MIDWEST FLYER MAGAZINE

AUGUST/SEPTEMBER 2019

Published For & By The Midwest Aviation Community Since 1978

midwestflyer.com

The M-Class

Piper

M600

1,658 nm | 274 ktas | 6 people

M500

1,000 nm | 260 ktas | 6 people

M350

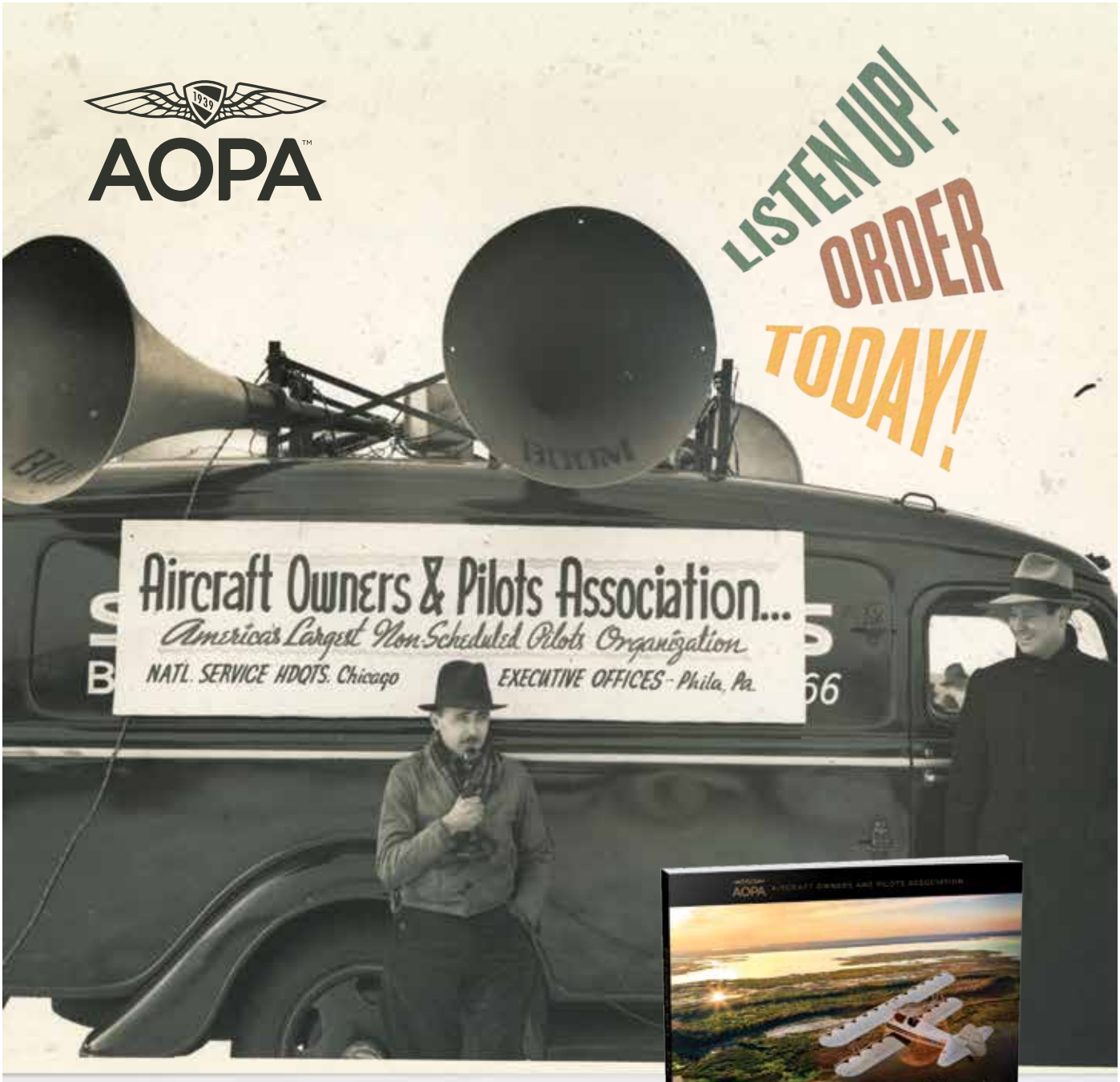
1,343 nm | 213 ktas | 6 people

Exclusive Authorized Piper Sales & Service
Over 75 Years of Excellent Customer Service & Expertise
515.256.5300 | DMFS.com

DES MOINES
FLYING SERVICE

AOPA™

LISTEN UP! ORDER TODAY!



From the editors of *AOPA Pilot*: the story of general aviation.

A bold new venture spurred on by the threat of world war. Groundbreaking technology. Pioneering pilots. Battles for the skies. *Freedom to Fly* chronicles the history of general aviation in America through the lens of its biggest advocate: the Aircraft Owners and Pilots Association.

Foreword by Stephen Coonts. More than **280** pages packed with AOPA's award-winning photographs of beloved aircraft and inspiring stories of aviation trailblazers!

VISIT OUR STORE!

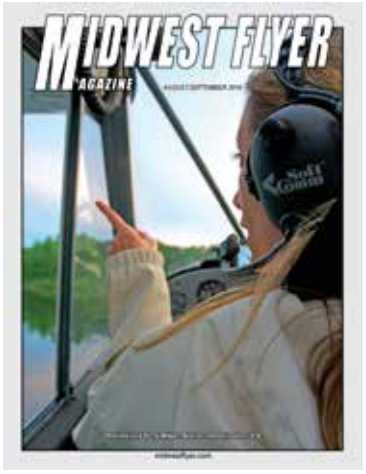
www.aopapilotgear.com

Vol. 40. No. 5

Contents

ISSN: 0194-5068 AUGUST/SEPTEMBER 2019

ON THE COVER: Debbie Thornberg in the front seat of a 1965 PA-18-150 Super Cub, owned by her and her husband, Brad Thornberg. The Thornbergs live in the Brainerd Lakes Area of Minnesota, so the aircraft is equipped with floats in the summer, straight skis in the winter, and tundra tires inbetween. *Brad Thornberg Photo*



HEADLINES

COLUMNS

5

26

32

36

FEATURES

SECTIONS

Why The Size of Fuel Hoses On Self-Serve Systems Is So Important!

by Dave Weiman

If you have never thought about the size of the hose at airport self-serve fuel systems, you are not alone. I didn't either until last winter while self-fueling our Cessna 182 Skylane at a rural Wisconsin airport. It was then and there that I noticed the airport installed a fuel hose normally used for *JET A fuel,* and not for an *over-wing self-serve fuel system for 100LL.*

The self-serve fuel system at Morey Airplane Company in Middleton, Wisconsin (C29), features a modern credit card station and a fuel hose for over-wing refueling of 100LL avfuel. The fuel hose has a 1-inch inside diameter (I.D.) and a 1.45-inch outside diameter (O.D.), which is lightweight and very manageable for over-wing refueling. In comparison, larger, heavier and less flexible fuel hoses are intended for single-point (or pressure) JET A refueling in which a greater volume of fuel can be pumped faster without fear of "splash back." *Dave Weiman Photos*

Single-point fueling (or pressure refueling) is a method of refueling an aircraft from a single point on the aircraft, rather than over the wing. The fuel hose is attached to a point on the aircraft, and the current tank valves are then opened. Some aircraft are gravity refueled through a single point as well.

