MIDWEST FLYER MAGAZINE

APRIL/MAY 2017

Published For & By The Midwest Aviation Community Since 1978

midwestflyer.com

Are you Fit to Fly under BasicMed?

Now that the FAA has announced BasicMed, the new third class medical reform rule, will go into effect on May 1, it's time for pilots to start learning how to take advantage of the benefits.

We know our members are relying on us as the new rule rolls out. So, that's why we launched our Fit to Fly resources to help pilots make the most of BasicMed. Fit to Fly is an online suite of tools and information developed to ensure both pilots and physicians understand the new regulations. You can find the resources online at *www.aopa.org/FittoFly*.

The process of getting Fit to Fly begins with figuring out if you qualify, and we have an interactive tool to walk you through that online. Many pilots will immediately qualify for BasicMed, but for those who will need to take some additional steps, the process to get back flying is now much easier. And if you have one of the medical conditions specified by the FAA in the BasicMed rule, you will need to obtain only one special issuance medical for that condition, and then you may subsequently fly under the BasicMed rules.

In order to start flying under BasicMed, all you'll need to do is complete the physical exam and FAA checklist every four years and the online aeromedical course every two years that AOPA will provide free as part of Fit to Fly.

All of this information and more is available in our Fit to Fly resources, and we will continue to post updates as we approach May 1. Watch for the launch of the free AOPA online aeromedical education course, videos to help pilots understand BasicMed, and additional information for physicians.

If you've reviewed our Fit to Fly resources and still have questions, our aviation and medical experts are standing by. Contact the AOPA Pilot Information Center for help at 800.USA.AOPA (872.2672) Monday through Friday, 8:30 a.m. to 6 p.m., Eastern time or by emailing *pilotassist@aopa.org*.

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.

Vol. 39. No. 3

Contents

ISSN: 0194-5068

APRIL/MAY 2017

ON THE COVER: Jim Whiting of Nisswa, Minnesota, takes off from Gull Lake in the Brainerd Lakes Area of Minnesota in his Aviat Husky, which is equipped with Wipline amphibious floats. See the first edition of ***Midwest Seaplane Pilot*** beginning on page 32.

Brad Thornberg Photo

HEADLINES

COLUMNS

FEATURES

SECTIONS

23

28

33

54

State Aviation Conferences, Seaplane Flying & The Hoover Trophy!

by Dave Weiman

The April/May issue of *Midwest Flyer Magazine* is traditionally dedicated to state aviation conferences being held throughout the Midwest in the spring, and seaplane flying. Usually by April 1, there's no more snow to plow at our airports and the ice is off our lakes, and airport managers and seaplane-rated pilots are excited and preparing for the warmer flying season ahead. Well, in addition to the "State Aviation/ Airport Conference" section, beginning with this issue, we have created a new section called ***Midwest Seaplane Pilot*** featuring seaplane pilots from throughout the Midwest, and the events, activities and travel destinations that fuel their interest.

One of the leading events in the Midwest is the Minnesota Seaplane Pilots Association (MSPA) Safety Seminar and Fly-In to be held May 19-21, 2017 at Madden's Resort in Brainerd, Minnesota. By sea and by land, pilots will converge on the shores of Gull Lake and land at East Gull Lake Airport located adjacent to Madden's Resort. For additional information visit www.mnseaplanes.com. ***Midwest Seaplane Pilot*** begins on page 32.

In memory of the late Bob Hoover, airshow performer extraordinaire, the Aircraft Owners & Pilots Association (AOPA) created an award in his memory, which is given to a person who demonstrates the airmanship, leadership and passion for aviation that Bob Hoover exhibited during his distinguished career and life as a pilot and aviation advocate. The first recipient of the trophy was Bob Hoover himself in 2016, and per his wishes, airshow performer Sean D. Tucker became the second recipient at ceremonies held March 8, 2017 at Ronald Reagan Washington National Airport in Arlington, Va. Read all about it beginning on page 28.

Columnists Pete Schoeninger, Greg Reigel, Mark Baker, Mick Kaufman, Harold Green, Bill Blank, Hal Davis, Cassandra Isackson and Rachel Obermoller will entertain, inform and educate us with topics ranging from instrument flight, pilot proficiency, flight safety, aviation law, aircraft ownership and maintenance, and pilot health and advocacy, to state and federal issues, as they do in each and every issue. Also in this issue are feature articles written by seaplane enthusiasts, Steve Guetter and Randy Schoephoerster.

CONTINUED ON PAGE 10

MIDWEST FLYER MAGAZINE
APRIL/MAY 2017
Serving The Midwest Aviation Community Since 1978

Editor/Publisher
Dave Weiman

Production Director
Peggy Weiman

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

Contributing Editors & Photographers
Mark R. Baker, Michael (Mick) Kaufman
Jonathan Beck, Dan McDowell
Thomas Biller, Stephen Myers
Dr. Bill Blank, Rachel Obermoller
Hal Davis, Gregory J. Reigel
Harold Green, Richard J. (Dick) Reilly
Steve Guetter, Pete Schoeninger
James Hanson, Randy Schoephoerster
Cassandra Isackson, Brian Thuringer

ADVERTISING
PHONE: 641-426-2012
EMAIL:
MidwestFlyer@ConnellAviationGroup.com

EDITORIAL
PHONE: 608-772-1776
EMAIL:
info@MidwestFlyer.com
www.midwestflyer.com

ISSUE CLOSING DATES

DEADLINE	ISSUE
October 15	December - January
December 15	February - March
February 15	April - May
April 15	June - July
June 15	August - September
August 15	October - November

DISTRIBUTION
Readership consists principally of aircraft owners, fixed base operators, airport managers, and aircraft maintenance shops in Wisconsin, Minnesota, North Dakota, South Dakota, Illinois, Iowa, Michigan, Indiana, Missouri, Kansas, Nebraska, and Ohio.

SUBSCRIPTIONS
$19 per year, or $29 for two years.

SUBSCRIBE ONLINE
www.MidwestFlyer.com

EMAIL-OR-MAIL ALL ORDERS & CORRESPONDENCE TO:
info@midwestflyer.com

MIDWEST FLYER MAGAZINE
6031 Lawry Court
Oregon, WI 53575-2617 USA

Index To Advertisers

6TH ANNUAL

MINNESOTA AVIATION

DAY AT THE CAPITOL

On Wednesday, **April, 26th 2017**, 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.

AVIATION WORKS FOR MINNESOTA

EVENT SCHEDULE

0900 KICK OFF BREAKFAST

0930-1145 LEGISLATIVE MEETINGS

1200 BOX LUNCH AT CAPITOL

1215 KEYNOTE SPEAKER
REP. PAUL TORKELSON (INVITED)

FOR ADDITIONAL INFORMATION CONTACT

GORDONHOFF@ICLOUD.COM

FIXED BASE OPERATIONS | AIRPORT MANAGERS | AIRPORT COMMISSIONERS | MAYORS
CITY COUNCIL MEMBERS | BUSINESS AIRCRAFT OWNERS AND OPERATORS
CORPORATE FLIGHT DEPARTMENTS | AIRCRAFT TECHNICIANS
AVIATION SUPPORT SERVICE PROFESSIONALS
PILOTS | AVIATION ENTHUSUASTS

SPONSORED BY

THE VOICE OF MINNESOTA AVIATION SINCE 1948

MAPA

MINNESOTA COUNCIL OF AIRPORTS
MCOA

Ask Pete!

by Pete Schoeninger

Pete Schoeninger

Q: I noticed a slight miss in my Archer's engine and asked my mechanic to check it out. He noted that all of the spark plugs (massive electrode type) have about 450 hours on them, and one was bad. He felt the others are marginal and suggested I change them all and not reinstall them. How can I test them independently to make sure he is not ripping me off?

A: Here is a secret way you can check up on him: Take the 7 plugs with 450 hours on them that you want to re-install, and put them gently in a bucket and then add exactly 10 inches of soapy water. The ones that float to the top are still OK.

Q: Recently I asked my FBO to de-fuel (remove) 15 gallons of fuel from my aircraft (2000 C-172R), so I would stay under gross weight when a very large passenger showed up. The FBO manager said he would not do it, and no matter how much I begged, he was adamant. I got so mad I did not want to hear his reasoning, for which I apologize. But why wouldn't he de-fuel my airplane?

A: I've been asked the same thing when I was an FBO, and always said NO. The FBO's contract with his supplier probably prohibits re-introducing fuel into storage. There is no way the FBO, or his supplier, can be sure that the fuel in your tanks does not have other brands of fuel, or contaminants. The last thing in the world any FBO or fuel supplier wants is to sell fuel that has any chance of being anything other than what it is represented to be. Also be advised, that if you burn leaded fuel in anything other than your airplane, that may be illegal.

Q: I saw a video of a guy landing a Citabria with wheels on a frozen lake that had 3 inches of new powder snow on it. Isn't that dangerous because you could nose over?

A: Yes, you could easily nose over, but IF the snow was fresh powder you might get away with it, but it is not recommended. SKIS are made for landing in snow, not wheels. If the snow was a few days old, or had melted a little and then refrozen, making a crust on top, the chances of flipping over increase greatly. If that Citabria stayed on the lake a couple of days, the pilot would probably be wise to bribe some snowmobile drivers to pack the snow down and make a primitive runway for takeoff. Using skis would be a much better choice to start with.

Q: I heard an old-timer say Lycoming engines used to be Narrow Deck, but now most are Wide Deck versions. What are the differences and how can I tell which version of my 0-320 I have?

A: The first Wide Deck version of the Lycoming 0-320 was with the introduction of the Piper Twin Comanche in the early 1960s. The many design changes incorporated (too involved for this answer) were phased in to most Lycoming engines during the later 1960s. You can tell which version of most Lycoming engines by looking at the serial number. If the serial number ends in the letter A, you have the Wide Deck version. (With the exception of the 0-320H and 0-360E, which have wide deck construction, but NOT the letter A in the serial number.)

Q: How do one-piece horizontal tails as found in Cherokees and Cardinals fly at a slight negative angle of attack to create "downward" lift in cruising flight?

A: With a once-piece horizontal tail, slight negative lift occurs because there is an arm with a weight on it attached to the front of the spar on the stabilator. The length of the arm, and weight on the end, are carefully calculated to have the stabilator trail in a slight negative angle of attack. Ask your mechanic to show you the arm and weight when you see a Cherokee or a Cardinal in his shop.

Q: My friend took me for a ride in his 1970 Mooney M-20E. As he did his walk around inspection before boarding, I could not find a trim tab on the elevator. My friend said the whole tail moves slightly to change the angle of attack of the horizontal stabilizer. Since I am a student pilot and he is a commercial pilot, I did not want to show my stupidity by challenging him, but was he pulling my leg or what?

A: Your leg did not get pulled. The whole tail assembly tilts forward, or backward just a bit, as the pilot inputs nose up or down trim.

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. ❑

62nd Annual Wisconsin Aviation Conference

April 24-26, 2017

Country Springs Hotel & Water Park
2810 Golf Road • Pewaukee, Wisconsin
RESERVATIONS: 262-547-0201 - OR - 800-247-6640

REGISTER FOR THE CONFERENCE:
http://wiama.org/attendee-registration - OR - CALL 608-739-2011

The Benefits of Attending This Conference:

Working alone as an airport official, manager, or business owner, can isolate you from the rest of the industry. That's why there are associations, and that's why associations hold annual conferences.

Don't isolate yourself, anymore!

Instead
- Get New Ideas
- Network With Others
- Share Your Expertise
- Learn From The Experts
- Evaluate New Products & Services
- Meet With State & Federal Officials

Conference Topics:
- Aeromedical reform with EAA's Sean Elliott
- Aviation Education Programs
- Takeoff and Landing Performance Assessment (TALPA)
- The Pilot Supply Issue and Other Air Service Challenges
- Runway Incursion Prevention, and TSA & Airports
- Meet With State & FAA Officials One-On-One! (Appointment Required: 608-739-2011)

Registration Fee Includes All Meals & Receptions
"Complimentary Registration for Airport Commissioner/Board Member with Paid Staff Registration"

Hosted By
Waukesha County Airport
Sponsored By
Wisconsin Airport Management Association
Wisconsin Aviation Trades Association
Wisconsin Business Aviation Association
Consultants, Suppliers & Sponsors

If you haven't already done so, don't forget to register online:
http://wiama.org/attendee-registration/

Are You Running An Illegal Flight Department Company?

by Gregory J. Reigel
Attorney At Law


Greg Reigel

Do you own your aircraft through a corporation or limited liability company ("LLC")? If you do, you may have done that after reading the ads in several of the aviation magazines suggesting that aircraft buyers should "incorporate in Delaware" etc. Or your accountant or attorney may have recommended that you form a corporation or limited liability company ("LLC") to own the aircraft.

This isn't unusual since one of the primary benefits of a corporation or LLC is the limited personal liability protection the entity affords. An owner of a corporation or LLC, simply by virtue of that ownership interest, is not personally responsible for the debts and obligations of the entity, other than to the extent of his or her ownership interest in the corporation or LLC. But, in the context of civil liability arising from aircraft ownership, this limited liability protection is not absolute.

If an individual, who may be a shareholder/director/officer of the corporation or member/governor/manager of the LLC, is operating an aircraft owned by the corporation or LLC and that individual is involved in an accident or incident that results in damage to property or personal injury, that individual could still be held personally responsible for his or her negligence etc., in addition to the corporation or LLC. Similarly, if the aircraft is operated in connection with a different business, that business could also have liability exposure.

Additionally, while an aircraft buyer may benefit by using a corporation or an LLC to own an aircraft, the aircraft buyer also needs to be aware of the regulatory issues that may result when an aircraft is purchased by, and operated from, what is commonly referred to as a "flight-department company." In this scenario, the buyer, which may be an individual or a business, purchases an aircraft and forms a separate corporation or LLC to hold title to the aircraft. That corporation or LLC then hires pilots and those pilots operate the aircraft for the buyer and oftentimes the buyer's individual owners, all the while thinking the operations are being conducted under FAR Part 91.

Unfortunately, this arrangement isn't structured properly for Part 91 operations. Rather, the FAA will view the corporation's or LLC's operation of the aircraft on behalf of the buyer as a commercial operation requiring an air carrier certificate. And if the corporation or LLC does not hold an air carrier certificate (which is usually the case), then the FAA will consider those flights to be illegal charter flights. Additionally, the IRS would also probably assess Federal Excise Tax on those flights.

It is also important to keep in mind that the FAA will look beyond any written agreements between the parties to determine how the arrangement is actually conducted. Although a lease between the corporation or LLC and the buyer is written as a dry lease and says "Dry Lease" at the top of the agreement, for example, that doesn't mean that the FAA can't take the position that the arrangement is really being conducted as a commercial operation if that is the way the parties are truly operating the aircraft.

And if the FAA takes that position, then that will be a problem for the corporation or LLC, and potentially for the aircraft buyer as well. Additionally, this type of operation could subject the pilot(s) actually flying the aircraft to an FAA enforcement action and subject the corporation or LLC that owns and operates the aircraft to a civil penalty action.

Does this mean you can't have a corporation or LLC own your aircraft? No, not at all. But it does mean that you need to carefully structure the ownership and operation of your aircraft to make sure you are compliant with the regulations. With the appropriate use of a dry lease or use agreement, and pilot agency and service agreement, it is possible to structure the ownership and operation of your aircraft to satisfy the FAA's operational control and other concerns.

So, at the end of the day, if you do it right, you certainly can have a corporation or LLC own your aircraft, operate it under Part 91, and not be an illegal flight department company.

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. ❑

Dialogue From Page 5

If you are not currently a paid subscriber to *Midwest Flyer Magazine,* you may have received a "sample copy" of the magazine to peak your interest. To subscribe, please go to our website **www.MidwestFlyer.com** and click the **SUBSCRIBE NOW** banner ad, and within minutes, we will welcome you as a new subscriber. You can pay online using either your major credit card, or PayPal account. Subscribing is the best way for you to support this publication and its advocacy efforts. Thank you! ❑

Tips That Will Help You In Instrument Flying!

by Michael J. "Mick" Kaufman

Michael Kaufman

It always saddens me to hear about aircraft accidents, but I always try to think of items to write about, which may help pilots avoid them in the future. In this issue, I will cover instrument departures and "Flying By The Numbers."

When a pilot gets his/her instrument rating, chances are they have had very little actual instrument flight time, if any, so now is the time to learn how to do it correctly.

When I train an instrument pilot from start to finish, I use a very structured syllabus and I only do concentrated training. The one or two-hour flight lessons once or twice a week are not conducive to training a good instrument pilot. It takes a year or more to accomplish the task, and it costs the applicant an additional 50% or more.

Some 25-plus years ago, I became an instructor for a company called Professional Instrument Courses (PIC) and learned their instruction method, as well as the importance of using a good syllabus and lesson plan. I have adopted that method and have been using it ever since.

I often get calls from pilots wishing to finish their instrument training, and I ask them how much instrument time they have and what exercises they have been doing with their instructor. The answer that is quite common is: "5 hours of instrument time and we have been doing ILS and GPS approaches." I rarely start approaches until the applicant has 20 hours of instrument time logged. I will discuss this later in the article on the topic of "Flying By The Numbers." But the first topic I want to cover is the lack of experience flying in actual instrument conditions, which was the cause of a recent accident.

As mentioned earlier, many newly rated instrument pilots have never flown in actual IFR or Instrument Meteorological Conditions (IMC) during their training, nor have they made an IMC departure from an airport.

We, as instructors or pilot examiners, try to instill in new instrument rated pilots to start exercising the rating by having them first file IFR and fly in the system on those perfect VFR days to gain radio experience. Once the pilot has reached a reasonable comfort level, we should fly in the clouds to get that IMC experience with rather high ceilings. Now

comes that next and biggest step of a low IMC take off and departure. I recommend the pilot do this with his instrument instructor the first time for safety reasons, and to avoid becoming overwhelmed.

In the perfect world on day nine of a 10-day instrument course, it would be great to have that 200 to 500 ft. overcast and 1 mile visibility for departure for that required Federal Aviation Regulation 250 nm cross-country, but this is not that perfect of a world.

All those instrument departures should begin with a thorough weather and airport briefing prior to departure with an emphasis on studying the approach charts for the departure airport, as well as Standard Instrument Departures (SIDs) and obstacle departure procedures. Something to consider would be where would you go if you had an emergency or no equipment failure after takeoff. For training purposes in our Baron Bonanza Pilot Training program (BPT, Inc.), we require circling weather minimums for the departing airport.

A comment I have made many times before in my column is no IFR after an aircraft recently comes out of maintenance or the aircraft is new to you. If you are departing from a tower-controlled airport, expect a SID or departure procedure. Take your time analyzing that procedure to make sure you can comply before departing. Many pilots are not aware that all of those modern GPS navigators with databases have SIDs available to load. Once you have received your clearance, then load the SID before departure. All of this will reduce your workload after departing.

This is where flying in IMC can get overwhelming to the new instrument pilot after departing, as they will be trying to watch outside of the windshield, which is the wrong thing to do, and then comes the vertigo. I have lost count on how many times I had to take the controls or interject some help in this scenario. To avoid this, transition to your flight instruments the instant the aircraft has lifted off and the proper pitch has been established for the aircraft you are flying. If you have a flight director (I love flight directors) with a go-around button, line up with the runway, set the heading bug to the runway heading, and push the go-around button for the flight director. This will give you the proper pitch and direction information before and during the departure.

