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FEBRUARY/MARCH 2018

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More than twenty-five thousand pilots in the United States are now flying under BasicMed since its implementation on May 1, 2017, and other countries are taking notice.

Australia is the latest country to follow suit in adopting new simplified medical qualifications, while the Bahamas agreed to allow BasicMed pilots in their airspace.

AOPA worked hard for years on behalf of its members to bring about third class medical reform that the FAA now refers to as BasicMed. AOPA has developed a suite of online resources for pilots and physicians, what we're calling our "Fit to Fly" resources, to help you make the most of the reforms and enjoy your freedom to fly.

The burdensome medical requirements and red tape associated with medical certification have contributed to a decline in the pilot population. However, BasicMed is keeping pilots flying and allowing others to return to the skies. Seeing the impact of BasicMed ripple across the globe is exciting.

BasicMed's success has also been echoed throughout the industry, from certificated flight instructors and Civil Air Patrol volunteers to Rusty Pilots. AOPA staff has talked to thousands of pilots throughout the year at events and fly-ins across the country. Pilots everywhere are enthusiastic about BasicMed. And we're confident that the numbers will continue to climb, especially as it becomes more mainstream in the aviation sector and as physicians gain more experience with it.

If you still have questions regarding BasicMed, you can reach the AOPA Pilot Information Center at **888-462-3976**, Monday through Friday, 8:30 a.m. to 6 p.m. Eastern. See our Fit to Fly resources online at **aopa.org/fittofly.**

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: Sharon Thiry of Cadzand, Holland with the 1943 Aeronca L-3 Defender she and her partner, Huub van Iwaarden, bought while taking flying lessons in the United States. See article entitled *"Fly, Buy & Ship"* beginning on page 22.

Huub van Iwaarden Photo

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Individual With Impressive Airline & Military Credentials Named Acting FAA Administrator

by Dave Weiman

WASHINGTON, DC – Former airline pilot, military pilot, and airline lobbyist, Daniel Elwell, was appointed the acting administrator of the Federal Aviation Administration (FAA) effective in January. Elwell replaced FAA Administrator Michael Huerta, who was appointed by former President Obama in 2013 to lead the agency for five years.

Elwell, who was an Air Force lieutenant colonel, and a former commercial airline pilot with American Airlines, was appointed FAA's deputy administrator by President Trump in June 2017. Before joining the FAA, Elwell was senior vice president for safety, security and operations with Airlines for America (A4A), the leading trade group representing most of the nation's major airlines. Prior to A4A, Elwell was vice president of the Aerospace Industries Association (AIA) from 2008-2013. In this role, Elwell represented civil aerospace manufacturers and led policy development and advocacy for more than 300 AIA member companies.

Before that, Elwell was an assistant administrator at the FAA for policy, planning and environment during the George W. Bush Administration. He later went on to found an aviation consulting group, Elwell & Associates.

Elwell was a pilot with American Airlines for 16 years, flying DC-10s, MD-80s, and B-757/767s. While maintaining his proficiency as an MD-80 captain, he served as managing director for International and Government Affairs at American Airlines. It is not known if Elwell has any general aviation experience whatsoever.

The Trump Administration has been advocating the privatization of the air traffic control (ATC) system as part of FAA reauthorization, but the proposal has remained stalled in Congress. General aviation groups believe that if the ATC system is privatized, it will be controlled by the airline industry. Certainly, the appointment of Elwell to the top FAA post could be a step in that direction. ❑

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7TH ANNUAL

MINNESOTA AVIATION

DAY AT THE CAPITOL

On Wednesday, **April 25th, 2018**, the aviation community will come together at the Minnesota State Capitol to visit with their state senators and representatives to tell them how important aviation and their local airports are to their constituents and to their communities.

Anyone actively involved in aviation in Minnesota, and who believes in the importance of his or her local airport, is encouraged to participate.

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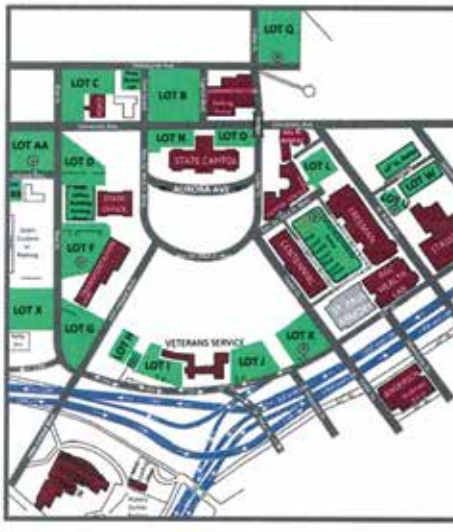

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Certificates of Insurance In Aircraft Leasing: Are You Covered?

by Greg Reigel, AAL

Greg Reigel

In aircraft lease agreements, insurance coverage for the aircraft lessee's operation of the aircraft is typically handled in one of two ways: (1) the aircraft lessee obtains its own policy insuring its operation of the aircraft, or (2) the aircraft lessor obtains a policy under which it is the "named insured" (e.g. the aircraft lessor owns the policy) and it includes the aircraft lessee as an "additional insured" under the policy. In the first instance, the aircraft lessee is the named insured and the policy specifically insures its operation of the aircraft. The aircraft lessor may also be named as an "additional insured" to make sure it is also covered for the aircraft lessee's operation of the aircraft.

In each scenario, the "additional insured" should receive a certificate of insurance that specifically provides for its coverage under the policy. Unfortunately, it isn't unusual for an underwriter who isn't completely familiar with the parties' leasing arrangement to issue a certificate that does not provide the expected coverage. Although the actual policy language may provide for coverage of the aircraft lessee (e.g. coverage for permissive users of the aircraft, etc.), oftentimes the parties don't receive the actual policy until well after the insurance is issued. So, it is critical that the additional insured review the certificate before it operates the aircraft to make sure the certificate states the coverage that party is expecting to receive.

For example, I have seen situations where the insurer issues a certificate to the aircraft lessee, who is an additional insured, providing coverage to the aircraft lessee for operations by the named insured. Depending upon how the policy defines "named insured," the certificate may or may not provide coverage. The same holds true in the situation where the aircraft lessor is the "additional insured." The certificate should state that the policy is providing coverage for operations of the "additional insured" to remove any doubt.

Parties engaging in aircraft leasing, whether lessor or lessee, should provide their insurance underwriter with a copy of the lease agreement to make sure the underwriter (1) understands the relationship, (2) does not object to any of the obligations in the lease for which insurance may be applicable, and (3) issues insurance certificate(s) that are accurate and provide the coverage expected by the parties. Sometimes it may also require a conversation with the underwriter to explain the situation and the language required in the certificate. Most aviation insurers are understanding and accommodating for their aircraft lessee customers.

The moral of the story for aircraft lessors/lessees is, in the absence of the final policy language, to read the insurance certificate to confirm that it provides the coverage required by the lease. You don't want to end up in a situation where you thought you had insurance, now you need it, but you don't actually have coverage. That's a bad, but completely preventable, day.

And, as always, if you are unsure of your aircraft insurance coverage, give me a call and I would be happy to work with you to make sure your insurer is providing the coverage you need and expect.

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. ❑

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Handling In-Flight Emergencies Flying IFR & What's New In Anti-Ice Protection

by Michael J. "Mick" Kaufman


Michael Kaufman

In this issue of *Midwest Flyer Magazine,* I will be discussing handling emergencies while flying under Instrument Flight Rules (IFR), and flying in icing conditions with anti-ice protection.

I think many of us can recall an emergency while flying and how we handled it after thinking about it for a while. What would we have done differently next time with a similar situation?

I often go back to some advice given to me by an FAA inspector as part of a check-ride. I was scheduled to take a check-ride for a rating, but I do not remember whether it was for my Commercial, Certified Flight Instructor (CFI) or a CFI add-on, but I drew the name of the inspector who had the reputation of being the meanest/orneriest inspector at what was then known as the Milwaukee GADO (General Aviation District Office).

Upon completion of the check-ride, which I thought went quite well, he started criticizing me on something I did. I thought he was wrong, so I pulled out the FARs and airplane flight manual to prove my point. He said, "Son, if you believe that, you will not live long as a pilot," and went on to say, "These documents are written for pilots with no common sense, by bureaucrats with no common sense." Further conversation went on about using common sense and learning everything you can about the airplane you are flying.

In our Bonanza/Baron Pilot Training (BPT, Inc.) program, one of our instructors, Hank Canterbury, developed a course on handling emergencies, which has gotten great reviews.

Hank recalls an incident where he had a double-engine failure in a P-Baron at 20K feet in Instrument Meteorological Conditions (IMC) and did a no-engine landing on an airport with no damage to the airplane. In my column in the December 2015/January 2016 issue of *Midwest Flyer Magazine,* I mentioned a movie based on the Air France Flight 447 crash of an Airbus killing all onboard, because the crew did not know their aircraft well, and could not figure out the problem. I would recommend seeing the movie **"Pilot Error."**

Another movie in which pilots used good common sense in an inflight emergency is entitled **"Falling From The Sky, Flight 174."** An Air Canada Boeing 767 nicknamed the "Gimli Glider" was flying from Montreal to Edmonton on July 23, 1983, when it ran out of fuel at an altitude of 41,000 feet. The crew was able to glide the aircraft safely to a former Royal Canadian Air Force base in Gimli, Manitoba.

The subsequent investigation revealed that a combination of company failures, human errors and confusion over unit measures, had led to the aircraft being refueled with insufficient fuel for the planned flight. Still the crew used their skill, knowledge of the area, and "common sense" to make a successful emergency landing. (Note: Contrary to the name of the movie, it was Air Canada Flight 143, not 174.)

Of course, the more recent movie **"Sully"** portrays exceptional judgment and piloting skill by Capt. Chesley "Sully" Sullenberger and First Officer Jeff Skiles of U.S. Airways Flight 1549, who safely landed an Airbus A320 in the Hudson River on January 15, 2009, following a bird strike.

I remember hearing one flight instructor giving a lecture to his student saying, *"Whatever you do, never use the E word."* I have used that word – EMERGENCY – seven times to my recollection and have never spoken to an inspector or had my judgment questioned. In the movie "Sully," that was not the case, but in the end, it showed that Sully's good judgment paid off.

I would like to reference two cases from my own experiences and what I did, which may help you in similar situations.

In one incident, I was on an IFR training mission in Palo Alto, Calif. in the early 1990s and was flying with a client in his Cessna 185. The pilot had a passion for that aircraft and had installed a two-tube Electronic Flight Instrument System (EFIS) that was so state-of-the-art that it cost $40K per tube in those days. (An Electronic Flight Instrument System is a

flight deck instrument display system in which the display technology used is electronic, rather than electromechanical. Early EFIS systems portray information using cathode ray tube (CRT) technology.)

We had been flying together in this airplane for about a week, and this was the day for that 250 nautical-mile cross country. Having to choose a destination, I picked Lake Tahoe, as I had never been there before. The weather at the departure point was IFR, but the destination was good VFR, so we filed the IFR flight plan and launched into IMC.

About a minute after contacting San Jose Approach, those two-tube EFIS displays began to flash, and we were getting smoke in the cockpit. I delegated my client to fly, and I would handle the emergency. I called approach and told them we had smoke in the cockpit and declared an emergency with our intention of getting on the ground as soon as possible. I wrote in my previous column that air traffic control (ATC) saved my bacon several times, and this was one of those times. Always remember, the number one job is to fly the airplane, and my client was doing just that, but I still needed to watch him carefully.

ATC provided all of the necessary information to fly an ILS approach into San Jose, which I will share in detail later in this article. We flew the approach by hand, seeing an occasional flash of the EFIS, followed by a puff and smell of smoke. Upon breakout on the approach, we landed and pulled off the runway and stopped, as several fire trucks pulled up alongside us. A puff of smoke shot up from under the cowling, but there were no flames, so a fire extinguisher was not needed. After signing a form from the fire department, the fixed base operator sent a service vehicle to tow us to their ramp.

So, what happened to have caused this emergency? When the two-tube EFIS was installed, the aircraft needed a larger alternator, so one was installed, however, the alternator bracket was not strong enough to support the larger alternator and bent causing the positive alternator terminal to short out on the engine mount, creating a spark of electricity and the smoke.

The second in-flight emergency I experienced occurred in my own Bonanza on a return flight from Florida. I fly like I teach, and I instruct my students that we, as pilots, must always set "personal minimums" for the weather conditions we fly in.

One of my personal minimums is having "circling minimums" for the departure airport. This has also been adopted for the Bonanza/Baron Pilot Training program, so in the morning of this incident, I was delayed waiting for improving weather. I spent considerable time briefing the weather for the non-stop flight from Ocala, Florida to my

home airport in Lone Rock, Wisconsin. Briefed weather showed me in IMC for the first third of the trip and on top of the overcast until Rockford, Illinois, then clear skies for the remaining 100 miles of the flight. Winds showed a headwind making this flight just short of seven (7) hours, but with nine (9) hours of fuel and my add-on, long-range tanks, it was very doable.

The first hour and a half of this long flight went very routinely, and the weather was as forecasted -- solid IMC. "George," the autopilot, was doing a great job as I sat there, fat, dumb and happy! Suddenly, I noticed my altitude was off about 150 feet, and I looked and saw that the altitude hold had disconnected from the autopilot. So, I made the correction and turned it back on. Another 5 to 10 minutes went by and the altitude hold turned off again, so I tried to reset it, but it dropped off-line again immediately, and the heading mode on the autopilot quit as well. For me, this was no big deal, as I flew many long legs hand flying in IMC, but I was not looking forward to five-plus hours of hand flying.

The next issue to get my attention was the squelch on the com radio, which started crackling and making noise, and it was then that I looked at my ammeter and saw a discharge, and I realized I was in big trouble. When I tried to contact ATC to declare an emergency, I did not get a response. I am alone in the airplane, and my backup handheld radio is buried somewhere in the backseat. Would I chance looking for it and risk an unusual attitude? "NO." Having more than an average electronics background, I decided to use the transponder as it is high power, but uses minimal electricity. It is pulse technology, meaning it does not require a lot of electrical power. The emergency transponder squawk code 7700 worked, and I now have ATC's attention as they are calling me. They did not hear me previously because my low transmitter power did not break their squelch. I am now able to make them aware of my problem, and we decided to attempt an approach to the nearest airport. Here again, I compliment air traffic controllers for what they did, and for the role they play in flight safety.

Keep in mind that there was no iPad/Foreflight or backup GPS in those days. There was a Garmin 100 panel-mounted GPS that had a backup battery for 45 minutes of reserve power at best. The database had VORs, NDBs and airports – that was all. In those days, we all flew with paper charts, flying the airplane by hand and searching for the approach chart in a book that was accessible, but not easy to find the necessary information. ATC again was helpful, and I will summarize this later.

Immediately upon discovering my alternator failure, I turned off every current draw instrument, except for one King KX175 nav/com, the transponder and the Garmin 100 GPS.

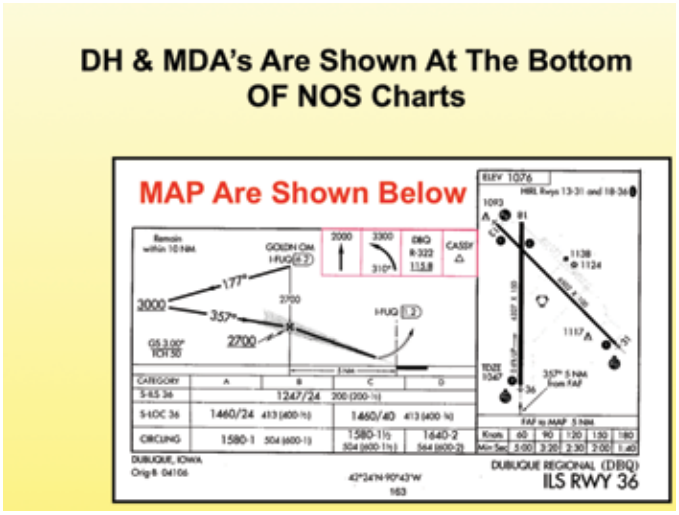

FIG 1

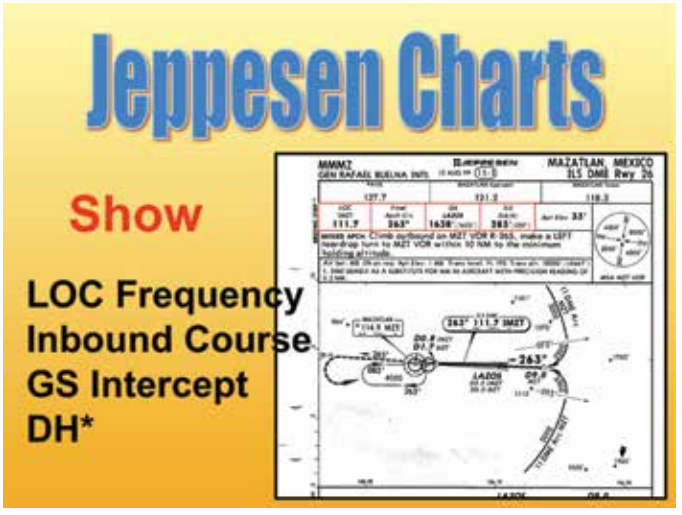

FIG 2

I am now being vectored for the ILS approach to Columbus, Georgia and acknowledging ATC by pushing ident on the transponder. Should I try the com transmitter, as it might deplete that last tenth of a volt necessary to keep the nav/com from shutting down? Should I attempt to lower the landing gear electrically, as the same results could happen. If I decided to crank the gear down by hand and the approach went missed, I could not crank the gear up. If all else failed, I knew the weather north of Rockford was VFR, but with the gear down, I would not have the fuel to make it due to the slower airspeed. I did not know the weather at my destination airport and feared asking ATC would kill my nav/com while on the ILS. My hope was that I would break out on the ILS with enough altitude and time to get the gear down, or it may be an intentional gear-up landing. As God up above watched over me, I broke out at an altitude that allowed me to circle for a landing, crank the gear down and land without any further incident.