The hose at this airport was so large in diameter that it was cumbersome to handle...would not rewind on the reel... and pumped such a large volume of fuel that it over-flowed all over my wing -- not once, but on two separate occasions! A waste of fuel, potentially damaging to the paint, not good for the environment, and a mess on the tarmac.

Over-wing fuel hoses on JET A refueling trucks are typically 1.25-inch I.D. (inside diameter) x 1.73-inch O.D. (outside diameter) x 50 feet in length. JET A over-wing nozzles are required to have a duck bill style spout (OPW # 295SAJ-0200), which will prevent misfuelling. The airport I was at used a 1.25-inch I.D. x 1.73-inch O.D. fuel hose, but for over-wing ***self-fueling*** of 100LL, and apparently, the pressure could not be adjusted (or wasn't), like it can with single-point fuel systems. Additionally, the nozzles used to refuel piston aircraft are typically smaller 1-inch or 1.25-inch with a small 1-inch (O.D.) round spout.

Most of the JET A refueler trucks used by fixed base operators (FBOs) for single-point refueling have a 2.0-inch I.D. x 2.6-inch O.D. fuel hose 50 feet in length, which weighs about 64 lbs. The single-point fueling operation on an FBO JET A refueling truck has a flow rated between 200-240 USGPM (U.S. gallons per minute). Flow rates can vary on a JET A refueling truck depending on the aircraft being refueled.

Picture yourself trying to lift and maneuver a heavy/inflexible hose from one side of your aircraft to the other without hitting the wing, cowling or propeller, and climbing up and down a ladder with the hose not once, but twice. Remember, all along, you have a static line clipped to a metal surface somewhere on the nose of your aircraft, which you must avoid disconnecting.

Now picture yourself on a ladder pumping fuel at a rate more than 22 gallons per minute (GPM) – a rate so fast that you cannot release the handle on the fuel nozzle quick enough to stop the flow, and fuel overflows on top of your wing. In comparison, a 1-inch I.D. fuel hose intended for *over-wing fueling* pumps fuel usually at a rate of 15-20 GPM and the handle is therefore much easier to release.

Okay, you have refueled your aircraft. Now you must rewind the hose using a manual reel – tension or crank – only to find out that the hose is so large that there is not enough room on the reel for the remaining 15 feet. You have no choice but to let

MIDWEST FLYER MAGAZINE
AUGUST/SEPTEMBER 2019
Serving The Midwest Aviation Community Since 1978

EDITOR/PUBLISHER
Dave Weiman

PRODUCTION DIRECTOR
Peggy Weiman

PHOTO JOURNALISTS
Chris Bildilli, Brad Thornberg

CONTRIBUTING EDITORS & PHOTOGRAPHERS

Pete Aarsvold	Cassandra Isackson
Mark R. Baker	Michael Kaufman
Jonathan Beck	Kjersti Kittelson Guetter
Bill Blake	Kyle Lewis
Dr. Bill Blank	Yasmina Platt
Aubrey Canales	Greg Reigel
Greg Cullen	Pete Schoeninger
Hal Davis	Stephen Sorenson
Harold Green	Skot Weidemann
Jim Hanson	

ADVERTISING
PHONE: 608-772-1776
EMAIL:
info@midwestflyer.com

EDITORIAL
PHONE: 608-772-1776
EMAIL:
dave@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

COPYRIGHTS
MIDWEST FLYER MAGAZINE is published bimonthly by Flyer Publications, Inc. Copyright 2019 by Flyer Publications, Inc. All rights reserved. Nothing in whole or in part may be reproduced without the written permission of the publisher.

DISTRIBUTION
Readership consists 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
USA - $20 per year
CANADA - $39 per year
(In U.S. Funds)

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

If Your Business Is Not Listed Above Call 608-772-1776
Or Email dave@midwestflyer.com
www.midwestflyer.com

Lynnwood "Woody" K. Minar

March 14, 1949 - July 3, 2019

Visitation will be held on Saturday, August 17, 2019
From 10:30 To 11:00 A.M.
Celebration of Life 11:00 A.M.
Luncheon to Follow
At The L.O. Simenstad Municipal Airport (KOEO) - Custom Fire Hangar
509 68th Avenue - Osceola, Wisconsin 54020

DISCLAIMER: *Midwest Flyer Magazine* is a publication of Flyer Publications, Inc. *Midwest Flyer Magazine* endeavors to only accept reliable advertisements from legitimate businesses and organizations, but shall not be responsible for the reliability of advertisements, their contents, nor the businesses and organizations they represent. The publishers reserve the right to decline or discontinue any advertisement without explanation. Furthermore, the information provided may be the expressed opinion of the authors 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, aircraft operator's handbook, and other informational and instructional materials regarding any information or procedures discussed herein. Use of any information contained herein is at the reader's own risk, discretion and judgment.

the hose lay on the ground, or try wrapping it around the reel. This not only presents another possible safety concern, but it doesn't look very good, either.

Shortly after my incident with the new hose, I learned that a neighboring airport had a completely new self-serve fuel system installed by the same company, and they installed the correct hose for over-wing self-fueling. The specifications for that hose are as follows:

Over Wing Aircraft Fueling Line

15-30 GPM adjustable flow regulation, 1 1/2" pipe, s. s. swivel joint, 1⁄2 HP motor operated electric hose reel for **1" hose,** no fast retrieve (hose reel to be geared slower than normal, 98 f/m ratio 12:25 retrieve speed). Clutch release. Back up hand crank. Stainless steel hose alignment roller assembly to keep hose on reel and not rub on cabinet with space to stow the nozzle inside the cabinet. Pressurized hose must fit on the reel. Paint a red strip on the hose where it is at the top of the reel in the normally stowed position. (Shows the user where to stop the retrieve.)

75' of 1" aviation approved hose meeting API bulletin 1529, 5th Edition, 1998, Grade I, Type C and NFPA #407 (2017 edition), (shop tested and certified), 1" nozzle inlet swivel joint, 100 mesh strainer, OPW 295 1" aviation type nozzle, 100 mesh strainer, 1" x 1 1/4" x 1" or equal with hose ground wire, heavy duty clip, dead man manual nozzle control (NO AUTO FILL OVERRIDE), and dust cover for fueling nozzle.

Bret Swan, President of "Minnesota Petroleum Services, Inc." of Minneapolis, Minnesota, which was NOT the firm that installed the fuel hoses at either of these two rural airports, said that a "*1-inch (I.D.) hose is overly common and manageable. I just filled my plane (Cirrus SR20) with a 1-inch system at the airport in Montevideo, Minnesota on a new system we built and it was flowing at 22 GPM. The weight of the 1-inch hose was super manageable and friendly. Airports do not need more than 15-20 GPM for general aviation aircraft."* The larger the hose, the faster the fuel flow rate, and messes are made.