I recommend hand flying the flight director until reaching an altitude where the workload allows you to monitor the autopilot for proper operation after turning it on. I have seen cases where the autopilot malfunctioned or was incorrectly programmed, and if the pilot was distracted by another task, there could have been an accident.

LONE ROCK, WI
TRI COUNTY RGNL (LNR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 4 08185 (FAA)

TAKEOFF MINIMUMS: **Rwys 9, 27,** 600-1¾, or 1000 -2½ for climb in visual conditions. **Rwys 18, 36,** NA -Environmental.

DEPARTURE PROCEDURE: **Rwys 9, 27,** for climb in visual conditions: cross Tri-County Rgnl Airport at or above 1600 before proceeding on course.

NOTE: **Rwy 9,** terrain and trees beginning 23' from DER, 238' left of centerline, up to 100' AGL/1129' MSL. Road beginning 244' from DER, 330' left of centerline, up to 17' AGL/733' MSL. Terrain and trees beginning 18' from DER, 235' right of centerline, up to 100' AGL/722' MSL. **Rwy 27,** building 764' from DER, 386' left of centerline, up to 25' AGL/744' MSL. Tree 1381' from DER, 590' left of centerline, up to 70' AGL/785' MSL. Road beginning 245' from DER, on centerline, up to 12' AGL/731' MSL. Antennas and poles beginning 920' from DER, 372' right of centerline, up to 33' AGL/752' MSL. Trees and terrain beginning 2 NM from DER, 2658' right of centerline, up to 100' AGL/1199' MSL.

FIG 1

When departing from a Class G airport without a control tower, it is extremely important to check the obstacle departure procedure before departing ***(FIG 1)***. You may find that certain runways are not authorized for departure under IMC.

Be familiar with the airspace around the airport. For example, your clearance may read: *"You are cleared from the 93C airport to the Oshkosh airport via direct LNR, direct. Climb and maintain 3,000, expect 5,000 10 minutes after departure. Enter controlled airspace on a heading of 180. Upon reaching 3000, direct LNR. Contact Chicago Center on 133.3. Squawk 0455. Clearance void if not off by 15 past the hour. Advise no later than 25 past the hour."*

After attempting to decipher your short hand, you need to remember a few important things. Once you read back the clearance and depart, you are required to follow that clearance. If you had a communications failure, and yes they still do occur, you are expected to comply with that clearance. I make it a habit to acknowledge a new clearance or routing from ATC with the phrase "stand by for read back." This lets the controller know you have received the clearance and are checking to see if you can accept and comply with it, not leaving the controller wondering if his/her transmission was received. Once I am satisfied that it will work and I can comply with it, I read it back.

In the sample clearance above, I want to clarify the part of the clearance, which says, *"Enter controlled airspace on a heading of 180."* This was part of the clearance for two reasons: 1) to make it clear as to the heading the controller wants you to fly for traffic/terrain, and 2) to make you aware that the departure airport is within Class G airspace.

Departing a Class G airport means you have no traffic separation from VFR traffic. Most of the Class G airports have controlled airspace beginning at 700 feet AGL, so there could be VFR traffic in the pattern legally with 1 statute mile and clear of clouds, providing they are below 700 AGL. There is a lot to think about on those first low departures into IMC conditions, especially at non-tower airports.

Flying By The Numbers

In several of my previous columns, I have mentioned "Flying By The Numbers." This concept of training began with pilot training during World War II, but did not surface in GA until John Eckelbar published several books on the concept. When I learned to fly instruments, I did not learn that concept, but adapted to it many years later after reading John's book. A pilot using the "Flying By The Numbers" concept will find it much easier to transition to a different aircraft if the numbers for that aircraft are known, and the instructor doing the check out is a "by the numbers" guy!

The basic concept of "Flying By The Numbers" is that history tends to repeat itself, so there is some memorization that needs to be done on the part of the pilot, and that is for each different aircraft. I make a graph and fill in the numbers as I work to make the graph as simple as I can. ***(FIG 2 - see following page)*** Cessna 172. ***(FIG 3 - see following page)*** V-35 Bonanza. It is worth the time if you are pioneering a new graph for an aircraft to try to achieve numbers that tend to remain the same and are easy to remember.

Attitude Instrument Flying

CESSNA 172

	Manifold Pressure	RPM	Pitch Setting	Airspeed	VSI	Gear/Flaps
Climb		2550	+6	80K	+500	
Cruise		2400	0	100K	0	
Cruise Descent		2100	-3	100K	-500	
Approach		2101	+2	80K	0	
Approach Descent		1700	-2	80K	-425	
Non-precision desc.		1500	-3	80K	-600	

FIG 2 (Cessna 172)

Attitude Instrument Flying

BONANZA V35

	Manifold Preasure	RPM	Pitch Setting	Airspeed	VSI	Gear/Flaps
Climb	25"	2500	+10	120K	+900	UP
Cruise	23"	2300	0	160K	0	UP
Cruise Descent	17"	2300	-4	160K	-600	UP
Approach Gear Up	17"	2300	+1	110K	0	UP/UP
Approach Gear Down	22"	2300	+1	110K	0	DW/UP
Approach Descent Gear Down	17"	2300	-2	110K	-550	DW/UP
Non Preci Desc Gear Down	14"	2300	-3	110K	-700	DW/UP

FIG 3 (V-35 Bonanza)

So many pilots feel they need to fly a precision approach as slow as they can. For example, you could fly a Bonanza at 85 or 90 kts on the approach and that puts it in the A category for speed, but it flies much better at 110 kts and makes the by the numbers graph simpler to remember.

A number of years ago, I was working with an instrument pilot in a Cessna Turbo Centurion, and we were trying to establish speed and power settings for a precision approach. We had our minds set on flying this approach at 100 kts and tried all kinds of power and flap settings, but it just was not working. We kept coming back to a power and configuration that worked, but it was at 120 kts. I told him that the examiner would bust him on his checkride, if he flew the approach that fast on the flight test.

This instrument pilot used his aircraft for business and had hired a commercial pilot to fly for him. That pilot had attended Flight Safety on this aircraft. Flight Safety uses the by the numbers method of training, so I asked to see what numbers they used in their training manual and it was the same that we had used successfully with the 120 kt precision approach. I had my instrument student take the Flight Safety Manual with him for his flight test in case there was a question on the approach speed, as you can't argue with Flight Safety's reputation on flight training.

When I last updated the equipment on my Bonanza, I made one mistake that saved me some money, but could have made the by-the-numbers flying much easier, and if you are making an equipment update list, don't make the same mistake I did.

If you notice on the graph ***(FIG 3)*** on the Bonanza, there is a line for engine RPM and one for manifold pressure. A combination of manifold pressure and RPM can be condensed into one usable number, which is the percent of power, if you have an engine monitor that can compute percent of power. If I would have spent the extra money on the option of displaying percent of power, this would have simplified power settings, and would have put me in a concept similar to those in turbo props and jet aircraft that show power on a percentage basis. Most engine monitors that show percent of power for piston engines also take temperature and barometric pressure into the equation, making for better precision in flying by the numbers.

The "Flying By The Numbers" equation can be shown several ways:
Pitch + Power = Performance
Attitude + Power + Configuration = Performance.

In the two equations, "Pitch" and "Attitude" have the same meaning and the words can be interchanged. Power in either can refer to RPM (fixed pitch prop) or RPM and MP (Manifold Pressure) on an altitude engine. Should you have percent of power available, use it on your engine monitor, piston or jet. Configuration is referring to landing gear and flap

settings. Performance is the airspeed and a rate of climb/descent or cruise you are seeking in the equation.

Use the "Flying By The Numbers" concept, construct your graph and experiment with it before it becomes the final draft for a particular airplane. Keep your graph when you fly that airplane and if this is the only airplane you fly – or you fly it on a regular basis – memorize the numbers. You will find it will be much easier and safer to fly the airplane using this concept.

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

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

Letters

Hi Dave:

You asked to be kept informed about the new Cirrus Perception program when we last spoke at the Cirrus event at Anoka County – Blaine Airport in August. Well, we are pleased to say that the integration is scheduled to take place here at St. Paul Downtown Airport (KSTP) the week of February 6. The final make-up of the platform is an SR22 GTS G5 mated with a L-3 MX-10 10-inch thermal/daylight camera system. We are using a Churchill augmented reality mapping system and it is all being installed by Integrated Surveillance and Defense out of Oregon.

We have been working very hard with a great team of airspace design experts from the Minneapolis Tracon to seamlessly work in and around the Bravo airspace, and are getting close to going fully operational by March 1, if not before. As I stated the last time we spoke, this represents a tremendous leap forward in safety and efficiency for our unit in providing a timely fruitful response to our partners at all levels of government.

Just wanted to keep you in the information flow.

Take care and stay safe,

CWO3 Jim Englin
Minnesota State Patrol
St. Paul, Minnesota

A Good Pilot Defined?

by Harold Green

Harold Green

Every once in a while, someone is pointed out as a "good pilot." Usually the reason for this is a visibly outstanding performance involving control of the airplane. With the caveat that we're commenting only on airplane control, I generally agree with the statement. However, in the broad sense of what constitutes a good pilot, often the issue is not so clear. Sometimes the individual referred to is somewhat impulsive and prone to snap judgment, causing reluctance to accept that definition. Therefore, this article expenses my opinion on the subject, not with intent to instruct, but rather to initiate thought and discussion. By all means, disagreement is welcomed.

Attempting to define "good" led me to recall those pilots I considered "good." Four people came to mind, all of whom were excellent role models. Two of these were Air Force pilots and two were civilian pilots.

The first of these pilots was a captain in the U.S. Air Force who had flown Dragonfly missions over Korea in C-47s before he wound up flying C-119 flying boxcars. These were the folks who went in first at night and dropped flares for the bombers that followed. They had a high casualty rate. This captain could certainly handle the controls of the lumbering C-119.

In turbulence, on final approach, when other pilots were fighting the controls and breaking into a profuse sweat, the captain just kept one finger hooked around the control wheel, kept the airplane level, conversed with the copilot, never raised his voice, and always made a smooth landing. He was also always aware of what was happening around him. (Today, we call that situational awareness.) This resulted in our plane never being involved in near collisions or other nasty situations. On the ground, the captain was the same unflappable person, dealing with situations as they arose with a calm and professional demeanor. We all liked to fly with him when our rotation permitted.

The second good pilot was also a captain, who we will refer to here as "Captain C." In this instance, we flew as a crew, rather than by rotation assignment, on an SA-16 Albatross aircraft out of Wheelus Air Force Base, Libya. The result was that there was plenty of opportunity to watch this guy at work. We did a lot of low-level flying to get under the radar of the day. Captain C was also the check airman for newbies arriving at the squadron, so we, the crew, were also exposed to the travails of the newbie.

Captain C had worked out a training route, which violated almost every principal of low-level flying. We flew up gulches, (they weren't deep enough to call them canyons), we flew up mountain sides, leveled out abruptly on plateaus, then dove down the other side of mountains, still hugging the ground, culminating in a landing in the Mediterranean. Naturally, Captain C had all of this worked out well ahead of time. Nonetheless, inevitably there were moments of extreme attention focus. He always reacted calmly and with thoughtful comment for the unfortunate newbie who had created the situation. We all respected Captain C and had no issues with any actions he took.

The third pilot – a civilian – was a flight instructor, who we will call "The Instructor," who taught me commercial maneuvers. The Instructor who had been flying since he was very young, was now about 60, and had more hours than I could count. I don't recall that he flew in any capacity other than as an instructor, except for an occasional scenic ride.

This guy could make an airplane talk. When we did pylon eights about two trees, we could tell the difference in altitude of the tree bases within 20 feet between the two trees. When he flew, the ball never moved out of its cage. He was always calm and confident… Not arrogant, just confident.

The fourth pilot, who we will call "Chief Pilot," developed many capabilities in instrument and weather flying that taught me to examine weather conditions and then act on those analyses. Of course, he also pushed me a bit at times by using his own capabilities as a guide, rather than mine. The result was that I learned to believe in my own ability to evaluate and fly in weather that I was unwilling to fly in before. Of course, hand in hand with this was the very obvious lesson that there are some weather conditions with which thou shall not mess with!

Contrast these pilots with a definition of a "good pilot" by an airport operator some years ago. As we landed, the burned out remains of a tube and fabric airplane were visible a few yards to one side of and at about midway the length of

one runway. The operator explained: "He was one of the best pilots you would ever want to meet. He used to fly under the Spring Green, Wisconsin River bridge, all the time. He would come in and do a low pass, then pull up into a wingover and land. Then the other day the plane just stalled on him at the top. Don't know what caused that. Too bad, 'cause he was a good pilot!" The pilot in question had no special training or FAA recognized capability.

It seems to me that the definition of a good pilot should include several factors, in addition to the ability to fly the airplane. Some might say this means the ability to operate the plane to its greatest capability. Perhaps a more appropriate statement would be that a good pilot has the ability to fly the airplane safely to the pilot's capability, or to the aircraft's capability, whichever is limiting.

A second factor would seem to be the ability to analyze each in-flight situation and determine the best course of action to provide maximum safety. When unforeseen situations arise while flying, a good pilot should be able to analyze the situation and take that action most appropriate to provide a safe outcome. If that means changing destinations, so be it. This includes a realization that human life is more important than arriving at one's intended destination.

The ability to remain calm and analytical in the face of unforeseen potential emergencies should certainly be included in the attributes of a "good pilot." This means that the pilot must, in rapid order, evaluate the situation while in flight, recognize possible courses of action, and select that, which is the most appropriate for that situation. Of course this requires knowledge of the airplane, weather and any other factor, which could affect the particular flight. As part of this, the pilot must not only have self-confidence that he/she can resolve the issues, he must have accepted the fact that ultimately the outcome rests solely on him. (Look up the definition of "pilot-in-command.") In the final analysis, despite all the assistance available through modern communications, the outcome of every flight is totally dependent upon, and is the responsibility of, the pilot. The good pilot knows this and acts accordingly.

As a last consideration, it is incumbent on all pilots to continually attempt to extend their capabilities and knowledge. This means a combination of reading, attending seminars, getting dual instruction as appropriate and perhaps even watching and learning from other pilots. Every pilot can teach every one of us something.

In selecting flight conditions at or near our perceived limits, we need to be sure our limits are in fact secure, and then extending them a little, step at a time, until a new set

of limits has been established with which we are comfortable. That does not mean attempting to fly through thunderstorms, trying to land our light plane in 50-knot crosswinds or any of a number of foolhardy tasks which common sense says, "There ain't no way!"

Instructors try to instill the concepts of being a good pilot during the student's training. As part of the evaluation process attempting to evaluate the likelihood of each student becoming and remaining "good," is an ever-ending challenge. The FAA standards of each rating actually determine a minimum standard. Students who just meet the minimum standard are usually not recommended for the practical test.

While the recommending instructor has an opinion about the future for each student, only time will tell what the student will develop into. The key here is that being a good pilot is a goal and a process, but is never a destination, which should be accepted.

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

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

Unmanned Aircraft Systems

Kansas State Polytechnic Offers New Program For Drone Hobbyists

SALINA, KAN. – With unmanned aircraft systems (UAS), or drones, a popular gift item this past holiday season and beyond, the unmanned aircraft systems program on Kansas State University's Polytechnic Campus has five essential tips to help hobbyists fly safely.

Started almost 10 years ago, the Kansas State Polytechnic UAS program has made safe operations the cornerstone of its classroom curriculum, research and flight instruction. And with the Federal Aviation Administration estimating the number of small unmanned aircraft purchased by hobbyists in 2016 to reach 1.9 million, Kansas State Polytechnic wants to provide beginner drone operators with the important basics of proper use and safety.

Spencer Schrader, a student in the UAS program and a flight instructor, says safe operations are a necessary focus for every unmanned pilot, from hobbyist to student to professional, because the industry is still developing, which means untested technology and ever-evolving guidelines.

The first rule for hobbyists to remember is that the FAA requires them to register their aircraft. All drones that weigh between .55 pounds to 55 pounds — even those purchased for recreational use only — must be catalogued on registermyuas.faa.gov. It only costs $5 and takes about 10 minutes, which could save hundreds of dollars in fines.

Next, the aircraft's batteries should be fully charged before flying. This will not only give hobbyists the longest flights possible with their drones, but it will also prevent the battery's charge from dropping below 20 percent.

Kansas State Polytechnic's third tip is centered on avoiding an air-to-air collision. Hobbyists should never fly within 5 miles of an airport unless prior authorization has been obtained from both the control tower and the airport manager. Hobbyists also should always maintain visual contact with their aircraft.

The final safety tip is to remove the propellers when powering the aircraft indoors. For example, if you are working on the aircraft or conducting software updates while inside, it may require you to apply power to the aircraft. If you accidentally bump the throttle on the controller or transmitter, it may cause the propellers to begin spinning, putting yourself and anyone else in the room at risk of serious injury.

Continued On Page 20

Special Issuances...
Why organization, completeness and timeliness is so important.

by Dr. Bill Blank
Aviation Medical Examiner


Dr. Bill Blank

In the past several issues of *Midwest Flyer Magazine,* I have been talking about the FAA certification process. I have discussed Regular Issuances (RI) and CACIs (Conditions AMEs Can Issue). Now I want to talk about Special Issuances (SI). It may surprise you to learn that SIs have been around since 1926! It sure did me.

The FAA lists 15 conditions, which it calls specifically disqualifying. They are: Angina Pectoris; Bi Polar Disease; Cardiac Valve Replacement; Coronary Heart Disease; Diabetes Mellitus requiring medications; Disturbance of Consciousness; Epilepsy; Heart Replacement; Myocardial Infarction; Permanent Cardiac Pacemaker; Personality Disorder; Psychosis; Substance Abuse; Substance Dependence; and Transient Loss of Control of Nervous System Functions.

What does this mean? Whether you are an airman applying for first-time certification or hold a medical certificate, when you become aware that you have one of these conditions, you do not meet the standards. If you hold a medical certificate, it is automatically invalid. You must convince the FAA that you can fly safely and not put the public at risk in spite of the condition. This is done through the SI process.

The FAA has developed a list of information for each of these conditions, which they need to provide certification. If the FAA is satisfied with the information provided, they will send you a letter of authorization and a medical certificate. The medical certificate will be time limited. The letter of authorization will tell you that your certificate is ***"Not valid for any class after a certain date."*** It will also say that the authorization will expire in 5 years.

Why the limitation "Not valid for any class after a certain date?" All unlimited medical certificates are valid for at least two years as a third class. When the FAA grants an SI, it usually

requires annual follow-up reports. Provided that they are satisfactory, the SI is continued for another year.

The original SI is issued either by a physician in Oklahoma City or a regional flight surgeon. Subsequent re-issuances can sometimes be done by your Aviation Medical Examiner (AME). That will by spelled out in the letter. If the AME is permitted to do so, it is called an AME Assisted Special Issuance (AASI.) You have the option of submitting the follow-up information to the FAA or your AME. If he is satisfied that the information meets the requirements in the SI letter, he can issue the medical and forward the reports to Oklahoma City. All AASIs are reviewed by the FAA staff.

