airports may choose to further differentiate the shoulder from the runway by painting runway shoulder markings. Runway shoulder markings are located every 100 feet between the runway edge marking and the edge of the pavement. They are yellow in color and are slanted at a 45° angle from the runway centerline.

Lastly, from time to time, you may come across a closed runway. Airports have two options for visually conveying a closed runway to pilots. The first option, and FAA's preferred method, is to display a raised-lighted "X" on each end of the runway. Alternatively, an airport can place a large yellow "X" over the runway landing designator. Because many runway closures are temporary, these markings may or may not be painted. Instead, a more easily removable material is often used. Of course, a Notice to Airman should always accompany any visual que that a runway is closed.

Looking For More Information?

Watch for the next issue of *"Aeronautics Report"* where we will take an in-depth look at more airport markings. In the meantime, information about airport pavement markings can be found in Chapter 2 of the FAA's *Aeronautical Information Manual* or *Advisory Circular 150/5340-1L.* ❑

"Beyond The Clouds" Is Theme For 2017 International Aviation Art Contest... *Entries Wanted!*

by Karen Broitzman
Aerospace Education Manager
WisDOT Bureau of Aeronautics

Calling all artists between the ages of 6 and 17, the International Aviation Art Contest is now underway! This year's theme is "Beyond The Clouds."


Karen Broitzman

The world of aviation is always changing as each new generation of pilots and designers bring their vision of flight to the world. Now it's your time to grab your favorite art supplies and turn your imagination loose. Create a work of art that celebrates the adventures and excitement only available in that special place beyond the clouds.

Entries will be judged on the creative use of the theme in relation to the aviation world. The top three entries in each age group will advance to the national competition and receive the following awards:

1st Place: $100 art supply gift certificate or an *airplane ride* for the winner and a guest.

2nd Place: $75 art supply gift certificate.
3rd Place: $50 art supply gift certificate.

National 1st, 2nd and 3rd place winners will receive certificates, ribbons, a framed reproduction of their artwork, and advance to the international competition where entrants compete for certificates and gold, silver or bronze medals.

Wisconsin participants, please send artwork to:

Karen Broitzman
Wisconsin Department of Transportation, Bureau of Aeronautics
4802 Sheboygan Avenue Room 701
Madison, WI 53707-7914

All artwork for the state competition must be postmarked by **Friday, January 20, 2017.**

To download the official brochure and entry form or view past Wisconsin winners and more, please visit the "Art Contest" web page on the Wisconsin Bureau of Aeronautics website at: **http://wisconsindot.gov/Pages/doing-bus/aeronautics/education/art.aspx.**

For questions, contact Karen Broitzman at karenl.broitzman@dot.wi.gov or (608) 266-8166. ❑

Pilot, Aircraft Owner, Businessman Terry J. Kohler

(May 14, 1934 – September 20, 2016)

Terry J. Kohler

SHEBOYGAN, WIS. – The only son of the late former Governor Walter J. Kohler, Jr. and Marie Celeste McVoy Kohler, Terry J. Kohler, 82, of Sheboygan, passed away September 20, 2016.

Kohler served his country in the U.S. Air Force from 1955 to 1959 where he earned his pilot's wings and flew T-33 fighters and also B-47 bombers with the Strategic Air Command, including missions over Russia. Kohler achieved the rank of Captain.

Following his military service, Kohler continued his love of flying by owning and flying many types of aircraft, including helicopters. He was also a founding member of the Aviation Heritage Center of Wisconsin. He received a Bachelor of Science Degree in industrial management from the Massachusetts Institute of Technology (MIT) in 1962, and a Master of Business Administration from the MIT Sloan School of Management in 1963.

Kohler started working in the family business, The Vollrath Company, in 1963. In 1976, he became the seventh President of the company. He became Chairman of the Board and Chief Executive Officer in 1982, and under his leadership the company expanded dramatically.

Kohler was united in marriage to Mary Stewart Simpson in 1981, and together they were instrumental in the ultralight led Whooping Crane Recovery Project between Wisconsin and Florida. In 2009, they were awarded the Charles Lindbergh Award, which is given annually to individuals whose work over many years has made significant contributions toward Lindbergh's concept of balancing technology and nature.

Kohler was passionate about conservative politics, and was Wisconsin's GOP candidate for Governor in 1982, and a GOP candidate for the U.S. Senate in 1980. He and Mary helped craft the "Contract with America" with Newt Gingrich and other Congressional Republicans.

Terry J. Kohler when he served in the U.S. Air Force.