Another fuel system professional we contacted confirmed this information, stating that the maximum pump flow rate is what determines the diameter size of the hose. According to that individual, a self-serve system for AVGAS 100LL and SWIFT UNLEAD that is flowing less than 50 USGPM would not require a fueling hose larger than 1-inch I.D. Flow rate in the 25 USGPM range could use the smaller 3/4-inch I.D. fueling hose. The larger diameter fueling hoses are typically for JET A systems that pump 100, 200, 300 and 400 USGPM and higher.

If you are pumping faster than 50 GPM over-wing into small aircraft, "splash back" could be a problem. If the hose has a 1-inch I.D., the weight is much more manageable and the hose is easier to handle for self-serve systems. "Trying to reel in a long length of hose on a wet or snowy pavement can also be tricky," he said. Also, low temperature hoses in the range of -67 F to 158 F will not stiffen in cold Midwest winters and are much easier to handle.

The following data sheet, provided by a major aircraft fuel hose manufacturer, shows both the inside diameter (I.D.) and outside diameter (O.D.) of fuel hoses, and the weight in pounds (lbs) per foot (ft) in length:

0.75 I.D. X 1.22 O.D. inches	0.40 lbs/ft
1.00 I.D. X 1.45 O.D. inches	0.54 lbs/ft
1.25 I.D. X 1.73 O.D. inches	0.67 lbs/ft
1.50 I.D. X 2.00 O.D. inches	0.81 lbs/ft
2.00 I.D. X 2.60 O.D. inches	1.28 lbs/ft
2.50 I.D. X 3.11 O.D. inches	1.61 lbs/ft
3.00 I.D. X 3.58 O.D. inches	1.88 lbs/ft
4.00 I.D. X 4.56 O.D. inches	2.49 lbs/ft

We also learned that aviation grade refueling hose assemblies must be hydrostatic tested and certified to 600 PSI (Pounds per Square Inch). A copy of the hydrostatic test certificate must be supplied with the hose when it is sold, and kept on file until the hose is replaced because of wear or once it has reached its time limit (10 years is maximum).

The Federal Aviation Administration (FAA) expects fueling installations, trucks, etc., to conform with National Fire Protection Association (NFPA) standards. See Code NFPC 407. In addition, airports follow local and state codes and sometimes Air Transport Association (ATA) and National Business Aviation Association (NBAA) guidelines.

Self-serve fuel systems are increasing in popularity and are a great contribution to general aviation in helping to reduce costs and increase accessibility. We just hope that the industry realizes the importance of providing self-serve fuel hoses which are safe and easy to handle. We also hope that in addition to installing the correct fuel hose for over-wing self-fueling, airports realize the importance of maintaining safe "static lines." All too often static lines or tension reels are broken by pilots who prematurely release them. As pilots, let's do our part to keep systems safe and in good operating condition.

I welcome your input on this and other topics that affect your flying. Email **dave@midwestflyer.com.**

DISCLAIMER: The information contained in this editorial is the expressed opinion of the author and those referenced. Readers are advised to obtain additional information on this topic and seek the advice and assistance of others, such as federal, state and local authorities; airport engineers and consultants; and fuel equipment manufacturers, suppliers and installers, before arriving at any conclusions. ❑

When Is An Aircraft "Destroyed" Versus "Repairable"?

by Greg Reigel, Esq.

Copyright 2019. All Rights Reserved


Greg Reigel

Unfortunately, these terms are not defined anywhere in the regulations. But, as you might expect, the FAA has a policy/opinion about what these terms mean. In fact, the FAA has issued Order 8100.19, Destroyed and Scrapped Aircraft, which spells out what these terms mean and how they are to be applied by FAA inspectors. If an aircraft is capable of being repaired and returned to service after it was unserviceable due to wear and tear, damage, or corrosion, then it is "repairable." But this means that when the repair is complete, the aircraft is returned to service in "its original (or properly altered) condition that conforms to its type design."

The FAA clarifies further that an aircraft is only eligible for repair if it has at least one primary structure around which a repair can be performed. According to the FAA, it "considers an aircraft's primary structure to be the structure that carries flight, ground, or pressurization loads, and whose failure would reduce the structural integrity of the aircraft." If only some, but not all, of the major structures of an aircraft are replaced, then that would still be considered a repair.

However, if all of an aircraft's primary structures must be replaced, then the FAA does not consider the aircraft to be "repairable." Rather, in that situation the aircraft is being "replaced" after being "destroyed." And if the identification plate from the original aircraft was then placed on the "destroyed" aircraft that would violate 14 CFR § 45.13(e) ("No person may install an identification plate removed in accordance with paragraph (d)(2) of this section on any aircraft, aircraft engine, propeller, propeller blade, or propeller hub other than the one from which it was removed.")

In order to comply with Section 45.13(e), the primary structure must be identifiable and traceable to the particular aircraft and its identification plate. As an example, if a heavily damaged aircraft is repaired by performing many major repairs on its fuselage and replacing all other primary structures that may be destroyed, such as the wings and the empennage, that aircraft would not be considered destroyed because the fuselage is repairable. But if the fuselage of that aircraft also needed to be replaced along with the other primary structures, then the aircraft would be considered destroyed.

The Order also provides the following examples for use in determining if an aircraft is destroyed:

1. All primary structures of an airplane or glider, including the fuselage, all wings, and empennage are beyond repair.
2. The fuselage and tail boom of a rotorcraft are beyond repair.
3. Only the aircraft identification plate is reusable.

How is this determination made by FAA inspectors? Well, according to the Order, "FAA accident investigators will apply their specialized knowledge and expertise and follow the guidelines in this order when evaluating aircraft wreckage to determine whether an aircraft is repairable or should be declared destroyed."

Fortunately an aircraft owner can dispute a determination that an aircraft is destroyed by providing the appropriate FAA FSDO or ACO with a repair process that explains how the damaged aircraft can be repaired provided that at least one primary structure of the aircraft is capable of being repaired, rather than requiring replacement. If you are faced with a situation where it is unclear whether an aircraft has been "destroyed" or is still "repairable," you will definitely want to consult the Order, as well as the aircraft's maintenance manual.