If you hold a Third Class Medical Certificate, the AME only needs to perform an exam at the required interval, usually two years. When he issues the AASI without performing an exam, it will be dated the date the original exam was performed, but the "not valid for any class after" date will be extended for a year. Holders of Second and First Class Medical Certificates would normally have an exam performed when the AASI is issued. It is free if the FAA evaluates your follow-up information. Your AME may charge to do it.

I don't know any AMEs who charge much for this service. In general, you are better off taking it to your AME. He can issue it the day that he sees you. If you are late in getting the information to the FAA, or they are backlogged, you could be without your certificate for awhile.

It is important that you read carefully the authorization letter. It tells you exactly what the FAA will want. Your doctor must provide you EVERYTHING they ask for. I suggest that you underline the required information, make a list of it, and give it to your physician, then verify that you have received everything you need. Better yet, have your AME review it before it is submitted to the FAA. If you do not have everything required, don't be afraid to ask for it, because you will need it. If you fail to do so, the FAA will request the information not provided and the process will be delayed. Your medical will be dated the day you saw your AME, so if there is a delay, you may lose a couple of months. Be sure to take your SI letter to your AME every time. He is not supposed to issue your certificate if you do not have it.

Let's talk in general about the reports needed for the initial SI. You can find this information on the FAA and Aircraft Owners & Pilots Association (AOPA) websites. In general, the FAA wants to know what happened, when, what was done about it, and how you are doing. If you were hospitalized, this means you'll need your admission history and physical exam, operative and pathology reports, and the discharge summary. In many cases, there is a waiting period before consideration, and follow-up testing is required.

A recent letter from your treating physician is important. It should summarize the complete history of the problem, how you are being treated, medications taken, lack of side effects, your compliance with instructions, and steps you are taking to improve your health. This letter can make or break the request. A while back a physician wrote: "Joe is a nice guy and in good health." I had told the airman to let me look at the letter before he sent it in, but he didn't think that it was necessary. It took two months to get that untangled with a new letter.

How long does an initial SI take? The FAA will tell you about two months. If your AME really knows what he is doing, sometimes by having all of the information needed and making a phone call, you can have your medical in 2-3 weeks.

Unfortunately, as we age, it becomes increasingly likely that we will need a CACI or an SI. The good news is that the FAA is certifying conditions that previously they would never have considered. Hopefully most of us will never need an SI. If so, I hope that this information will be of help.

As you know, on May 1, 2017, medical certification via the Alternate Pilot Physical Exam and Education Requirement (APPEER) will be available. I have not officially seen the final version of the physician's form, but will review it in time for my next column.

EDITOR'S NOTE: William A. Blank is a physician in La Crosse, Wisconsin, and has been an Aviation Medical Examiner (AME) since 1978, and a Senior AME since 1985. Blank is a retired Ophthalmologist, but still gives some of the ophthalmology lectures at AME renewal seminars. Flying-wise, Blank holds an Airline Transport Pilot Certificate and has 5300 hours. He is a Certified Instrument Flight Instructor (CFII), and has given over 1200 hours of aerobatic instruction. In addition, Blank was an airshow performer through the 2014 season, and held a Statement of Aerobatic Competency (SAC) since 1987. ❑

Kansas State Polytechnic From Page 18

Kansas State Polytechnic's "Tips for Drone Safety" can also be viewed in a video version, https://youtu.be/cRr4bgPh-OM.

Kansas State Polytechnic, which is recognized as having the No. 2 UAS program in the nation by Drone Training HQ, offers a bachelor's degree with two focus areas — UAS flight and operations and UAS design and integration — as well as a UAS minor. Companies can attend professional development courses focused on multirotor and fixed-wing operations through the UAS program and become a certified remote pilot in command in the Part 107 course offering.

For more information about the UAS short courses, contact Travis Balthazor, flight operations manager at Kansas State Polytechnic, at 785-826-8557 or travisb@k-state.edu.

For more information on the UAS bachelor's degree, contact admissions at 785-826-2640 or polytechnic@k-state.edu. ❑

Moving The Fight For Santa Monica Forward

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


Mark Baker

Santa Monica Municipal Airport's (KSMO) history and location have made it a much-loved facility. In an area marked by suburban sprawl and gridlock, KSMO offers a unique and convenient option for pilots, flight students, medical missions, traveling executives, and many others in the Los Angeles area.

But Santa Monica's elected officials have waged a war on the airport, trying to close it and making it harder to use. After years of legal filings and battles fought in public, the aviation community was surprised to learned in January that the FAA and the City of Santa Monica entered into an agreement to shorten the runway and keep the airport up and running for the next 12 years, after which the city will have the option to close it – something the current city government has indicated it intends to do.

If you fly out of KSMO, this is a better deal than waking up one day to find X's gouged in the runway. But for current and future aviators, the local economy, and many others, the possibility of closing Santa Monica is still something worth fighting.

AOPA's mission to keep KSMO open remains unchanged, and while 12 years is a long time, we are expanding our efforts. We will ensure the city lives up to its obligations. We will educate the community about the airport's value. And we will work with city officials who will be elected in the future, those who believe in the airport. AOPA will do everything possible to keep KSMO open.

To make sure the city honors the agreement to operate the airport, AOPA

is starting a legal effort so we will be able to stand up in court for pilots, airport businesses, and other supporters.

Basically we are going to court to preserve our ability to keep going to court on behalf of the people who use KSMO.

To keep the airport open beyond 12 years, we'll also have to effectively tell the story of KSMO to the community and convince some residents and elected officials of its value.

KSMO is an economic engine for the city, but the airport also impacts the local community in ways many may not realize. The stories of organ donations facilitated, emergency preparedness, and dogs, which have found a new home through programs like Pilots N Paws, paint a picture of an enormous asset that not only creates jobs, but also inspires and improves lives.

Over the next 12 years we will work to tell those stories to the local community and especially their elected officials. It is no secret that the Santa Monica City Council has been hostile to their local airport, but that doesn't mean the level of hostility will remain. By educating current and future council members as well as identifying and supporting candidates who understand the value of the airport, we can set the stage to keep KSMO open beyond 2028.

12 years is a long time, and we aren't going to waste it. ❑

Minnesota Seaplane Pilots Association

Brad Thornberg Photo

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

The organization hosts two large fly-ins each year:

MSPA Spring Safety Seminar
Madden's Resort, Brainerd, Minnesota
May 19-21, 2017

and the
MSPA Surfside Pig Roast
Surfside Seaplane Base, Lino Lakes, Minn.,
August 13, 2017

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

AOPA Regional Fly-In Dates & Locations 2017

Camarillo, California – April 28 and 29
Norman, Oklahoma – Sept. 8 and 9
Groton, Connecticut – Oct. 6 and 7
Tampa, Florida – Oct. 27 and 28

Each fly-in will now feature two full days of activities, including an expanded roster of learning opportunities and workshops beginning on the Friday of each event at 9 a.m. These workshops will cover a range of topics, such as mountain flying and owner-performed maintenance that will help make flying more fun, affordable, safe, and accessible (www.aopa.org).

EAA Sport Pilot Academy Returns In 2017 To Make Dreams of Flight Come True

OSHKOSH, WIS. – The Experimental Aircraft Association's Sport Pilot Academy, which immerses people in a three-week course that concludes with earning a Sport Pilot Certificate, returns in 2017 with three sessions throughout the year.

The all-inclusive course at EAA headquarters in Oshkosh, Wisconsin, features dedicated aircraft and instructors focused on successful completion of sport pilot training. The training eliminates many of the scheduling and other barriers that limit the ability of individuals to pursue a pilot certificate on their own.

The spring session is May 20-June 10, while the fall academy is September 9-30. In addition, a new Sport Pilot Academy for former EAA Young Eagles will be held in August, with scholarships provided through funds raised at the annual Gathering of Eagles event during EAA AirVenture Oshkosh.

The total cost for the three-week session that includes all flight training, housing, and meals is $9,999. For more information or to apply for the general sessions, go to EAA.org/SportPilotAcademy or call 800-JOIN-EAA (800-564-6322). ❑

Minnesota Airports Conference To Be Lightning Fast!

Seven F-35Bs are on board the USS America. Two of the jets began the third shipboard phase of developmental testing (DT-III) and five jets conducted operational testing. This testing program will be a featured topic at the upcoming Minnesota Airports Conference.
(Lockheed Martin Photo)

The Minnesota Council of Airports (MCOA), in conjunction with the Minnesota Department of Transportation (MnDOT) Office of Aeronautics, will be hosting the annual Minnesota Airports Conference at the Verizon Wireless Center in Mankato, Minnesota, April 12-14. The University of Minnesota Airport Technical Assistance Program (AirTAP) is facilitating the conference. The conference focuses on airport management, operations and maintenance, but is open to anyone interested in aviation. The general and breakout sessions, trade show and several social events provide an excellent network venue for those involved in aviation.

This year, the conference will kick off with a hands-on airport emergency planning technical workshop at Mankato Regional Airport. There will be several follow-up sessions on aviation safety and emergency planning by Tim LeBaron, Deputy Director of Regional Operations for the National Transportation Safety Board (NTSB). In one session, LeBaron will outline how an NTSB team worked to find the cause of a fatal accident involving a Boeing 747 that crashed during takeoff at Bagram Airfield in Afghanistan.

Another conference highlight is Wednesday's keynote speaker, U.S. Air Force Colonel Charles Knofczynski. Col. Knofczynski is the Director of Test at the F-35 Lightning II Joint Program Office and will be talking about the F-35 program. Col. Knofczynski received his commission from the United States Reserve Officer Training Corp at South

Dakota State University in 1990. After attending Specialized Undergraduate Navigator Training, he was assigned as an operational F-15E electronic warfare officer, completing two combat deployments in the F-15E. As a follow on, he served at HQ U.S. Air Force in the Air Force Intern Program, then reassigned to fly with the U.S. Navy (USN) in the EA-6B, completing two more combat tours before being selected to attend the USN Test Pilot School (TPS). After graduating from USN TPS, he worked as the initial test weapons system officer on the YAL-1, Airborne Laser. He was later assigned to the Directorate of Requirements, HQ/ACC as Chief of Survivability, special programs. He has served as a Test Squadron Commander, as the Military Assistant and Deputy to the Deputy Assistant Secretary of Defense for Manufacturing and Industrial Base Policy, and as the Military Assistant to the Principle Deputy Under Secretary of Defense for Acquisition, Technology and Logistics, the Pentagon, Washington D.C.

Also on Wednesday, the FAA and MnDOT will give presentations on federal and state funding and policy issues. Tentative speakers include Barry Cooper, Regional Administrator, FAA Great Lakes Region; Andy Peek, Manager, Dakota/Minnesota Airport District Office (ADO); Lindsay Butler, Assistant Manager, Minnesota ADO; and Cassandra Isackson, Director, MnDOT Office of Aeronautics.

The highlight of the conference is the annual awards luncheon on Thursday. Individuals, airport sponsors, consultants and construction firms are recognized for their contributions to improving aviation in Minnesota.

Thursday and Friday general and breakout sessions emphasize airport operations and maintenance, planning, and airport marketing that focuses on development, use and serving business customers. Friday's keynote speaker is Brian Ryks, the new CEO for the Metropolitan Airports Commission. Ryks will discuss the state of airport business focusing on what's happening nationally in aviation and how it affects Minnesota's aviation industry.

Attendees can register for the entire conference or a single day. There is a special rate for college students.

Anyone interested in learning more about the conference, lodging or registration can go to the conference facilitator's website (http://www.airtap.umn.edu/events/airportsconference/2017/). Those interested in becoming a conference sponsor or exhibitor can learn more from the following link: http://www.airtap.umn.edu/events/airportsconference/2017/sponsors/index.html ❑

F-35B On Board USS America

Lockheed Martin F-35B Lightning II aircraft landed on the amphibious assault ship USS America (LHA 6) on October 28, 2016. America embarked seven F-35Bs – two began the third shipboard phase of developmental testing (DT-III) and five conducted operational testing.

America, the first ship of its class, is an aviation-centric platform that incorporates key design elements to accommodate the fifth-generation fighter, including an enlarged hangar deck, realignment and expansion of the aviation maintenance facilities, a significant increase in available stowage of parts and equipment, and increased aviation fuel capacity. America is capable of accommodating F-35Bs, MV-22B Osprey tiltrotor aircraft, and a complement of Navy and Marine Corps helicopters.

The third test phase evaluated the F-35B's short take-off vertical landing (STOVL) operations in a high-sea state, shipboard landings, and night operations. The cadre of flight test pilots, engineers, maintainers, and support personnel from the F-35 Patuxent River Integrated Test Force (ITF) are assigned to Air Test & Evaluation Squadron (VX) 23 at Naval Air Station Patuxent River, Maryland. ❑

Illinois Aviation Conference To Focus On The Trades

CHAMPAIGN, ILL. – The Illinois Aviation Conference will be held May 24-25, 2017 at the Hilton Garden Inn in Champaign, Illinois. The conference will focus on aviation business, and less so on airports.

Potential items coming up in the 2017-2018 legislative session will be discussed, ranging from a federal mandate regulating the tax on aviation fuel, and Illinois service and repair taxes, to possible exemptions for the aviation community.

The Illinois Aviation Trades Association (IATA) is coordinating the conference. For additional information, contact Rob French at rob@cook-witter.com or call 217-789-6252. ❑

Proposed Mechanic's Lien Law To Be Discussed At 62nd Annual Wisconsin Aviation Conference To Be Held In Waukesha

WAUKESHA, WIS. – The Wisconsin Aviation Conference (WAC) will be held at the Country Springs Hotel & Water Park in Pewaukee/Waukesha, Wis., April 24-26, 2017.

For those aviation business men and women unable to attend the entire conference, Tuesday, April 25 has been set aside for the annual meeting of the Wisconsin Aviation Trades Association (WATA), lunch and presentation of the Wisconsin Aviation Business of the Year Award at the annual evening banquet. People should check in at the registration desk and ask what room the WATA annual meeting will be held in. The WATA meeting will begin promptly at 4:00 p.m. If in doubt, call 608-772-1776.

The main topic of discussion at the annual WATA Business Meeting will be proposed legislation for a Mechanic's Lien Law. Wisconsin is one of only a handful of states that does not have a Mechanic's Lien Law and that will change if enough operators attend the meeting and get involved in its passage.

Other conference topics of interest to businesses include leasing issues on airports, aeromedical reform, aviation education programs, takeoff and landing performance assessment (TALPA), the pilot shortage, runway incursion prevention, and drones.

Wisconsin Bureau of Aeronautics and Federal Aviation Administration officials will be attending the conference as well.

To register, go to http://wiama.org/attendee-registration/. ❑

OMNNI Associates Recognized For Excellence In Airport Construction...

Jason Marks, P.E. Receives 2016 Resident Engineer Award

APPLETON, WIS. – Jason Marks, P.E., of OMNNI Associates, Appleton, Wisconsin, has received the "2016 Outstanding Airport Resident Engineering Award" for his role as resident engineer on a taxiway relocation project at Wittman Regional Airport, Oshkosh, Wisconsin. The Wisconsin Department of Transportation, Bureau of Aeronautics presented the award to Marks during the Wisconsin Transportation Builders Association Conference at the Madison Marriott-West in Middleton, Wisconsin on January 19, 2017. The award recognizes the significant efforts that Marks and his field staff provided in coordinating the work involved in the construction.

Wittman Regional Airport
Oshkosh, Wisconsin

The $6.3 million project involved the relocation and reconstruction of Taxiway B and connecting taxiways and drainage improvements involving the installation of a storm sewer interceptor pipe through the airport property.

The newly relocated and reconstructed taxiway greatly improves the safety of its users, especially during the busy week-long EAA AirVenture Oshkosh fly-in when there is a high volume of aircraft visiting the airport. The storm sewer installation alleviated flooding problems throughout the airport and the surrounding areas. Since the airport is home to EAA AirVenture Oshkosh, and aircraft are required to exit the adjacent runway at virtually all locations, landscaping and safety area grading were required to meet stringent specifications.

Founded in 1968, OMNNI Associates is a full-service engineering, architecture, and environmental consulting firm. Headquartered in Appleton, Wisconsin, the firm's airport engineering services include runway, taxiway and apron design; airfield lighting; parking facilities; pavement management and design; and security fencing. ❑

Recreational Aviation Foundation Seeks Support For Two Hearted Airstrip Project

The Recreational Aviation Foundation (RAF) is preserving, creating, and maintaining recreational airstrips for now and the future through various projects throughout the U.S. The "Two Hearted Airstrip" on Michigan's Upper Peninsula near Lake Superior is the organization's newest project.

Two Hearted Airstrip on Michigan's Upper Peninsula.

RAF has begun the work, obtained land leases and an accepted bid from a local contractor, and is now awaiting materials to be delivered. But they need your financial support to complete the project to open the airstrip to the public. The river and airstrip got its name from the heart shape of the river.

The Two Hearted River is an amazing and fun river. Back in 1956 when Richard (Rick) Ness was 7 years old and living in Chicago, he was on vacation and his dad took him trout fishing on the river. They caught so many trout that he has never forgot the experience. "I am so happy the RAF and its members are bringing this airport back to life," says Ness, who visits the airport in his Cessna 206 whenever he gets the chance.

"This is an amazing place that is most reachable via aircraft. It really deserves to become a destination for recreational flying. It offers some of the best wilderness views and experiences in Michigan's Upper Peninsula, and the flight over the southern shore of Lake Superior with its beautiful vistas are perhaps some of the most spectacular of all of Michigan's shorelines."

For more information on the Two Hearted Airstrip Project, contact RAF Michigan State Liaison Brad Frederick at 248-761-5615 or via email: bfrederick@theraf.org. ❑

Smith Appointed To Airport Consultants Council Board


Damon Smith

MADISON, WIS. – Damon Smith, with Mead & Hunt's Aviation Service Group in Portland, Oregon, recently advanced to the Airport Consultants Council (ACC) Board of Directors. Smith has a history of active involvement with ACC in graduating leadership roles, having served on several committees and chaired the planning committee. Smith is looking forward to continuing to represent Mead & Hunt and clients at all operational levels as he participates in and influences discussions that shape industry regulations and policies.

"This role puts me shoulder to shoulder with decision-makers from the Federal Aviation Administration, Transportation Security Administration, and organizations setting policy and procedure for airports, contractors and business partners," says Smith. "ACC is the leading organization for networking across the aviation industry to increase cooperation, engagement and education for airport operation and development."

Mead & Hunt provides architectural, engineering, planning and historic preservation services from more than 30 offices nationwide. Mead & Hunt's Aviation Services Group is ranked as the 13th largest aviation firm in the country, according to Engineering News Record, and takes pride in being named among the best civil engineering firms to work for in the country (www.meadhunt.com). ❑

Bob Hoover Trophy Presented To Sean D. Tucker

(L/R) AOPA President Mark Baker with Sean D. Tucker, the recipient of the Hoover Trophy.

ARLINGTON, VA. – By unanimous agreement of the selection team, and as per the wish of the late Bob Hoover himself, the Aircraft Owners & Pilots Association (AOPA) presented the 2017 AOPA R.A. "Bob" Hoover Trophy to airshow performer and EAA Young Eagles Chairman, Sean D. Tucker, 64, of Salinas, Calif. The award was presented March 8, 2017 at ceremonies held at historic Terminal A at Ronald Reagan Washington National Airport in Arlington, Va.