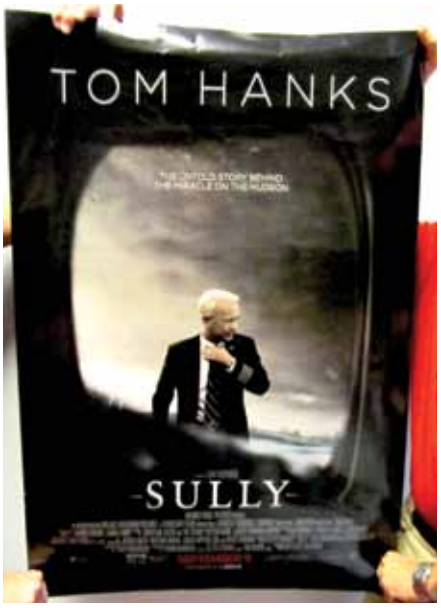
Terry J. Kohler ready to fly.

Kohler is survived by his wife of 35 years, Mary, children and grandchildren. He was preceded in death by his parents and sister, Charlotte Nicolette "Niki" Kohler. ❑

"Sully," The Movie, Features Wisconsin Pilot

(L/R) Jeff Skiles with Jeff Baum, President of Wisconsin Aviation, Inc., which hosted a special presentation on "Miracle On The Hudson."

Dave Weiman Photo



(L/R) Jeff Skiles with Bob Pokorney, who is one of the directors with EAA Chapter 431 in Brodhead, Wis. It was his daughter, Marie, whose idea it was to ask Skiles to emcee a special showing of the film "Sully."

Dave Weiman Photo

by Dave Weiman

Now almost eight years following the emergency landing of an Airbus A320-214 in the Hudson River on January 15, 2009, the incident resurfaced with the release of the motion picture "Sully" starring Tom Hanks, who portrayed Captain Chesley Burnett "Sully" Sullenberger III; Aaron Eckhart, who portrayed First Officer Jeffrey Skiles; and Laura Linney, who portrayed Lorraine Sullenberger.

On January 15, 2009, US Airways Flight 1549 departed New York's LaGuardia Airport on a routine flight to Charlotte Douglas International Airport, Charlotte, N.C., but it was anything but routine.

About 3 minutes into the flight at 3:27 p.m. EST, the aircraft struck a flock of Canada geese during its initial climb-out, causing both jet engines to quickly lose power. Skiles was flying at the time, but at Sullenberger's request, transferred pilot-in-command responsibilities to Sullenberger, who immediately turned on a tail-mounted generator that kept the computer-driven controls functioning.

Sullenberger initially turned back to LaGuardia, and considered landing at nearby Teterboro Airport, but realized by then that they did not have sufficient altitude to reach either airport and managed to safely glide to land in the Hudson River.

All 155 passengers and crew aboard the aircraft evacuated safely, and were rescued by ferryboats within minutes after landing. Some of the passengers and one flight attendant suffered injuries, but only two people required overnight hospitalization. The incident came to be known as the "Miracle On The Hudson," but according to First Officer Jeff Skiles, it was not a miracle. Rather, the result of good training.

Pilot/actor Clint Eastwood directed the film, which is 1 hour 36 minutes in length.

The movie was based on Sullenberger's book, "Highest Duty: My Search for What Really Matters," a memoir of his life and of the events surrounding Flight 1549, published in 2009 by HarperCollins, and co-authored by Jeffrey Zaslow. At press time, the film had grossed $182.7 million – none of which went to Skiles – although he was portrayed in the film and conversations he had with Sullenberger were used in the script.

The scenes involving air traffic control we thought were very well done. The film showed the professionalism

of controllers in how they direct traffic and handle emergency situations. Pilots seldom have the opportunity to witness the coordination between controllers, but "Sully" showed what happens behind the scenes.

The special effects showing the aircraft landing, and the passengers and crew being rescued, are excellent! But a film based on a 6-minute flight couldn't be made without some Hollywood dramatization.

For instance, the hearings held by the National Transportation Safety Board (NTSB) portrayed investigators as ruthless interrogators in a room filled with obnoxious reporters. The actual hearings involved a half-a-dozen investigators and were actually done in a private room without the media present, and they were not antagonistic, according to Skiles.

The big concern by investigators was could Sullenberger have made Teterboro after departing LaGuardia? A computer reenactment and analysis later proved that the aircraft had enough altitude and range to land at Teterboro had Sullenberger known that the emergency would have occurred, and knew to turn in that direction from the get-go. Instead, he turned to return to LaGuardia, then thought Teterboro might be a better option, but he did not want to take the chance of crashing in a densely populated downtown area. Almost without hesitation, Sullenberger made the decision to instead land in the Hudson River, which was as straight as a runway and clear of obstructions, with the exception of the George Washington Bridge, which they narrowly avoided without stalling. While Sullenberger was flying the airplane, Skiles was trying to restart the engines, not knowing the extent of the damage.

Of the 35 recommendations made by NTSB in response to the incident, only six have been successfully completed, and 14 recommendations presented to the Federal Aviation Administration and its European counterpart, EASA, are marked by NTSB as "closed-unacceptable." One has been withdrawn, and the rest remain unresolved.