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. ❑

Minnesota Petroleum Service
MPS Aviation Fueling Cabinet
• Powder Coated Cabinet
• Power Rewind Hose Reel
• Aviation Filtering System
• Metering System
Phone: 763-780-5191
Toll Free: 888-797-7677
E-Mail: sales@mnpetro.com
www.mnpetro.com

Follow Us On Facebook
www.facebook.com/MidwestFlyer

Safety Versus Convenience Plus Complacency!

by Michael J. (Mick) Kaufman

Michael Kaufman

When we think about flying, whether IFR or VFR, we must always consider the part "human factors" play in every flight. In the Bonanza/Baron training program (BPT, Inc.) which I manage, we offer a course on "human factors." It was developed by one of our instructors, Dr. Greg Ricca, who is a neurosurgeon. Since my previous column was published in *Midwest Flyer Magazine* (June/July 2019), there was a fatal accident involving a Beech Duke that hit me especially hard, as I knew the pilot. You may have seen the footage of the accident on the Internet, which was taken with the airport surveillance camera. Shortly after takeoff, the aircraft rolled and crashed.

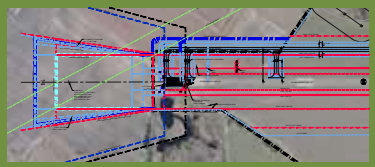
So, how did a pilot with above average skills allow such an accident to occur?

I have looked back at some of my own experiences over the years and saw myself in similar situations. In the early 1970s, I was flying a Twin Comanche out of a 2200 ft. airstrip on a regular basis. The Twin Comanche had a rather high VMC (minimum control speed), and you would never reach VMC when the aircraft was on rotation. Therefore, you need to be ready to jerk both throttles back at the first sign of an engine failure, but complacency eventually takes over, as you do not think this will ever happen to you!

That may have been the scenario in the Duke accident as the pilot was flying out of an airport way too short to allow the aircraft to reach VMC before rotation. The pilot regularly flew out of this short runway because it was close to his office, and he commuted home via airplane on a regular basis. It was convenient, but it compromised safety, and like me years ago, complacency set in.

We can apply these same rules to flying into challenging IFR weather, as I recall a trip some 15 or more years ago returning from El Salvador in my Bonanza.

After a long day of flying, we were all too anxious to get home and the weather had been rather good most of the way. I was headed to my home airport, Tri-County Regional near Lone Rock, Wis. (KLNR), and this was before the days of in-cockpit weather. The only approach at the time was a VOR-A approach. As we approached Rockford, Illinois (KRFD), I called Flight Service for a weather update



Let's show the world

what we can do together.

Day by day. Project by project.

Together we're planning and

engineering what's possible

and moving the world forward.

Airport Engineering, Architecture, Construction Administration, Design-build, Environmental, Funding/Grants, GIS, Land Acquisition, Planning, Public Involvement, Surveying, System Planning and Zoning.

For more information:
Bob Cohrs
bcohrs@sehinc.com
651.490.2143
sehinc.com/**subscribe**

SEH

Engineers | Architects | Planners | Scientists

Building a Better World for All of Us®

at KLNR and they reported ceilings around 1500 feet and two miles in light snow. Madison, Wisconsin (KMSN) some 35 miles to the east was showing clear skies!

Thinking that we could handle the weather, we continued on to KLNR. On our approach, we picked up a load of ice to the point that a missed approach was not an option.

I have asked myself many times why I did not divert to KMSN and get a motel room, as it had been a long day.

If I were to say I learned something from this experience, I would have to say "yes," I did.

Last summer on a return flight from a vacation in Gander, Newfoundland with that same Bonanza, which I have owned for 30 years, a similar situation occurred – only this time I encountered thunderstorms. Now equipped with in-cockpit Nexrad radar, I was again returning home after a long day of flying high above Lake Michigan, heading for KLNR. I checked radar and saw a line of thunderstorms approaching my destination from the west. Still wondering if I could beat the weather as I approached the Wisconsin shoreline, I contacted air traffic control and requested to start my descent with a possible deviation and landing at Madison (KMSN). A check of the METARs a few minutes later confirmed the deviation was necessary with wind gusts at KLNR exceeding 40 kts. I may be a good pilot, but in testing those skills against knowledge of what could happen, knowledge won out and I am here to write about it.

New Avionics For An Old Airplane!

In a previous issue of *Midwest Flyer Magazine,* I wrote about my avionics update that was then in progress in my Bonanza. Well, the update has been completed, and I flew the airplane home. I must say I am very happy with the equipment I selected, which was done on a shoestring budget.

I am not trying to discourage our readers from going all out with a panel update, but I needed to keep my wife happy.

Often, I am asked by readers and students, what they should install in their aircraft for avionics. I tell them that it all depends on what you would like to spend. It would not be hard to spend 45 AMUs (Aviation Monetary Unit) of $1,000 per unit. Seeing that my budget was 1/10th of that amount, I got creative in purchasing some used and new equipment and now have ADS-B in/out, a WAAS approach certified GPS, roll steering (GPSS) on the autopilot, and an upgraded transponder. For new equipment, I added a Garmin GDL 52 and a Garmin Area 660, which made for an excellent combination!

When I flew the airplane home, I followed my own rules – never fly IFR after maintenance until you first check out the equipment and feel comfortable with it.

The flight home was challenging, as there was a lot of weather to contend with and I had to deviate several hundred miles due to thunderstorms. I will add that my Sirius XM weather subscription, which was displayed on the Garmin Area 660, made this flight possible. I would say that this one flight paid for a full year's Sirius XM subscription.

You never have too much information when navigating around weather, especially on a long flight of more than 500 miles, and strategic planning involves more than Nexrad radar. It is great to be able to see the locations of high and low-pressure areas, fronts, storm cells, lightning, pilot reports and icing probabilities. As I mentioned before in my previous columns, the importance of flying the airplane and having too much information, and doing excessive button pushing, can be distracting. So know what information is important on a particular flight.

May your summer flying be safe. Don't substitute convenience for safety or let complacency set in!

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

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

How Cool Are You?

by Harold Green


Harold Green

Ever wonder how some folks remain calm when all those around them are in a panic? The old joke says, "If you are calm, when everyone else around you are panicking, then you probably don't understand the situation." Actually, the opposite is true when it comes to flying. When an emergency occurs, there are those who maintain a calm, professional analysis of the situation and take actions appropriate to eliminate or reduce the impact of the emergency.

Then again, there are those who tend to panic and, at least intellectually, run around in circles screaming, "The sky is falling." It is definitely preferred to be in the calm, professional group for the simple reason that these folks have been shown statistically to have a much higher survival rate. I am not a psychologist, so the following is an amateur's analysis based on a few years of observation and experience.

The question is, what makes the difference in performance? Is it because of personality or can anyone be trained to be the calm type? Let's look at a couple of examples of the calm type.

A fairly recent and very famous example is U.S. Airways Flight 1549, "Miracle on the Hudson." On January 15, 2009, Capt. Chesley "Sully" Sullenberger and First Officer Jeff Skiles landed their Airbus A320-214 safely in the Hudson River when Canada Geese were ingested into the plane's engines. Their calm voices over the radio spoke volumes about their professionalism. They kept their cool, evaluated options, and chose the plan which was the least objectionable, and proceeded to execute it flawlessly. All onboard survived without any serious injuries.