In these circumstances, common sense and airplane knowledge/advice given to me by that FAA inspector years ago, paid off. I took full advantage of all available resources, including the limited data available on that Garmin 100 and information given to me by ATC, to make the approach, which was common to both of these IFR emergencies.

I would like to summarize this as the learning part of the article.

In both of these emergencies, the quick response from ATC was the key to their success. So, a pilot needs the following things to do an approach without having a chart readily available to him:

1. A heading to fly that will intercept the approach course (Vectors).
2. The frequency of the approach guidance if not a GPS approach.
3. The inbound course of the approach.
4. The altitude necessary to intercept and follow vertical guidance.
5. Altimeter setting.
6. The lowest point possible one can go on the approach, or the missed approach point (MAP).

Also, should it appear that the approach could go missed, it would be necessary to have missed approach instructions available.

Think the next time you are doing an approach… Could I fly the approach without an approach chart given the information above? Most of you could say, yes! Give it a try sometime with your instructor while doing an Instrument Proficiency Check (IPC).

Back in the days of these emergencies, approach charts were laid out differently. Some years ago, Jeppesen began including a briefing strip on the top of their charts and the government charts followed **(FIG1 & FIG2)**. This allowed the pilot to get much of the information necessary to do the approach with a quick glance.

Many of you may look at these emergencies and say it could not happen to me, as we now have so many backups to help us overcome the above-mentioned emergencies, but we have created other weaknesses in doing so.

When I landed in Columbus, Georgia and the aircraft was towed to the maintenance shop, we checked the voltage of the battery with a voltmeter and it had 8.8 volts. That old King KX175 still operated with that low of voltage, but I can say that any of the new avionics would probably drop off line at anything under 11 volts.

When I got my instrument rating, I had to demonstrate partial-panel approaches with the needle ball and airspeed and some course guidance. I did that once with a vacuum failure in IMC. I marvel at Garmin's new G5 instruments, which are available at a fantastic low price. I am anxious to purchase mine, although with every new item, comes another possible failure.

Ice Protection

I have had many bad experiences with icing, which I have written about previously. This time, I wish to address flying in ice with the proper protection.

In the past, most GA aircraft that were owner-flown either had no ice protection or the minimum being pitot heat. If you went a step above that, it was propeller alcohol or heat, along with the same for the windshield. The next step up got you boots on the wings and tail surfaces. However, when I fly with boots, I always have the apprehension of inflating the boots at the wrong time. If you don't wait long enough, the ice may not be thick and hard enough to crack and comes off creating an air pocket. If you wait too long, you wonder if they will inflate.

An idea that has caught on in recent years is the "weeping wing," and it has been an option on Mooney aircraft and standard on most Cirrus aircraft from the factory. Aftermarket companies made kits available for Beechcraft and Cessna aircraft, which have proved to be a great add-on for those pilots who need more flyable days in the wintertime.

I had the opportunity to fly with a gentleman in his new Cessna 206 with the newly installed TKS ice protection system to see how it works. I have had previous experiences with this ice protection package on the Mooney and Cirrus with great results, and I was anxious to see how the system worked on the C206.

All flight surfaces on the C206 had protection, including the struts, which made it easy to visually monitor the ice buildup. We turned on the TKS pump as part of our run-up to allow the fluid to start to flow prior to take off from the Viroqua, Wisconsin airport. For those who have had icing experiences, you know that there are those hidden pockets of heavy ice out there waiting for that unsuspecting aircraft to fly through them. For the first 20 minutes of flight in the clouds, we were seeing only a trace of ice forming on unprotected surfaces. With such a small amount, we could have flown in it for hours without any noticeable effect on flight performance.

We had the TKS pumps on low, and all went well until we hit a pocket of heavy ice. All of the protected surfaces still remained clear of ice except the windshield, so we decided to go to high pump. The windshield ice cleared in about 2 minutes and shortly thereafter, we flew out of the pocket of heavy ice and went back to the low pump position. After doing several approaches at Dubuque, Iowa, we flew to Tri-County Regional Airport (KLNR) in Lone Rock, Wisconsin to enjoy lunch at the fantastic "Piccadilly Lilly Airport Diner." Upon landing, we discovered about 1¼ inches of ice on unprotected surfaces. Should you be a pilot who flies for business like the owner of this C206 does, I feel that it is worth the piece of mind to install the TKS icing package on your airplane.

Anytime you are flying in visible moisture and the temperature is below freezing, you will get ice. Remember, icing is like a box of chocolates… you never know what you are going to get.

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.

The Quiet, Comfortable Ones

by Harold Green

Harold Green

In every group of pilots, there is a minority who appear to be quite comfortable with their own abilities and judgment. When the challenges of the day appear to most pilots to be difficult and produce considerable tension, these folks are an island of calm in the midst of the jittery turmoil. In short, these are people who are confident in their flying and their judgments about flying. There is a difference between those pilots and the talkative ones who try to impress everyone, mostly themselves, with their own abilities. The following information is based on personal observations and not the results of statistical analysis.

It has been my experience that the comfortable pilots are usually the ones who know when to go and when not to go. When they don't go, they don't waste time second-guessing themselves. They may check to see if the information on which they based their decision holds true, but if it turns out it would have been possible to fly, they just chalk it up as education and don't whine about the lost opportunity. When they go, their trip is completed with a minimum of stress. That doesn't mean that tough situations do not occur, but generally they anticipate the possibility of such situations, and know what actions to take and when to take them to minimize the danger.

This doesn't mean that these pilots will fly under conditions that no one else will. It simply means that they have determined their personal limits and are content operating within them. As a matter of fact, their limits may well be lower than many others.

So, it is reasonable to ask how these folks got that way. There seems to be several factors involved. Of course, the first thought is that "personality" is responsible. Well, personality is probably one factor, but it doesn't seem likely that personality is the primary factor. Of course, "judgment" is, but judgment is still only part of the picture.

A significant, but not total, factor of course is "experience." Most importantly, it is the type of experience. After all, a thousand hours of experience can be that, or it can be 10 hours repeated a hundred times.

Those who have flown in a variety of situations develop a sense of confidence. Typically, they operate from a mixture of high traffic at controlled and non-controlled airports. They occasionally fly cross-country flights lasting several hours. These flights often encounter different weather patterns, thus broadening their experience base.

When talking with these pilots, they have more than average knowledge about things aviation. They often take courses and attend seminars to increase their knowledge. They may even be able to find information in the Pilot Operating Handbook (POH) without doing a random search. They have also read widely on weather, and are familiar not only with the physics of weather, but how to obtain and interpret available information.

The ability to visualize the flight also helps. Being able to develop a clear picture in one's mind about the flight implies full knowledge of operations. Of course, this does not extend to knowing what the ground will look like on any portion of the flight, but it does include a general picture of terrain (i.e. mountains, lakes, major rivers, etc.). And about where/when these will be encountered.

Personal minimums are set and followed, according to capability and knowledge at a level with which they feel a great deal of comfort. That does not mean those minimums are not expanded in planned and directed fashion. The best way to do this is to gradually extend minimums under controlled conditions.

For example, the new instrument pilot can pick days which provide lower approach minimums and which offer multiple options in case the weather deteriorates. Crosswind landings are another area which get a lot of attention. The best way to extend crosswind capability is to find an instructor and go do it. Of course, eventually one has to do them on one's own.

So, pick a day when the crosswinds are just a little stronger than what you did before and try it. It is best to do this at an airport with multiple runways, and the crosswind component of at least one runway is well within your capability. That way, if you misjudge your landing, you can perform the classic saving maneuver known as a "go-round" and land on the less challenging runway.

If you operate out of an airport with long runways, occasionally it can be fun and educational to find an airport with runways noticeably shorter than the ones you are used to.

Confident pilots, in general, are familiar with the emergency procedures for their airplane. This extends well beyond the standard emergency checklist. Knowing the steps to follow in the event of engine problems (not just total engine failure, but partial power, or a stuck throttle), or control problems, such as a frozen elevator or aileron, etc., is important. It is even fun to see if you can land your plane with trim tab and throttle only. You might be surprised to find that it is fun.

Also consider what would happen if your ailerons or rudder became inoperative. What alternates would you have? Of course, such tactics need to be tailored to your airplane as well. The things you can do in this regard are dependent on airplane design and capability as well. Landing a Cessna 140 using only the trim tab for vertical control is vastly different from landing a Cirrus SR-22 using the same method. In principal, they are the same, but speed, control coupling, etc., are vastly different.

Another area that seems to be of concern to many pilots, particularly those who fly from pilot-controlled airports, is that of "radio communications." Yes, everyone for miles around can hear you. So, what?

Everyone receives some training in communication procedures, but nothing removes this concern like practice. So, go to a towered airport occasionally and practice touch and goes. It's amazing how that will reduce your fear. If you like, when you contact the tower, tell them you are a student pilot. The professional controller can be helpful and very considerate, and not overload you. Of course, it pays not to wear out your welcome on this one. As you become proficient, stop with the student pilot announcement.

Finally, there is the area of study and gaining knowledge. The least painful is reading. There are numerous publications available from both government and private sources. Some of them are free, particularly for online versions. An example is "FAA Flying Safety." The more you learn about flying and how other people have reacted to situations and made mistakes, the more comfortable you will be.

In short, the more you know, and the more experience you have, the better you will be able to visualize your options and be comfortable with your flying. The only hazard here is not to become complacent. The unexpected can still happen. However, with proper preparation, knowledge and experience, you will be able to adjust and react properly and safely when the unexpected happens.

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

Ask Pete!

by Pete Schoeninger


Pete Schoeninger

Q. Have you ever done something really dumb in an airplane?

A. While I was fixed base operator and airport manager at Waukesha, Wisconsin, I had to fly to Iowa one early summer morning. The night before departure I refueled the airplane (Piper Archer), did a run-up to check mags and carb heat, laid out maps in the cabin, etc., so it would be ready to go the next morning. As dawn broke the next morning, I got into that Archer and taxied to Runway 28 and down the runway I went. Just as I was lifting off, the engine quit. I coasted some distance, then turned off on a taxiway. I looked at the fuel gauges, and was astonished to see they read empty. I got out of the airplane and looked inside each tank. Bone dry. Some crook had swiped all my gas overnight, and I was in such a rush to leave that morning that I never checked anything. I refueled the airplane, and flew uneventfully to Iowa. Had the thief left me 1-2 gallons of gas, I would have ended up in a subdivision and for sure on the front page of our local newspaper. How lucky I was that no one saw me. It was a really dumb move on my part. So, lesson learned… ALWAYS do a thorough preflight inspection immediately before each flight.

Q. There is one aluminum skin on my 1968 Cessna 172 that is sort of a dirty yellow color on the interior side. (The rest of the fuselage is still fairly clean aluminum.) The skin has been coated with zinc chromate according to my mechanic. He said that fuselages coated with zinc chromate are usually found on airplanes with a float kit, which I understand is needed to install floats. But he says that my airplane does not have a float kit. How can I tell if a Cessna has a factory float kit installed?

A. I have seen this (one zinc chromate skin in a fuselage) a few times and my best answer came from a guy at Cessna many years ago. He said on rare occasions Cessna production line workers would run out of a standard skin, and to keep the assembly line going, they would grab and install a skin that was destined to go on a float plane, as the skins are identical, except for the zinc chromate. Clues to tell if your C172 has a float kit are inside the fuselage. Also, look at the original equipment list. If all the skins have been treated with zinc chromate, the equipment list will also note that and you'll know that you have a float kit installed. Note that a float kit adds a few pounds to the weight of the aircraft. There are other things to look for, but these are the easiest two.

Q. The weight and balance information (equipment list) on my Beech F33A seems pretty screwed up from numerous additions and subtractions of radio equipment, propeller changes, a larger engine installed, new paint, etc. My mechanic suggested the airplane be weighed to determine an accurate empty weight and center of gravity and wants $400 to do it. Isn't that outrageous? I have some big scales. Can I do it myself? I am not a licensed airplane mechanic, but I can read a scale and do simple math!

A. No one can prevent you from weighing your own airplane, but it will NOT count as a legal weight and balance computation unless signed off by an Airframe and Powerplant mechanic. Your mechanic will fill or empty fuel tanks, then place your airplane on three (3) certified scales inside a hangar, level the airplane per manufacturer maintenance instructions, then read scales and do calculations. $400 seems reasonable to me. For fun, I will bet you a lunch that your new actual weight is at least 15 pounds more than your current questionable computed weight.

Q. The recording tachometer on my 1979 Piper Warrior reads 3106 hours. There is an electric Hobbs meter, which indicates 3760 hours. I am the third owner of the airplane; the first two owners were flight schools. According to the airplane's paperwork, it was delivered new with both instruments installed, and I could not find anything indicating that either instrument has been replaced. Why do they indicate substantially different hours?

A. Your recording tachometer is really a revolution counter set to indicate correct time at a specific (usually cruising) RPM. So, if you fly the airplane exactly one hour at 2400 RPM, the recording tachometer will indicate one hour. If you run the engine faster, or slower, the recording tachometer will not record correct time. During taxi you may only be running the engine at 900 RPMs or so, thus the recording tachometer indicates much less than actual time when taxiing. The Hobbs meter only detects electrical current flow, so it is either on or off. For a typical flight, the Hobbs meter will show a little more time than the recording tachometer because during taxi and descent, and other times you are using low power, the Hobbs meter is running at normal speed, but the tachometer is not. The typical difference is about 20%, and your numbers are close to that.

Q. What production airplane do you think holds up better than most?

A. In my experience, the winner is the humble Cessna 152. There are many 152s flying daily with over 15,000 hours of flight time – usually flown by students – and still going strong!

Q. I've seen some late 1940 classics like Piper J-3 Cubs and Taylorcrafts on straight floats, but I have never seen one on amphibious floats. Why not?

A. There are a few (very few) J-3s on amphibious floats, but the weight penalty of amphibs pretty much means there is no way you can legally carry a passenger. Small floats add about a couple hundred pounds to a Cub's empty weight, and amphibs add maybe 80 pounds more. In some makes and models, a small gross weight increase is allowed for floats, but in spite of that, two people of average or less weight and half fuel and you are nudging gross weight limit. Add in 80 pounds more for amphibs and you are almost always going to be at gross weight with only one person in the plane. And watch for amphib floats on most four-seat airplanes, and you don't see four people on board for the same reason.

Q. The Piper Aztec, and the Piper Super Cub, are significantly slower than the Cessna 310 and the Cessna 170 with similar power. Why?

A. All four are good airplanes! The Pipers use the USA 35B airfoil, and the Cessnas use the NACA 2412 airfoil. The Piper airfoil is a pretty much flat bottom, fat on top, high lift airfoil. It creates lots of lift (and drag.) The NACA 2412 Cessna airfoil is more streamlined. So, the Piper models you mentioned can fly slower, thus operate out of shorter fields. The Cessna 310 and 170 fly faster than Aztecs and Super Cubs, but land a little faster and need a longer runway. I've been in all four aircraft and they are all good airplanes, but remember, they are all great at some – but different – missions.

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

DISCLAIMER: The information contained in this column is the expressed opinion of the author only, and readers are advised to seek the advice of others, and refer to the Federal Aviation Regulations, Aeronautical Information Manual, Pilot's Operating Handbook for the airplane(s) they fly, and other instructional materials before attempting any procedures discussed herein. ❑

Shining A Light On Airport Access & Transparency

by Mark Baker
AOPA President & CEO


Mark Baker

AOPA has been hard at work collecting feedback from members regarding their experiences with fees and pricing at FBOs across the country.

Working to ensure the affordability of flying is one of AOPA's core missions, and we believe that reasonable airport access is crucial to protecting general aviation. While most FBOs are doing a great job, a handful are imposing unreasonable fees and engaging in pricing practices that restrict access. When airports accept federal funding through the Airport Improvement Program, they also agree to comply with certain grant obligations. Some of those obligations include requiring that lease-holding FBOs charge reasonable and nondiscriminatory pricing for each aeronautical service rendered. This requirement is necessary to protect that airport for public use.

At the request of airport sponsors seeking to make their facilities more welcoming to general aviation pilots, AOPA in recent months developed guidelines that will ensure pricing transparency, competitiveness, and reasonable fees at FBOs; filed three FAR Part 13 complaints to the FAA to address the most egregious airports we've found; and shed more light on the issue through our reporting.

We've seen significant progress at a number of airports already. But throughout this effort, it also became clear that there's an enormous lack of transparency at certain FBOs.

In the digital age of technology and apps, we can access the cost of goods and services with a few keystrokes on our phone. So why doesn't this exist for general aviation?

AOPA took this lack of transparency as an opportunity to raise the bar and expand the information provided to pilots through our updated online Airport Directory (www.aopa.org/airports), which will be released in the coming months.

The FAA has also recently weighed in on the debate when it issued official guidance further supporting our initiative for more transparent and reasonable fees. The agency reminded airport sponsors that receive federal funds that they "have a responsibility to ensure that FBO services and pricing practices are reasonable and applied in a non-unjustly discriminatory manner."

We will use the guidance and recommendations to ensure airport sponsors understand their responsibilities and pilots know their rights, and this begins with transparency.

The FAA's guidance specifically states, "to confirm whether airport fees are reasonable and not unjust[ly] discriminatory, the fees, rates, and charges should be disclosed and made publicly available."