Among NTSB's closed-unacceptable recommendations is that the FAA should begin requiring the airlines to include procedures for a low-altitude, dual-engine failure in their checklists and pilot training. Current dual-engine failure checklists are currently written for cruising altitudes above 20,000 feet, which gives the flight crew time to complete and still regain altitude. Flight 1549 had total dual-engine failure at an altitude of only 2,818 feet.

Skiles agreed to emcee a special showing of the film in Beloit, Wisconsin on September 24, 2016, as a fundraiser for EAA Chapter 431 in Brodhead, Wisconsin, of which he is a member. He also made a special appearance at Wisconsin Aviation in Madison, Wis., on November 9, 2016, as a special favor to friends there. Skiles began his aviation career working as a flight instructor in Madison and still lives in the area. After a couple of years working for the Experimental Aircraft Association in Oshkosh, and co-chairing the EAA Young Eagles program with Sullenberger, Skiles has returned to flying for US Airways.

CONTINUED ON PAGE 62

When Things Go RIGHT!

by Jim Hanson

Jim Hanson

As aviation consumers, all too often, we complain when things go wrong. Perhaps it's just human nature to complain, but as one aviation mentor told me decades ago, *"this business will make a bitter old man out of you!"* He was right. Some time ago, I found myself handling problem after problem, almost all of which involved vendors not doing what they SAID they were going to do. It was frustrating…I couldn't help thinking, *"How much better the world would be if people only did what they SAID they were going to do!"*

I resolved to deal with the issue by expecting the worst, but giving credit to those who exceed expectations; after all, if we are going to complain, we should give recognition to those who excel. That's the reason for this column.

By the time you read this column, I will have held a Flight Instructor – Airplane Certificate for 50 years. I've added Instrument and Multi-Engine Instructor Ratings, a Glider Instructor Rating, and all of the Ground Instructor Ratings. As a CFI, I must renew the rating every two years. The additional ratings took care of that for several years, being an active flight instructor with a good student pass record took care of many more. FAA check-rides as a Chief Instructor in a Part 141 school, renewed some, and some renewals were done in conjunction with getting a Jet Type Rating or insurance-required check-rides with a Designated Pilot Examiner – all ways to renew the rating.

I no longer do much flight instructing – most of my instructing is limited to aircraft checkouts for those purchasing a new airplane from me. Often, a high-performance, complex, or high-altitude endorsement is required. I also do some instructing in seaplanes, and use my Glider Flight Instructor Rating for Ground Tow Glider Pilot Endorsements, or an endorsement for pilots to tow gliders. As a fixed base operator, pilots often ask my opinion on regulation compliance. In short, I am not an "active instructor" – (I don't make enough money from my flight instruction to pay for the recertification courses) – but very few days go by that I don't make some use of the knowledge or the rating. I worked hard for the CFI rating, and I'm not about to let it lapse.

The easiest way for a not-so-active CFI to renew the rating is to either do it online, or attend an FAA-approved Flight Instructor Refresher Clinic (FIRC). I've done both. Both take the same amount of time: 16 hours. The online course is beneficial because you can work at your own pace. The "weekend course" advantage is the ability to ask questions and interact with fellow flight instructors as they share information. The disadvantage of most weekend courses is that they often are dry and formulaic…the coffee provided is to keep you from going to sleep. Some evolve into questions involving minutiae in which there is very little to be learned. It's often simply a matter of putting in your time and passing the required written test…a waste of a weekend.

A GOOD VALUE!

Two years ago, I attended an "Aviation Seminars" presentation in Minneapolis. In addition to Flight Instructor Refresher Clinics, Aviation Seminars conducts prep courses for other FAA written exams. The instructor was Jeff Masek, a Twin Cities resident and a ground-school presenter since 1988. Jeff has an interesting background; he has a Ph.D., is a former engineer, spent 14 years as an airline pilot before being furloughed in 2001 (a casualty of 9/11), is an active General Aviation pilot, and currently works special cases as a law enforcement officer. He uses that last qualification to corral the crowd of sometimes-unruly students, and the former qualifications to speak with authority on the subjects when teaching Private Pilot and Instrument Ground Schools, and Flight Instructor Refresher Courses. I immediately liked his presentation – "We WILL start on time, don't be late. We WILL get you through this, if you pay attention. We WILL have time for discussion and questions." The ground rules were set and enforced. I actually *enjoyed* the two days of classroom time so much, that I signed up again and attended the FIRC again *this* year. I recognized a number of other CFIs in the room – many also "returnees" from previous classes.

One of the things that sets Aviation Seminars classes apart from other FIRCs is that they cover timely subjects. Yes, the FAA mandates the subject matter to be taught, but rather than a "canned" approach that never varies from year to year (even the JOKES are the same in some seminars!), Jeff's approach covers the important changes over the past two years. Like all FAA-approved seminars, the Federal Aviation Regulations must be covered, but Jeff took the time to not

only make us aware of the regulations, but the effect upon flight training from both the viewpoint of the student and the instructor. Rather than dry recitation, the presentation was very practical.