A somewhat older example is the crash landing of a DC-10 (United Airlines Flight 232) on July 19, 1989 in Sioux City, Iowa. The aircraft was on a flight from Denver to Chicago when it suffered a catastrophic failure of its tail-mounted engine, which led to the loss of hydraulics due to a compressor disintegration, affecting many flight controls. Of the 296 passengers and crew onboard, 111 died and 185 survived. Those survivors owed their lives to the skill of the pilot, Captain Alfred Clair Haynes, who again, evaluated options, chose the least risky, then proceeded to execute the plan. In

both cases a calm, though tense, analysis, coupled with skill and knowledge of the aircraft, produced remarkable results.

These examples were chosen because they received a high level of publicity. There are probably many others in military and general aviation which could be quoted, but to which the reader could not relate to, even if all of them were known.

There is one incident which received no publicity, but is amazing. The supervisor of the local control tower relayed this a few years ago. Apparently, a pilot took off in a Baron about 100 miles north of Madison, Wisconsin in instrument meteorological conditions (IMC), heading south to Dane County Regional Airport (KMSN), and shortly after takeoff, he lost all electrical power. He even lost the battery bus, so there was no communication nor navigational equipment.

The pilot proceeded to fly towards his destination, using the time planned for his flight, descended and broke out 3 miles south and landed. The example showed not only cool behavior, but also excellent flight planning.

The pilot knew what to do because he had completed a thorough job of flight planning, when to do it, and what his options were.

Three things apparently mark the cool ones: knowledge, practice and attitude or confidence. Further, these attributes tend to reinforce one another.

For example, knowledge developed from having studied enables practice of emergencies. Practice then reinforces the confidence required to develop a professional calm attitude when an emergency occurs.

Knowledge can be gained by studying the aircraft operator's manual, commercial publications, membership in appropriate organizations, and discussion with other pilots about their experiences. Some good examples would be the Aircraft Owners and Pilots Organization (AOPA), and *AOPA Pilot* and *AOPA Flight Training magazines;* the Experimental Aircraft Association (EAA); and various aircraft type organizations, such as the Cirrus Owners and Pilots Association (COPA), Cessna Pilots Association, Piper owner organizations, and others. Another good source of information is the Joseph T. Nall Report published annually by AOPA. From these resources, one can learn experiences other pilots have encountered. After all, the cheapest experience you can gain is that which has been experienced by others.

Of course, there are the accidents caused by poor planning. This would include attempting to fly five hours on four hours of fuel, attempting to fly in weather beyond the pilot or aircraft's capability, etc. We won't address these accidents here, but such actions are still a significant cause of aviation deaths.

Preflight planning is careful, objective and thorough. When the pilot's ego is involved, calm/objective analysis on the ground can be as difficult as when in the air, at least in part because the urgency is low and the ego is high.

There is one area which the pilot can practice very easily – the use of all equipment installed in his airplane.

The FAA expects you to be able to use all equipment installed in your airplane. If you have a functioning Automatic Direction Finder (ADF) in your airplane when you take your instrument check-ride, you can expect to prove that you know how to shoot an approach with it and how to track to a station. That is a good thing in terms of preparation. For purposes of disaster preparation, it is at least as useful to know how to get along without the equipment in your airplane.

When taking an instrument check-ride, you will be required to conduct partial panel operations. It is necessary to go one step further and decide what things you can do without and still control the plane and/or navigate.

For example, while you practice for total engine failure, you are more likely to encounter a partial power loss. What then? How do you fly with only 50 percent power? Or, how do you fly with a throttle that is stuck at cruise power? In this case, use all equipment installed in your airplane. Reducing power is the best way to do that by turning off and on the ignition or modulating the mixture.

Can you successfully execute a complex VOR approach with one VOR and no DME? In the event that you didn't close the cabin door, what do you do? What do you do if the elevator becomes locked in place? These are just some questions you can ask yourself. You can think of many more things to challenge yourself on emergencies. Besides, practicing for these emergencies can be fun!

As further training, whenever you fly, ask yourself what could go wrong? In earlier years, it was the mantra that "You should fly from one emergency landing strip to another at all times." When flying VFR, that is still a good idea. Even if it is never used, it is still a good idea.

Likewise, on takeoff or landing, it is good practice to automatically determine the liftoff or touchdown point and be prepared to react if those points are not met. This training can be critical if something happens. Usually, it is some instructor pulling the power, etc., but someday it could be real. Likewise, flying all instrument approaches with the intent to execute a missed approach, makes it safer when you must make a missed approach, and good practice if you don't.

For those who do not operate under a mandated training program in which someone else plans your training, it behooves you to establish your own disaster response training program. You can do this by imagining that some element of the airplane has failed, and then figure out what to do about it. For example, the elevator has become locked in place. (The reason doesn't matter at this point. It happened and we have to respond.)

LEINEWEBER LAW LLC
AVIATION, BUSINESS & MEDIATION LAW PRACTICE
EDWARD E. LEINEWEBER 608-604-6515 RICHLAND CENTER, WI
CFII, Maintenance Technician, former Circuit Judge
eleineweber@leineweberlaw.com www.leineweberlaw.com

Then the question is, can you control the pitch of the airplane with throttle and trim? Go up to altitude and see. It might be a good idea to have a friend along as a safety pilot.

NOTE: Depending on your airplane, some things are better left alone or tried in a simulator. The previous example is fine in your single-engine piston aircraft, but probably not a good idea in your Citation. It is also very germane during your next biennial flight review (BFR) to ask the instructor to be aggressive in simulated emergencies. You will probably find this to be fun and informative.

Then there is the reaction when something unplanned happens. The first reaction is probably disbelief that this can be happening to you. Then it is necessary to analyze the situation, accept the reality and react accordingly. Maybe it isn't really an emergency, but a quick analysis will help determine that.

Then keep your analytical hat on and remember that the order of things is Aviate, Navigate and Communicate. Act accordingly, maintain calm, analyze logically, then decide what is the best course of action based on your knowledge, training and experience. Then, focus on the execution... proceed with the actions of your plan.

Maintain your mental focus, analyzing and tracking the situation to ensure the desired goal is achieved. When you communicate with others, either by voice in the plane or by radio, as best you can, maintain a normal voice volume and pattern. This will help you maintain a calm thought process. If you maintain that calm thought process, you are far more likely to survive than not.

There is every reason to believe that through training and practice, you can improve your coolness. In so doing, flying will be more enjoyable because you will be more relaxed, confident, and more aware of what is going on.

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

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

What To Say If Your Best Friend Bought A Dog of An Airplane

by Pete Schoeninger


Pete Schoeninger

The Misunderstood Master Switch

Q: I rode along with a pilot friend and his avionics technician while they were doing some inflight checking of avionics. I was horrified as they briefly turned off the master switch. I thought for sure the engine would die, but it did not. Can you explain?

A: You can sort of think of a master switch as a battery disconnect switch. Almost all aircraft engines get their "spark" from magnetos. Magnetos make electrical impulses and are thus independent of the airplane's electrical system.