We agree. ❑

AOPA **Great Lakes Regional Report**

The Important Role AOPA Airport Support Network Volunteers Play

by Kyle Lewis

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

Kyle Lewis

In my last column, I touched on the importance of AOPA's Airport Support Network (ASN) and the volunteers that are the keystone of the program. Our volunteers come from many walks of life -- professional pilots, doctors, lawyers, factory workers, farmers, retirees and college students. The common goal for all is keeping America's airports open, safe, and viable. We have volunteers looking out for airports like Chicago O'Hare; Van Nuys, California; and small grass strips in the UP of Michigan.

2018 is bringing new life into the program. AOPA has reestablished the ASN Board of Advisors to help put the program back on strong footing. These seven (7) advisors are comprised of AOPA ASN volunteers from our seven (7) regions. They are tasked with looking at the program and offering advice on how to make the ASN program vibrant. AOPA is also providing resources to highlight the program in various ways. As a regional manager for AOPA, I oversee the program in the Great Lakes Region. I have been communicating directly with our volunteers via monthly newsletters and reaching out for assistance in our efforts regarding FBO pricing and our opposition to ATC Privatization. In return, our volunteers have provided substantial information on both fronts.

Our volunteers share information on their local airports that is proof GA is alive and well in the Midwest. Communities are investing in their airports, runways are being rehabbed, fuel farms are being installed that offer 24-hour self-serve, new and updated terminal buildings are being constructed, and helipads are being constructed to meet the growing demand for air ambulance service. These are just a few examples of progress that has been accomplished.

AOPA's ASN volunteers are instrumental in educating elected officials and the public on the value of their local airport. Some of these projects could not have happened without the work of our ASN volunteers. Along with the good news from around the country, AOPA can maintain a quick response to detrimental actions from local governments, or unfriendly airport administration toward GA. Our ASN volunteers provide local insight to these usually highly political and often emotional situations. AOPA takes these complaints in the sincerest fashion, and works through various sources to achieve due diligence when confronting the various parties at play. Our volunteers play a key role in gathering information that may otherwise not be attainable without their eyes and ears on the ground.

If this sounds like a program that you may wish to participate in, the requirements are that you must be an AOPA member, communicate efficiently via email, have a basic understanding of airport operations, attend or participate in local airport board/authority/oversight meetings, and promote the airport and AOPA to the local aviation community. Visit the AOPA webpage and look for the ASN link under our "Advocacy" tab on the main webpage, or email me directly for additional information at kyle.lewis@aopa.org.

Here's what has been happening lately on the legislative side of things:

- Michigan House Bill 4350/4351: At press time, the bills were still waiting a full vote in the Senate. The Michigan Business Aviation Association (MBAA) is in discussion with

Governor Snyder's office to eliminate any chance of a veto after passage in the Senate. This legislation would provide sales tax exemptions for parts and labor on aircraft registered in the state of Michigan.

- Michigan Senate Bills 626/627: This is the seaplane protection legislation introduced in October by Sen. Jim Marleau (MI 12th District). At press time, the legislation has been introduced and assigned to the Senate Transportation Committee and I provided testimony in early November supporting the bill. As Michigan enjoys an open water policy, local jurisdictions, over past years, have been restricting or eliminating seaplane operations. This legislation would allow the Michigan Aeronautics Commission the ability to maintain the open water policy by providing a mechanism for local ordinances to go through a regulatory process before shutting off seaplane use. Uniformity is key when regulating seaplane operations, and this would be a viable avenue for that. At press time, the legislation is expected to be passed out of committee and sent to the full Senate for a vote in 2018. The Seaplane Pilots Association (SPA) is supportive of the legislation, as is AOPA.
- I have now had two planning meetings with officials from the Ohio Department of Transportation (ODOT), Office of Aviation, regarding a "state aviation day" which is being planned for September of 2018 at the Ohio State Capital in Columbus. ODOT officials and aviation groups within Ohio are enthusiastic about such an event. Details are being drawn up as I write.

Not legislative, but high on our radar, is planning for "Powder River Council 2." Powder River Council 1 was held in November 2016 and focused on GA operations and interactions within the massive Powder River Special Use Airspace (SUA) that crosses four states (Wyoming, Montana, North Dakota and South Dakota). AOPA will again be hosting stakeholders and users within the SUA at Ellsworth AFB. The goal of the meeting will be to identify ways for stronger and more reliable communications across the SUA that will promote safety and lessen the impact of military operations to GA traffic. If you are an affected pilot or airport, please let me know the circumstances and what you think would help. A meeting date has not been scheduled, but early April is looking promising.

As always, please fly safe and do not hesitate to contact me with any questions or concerns. I am here to serve you: **kyle.lewis@aopa.org** ❑

Fly, Buy & Ship...

Sharon Thiry and Huub van Iwaarden with their 1943 Aeronca L-3 Defender in Glenndale, Indiana.
Photographer Unknown

by Sharon Thiry

A story about a couple from the Netherlands, who learned to fly in the United States, bought an airplane, had it shipped home to continue their love of flight, and what transpired in the months that followed.

EDITOR'S NOTE: Author Sharon Thiry of Cadzand, Holland, spent this past summer in the United States with her partner, Huub van Iwaarden, to learn to fly and to purchase an aircraft. Thanks to their American flight instructors, Ed Escallon and Mike Wild of Wild Aerobatics (www.wild-aerobatics.com) at Kokomo Municipal Airport, Kokomo, Indiana (KOKK), they located a gorgeous 1943 Aeronca L-3 Defender at nearby Glenndale Airport (8I3). Thiry and Escallon flew the L-3 from Indiana to EAA AirVenture Oshkosh in Oshkosh, Wisconsin for the experience, and to display the aircraft, where they were reunited with van Iwaarden who drove to the event. Following Oshkosh, Thiry and van Iwaarden had the L-3 shipped to Holland. The following story by Sharon Thiry tells of their experience and their excitement with the aircraft.

After spending 4 months in Kokomo, Indiana to work on our Private Pilot Certificates, it was time for me and my partner, Huub van Iwaarden, to return to the Netherlands and await the arrival of our 1943 Aeronca L-3 Defender that we purchased in Indiana.

After 7 days at sea, our aircraft arrived at the Port of Antwerp in Flanders, Belgium on September 21, 2017 in perfect shape, thanks to the tender loving care it received from the wonderful people at Glenndale Airport (8I3) in preparing her for shipment. It was now time to put her back together, wings and all.

While she waited to be reassembled by Raymond's Aircraft Restoration at Antwerp Skypark (BVBA), our L-3 enjoyed the company of some beautiful stable mates, including a Stampe, Stearman and a Piper J-3 Cub. She could not have wished for better company! After our L-3 was reassembled, we had to wait for some good weather before we could fly her to her new home at Ursel Airbase.

Ursel Airbase was established in the 1930s, and originally belonged to the Belgian Air Force, but in May 1940, during

The 1943 Aeronca L-3 Defender is being loaded into the shipping container in Glenndale, Indiana. *Sharon Thiry Photo*

The 1943 Aeronca L-3 Defender taxis to depart Antwerp Skypark (BVBA) in Flanders, Belgium, where it was reassembled after being shipped from the United States, to her new home at Ursel Airbase in East Flanders, Belgium. *Sharon Thiry Photo*

World War II, the Luftwaffe took control of the airbase. Luckily in September 1944, the Allied Forces liberated the base from the Nazis.

Four squadrons of Hawker Typhoon fighter bombers operated from Ursel to break the resistance by the German troops, and the entrance to the Port of Antwerp was reopened. Following the war, the airfield was converted to civilian use.

As Huub and I flew the L-3 from Antwerp to Ursel, we thought about the history of the airbase and the harbor, and about the freedom we now enjoy.

The L-3 has already drawn quite a bit of attention since it is one of few vintage American warbirds in the area. We have already established the Ancient Airlines Europe Club, which has attracted a large number of aviation enthusiasts already, so we can Keep 'Em Flying, as you say in the States!

EDITOR'S NOTE: Huub van Iwaarden, 28, unexpectedly passed away on December 23, 2017 due to cardiac arrest while exercising. Sharon Thiry said of her partner that he was proud of the L-3 and their American adventures, and was looking forward to having this article published in Midwest Flyer Magazine. Because of his love for the L-3, van Iwaarden's family felt it was only befitting for him to wear his American flight suit at his funeral, and have the L-3 do a fly-by at the cemetery. Our condolences to Sharon Thiry and the van Iwaarden family. Thiry plans to continue working at Enelogic, a company founded by van Iwaarden, that provides an online platform for monitoring electrical and gas energy usage by households. She will also keep the L-3 and return to the U.S. later this year to take her checkride and attend EAA AirVenture Oshkosh 2018, July 23-29. ❑

Rare British Aircraft Among Classic Jets Coming To EAA AirVenture Oshkosh 2018

A rare British "Meteor," currently the oldest flying original jet aircraft in existence, will be among the vintage military jets coming to EAA AirVenture Oshkosh 2018.

OSHKOSH, WIS. – Some of the oldest jet fighters in existence will be flying at the 66th annual fly-in convention of the Experimental Aircraft Association, EAA AirVenture Oshkosh 2018, July 23-29, at Wittman Regional Airport in Oshkosh, Wisconsin.

Among the aircraft expected to participate is a rare British "Meteor," currently the oldest flying original jet aircraft in existence, which will arrive from the United Kingdom. British "Venom" and "Vampire" jets will also be part of the gathering, as will American jet fighters, such as the T-33 "Shooting Star" and F-86 "Sabre," as well as a Soviet-era "MiG-17."

"Classic jets have been part of the AirVenture warbird lineup for a number of years, but to include rare British aircraft, such as the Meteor, Venom and Vampire, makes the 2018 gathering even more special," said Rick Larsen, EAA's vice president of communities and member programs, who coordinates AirVenture features and attractions.

"Oshkosh is known as the place where everything that flies is welcomed and is appreciated by attendees, so to bring these rare jets to the AirVenture flightline is among the highlights of our odyssey to save, restore, and fly these magnificent airplanes," said Marty Tibbitts, President of the World Heritage Air Museum of Detroit, Michigan, which is bringing the British jets to Oshkosh. The museum's mission is to rescue military jet aircraft from the 1950s, '60s, and '70s.

Other early jet aircraft will be coming from members of the Classic Jet Aircraft Association, as well as private collectors from throughout North America. These enthusiasts are encouraging all owners of vintage jet aircraft to fly to Oshkosh to make this reunion one of the largest reunions of jet fighter aircraft ever undertaken.

The F-86 and T-33 aircraft communities are also urging their members to bring their aircraft to AirVenture 2018, where they will participate in the daily air shows, displays on Boeing Plaza, and up-close presentations as part of the "Warbirds in Review" program. Complete details, including air show participation, will be released as they are finalized.

EAA AirVenture Oshkosh attracts more than 10,000 airplanes and 500,000 people from 80 nations each year to celebrate the history and future of flight (www.eaa.org/airventure). ❑

Astronaut/Test Pilot Joe Engle Featured At EAA Wright Brothers Banquet

Joe Engle
EAA Photo/Bernie Koszewa

OSHKOSH, WIS. – Joe Engle, who set records as a test pilot in the famed North American X-15 rocket plane, and later became one of the first commanders in the space shuttle program, was the featured speaker as the Experimental Aircraft Association (EAA) commemorated the birthday of powered flight at the annual Wright Brothers Memorial Banquet, December 8, 2017.

The annual gala held at the EAA Aviation Museum in Oshkosh, Wisconsin, commemorated the 114th anniversary of the Wright brothers' first successful powered flight on December 17, 1903, in Kitty Hawk, North Carolina. Over the past 15 years, the banquet has featured some of the most impressive speakers in the aviation world.

Engle was a U.S. Air Force pilot when then-Col. Chuck Yeager was leading the USAF Aerospace Research Pilot School. Yeager personally vouched to get Joe Engle into the school, where Engle pushed experimental aircraft to the edge of the envelope. He flew the North American X-15, which set the all-time speed record for a manned aircraft by flying at speeds above Mach 6. Engle qualified for NASA's Apollo program in 1966, eventually training as a backup crew member for Apollo 14, best known as the mission where Alan Shepard hit a golf ball on the moon. Engle was part of the primary crew for Apollo 17, but was moved off the mission when the scientific community requested that

EAA Photo/Bernie Koszewa

geologist Harrison Schmitt join the crew.

After the final three Apollo missions were canceled by Congress, Engle stayed with NASA and flew the initial space shuttle approach and landing test flights. He commanded the second space shuttle mission in 1981, becoming the only person to manually fly an aerospace vehicle from Mach 25 (approximately 19,000 mph) to landing. His final space flight was as commander of space shuttle "Discovery" in 1985. Engle was inducted into the National Aviation Hall of Fame in 2001.

Barring any unforeseen circumstances, Apollo 8 astronauts Frank Borman and Jim Lovell (and hopefully Bill Anders) will be the featured speakers at EAA's Wright Brothers Memorial Banquet, Friday, December 7, 2018.

Tickets will be available at **www.EAA.org/WrightBrothers** later this year. The banquet is expected to once again sell out, so watch for an announcement by EAA and in this publication as to when tickets go on sale! ❑

Vic Syracuse Named Chairman of EAA's Homebuilt Aircraft Council

OSHKOSH, WIS. – Vic Syracuse, a longtime Experimental Aircraft Association (EAA) member and aircraft builder from Locust Grove, Georgia, has been named chairman of EAA's Homebuilt Aircraft Council. He succeeds Rick Weiss, whose term as chairman ended in 2017.

EAA's Homebuilt Aircraft Council ensures the organization's continued focus on vital programs of benefit to current and future aircraft homebuilders. The leaders of the volunteer council represent homebuilders and provide direction for programs, services, and activities that add value for members who are dreaming of, building, buying, and flying homebuilt aircraft. ❑

Vic Syracuse

Minnesota Seaplane Pilots Association To Hold Annual Safety Seminar & Fly-In At Madden's Resort, Brainerd

MSPA President Steve Guetter with the 1971 Cessna 172L Skyhawk with Baumann 2250 amphibious floats he rents from Adventure Seaplanes, located at Surfside Seaplane Base, Lino Lakes, Minnesota.

Under the leadership of Steve Guetter, President of the Minnesota Seaplane Pilots Association (MSPA), the organization's annual safety seminar and fly-in will be held May 18-20, 2018 at Madden's Resort on Gull Lake, Brainerd, Minn.

Whether seaplane rated or not, the safety seminar is worth attending, as much of the information presented can be applied to both floatplane flying and flying aircraft on wheels, and Madden's Resort can accommodate both! The resort operates its own seaplane base on Gull Lake, and East Gull Lake Airport (9Y2), located adjacent to the resort. Courtesy shuttle service is provided between the airport and the resort.

Some of the key partners in organizing the seminar are the Minnesota DOT Office of Aeronautics, the Minnesota Department of Natural Resources, and industry leaders, manufacturers and flight instructors.

A record 185 people attended the banquet in 2017 to listen to AOPA President Mark Baker's presentation. The featured banquet speaker this year will be Jeff Skiles, First Officer of US Airways Flight 1549.

On January 15, 2009, Capt. Chesley "Sully" Sullenberger and Skiles landed an Airbus A320-214 safely in the Hudson River on what was to be a routine flight from New York's LaGuardia Airport to Charlotte, N.C. About 3 minutes into the flight during their initial climb-out, the aircraft struck a flock of Canada geese, causing both engines to quickly lose power. All 155 passengers and crew onboard evacuated the aircraft safely. Skiles, who is seaplane rated, will share the experience with fellow pilots, which he believes was anything but a "Miracle on the Hudson."

Hosting the seminar will be Ben Thuringer and his father, Brian, of Madden's Resort, who are both active pilots and aircraft owners.

A variety of accommodations are available at Madden's, from rooms in the lodge, to private cabins along the lakeshore. For additional information on Madden's Resort, visit www.maddens.com.

All pilots are welcomed to attend. A seaplane rating is not required!

For additional information, contact Steve Guetter at Steve@PenguinFlight.net or call 952-484-9457 (www.mnseaplanes.com/contact.php). Sponsorships and booth space are available for commercial exhibitors.

EDITOR'S NOTE: The purpose of the Minnesota Seaplane Pilots Association is to promote seaplane flying and safety programs pertaining to seaplane operations throughout the state; promote a forum for the purpose of approaching government officials, to educate them, the legislature and the public on seaplane operations; and create safe and compatible seaplane base facilities throughout the state of Minnesota (www.mnseaplanes.com). ❑

Demand For Piper Aircraft Results In Largest Employment Growth Since 2009

VERO BEACH, FLA. – Piper Aircraft Inc. achieved double-digit growth in new aircraft revenue and deliveries for 2017, as demand for trainer aircraft and M-class products continued to expand. The increase in demand for Piper aircraft, resulting in an increase in production, has driven the company headcount to over 900 employees at its headquarters in Vero Beach, Florida. During the past 18 months, Piper Aircraft has hired over 300 new employees, representing more than a 20% increase in its workforce.

"With aircraft orders in place for 2018, and several long-term contracts for trainer aircraft, the near-term forecast is stable," said President and CEO Simon Caldecott. "Additionally, our commitment to a level-loaded, build-to-order business model further enhances stability and creates a consistent workload for the team. We are driven to continuously improve our products in support of our customers and their needs, which helps create demand and results in the need for a strong and committed workforce."