Speaking of the students and instructors, considerable time was taken to show instructors how to navigate through the FAA's "IACRA" maze for application for new pilot ratings (paper recommendations are no longer accepted). The computer certainly saves time – *for the FAA, that is* – but it is a pain for the occasional user. Aviation Seminars helped several of us in filling out the IACRA form for our own Flight Instructor Certificate renewals to teach us how to use the system. THANKS!

Presentation and discussion was held on the practical effects of the new Airman Certification Standards (ACS) for Private and Instrument pilots. The ACS replaces the decades-old Practical Test Standards that most of us are used to. Like all change, there has been some resistance to the adoption of the ACS, but by the time Jeff explained the changes, most of us saw it as an improvement, for the student and for the instructor. *(The current battle over the new standard of teaching "not-so-slow-flight" notwithstanding, is causing more than a little controversy in the flight training industry)*. Considerable time was also taken to make sure that the flight instructors were aware of the new medical certification standards. Sport Pilot, glider, and flight training device changes were discussed. An FAA FIRC wouldn't be possible without discussing FAA paperwork and changes, but Jeff's presentation was slanted toward keeping instructors out of trouble, and thus was "real-world" – "news you can use" information.

The varied aspects of ADS-B operation, compliance, and limitations was discussed, so that instructors can help counsel aircraft owners about their options. The FAA wants flight instructors to be able to counsel pilots on "hot items," like loss of control accidents, runway incursions, and weather flying, so these items were included in the presentation. FAA also wants better flight instructor performance in the administration of flight reviews, credit for pilot participation in the Wings program for flight reviews, and the conduct of Instrument Proficiency Checks, so time was spent on those items as well.

I'm liking what I see here. The FAA has recognized that the best way for pilots to "get the word" on new changes is to have flight instructors explain it during flight reviews, and that flight instructors are the local experts that pilots can come to for advice without fear of the FAA.

Expect your flight instructor to spend time on these issues at your next Biennial Flight Review (BFR). Aviation Seminars

has tapped into that change nationwide, and hired good *local* presenters like Jeff to deliver meaningful presentations and to answer questions.

All in all, it was time well spent -- 16 hours of "news you can use" for CFIs, rather than the usual "snooze-a-thon." Kudos to Aviation Seminars, Jeff, *and even the FAA* for a seminar that didn't just "go through the motions" of recertification, but delivered valuable information that flight instructors can use and pass on to other pilots.

That's something "above and beyond expectations," and when you can deliver that in your product, THAT'S GOOD BUSINESS!

EDITOR'S NOTE: Jim Hanson is the long-time fixed base operator in Albert Lea, Minnesota. While others may call him an "old-crank," he has been around long enough to achieve CURMUDGEON status. If you know of an aviation organization that gives better-than-expected service, let them know and let the rest of us know as well by sending an email to info@midwestflyer.com. ❑

Thunderbird Aviation's Young Flyers Summer Camp

Young Flyers conduct a preflight inspection at Thunderbird Aviation, Flying Cloud Airport, Eden Prairie, Minnesota.

EDEN PRAIRIE, MINN. – Thunderbird Aviation, located at Flying Cloud Airport and Crystal Airport in the Twin Cities, has been hosting its Young Flyers Summer Camp since 1990 for youth between the ages of 10 and 15.

There are multiple sessions each summer for four days each, running from 9:00 a.m. to 4:00 p.m. The camp is held in June and August at Flying Cloud Airport, and in July at Crystal Airport.

The camp is designed for youth who want more than an introductory flight, and who are interested in becoming pilots.

Students receive ground school, flight training with certified flight instructors, and two hours of flight time.

Topics include navigation, weather, aerodynamics, aircraft systems and regulations.

Each student has the opportunity to fly everyday and ride along with other students with a flight instructor to observe.

Tours of the airport and air traffic control tower are included to expose the campers to a variety of career opportunities.

This year, Thunderbird Aviation involved 25 students in three different sessions.

For additional information, call Thunderbird Aviation at 952-941-1212 (www.thunderbirdaviation.com). ❑

Minnesota Aviation Hall of Fame To Be Held At Hyatt In Bloomington

BLOOMINGTON, MINN. – The Minnesota Aviation Hall of Fame (MAHF) will hold its 28th Annual Hall of Fame Induction Banquet at the Hyatt Regency Hotel in Bloomington, Minnesota, April 22, 2017. The awards ceremony will be emceed by popular radio personality, Al Malmberg, host of WCCO Radio's World of Aviation.