The 195 Versus 210 HP Hawk XP

Q: I own a 1979 Cessna Hawk XP. It has the standard 195 hp engine, which gives it good performance. A friend said I should consider the Isham STC conversion, upgrading the engine to 210 hp. What do you think?

A: If you're happy with the current performance of your XP, I would stay with the 195 hp engine. The 210 hp conversion is not too involved, and is particularly desirable for seaplane operations. The extra 15 hp comes from allowing the engine to turn up 200 more RPMs by changing the prop stops, allowing a flatter pitch, thus more RPMs. Other changes include a new manifold pressure gauge/fuel flow, and prop governor rebuild, plus paperwork. I am told the whole package is about a day's work.

Full or Partial Flaps On Landing?

Q: During my recent private pilot checkride, the examiner told me the FAA recommends that almost all landings be with flaps fully extended. Do you agree?

A: NO! During a strong crosswind, minimal flaps are preferred by many people for better aileron control, and at very slow speeds with full flaps, you might not have enough rudder input to keep the airplane aligned with the runway. Partial flaps allow a slightly faster touchdown. Another reason for not using full flaps is that if your flaps are electrically operated and if you have an electric failure or flap motor failure, you are now stuck with full flaps until you land. Sometime, at altitude, slow down and extend full flaps, and try and keep level flight. Not real pleasant, and very slow! Lastly, some airplanes (think middle-aged Cessnas with 40 degrees of flaps) will sometimes have a strong nose pitch-up attitude if you have full flaps extended and you have to suddenly apply power to go around (i.e. deer or other obstacle avoidance).

The XP Versus The 182

Q: If you had your choice between a $60,000 C-182 or a $60,000 Hawk XP, which would you buy?

A: If all else was equal, I would go with the C-182 because it has a wider cabin and greater fuel capacity. Also, there are thousands of them out there, parts are more readily available, and there are a lot of mechanics who have experience working on them, while there are less than 1,000 XPs around. But remember, condition matters most. A good Hawk XP is much better than a doggy C-182, and vice versa.

My Wife & The Incompatible CFI

Q: I have been strongly urging my wife to take some flying lessons so she could at least get our airplane to an airport and back on the ground should I have a medical emergency. She has finally started lessons at our local airport, but tells me she is uneasy with the instructor assigned to her. What do I do?

A: Two questions in your question. I suspect your wife does not want to take lessons and maybe her reluctance to fly with a certain instructor may be her way of telling you that. Or perhaps there is a personality or other issue that is causing friction in the cockpit with the instructor. In either case, I highly recommend that you do not continue to press your wife to fly with that CFI. But I have to commend you for

trying to get the ball rolling by having a spouse with a little knowledge of piloting. She can also help you with in flight chores, looking out for other traffic, lend two more ears in listening to ATC, etc.

Differences In The Cessna 180 & 182

Q: I thought the Cessna 180 and 182 pretty much shared the same cabin, but of course different landing gear. But my friend's C-180 sure seems to have less shoulder room than my 1971 C-182. Why?

A: When introduced in the 1950s, the cabins of C-180s and C-182s were about the same. But in the early 1960s, Cessna widened the C-182 cabin by about 4 inches, while the C-180 continued with the "skinny fuselage" throughout its production years (1953 thru 1981).

The Piper Built For Three

Q: Here's a bet for you to settle. My friend insists that Piper made a Cub-type airplane certified to carry three people besides the PA-12. True?

A: Your friend is right! Do an internet search for the Piper J-5, which was the "Father" of the PA-12.

The PA-14 – Piper's Long-Winged/Four-Place Airplane

Q: Second bet please: My friend also insists that Piper made a four-seat, long-winged airplane, before they made several thousand Pacers and Tri-Pacers with a short wing. True?

A: Yes, the PA-14 was made in limited numbers in the late 1940s and certified as a four-seat airplane. It had the same Cub 36 ft. wing, but was under powered with only a 115 hp engine. The few remaining airplanes (about 100 or so) are almost all converted to more horsepower.

Why Some Fuel Tanks May Require Switching On Takeoff & Landing

Q: Why, in some Piper high-wing models, it is recommended that the left tank be used for takeoff and landing, when both left and right tanks have the same fuel capacity?

A: There can be several answers, but the most common is that in some installations, there is fuel pickup from both the front and rear of one tank, but only from the rear on the other. So, if you are descending nose low with not much fuel in the tank, which only has a fuel port in the front, your

THUNDERBIRD AVIATION

Charter Services ✈ Flight Training
Maintenance ✈ Aircraft Management
Aircraft Sales ✈ Pilot Shop
Scenic Flights ✈ Price Match Guarantee
Twin Cities Premier FBO, family-owned since 1962

FLYING CLOUD AIRPORT
14091 Pioneer Trail
Eden Prairie, MN 55347
952.941.1212

Shell

CRYSTAL AIRPORT
5800 Crystal Airport Road
Crystal, MN 55429
763.533.4162

www.thunderbirdaviation.com ✈ fly@thunderbirdaviation.com

engine could possibly die from fuel starvation. There's lots more to this including header tanks, etc., but that's the basic answer.

Traffic Patterns At Uncontrolled Airports

Q: While flying in and out of non-controlled airports, I see all kinds of traffic pattern entries. Isn't there a "one size fits all" standard pattern?

A: Usually. While the most common traffic pattern is lefthand turns and 1,000 ft above the runway, this is not always the case. The best graphic I have seen is found by doing an internet search for Bold Method Traffic Pattern. The feds recently updated their advisory circular on this subject, see AC-90-66B. Do an internet search for Airport Facility Directory and you can find specific information for all public-use airports.

A Possible Safety Concern of Old Radios

Q: While doing my recent biennial flight review in my 1973 C-172, the CFI suggested I consider monitoring 121.5 MHz on my second com radio. That second radio is an original, and so old that it is not legal for me to transmit with, but I am told I can use it for receiving purposes. I rarely turn it on. On a recent trip I did listen on 121.5 for a while, but then the radio conked out. Why would that frequency cause my radio to quit?

A: The frequency selected is not the cause of your radio dying. Possibly the cooling fan has died, and the radio eventually overheated and shut itself down. But for safety reasons, I strongly urge you to have the radio checked at an avionics shop before you use it again. If it was my airplane, I would replace the radio because of its age. It's good to have two radios, and it would likely be more cost- effective to buy something newer, such as a modern GPS navcom.

Logbook Entries On The Road

Q: What if I have unscheduled maintenance done on my airplane while on a trip? I don't keep my maintenance logs in the airplane to avoid losing them, or in the event of an accident. I would also be uneasy mailing out my logbooks for the mechanic to make an entry and having him mail them back to me for the same reason. Any suggestions?

A: If you get work done on your airplane "on the road," ask the mechanic to write and sign a brief description of work done, etc., on adhesive backed logbook entry paper or on a plain piece of paper. Then when you get home, permanently attach that to a page in either your aircraft or engine maintenance logbook, depending on the work completed.