Tucker received the Hoover Trophy for demonstrating the airmanship, leadership and passion for aviation that Bob Hoover exhibited during his distinguished career and life as a pilot and aviation advocate. Tucker is the first person to receive the trophy other than Hoover himself, who received the award in 2016. Tucker also joined Hoover in being inducted into the National Aviation Hall of Fame in 2008.

In his acceptance speech, Tucker felt extremely honored, humble and emotional at times in remembering his friend and mentor. He recalled the first time he performed at an airshow in which Hoover was also performing, and how excited he was to finally meet him, and proud to be performing at the same airshow. Concerned for Tucker's wellbeing as a young, but extremely gifted performer, Hoover told Tucker that he was flying too low in executing his inverted ribbon cut. After that show, Tucker raised his performance by 10 feet. Tucker said that Hoover was always interested in knowing how you were doing as a person, and cared less about himself.

Further into his acceptance speech, Tucker acknowledged the great work being done by all of the aviation organizations to get young people and adults involved in aviation, and said that with everyone working together, the industry can exemplify the standards set by Bob Hoover.

Robert A. "Bob" Hoover died on October 25, 2016 at the age of 94.

Among other prestigious awards Tucker has received include being inducted into the U.S. Air Force Gathering of Eagles in 2001, and being named one of the Smithsonian National Air & Space Museum's 25 Living Legends of Flight in 2003.

In 2013, Tucker was appointed Chairman of the Experimental Aircraft Association (EAA) Young Eagles program, which has introduced over two million youth to flying to date. In 2014, Tucker and actor Harrison Ford were featured in the documentary "Flying the Feathered Edge: The Bob Hoover Project," on the life of Bob Hoover.

Despite once having a fear of flying, Tucker has flown more than 1,000 performances at more than 425 airshows, before more than 80 million spectators.

Tucker's favorite stunt is the "triple ribbon cut," where he uses his biplane to cut three ribbons suspended between poles from three different angles. Tucker has also received great notoriety for his "Harrier" slow flight maneuver in which his aircraft appears suspended in midair as it flys down the showline. Tucker flys the 400 hp Oracle Challenger III biplane, which has been sponsored by Oracle Corporation since 2001.

In 1997, Tucker started the Sean D. Tucker School of Aerobatic Flight, which was renamed Tutima Academy of Aviation Safety in 2004. The school is located in King City,

California.

Also honored that evening was Congressman Todd Rokita of Indiana who received AOPA's Hartranft Award for his leadership and support of General Aviation. Last year, Sens. Jim Inhofe (R-Okla.) and Joe Manchin (D-W. Va.) were honored. Seventy-one members of Congress were also awarded the AOPA Freedom to Fly Award for their dedication to preserve general aviation. Pat Hartness received the Sharples Award for his work in opening and growing Triple Tree Aerodrome. The Sharples Award is given to individuals who do not work in aviation, but have made extraordinary contributions to GA. Woody Lesikar of Skyline Aviation and Lakeside Airport (now West Houston Airport), Houston, Texas, received the AOPA Presidential Citation. Presenting the awards was AOPA President and CEO Mark R. Baker. ❑

Airshow performers Robert A. "Bob" Hoover (left) and Sean D. Tucker (right) at Aerospace America in Oklahoma City, Oklahoma on June 17, 1995.
Wes Morefield Photo

John King Gets Medical Reinstated

Martha and John King at the Robert A. Hoover Trophy ceremonies at Ronald Reagan Washington National Airport in Arlington, Va., March 8, 2017.
Dave Weiman Photo

ARLINGTON, VA. – It was ironic that John King of King Schools confirmed on March 8, 2017, just prior to the Robert A. Hoover Trophy ceremonies at Ronald Reagan Washington National Airport in Arlington, Va., that his airman medical certificate had been reinstated following its suspension in 2016. King was prepared to go before an administrative law judge, but told *Midwest Flyer Magazine* that he decided instead to first appeal to the Associate Administrator for Aviation Safety, Peggy Gilligan. In email correspondence, King explained to Gilligan that the FAA's Aero Medical Division was not applying the same core values in which the compliance philosophy was founded upon, that being to judge each airman individually, and not make blanket rulings.

King had experienced a seizure in 2014, possibly from being overly tired, and when his medical came due and King reported the incident to his aviation medical examiner, the FAA suspended his medical. Efforts to convince the Federal Air Surgeon that this was a one-time occurrence fell on deaf ears, despite the backing of medical experts.

The irony of all of this is that Bob Hoover was likewise subjected to the same scrutiny, when on December 15, 1993, the FAA suspended his second class medical certificate on an emergency basis after two FAA inspectors filed a complaint stating that his Rockwell Shrike Commander performance was poorly flown at Aerospace America in Oklahoma City, Okla. in 1992, and that he was distant in his relations with other airshow performers during the show. That airshow was held June 19-21, 1992; the complaint was filed August 26, 1992; and Hoover flew 33 additional shows between the Oklahoma City show and the day on which he voluntarily discontinued flying in April 1993 to submit to medical testing.

A court ruled in favor of Hoover, citing medical evidence proving that the then 72-year-old was fit to fly. However, in an appeal to the full five-member board of the National Transportation Safety Board (NTSB), the decision was overturned based on the opinion of the Federal Air Surgeon.

Hoover went on to obtain an Australian pilot's license and passed their medical examination with flying colors, which allowed him to perform anywhere but in the United States. Hoover eventually won reinstatement of his medical on October 19, 1995 with restrictions. ❑

Shared Enthusiasm For GA!

by Brian Thuringer

General aviation has made the first 65 years of my life both meaningful and rewarding. It has provided fun, richly filled imagination, and the fulfillment of adventurous dreams for a young boy, a father and a grandfather.

Growing up, I lived a short bike ride from the St. Cloud, Minnesota airport when it was located on the north side of the city. That bike ride transported me from the daily tedium of summer, to a place that was ripe for investigation and wonder. Bob Leader operated the airport at the time, and it had an active general aviation flying community. I spent many a warm summer day with my neighborhood buddies under Bob's foot at the airport. I am sure he would not look back on it as fondly as I do.

(Left/Right) Front Row: Brian Thuringer, Ben Thuringer's son Beau, Charlie Pieper, Deb Thuringer, and Oliver Pieper. Back Row: Becky Thuringer holding Mac, Ben Thuringer, Brad Pieper, and Abbey (Thuringer) Pieper.

General aviation turned any ordinary work-day into a day filled with challenges and immediate rewards. My mind would be totally consumed with executing a crosswind landing, for instance, then challenged to do better the next time.

My son, Ben, was a witness and student of my passion for flight, and my daughter, Abbey, was curious. As they grew up, I spent half of my time dodging questions I could not instantly answer, as I was just learning myself. When Abbey became distracted with her interest in horses, that left Ben and I at the hangar.

Ben has been by my side since he was old enough to walk. When he was 3, he would start screaming with joy when he saw or heard an airplane. He is now 37 and both of us still get excited when we are around airplanes. But we have limited our screaming somewhat, because our flying buddies say it is unnerving.

Ben spent the first 10 years of his life staring at an instrument panel because he was not tall enough to see over the glare shield. When he was 13, he was a competent instrument pilot and had logged 10 years of actual instrument time. By 12, he had a full understanding of the instruments and how to use them. Ben's oldest son, Beau, is following in his father's footsteps, riding right seat in Ben's Twin Comanche.

Aviation helps a young person to put all of what they learn in school to immediate use. Math makes sense when we apply it to creating a flight plan. Aviation made Ben's and Beau's education relevant, as a tool to be used. You can't master the science of flying without using all of your basic educational skills.

Ben and Beau's enthusiasm over aviation is a reflection of what Charles Lindbergh must have felt throughout his career. It is a spirit and camaraderie all aviators share.

Our family is in the resort business…we own and operate "Madden's on Gull Lake," and aviation is very much a part of our business. Madden's has both a 2600 ft. grass airstrip (9Y2), and a seaplane base (M16) in East Gull Lake, west of Brainerd. Pilots out for breakfast or lunch, or a day of golf, will likely visit Madden's often or on occasion.

Our turf runway is one of the best in the state. The soil drains quickly and is firm. Many new owners of turbine-powered seaplanes bless our docks and shores during their training. Local instructor, Mary Alverson, trains pilots in her Super Cub for their Seaplane Rating, while their families enjoy all of the amenities Madden's has to offer, from golf and watersports, to fine dining. There's something for everyone.

Minnesota is a seaplane mecca in the United States with nearly 15,000 lakes, and aviation companies like Wipaire at South St. Paul Airport in the Twin Cities. Wipaire manufactures floats and sells seaplanes. The Wiplinger family is to the seaplane community, as Mayo is to the medical community…*world class!* Also, Brainerd native, D.J. Dondelinger, is making a name for his company, "North Point Aviation," which provides sales and maintenance for the Kodiak Quest turbine aircraft, equipped with wheels, floats or skis.

There is not enough space in this article to explain what general aviation has meant to our family, and the great friends we have made as a result. It has helped shape our lives and our characters.

Through this process, I have discovered a mysterious transition that happens in most aviation families. It is magical and quick. It starts with you, the parent in the left seat, and looking over at your son, daughter or grandchild in the right seat with love, pride and appreciation. It all ends before you can snap your fingers, and hopefully, they will share the same enthusiasm! ❑

Midwest Seaplane Pilot

There's Nothing Like Flying A Seaplane!

by Steve Guetter
President
Minnesota Seaplane Pilots Association

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, Minn.

Like many pilots, after I got my private pilot certificate in 1998, I began accumulating ratings and various endorsements for pure fun, and to challenge myself. Getting my seaplane rating was on the list, but I was in no hurry, as I did not own a seaplane, nor did I know where to rent one.

In the summer of 2011, when I completed my seaplane training, I did not realize the impact it would have on my flying and my life. Today, I actively fly, travel and train others to fly seaplanes, and was recently elected president of the Minnesota Seaplane Pilots Association (MSPA).

MSPA is dedicated to protecting seaplane access to waterways in Minnesota. The organization provides a forum to educate government agencies and the public on seaplanes, and fosters safe operations by our members through educational programs.

The privilege to fly seaplanes starts with adding a rating to one's pilot certificate and taking a checkride; a written test is not required.

The seaplane rating is the most fun training I have ever experienced. I still remember coming over the tree line for my first water landing. The smile has never left my face, and now as a seaplane flight instructor, I can enjoy seeing the same smiles on the faces of others.

Training for a seaplane rating is very straight forward. Most pilots will complete the rating in seven to 10 hours. The training focuses on takeoffs, landings and handling the plane on the water, such as step turns (not to be confused with steep turns) and docking. After a few years building experience flying seaplanes, I began teaching others to fly them.

Once you have your seaplane rating, what's next? The answer is, it depends on you. Some pilots use seaplanes to access remote areas of wilderness to hunt and fish…others use them for transportation to lake homes. For me, the seaplane is the destination, wherever it may take me.

After I got my seaplane rating and built a little time, I was approved as a solo renter at Adventure Seaplanes at Surfside Seaplane Base in Lino Lakes, Minnesota.

We all remember our first solo. I also recall fondly the first time I took a seaplane up for an evening flight. My destination was Cedar Lake, across the Minnesota border in Wisconsin, to get a burger at "Meister's" restaurant. Meister's has a dock designated for seaplanes.

The feeling of freedom that day was incredible. I was no longer confined to airports. The majority of lakes in Minnesota were now landing facilities at my disposal.

One of the challenges of seaplane flying is to assess the condition of a lake or river to determine if it is safe to land. That goes for bodies of water I frequent often. Water levels can vary from season to season, and day to day depending on what's happening upstream, and there can be obstacles to contend with, such as floating and submerged logs, as well as boaters and swimmers. Seaplane pilots also have to determine wind direction from the air. All of this goes into a strategy for the approach and landing.

I spent my first summer flying seaplanes building time and confidence in my judgment to pick safe landing conditions. And while day trips to lakes in the Twin Cities is fun, flying cross-country over multiple days and in various weather conditions, requires advance planning, especially when it comes to identifying fuel stops.

I have had the opportunity to fly a plane on straight floats (floats that can only land on water, not to be confused with amphibious floats with retractable landing gear that can land on either land or water) from Florida to Minnesota,

twice. These trips allow a pilot to experience varied weather conditions, different sizes and types of bodies of water, and a wide range of parking facilities.

One of my favorite ways to use a seaplane is for transportation to, and entertainment during, a summer vacation. Minnesota is home to many excellent resorts for a seaplane getaway. I have used seaplanes to go golfing, access islands in the middle of nowhere, and drop in at a friend's cabin for an afternoon barbecue.

The weekend of May 19-21, 2017, the Minnesota Seaplane Pilots Association will hold its annual Safety Seminar & Fly-In at Madden's on Gull Lake. The seminar is held in cooperation with the Minnesota Department of Transportation, Office of Aeronautics, and includes topics specific to seaplane flying, as well as topics of interest to all pilots and aircraft owners. The event will also include a spot landing contest, and lots of pilot camaraderie and fine dining.

This year, AOPA President Mark Baker, who is an experienced seaplane pilot and aircraft owner, himself, will provide the keynote speech at the Saturday evening banquet.

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

For additional information, contact Steve@PenguinFlight.net.

EDITOR'S NOTE: Steve Guetter is the director of business development for an aerospace company in St. Paul, Minn., and owns a 1958 J35 Bonanza. He has logged 1,800 hours and holds a Commercial Pilot Certificate (ASEL, SES, MEL, CFI, CFII, MEI). Guetter regularly rents and flys a 1971 Cessna 172L Skyhawk with a 160 hp Lycoming engine on Baumann 2250 amphibious floats from Adventure Seaplanes, located at Surfside Seaplane Base, Lino Lakes, Minn. ❑

AOPA President To Be Keynote Speaker At Minnesota Seaplane Pilot Safety Seminar


Mark R. Baker

BRAINERD, MINN. – AOPA President & CEO Mark R. Baker will be the keynote speaker for the Saturday evening banquet at the Minnesota Seaplane Pilot Safety Seminar, May 19-21, 2017 at Madden's Resort on Gull Lake in Brainerd, Minnesota. Baker grew up in Minnesota where he learned to fly, and has owned a variety of recreational and corporate aircraft, including everything from a J-3 Cub and Twin Beech on floats, to a Cessna Citation. He continues to own homes in Minnesota and Wisconsin, but currently lives in Frederick, Maryland where AOPA is headquartered.

The Minnesota DOT Office of Aeronautics assists in organizing the safety seminar, and with registration. All seminars are eligible for FAA Wings Pilot Proficiency Program credits.

For accommodations, contact Madden's Resort at 800-642-5363 (www.Maddens.com).

Seaplanes may land on Gull Lake, and aircraft on wheels may land on the grass airstrip at East Gull Lake Airport (9Y2), located adjacent to the resort, where shuttle service is available, or Brainerd Lakes Regional Airport (KBRD), where fuel, car rental and taxi service is available.

The organization's Annual Pig Roast will be held August 13, 2017 at Surfside Seaplane Base, Lino Lakes, Minnesota.

Steve Guetter is President of the Minnesota Seaplane Pilots Association and can be reached at 952-484-9457 or stguetter@gmail.com (www.mnseaplanes.com). ❑

Why Get A Seaplane Rating?

by Randy Schoephoerster

There are four primary reasons why pilots get a Seaplane Rating: 1) Counts as a biennial flight review. 2) Opens up unique travel destinations not possible by any other mode of transportation. 3) Develops skills in short field takeoffs and landings, and in ground handling, docking and wind management. 4) Creates a sense of belonging and achievement within the tightly knit seaplane community.

Seaplane flying is fun! If you already have your Private or Commercial Pilot Certificate, there isn't a requirement for an FAA written exam. Although everyone has different skills, many people obtain the Seaplane "Add-On" Rating with just 6 to 10 hours of flying, making it one of the least expensive ratings a pilot can obtain.


Randy Schoephoerster, SPA Field Director in Minnesota, with his son, Matt, who already has 100 hours of dual training at 12 years old.

Seaplanes on a remote island on Pelican Lake in Minnesota.
Brad Thornberg Photo

The Seaplane Rating also develops skills not found in other ratings. The most obvious is the understanding of wind and the effects of wind on a seaplane while taxiing and docking or beaching. A seaplane tends to turn into the wind, which is called weather-vaning. Seaplane pilots limit their windy day flying activities based in part on their taxiing and docking abilities, and the seaplane they are flying, as well as the size of the waves.

Much of the seaplane pilot's flying is done when close to maximum gross weight and on days when it is warm. The seaplane pilot's soft field landing and short field takeoff skills need to be top notch when encountering those flight conditions.

What about rental after you've gotten your rating? There are several commercial operators in Minnesota that offer solo seaplane rental, but they are few and far between as the insurance rates are high for seaplane operators. Other seaplane rental options are seaplane flying clubs, or an individual seaplane owner who is willing to share expenses.

Once a pilot has the rating, and a seaplane to fly, he/she can turn his/her attention to where to fly.

Both the Minnesota DOT Office of Aeronautics and the Wisconsin DOT Bureau of Aeronautics provide excellent information on seaplane bases, and waterways open to seaplanes, on their websites. The national Seaplane Pilots Association (SPA) has an excellent source of waterway information, if you are a member, called "The Water Landing Directory."

A resort or restaurant that has a nice sand beach with protection from the wind is one of my favorite Minnesota and Wisconsin places to fly to with a seaplane.

Below is a list of some of my favorite seaplane destinations:

Location	Sand Beach	Restaurant	Golf	Other Activities
Madden's On Gull Lake	Yes	Several	Several	Yes
Ruttger's On Bay Lake	Yes	Several	Several	Yes
Breezy Point Resort	Yes	Several	Several	Yes
Garmisch Resort & Beirstube	Yes	German Style	No	Yes
Voyager's Golf Village	Yes	Yes	Several	Yes
Harbor View Restaurant	Yes	Yes	No	Volleyball
Zorbaz (Several Locations)	Yes	Yes	No	Volleyball

The list is by no means an exhaustive list, and landing at a non-public seaplane base is at your own risk, but isn't that the same as bush plane flying? It's exciting and challenging, and can be safe if you are properly trained and qualified. Always call ahead on your first trip to get any new information that might affect your trip. Google Earth can also give a great depiction of the water access area.

The seaplane community is close knit, well educated and gives every new seaplane pilot a great source of information on seaplane flying. Just hang out at one of the public seaplane bases and the community of seaplane pilots will bring you into the fold and provide lots of information on their favorite places to fly, how to best maintain the equipment, what not to do, and what to do.

The Minnesota Seaplane Pilots Association offers great seaplane pilot gatherings: a safety seminar in May each year at Madden's Resort in Brainerd, and a "pig roast" in late summer at Surfside Seaplane Base, Lino Lakes.

As a final destination point, don't forget the EAA Seaplane Base on Lake Winnebago at Oshkosh, Wisconsin, during EAA AirVenture Oshkosh in July. There are as many as 50-70 seaplanes docked in the harbor most days of the fly-in with many experienced seaplane pilots with whom to mingle.

The wonderful world of seaplanes gives pilots an avenue to develop new skills only found in the art of seaplane flying, and to hone old skills and develop safety practices, while having the most fun one can have flying an airplane. With the many lakes available in Minnesota and Wisconsin, one just can't run out of fun and safe destinations!