Awards will be presented to six inductees, including James H. Brodie, inventor of a unique "trapeze system" of utilizing small liaison aircraft aboard ships for submarine patrols during World War II; Edward J. Chapman, military pilot, airline pilot, and record-holding balloon pilot; Alvin D. Grady, historian, U.S. Air Force retired, Duluth Airport Authority Chief Accountant, and 148th Fighter Squadron budget analyst; Bruce D. Jaeger, owner of Jaeger Aviation, past owner of Willmar Air Service, and a specialist in Mooney aircraft; Major General Robert S. Peterson, World War II Flying Tiger, fighter pilot in Korea and Vietnam, and member of the Metropolitan Airports Commission; and Brig. General George L. Schulstad, 26 years a U.S. Air Force fighter pilot, and an exchange pilot with the U.S. Navy in action during Vietnam. In addition to the induction awards, the Minnesota Aviation Hall of Fame will present a Best Aviation Writing Award for 2017 to Sam Weigel, *Flying Magazine* columnist. The Hall of Fame will also honor three young aviation career students with $1,500 scholarships.

More information and reservations will be available after January 1, 2017 on the MAHF website: mnaviationhalloffame.org, and on the MAHF Facebook page. ❑

Apply Now For Minnesota Aviation Hall of Fame Scholarships

BLOOMINGTON, MINN. – The Minnesota Aviation Hall of Fame (MAHF) will be awarding up to four $1500 scholarships for aviation minded students at its 28th annual banquet at the Hyatt Regency Hotel in Bloomington, Minnesota on April 22, 2017. Information needed to apply is available at www.mnaviationhalloffame.org. Applications must be received by February 1, 2017. Questions and applications can be directed to Patrick Halligan at flyinghooligan@gmail.com or by calling 651-341-9264. ❑

Girls In Aviation Day Set For 2017

Women in Aviation International (WAI) held its annual "Girls in Aviation Day," September 24, 2016, which included 71 events worldwide. WAI chapters and corporate sponsors hosted 68 WAI events (15 of them held by collegiate sponsors), with 17 events held by international chapters in Australia, Cameroon, Canada, Ghana, India, Kenya, Nigeria, Switzerland, and Zambia.

The average attendance at events was 81 participants, with the average age of participants ranging from seven to 15 years of age.

86.7% of the events took place at an airport, with the remainder taking place at schools and other venues.

Favorite activities of the participants included scavenger hunts, sitting in airplanes, working with aircraft maintenance tools, learning the phonetic alphabet, simulator flights, and rocket building.

"Girls in Aviation Day has become an event that is as compelling to the WAI membership, as it is to the girls in whom we light the aviation spark," says WAI President Dr. Peggy Chabrian."

The next Girls in Aviation Day will be held Saturday, September 23, 2017.

Women in Aviation International is a nonprofit 501(c)(3) organization dedicated to providing networking, mentoring and scholarship opportunities for women and men who are striving for challenging and fulfilling careers in the aviation and aerospace industries. For more information, call (937) 839-4647, or visit www.wai.org. ❑

Northland Community & Technical College... Advancing Aerospace Education

by Jonathan Beck
UAS Instructor/Program Manager
Unmanned Aircraft Systems – Aviation
Northland Community & Technical College


Jonathan Beck

The past year in aviation has been full of advances, including a technology at the forefront of public interest, unmanned aircraft systems (UAS). Northland Community & Technical College has worked steady over the past 57 years to provide high quality education and training for technicians on how to maintain the growing fleet of aircraft and new technology. Over the past decade, remarkable innovation has been seen and Northland's model has continued to innovate with the times. This past year Northland was awarded a project grant (DUE 1501629) by the National Science Foundation Advanced Technological Education (NSF-ATE) Program to provide access and awareness to UAS technology education. As part of the project, Northland engaged educators across secondary and post-secondary education and provided workshops to expand knowledge about this technology that will influence the future of many industries. Educators came from a wide range of disciplines including aerospace, agriculture, engineering, robotics, chemistry, mathematics, geography, public safety, and computer science. Each participant brought a unique perspective on how they believed UAS would change their area of interest. To encourage students in these areas, Northland also hosted summer camps. The camps not only taught students about the mechanics, electronics and maintenance of UAS, but also the applications for the technology that will impact future careers.

The Red River Valley Region, where Northland is located, has become a hub of activity that will grow the future careers in UAS technology. Located 60 miles west of Northland's Aerospace Campus is the Grand Forks Air Force Base. The primary missions out of the base today are Customs & Border

The ribbon cutting ceremony and open house for the recently completed renovation project at Northland's aerospace site. Members of the local community attended to see the new facilities and learn about Northland's aerospace programs. *NCTC Photo*


Teachers participating in Northland's DroneTECH Educators Workshop are conducting simulator flights in preparation for flying multi-rotor Unmanned Aircraft Systems. *NCTC Photo*


Students attending Northland's DroneTECH Summer Camp are conducting indoor flights with the multi-rotor systems they built as part of the camp activities. *NCTC Photo*

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northlandaerospace.com

Protection MQ-9 Reaper (66-foot wingspan aircraft) and the Air Force Global Hawk (135-foot wingspan aircraft). Besides the U.S. Department of Defense (DOD) and public missions, it is home to "Grand Sky," the nation's first UAS business development park. Grand Sky broke ground late 2015 and secured large corporations as tenants and stakeholders, such as Northrop Grumman and General Atomics, but is also structured in a way to be an incubator to many other companies who will shape the UAS industry.