Piper builds the single-engine M-Class series cabin-class aircraft including the M600, M500 and M350. The Twin Class Seneca and Seminole balance proven performance, efficiency, and simplicity in twin-engine aircraft. The Trainer Class Archer TX, Archer DX, Arrow, Seminole, and Seneca form the most complete technically-advanced line of training aircraft in the world. Unparalleled service and support is offered through a network of 38 dealers and nearly 100 service centers worldwide. ❑

Tanis – Keeping Our Engines, Avionics & Cabins Warm In The Winter!

by Dave Weiman

If there is ever a winter in the Midwest that we need an engine preheater, insulated engine cover and avionics/cabin heater, it is the winter of 2018. As I sit in my office with my heater blasting away, I think of my poor Cessna 182 Skylane sitting in its cold, unheated hangar, waiting for me to go flying! *(As soon as we complete this issue, that's exactly what I'm going to do… Go flying!)* But before I do, I will plug in my Tanis Engine Preheater, wrap the cowling with a Tanis Insulated Engine Cover, and plug in my new Tanis Avionics/Cabin Heater.

I have long owned Tanis Engine Preheaters for my aircraft, starting with our Cessna 172, and for the last 32 years, for our Cessna 182, and I wouldn't think of going flying in the wintertime without first plugging them in. In the past, the night before I went flying, I would plug in my Tanis Engine Preheater, and wrap the cowling with my Tanis Insulated Engine Cover, thinking I had the bases covered, but I didn't. While the engine preheater warms the engine, it was not intended to warm the avionics and cabin, so I ordered a Tanis Avionics/Cabin Heater.

Tanis Avionics/Cabin Heater

The Tanis AV Series Heater is a 500-watt, forced air heater that uses a Positive Temperature Coefficient (PTC), also known as a ceramic heating element, and an 80,000-hour fan motor rated from -40 to + 65 C/149F. That's over 9 years of continuous use in the most extreme temperatures! And 500 watts means you can run both your Tanis Engine Preheater and Tanis Avionics/Cabin Heater on one 15-amp, 115-volt circuit (UL, TUV & CE certified). You can also have the Tanis Avionics/Cabin Heater permanently mounted on your airframe, and many of the commercial operators do that, but I keep mine totally portable. The Tanis Avionics/Cabin Heater may also be interconnected with your Tanis Engine Preheat System.

Unfamiliar with the Tanis Avionics/Cabin Heater at first, I had a few questions before I ordered mine:

Q) Has the Tanis Avionics/Cabin Heater replaced the Tanis floor mat heater, which is also intended to warm avionics and cabins?

A) Yes. Tanis has not manufactured the floor mats since 2011.

Q) How many owners of the Tanis Avionics/Cabin Heater keep them plugged in and running 24/7 in the winter, versus 30 minutes or 60 minutes before each flight?

A) Currently, most aircraft owners are running the cabin heaters on a separate power cord and plugging them in the night before, or prior to each flight. Many aircraft owners are using a cellular switch option for turning on their Tanis Avionics/Cabin Heater (like they do for their Tanis Engine Preheater). The avionics/cabin heater uses approximately 500 watts, where the preheater is around 240 watts for a four-cylinder engine, and 460 watts for a six-cylinder engine.

Q) What percentage of aircraft owners have permanently installed their Tanis Avionics/Cabin Heaters in their aircraft, versus those owners who choose to keep them portable and free standing?

A) All of the helicopter and turboprop owners have the Tanis Avionics/Cabin Heater installed permanently, and Tanis believes that most owners of piston aircraft do not, but that is what the company is working towards.

Q) Has either the avionics/cabin heater or floor mat heater ever started a fire?

A) No.

Just think of what we have invested in avionics. Isn't it worth a couple hundred dollars to protect that investment with a Tanis Avionics/Cabin Heater? I think so, and I think you will too!

The Tanis Avionics/Cabin Heater is the only certified avionics/cabin heater on the market, reasonably priced at $340.00, and comes with a three-year warranty.

And just like the pillow guy you see on television, all Tanis products are made in the owner's home state of Minnesota!

Tanis manufactures all of its own systems at its facility at Glenwood Municipal Airport (FAA-PMA#: PQ2364CE) in West Central Minnesota. Its engineers, and sales and administrative staff, are based near the Anoka County-Blaine Airport in the Minneapolis suburb of Blaine. These locations provide excellent access to many aircraft for design and testing in real world cold weather conditions.

Tanis Aircraft Products is a company of "firsts." Since the late Peter Tanis started the business in 1974, Tanis was the first manufacturer to develop engine-mounted preheat systems for piston engines, the first manufacturer to offer a preheat system for helicopters, the first manufacturer to offer a preheat system for turbine engines, and the first manufacturer to meet the rigorous requirements for FAA Supplemental Type Certification (STC). Staying first means that Tanis will continue to be responsive to the changing needs of its customers as technology in the industry evolves. Doing this requires a staff of highly qualified and well-trained specialists. Douglas J. Evink is President and Chief Executive Officer, and holds a degree in Mechanical Engineering.

For additional information, check out their website at http://www.tanisaircraft.com/ or call 952-224-4425. ❑

AOPA Establishes Strategic Relationship With SiriusXM

FREDERICK, MD – The Aircraft Owners and Pilots Association (AOPA) and SiriusXM announced a new agreement in January that will support AOPA Air Safety Institute programs and feature SiriusXM Aviation services in the AOPA "You Can Fly Ambassador Program."

AOPA believes that SiriusXM's detailed in-flight weather information will enhance pilot safety and situational awareness, whether the pilot is on the ramp pre-flighting, at 1,500 feet, or at FL450.

SiriusXM offers pilots and their passengers superior aviation weather and information services. Delivered to the cockpit via satellite, SiriusXM weather has no altitude or line of sight restrictions, and is available throughout the continental United States as well as many parts of Canada. SiriusXM Aviation weather and audio is available on select Garmin receivers and displays, on the Garmin Pilot app, and on the ForeFlight app. Pilots subscribing to SiriusXM Aviation services can also add SiriusXM's audio entertainment channels at a discounted rate, giving them access to commercial-free music, plus live sports, news, talk, comedy and more while flying.

AOPA members will benefit from SiriusXM's support of AOPA Air Safety Institute (ASI) seminars, which qualify as the ground portion of the FAA WINGS program (www.aopa.org/siriusxm). ❑

AIR CHOICE ONE

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

by Jim Hanson

This is an article about three separate but related subjects—Flying for Air Choice One, Essential Air Service, and the company—Air Choice One.

I lease airplanes to Accelerated Aviation Instruction (AAI), based at the airport I manage in Albert Lea, Minnesota. As the name implies, AAI specializes in one-on-one instruction—students are fully immersed in each course—it's an "all you can fly" way to get the rating in a short time—much like airline training, military training, or training for corporate jets.

One of the students, Taylor Matz, was a successful young farmer, but had always wondered about an aviation career. He obtained all of his ratings from AAI, then became a flight instructor for them. Having just gone through the training process himself, it was easy for him to teach in an accelerated fashion. Taylor had achieved his dream job, it seemed—running the family farm satisfied his financial needs, but he found that he loved flying, and that's what he wanted to be doing. Teaching courses that span from three to 10 days gave him the ability to plan ahead for overseeing his farm operations. He knew what his schedule was going to be for the next few days. He seemed to have found the perfect balance.

One of 12 Cessna Caravans owned by Air Choice One.
Air Choice One Photo

Taylor had considered the airlines, but that seemed to be an unobtainable goal. Not only did it require amassing a lot of total flight time (something he was making progress toward with his flight instructing job), but the airline life didn't

seem to be compatible with his farm responsibilities, until he found Air Choice One.

Air Choice One provides scheduled air service to nearby Mason City, Iowa under the FAA Essential Air Service (EAS) contract. EAS provides a subsidy to link remote cities to air hubs like Minneapolis, Chicago, and St. Louis. It helps rural cities remain competitive with larger cities when vying for industries. I've flown a lot of site-search flights for corporations looking to locate businesses, and found a universal theme – "If we can't get to a city, they aren't even in contention." A corporate aircraft makes it feasible to locate in smaller communities, providing lower costs for development, housing, and labor, but not every business has a corporate aircraft. That's where Essential Air Service comes into play.

Air Choice One Route Map

People often cite the "small planes" as being part of EAS, but that's not always true. I prefer to call them "right-size" planes; they can run from 10 seats to 50 seats, depending on growing demand. EAS usually tries to link remote cities with established airline hubs to give passengers a good choice of flights to and from small communities.

I'm a frequent visitor to Mason City, Iowa, located only 40 miles south of Albert Lea. Mason City is an important regional center in this agricultural area, but its location means a 130-mile drive from either Minneapolis or Des Moines, and one of the axioms I've learned from flying site-location searches is that prospective businesses won't drive that far.

Back in the days when the Civil Aeronautics Board (CAB) regulated the airline industry, cities like Mason City had "regional" carriers. Mason City had Ozark Air Lines; other nearby airports had North Central Airlines. Both used DC-3s in the early years, then progressed to 50-seat turboprop aircraft. With the changes in the airline industry following deregulation, that operation model was no longer viable.

Each city had a number of EAS providers over the years. Mason City had Great Lakes Airlines, utilizing 19-seat Beech 1900s. The pilot shortage following the passage of the "1500-hour rule" for new-hires as co-pilots, caused Great Lakes to consolidate its routes in order to crew its airplanes, and Mason City (and other regional airports) had to find a new EAS carrier. Enter, Air Choice One!

Air Choice One again "right-sized" the airplane to fit the route. Rather than following a business plan that had proven unprofitable for other airlines flying the same routes, Air Choice One offered a "game-changer." They would fly the routes in a single-engine turboprop Cessna Caravan. Though the Caravan has a maximum capacity of 14 seats (almost that of the 19-seat Beech 1900), by limiting the seating to eight (8) passengers, they could operate under FAA Part 135 rules for scheduled air taxi. It was yet another of the "right-size" rules, where the larger turboprops had to operate under virtually the same rules as larger airline jets (which often made no sense).

I questioned whether passengers would accept flying in a single-engine aircraft, even if it was the Cessna Caravan—one of the safest aircraft in the world! (Full disclosure… I've operated the Caravan from the high Arctic to Antarctica, to Greenland, Iceland, Europe, North Africa, and South America—73 countries in total). Operating under the same rules, FedEx has operated the aircraft worldwide for decades with an outstanding safety record—at night, in all kinds of weather, and single pilot. Those safety statistics look good on paper, but would passengers accept them?


When people on the ground in Minnesota don't see the sun for days at a time, it's a great day to be an airline pilot, and seeing the sun above an undercast. Here, First Officer Taylor Matz is "flying the line" only a little more than a year after starting training for his Commercial Pilot Certificate.

I asked my friends at Mason City about passenger acceptance. They told me that passenger acceptance has actually been better than the Beech 1900 formerly used. "Passengers love the ease of boarding the Caravan," they said. "They really like the extra room in the cabin…with only eight (8) passenger seats, everyone gets first-class legroom!" They like the ability to look down without the wing in the way. They like the quiet cabin compared to a twin.

I asked about any concerns over airspeed. "On legs of less than 150 nautical miles, the difference between fixed and retractable gear is negligible." There's that "right-size" approach again…stop doing things "the way

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everyone else does it," when "everyone else" has failed! Mason City has flights to and from Minneapolis, Chicago O'Hare, and St. Louis. Those Cessna Caravans connect passengers to the world!

Back to Taylor Matz. He had also seen the Caravans at Mason City, and figured that this would be a way to fly for the airlines, while still managing his farm; it would be a short commute for him. When he contacted Air Choice One, he was told, "This would be a good fit for us, too! Many of our pilots are from the large hubs, and it would be good to have pilots based near our out-stations." With only 350 hours total time, Taylor applied, and was given a conditional offer of employment. Operating under FAA Part 135, the flights could be operated single-pilot, but Air Choice One correctly figured that a second pilot would allay any fears passengers might have about that subject. It's yet another example of the airline "doing the right thing" instead of what is expedient.

Taylor first went through ground school at the airline. "I'm so glad I learned and taught in an accelerated fashion," he stated. "I was used to working hard to meet schedules, and I was used to being required to be prepared for the upcoming lessons. I was the lowest-time pilot in my class at Air Choice One, but several higher-time pilots didn't make it through the intensive ground school. When it came to the flight check, I was also used to preparing for and taking difficult check-rides." Less than a year after Taylor decided to pursue a career in aviation, he was onboard as an airline pilot!

"I couldn't believe my good fortune!" Taylor enthused. "Air Choice One pays a stipend while in training, $30 per flight hour after reaching 1,000 hours, and $41 when qualified as a captain after 1200 hours, plus per diem expenses. Another pay scale increase happens upon reaching 2501 hours, which rewards longevity and experience and provides a stable living environment for those who wish to stay in a particular community or at a particular base. There is even a retention bonus for the last 6 months on a training contract when fully completed." At the rate that Taylor is flying, he will qualify for a captain slot within a year. New hires must sign a training contract for two years.

When I asked Air Choice One President Shane Storz about the training contract, he replied, "I'd say that 85% of our employees honor their contract (some buy out their remaining contract). It's inevitable that many will move on, but some have left and found they like our style of flying better, and come back to us. Many of our former employees continue to keep in contact with us…we're proud of our employees."

I was intrigued by the story, and wanted to find out more about this airline and the people behind it, so I arranged a telephone interview with President Storz. We had so much in common that the interview lasted for over an hour! Some direct quotes:

• About success in the business: "Like so many of the successful FBOs, ours is a fourth-generation, family-owned business. I grew up in the business, and have done just about every job in this company."

• Company background: "We started our present operation in 1979 in Festus, Missouri, doing most everything in the business, including banner towing at Lake of the Ozarks. By 1986, we had built quite a charter business, with three airplanes and five pilots. We moved to scheduled cargo, and flew as a UPS feeder and the U.S. Postal Service. We tried a lot of ways to market our business, including the "charter-by-the-seat" concept recently adopted by operations like Surf Air. We did Branson (Missouri) charters. We were kind of a mini-Allegiant Airline – a seasonal charter company. We managed corporate airplanes, including a Beechjet, Lear, and King Air, which made us comfortable flying and maintaining turbine airplanes. After many years of paperwork, we received a Part 135 Airline Operating Certificate, and began pursuing scheduled passenger routes."

• About the Caravan: "This airplane is fantastic, especially compared to piston twins. It has a 99.5% dispatch rate. In addition to the availability, it has very well-defined cost controls. We had extensive experience with the Caravan on our freight runs. We knew what it could do; we knew what to expect on maintenance; it was a good match for us. Today, we have 12 Caravans…most of them are new models, with glass cockpits and the TKS (liquid) de-icing systems. It's just a truck that will get the job done!"

• About any other airplanes he's looking at: "We bought a Beech 1900. It is pressurized and faster, and can hold up to 19 passengers. Right now, we have it configured for nine (9) passengers. We have the growth potential if the market requires it. One of the problems of EAS is that an airline will spend time and resources developing a market, and if successful, someone else may come in and bid that market with a different airplane. We want to be able to handle success."

• About employment with the company: "We currently have 80 pilots and 12 mechanics. By necessity, we have to farm out some of our mechanic work. We're always looking for good mechanics, and of course, good pilots. We offer one of the best starting wages in the industry for aircraft of our size, a retention bonus, a 401K program, and travel benefits."

• About minimum pilot qualifications: "For captains, we require a minimum of 1200 hours total time, 500 hours cross-country, 100 hours night, and 75 hours actual or sim time (at least 50 hours in flight). For First Officers, a Commercial Pilot Certificate with Instrument Rating, 300 hours minimum, experience operating in busy airspace, and strong radio skills."

• About the kind of pilots they are looking for: "Send us more Midwest pilots! Midwest pilots are used to flying in weather, not like someone that got their instrument rating in Arizona. We like the work ethic of Midwest pilots…they want to work, to fly. They enjoy living close to our bases. They do what they agree to do…you can count on them!" I agree. Most Midwest pilots enjoy the short legs, the takeoffs, enroute, approaches, and landings—the mix of operating out

of both big and small airports.

• I asked about minimum time and ratings: "Right now, for a First Officer, 350 hours total time, and a Commercial rating."

• I asked about maximum age: "There isn't any for Part 135. As long as you can pass the physical and pass the check-rides." (I mentioned that we have a pilot in his mid-50s that was so enthused by Taylor's positive experience, that he is adding his ratings so he could also apply…flying for an airline was not out of reach for him!)

I thoroughly enjoyed visiting with Mr. Storz. We share many of the same experiences in our years in the business – made many of the same mistakes – but also made many of the right decisions. All too often in this business, we see CEOs of companies that "over-promise and under-deliver." Shane Storz has guided Air Choice One as a rapidly-advancing company based on solid basic tenets. The company has prospered by resisting the temptation to grow only for growth's sake. They have exploited a niche previously unserved, and despite success, they have remained "family" enough that the CEO knows almost every employee. They have "right-sized" their choice of airplanes to fit the markets served, and that same "right-sizing" has seemed to carry over into their employee relations. That's GOOD BUSINESS!

If you would like to apply for a flying or mechanic position with Air Choice One, contact: jobs@airchoiceone.com

To learn more about Air Choice One, go to their website at www.airchoiceone.com.

EDITOR'S NOTE: Jim Hanson is in his 56th year of flying. He is the airport manager at Albert Lea, Minnesota, and writes on the state of the aviation industry for *Midwest Flyer Magazine.* When not flying, he can be reached at his airport office at 507-373-0608, or jimhanson@deskmedia.com, and he welcomes reader feedback and input.

Jim Hanson ❑

Flying The Line

by Jim Hanson

I wanted to see the ***Air Choice One*** operation for myself, so I asked company officials if I could ride on a segment from Mason City, Iowa to Minneapolis and return, so they made the arrangements. Here are some of my observations from those flights.