EDITOR'S NOTE: Randy Schoephoerster is a Field Director with the Seaplane Pilots Association and past president of the Minnesota Seaplane Pilots Association. He is also a FAASTeam Lead Safety Representative, and Vice President of the Minnesota Pilots Association. He owns Air Trek North in the Twin Cities with offices at Flying Cloud Airport in Eden Prairie, Fleming Field in South St. Paul, and Airlake Airport in Lakeville. He holds the following pilot certificates and ratings: ATP, ASEL, ASES, AMEL, MEI, CFI, and CFII. To contact Randy Schoephoerster, call 952.594.1184 or email randy@airtreknorth.com (www.airtreknorth.com). ❑

The Seaplane Pilots Association... Promoting, Protecting, Informing & Educating

Seaplanes are the ultimate off-road vehicle…they will take your passion for flight to a whole new level. Only three percent of pilots have taken advantage of this form of flying that requires a unique set of skills, not known to pilots who are not rated. Seaplane pilots are highly regarded for having greater stick and rudder skills than pilots who are not rated, and these skills transfer to their ability to fly other aircraft as well.

The fun way is no runway... Every landing that a seaplane pilot does is unique, as the water surface and conditions are constantly changing.

Every seaplane flight combines flying, boating and the great outdoors, and promoting and protecting seaplane flying is the job of the Seaplane Pilots Association (SPA).

The Seaplane Pilots Association's primary focus is to promote safe seaplane operations and to protect the seaplane pilot's privilege to share the nation's waterways with recreational, governmental and commercial operators.

Many states have a member who has volunteered to be a field director as a resource for other SPA members, and to help keep watch on state rules, regulations and legislation. Featured in this issue of *Midwest Flyer Magazine* are SPA Field Directors from Minnesota, Wisconsin, Michigan, Indiana and Ohio.

For additional information on seaplane flying and membership, contact the Seaplane Pilots Association at (863) 701-7979 or email SPA@seaplanes.org (www.seaplanes.org). ❑

Mary Alverson, Seaplane Pilots Ass'n Field Director For Minnesota

Mary Alverson with a 1946 Grumman Widgeon G44A, which is owned by Chester Dawson of Daytona Beach, Florida.

Mary Alverson is one of the Field Directors in Minnesota for the Seaplane Pilots Association. She was born in Duluth, Minnesota, and lives in Minneapolis and Brainerd, where she owns and operates "Wings Over Water" seaplane flight training at Madden's Resort. A flight attendant for much of her career – first with North Central Airlines, then with Northwest Airlines when it merged with North Central, and eventually with Delta Airlines following its merger with Northwest, Alverson is truly an adventurer. Besides obtaining her commercial pilot certificate, instrument, multi-engine-instrument, single and multi-engine seaplane, and flight instructor-instrument ratings, she became a Captain with New Mexico Airlines. Alverson is also an FAA Designated Examiner, FAAST Team Representative, Secretary of the Minnesota Pilots Association, and was President of the Minnesota Seaplane Pilots Association from 2009 to 2012. For additional information on "Wings Over Water" seaplane flight training, call 612-240-0123 or email m.alverson@hotmail.com. ❑

Gary Mueller, Seaplane Pilots Ass'n Field Director For Wisconsin

Gary Mueller with his grandson and future pilot, Tabor, and his Cessna 120 in the background.

Gary L. Mueller of Eagle River, Wisconsin, is a field director with the Seaplane Pilots Association in Wisconsin. Mueller is a retired chiropractor, and holds a Private Pilot Certificate with Single-Engine Land and Sea Ratings. He has only been flying since 2002, got his seaplane rating in 2006, and has 1380 hours.

Mueller owns two planes – a 1946 Cessna 120 on straight floats and skis, and a 1975 Cessna 172 SuperHawk. He has been married for 37 years to his wife, Susan. Their son, Brook, is a commercial pilot and flies for Weather Modification cloud seeding. Daughter, Megan, is a commercial pilot/flight test engineer for Cirrus Vision Jet. Daughter, Danica, works for an ad agency, and daughter, Karisa, is a physical therapist.

Growing up summers on Indian Lake just south of Eagle River, Wisconsin, it was inevitable that flying and water would someday intersect. "I was a late starter to flying, earning my Private Pilot Certificate at age 49, but a few years later those two passions met," said Mueller. A polished 1946 Cessna 120 with floats and skis was for sale locally in Land O'Lakes, Wisconsin. A retired American Airlines pilot was selling his pride and joy that was based on Lac Vieux Desert on the Michigan/Wisconsin border. Disappointingly, it was too late that year for Mueller to put the Cessna on floats. The next summer Dick Williams, a seasoned Eagle River seaplane instructor, gave seaplane instruction to Mueller and his daughter at their home on Indian Lake, the same lake that as a boy, Mueller had dreamed of one day flying a seaplane. By July, both Mueller and his daughter both had their seaplane ratings. The following summer, Mueller's son got his rating using the same instructor and examiner.

"Seaplane flying in northern Wisconsin is extraordinary," says Mueller. Wisconsin has thousands of lakes, many of which are large enough for seaplanes. Wisconsin is also a seaplane-friendly state having open access to most lakes. Only a few state-owned and national forest lakes have restrictions in northern Wisconsin. Lakes in southern Wisconsin, due to a larger population density, have some restrictions around Milwaukee and Madison.

In 2009, Mueller was asked to be the field director with the Seaplane Pilots Association (SPA) in Wisconsin. "SPA is a great advocate for all seaplane pilots in the USA and abroad, promoting safe and eco-friendly flying among all seaplane pilots," said Mueller. SPA currently has over 5,000 members in the U.S. and Canada and cosponsors seaplane events in many states including Wisconsin and Minnesota.

"Camping overnight on a secluded beach and cooking a camp shore breakfast is my favorite seaplane venture," said Mueller. "Bacon and eggs never taste better than on a sandy beach, while loons swim by and eagles soar overhead."

Favorite destinations include Madeline Island in the Apostle Islands in Wisconsin; Sky Harbor (KDYT) in Duluth, Minnesota; Bond Falls in the Upper Michigan Peninsula; Grand Marais, Minnesota; and Copper Harbor, Michigan.

To contact Gary Mueller, call 715-272-1917 or email: jettechusa@frontiernet.net. ❑

Brian Van Wagnen, Seaplane Pilots Ass'n Field Director For Michigan

Brian Van Wagnen with a Grumman Albatross owned by Tony Phillippi of Minneapolis, Minnesota, which he has the privilege of flying on occasion.

For Brian Van Wagnen of Napoleon, Michigan, flying has been a profession and a hobby. He owns a Grumman Widgeon amphibious aircraft…a J3 Cub on wheels, floats and skis, depending on the season…and a Cessna 172 on wheels. He also has an airstrip in his backyard, Van Wagnen Airport (6H4).

Professionally, Van Wagnen flew DC9s for American Airlines, and was based at Chicago O'Hare, until he retired. He holds the following pilot certificates and ratings: ATP for ASES, ASEL, AMES, AMEL, Commercial Glider, Lighter Than Air Airship, Balloon, and Helicopter, and is a Certified Flight Instructor for all of the above aircraft. Van Wagnen is type rated for the DC9, MD11, and Grumman Albatross G111.

Van Wagnen is a licensed Airframe & Powerplant Technician with Inspector Authorization, and is an FAA Designated Engineering Representative and Pilot Examiner for seaplanes through the Detroit Flight Standards District Office.

Van Wagnen enjoys flying his Grumman Widgeon to EAA AirVenture Oshkosh each year, and to his fishing camp in Canada. He flys his other aircraft mostly locally out of his home airport. Van Wagnen and his wife, Karen, also enjoy flying to the annual Otsego Lake Splash-In in Gaylord, Michigan, which is usually held the second weekend of June, and invites all pilots to come and enjoy the event. The Van Wagnens have been married for 32 years and have two children: Dan, 28, and Jodi, 21.

Brian Van Wagnen can be reached at 517-764-4193 and via email at vanwagnen.brian@gmail.com. ❑

Randy Strebig, Seaplane Pilots Ass'n Field Director For Indiana

The Seaplane Pilots Association Field Director for Indiana is Randy Strebig, who was born and raised in Fort Wayne, Indiana. He now lives on Lake James between Ft. Wayne and Angola, Indiana, and owns and operates Strebig Construction, Inc., a commercial and industrial design build construction firm in Ft. Wayne that he started as a remodeling business as a teenager in high school. The business, which now involves commercial real estate sales and development, is celebrating its 37th anniversary with $16 million in project volume in 2016.

Randy Strebig

All his life Strebig has been a lake and water enthusiast. He received his Private Pilot Certificate in 1995 and immediately proceeded to get his Instrument Rating in his 1981 Piper Saratoga, which he flew for 22 years until transitioning to a Piper Mirage earlier in 2017.

Strebig got his seaplane rating and bought a new Maule M-7 235 on Baumann straight floats in 1997. Of his 3800 total hours, 1450 are on floats.

Strebig has flown his Maule to the east coast, west coast, and as far north as Alaska, and south of the border. One of his favorite trips is to the annual floatplane pilgrimage to the International Seaplane Splash-In in Greenville, Maine.

In 2006, Strebig established a private airstrip, where he keeps his beautifully restored 1940 J-3 Cub and a 1953 Cessna 180. He and a friend fly the taildraggers on skis in the winter and wheels in the summer.

In the fall of 1998, at the close of Strebig's first season on floats, the State of Indiana requested that seaplane pilots stop flying on Indiana lakes until they conformed with an administrative code requiring landing areas to be established. That's when Strebig became a field director with the Seaplane Pilots Association (SPA) and he hasn't stopped working on seaplane advocacy and regulation since.

Strebig has now established 17 private-use seaplane bases, and formed the Indiana Seaplane Pilots Association (ISPA) to better serve seaplane interests in Indiana. Through assistance and education, ISPA is designed to work with the Federal Aviation Administration, Indiana Department of Natural Resources, and Indiana Department of Transportation to preserve and protect water-flying interests, and to promote goodwill in general aviation as a whole. Since then, the State of Indiana has disbanded private-use landing lakes, and is gradually converting them to public use. The Indiana Seaplane Pilots Association is currently working on an inventory in excess of 30 public-use landing lakes in the state.

Strebig is currently President of the Board of Aviation Commissioners at Tri-State Airport (KANQ) in Steuben County, and has organized a seaplane fly-in at Pokagon State Park in 2003.

Strebig loves designing, building and creating solutions that meet the interesting needs of straight float aircraft, including lifts, fueling systems, and transport carts. He has shared his designs with others to solve the challenges that straight floats create.

Strebig had no idea back in 1995 when he got his Private Pilot Certificate that aviation would be so defining to his life. In fact, he never even thought he wanted to own an airplane back then because it really seemed like an overwhelming responsibility. Today, Strebig could never imagine his life without aviation, floatplanes, taildraggers, and most of all, the sharing of flying with others.

Randy Strebig can be reached at 260-424-5371 or randy.strebig@strebigconstruction.com. ❑

Jim Priest, Seaplane Pilots Ass'n Field Director For Ohio

After 20 years of efforts, Seaplane Pilots Association Field Director, Jim Priest, and other seaplane pilots from Ohio, were successful in gaining unlimited seaplane access to Ohio lakes beginning in June 2016. Priest has been flying since 1960 and holds an Airline Transport Pilot Certificate with single and multi-engine land and sea ratings, and a glider rating. He is also a Certified Instrument Flight Instructor in both single and multi-engine aircraft, and has more than 7,500 hours. Priest currently flies a Cessna 414 for business, and a Cessna 180 and Grumman G44A Widgeon for pleasure. He became an active seaplane pilot in 1975 and purchased his Widgeon in 1988. He uses the Widgeon mainly on trips to northern Ontario for fishing and hunting. He has flown as far north as the Arctic Circle to photograph polar bears.

Jim Priest's Widgeon

Priest is Chairman of the Cleveland Plant & Flower Company, a wholesale distributor of flower and nursery products, with 12 branch outlets in the eastern United States. He has a Bachelor of Science Degree in Business Administration and attended law school at Case Western Reserve University. He is a past Key-Man and Governor of the Quiet Birdmen, Cleveland Hangar.

Jim Priest can be reached at 216-390-3942 or via email at jpriest451@aol.com. ❑

Local & Cross-Country Seaplane Flight Training By Adventure Seaplanes

Brian Schanche of Adventure Seaplanes with his Cessna 185.
Dave Weiman Photo

LINO LAKES, MINN. – Adventure Seaplanes offers conventional seaplane training in one of several locations in Minnesota and Florida, cross-country training between Minnesota and Florida, and adventure trip packages to Canada.

Adventure Seaplanes is based at Surfside Seaplane Base in Lino Lakes, Minnesota in the summer, and Cherry Pocket in Lake Wales, Florida in the winter.

Accommodations can be arranged at both locations.

Their aircraft fleet includes a Super Cub, Cessna 172, and Cessna 185 – all on straight floats.

For additional information, contact Brian Schanche at 612-868-4243, or via email at adventureseaplanes@gmail.com. ❑

Putting Kids In The Cockpit... Racine's Young Aviators Program Celebrates 10 Years of Success!

by Stephen Myers
Young Aviators Cofounder & Chairman

Young Aviators Class of 2016

"When I reflect on the experience I had at Young Aviators, some words come immediately to mind: excitement, inspiration and accomplishment. The most important word, however, is gratitude. I am so grateful that I had the enormous privilege of attending this program with other kids of varying ages and aviation skills."

These words are from a thank you note received from Julia Jones, a student in the Young Aviator class of 2016.

Curriculum. What exactly is the Young Aviators Program all about? It is a five-day summer program that introduces teenaged boys and girls to STEM (Science, Technology, Engineering & Math), aviation and actual in-flight instruction. Located at EAA Chapter 838 at Batten International Airport (KRAC) in Racine, Wisconsin, faculty members work to inspire students to "dream big life dreams" and develop the skills needed to make those dreams come true. Faculty members include a retired PhD chemist, a former Imaging Corporation CEO, a recently retired Airbus A330 captain, a retired DC-10 captain, a former corporate chief pilot and a former engineering test pilot. All are unpaid volunteers.

Daily classroom STEM instruction includes aerodynamics, fundamentals of flight, the physics and chemistry of aviation, modern aircraft navigation, aircraft weight and balance, weather causes and effects, meteorology, electrical systems and aircraft engines.

In addition, students train daily in flight simulators and fly every day with professional flight instructors. By the end of the week, even those who are too young to have an automobile driver's license are completing a variety of basic flight maneuvers and making landings and takeoffs in Cessna 172s. To be sure, flying is a thrilling part of each day, but flying is just the appetizer. STEM is the program's main course.

A unique feature of the Young Aviators Program is a metal fabrication project. Students – some of whom have never used tools of any sort – start on Monday with a flat piece of aluminum. Using blueprints, they then fabricate and assemble a real Sonex Aircraft (sonexaircraft.com) wing leading edge component by week's end. A retired high school shop teacher, who is also a pilot and licensed aircraft mechanic, leads this workshop. Two more volunteers are there to help students navigate smoothly through the fabrication and assembly process. Many students recall that building this real aircraft part is one of the favorite memories of their Young Aviators experience.

Getting Started/Fundraising. So, just how did the Young Aviators Program get started? One day back in 2007, friends and fellow pilots Scott Sellers and Steve Myers were chatting over a cup of coffee. They were noting the disappointing drop of licensed pilots in the United States and the diminishing number of young men and women becoming pilots. They were also concerned about the disturbing reduction of American students pursuing science degrees and technical careers. Additionally, Sellers was looking for a STEM/Aviation summer program for his teenage son, Dan, similar to one that he experienced as a teenager.

Then and there they decided to do something – even if it would be just a small local effort – to get more kids interested in airplanes, flying and things technical. They sketched out a draft program for the first year. The "proof of concept" plan included four students, a basic classroom curriculum, one flight simulator, one flight instructor, one training airplane and six volunteers.

Bottom line: It worked. Quite well, in fact. The kids loved it. So did the staff. With that they were on their way to developing the successful Young Aviators Program that will turn 10 years old this coming August.

Fundraising. Young Aviators Inc. is a 501-(c)-(3) non-profit corporation. Its staff members work year-round on their toughest job, raising money! Funds are raised through tax-deductible donations from friends, businesses, corporations and foundations. The tuition is only $795.00 to encourage families to participate. Scholarships are available

when needed. In fact, all students really receive scholarship assistance due to the high overall cost of providing two flight simulators, leasing three training aircraft, paying professional flight and simulator instructors, buying aviation fuel, renting the EAA Chapter 838 facility and paying a variety of insurance fees.

Local/Regional/National Students Attend. What started as a program aimed at students living in southeastern Wisconsin has grown, a bit mysteriously, to include applicants from "far away" places. Potential students, often with help from parents, find the Young Aviators website online. Previous attendees, including those from the Racine area, have come from southern California, up-state New York, Tennessee, northern Wisconsin and Illinois. The 2016 class included two students from Minnesota, two from Illinois, and one from Michigan. Applications for 2017 already include students from Massachusetts and Indiana. Sometimes an entire family will come and vacation in Racine, while a son or daughter attends the program.

Not surprising, most Young Aviators students go on to college. A number have graduated with engineering degrees. Dan Sellers, son of Scott, graduated with a Mechanical Engineering Degree from the University of Minnesota in December 2016. Days later, another former Young Aviator, Austin Behrens, graduated from St. Cloud State University with a Business Degree, plus a Private Pilot Certificate and an instrument rating. He has now accepted a position with IBM. And another, Aaron Gehne, a graduate of the University of Wisconsin Parkside, is a commissioned U.S. Army officer now completing military flight training.

Feedback. Feedback received from students and their families reveals that the Young Aviators Program continues to be both successful and inspirational. The following is a note from the father of a recent graduate:

"My son earned the money to pay the Young Aviators tuition fee. Driving home after the graduation dinner, I asked him if the program was worth all the work it took for him to attend. He said Young Aviators went way beyond his expectations. Never did he imagine the amount of individualized and professional training he would receive. Our combined feeling is this: Rarely do things meet our expectations. And more rarely do they far exceed them in the way your program does. Thank you for giving my son such a wonderful opportunity."

Class of 2017 Student Applications. 2017 program dates are Monday, August 7 thru Friday, August, 11. Applications are due no later than May 15 for the 12 available class positions. For an application form, general information, or to make a tax exempt donation, go to **www.young-aviators.com** or call **(262) 515-9838.** Visitors are always welcome. Fly in or drive in. Come by and see for yourself what all they do. ❑

Wisconsin's High School To Begin Second STEM Aircraft Project

Westosha High School STEM

The story of Westosha Central's Science, Technology, Engineering & Mathematics (STEM) aviation program in Westosha, Wis., is far from a story about just a club. It is a story of a motivated aviation enthusiast, an administration willing to dream, a supportive community, and future pilots, engineers, and innovators. Together, this group makes an everlasting and exponential impact by giving sky-high opportunities to high school students.

The story began in April 2014 as James Senft, the motivated aviation enthusiast, approached the school's principal about an idea that sounded impossible. From the liability involved, space needed, and funding required, it seemed as if the idea was doomed from the start. Yet, it is through defying adversity that success is found.