The Grand Sky development is one example across the country that is creating new jobs. Northland Community & Technical College has expanded its facility to meet the demands for highly skilled technicians across a broad range of industries. In May 2015, Northland broke ground on a 22,000 square foot remodel to increase the state-of-the-art training facility and labs. Lab spaces were updated to the latest technology, including virtual conference room lab environments, allowing students to attend classes through a distance interface, as well as to bring industry experts into the classroom from anywhere in the world.

Innovation in aviation is also driving a workforce with a multi-disciplinary understanding of technology. This has led to moving the imagery analysis, geospatial intelligence, electronics and robotics programs to the Aerospace Campus. Students in these programs are able to see multiple aspects of the technology creating a deeper impact in their education and an opportunity to increase knowledge across related programs.

A rapid changing industry requires frequent evaluation of changes and a plan for adapting. To ensure alignment to meeting industry needs, Northland has worked with external organizations to validate curriculum and the effectiveness of graduates in industry. One of the ways this has been facilitated is through a continued DACUM process. A DACUM, or development of a curriculum, ensures that current programs align to specific careers and the required technical skills of an employee. In 2011, when Northland launched the nation's first UAS maintenance program, Northland worked with the National Center for Aerospace and Transportation Technologies (NCATT) to help facilitate a workshop of industry experts to define the skills required of a UAS Maintenance Technician. NCATT was recognized for identifying industry standards and credentials. Since then it has become part of the worldwide organization, American Society for Testing and Materials (ASTM), known for advising the Federal Aviation Administration on recommendations and policy.

The past 6 years have brought about amazing changes in aviation and UAS technology. To ensure students are well prepared for meeting industry needs, Northland engaged with ASTM and SpaceTEC, a NSF-ATE National Resource Center for Aerospace Technician Education, to revisit UAS maintenance technician standards. The results will be integrated into Northland's program and through SpaceTEC are leading to new UAS maintenance technician hands-on performance evaluations driven by industry demands.

These standards will also help the FAA enact new regulations pertaining to the credentials and standards for performing maintenance on UAS. The FAA has already taken action on regulations to govern small UAS, but their work will continue as they evaluate the operations of larger systems and develop performance-based risk matrix and access the requirements of technicians working on larger systems that will fly over the populated areas every day.

To assist in all integration efforts, the FAA launched ASSURE (Alliance for System Safety of UAS through Research Excellence) program. ASSURE will assist the FAA in the integration of UAS into the National Airspace System and all of the ancillary requirements. ASSURE possesses the expertise, infrastructure and outstanding track record of success that the FAA Center of Excellence for Unmanned Aircraft Systems demands. Northland is one of only two, 2-year colleges on the ASSURE team; the other 23 educational institutions are the world's leading 4-year research institutions and hundreds leading industry and government partners. Stakeholders are working together to ensure a positive trajectory for UAS technology.

The launcher for the Bat-12 fixed-wing drone was donated to Northland Community & Technical College by Northrop Grumman. The launcher to the right in the transport configuration was donated by Insitu, a subsidiary of Boeing. *NCTC Photo*

Companies in the UAS industry have acknowledged the need to grow the pipeline for highly educated technicians to maintain the expanding fleet of UAS. Many companies have engaged with Northland to fill their current – but more importantly growing – future needs for UAS technicians. This has led to industry partners investing time, resources and donations to grow the programs at Northland. Minnesota-based manufacturer Sentera LLC, located in Minneapolis, has donated many small UAS, including fixed-wing and multi-rotor systems, camera sensor payloads, and provided engineering expertise and technical support. Insitu, a subsidiary of Boeing, recently donated a quarter of a million-dollar takeoff and landing system for a tactical size UAS.

Another principle partner in developing the UAS maintenance program was Northrop Grumman. Northrop has made a substantial investment into the program and graduates with continue support from the beginning. Today, Northrop

This is one of four "R-Bat" unmanned helicopters Northrup Grumman donated to Northland Community & Technical College. *NCTC Photo*

employs many Northland graduates throughout the world for some of the most coveted positions in the industry. As a continued commitment to seeing Northland UAS programs succeed, Northrop Grumman recently donated more than 13 airframes, including fixed-wing (12-14 ft. wingspan) and multi-rotor systems and all of the associated ground control station equipment for the Bat-12 and R-Bat. These types of investments show the commitment and certainty of industry partners and the need to continue growing education and the high-quality technicians to meet industry needs.

These types of relationships are a defining characteristic of the high-quality resources and education Northland provides to continue advancing UAS technology and expanding the envelop in the aviation community. The support and dedication of industry partners is greatly appreciated by Northland, and our graduates look forward to the opportunity to meet industry demands in exciting career fields. Northland Community & Technical College is an equal opportunity educator and employer.