I have extensive experience in the Caravan. I've flown the very first Caravan to be certified on floats, and we've had the airplane on a lot of adventures.

Our original airplane was the "short" airplane, with a 600 hp PT-6 turbine. I've also flown the older "Grand Caravan (stretched models with a larger engine). All have been rugged and comfortable load-haulers. The Air Choice One Caravan was a new model, and while the airplane was familiar, this airplane had a Garmin G1000 glass cockpit and a nice interior. It also had more power, and TKS liquid anti-ice – a big improvement over the original de-ice boots.

I also wanted to view crew operations, particularly one of our "local boys," Taylor Matz. Taylor obtained many of his ratings here in Albert Lea, Minnesota, then went on to Air Choice One as a First Officer with only

Air Choice One chose the Cessna Caravan for its Essential Air Service routes because of its proven dependability, interior room, ease of loading, and baggage capacity. *Air Choice One Photo*

With the TKS liquid anti-ice, the aircraft stays ice-free, with the exception of some droplets on the window.

350 hours total time. As mentioned in the previous article, he said "I am so glad I learned and taught in an accelerated fashion… I could not have survived the airline ground school if I hadn't!"

I also wanted to experience the ride in the newer Caravan; passengers have raved about the legroom.

I parked my car at Mason City, about 100 feet from the airline terminal, and for free! The airline counter staff checked my reservation, my photo ID, and then asked me to step on the scale; they weighed everything! *(The scale said "260 pounds;" must be my notebook and two cameras!)* I was then processed through TSA security, as when we reached Minneapolis, we would be inside the secure area. Friendly folks, no line, and I wouldn't have to do it again if I was on a connecting flight on another airline.

I met Taylor, and he escorted me around the aircraft to take photos. He introduced me to his captain, Angela Abratanski. Angela started flying eight years ago in Florida, and has over 2500 hours of flight time. Of the four years she has worked in aviation, two years have been at Air Choice One.

Captain Angela Abratanski is one of several women who fly for Air Choice One.

I told them what I wanted to do on the flight, and promised not to interrupt their operation. It was interesting to watch the operation. When Taylor had flown with me in the King Air only 14 months and 650 flight hours ago, he had never been in a turbine airplane or multi-crew cockpit. He and Angela ran the cockpit checklist litany (a word I chose deliberately because it is described as *"a prayer in which* ***all can participate,*** *a means of* ***recognition and affirmation,*** *a* ***closing commitment to a mission****."* That certainly describes the purpose of a checklist! A pre-departure briefing was made, and after engine start and taxi, the other required checklists were run quickly and efficiently. It was all business in the cockpit. It was Taylor's leg to fly, and they smoothly handed over and affirmed control.

We climbed through several layers of cloud, and I noted that the TKS anti-ice was on. Not a bit of ice could be seen on the airplane.

After level-off and the aircraft was on autopilot, I asked questions. I noticed that they kept the prop at 1900 rpm, and asked if they ever reduced it. Taylor confirmed what Cessna had told us when we got checked out in the Caravan years ago… It doesn't make any difference in cruise… It only changes the sound of the engine, so they leave it full forward.

I noticed that the twin G1000 displays indicated that we were very close to the top of the green airspeed arcs (170 kts indicated, or 178 kts TAS on this day), and showing 440 pounds per hour (65 gph). "That's our Standard Operating Procedure; the way we fly them," was the response. The leg is normally filed for 9,000 feet, where the true airspeed goes up and the fuel burn goes down, but we stayed lower, out of the wind and ice. The ride was smooth, and we actually ended up saving time and fuel because we avoided the delays of the arrival corridor for bigger aircraft.

The Garmin G1000 system provides "big-airplane" navigation, aircraft information, and crew alerting systems to pilots of smaller airplanes. In this photo, the entire approach has been loaded, and the system provides precise interceptions, whether flying using an autopilot or hand-flying.

The crew loaded the ILS to Runway 12R at Minneapolis-St. Paul International Airport (KMSP), and briefed the approach, even knowing the chances were good that air traffic control (ATC) would change runways on them. It was fun to watch the automation of the G1000 – loading the approach, making the crossing restrictions, intercepting the ILS—but at the last moment, ATC did indeed change runways. Taylor and Angela handled it like the pros they are, setting up the new approach and conducting the brief for the new runway. Taylor

made a squeaker of a landing, and after arriving at the gate, Angela said, *"the pressure is on to see if I can beat that one!"*

On the trip back, Mason City was reporting 11,000 broken, but from our position only 30 miles north, we were on top of a thin overcast. Rather than wait for the chance for a visual approach, they loaded and briefed an RNAV approach, but the display wouldn't come up. After a short amount of trouble-shooting, they simply brought up the approach on an alternate display on the three-tube system, and wouldn't you know it, the clouds parted and the landing was made. Angela equaled Taylor's performance on the landing and we taxied to the gate. The loading problem was corrected on the ground by resetting the system.

All through the flight, I was very impressed by the professional conduct of the crew; just the right amount of collegiality and deference between the two pilots. I'll fly with them any time! Someone at Air Choice One certainly is doing a great job on standardization and standards!

If you have been thinking about an airline career, Air Choice One is a good alternative to "time-building" to reach that magic 1500 hours. You'll be *earning money* instead of spending it. If you learn in an accelerated fashion, you can be flying within a year after your first flight, and by the end of the two-year commitment, you will have turbine time, weather time, and experience in high-density airports. You'll be GOLDEN!" ❑

People In The News

General Aviation Safety Expert, Bruce Landsberg, Nominated To NTSB


Bruce Landsberg

WASHINGTON, DC – General aviation safety expert, Bruce Landsberg, has been nominated to the National Transportation Safety Board (NTSB) by the Trump Administration for a five-year term.

Landsberg, an award-winning expert on pilot safety, has written hundreds of articles on the topic and helped develop dozens of online courses. He also has worked with regulatory agencies and other aviation safety stakeholders, including the Federal Aviation Administration (FAA), National Air Traffic Controllers Association (NATCA), and National Weather Service (NWS). He has served as the industry co-chair of the FAA Runway Safety Program and the General Aviation Joint Steering Committee. Additionally, Landsberg has held management positions with the Aircraft Owners and Pilots Association (AOPA) Air Safety Institute, Cessna Aircraft and FlightSafety International.

Landsberg was born and raised in Maryland, holds a bachelor's degree in psychology and a master's degree in industrial technology from the University of Maryland, and is a former U.S. Air Force officer. He has logged more than 6,000 hours and holds an Airline Transport Pilot Certificate; and Single-Engine, Multi-Engine and Instrument Flight Instructor Certificates.

The Senate recently approved another general aviation industry veteran, Robert L. Sumwalt III, to be the 14th chairman of NTSB. Sumwalt is a former member of the National Business Aviation Association (NBAA) Safety Committee, and managed a flight department for a utility company in South Carolina before being appointed to NTSB in August 2006. If confirmed by the Senate, Landsberg will be vice chairman of NTSB for a two-year term.

Aeronautics Report

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Deciphering Notices To Airmen (NOTAMs)

Part II – Field Conditions

by Hal Davis
Airport Compliance Manager
WisDOT Bureau of Aeronautics

Hal Davis

Warning: This article has so many acronyms and contractions that you may begin to question your own sanity. Read at your own risk…

All kidding aside, being able to accurately decode field condition NOTAMs is an important winter survival skill for any Midwestern pilot. As we all know, snow, slush, and ice (which are referred to as contaminants) can have a dramatic effect on aircraft handling performance on the ground.

You might remember the accident involving a Southwest Airlines aircraft which overran the runway during a snowstorm at Midway International Airport back in 2005.

One of the many initiatives following that accident was a reevaluation of how field conditions were reported. In cooperation with members of the aviation industry, the Federal Aviation Administration (FAA) developed Takeoff and Landing Performance Assessment (TALPA) standards with a goal of improving the accuracy of runway condition reports.

Integral to TALPA, was the introduction of the Runway Condition Assessment Matrix (RCAM), which can be viewed on page 40. Before RCAM, airport operators reported their observations and let the pilot conclude how they would affect their aircraft's performance. For paved runways, the RCAM replaces this subjective judgement with an objective assessment that distils aircraft performance data, combined with runway contaminant types and depths, as well as braking action information, into a series of Runway Condition Codes (RwyCC).

While this marks a significant evolution in how runway conditions are reported, the techniques used by airport operators to monitor field conditions, remain largely unchanged. You'll still find airport personnel visually inspecting the field and obtaining Mu readings. In addition, pilots will continue to be asked for braking action reports; however, the terminology has changed. "Fair" has been replaced by "medium," and intermediate reports, such as "good to medium," are now accepted.

Although airport operators can publish a field condition (FICON) NOTAM by calling Flight Service, the FAA strongly recommends the use of their web-based application, "NOTAM Manager." By using simple dropdown menus, NOTAM Manager will automatically generate the NOTAM sentence and the RwyCC based on the coverage, depth, and type of contaminant inputs.

Understanding The Numbers

Despite this automation, as a pilot or airport operator, it's still important you have a basic understanding of the RCAM and how RwyCCs are determined.

To start, RwyCCs range from zero to six with zero representing the worst condition, and six representing the best possible condition. The RCAM lists 19 distinct runway surface conditions which combine type and depth of contaminant, as well as temperature. Each of these surface conditions is associated with a RwyCC, derived from years of aircraft performance data analysis. For example, ice on the runway would dictate a RwyCC of one, while 1/8-inch or less of slush would dictate a RwyCC of five. This process is repeated for each third of the runway, i.e. touchdown zone, midpoint zone, and rollout zone, culminating in a RwyCC series, such as 5/4/4. At times, additional information, such as braking action tests and pilot reports, may be used to downgrade or upgrade a runway beyond the initial RwyCC.

While a FICON NOTAM shares the same structure as other NOTAMs, a FICON NOTAM can be particularly difficult to decode. Several FICON examples can be found

at the end of this article. As do other NOTAMs, FICON NOTAMs start with an exclamation point, followed by the accountability location, NOTAM number, location and keyword. (See the Dec 2017/Jan 2018 issue of *Midwest Flyer Magazine* for a review of these NOTAM elements).

Next, the affected surface is listed. A FICON for a runway will always list a single runway end, which indicates the direction in which the RwyCCs are reported. For example, "RWY 18 FICON 5/4/3" would signify that the touchdown third has a Rwy CC of five, while the rollout third is a three. If you plan on landing on the opposite runway, it is acceptable to simply reverse the RwyCCs. Of course, RwyCCs are only listed for runways. For other airfield surfaces, such as taxiways and aprons, pilots must rely on the description of the contaminants and braking action reports.

Surface Conditions

Following the affected surface, is the description of the conditions. In the interest of maximum clarity, the word "FICON" can be found at the beginning of this section. This makes a FICON a bit easier to identify when scrolling through a long list of NOTAMs. For runways, the description of the conditions starts with the RwyCC. Each zone of the runway is then described separately, delineated by commas, unless the condition is uniform across all zones. For all airfield surfaces, the condition description will, at a minimum, describe the type of contaminant. Depths may also be reported for certain types of contaminants. Below is a list of possible contaminants. It should be noted that contaminants can also be layered, such as "DRY SN OVER COMPACTED SN."

Contaminants	Definition
Wet	Water on the surface less than 1/8 inch in depth.
Water	Water on the surface at least 1/8 inch in depth.
Frost	Airborne moisture that condenses and freezes on a surface providing a more granular texture than ice.
Slush	Water-saturated snow.
Ice	The solid form of water.
Wet Ice	Ice that is melting with any depth of water on top.
Wet Snow	Snow which will stick together.
Dry Snow	Snow which will not stick together.
Compacted Snow	Snow that has compressed into a solid form that resists further compression.

For runways, percent coverage is also reported. Percent coverage is a significant factor in the RCAM as 25% coverage is the minimum threshold for determining a RwyCC. However, percent coverage is only an approximation and should not be considered an exact measurement.

During a snowstorm, airport operators may choose to focus snow removal operations on a portion of the runway, rather than the entire width. In these cases, the FICON will also describe the actions taken and the width (contracted as WID) treated. Most commonly you will see terms like PLOWED, SWEPT, SANDED, and DEICED (SOLID or LIQUID). Because of these snow removal operations, it may also be necessary for the airport to report the presence of berms, snowbanks, windrows, snow piles, and the conditions of the untreated pavement.

Timing

The final element of a FICON is the "observation time." This is the time at which the airport observed the reported field conditions formatted as YYMMDDHHMM. Unfortunately, not all airports can be staffed and monitored 24/7. Therefore, following the most recent field condition report, you may also see notes like "CONDITIONS NOT MNT" accompanied by two dates/times. Commonly, this signifies the airport manager has gone home for the evening and will update the FICON when he or she returns. When the airport will be unattended for longer than a 24-hour period, "SFC CONDITIONS NOT REPORTED" may be used, along with the keyword "AD," applying the notice to the entire airport.

For more information relating to TALPA, the RCAM, and field condition reporting, check out https://www.faa.gov/about/initiatives/talpa/.

Test Your Knowledge... Win A Prize!

Decipher the following FICON NOTAM excerpts into plain language for a chance to win a Camelbak water bottle from the Wisconsin Department of Transportation. Submit your answers to FlyWI@dot.wi.gov by February 28, 2018 for a chance to win. Five winners will be selected. One could be you!

…LSE AD AP ALL SFC WIP SN REMOVAL…

…GRB TWY ALL EXC TWY M FICON 1/8IN DRY SN BA GOOD OBSERVEDAT 1712071135…

…MSN RWY 36 FICON 5/5/5 25 PRCT ICE AND 75 PRCT WET DEICED LIQUID 100FT WID AND DEICED SOLID 50FT WID OBSERVED AT 1701112200…

…MKE RWY 01L FICON 3/3/3 50 PRCT 1/8IN WET SN OVER COMPACTED SN PLOWED AND SWEPT 180FT WID 24IN SNOWBANKS REMAINDER 3IN WET SN OBSERVED AT 1703131552…

…C29 RWY 10 FICON 5/2/1 100 PRCT WET, 50 PRCT WET AND 50 PRCT 1/4IN SLUSH, 50 PRCT ICE OBSERVED AT 1702240350 CONDITIONS NOT MNT 1702240400-1702241200…

Runway Condition Assessment Matrix (RCAM)

Assessment Criteria		Downgrade Assessment Criteria		
Runway Condition Description	**Code**	**Mu (μ) [1]**	**Vehicle Deceleration or Directional Control Observation**	**Pilot Reported Braking Action**
• Dry	6	40 or Higher	---	---
• Frost • Wet (Includes Damp and 1/8 inch depth or less of water) ***1/8 inch (3mm) depth or less of:*** • Slush • Dry Snow • Wet Snow	5		Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	Good
5° F (-15°C) and Colder outside air temperature: • Compacted Snow	4	39 to 30	Braking deceleration OR directional control is between Good and Medium.	Good to Medium
• Slippery When Wet (wet runway) • Dry Snow or Wet Snow (Any depth) over Compacted Snow ***Greater than 1/8 inch (3mm) depth of:*** • Dry Snow • Wet Snow ***Warmer than 5° F (-15°C) outside air temperature:*** • Compacted Snow	3		Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	Medium
Greater than 1/8 (3mm) inch depth of: • Water • Slush	2	29 to 21	Braking deceleration OR directional control is between Medium and Poor.	Medium to Poor
• Ice [2]	1		Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	Poor
• Wet Ice [2] • Slush over Ice • Water over Compacted Snow [2] • Dry Snow or Wet Snow over Ice [2]	0	20 or Lower	Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	Nil

❑

We're Moving...

In February 2018, the Wisconsin Bureau of Aeronautics will be moving its office to the new Hill Farms state office building at 4822 Madison Yards Ways, Madison WI 53705. After the move, you can find the bureau on the 5th floor of the south tower, less than 1,000 feet from its previous office. While the physical address of the building will change, the P.O. Box, email addresses and phone numbers will remain the same.

The Wisconsin Bureau of Aeronautics will be moving next-door to the new Hill Farms State Office Building (foreground) mid-February 2018. *Tom Thomas Photo*

❑

MINNESOTA AERONAUTICS BULLETIN
www.dot.state.mn.us/aero
The State of Minnesota provides this Technical Bulletin in the interest of Aviation Safety and to Promote Aeronautical Progress in the State and Nation.
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Minnesota DOT Office of Aeronautics
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651-234-7200 or (toll free) 1-800-657-3922

75 Years of State/Airport Partnership In 2018

by Cassandra Isackson
Director, Minnesota DOT Office of Aeronautics


Cassandra Isackson

We are happy to share the fact that 2018 marks the beginning of our 75th year of partnerships with Minnesota's great publicly owned airports! We have 135 quality, public-use airports that serve the Minnesota aviation community and their local communities in a very positive way.

Through this partnership with the airports, we work together to help assure we have a group of safe and well-maintained airports. This happens by meeting with airport boards, commissions, managers, and the airport city leaders in "Airport Needs" meetings. It is one way we find out directly about an airport's needs, preferences, and plans for the near and distant future.

We also garner input from them for use in building and improving the State Aviation System Plan (SASP). The SASP provides us with a vision for the future of Minnesota's airports. It outlines what Minnesotans desire from the state's transportation system and identifies key guiding principles that MnDOT Aeronautics strives to achieve. One of the primary objectives of the SASP is to provide the State of Minnesota with planning tools that will assist in making well informed decisions.

While safety at our airports is always a primary goal, our partnerships also work together to reach out to the aviation community and the communities in general. We do this by sharing exhibit space at EAA AirVenture Oshkosh and other area aviation venues. We further these efforts by urging our airports to participate as active members with Minnesota aviation organizations like the Minnesota Council of Airports (MCOA). There, for instance, airport managers can provide "grassroots" information about what is happening in their cities and at their airports that may have an impact on aviation or how that airport operates.