Eagles Nest, a public charity, financed the purchase of a Van's RV-12 aircraft kit and overtook the liability of flying the plane. The school provided the space for the club, overtook the risk while building the plane, and offered academic credit to students for completing ground school. Multiple

community members, who shared the same vision, assisted by offering tools and donating scholarships to pay for the gas for students to take flying lessons. Businesses saw a chance to build and give back to the community by offering funding, tools and equipment for the plane. Senft volunteered to teach ground school and direct the program. Even local flight instructors offered lessons at a discounted rate.

Defying the odds, the dream came to fruition 18 months later as "Falcon One" took flight. In the end, it took a group of dedicated individuals, businesses, parents, administrators, and students who shared a goal and overcame all obstacles. Yet, the magnificence of the aviation program lies not in its creation, but in its impact on students.

To change the trajectory of someone's life is truly powerful. The aviation club does just that. It inspires students to seek careers in engineering and aviation that were unheard of, or seemed out of reach, before the program began. Not only has this club given students a passion, but club president Josh Engberg says, "It's given me a huge, unbelievable boost in life." Through the hard work of securing and checking every nut, bolt and over 15,000 rivets, the aviation club gives members vital understanding, fundamental insight, and a deeper appreciation for aviation.

Although a relatively small club with 12-15 students, they have started building their second aircraft.

Recently, students from another local high school have toured the school's workshop facilities and were able to obtain a taste of the program.

Axiomatically, the effects of the club are widespread, transcending Central High School and inspiring not only Central students, but also people in the community, students from other high schools, and individuals around the country that read about the success of this program and dare to dream themselves.

For additional information, email James Senft at senftj@westosha.k12.wi.us. ❑

Wisconsin Student Solos In Class-Built Aircraft

WESTOSHA, WIS. – The partnership between Central High School's STEM Aviation Program and Eagle's Nest Projects, Westosha, Wis., has provided students with an exciting and truly unique education experience and a venue for further developing knowledge and skills in the areas of Science, Technology Engineering and Math (STEM). The Eagle's Nest program emphasizes the importance of setting goals, planning, teamwork, and respect as students work "hands-on" on complex processes and problems in the same way accomplished scientists and engineers perform their jobs. The program also motivates, empowers, and encourages students with technical abilities to pursue STEM careers, like aviation. Josh Engberg was one of a classroom of students who helped build an RV-12 light sport airport. Engberg soloed in the airplane on February 21, 2017. Jim Senft is Director of Aviation at Eagle's Nest Wisconsin. ❑

Josh Engberg with his solo shirt.

If Your Airport
Is Having An Aviation Event/Fly-In
Email Information To
info@midwestflyer.com
Calendar items are published and posted online at www.midwestflyer.com

Smart Phone Found After Being Dropped From Aircraft

As Brian Petersburg of Decorah, Iowa, was flying his Flight Design CTLS from Iowa to Wisconsin last fall to pick up a friend, he decided to take a video of the Upper Iowa River with his iPhone as he transitioned over the Mississippi River. To get the clearest video, he opened a small window on his airplane. When he turned the iPhone to get a better angle, the wind caught it, pulled it out of the aircraft, and it fell 2,000 feet to the wooded terrain below.

The following week, Petersburg used his iPhone locator application and the phone showed up, so he organized a search crew and drove approximately two hours into Wisconsin. After only about 45 minutes of searching, they located the phone in very steep terrain in perfect condition.

From an altitude of 2,000 feet, it took 60 seconds for the iPhone to reach the ground, and the entire descent was caught on video, as the iPhone fluttered back and forth. Once it landed, Petersburg could hear birds chirping in the background.

Brian Petersburg with his CTLS.

The search party: (L/R) Brian Petersburg's daughter, Alyssa Petersburg; friend, Mark Boland; and Brian Petersburg's brother, Randy Petersburg.

❑

Aeronautics Report

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

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

www.wisconsindot.gov

Seaplane Flying In Wisconsin

by Hal Davis
WisDOT Bureau of Aeronautics


Hal Davis

Fly over Wisconsin and you will quickly realize, we have a lot of lakes. Upwards of 15,000. With all these lakes and several large river ways, just about anywhere you go, you'll find water nearby. If you're a seaplane pilot, that means nearly endless opportunities for floatplane flying fun!

With spring finally here and summer around the corner, hopefully seaplane pilots have started planning their next Wisconsin adventure. For some terrific trip ideas, check out **www.TravelWisconsin.com.**

For those who prefer to fly to a seaplane base, Wisconsin has six (6) seaplane bases, which are open to the public, and another nine (9), which are available with prior permission from the owner.

Others may be looking to find a lake they can claim for themselves, if only for the day. The good news is the vast majority of our lakes and rivers are open to seaplane use. However, there are a few exceptions. The map **on the next page** depicts the bodies of water with known seaplane restrictions, as well as the locations of the seaplane bases around the state. Of course, it's always good practice to contact the local lake or river authority before attempting to use any body of water for seaplane operations.

If you're interested in establishing your very own seaplane base, just give us a call at the Wisconsin Bureau of Aeronautics. We will gladly help you complete the free application. For more information about the process, site selection and seaplane base facilities, I recommend you take a look at Federal Aviation Administration Advisory Circular 150/5395-1A, which can be found at www.FAA.gov.

Wishing you sunny skies and calm waters! ❑

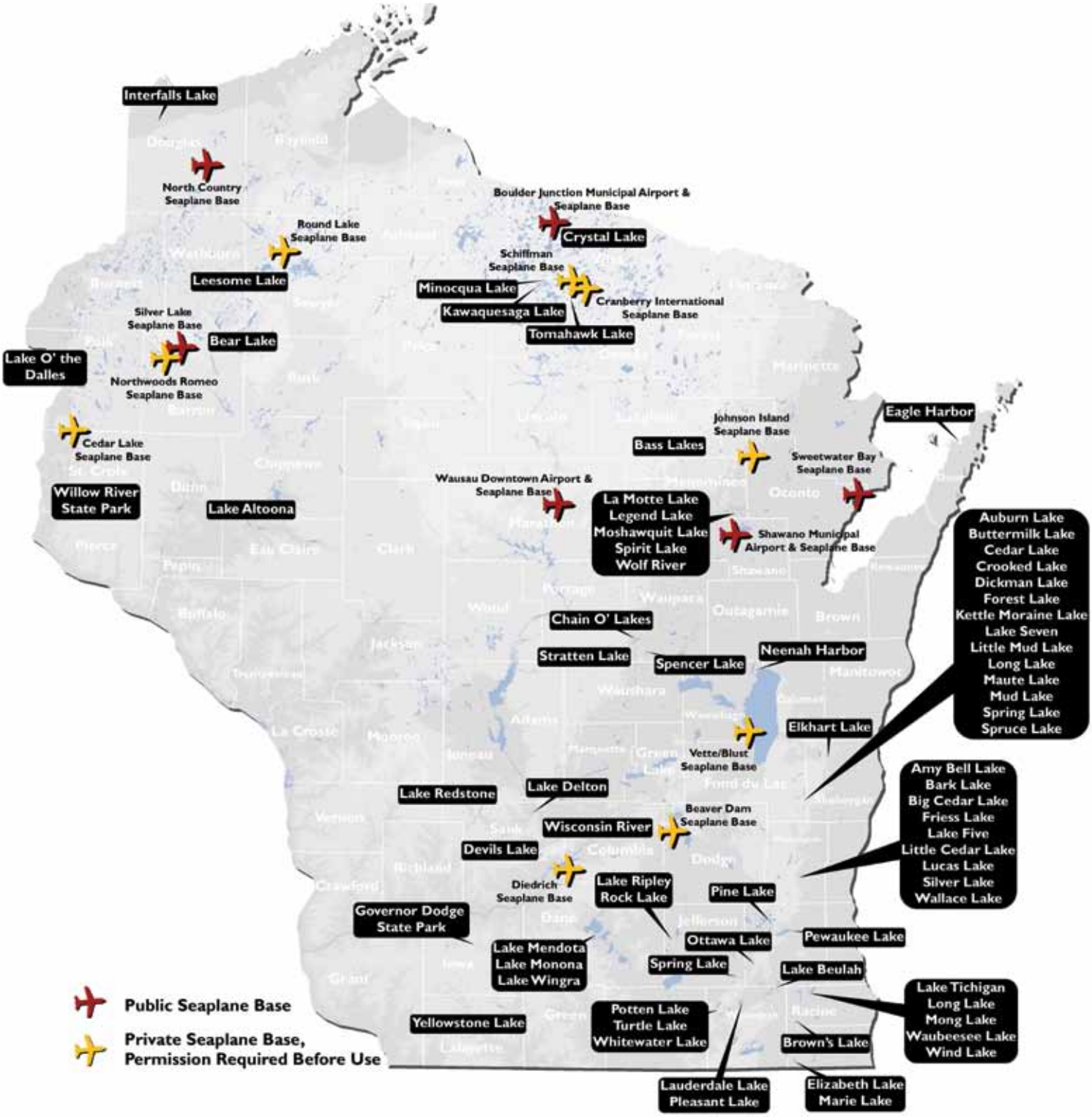

Sunrise at the Vette/Blust Seaplane Base during EAA AirVenture Oshkosh.
Hal Davis Photo

Meet Lucas Ward

Airport Development Engineer
WisDOT Bureau of Aeronautics

MADISON, WIS. – Lucas Ward joined the Wisconsin Department of Transportation's Bureau of Aeronautics in December 2016. As an airport development engineer, Lucas is responsible for managing projects at nine airports around Wisconsin. In his new role, Lucas will help airports develop a realistic and achievable capital improvement plan and contract with consultants for planning, design and construction engineering services. Lucas also serves as a liaison between local sponsors and state and federal agencies.

Lucas earned a Bachelor's of Civil Engineering Degree in 2011 from the University of Wisconsin-Platteville, with an emphasis in transportation and municipal engineering. Before



Bodies of water with known seaplane restrictions are identified above. Still, we recommend contacting the local lake or river authority before using any body of water for seaplane operations just to be safe.

---

starting with the Bureau of Aeronautics, Lucas worked for the WisDOT Southeast Region where he performed construction engineering on various highway projects throughout the region.

Lucas recently earned his Professional Engineer title in October 2016. He is originally from Lake Mills, Wisconsin and enjoys playing recreational league football, hunting, fishing, and spending time with family. ❑

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.

Cassandra Isackson, Director **Dan McDowell, Editor**

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

Many Aviation Opportunities

by Cassandra Isackson
Director, Minnesota DOT Office of Aeronautics


Cassandra Isackson

Spring arrived early this year with many events attracting attention. As aviators, we flock to airshows, fly-ins, and pancake breakfasts, to enjoy bright blue spring and summer skies with friends and family. I'll be at many aviation events and programs around the state this year, too, along with other Minnesota Office of Aeronautics staff. Please invite us to any event you'd like us to attend at your airport, and we'll do our best to be there. We look forward to meeting you face to face to hear your questions, concerns, and ideas.

Other, not so obvious, events should also attract our attention as aviators. The Minnesota Legislature is in session making decisions about how aviation tax dollars will be collected and spent in our state. There is a current surplus in the State Airport Fund and the Governor's budget recommends an appropriation that can apply those dollars to needed projects at airports around the state. It's like spending money already in your savings account on a new roof for your house. If you want cash in the State Airport Fund to be used for maintenance expenses at your airport and projects all around the state, let your legislators know they should support the Aeronautics Appropriation in the Governor's Budget.

The State Aviation System Plan (SASP) will be experiencing renewal beginning this spring as well. The plan, as required by FAA, inventories the airports in the state system, forecasts future demand, and evaluates the need for change across the system to accommodate our future. The final planning steps compute costs for the system over time, and inform FAA, the Minnesota Legislature, and the U.S. Congress of money needs that will allow airports to continue supporting community economies and aviation's future. We'd like you to help us understand the variety of needs at your airport. Aeronautics staff has one understanding of needs from a system perspective, but only you can provide the personal touch – pointing out specifics at your own airport. Expect to hear us inviting your participation at a wide variety of locations and events this year. Please come, and bring your opinions!

Meanwhile, if you haven't been flying this winter, re-familiarize yourself with your aircraft well before your first flight this spring. Attend an FAA safety seminar. Attend one of the many available conferences. Check **http://www.dot.state.mn.us/aero/events/flyins-and-events.html** for a list.

By participating in these programs, you'll be investing in continued growth in aviation and enhancing your safety knowledge and skills. I urge you to participate; to improve aviation; to work together; and to step towards zero aviation deaths in Minnesota. ❑

Where Do Your Floats Come From?

A brief look at aircraft and component certification.

by Rachel Obermoller
Pilot, MnDOT Office of Aeronautics


Rachel Obermoller

There are several ways, which floats, or really any additional equipment, can be certified for aircraft. When an aircraft is initially certified, a Type Certificate (TC) is issued. Sometimes, many similar aircraft will be grouped together. For example, the Type Certificate Data Sheet (TCDS) Number 3A24 lists the Cessna 185, 185A, 185B, 185C, 185E, and 185F, as well as some special configurations of those models. The TCDS lists limitations and design limits of these models in various configurations. If your aircraft was certified per the TCDS to include floats, the models will be specified, as well as those items on the TCDS which change when floats are installed. In the case of the Cessna 185, the TCDS lists EDO 2790 amphibious floats and EDO 2960 straight floats, which begs the question, what about all of the other float models you can put on a 185?

Tufted fuselage of an AT-802A to aid in flow visualization. *Wipaire Photo*

The answer to that question lies in the Supplemental Type Certification process. As you might guess, a Supplemental Type Certificate (STC) is an amendment to the Type Certificate for the aircraft. The manufacturer may have elected to not include certain supplemental equipment in the original type certification process, or it may have been approved after the original type certification, possibly by a third party. Sometimes, when a new aircraft is delivered from the factory, there may already be several STCs on the aircraft, depending on the equipment the owner specifies. For the Beechcraft Bonanza, a new G36 Bonanza with a G1000 avionics suite installed will have an STC for ADS-B in order to make the aircraft ADS-B compliant. Similarly, float manufacturers who manufacture floats for certificated aircraft (non-experimental) will apply for an STC for their equipment on an airframe.

The waters can start to get a little muddied when you have multiple STCs on one airframe, as is the case with older aircraft, and those with more modifications installed. Your aircraft may end up with STCs for common things like alternators, vacuum pumps, engines, propellers, avionics items, engine analyzers, and interior and exterior lighting in addition to things like floats, skis, tundra tires, or gross weight increases. As you can imagine, some of these items, and the additional limitations they include, may interfere with or contradict one another.

For this reason, it is particularly important for an owner or pilot to be familiar with the equipment on their aircraft, how it was certified, and any limitations in the flight manual supplement for those items, and to have a mechanic they trust who also understands the intricacies of their aircraft's paperwork and can help them wade through the questions they may have. Some STCs explicitly state they are not compatible with certain others, while others may be a bit more vague and require some careful consideration before they are installed on the aircraft.

So far we've just talked about the paperwork compliance side of all of this, but I wanted to drill down a little more into how equipment is actually certified, so I got in touch with a former student of mine who is an engineer at Wipaire, the world's largest float manufacturer located in South St. Paul, Minnesota.

Elliot Bishop is a private pilot and holds a seaplane rating in addition to being a Designated Engineering Representative (DER) Flight Analyst. His interest in math, science and space got him into aerospace engineering. In his past 6 years at Wipaire, he's found that seaplanes and the variety of projects that go with his work has made his job both challenging and interesting and keeps him engaged and busy.

There is a lot of work that goes into certifying floats, or any supplemental equipment for an aircraft, and it all starts with figuring out how to comply with the certification requirements. Whether you are aware of it or not, FAR Part 23 has recently undergone a significant rewrite with the goal of streamlining certification activities and reducing costs while maintaining the same or better level of safety. The new Part 23 will be effective in August of 2017, and changes the standards and rules that TC and STC holders and applicants will use from prescriptive requirements to performance-based requirements.

Elliot explained that while this may sound more onerous than just complying with the previous rules, the hope is that it will provide greater flexibility, allow for easier adoption of new technologies both in testing and designs, and lead to a faster and less expensive process as a result.

One of the possible means of compliance is the ASTM International specifications, and since these are not part of the Federal Aviation Regulations, they can be more quickly revised to adopt new technology. While there will likely be a learning curve to adopt and fully utilize the new process, the hope is that as new technologies advance such as electric aircraft, distributed propulsion, and new materials and methods for manufacturing, the new regulations will provide the needed flexibility for the manufacturer to either apply an existing standard as means of compliance, or specify their own means of compliance as part of the application.


Construction of a float.
Wipaire Photo

The process of certifying a new float starts with the concept in terms of the applicable aircraft, desired characteristics of the float, and known specifications. They

then design a properly sized float, which they believe will fulfill the concept, and figure out how to attach it to the airframe. This involves designing the appropriate rigging, creating the internal structure for the float, and designing the systems associated with the float, such as the water rudder controls or hydraulic pump for amphibious floats. Running concurrent to the design process is the need to get the certification plan approved by the FAA, write the test plans to satisfy the various requirements, execute and document the testing, write the appropriate reports, and generate drawings and other technical documents which will be part of the STC approval. While this sounds straightforward and somewhat linear, there are quite a few places where the process can hit a snag, and changes must be made.

In flight and static testing, it can be hard to anticipate exactly how an aircraft or component will perform with a given modification, and when an issue arises, they have to find a way to improve the design to solve the problem. As you can imagine, for someone who likes a good challenge and solving problems, the certification process presents a lot of opportunities to exercise their skills.

Bow load application to a float during static structural testing.
Wipaire Photo

There is a lot of testing which goes into certification, and this occurs both on the ground and in flight. Landing loads must be tested for the components, rigging, fittings, and other components, anything which cycles must be evaluated for wear and performance, electrical loads on the system must be assessed, plumbing and routing of cable, wires, and lines must be evaluated for interference, and components which attach to the airframe must be evaluated to ensure they withstand the loads they are rated for.

Certification of a new float on an aircraft requires repeating many of the flight tests that were done when the original aircraft was certified. The flight manual supplement includes performance charts or adjustments, which must be developed. There are also limitations for performance in various conditions including crosswind, service ceilings and flight conditions, which must be considered. Stall characteristics may be affected which in turn can impact other operational speeds for the aircraft, and even if they remain the same, many things must be evaluated to ensure the impacts of the modification are accounted for.

Whether you fly a stock Piper Warrior or a Cessna 206 with all the bells and whistles, you can imagine, understanding the aircraft certification process helps a pilot understand how the aircraft was designed, tested, and certified, and gives meaning to the limitations, operating practices, and instructions found in the flight manual and supplements. Each manufacturer should also provide updates to these documents as needed, instructions for continued airworthiness, which may include maintenance manuals and service bulletins, and be a resource for parts and support for aircraft owners and maintenance personnel.

If you're not sure whether your documentation is in order or you have the right supplements in your plane, it's a good conversation to have with your mechanic, or the manufacturer of the aircraft or component to ensure you have the whole picture.

As you can imagine based on everything that goes into the design of an aircraft or modification, there are a whole host of careers related to the engineering field which are accessible to someone with an interest in aviation. In the Engineering Department alone at Wipaire, they employ people with drafting and CAD modeling skills, those with manufacturing and maintenance experience who develop and prototype parts and components, and technical writers, as well as engineers. Just because someone has an interest in aviation doesn't mean they are locked into a career as a pilot, mechanic or engineer, either. Every aviation business has a need for people skilled in things like accounting, sales, administrative support, marketing, manufacturing, customer relations, human relations, web development, graphic design, and IT services.