This material is based in part upon work supported by the National Science Foundation (DUE 1501629). Any opinions, findings, and 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.

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UND Receives First of 100 New Piper Aircraft To Upgrade Training Fleet

GRAND FORKS, N.D. – Piper Aircraft, Inc. has delivered the first of 100 new Piper aircraft trainers to the University of North Dakota John D. Odegard School of Aerospace Sciences, which placed the unprecedented order for 80 Archer TXs and 20 Piper Seminoles in April of this year.

"The first delivery to the University of North Dakota is part of the school's fleet replacement strategy and cements the 30-year relationship between Piper and one of the top aviation schools in the country," said Piper Aircraft CEO Simon Caldecott. "The Archer TX will replace aging single-engine aircraft currently in use, as well as the multi-engine Piper Seminoles. Both the Archer TX and Seminole have been designed to give students everything they need to meet the demands of today's commercial and corporate aviation environment."

"This milestone marks the beginning of a transformation for the University of North Dakota training," said Paul Lindseth, Dean of the Odegard School of Aerospace Sciences at the University of North Dakota. "We are rejuvenating our fleet with the rugged Archer TX and Seminole in order to provide our students with the latest, state-of-the-art trainers in the business."

The Archer TXs for UND will feature the fuel injected Lycoming IO-360-B4A engine. This engine, which was certified this year for installation on the Archer TX, maintains the 180 hp power for the four-seat, single-engine trainer. The advanced Garmin G1000 avionics suite is standard in all Piper aircraft preparing new pilots for the cockpit of the future. Piper's specially created flight school interior, designed to withstand the rigors of flight training, is standard equipment. Ergonomic seating keeps students and instructors relaxed, increasing their ability to focus on flight operations. The seats and sidewalls are hand crafted and fitted with heavy-duty vinyl and wear-resistant leather to maximize durability.

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

South Dakota Names New Manager of Air, Rail & Transit

PIERRE, S.D. – A new aviation leader was recently appointed in South Dakota. Jack Dokken has been selected as the new Program Manager of the Office of Air, Rail & Transit for the South Dakota Department of Transportation (NASAO). ❑

Calendar

Send the **DATE, TIMES, LOCATION** *(include city, state & airport name & I.D.),* and **CONTACT PERSON'S TELEPHONE NUMBER**, as well as that person's address & email address for reference. First 15 words **FREE.** $.75 for each additional word.

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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.

FEBRUARY 2017

13-15* **St. Cloud, Minn. -** Tri-State Aerial Applicators Convention & Expo at River's Edge Convention Center & Best Western Plus Kelly Inn. www.tristateaerialconvention.com

21-23 **East Lansing, Mich. -** 2017 Michigan Airport Conference at the Kellogg Hotel & Conference Center.

18* **Milwaukee, Wis. - 2017 Wisconsin Aviation Maintenance Training & IA Renewal Seminar at Crowne Plaza Milwaukee Airport Hotel, 6401 South 13th St. Registration deadline is February 3, 2017 - wisdotia2017.eventbrite.com. If questions, please contact Jean Rickman at 608-266-8667 or jeana.rickman@dot.wi.gov. Visit the web at: http://wisconsindot.gov/Pages/doing-bus/aeronautics/trng-evnts/mech-ia.aspx**

26* **Warroad (KRRT), Minn. -** Ski Plane Fly-In & Breakfast. Ski Planes land on the Warroad River, wheel planes at the Warroad Airport. Shuttle service available 8am-Noon. Dave Paulson 218/386-1818 or 218/386-2098. E-mail: dpaulson@ssbwarroad.com

MARCH 2017

2-4* **Orlando, Fla. -** 28th Annual International Women in Aviation Conference at Disney's Coronado Springs Resort. wai.org

5-7* **Minot, N.D. -** Upper Midwest Aviation Symposium at the Holiday Inn Riverside. www.ndac.aero/umas.htm

27-28* **Brooklyn Center, Minn. - 2017 MN Aviation Maintenance Technician Conference at Earle Brown Heritage Center. Register online at www.regonline.com/1876931**

APRIL 2017

2-5* **Wichita, Kan. -** 2017 South Central Chapter – American Association of Airport Executives (SCC-AAAE) Annual Conference at the Drury Plaza Hotel Broadview for Kansas Airports and Airport Partners. For more info email LGisick@wichita.gov

4-9* **Lakeland, Fla. -** Sun 'n Fun Int'l Fly-In & Expo 2017. www.sun-n-fun.org/

12-14 **Mankato, Minn. - 2017 Minnesota Airports Conference at Verizon Wireless Center. http://www.airtap.umn.edu/events/airportsconference/2017/presentations/index.html or contact Mindy Carlson at 612-625-1813 or carlson@umn.edu.**

18-19* **Columbus, Ohio -** Ohio Aviation Association Annual Conference at Sheraton Capitol Square. www.ohioaviation.org/aws/OAA/pt/sp/conference

24-27 **Waukesha, Wis. - 2017 Wisconsin Aviation Conference. wiama.org. 815-757-2869.**

29-30* **Anoka (KANE), Minn. -** Annual Great Minnesota Aviation Gathering (GMAG) will be held on Saturday and Sunday, April 29-30, 2017 at the Golden Wings Flying Museum.