This is just a very brief sample of the ways we have worked – and continue to work – as partners with our airports. We look forward to the continuation and growth of these partnerships, for the benefit not only for aviation in Minnesota, but also for the benefits aviation brings to the communities and surrounding areas around our public airports. It is a win-win relationship, and we expect 2018 to be another great year for aviation. ❑

Airport Security Without TSA

by Rick Braunig
Manager of Aviation Safety & Enforcement
Minnesota DOT Office of Aeronautics


Rick Braunig

If you do a search on airport security, you can learn all about what you can bring with you on a Delta flight, but it is hard to find information on security for airports without passenger service. With the Super Bowl coming to Minnesota, there will be additional security measures at the reliever airports making them more secure and pushing any threat out to the next ring of airports.

It has been a long time since we talked about security at general aviation (GA) airports. After 911, there was discussion of the TSA implementing security measures at GA airports. Thankfully folks were smart enough to realize that there wasn't a one size fits all process for GA airports, and over time the concern about GA security has faded, but the risk remains. Recently (July 2017), the TSA released a new report on security measures for general aviation airports. This is a great report that the aviation community should heed.

The two biggest threats related to smaller GA airports are the risk of bringing in contraband to make some sort of device, and the risk of launching a vehicle with a bomb inside it from a GA airport. Sure, a C172 or an SR22 isn't going to do the damage of a Boeing 747 crashing into a building, but a C172 loaded with explosives can do a lot of damage. Even

if an aircraft is not part of the attack, if an airport is identified as the place where the device was brought into the country and assembled, that association will give airports a black eye. The TSA report helps us to identify the things we should be looking for and the things we can do now.

The ideal small airport will have regular activity and an operator that keeps track of the comings and goings. Everyone on the airport would know everyone else and something out of the ordinary would be quickly spotted and reported. Unfortunately, this is not the case at all Minnesota airports, and activity normally decreases in the winter making some airports very lonely places. So just like in flight planning, we need to recognize the risks and look for ways to mitigate them.

Recognizing the risk is best done through formation of a plan. We have been talking with airports about emergency plans and a security plan has a lot in common with an emergency plan. The security plan identifies the risks, the steps the airport community can take to mitigate those risks, and the steps to take to respond to a perceived threat.

The TSA identifies eight signs of terrorism, which I would translate to be the things that should make you take notice. For the airport community, the signs we should pay attention to involve people, aircraft and facilities. I like showing up at an airport to find a group of guys sitting around a table drinking coffee. I really like it when they engage me about who I am and what I'm doing there. It's good hospitality (most often) and it is good security. At other airports, there is someone offering services that will meet me at the aircraft, but there are also some places I go that I don't see anyone during my visit which sometimes lasts a couple of hours. If it appears that no one is taking notice of the comings and goings, that is a vulnerability; a risk that needs to be managed.

Some airport managers use FlightAware to see when an aircraft has filed a flight plan to their airport and then they are at the airport to meet the aircraft. The hospitality is usually appreciated. Sometimes people in town will hear or see an aircraft arrive. Whether it is the airport manager or local law enforcement or just another pilot, having someone go to the airport to meet an arriving aircraft improves the security of your airport.

Another mitigating activity is the airport self-inspection. We recommend the airport self-inspection as a way to ensure your NOTAMs stay current, but it is also a tool in airport security. Regular self-inspections help an airport community to know what the regular activity is, on the airport. If one or more aircraft show up on the ramp that aren't normally there, that is something worth checking out. If there is activity in a hangar that is normally quiet, that is something worth checking out. The self-inspection doesn't always have to be performed by the airport manager. We recommend using pilots and local law enforcement, sometimes even neighbors that like to walk at the airport. The important thing is to know what is normal, what isn't and what to do if something seems abnormal.

The airport security plan should list the actions to be taken when something seems different. Like the emergency plan, calling 911 will work about 90% of the time. So far no one has called law enforcement to come talk with me when I'm walking an airport. I guess I don't look too scary. Still there is a risk in confronting others. The people that are helping to keep your airport safe need to have a process to keep them safe. Reporting before further investigation is a good practice. Documenting and reporting even the abnormal things that seem to be explainable is a good practice. How do you go about that and who do you report things to outside of your local community? These should all be covered in the airport security plan.

The TSA report provides contacts to report information to the TSA through the GA-SECURE hotline. A report can be filed by calling **GA-SECURE (1-866-427-3287)** 24 hours a day. The information they are looking for is the what, where, who, why and when of what you are reporting. What made it seem suspicious, what airport was this at and what aircraft (N-number) was involved. Can you describe the people involved? Why is this unusual and when did it happen? You may want to have a form in your security plan that helps people to record this data. You should also identify the right person in the community to receive this information. A local reaction is always quicker than the response from others.

We may have gotten by on our luck so far, but we have seen that the terrorists are not giving up. As security tightens around one target, they move to an easier, less protected way to reach their goal. We should make our GA airports more secure and we can do that by working together as an aviation community. Pilots, business owners and airport managers need to come together to create a security plan for the airport. Set a goal to have your plan in place by the end of the month. Make it your New Year's resolution. If you see something, say something! ❑

Innovation For Aviation Safety

by Dan McDowell
Public Affairs, Minnesota DOT Office of Aeronautics

We often hear the word "innovation" in relation to aviation, but have you heard of "innovation for an application?" Quite simply, it is thinking of ways to improve safety and efficiency for a specific use, while incorporating the latest technologies. And I wanted to gather and share information on something that improves aviation safety in Minnesota, of course, but something that hopefully has a much broader potential application.

So, I contacted Dave Brand, a 27-year FAA employee with service as an Airway Transportation Systems Specialist (ATSS), located out of the Southeastern Systems Support Center

Dave Brand of the FAA Southeastern Systems Support Center with the Mobile Service Unit (MSU) he built to maintain Runway Status Light (RWSL) Systems. The MSU earned Brand the 2016 National Designated Agency Safety & Health Official Safety Champion Award.

The Mobile Service Unit is used late at night when air traffic volume is low.

(SESSC) in St. Paul, Minnesota. His career has continuously revolved around innovation, always analyzing system performance and initiating improvements to achieve a safer and more efficient airway system.

Brand had heard that Minneapolis-St. Paul International Airport (MSP) technicians where going to have to maintain over 300 in-pavement lights on a Runway Status Light (RWSL) System. Hearing that while remembering the tasks from the past (maintaining threshold flush mount fixtures at MSP), he developed an idea on how to maintain a very large number of flush mounts in a safe and efficient manner. He explained, "Work (on the Runway Status Lights) has to be accomplished at night with very little light, in sometimes very tough conditions, while it's raining or snowing, hot, dry, or blowing, and technicians have a 4-hour window of opportunity to accomplish the tasks." If you aren't sure what Runway Status Lights are, quite simply, they are a part of a fully automatic advisory system designed to reduce the number and severity of runway incursions, and prevent runway accidents while not interfering with airport operations.

Brand continued: "I put together a rough draft of a 6' x 10' structure on wheels, added some features like a remote controlled hydraulic lift assembly, propane heating system and a power inverter unit with a battery, and a 7000-watt generator mounted on the back. We added a wireless night vision camera system and installed a high output LED light system, and *voilà!* Introducing the Mobile Service Unit (MSU)." Brand added that the MSU has a communications radio mounted inside for continuous contact with the Air Traffic Control Tower (ATCT), while working in the Runway Safety Area (RSA).

Brand consulted with a fish house construction contractor to get a rough estimate of what a unit with all the added features would cost, and presented that information to management. He received a favorable reaction and was authorized to proceed with the development of the MSU. He then started building the scope of work for procurement and only one contractor (Berkon) responded. "They modified their trailer design to accommodate the 2' x 2'6" opening in the floor with the capability to lower the framework to within 5 inches of the runway surface," said Brand. He added, "Without them collaborating with us, none of this would have happened."

The unit is a unique safety orientated design incorporating personnel accommodating features that promotes employee safety and enhances quality of workmanship. One unusual feature is a 20-gallon vacuum/pump system that is designed to efficiently remove water from a light fixture and pumping it out by means of an attached hose. Another feature is the built-in hoist assist. When a fixture cover is frozen or stuck in place, a ceiling hoist located above the access area, can assist with its removal. Also located near the opening on the floor is a one-inch thick rubber fatigue mat that reduces the strain on workers' knees and their lower back, while working in the access area.

Brand said "…several northern tier airports have shown great interest in acquiring one of these units, but the budget restraints have dampened their quest lately. In New York, La Guardia and John F. Kennedy airports each purchased a unit last year with a couple new features, like a larger size 6' x 12' with a rooftop AC/heater unit. With this feature and the connection of the 20-ft power cable to a commercial power outlet, the unit becomes a warm comfortable repair shop with all the parts and tools at hand, while recharging the battery system as the unit sits idle."

The MSU was featured in the FAA's fall safety stand-down in 2014. Brand proudly explained that "the program is designed to promote safety in the workplace, a time to reflect and convey safety issues and coordinate any concerns within the work group management area."

One final note on the MSU: Dave's innovative design won the National Designated Agency Safety and Health Official (DASHO) Safety Champion Award in 2016, which is given to an official for exemplifying best practices to improve performance and create a safe and healthy work environment. The award further recognized Dave Brand for going the "extra mile" in an effort to not only make the repair and replacement of RWSLs a faster, more efficient and cost-effective process, but also for designing a unit that improves the operational environment, while increasing the safety for the field technicians.

By the way, technicians at MSP also use the MSU to repair the standard runway edge lights by pulling alongside a light needing repair. The MSU then becomes a rolling, full-service repair shop containing the tools and parts the technicians need to quickly complete the repairs.

That brings us to what this has to do with General Aviation. Well, when you are completing your *Fly Minnesota* Passport program and you fly into MSP, (or if you travel out of MSP on a commercial airliner), you will most certainly see the runway status lights. Maybe you'll see the bright blue MSU along an intersecting runway and you'll understand what it is and how it contributes to aviation safety. Who knows? Someday you might see an MSU at your local airport with technicians working quickly to repair or replace runway lights to help assure that your GA airport's runway lights are ready when you need them.

*Special thanks to David Brand, MSP ATSS, and the fine folks of the FAA Great Lakes Region for their assistance in producing this article. ❑

Quotes & Quips From The Right Seat

by Woody Minar


Woody Minar

No matter what kind of pilot you are, "communications" is key to getting things right and receiving the right answer to a question that's been asked. As a Designated Pilot Examiner (DPE), I've learned that sometimes the applicant and I just aren't on the same page. But over time, I've learned that a question needs to be correctly worded to yield the answer I want. Here are some examples.

When testing the pilot's knowledge on when supplemental oxygen is needed, I used to ask, "When is oxygen required?" The answer I got was, "All the time." Yup, the applicant answered the question that was asked. A follow-up question was asking what the service ceiling was, which is usually above 14,000 feet. I would then ask, "Could we stay up there all day until we ran out of gas?" "No, we need a 30-minute reserve so we would have to come down."

Another question I would ask was, "What's the difference between Vx and Vy?" Expecting to get an explanation of each, I got, "Eight knots." Once again, you get what you ask for.

I have given this scenario: "You've got a passenger who starts to hyperventilate. What can you do to help alleviate that problem?" The usual answer is, among other things, "Breathe into a bag." To help settle the applicant's nerves, I'll then ask, "Paper or plastic?" One reply was, "Do I like the person?"

When their hands are shaking, I try to relax the applicant as much as possible by telling them related stories or humorous anecdotes. But, when they are wearing a short sleeve shirt in the plane when it's 15 degrees outside and they turn down the heat, you know they are really nervous.

Sometimes they share their humor with me, such as the time I took the controls and said, "I have the controls." The applicant obligingly said, "You have the controls," and I responded, "I have the controls." Well, this then got the response, "You have the controls." "I have the controls." "You have the controls." "Yes. I do have the controls."

As a Certified Flight Instructor (CFI), I feel it is important to teach our students the right stuff.

One student of mine early in my teaching career used to take 20-25 minutes to do a preflight on a 172. I soon learned that I had to book the plane for at least a half hour longer than normal. I certainly didn't want to rush him. There were some screws missing on the cowling and other places, and each time he did a preflight, there seemed to be another screw missing. He once asked me, "How many screws have to be

missing before it's not airworthy?" Good question. I jokingly replied, "When it starts flopping in the wind, then we should be concerned." "Oh," was his reply.

Another student was just learning to do landings. We hit a little wind shear one time and as we dropped a bit I said, "WHOA!" Without missing a beat, he put his right arm across my chest and said, "Settle down Woody. We'll be alright."

Another student was always coming in too low when we were doing landings. On Runway 10 at Osceola, Wisconsin (KOEO), there's a state highway about 900 feet from the threshold of the runway. After one of his landings where he thought he was higher than the others, he asked me, "How was that approach?" I politely responded, "All I can say is that the truck on the road had to stop and wait for us to pass by."

I have several second cousins living in the Czech Republic. One of them came to the U.S. for a month and I took him flying a couple of times, and gave him a glider ride in a Czech-built Blanik L-23. He enjoyed the ride and thermalling until we entered downwind – then he got sick. We landed and got out of the airplane, and the first thing he said (in English) was, "F'ing Czech gliders."

I hum or make various sound affects in the intercom as part of a student relaxation technique. One of my students was doing very well and I complimented her on the skills she had achieved thus far in her flight training. Her reply? "Ya, uh huh… Coming from a person who makes [flatulent] noises through the intercom."

Communicating with Air Traffic Control (ATC) is one of the hardest parts of IFR training. They give you instructions, you repeat them back, then you execute them. One day, Minneapolis Approach instructed one of my students as follows:

"You're five miles from BOKYA. Turn right heading two three zero. Maintain three thousand until established on a published portion of the course. Cleared for the ILS two seven at Anoka." The student looked at me through his foggles, threw up his arms and said, "I'm never going to get this [stuff]." A year later during some refresher training, the clearance read back rolled off his tongue as if it was his first language. I looked at him, threw up my arms and said, "I thought you'd never get this [stuff]."

Another day/another student: We were returning to Osceola from Sturgeon Bay, Wisconsin (KSUE) after a salmon fishing trip on Lake Michigan. We filed IFR and a VFR pilot was flying the plane, while I was in the right seat. He needed work on his communications and was doing pretty good. I told him if he didn't know what to repeat back to ATC, I would tell him what to say. We were flying along just fine and Green Bay Approach called another aircraft and said, "Say altitude." I jokingly said through the intercom, "Altitude." Wouldn't you know it? My pilot keyed the mic and said, "Altitude." Daaaahh!

Along this same line, my very first IFR lesson was in Rush City, Minnesota (KROS) in a 172. We were on our way to Siren, Wisconsin (KRZN) to do some VOR work. The cockpit was quiet and I figured I was doing well. Then the instructor nonchalantly said, "Do you have something against going to Siren?" "Why?" I said. "Look at your directional gyro (DG)," commented the flight instructor. "I had made a 180-degree turn without knowing it – completely omitting the DG from my scan. A couple lessons later, I asked the instructor, "Why do you always bring along an open can of pop?" He said, "When I have to go to the bathroom, it's time for the lesson to be over."

And, with that, so is this article.

EDITOR'S NOTE: Woody Minar is a DPE, Master CFI, CFII, MEI, CFI-G, ASEL/ASES/AMEL/AMES based at Osceola Municipal Airport (KOEO) in Osceola, Wisconsin. He was the 2012 Flight Instructor of the Year for the Great Lakes Region, and the FAA Safety Team Representative of the Year for the Great Lakes Region in 2013. ❑

Uses For Drones Continue To Grow

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


Jonathan Beck

Through partnerships, Northland Community and Technical College (NCTC), along with St. Cloud State University (SCSU), are advancing Technician Education parallel to cutting edge industry developments. Industry partners are relying on the expertise of NCTC and SCSU in drone and geospatial technologies. These engagements allow the educational institutions to work with industry partners firsthand on applying the technology and developing an understanding of how technicians will use this information in the field. Lessons learned are then driven back into the classroom, educator workshops and youth camp activities.

AGRICULTURE: Northland's applied research in agriculture has involved working with the Minnesota Department of Agriculture (MDA), University of Minnesota, and several local and regional implement dealers. Northland's MDA applied research project "Digital Imagery, Precision Agriculture" involved weed mapping and prescription applications. This created a buzz in the region and interest from many local organizations to support further development of drone operations, investment into the programs, and job opportunities.

LAND SURVEY & MAPPING: Working with Pennington and Stearns County Watershed District Offices, Northland was awarded a Minnesota Board of Soil and Water Resources project to conduct drainage ditch inventory and assessment. Northland and SCSU students are exploring geospatial software and drone flights to determine best practices for organizing imagery data and creating models for volumetric assessment and change detection. This is leading to better water quality, soil erosion monitoring, and inspections from which lessons learned are driven into the curriculum.

PUBLIC SAFETY: Drones support the local fire teams and emergency management teams across the state of Minnesota. Through a Minnesota State initiative, Northland developed a small Unmanned Aircraft Systems (UAS) Fire Training Course. This course was approved by the Minnesota Board of Fire and Training Education. Minnesota Fire Teams can now access this training. The use of drones allows fire and emergency management teams the ability to have a bird's eye view of a scene.