In Minnesota, there is a great program for high school students called the Minnesota Aviation Career Education (ACE) Camp. ACE Camp is a weeklong summer camp where students get to experience many different careers in aviation, learn about a wide variety of careers and tour employers in Minnesota, experience flying in a general aviation aircraft, and complete a host of hands-on activities to learn more about aviation. It sounds like a lot of fun, even for adults, but unfortunately it's only available to high school students. For more information about cost, dates, or to apply, visit www.mnacecamp.org

The MnDOT Office of Aeronautics is a great resource for your local airport, flying club, EAA chapter or other aviation group interested in helping promote aviation safety. Chris Meyer schedules the safety seminars our office presents, and in particular, the presentation "Test Pilot 101 – Returning Your Aircraft to Service" is a great option to learn more about the aircraft certification, documentation, and maintenance return-to-service process. You can reach Chris at **651-234-7224** or **christopher.meyer@state.mn.us** and he would be happy to arrange a time to bring this or one of our other WINGS safety seminars to your group. ❑

Things That Go 'Bump' While Flying

by R.J. Reilly

Airplanes can play with your brain. Think about your engine running rough over water or inhospitable terrain.

R.J. Reilly

It was a short flight to re-position my Cessna 170 from a rural maintenance shop to its home hangar in a major metropolitan area. I gave the preflight inspection a bit more attention than usual… not that I didn't trust the work done by the shop, but I'm always a bit edgy after my airplane has been seriously disassembled and put back together. The run-up at the end of the active gave assurance that all was well and the surrounding farm fields provided a ready 'place to go' should something be amiss just after lift off.

The weather was truly beautiful. A few scattered, fair-weather cumulus clouds lingered at about 5000 feet, backlighted by a low angled sun that had given up its work for the day. My southeasterly track put the sun over my shoulder, eliminating the annoyance of peering into a setting sun and easing the sighting of conflicting traffic when entering the more congested area.

Climb-out was routine, and I leveled at just under 3000 feet MSL, roughly splitting the altitude difference between the surface and the cloud base. There remained a bit of instability in the atmosphere that produced a gentle, rolling disturbance as I passed beneath the scattered woollies, just about enough lift to keep a good sailplane aloft until nearly sunset. I settled in on course for home and was thoroughly enjoying the end of the day.

After a lazy interlude, I tuned the home-base ATIS to get the latest atmospherics and traffic pattern:

"…landing runways one four left and one four right. On initial contact, report you have information Lima …."

WHAT WAS THAT? As I passed under a cloud, the gentle disturbance produces a distinct, clunk-clunk, 'oil-canning' sound of a skin panel being displaced and returning to a resting position. Did I leave a panel unsecured, miss a screw or more than one? Very gently I induced a short pitch disturbance and a return to level flight, sort of an almost-nothing roller coaster. All was quiet. I tried a similar experiment in the roll axis – same result. I forgot about the ATIS and contemplated whether to continue or return to the maintenance facility. Another try at the little roller coaster maneuver produced no noise and my position placed me closer to home than a return to the rural port.

Tuning to the destination tower frequency and listening for a few minutes revealed only light traffic for the time of day, so there would likely be no diversions and little maneuvering on arrival. The active runways were on an almost on-course heading that might accommodate a straight-in approach if traffic allowed.

Returning my attention to the ATIS, the destination particulars hadn't changed, but I harbored some residual unease over the potential problem.

Another cloud appeared and I elected to continue on-course and pass beneath it. Another atmospheric burble and a gentle roll easily corrected; no accompanying oilcan sound. Whoops, there it was again, not quite synchronized with the atmospherics, but close enough to renew concern about structural anomaly. Now thoroughly focused on the ATIS, I listened carefully to every word. At the finish of the taped loop, I was beneath a cloudless piece of sky, and after about a five-second delay following the verbiage, there was a repeat of the 'oilcan.' Although nearing the Class B penetration call radius, I was compelled to listen to the ATIS loop once more. Sure enough, after a short delay following the traffic advisory, the 'oilcan' sounded again, courtesy of the ATIS.

A relieved call to the tower produced clearance for a straight-in to 14 Right. The 'chirp chirp' of rubber on asphalt was especially welcomed. I parked in front of my hangar for a time, listening to the ATIS loop. A call to Ground Control couldn't explain the 'oil can,' but to me it sounded as though a heavy coffee mug deposited carelessly on a metal table.

An old aviation aphorism says: 'You learn something on every flight...' if you pay attention.

EDITOR'S NOTE: Richard J. (Dick) Reilly of Hokah, Minnesota, holds 16 patents in the general areas of aerodynamics, fluid power, control systems and computing devices. He is the author of "Tell Me A Story," a book about his experiences working for 50 years on five continents. (Amazon.com) ❑

L/R) MATA Scholarship recipient, Andre Schmidt of Grand Rapids, Minn., with Devra and Darrell Bolduc, formerly of Bolduc Aviation Specialized Services, located at Anoka County – Blaine Airport, Blaine, Minn. Darrell Bolduc received MATA's "Meritorious Service Award" for his service to the aviation community. *Dave Weiman Photo*

Andre Schmidt
515 Rogers Ave
Grand Rapids, MN 55744

01/01/2017

Minnesota Aviation Trades Association
1600 W. 82nd St., Suite 100
Bloomington, MN 55431

Re: Thank You

Minnesota Aviation Trades Association:

Happy New Year! Looking back on 2016, I wanted to take this opportunity to thank you for your generous scholarship and give an update on my progress. With the assistance of your scholarship I have successfully completed the Accelerated Instrument Course through Venture North Aviation and received my Instrument Rating. It was an intense and rewarding course of study to go through, and while I personally would rather fly low and slow, I recognize and respect the skills and abilities that I have learned through this program.

At this time I am continuing to build my hours towards a Commercial License and CFI certification by picking up a Tailwheel and Ski plane endorsements through Taconite Aviation, utilizing an aircraft from the Search and Rescue Association in Grand Rapids. My current plan is to complete my Commercial License and CFI certification by early March and begin instructing while continuing to build my hours towards my long term goals of serving my community as a Search and Rescue Mission Pilot with the Civil Air Patrol and ultimately as an aerial firefighter.

Thanks again for your generous scholarship and assistance with this step in my aviation career.

Sincerely,

Andre Schmidt

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

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

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

More information and reservations are available on the MAHF website: mnaviationhalloffame.org, and on the MAHF Facebook page. ❑

Girls In Aviation Day Set For 2017

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

The average attendance at events was 81 participants, with the average age of participants ranging from seven to 15 years of age. 86.7% of the events took place at an airport, with the remainder taking place at schools and other venues.

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

For more information, call 937-839-4647, or visit www.wai.org. ❑

Florida Fly-Out Attracts Midwest Flyers

Members of the Florida Aero Club flew to Venice, Florida February 19, 2017 for its monthly fly-out and lunch at Sharky's On The Pier. Joining the club was Dave and Peggy Weiman of *Midwest Flyer Magazine,* and several members of their editorial staff. The Weimans were in Florida covering aviation events and activities to be featured in future issues.

Bill and Judy Blank of La Crosse, Wisconsin; Bill and Nancy Blake, formerly of Peoria, Illinois, now of Sarasota, Fla.; and Phil and Carol Peterson of Oregon, Wis., joined the Weimans for lunch.

Judy and Dr. Bill Blank

Dr. Bill Blank is a contributing columnist for the "High On Health" section of *Midwest Flyer Magazine.* Dr. Blank is an Aviation Medical Examiner (AME), flight instructor, air show performer, and a member of his local flying organization, the La Crosse Area Flyers, and the Experimental Aircraft Association (EAA), and is also on the Board of Directors for La Crosse Regional Airport.

As an ophthalmologist, Dr. Blank was the first surgeon to perform an intraocular lens implant in La Crosse, Wisconsin. In addition, Dr. Blank has been an AME for 38 years, and has risen to the rank of Senior AME.

Dr. Blank has 5700 flight hours, and holds an Airline Transport Pilot Certificate, and is a Certified Instrument, Single and Multi-Engine Flight Instructor (CFII). He is rated for Single-Engine Land and Sea, Multi-Engine Land, and Rotorcraft. Dr. Blank performed in air shows for 39 years, and owns and flys an American Champion Decathlon. Blank's wife, Judy, narrated some of her husband's air show performances until he retired from performing in 2014.

Pilot and aircraft owner, Bill Blake, formerly of Peoria, Illinois, and now of Sarasota, Florida, was a columnist for *Midwest Flyer Magazine* as the representative of the AOPA Great Lakes Region from 1999 to 2011.

Prior to working for AOPA, Blake was Director of the Division of Aeronautics for the State of Illinois (1992-99),

Nancy and Bill Blake

and prior to that, Chairman of the Greater Peoria Airport Authority Board of Commissioners, Executive Director of the Illinois Aviation Trades Association, an Army Aviator assigned to the East-West German border during the Cold War flying the SK-58 helicopter, and a contract negotiator for the Office of Naval Research in Washington, D.C. He retired with the rank of colonel.

While Blake was Director of Aeronautics in Illinois, the mayor of Chicago closed Meigs Field without the consent of the Federal Aviation Administration (FAA), and against the wishes of both the State of Illinois and AOPA. Under Blake's leadership, the State of Illinois, AOPA and the "Friends of Meigs Field" organization launched a heroic campaign to save the airport, located in downtown Chicago along Lake Michigan, but bulldozers destroyed the airport in the middle of the night before the legal battle could be won.

Nancy Blake is an instrument rated pilot, and serves on the Board of Directors of Lifeline Pilots, a 501 (c)(3) charitable volunteer pilot organization whose mission is to facilitate free air transportation for children and adults with medical and humanitarian needs. While living in Washington, D.C, Blake was Executive Secretary to the General Counsel of the Air Force at the Pentagon. The Blakes own a 2004 Cessna 172 Skyhawk, which they base in Venice.

The Florida Aero Club also welcomed Phil and Carol Peterson of Oregon, Wisconsin, who flew their 1996 Piper Archer on vacation from Wisconsin to Florida.

The International Flying Farmers named Phil Peterson "Man of the Year" in 2016 for his many contributions to the organization over the past 25 years. Peterson is currently President of the Wisconsin Flying Farmers, and he and his wife, Carol, were also named Wisconsin Flying Farmer "Man and Woman of the Year" in 2016.

The Petersons' family farm was established in 1880 by Peterson's grandfather, Nels, who emigrated from Denmark. The Petersons have flown their plane from their private

Phil and Carol Peterson with their 1996 Piper Archer in Venice, Florida.

Dee & Anthony Restaino. Anthony is president of the Florida Aero Club.

airstrip throughout the U.S., Canada, the Bahamas, and South America, and participate in the annual "Canada Fishing Fly-Out" featured in *Midwest Flyer Magazine* (http://midwestflyer.com/?p=10149).

The Petersons are a three-generation flying family. Their son, Mark, got his Private Pilot Certificate in 1981 and in 2015, Mark's daughter, Michelle, got her license.

The President of the Florida Aero Club is Anthony Restaino of Hollywood, Fla. Membership is open to any pilot who loves flying in Florida (http://floridaaeroclub.org/). ❑

The Push For An Avionics Hands-On Performance Certification

by Thomas Biller

The road to aircraft mechanic certification is well established and straightforward: Attend a Part 147 school or train on the job to meet established FAA hands-on experience requirements. Once complete, you take your written exams, oral exams, and finally the practical evaluation to finally earn the prestigious title of "Certified Airframe and Powerplant Technician" (A&P)! If only such a path existed to certify an avionics technician.

Zack Nicklin, Northland UAS Maintenance Instructor, working on the NIDA electronics test set. The NIDA electronics test set is used for the CertTEC hands-on performance avionics certification exams. Nida Corporation is a world leader in the development, design, and installation of sophisticated electronics training systems.

I've talked with many technicians, supervisors and employers across the country and without a doubt, finding qualified avionics technicians is getting harder and harder to do. Many repair stations rely on graduates from community college electronics programs, as they can operate under their license and have the basic skills in electronics and test equipment to easily learn on the job as they go.

Another traditional avenue to find avionics technicians is through the U.S. military. Since the military is very focused on mission accomplishment, they train their technicians

Randy Van Batavia of Park Rapids Avionics, Park Rapids, Minnesota, shows us what's behind an aircraft instrument panel. Any aircraft technician who can do an avionics installation or repair, not only deserves to be certified, but should be certified to do such specialty work, just as aircraft technicians are certified to work on airframes and powerplants. *Dave Weiman Photo*

in very specific parts of the aircraft, such as avionics. Many veterans get avionics jobs after leaving active duty as most are able to at least gain their airframe license through testing and taking the oral and practical exams like the traditional mechanic. Many places exist around the country, which specialize in prepping former military technicians to pass their exams, all within a short period of time. This all takes place at the same site and is very convenient for the veteran. However, many veterans choose to attend a full Part 147 school to round off their knowledge and learn the new world of the FAA and the regulations, which is quite a change after living in the military world.

As far as formal schools, looking across the spectrum there are many Part 147 schools that also have an avionics program as add-ons to the basic A&P certification. The majority of these programs focus on line maintenance with a good mix of general aviation and commercial aviation perspectives covered. Our program at Northland is one such example.

Either way, you end up with an avionics technician with no real way to measure where they stand in knowledge or more importantly performance of job essential skills. There are some national avionics certifications, such as the infamous FCC GROL and Radar Endorsement.

These are the only regulatory licenses a mechanic can get to show they are qualified to work on avionics systems. The problem as we all know is that these tests and question pools are openly available for anyone to use and study. Just study the test, take it, and you have a license! This doesn't really tell a prospective employer what skills you have, if any at all.

The technicians responsible for the installation and maintenance of the avionics on Space Shuttle Atlantis pictured here deserve to be certified in their area of expertise.
Jim Hanson Photo

The National Center for Aerospace and Transportation Technologies (NCATT) came along and started a much more robust testing program for a basic avionics technician. Their Aircraft Electronics Technician (AET) exam is a comprehensive electronics/airframe exam consisting of 75 questions providing 2 hours to complete. Once you pass this exam you can take the endorsement exams for avionics specific disciplines: Radio Communication Systems, Dependent Navigation Systems, On-board Entertainment Systems, and Autonomous Navigation Systems. These tests are not printed and the question banks are kept secret. These tests require an individual to have a good understanding of all areas tested, and most of the avionics programs in the country prepare students for these exams.

NCATT was recently merged with the American Society for Testing and Materials (ASTM), which has a great history of industry standards and certifications over the past 100 years.

Although these are comprehensive tests that accurately gauge your knowledge of avionics, they still lack in the hands-on evaluation area.

Luckily, Space TEC, the National Science Foundation's National Resource Center for aerospace technician education, was funded to establish industry-wide, performance-based certifications. Established in 2011, they have grown the network of regional testing centers to over 34 nationwide. Their affiliate CertTEC maintains many industry certifications, from aircraft assembly to basic electronics and soon the newly developed avionics certification. What this means for avionics is we now have a true written and performance based evaluation to earn certification in basic electronics and by the end of March 2017, the first avionics performance-based evaluation will be in testing at select schools for validation to implement nationwide. More information on Space TEC and CertTEC can be found on their websites: http://www.spacetec.us/ and http://www.certtec.com/.

This is great news for the avionics industry, as employers will have a standard for what a qualified avionics technician should be able to do, no matter where they start out in the field.

To give a brief overview, a student would work through the basic electronics certification. This is accomplished using the NIDA-based electronics training system through DC, AC, Analog, and Digital until certified in all areas. Nida Corporation is a world leader in the development, design, and installation of sophisticated electronics training systems. As they progress through an avionics program, they would use the EASA modules 3, 4, 5, 13, and 14 (which correspond to existing FAA subject areas) to prepare for their written exams and practical hands-on evaluations using the newly developed avionics card sets for the NIDA system.

There are many ways to administer the program so it is easy to implement into existing avionics training programs. Military members even have a self-study path available to get certified and avoid going to a formal training program. We believe this will be the standard for avionics certification going forward as Space TEC is currently in contract negotiations with ASTM to combine forces and have one written test with one practical evaluation.

As we raise awareness of this new standard and it spreads throughout the industry, eventually the hope is we would end up with the FAA establishing a formal structure for avionics just like the traditional A&P mechanic. I know this is a long way off, but it's greatly needed as the technology in aviation continues to get more complex and computer oriented. I think many in the industry would agree, we need a way to certify and standardize avionics certification to align with how we certify our mechanics. Using the new CertTEC model, every region of the country is represented with testing centers and this will only continue to grow. As aircraft get more and more complicated, it just makes sense to have a standardized testing and certification process to establish a baseline for what today's avionics technicians will need to do on the job, and in my humble opinion, it's long overdue!

EDITOR'S NOTE: Tom J. Biller is on the avionics faculty at Northland Community and Technical College in Thief River Falls, Minnesota. For additional information call 218-683-8811 or 218-280-5319.

This material is based in part upon work supported by the National Science Foundation (DUE 1501629). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

❑

A Flying Fishing Adventure To Miminiska Lodge Ontario, Canada

196 nm north of Thunder Bay, Ontario (CYQT),
on the Albany River Watershed

3-Night/2-Day Trip: August 7 - 10, 2017.
5-Night/4-Day Trip: August 7 - 12, 2017.

FOR SPECIAL GROUP RATES & DETAILS, EMAIL
info@midwestflyer.com

Space Is Limited!

FOR RESERVATIONS
Contact **Lynette Mish**
At Wilderness North
toll free: **1-888-465-3474**

Wilderness North
PO Box 22012, Strathcona RPO
Thunder Bay, ON P7A8A8
CANADA

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.

APRIL 2017

1* **Greenfield (GFZ), Iowa -** Chili Fly-In 11am-2pm. at the Iowa Aviation Musuem.

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

8* **Milwaukee (KMWC), Wis. -** Join us for pancakes, sausage, bacon, coffee and camaraderie at the monthly fly-in breakfast at Milwaukee Timmerman Airport (KMWC), from 8:00-11:00am. Breakfast is free for the PIC with a top-off or 30 gallon fuel purchase. We'll enjoy breakfast in the historic former "Skyroom" restaurant area overlooking the ramp. See you there!

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

8* **Rushford (55Y), Minn. -** Annual Chili Feed Fly-In. 507-864-2705

8* **Oshkosh (OSH), Wis. -** S.J. Wittman Birthday Fly-In Breakfast 7:30-11:00am at the Wittman Airport Terminal.

8* **Ames (AMW), Iowa -** Breakfast 7-11am.

11-13 **Cedar Rapids, Iowa -** 2017 Iowa Public Airports Association Conference at Doubletree by Hilton (downtown). www.iowaairports.org

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

15-16* **Urbana (I74), Ohio -** B-25 Gathering. This year is the 75th Anniversary of the DooLittle Raid. In preparation for events at Wright Patterson Air Force Base, the B-25s will gather at Grimes Field, Urbana Airport the weekend before. More info www.facebook.com/pg/I74GrimesField/events/

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

22 **Bloomington, Minn. -** Minnesota Aviation Hall of Fame at the Hyatt Regency Hotel. www.mnaviationhalloffame.org.