What To Say If Your Best Friend Bought A Dog of An Airplane

Q: My friend rolled into our home airport with a new (to him) Cessna 175. He is very proud of it, said he got it for a real bargain, and wanted my opinion of it. On very brief inspection, it is a dog! What can I say?

A: I think you have an obligation to point out anything you notice that would make the airplane unsafe. But beyond that, find something –π anything – nice to say about it. All new airplane owners have just dished out a lot of money and are very hopeful their friends will compliment them, and that their first annual inspection will go smoothly.

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

DISCLAIMER: The information contained in this column is the expressed opinion of the author only, and readers are advised to seek the advice of others, and refer to aircraft owner manuals, manufacturer recommendations, the Federal Aviation Regulations, FAA Aeronautical Information Manual and instructional materials for guidance on aeronautical matters. ❑

There Are Things You Can Only See From The Air... Perú's Nazca Lines!

by Yasmina Platt

Yasmina Platt

Aircraft are great traveling machines, but they are also fantastic platforms for sightseeing. I recently found the best place for aerial sightseeing – the Nazca (often spelled "Nasca") Lines in Perú! If you don't take to the skies, you could miss them! These geoglyphs can only be seen from above, partially because of their massive size.

The town of Nazca is about 250 miles south of Lima, Perú's capital. According to The History Channel, the Nazca Lines are a collection of giant geoglyphs (designs or motifs etched into the

ground) created by the ancient Nazca culture (which began around 100 B.C. and flourished from A.D. 1 to 700). These lines (some of which are 30 miles long), geometric designs, and pictorial representations (some of which measure up to 1,200 feet) were designated a UNESCO World Heritage Site in 1994, and are still a mystery to researchers, despite having been studied for over 80 years.

First evidence of the lines goes back to 1547 when Spanish conquistador, historian, and chronicler, Pedro Cieza de León, saw "signs." His reference was forgotten until much later when they were rediscovered by the first Peruvian aviators of commercial airlines.

Out of all the famous Nazca designs, only three of them can be seen from a manmade tower along the long Panamerican Highway (Carretera Panamericana). The rest can only be seen by air.

My intention was to rent a C172/182 (with a local CFI) from one of the flight schools in the Lima area where I was staying; however, after making contact with them, I quickly learned that 1) a number of their aircraft were unavailable as they were being used for training purposes, and 2) the ability to fly over the Lines requires government approval prior to launching. Restricted area R-70 goes from the surface to 12,000 feet MSL and encompasses the Nazca Lines.

So, instead, they suggested going up with one of the outfitters giving air tours. Bummer! I was excited about flying myself (as I always do) and learning the local procedures, but the goal here was seeing the Lines and going up with an air tour operator seemed like the only way to achieve it.

A google search identified a variety of options, both in aircraft type and airport of origin. One can fly from Pisco, Ica, or Nazca itself. We ended up choosing "SPZA – Maria Reiche" as our launching airport for logistical reasons (other activities, schedules, availability, etc.). The airport is named after Maria Reiche, a German archaeologist and translator, who studied the geoglyphs for many, many years. Her research concluded that the designs had an astronomical and calendrical purpose.

AeroNasca took us on about a 40-minute flight in a C207. I was looking forward to taking the right seat, but fortunately or unfortunately, they fly with two pilots. The elevation of the area where the drawings are is about 1,900 feet and we flew at 2,500-3,000 feet MSL. The flight was "not for the faint of heart." The tight 30-45-degree turns turned some stomachs. The Nazca drawings/lines vary in size and detail. The route we took included 13 drawings/lines; however, we spotted multiple others. Experts say there are upwards of 1,100 of them (between designs and lines) in the area. In fact, they're still finding them.

What amazed me the most was the precision/symmetry of them, especially when you think of the era they were made in with no aerial vehicles, survey tools, technology, challenging terrain (flat with no shade), etc. I think that's also where their mystery comes from and why some researchers believe aliens may have been involved. It's fascinating to see how many different theories have been developed for "why" or "how" the designs were created. When you have some time, you should google Nazca Lines and read about them.

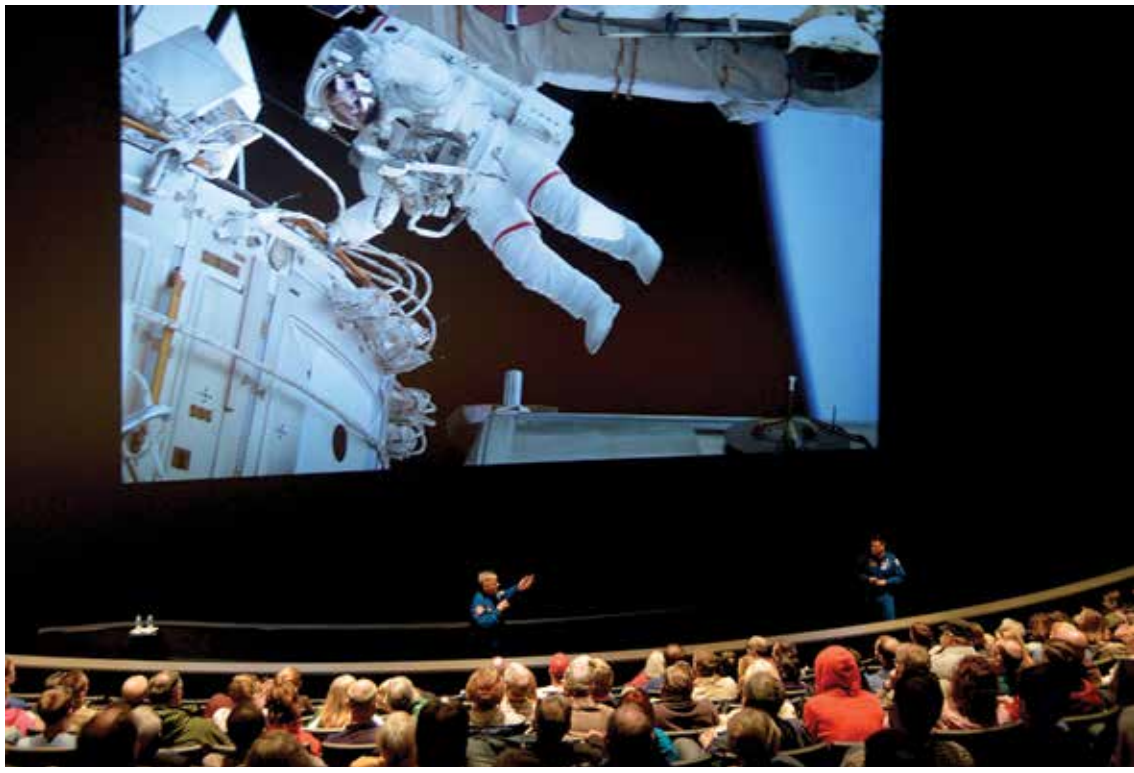
On the way back to SPZA, to top it off, we saw Native American ruins and the Aqueducts of Cantalloc.