3D MODELING & OBJECT RECOGNITION: Northland and SCSU are currently working with the Minnesota Department of Natural Resources (DNR). The Minnesota DNR was awarded a Legislative-Citizen Commission on Minnesota Resources project to investigate the effectiveness of Remote Sensing for Forestry Inventory Assessment. 700,000 acres of Light Detection and Ranging (LIDAR) and Imagery Data are being collected and analyzed. Northland faculty and students are flying drones to collect data from specific research plots in this area of study. 3D models of the Chippewa National Forest and Superior National Forest sites are being developed. These models, along with geospatial tools, may help profile characteristics and maturity of trees. Results could help define cut lines based on tree type and forecast economic return for harvest.

VIDEOGRAPHY: Northland students and faculty have used drones to capture sporting events for review by coaches and players. The videos and images are also used to promote student athletics and upcoming sporting events.

INFRASTRUCTURE INSPECTION: Northland is currently working with the City of Warren using thermography to assess city infrastructure. This will be used to modernize and increase energy efficiency. Other common industry uses involve using drones for inspecting communications towers, wind turbines and bridges.

The partnership between Northland, SCSU and industry is driving education in new technology at the beginning of industry adoption. This not only benefits educational programs and industry advancements, but it also creates new jobs and skill demands, and provides a solution to fill these critical gaps at the same time.

EDITOR'S NOTE: Jonathan Beck is the UAS Instructor/ Program Manager at Northland Community and Technical College, Thief River Falls, Minnesota. This material is based in part upon work supported by the National Science Foundation (DUE 1501629 and 1700615). 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.

Agriculture

Land Survey and Mapping

Public Safety Drones support the local fire teams in Andover Minnesota responding to wildfires in Spring of 2017. Through a Minnesota State initiative Northland developed a small UAS Fire Training course. This course was approved by the Minnesota Board of Fire and Training Education. Minnesota Fire Teams can now access the training. The use of drones, allow fire and emergency management teams the ability to have a bird's eye view of a scene.

3D Modeling and Object Recognition

Videography

WATA Difference

WISCONSIN AVIATION TRADES ASSOCIATION

Wisconsin Aviation Partners With Phillips 66 Aerostars

MADISON, WIS. – Wisconsin Aviation, Inc. has partnered with the Phillips 66® Aerostars aerobatic team for the 2018 airshow season in the installation of Garmin avionics for the team's four aircraft. The Phillips 66 Aerostars are in the midst of a re-fleet with the purchase of four new aircraft that will debut during the 2018 airshow season. Wisconsin Aviation will install Garmin G5, Garmin GTX345, and RC Allen Backup ADI avionics in each of the four aircraft. Especially important is Wisconsin Aviation's ability to provide the team with a timely ADS-B solution to monitor weather and traffic.

"We have to place a high degree of trust in those who service and install systems in our aircraft," said Phillips 66 Aerostars pilot, Paul Hornick. "We found a team we could trust at Wisconsin Aviation."

"The Phillips 66 Aerostars carry a high degree of credibility and can speak to all levels of pilots," said Trevor Janz, Director of Marketing. "Wisconsin Aviation chose to partner with the Phillips 66 Aerostars because of their reputation, 16 years of experience as airshow performers, and because they are professional pilots with experiences ranging from international corporate flying to long-haul Boeing 777 flying."

Team members include Paul "Rocket" Hornick, Dave "Cupid" Monroe, Harvey "Boss" Meek, and Gerry "Fossil" Molidor. The team performs both daytime and nighttime

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Call Bruce At
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www.WATAonline.org

performances.

Wisconsin Aviation is a full-service provider of general aviation services including avionics sales and service; flight training; aircraft maintenance, rental, sales and management; interiors; executive air charter; and line service with three locations throughout Wisconsin: Watertown, Madison and Juneau (www.WisconsinAviation.com). ❑

Wisconsin Airport Management Association To Host Legislative Day In Madison

MADISON, WIS. – The Wisconsin Airport Management Association (WAMA) will host a Legislative Day in Madison, Wis., March 6, 2018, to provide airport officials an opportunity to meet with their legislators about issues facing Wisconsin airports, and to network with other airport officials.

The WAMA board of directors has a draft list of legislative issues, but welcomes member input.

Legislative Day opening and closing events will take place at the "Top of the Park" meeting room, located at the Best Western Plus Inn on the Park, 22 South Carroll Street, Madison, Wisconsin.

Registration is complimentary for all airports in Wisconsin. Wisconsin consultants, fixed base operators and vendors are encouraged to partner with their local airport officials in scheduling meetings with legislators.

Members of the other two top aviation trade organizations in the state, the Wisconsin Aviation Trades Association (WATA) and Wisconsin Business Aviation Association (WBAA), are encouraged to participate as well.

The Wisconsin Airport Management Association's mission is to promote aviation within the state of Wisconsin. WAMA shares vital industry information with airport managers and other aviation professionals.

The Wisconsin Aviation Conference will be held May 6-8, 2018 in Wisconsin Dells (www.wiama.org).

In Memory of Wisconsin Pilot, Peter Laper

PEWAUKEE, WIS. – Longtime Wisconsin pilot and the treasurer of the Wisconsin Aviation Trades Association (WATA), Peter Laper, 62, died unexpectedly December 31, 2017 at his home in Pewaukee, Wisconsin.

Born in Fairwater, Wisconsin on May 12, 1955, Laper worked for many years as a charter pilot and flight instructor at Gran-Aire, Inc. at Milwaukee Timmerman Airport before landing his position as chief pilot at Oldenburg Group, Inc. in Glendale, Wis., where he flew a Cessna Citation Sovereign. Laper holds a Master's Degree in Business Administration from the University of Wisconsin-Milwaukee.

On August 25, 2017, he and his wife, Cindy, celebrated their 33rd wedding anniversary. In addition to Cindy, Laper is survived by his daughters Chelsey (Dexter) Runyard and Carly (Joe) Kramer; his son Phillip; five granddaughters: Emma Runyard, MacKenna Runyard, Lucy Kramer, Josie Kramer, and Olivia Kramer; his brother Patrick (Kathleen) Laper; and his sister Joanne (Al) Arroyo, and their families. Laper's parents, Phyllis and Florian, preceded him in death.

In addition to the Wisconsin Aviation Trades Association, Laper was a dedicated member of Ascension Lutheran Church in Waukesha, Wisconsin. ❑

MATA Scholarship Recipient Reaches ATP Minimums

BLOOMINGTON, MINN. – In a letter to Minnesota Aviation Trades Association (MATA) President Greg Reigel, the 2009 recipient of the MATA Scholarship, Adam Kruse of Princeton, Minnesota said, *"I wanted to let you know that the scholarship I received in 2009 is still appreciated. I reached the ATP (Airline Transport Pilot) minimums this year and look forward to a career with the airlines. Let me know if there is anything I can do to help MATA."*

When Kruse received the scholarship, he was a student at Luther College in Decorah, Iowa. During the summer, Kruse worked in Talkeetna, Alaska at K2 Aviation as a tarmac worker and Spanish translator.

Through scholarships, MATA helps to create tomorrow's aviation professionals, promote flying, and support the Minnesota aviation community.

MATA awards a $2,000 scholarship each year. Candidate requirements are as follows:

- Must be currently enrolled in a flight training curriculum at a Minnesota flight school that is a member of MATA.
- Must write a one to two-page essay on why he/she wants to learn to fly or continue their training.

All completed materials must be emailed to mnavtrades@gmail.com by June 30th to be considered for that year's scholarship.

A graduate of St. Cloud State University, and a student pilot at Wright Aero, Gjertine Maj Bagent, received the 2017 scholarship.

The Minnesota Aviation Trades Association strives to be the voice of the Minnesota aviation industry with an all-volunteer board of directors, which coordinates conferences; provides legal services; actively lobbies at both the local, state and federal levels; and assists members in building ethical, strong and competitive aviation businesses. Above all else, MATA strives to see general aviation continue to grow – locally, statewide, and nationally.

(L/R) MATA Board Member Greg Reigel presents the 2009 MATA Flight Training Scholarship to Adam Kruse of Princeton, Minnesota.

For additional information and membership information, contact Nancy Olson at 952-851-0631 extension 322, or via email at ngo@thunderbirdaviation.com.

MATA – the choice and voice of aviation businesses since 1945. ❑

Premier Jet Appoints New Operations Manager

EDEN PRAIRIE, MINN. - Premier Jet Center at Minneapolis Flying Cloud Airport (KFCM) in Eden Prairie, Minnesota, has appointed Michael Lawrence to the position of Operations Manager.


Michael Lawrence

Lawrence started in the aviation industry 20 years ago, with the majority of that time spent in a managerial role. Prior to this appointment, Lawrence was General Manager at Key Air at Anoka County-Blaine Airport in Blaine, Minn.

Lawrence obtained his bachelor's degree in Business Administration with a minor in Airway Science/Aviation at Winona State University, and holds a Private Pilot Certificate. He has served on the boards of the Minnesota Business Aviation Association (MBAA) and Minnesota Aviation Trades Association (MATA), and as president of the Anoka County Aviation Association (ACAA).

The parent company of Premier Jet Center is Fargo Jet Center in Fargo, North Dakota (KFAR). Both facilities are full-service fixed base operations providing aircraft maintenance, upholstery, paint, avionics, charter and management. Premier Jet Center also serves as the base for the company's aircraft sales division, Exclusive Aircraft Sales. ❑

Metropolitan Airports Commission Names New Chief Operating Officer

MINNEAPOLIS-ST. PAUL, MINN. – Long-time Metropolitan Airports Commission (MAC) employee, Roy Fuhrmann, has been selected as the organization's new chief operating officer, overseeing everything from airport planning and facility improvements, to the operation and maintenance of all seven MAC airports, including Minneapolis-St. Paul International.

"Roy Fuhrmann's background and experience make him uniquely suited to the position," said MAC Chief Executive Officer Brian Ryks. "He is a talented, consistent leader who has earned a strong reputation, both within the Metropolitan Airports Commission and in the airport industry, as an innovative, knowledgeable professional who doesn't just follow best practices, he develops them."

As chief operating officer, Fuhrman oversees both the management and operations, and planning and development divisions. In that role, he has oversight over several departments responsible for airport planning, construction and operations, as well as the airport police and fire departments.

"I am extremely honored and humbled to be selected by Mr. Ryks to serve the MAC in this important role," Fuhrmann said. "The MAC is immersed in a comprehensive modernization of Terminal 1-Lindbergh, and expanding parking and other facilities. Additionally, we continue to look at operational changes to increase safety and security for our passengers. I look forward to working with our great staff, and our airline and federal partners, to improve the passenger experience at MSP, as well as explore ways to improve our reliever airport system."

Fuhrmann first became involved with the MAC as a noise intern technician in 1991. He became a permanent MAC employee in 1994, as an aviation noise/geographic systems specialist. In 1996, he moved to the reliever airports department as assistant manager of tenant relationships, and was also responsible for Crystal Airport's day-to-day operations. Fuhrmann later rejoined the environment department as manager of aviation noise and satellite programs before becoming director of that department in August 2001. Since 2012, he has served as vice president of management and operations, overseeing the operations of all seven MAC airports, as well as the airport police and fire departments.

In addition to his lengthy service to the MAC, Fuhrmann served more than 20 years as an Army National Guard

Continued On Page 62

Most-Complained About Illinois Airport Opens Free Access, Free Tie-Downs For Transients & Lower Avgas Prices For All

WAUKEGAN, ILL. (December 21, 2017) – Following AOPA's complaint to the FAA over fixed-base operator (FBO) pricing practices at Waukegan National Airport in the Chicago area community of Waukegan, Illinois, local leaders have taken steps to make the field more accessible and friendlier for general aviation. Since December 2017, the airport has been advertising free tie-downs for transient aircraft, along with a pedestrian gate that will allow pilots and passengers direct access to their aircraft instead of having to walk through the FBO. The FBO also agreed to lower the price of self-service avgas from nearly $6 a gallon to a recently reported $4.81 a gallon.

Waukegan National Airport has published a map depicting free tie-downs for transients, as well as the location of self-service avgas and a pedestrian entrance to the ramp. *Photo courtesy of Waukegan National Airport.*

When AOPA initiated its ongoing inquiry into egregious FBO prices and fees, Waukegan's single FBO was identified as one of AOPA's most-complained about locations. However, airport management and leadership have since been proactive in trying to address concerns.

When AOPA contacted the airport to verify complaints, airport officials told AOPA that the FBO controls the entire ramp space for parking. While airport officials contend the free ramp space has been open to transient aircraft for some time, they acknowledge the availability has not been communicated effectively. To change that, the airport website now includes a map depicting the locations of the ramp, self-service avgas, and an access gate. To use the access gate, pilots must call ahead to give their flight information and receive a unique code from the airport.

Officials told AOPA that the airport is also working to bring down the price of Jet A and provide users of the alternative transient ramp some basic amenities, like restrooms.

Barry McKenna, the AOPA Airport Support Network (ASN) representative at Waukegan, said, "The airport has been trying to change things and make Waukegan a much friendlier place." McKenna called the recent changes, "a step in the right direction."

Waukegan sits just north of Chicago and is home to Skill Aviation, a flight school that has been recognized for excellence by AOPA three years in a row, and Stick & Rudder Flying Club, which has been operating since 1948. The airport also hosts an annual airshow; supports a local science, technology, engineering and math (STEM) program; and sponsors the Lake County Veterans Memorial Plaza.

(Reported by Joe Kildea, AOPA) ❑

Quad City International Airport Director To Retire

Bruce Carter

MOLINE, ILL. – Bruce Carter, aviation director for Quad City International Airport, will retire effective July 1, 2018. Carter is past chair of the American Association of Airport Executives (AAAE), a current member of the AAAE Policy Review Committee, and the International Association of Airport Executives (IAAE) Board of Directors, as well as past president of the Great Lakes Chapter of AAAE.

Carter began his 42-year career in aviation as an air traffic controller, and held director positions at a number of airports prior to being appointed to the Quad City International Airport executive team in 1999. ❑

Governor-In-Waiting Promises Support For Aviation Industry In Kansas... Urges Tenacity To Sustain State's Aerospace Leadership Role

by Nate Franson

Tenacity was the theme of Kansas Lt. Gov. Jeff Colyer's address to the Wichita Aero Club on November 7, 2017 in Wichita, Kansas. Dr. Colyer, 57, a Hays, Kansas native, is a surgeon, an aviator, and – pending the U.S. Senate's approval of Gov. Brownback's new role as Ambassador for Religious Freedom – the next governor of Kansas.

Lt. Gov. Jeff Colyer

Dr. Colyer spoke to a crowd of over 100 members in attendance about the state's aviation past, present and future. He recounted the beginnings of the industry, citing the early days of the Travel Air Manufacturing Company, the current business climate, and sharing part of his vision for how Kansas would remain competitive in an ever-evolving market. "We can compete, and we will compete," he said, due in large part to the tenacity of Kansas aviators.

Dr. Colyer championed the pioneering spirit of such industry luminaries as Walter Beech, Lloyd Stearman, and Clyde Cessna, noting that their legacy continues in the hearts and minds of those people in the room. This enterprising spirit will be vital to compete in the global aviation market – with sources as close as Oklahoma, and as far away as China, building airplanes and providing the needed support infrastructure.

"The real strength of Kansans is tenacity. Tenacity is the common denominator of success and I think everybody in this room knows that measure," he emphasized.

The Lieutenant Governor acknowledged that in order for the aviation industry to grow in the next decade, government needs to play ball. Dr. Colyer insisted that he and his fellow administrators will work with the industry to overcome challenges and increase productivity. Much of what he posited was focused on education - increasing focus on industrial arts programs and working to raise the competencies and skill levels of Kansans in order to provide a higher quality workforce for employers. To this end, Dr. Colyer shared the first steps state government is already taking, which is to increase funding for industrial arts and STEM-related programs in K-12 education, going so far as to say that many programs like that could be entirely state funded.

The increase in skilled labor would provide a more competitive foothold for additional aviation companies in Kansas, but it isn't the only concept the Lt. Governor put forward. State government is working on securing better rates for both insurance plans and tax breaks for businesses, and encouraging an increase in capital expenditures to allow the industry to "grow and thrive."

With a combined focus on collaborating with the aviation industry, working to provide a more skilled local labor force, and more nurturing business conditions for Kansas companies, the lieutenant governor painted a positive picture for Aero Club members. "Those of you in this room are absolutely essential to take us where we're going over the next 10 years," he concluded.

Dr. Colyer has declared his candidacy for governor in the 2018 race where, assuming Brownback's ambassadorship is confirmed, he will be running as an incumbent (www.wichitaaeroclub.org). ❑

Michigan Aviation Industry News

Michigan Native Named Honorary Golden Knight

FAYETTEVILLE, N.C. – Renowned airshow announcer, Danny Clisham of Ann Arbor, Michigan, has been named an honorary member of the U.S. Army Golden Knights Parachute Team. Clisham joins an elite group of other honorees, which includes former President George H.W. Bush; record-setting skydiver, Colonel Joe Kittinger; and airshow performer, Sean D. Tucker. The honor was bestowed Clisham during a ceremony at the 2017 Golden Knights Reunion in Fayetteville, N.C., on December 16, 2017, for having helped to elevate the team's performances at airshows, which are used as a major recruitment tool of the U.S. Army.

Being named an Honorary Golden Knight is the highest honor the team awards a non-team member, and are selected annually by secret ballot.

"Danny is a true friend and mentor to the U.S. Army Golden Knights. His professionalism and expertise has allowed us to take our show leaps further than we could ever have imagined," said Sergeant First Class Ben Currin, U.S. Army, Ret., and Vice President of the Golden Knights Alumni Association. Clisham has known every team since it was formed in 1959, and always welcomes its members to the announcer's stand.

"This is truly an honor," said Clisham. "The Golden Knights are dear friends whom I deeply respect for their excellence in performance and conduct. I'm humbled to be considered among such an outstanding organization."