JUNE 2017

4* **Wild Rose (W23), Wis. -** The Idlewild Airport will be serving a Pancake Breakfast with Sausage and Eggs from 7:30-11am, and at 11:30am-3pm a Pig Roast Dinner featuring pork, beef, potato salad, beans and more. *This is a rain or shine event.* 715-513-0911.

JULY 2017

24-30 **Oshkosh, Wis. - EAA AirVenture Oshkosh 2017. www.eaa.org/en/airventure**

AUGUST 2017

21 **Perryville (KO2), Mo. -** Great American Eclipse Fly-In. 573-517-2069

SEPTEMBER 2017

11-15* **Escanaba, Mich. -** 2017 Annual MAAE Fall Conference. For Airport Managers, Federal Aviation Administration and State Office of Aeronautics representatives, airport engineers, consultants and airport equipment and service providers to meet, exchange ideas and discuss problems and solutions facing Michigan airports.

OCTOBER 2017

11-15* **Las Vegas, Nev. -** NBAA's Business Aviation Convention and Exhibition. info@nbaa.org

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Go To www.midwestflyer.com (Calendar Of Events)

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T-HANGAR RENTALS – La Crosse Regional Airport (LSE), La Crosse, Wisconsin. To check on availability, go to http://www.lseairport.com/hangar-rentals.php. For additional information, including rates, call the airport manager's office at **608-789-7464** or email **gillettj@lseairport.com**

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Skiles From Page 49

If any lessons have been learned from this incident, it has been that "cockpit resource management," which only began in the 1990s, has paid off, says Skiles. Skiles told the crowd at Wisconsin Aviation that the training he received has nearly eliminated airline accidents, and was the reason he and Sullenberger were able to react as fast as they did. Before that flight on January 15, 2009, Skiles and Sullenberger had never flown together, but executed their duties as trained.

Skiles refuses to accept hero status as some have given to him and Sullenberger. Rather, he gives credit to the entire crew, including flight attendants, and to their passengers for their cooperation.

Just before landing in the Hudson River, Captain Sullenberger announced over the public address system, *"brace for impact."*

Since then a book has been published entitled *"Bracing For Impact" – True Tales of Air Disasters & The People Who Survived Them"* by Robin Suerig Holleran and Lindy Philip.

Being strapped in the seat of an airplane as it prepares to make an emergency landing is an airline passenger's worst nightmare. The compilers and contributors of this book know this terrifying and life-changing experience. They have lived out that fear and survived their own accidents.

In this collection of true-life survivor tales, people from all walks of life recount their traumatic narrow escapes as engines stalled, fuel ran out, hazardous weather conditions descended, and landings did not go according to plan. In the face of death, as life flashed before their eyes, some lives have been changed forever.

The book is available in paperback and as an e-book from Skyhorse Publishing. ISBN 978-1-63450-426-3: $14.99 (www.skyhorsepublishing.com). ❑

Education

Western Michigan University To Launch Virtual Reality Experience

BATTLE CREEK, MICH. – Western Michigan University's (WMU) College of Aviation and Extended University Programs launched a virtual reality experience during the world's largest aviation event, EAA Airventure Oshkosh in Oshkosh, Wisconsin, July 25-31, 2016.

WMU partnered with Hollywood-based, Emmy award-winning Mandt Bros. Productions to produce the video for the first-ever virtual reality experience for a collegiate aviation program. The video, which uses a smart phone and is viewed through an interactive headset that fully encases a viewer's vision, immerses participants in the sights and sounds found at the College of Aviation.

❑

FAA To Partner With Ohio University On NextGen

ATHENS, OHIO – Ohio University's Russ College of Engineering and Technology's Avionics Research Center has signed a five-year, $7.5 million research agreement with the Federal Aviation Administration to provide technical support to the analysis, testing and development of numerous navigation systems in the National Airspace System.

Continuing a partnership that spans decades, the FAA will tap center faculty, staff and graduate students to investigate ground- and satellite-based navigation and landing systems, the transition to the Next Generation Air Transportation System (NextGen), approach lighting systems, as well as other services. ❑

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Dane County Regional Airport, Madison, Wis.	KMSN	Pat O'Malley's "Jet Room" Restaurant	www.jetroomrestaurant.com
Price County Airport, Phillips, Wis.	KPBH	Harbor View Pub & Eatery	www.harborviewonline.com
Tri County Regional Airport, Spring Green, Wis.	KLNR	Picadilly Lilly Airport Diner	www.piccadillylillydiner.com

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