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

28-29 **Camarillo, Calif. - AOPA Fly-In at the Camarillo Airport www.aopa.org/community/events/aopa-fly-ins/2017-aopa-fly-ins**

28-30 **Waukesha (KUES), Wis. - Bonanza & Baron Pilot Training (BPT) Clinic. Call 970-206-0182 or call Mick at 817-988-0174. www.bonanzapt.com**

29-30 **Anoka (KANE), Minn. -** Annual Great Minnesota Aviation Gathering (GMAG) at the Golden Wings Flying Museum.

MAY 2017

6* **Boone (BNW), Iowa -** Breakfast 8-11am.

6* **Pella (PEA), Iowa -** Tulip Time Flight Breakfast 7-10am. Shuttle available to Tulip Festival May 4-6, 641-626-9393. www.pellatuliptime.com

7 **Breezy Point, Minn. -** Aviation Days - Pig Roast at Commander Bar Lot at Noon, Car Show & Static Display. Pilots must call for permission to land and visit breezypointairport.com for a pilot briefing. 218-838-3434.

7 **Grafton (KGAF), ND -** Pancake Breakfast 8am-1pm.

13* **Milwaukee (KMWC), Wis. -** Join us for pancakes, sausage, bacon, coffee and camaraderie at the monthly fly-in breakfast at Milwaukee Timmerman Airport (KMWC), from 8:00-11:00am. Breakfast is free for the PIC with a top-off or 30 gallon fuel purchase. We'll enjoy breakfast in the historic former "Skyroom" restaurant area overlooking the ramp. See you there!

18-21 **Chamberlain, SD -** Minnkota Convention for the Flying Farmers & Ranchers at the Thunderstik Lodge (www.thunderstik.com). Contact for more info arnesonfarms@invisimax.com.

19-21 **Brainerd, Minn. -** Minnesota Seaplane Pilot's Safety Seminar at Madden's Resort. www.mnseaplanes.com

20-21* **Watertown (KRYV), Wis. - Watertown Fly In and Military Show. Vendors providing food and refreshments. Historical Military Vehicles and Aircraft. USO Style Hangar Dance with 19 piece live band "Ladies Must Swing". WWII Encampments. Shop for Military period memorabilia. www.watertownmilitaryshow.com. www.wisconsinaviation.com Wisconsin Aviation - 920-261-4567**

20* **Fulton (KFTT), Mo. -** Kingdom Pilots Association Annual Pancakes, eggs, sausage, juice, coffee breakfast 7-11am.

21 **Brodhead, Wis. -** Pancake Breakfast 7am-Noon.

21* **Canton (CTK), Ill. -** Pancake Breakfast & More 7am-Noon at the Canton Ingersoll Airport 309-647-647-2072.

21* **Eastport (59M), Mich. -** Breakfast & Classic Car Expo at Torchport Airpark 8am-Noon. For information info@torchport.com or 231-632-2412.

24-25 **Champaign, Ill. -** 2017 Illinois Aviation Conference at the Hilton Gardens Inn. 217-789-6252.

27* **Kenosha (KENW), Wis. -** Gathering of Pitts Specials. Event details www.pittsspecial.aero/

JUNE 2017

3* **St. Cloud (STC), Minn. -** Bean & Brat Fly-In at Leaders 10am-2pm.

3-4 **Duluth, Minn. -** Blue Angels Performing.

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

4* **Audubon (ADU), Iowa -** Breakfast 6:30-10:30am.

4* **DeKalb, (DKB), Ill. -** Pancake Breakfast.

9-11* **Gaylord, Mich. -** Otsego Lake Splash-In at the Otsego Lake County Park. 989-731-6448. www.otsegolakesplash-in.com

10* **Milwaukee (KMWC), Wis. -** Join us for pancakes, sausage, bacon, coffee and camaraderie at the monthly fly-in breakfast at Milwaukee Timmerman Airport (KMWC), from 8:00-11:00am. Breakfast is free for the PIC with a top-off or 30 gallon fuel purchase. We'll enjoy breakfast in the historic former "Skyroom" restaurant area overlooking the ramp. See you there! **9 Flandreau (4P3), SD -** Breakfast 8am-Noon.

10-11 **Scott AFB, Ill. -** Airpower Over The Midwest Air Show. Blue Angels Performing.

10-11 Rockford, Ill. - Thunderbirds Performing.
17-18 Youngstown Air Reserve Base, Ohio - Thunderbirds Performing.
18 Wautoma, Wis. - Chicken Fly-In 10am-3pm.
18* Maquoketa (OQW), Iowa - Breakfast 7am-Noon.
24-25 Daytona, Ohio - Thunderbirds Performing.
25* St. Cloud (KSTC), Minn. - Pancake & Sausage Breakfast 8am-1pm in Hangar 2. On display classic & collector car show plus aircraft and airport equipment.
26-28* Clinton (KCWI), Iowa - Cessna 150 - 152 Fly-In. www.cessna150152flyin.org
30* Phillips (KPBH), Wis. - **Airshow - Friday, June 30 7pm & Saturday, July 1st 11am. Fly-In / Float-In Breakfast & Lunch at Harbor View Pub & Eatery on Long Lake, West of Rwy 6/24 at Price County Airport.**

JULY 2017

1-2 Traverse City, Mich. - Thunderbirds Performing.
8* **Milwaukee (KMWC), Wis. -** Join us for pancakes, sausage, bacon, coffee and camaraderie at the monthly fly-in breakfast at Milwaukee Timmerman Airport (KMWC), from 8:00-11:00am. Breakfast is free for the PIC with a top-off or 30 gallon fuel purchase. We'll enjoy breakfast in the historic former "Skyroom" restaurant area overlooking the ramp. See you there! **9 Flandreau (4P3), SD -** Breakfast 8am-Noon.
8-9 Gary, Ind. - Thunderbirds Performing.
9* Lakeville (LVN), Minn. - Breakfast.
15 Washington Island (2P2), Wis. - **Washington Island Fish Boil Fly-In 2017 11am-1pm. Fly-In for the day or camp beneath your wings. 920-535-0600 / 920-847-2448. www.Washingtonisland.wi.gov www.VisitWashingtonIsland.com**
15-16 Milwaukee, Wis. - Milwaukee Air & Water Show. Blue Angels Performing.
15-16 Eden Prairie, Minn. - Wings of the North Air Expo at Flying Cloud Airport.
16* Forest City (KFXY), Iowa - Breakfast - omelets, muffins, juice & coffee 7-11am. Contact Info #641-581-2880.
20-23 Brodhead, Wis. - Hatz/Pietenpol Fly-In.
22* Madison (MSN), Wis. - **1940's style hangar dance to benefit Badger Honor Flight 6-10:30pm. Vintage wear encouraged. Costume/dance contest with prizes. Doors open at 6:00 pm. Dance lessons offered at 6:30 pm by Social Life Dance Center. Big-band music by Ladies Must Swing jazz orchestra starts at 7:00 pm. Cost: $20 at door; two patrons for $35. For more info: June Dalton at 608-698-8944 or ladiesmustswing@yahoo.com.**
23 Wautoma, Wis. - Pancake Breakfast 7am.
23* Sheboygan (KSBM), Wis. - Warbird Air Show at Aviation Heritage Center of Wisconsin 3pm. AHCW.ORG
24-30 Oshkosh, Wis. - **EAA AirVenture Oshkosh 2017. Blue Angels (29-30) www.eaa.org/en/airventure**
26-28 Clinton, Iowa - Cessna 150-152 Fly-In. www.cessna150152flyin.org/

AUGUST 2017

3-5* Grand Forks, N.D. - 2017 Great Lakes Chapter American Association of Airport Executives Annual Conference. For those who manage airports or work with or for airports of all sizes. An exchange of ideas, training, industry updates and working toward solutions to these issues. More info at www.glcaaae.org.
6* Longville (Kxvg), Minn. - Fly-in breakfast! Granddaddy of them all! Marshals, courtesy car available, courtesy golf carts for arrivals. BIG grills, no waiting, and all under cover. 8am - noon for our 14th event. Over 1100 served the last two years!!!
6* Monticello (KMXO), Iowa - Breakfast 7am-12:30pm.
7-12* Miminiska Lodge, Ontario Canada - **Canadian Fishing Trip. Join pilots flying to Canada either pick Aug. 7-10 or Aug. 7-12 stay. For reservations 1-888-465-3474. For more information email info@midwestflyer.com.**
13* Lino Lakes (8Y0), Minn. - Annual Pig Roast at Surfside Seaplane Base. www.mnseaplanes.com
18-19* Bemidji, Minn. - Seaplane / Land Plane Fly-In at Moberg Airbase. Overnight camping on the 18th. www.1397.eaachapter.org
19 Guttenberg (IA23), Iowa - Abel Island Fly-In Float-In & BBQ Noon-3pm. 2,600 ft turf strip/Mississippi River for seaplanes. 319-480-0913 www.abelisland.com
19-20 Chicago, Ill. - City of Chicago Air & Water Show. Blue Angels Performing.
19-20 Selfridge Air National Guard Base, Mich. - Thunderbirds Performing.
21 Perryville (KO2), Mo. - Great American Eclipse Fly-In. 573-517-2069
26-27 Ottumwa, Iowa - Fly Iowa 2017 6am-6pm. www.flyiowa.org
27* Fremont (FET), Neb. - Breakfast 7am-1pm.
28-30 Kansas City, Mo. - 4 States Airport Conference 2017 (Missouri, Nebraska, Kansas & Iowa) at the Muehlebach Tower, Marriott Downtown www.4statesairportconference.com

SEPTEMBER 2017

2-3 Ypsilanti, Mich. - Blue Angels Performing.
2-4 Cleveland, Ohio - Thunderbirds Performing.
8-9 Norman, Okla - **AOPA Fly-In at the University of Oklahoma Westheimer Airport www.aopa.org/community/events/aopa-fly-ins/2017-aopa-fly-ins**
9* Superior (SUW), Wis. - Young Eagles & Pancake Breakfast at EAA 272s hangar 8am. Eagle Flight start at 9:30am-Noon.
9* Hinckley (K0C2), Ill. - Pancake Breakfast.
9* **Milwaukee (KMWC), Wis. -** Join us for pancakes, sausage, bacon, coffee and camaraderie at the monthly fly-in breakfast at Milwaukee Timmerman Airport (KMWC), from 8:00-11:00am. Breakfast is free for the PIC with a top-off or 30 gallon fuel purchase. We'll enjoy breakfast in the historic former "Skyroom" restaurant area overlooking the ramp. See you there! **9 Flandreau (4P3), SD -** Breakfast 8am-Noon.
9* Osceola (KOEO), Wis. - **Pancake Breakfast 8-11am & Car Show 9am-1pm Free Admission at L O Simenstad Municipal Airport. www.WheelsWings.com Info@MyOsceolaChamber.org**
9-10 Maple Lake, Minn. - Pork Chop Fly-In Dinner & Campout. www.878.eaachapter.org

For More Listings, Information & Updates Go To www.midwestflyer.com (Calendar Of Events)

Email Calendar Listings To info@MidwestFlyer.com - OR - Post Online "Calendar" www.MidwestFlyer.com

---

Classifieds

SINGLE LISTING: $.75 per word. Minimum order is $20 per insertion.
ORDER ONLINE: www.MidwestFlyer.com
***or* MAIL LISTING TO – Midwest Flyer Magazine, P.O. Box 199, Oregon, WI 53575-0199**
Please include payment with order! ***NOTE: We can invoice municipalities.***
ALL LISTINGS ARE ALSO POSTED AT www.midwestflyer.com

1979 CESSNA 421C, 4288/109/474, G430W, spoilers, 234 Gal, excellent P&I, very nice! $325K. 1976 Aerostar Superstar 700, 5200/900/900, G430W, EX500, Machen upgrades: $130K. 2005 Maule 180, 1600TTSNEW, 1 owner: $89K. 2005 Cessna Turbo Skylane C182T, 1400 SNEW, G1000: $227.9K. **Gavin Leake,** Spring City Aviation, Inc. **218-280-2615 www.springcityaviation.com**

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

WANTED – Aircraft paint shop or other aviation business seeking a location in east central MN. New beautiful hangar, public-use airport, asphalt ramp/runway. Call **Brian** at Eagle Air at **320-384-6667.**

HANGAR SPACE – Hartford, WI (KHXF). Space available in cold storage community hangar. $175/mo. for Cub-sized aircraft: **608-235-9696.**

RESTAURANT SPACE AVAILABLE (3,695 sq. ft.) at Southern Wisconsin Regional Airport (KJVL) in our newly remodeled terminal building in Janesville, Wisconsin. This airport is known for being an airfield with a restaurant for over 50 years. The space offers panoramic views of the three runways and is conveniently located between Janesville and Madison to the north, and Beloit and Rockford, Illinois to the south. For additional information contact **Ron Burdick** at **608-757-5768.**

INSURANCE – 67 years risk management serving aircraft operators and owners. Superior, empathetic service. Mid-Continent Aircraft Corp., Hayti, MO. **acinsurance@midcont.com. 1-800-325-0885.**

AVIATION BUSINESSES WANTED – Rice Lake, Wisconsin (KRPD). Restaurant or office space in new terminal. Avionics, Paint, Interior shops needed. Hangars and capital help available. Call **Mike** at **715-458-4400.**

AIRCRAFT INSURANCE – We love "Midwest Flyers! **AircraftInsurance.com** or **888-854-2387.**

CUSTOM OPEN AND ICE FISHING RODS tuned to your preference. Check out Tuned Up Custom Rods. For more information contact **Todd@tunedupcustomrods.com 320-413-0147. tunedupcustomrods.com** (also available reels and apparel)

To Subscribe To
Midwest Flyer Magazine
Go Online
www.MidwestFlyer.com

Midwest Flyer Magazine

SUBSCRIBE

OFFER EXPIRES DEC. 31, 2017

Name _____

Street _____

City _____ State _____ Zip _____

$19.00 ONE YEAR *(6 ISSUES)*
$29.00 TWO YEARS *(12 ISSUES)*

SUBSCRIBE AT
WWW.MIDWESTFLYER.COM
OR COMPLETE
& RETURN THIS FORM TO

MIDWEST FLYER MAGAZINE
6031 LAWRY COURT
OREGON, WI 53575

WISCONSIN AVIATION

WisconsinAviation.com

The State's Premier Full-Service FBO

Madison **Watertown** **Juneau**

Air Charter • Aircraft Management • Aircraft Sales
Flight Instruction • Aircraft Rental
Maintenance • Avionics • Interiors

MAINTENANCE

- Authorized Service Center for Cirrus, Cessna, Piper & Socata
- Airframe & composite repairs
- Certified for CAPS replacement
- Dynamic prop balancing
- Piston & turbine inspections (100-hour, annual & pre-purchase)
- Citation phase & doc inspections
- Owner-assisted annuals
- Owner pick-up & drop-off service

800-657-0761

AVIONICS

800-594-5359

AIRCRAFT SALES

2000 Piper Archer III – N4189D
$157,500 or $185,900 with 0 SMOH
Pristine! NDH, Dual 430Ws, Aspen PFD & MFD! S-TEC 55X with GPSS, Air! ADS-B Out, much more, 2540 TTSN, Sold with Fresh Annual.

1979 Cessna Conquest II – N784RR $899,000
Beautiful new paint by West Star! Dual 530Ws, EFIS-40, SkyWatch, Radar/Nexrad/Stormscope, 11,750 TT, 1560/3335 SMOH, 135-maintained. Leaseback available.

1970 Cessna 150K – N6143G
Super Buy – Reduced to $12,900!
8875 TT, 2130 SMOH, April annual, MX-300 NavCom, AT-150 Transponder, Intercom, wheel pants, belly drain & belly strobe.

1979 Cessna 310R – N2638Y $99,900
Great buy! Well-maintained, deiced, nicely equipped. Fresh February Annual, Garmin 430W, Primus 200 color radar, KFC-200 AP/FD! 406 ELT, GAMI, 203 gallons! 9515 TT, 1170 SMOH.

1975 Cessna Citation 500 – N501GB $449,000
Someone is going to get lucky! 12,960 TT, 1140 SMOH, Beautiful P&I, dual 530W, GDL-69, GMX-200 MFD, Skywatch, 4-color VP radar, NDH, RVSM, More! Was 135, fresh I-V inspections.

1979 Piper Navajo C/R – N56ND $279,000/Trade
Full Panther Conversion! 4-blade Q-tips, winglets, VGs, 6760 TT, 740/920 SMOH, known ice, A/C, oxygen, GNS530, KFC200 AP/FD/HSI, radar. Professionally managed. Sold with fresh annual.

CONSIGNMENTS WANTED
Buying or selling, we'll work for you!

800-657-0761

INTRODUCING A NEW PARTNERSHIP AS DEDICATED TO AVIATION AS THE PEOPLE IT SERVES.

Since 1978, **Midwest Flyer Magazine** has been among the most trusted resources for providing the aviation community with quality aviation news and information from highly qualified and respected aviation professionals.

Also, as a trusted source of advertising, **Midwest Flyer Magazine** has expanded its capabilities through a cooperative relationship with **Connell Aviation Group** — a leading communications firm, likewise dedicated to marketing aviation products and services.

Connell Aviation Group is now providing **Midwest Flyer Magazine** advertising clients with superb design services for both print and online advertising at affordable rates.

Same great news coverage...
But with expanded advertising and marketing services, **cover to cover!**

CONNELL AVIATION GROUP

ConnellAviationGroup.com
641.426.2012

MIDWEST FLYER MAGAZINE

MidwestFlyer.com
608.772.1776

Contact Connell Aviation Group to get started: MidwestFlyer@ConnellAviationGroup.com

J.A. Air Center

800-323-5966

50th Anniversary

Cessna Authorized Service Center

Diamond Service Center

Since 1965, J.A. Air Center has been providing personalized service to the aviation community. Today, over 75 dedicated employees strive to meet all your aircraft refurbishment needs

CAV AEROSPACE

GARMIN

J.A. Aero Sales

Chicago's Premier General Aviation Aircraft Sales Center

www.jaair.com

1991 Cessna Citation II
6740 TT, 2950 SMOH

1998 Cessna Citation Bravo
Full or Partner Ownership

1978 Cessna T-210M
3827 TT, 894 SMOH

Scott Fank
Sales Manager
Since 1985
sfank@jaair.com

We Buy, Sell and Trade Used Aircraft

"Our vast array of services have been a huge benefit to our customer base. It's even more beneficial when it comes time to buy or sell!"

2009 Diamond DA42-L360
3975 TT, 0/0 SMOH

2012 Cessna 162
430 Hours Total Time

1992 Mooney M20J MSE
704 TT, 167 SMOH

1998 Maule MXT-7
1900TT, 1160 SMOH

1976 Cessna 172M
Better Than New!

Caravan Experts!
We Buy, Sell and Lease

1997 Cessna 208 Caravan
5256 TT, 1494 SMOH

Phone 800.323.5966 or E-Mail info@jaair.com

Avionics - Maintenance - Aircraft Sales - Detailing - Parts
FBO Services - Interiors - Pilot Supplies and more!

J.A. Air Center - Aurora Municipal Airport - 43W730 US Highway 30 - Sugar Grove, IL 60554
www.jaair.com - 800.323.5966 - info@jaair.com

MIDWEST FLYER MAGAZINE
6031 LAWRY COURT
OREGON, WI 53575-2617

Presorted Standard
US Postage Paid
Bolingbrook, IL
Permit No. 467