Clisham first took the microphone in 1965, and has since built a reputation of entertaining play-by-play announcing at every major airshow venue, and for every major airshow performer in North America. Other honors bestowed him include the Art Scholl Memorial Showmanship Award, Bill Barber Award For Showmanship, and induction into the International Council of Air Shows (ICAS) Foundation Air Show Hall of Fame. ❑

Danny Clisham

(Photo by Sean Capogreco, United States Army Parachute Team.)

Ohio Aviation Industry News

Ohio Community Holds Ribbon Cutting Ceremony To Celebrate New Hangars

SPRINGFIELD, OHIO – The City of Springfield, Ohio, in conjunction with Clark State Community College, held a ribbon cutting and dedication ceremony recently to celebrate the addition of 10 new hangars to Springfield-Beckley Municipal Airport.

"The addition of the hangars allows the City of Springfield to bring in larger jets and increase traffic," said Tom Franzen, assistant city manager and director of economic development. "We are excited about the possibilities to come and the economic activity that this will drive to our city."

The cost of the additional hangars was $1.2 million, which was funded through a variety of sources, including $492,500 from Ohio's capital budget process, $300,000 from the Springfield Port Authority, a reimbursement of $231,000

from the Federal Aviation Administration, and $190,000 from the City of Springfield.

The Unmanned Aircraft Systems (UAS) industry was an area of focus for the new hangars. Included is a hangar for Clark State Community College, formally known as the Ohio Center for Precision Agriculture.

In addition to the hangars, the city recently completed a ramp expansion to accommodate the projected growth of Spectra Jet, a Part 145 aircraft repair station, specializing in Bombardier Learjets and Challengers. The addition of the hangars and related airport improvements was due in large part to the city and its partnership with the Dayton Development Coalition, Clark State Community College, and the Springfield Clark County Community Improvement Corporation.

The Ohio Department of Transportation (ODOT) has shown that the airport provides a significant economic benefit for the City of Springfield by directly impacting close to 700 jobs and more than $40 million in payroll. ODOT also stated that the airport is indirectly tied to 1,450 jobs and $78.5 million in payroll (www.springfieldohio.gov).

(L/R) Horton Hobbs IV, Vice President, Economic Development, Greater Springfield (Ohio) Chamber of Commerce; Dr. Jo Alice Blondin, President, Clark State Community College; Tom Franzen, Assistant City Manager and Director of Economic Development, City of Springfield; Senator Bob Hackett; Commissioner Joyce Chilton, City of Springfield; Mayor Warren Copeland, City of Springfield; and Commissioner Dan Martin, City of Springfield.

❑

Find Your Strength...

by Marta Micinski Dolan

My flying adventure began on a random morning two years ago when, at the end of my rope and desperate for entertainment for my two small children, I took them to DuPage Airport in West Chicago, Illinois, to see some planes on display at the annual community days event. While my children checked out the planes that belonged to a flying club, I looked through their brochures. In that instant, I felt something powerful – a sort of longing stirred inside me, and entirely on a whim and to the complete bemusement of three older gentlemen sitting at the table, I handed them a check and joined the club.

What followed was a significant shift in my perspective on life…a sort of an awakening, which was met by confusion and concern for my safety from those closest to me. But my fate was sealed during one dreamlike flight in a beautifully restored Piper Cub. I watched the plane's shadow shimmering on the fields below, felt the breeze in my hair, and breathed in the freedom that comes from choosing one's own destiny. I knew then I would forevermore be walking the earth with my eyes turned skyward, wishing for nothing more than to be up there, always.

Since then, a lot has changed in my life: I changed jobs, got divorced, and learned the struggles of being a single parent while balancing work and personal responsibilities. It has not been easy and there were many mornings I found myself hiding under the covers afraid to face the day. During those times, I would think about flying. I would remember the immense joy and the exhilaration that comes from being able to choose my own adventure. I would remember the distinctive smell of a small airport – the freshly mowed grass, combined with the scent of aviation fuel; the beauty of the sky turning gold and pink as it was welcoming a new day; and the gentle breeze of a summer morning that brought so much opportunity with it. And I would remember the feeling of accomplishment and strength, and that wild sparkle in my eyes when I FINALLY landed my little Cessna in those crazy crosswinds without my instructor's help. And I would get up and face the challenge. After all, I flew an airplane…how difficult could this day be?

May flying bring you joy, but also help you realize that if you can do THAT, you can do just about anything. Carry that strength with you and know that only the sky is your limit.

EDITOR'S NOTE: Marta Micinski Dolan is originally from Poland and now lives in the Midwest. She is a registered nurse and holds a bachelor's degree in psychology and a master's degree in business administration. She hopes to one day fly for a small regional airline. ❑

Paul Cornu's "Flying Bicycle" – 110th Anniversary of the First Helicopter Flight

On November 13, 1907, French engineer and bicycle maker, Paul Cornu, made history by becoming the first man to fly a rotary-wing aircraft. The primitive helicopter – a twin-rotorcraft powered by a 24 hp engine – only lifted Cornu about 1.5 meters or 5 feet off the ground, holding him there for 20 seconds at Coquainvilliers, near Lisieux, France. But that

was high enough for Cornu to take his place in the history books as the first man to successfully fly a rotary-wing aircraft. The aircraft weighed 13 kilograms or 28.7 lbs.

Paul Cornu was born in 1881 in Lisieux, France. Once he reached working age, he joined his father in the family business – an automobile, cycle and motorcycle shop where his talent for engineering became clear.

Cornu's inventive skills first came to the forefront when, at the age of 24, he designed and built the helicopter he called a "Flying Bicycle."

Cornu died in 1944, when his home was destroyed during a World War II Allied bombardment (www.fai.org). ❑

Showcase Your Treasures & Honor The Tuskegee Airmen!

RED WING, MINN. – The Commemorative Air Force (CAF) Red Tail Squadron, America's tribute to the Tuskegee Airmen, has announced that their Virtual Museum has gained significant traction since its launch in the fall of 2017, adding new artifacts, memorials, artwork and mementos honoring the Tuskegee Airmen. Anyone with an interest in increasing awareness about these iconic American heroes is encouraged to share a photo and information of their items at redtail.org/share-piece-history-virtual-museum/.

Those who want to showcase their items on the website will be entered in the CAF Red Tail Squadron's monthly drawing for a prize, as well as a grand prize drawing at the end of the year. This promotion is the squadron's way of saying thank you to the community of supporters who are working together to make the CAF Red Tail Squadron Virtual Museum the destination for gaining a personal, human perspective of the experience of the Tuskegee Airmen.

New additions to the Virtual Museum include underwater wreckage of aircraft flown by Tuskegee Airman Frank Moody explored by the group Diving With A Purpose, and a photo of Tuskegee Airman Charles Lane flying a P-51 on a mission over Europe taken from inside the B-17 it was assigned to escort.

"Step inside" the CAF Red Tail Squadron Virtual Museum at redtail.org/virtual-museum/. ❑

Kansas Names New Interim Director of Aviation

TOPEKA, KAN. – The Kansas Department of Transportation (KDOT) has named Robert Brock interim director of aviation. Brock served 22 years in the Air Force and retired as a lieutenant colonel before joining the department. He will oversee the Kansas Airport Improvement Program, Unmanned Systems Program, and Science, Technology and Aviation Resource (STAR) program. ❑

Calendar

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

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

You can also email: info@midwestflyer.com – Or – Mail To: Midwest Flyer Magazine, 6031 Lawry Court, Oregon, WI 53575

NOTAM: Pilots, be sure to call events in advance to confirm dates and for traffic advisories and NOTAMs.

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

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 2018

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

10* Oshkosh (KOSH), Wis. - EAA Skiplane Fly-In at Pioneer Airport 10am-1:30pm. Please contact EAAs Miranda LaBrec at 920-426-6597 or at mlabrec@eaa.org to address any air operations questions.

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

15* Oshkosh (KOSH), Wis. - The Aviation Adventure Speaker Series at the EAA Aviation Museum beginning at 7pm will be "The Battle of Midway," with Dick Campbell.

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

MARCH 2018

2-4* San Marcos (KHYI), Texas - **Bonanza & Baron Pilot Training (BPT) Clinic. Register 970-206-0182 or visit www.bonanzapt.com or call Mick Kaufman at 817-988-0174.**

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

19* Brooklyn Center, Minn. - **Aviation Career Event - Attention High School Students at the Earle Brown Heritage Center, 6155 Earle Brown Drive from 9am-1:45pm. Sessions will include special speakers from the aviation industry, employers and representatives from aviation colleges/universities and the military. Space is limited. Lunch is included. Register for this event by contacting Darlene Dahlseide at darlene.dahlseide@state.mn.us**

19-20 Brooklyn Center, Minn. - **2018 MN Aviation Maintenance Technician Conference at the Earle Brown Heritage Center. This conference is for aviation maintenance professionals for continuing education, networking, employer recruiting, and IA Renewal. It will include exhibits featuring the latest and best in aviation products, technology, career opportunities and aviation awards. Register online at www.regonline.com/2050972.**

23-25* Fresno (KFAT), California - **Bonanza & Baron Pilot Training (BPT) Clinic. Register 970-206-0182 or visit www.bonanzapt.com or call Mick Kaufman at 817-988-0174.**

APRIL 2018

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

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

21* Watertown (KRYV), Wis. - **Cirrus Systems Firewall Forward Seminar presented by Dan Stammen 9am-Noon at Watertown Municipal Airport - Wisconsin Aviation. Lunch & Swag provided by Cirrus Aircraft.**

25* St. Paul, Minn. - **7th Annual Minnesota Aviation Day At The Capitol. This event is open to people actively involved in aviation in Minnesota and believe in the importance of airports. Contact Tim Cossalter at timcossalter@outlook.com or 651-269-1221. See page 7 for info.**

27-28* Blaine (ANE), Minn. - 2018 Great Minnesota Aviation Gathering www.mnpilots.org

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

MAY 2018

4-6* Waukesha (KUES), Wis. - **Bonanza & Baron Pilot Training (BPT) Clinic. Register 970-206-0182 or visit www.bonanzapt.com or call Mick Kaufman at 817-988-0174.**

6-8* Wisconsin Dells, Wis. - **63rd Wisconsin Aviation Conference at the Wilderness Resort. wiama.org/conference/**

16* Granite Falls (KGDB), Minn. - Ray Fagen Memorial Airshow. Many rare WWII Reenactors and Camps, WWII Vehicles and more. www.fagenfighterswwiimuseum.org

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

20* Brodhead (C37, Wis. - Pancake Breakfast 7am-Noon. eaa431.org.

JUNE 2018

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

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

9* Eastport (59M), Mich. - Torchport Fly-In Breakfast & Classic Car Show 8-11am.

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

JULY 2018

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

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

23-29 Oshkosh (KOSH), Wis. - **EAA AirVenture Oshkosh 2018. www.airventure.org 920-426-6510.**

AUGUST 2018

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

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

12-15 Miminiska Lodge, Ontario Canada - **Canada Fishing Fly-Out 3-Night/2-Day Trip. FOR RESERVATIONS: Contact Lynette Mish**

at Wilderness North toll free: 1-888-465-3474.

18 Grinnell (KGGI), Iowa - Fly Iowa 2018 - Grinnell RAP, the Jewel of the Sky. Breakfast, exhibits, youth activities & air show. Rain dte for air show 19th.

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

SEPTEMBER 2018

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

18* Watertown (KRYV), Wis. - Open House & Pancake Breakfast.

OCTOBER 2018

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

16-18* Orlando, Fla. - 2018 National Business Aviation Association (NBAA) Business Aviation Convention & Exhibition. www.nbaa.org

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

For More Listings, Information & Updates
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www.MidwestFlyer.com

PLEASE SEND YOUR LISTING TO US AT LEAST 90 DAYS PRIOR TO THE EVENT.

Thank You!

Iowa To Get Brand New Airport

US-based engineering company, HDR, has been selected by the South Central Regional Airport Agency, to plan and design a 581-acre regional airport in Iowa, between Oskaloosa and Pella. The new airport will replace the municipal airports in these cities.

The Federal Aviation Administration (FAA) has completed its review for the first phase of the project that involves an investment of $30 million. HDR will be responsible for real-estate acquisition, master planning, environmental documentation, the geographic information system, and geotechnical engineering, as well as FAA liaison services. The contract scope also includes financial support and public outreach. The design of the terminal, runways, hangars and other utilities is included.

HDR project manager Jerald Searle said, "The new airport is needed for local and itinerant corporate aircraft. The existing airport environs are such that neither airport can be expanded to accommodate aeronautical demand safely and efficiently."

The airport will feature a 6,700-ft primary runway, appropriate for category B and C aircraft operations. Instrument approach procedures will be developed with the desired approach minimums as low as one-half mile visibility and a decision height of 200 feet. Airside features will include a full parallel taxiway system, crosswind runway, terminal building, an aircraft-parking apron, and aviation services, such as fueling, aircraft maintenance, and hangars.

Design and construction of the new airport will commence once the land has been acquired. ❑

Poberezny Property Tours Now Available!

OSHKOSH, WIS. – Thanks to the generosity of the Irwin family, owners of Aircraft Spruce, who purchased Paul and Audrey Poberezny's home southwest of Wittman Regional Airport in February 2017, the home is now open for public tours the second Saturday of each month, from 11:00 a.m. to 2:00 p.m. The home is located on 9 acres of land. The price of the tour is $5.00 per person. ❑

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Airshow performer, Todd Peterson, in the Super Chipmunk, once owned by the late Harold Krier.

Harold Krier in the cockpit of his Chipmunk, with famous NASA test pilot, "Fitz" Fulton looking on.

Air Power Museum Acquires Historic de Havilland Super Chipmunk

APM Founder and Chairman Robert Taylor with Todd and Jo Peterson at Antique Airfield on December 23, 2017, when the Petersons flew in to donate the Super Chipmunk, once owned by the late Harold Krier.

BLAKESBURG, IOWA – The Air Power Museum (APM), located at Antique Airfield in Blakesburg, Iowa, has acquired a rare and historic de Havilland Super Chipmunk once owned by aerobatic competitor and airshow performer, Harold Krier of Ashland, Kansas. Owners Todd and Jo Peterson of Peterson Performance Plus, Inc. of El Dorado, Kansas, donated the aircraft to the museum.

Since 1946, several countries have used Chipmunks for training military pilots, but this two-seat aerobatic trainer, N6311V, was designed to be the first monoplane to represent the USA in the World Aerobatic Championships in Moscow in 1966.

Krier served as a flight engineer during World War II, and following the war, learned to fly and fell in love with aerobatics. By the mid-1950s, he was performing in a clipped-wing Cub and later in a modified Great Lakes biplane, as well as a biplane of his own design, the "Krier Kraft." With an introduction by fellow airshow performer, Frank Price, Krier toured the country in Bill Sweet's National Airshow, where he remained until his death spin testing a prototype aircraft in Wichita, Kansas in 1971 at age 49.

Harold Krier claimed top prizes in the Antique Airplane Association (AAA) Aerobatic Championships from 1958 through 1960, with the trophy retired in his name in 1966, the same year the Chipmunk competed in the World Aerobatic Championships in Moscow.

Krier realized that to compete internationally, he needed a slick monoplane, so he clipped and metalized the wings of a Chipmunk, lengthened the ailerons, redesigned the tail, beefed up the airframe and installed a 200-hp Ranger engine. Thus, the first aerobatic monoplane to represent the USA in international competition was born, and the innovations in Krier's Super Chipmunk set the standard for most future competition monoplanes.

Krier literally gave away all the modification data to anyone who wanted to copy it. Other well-known competition aerobatic pilots and airshow performers who used Krier's modifications on their Chipmunks, included Art Scholl and Skip Volk.

Harold Krier's Chipmunk and related artifacts/memorabilia will eventually be displayed, along with Frank Price's Great Lakes biplane -- the first U.S. entrant in the 1960 World Aerobatic Championships. These two aircraft, along with APM's collection of Duane Cole's personal memorabilia, will form the center piece of the future Earl Adkisson Hangar.

For more information about the Chipmunk, Harold Krier, Todd and Jo Peterson and APM, see www.AntiqueAirfield.com and the Facebook page at https://www.facebook.com/antiqueairfield. ❑

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aviation officer, with deployments to Guatemala, Bosnia and Iraq. Over the course of his service, he commanded three aviation units before retiring from military service in 2009.

Fuhrmann holds a bachelor's degree in public administration from the University of North Dakota. He serves on the Unmanned Aerial Systems Committee of the American Association of Airport Executives (AAAE), and is co-chair of the NextGen Working Group within the Operations and Technical Affairs Committee of Airports Council International-North America (ACI-NA). Fuhrmann is a member of the national NextGen Advisory Committee Sub-Committee (NASCSC), past chair of ACI-NA's Environmental Affairs Committee, and a member of the Aircraft Owners and Pilots Association (AOPA). Fuhrmann is a commercial, instrument-rated pilot; flies both helicopters and airplanes; and resides in Webster, Minnesota with his wife Kim. ❑

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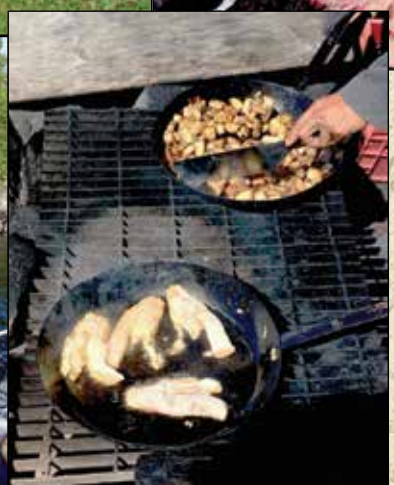

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