Regardless of not being able to be pilot-in-command (PIC) or even second-in-command (SIC), I loved the experience and highly recommend it to any of you planning a trip down to Perú. In addition to this flight, their food, Inca culture, and other area sites (Huacachina, Paracas, and Islas Balletas) amount to great reasons for scheduling a trip down under.

I challenge you to tell me about other places where "flying over" is a must to appreciate its beauty. You can send me a note via www.airtrails.weebly.com. Fly safe and fly often!

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

National Museum of the U.S. Air Force Commemorates 50th Anniversary of Apollo 11 Moon Landing



DAYTON, OHIO – On July 20, 1969, history was made during the Apollo 11 spaceflight as astronauts Neil Armstrong and Buzz Aldrin became the first humans to set foot on the moon. Fifty years later, the National Museum of the U.S. Air Force, commemorated this historic feat by offering visitors an "out of this world" experience including an opportunity to meet an astronaut; build and launch rockets; interact with Star Wars characters and much more during Family Day on July 20.

Designed for children and adults of all ages, Family Day offered several hands-on

Come be part of the magic of **OSHKOSH!**

Wittman Regional Airport
Oshkosh

New 80 Acre Aviation Business Park

Shovel Ready Building Sites

Wisconsin Manufacturing Tax Credit

Tax Incremental Financing District

Busiest General Aviation Airport in Wisconsin

Contact Jim Schell, Airport Director
(920) 236-4930
WITTMANAIRPORT.COM


U.S.
AIR
FORCE

opportunities for all to enjoy. Activities included virtual reality experiences; various space-related demonstrations on topics such as rocket guidance, orbits and microgravity; a scale model display; special displays of artifacts and archival materials from the Collections and Research Divisions; a pop culture display; Star Wars costumed characters; and space trivia. Visitors built rockets and launched them on museum grounds.

Astronaut Mark Brown was available to meet with the public and sign autographs. He served as a mission specialist on both Space Shuttle Columbia in 1989, and on Space Shuttle Discovery in 1991.

In addition, there were five presentations in the Carney Auditorium on topics such as spacesuits; little known facts about the Apollo program; the effects of space on the human body and more.

According to museum aerospace educator, Cindy Henry, it is important to not only remember this great achievement, but to see its potential for encouraging young people to go even farther one day. Henry said that the museum was thrilled to commemorate this momentous event with a day filled with exciting educational activities to remember the achievements of that day and to inspire the next generation of engineers, scientists and explorers.

Visitors also checked out the new space suit exhibit that recently opened at the museum. The exhibit contains a total of seven space suits spanning the earliest to the latest in spaceflight including those from the Mercury, Gemini, Apollo, and Space Shuttle missions.

The Air Force Museum Foundation offered several space-related films in the Air Force Museum Theatre including "Apollo 11: First Steps 2D;" "Armstrong;" and "First Man."

The National Museum of the U.S. Air Force, located at Wright-Patterson Air Force Base near Dayton, Ohio, is the world's largest military aviation museum. With free admission and parking, the museum features more than 350 aerospace vehicles and missiles and thousands of artifacts amid more than 19 acres of indoor exhibit space. Each year more than 800,000 visitors from around the world come to the museum. For more information, visit www.nationalmuseum.af.mil. ❑

Pentastar Aviation Named Official Charter Provider Of The 2019 Bell's Beer Bayview Mackinac Race

WATERFORD, MICH. – Pentastar Aviation has announced an extended partnership with the Bell's Beer Bayview Mackinac Race for 2019. Pentastar has been a sponsor of the race since 2015.

The world's longest consecutively run freshwater race, organized by the century-old Bayview Yacht Club, is in its 95th running. The Bell's Beer Bayview Mackinac Race has a reputation as one of the most festive sailing events in the country. It is enjoyed by 2,000 or more sailors and 75,000 fans. Many fans get to Mackinac Island days before the race begins and depart days after the first boat finishes.

Anyone who does not fly to the island themselves, can fly on a charter flight with Pentastar Aviation.

A yacht races by the Grand Hotel on Mackinac Island in the Straits of Mackinac.
Photoelement Photo

The race begins at 11:30 a.m. on Saturday, July 20, 2019, just north of the Blue Water Bridge in Port Huron. The competitors will race on one of two courses covering either 204 or 259 nautical miles of Lake Huron, over two to four days, and finish at Mackinac Island in the Straits of Mackinac.

Pentastar Aviation, wholly owned by Edsel B. Ford II, is headquartered at Oakland County International Airport (KPTK) in Waterford Michigan.

Bayview Yacht Club, founded in 1915, is widely regarded as the premier sailing club in Michigan and the Midwest. Located on the Detroit River near the mouth of Lake St. Clair, the Bayview Yacht Club has been hosting the Bayview Mackinac Race since 1925 and has more than 1,000 members. For more information visit www.byc.com. ❑

West Coast Safari by Private Jet

The premier private aircraft company, "Latitude 33 Aviation," is taking summer travel to sky-high levels, expanding bucket lists across the globe with its brand new, fully immersive "West Coast Safari." This unrivaled private jet excursion explores the best of the West Coast in the most elite, exploratory way.

Beginning and ending in the Golden State, this fully customizable journey is an opportunity of a lifetime to enjoy exquisite landscapes and the celebrated bounties of North America's westernmost region by way of a luxurious, private aircraft for up to nine passengers. Abundant outdoor adventure, fully catered in-flight service, top-of-the-line accommodations and coveted sights and experiences are all part of the multi-destination safari. Passengers will be escorted through a diverse route of quintessential West Coast destinations including California's finest (San Diego, Santa Barbara, Big Sur, Napa Valley), Jackson Hole, British Colombia, and Cabo with additional stops to Hawaii available in 2020.

Pricing starts at $150,000 for four passengers on a Bombardier Challenger 350 for the recommended, yet far from standard, itinerary. For details, email Lindsay Brean Public Relations at lindsay@lindsaybreanpr.com or call 760.815.8782.

Latitude 33 Aviation manages one of the newest and largest fleets of light, midsize, and super midsize jets in North America. ❑

LEINEWEBER LAW LLC
AVIATION, BUSINESS & MEDIATION LAW PRACTICE
EDWARD E. LEINEWEBER 608-604-6515 RICHLAND CENTER, WI
CFII, Maintenance Technician, former Circuit Judge
eleineweber@leineweberlaw.com www.leineweberlaw.com

A Family Affair

Oshkosh Brings Aviation Together

by Mark Baker
AOPA President and CEO


Mark Baker

For one week in mid-summer, Wisconsin's Wittman Regional Airport boasts the world's greatest aviation celebration as nearly 10,000 aircraft and a crowd of more than 600,000 gather for endless aeronautical activities. Walking around the flight line and seeing the iconic brown arch signals we've arrived at our annual family reunion—minus the clashing personalities, political debates, and opinionated Uncle Earl. To the average bystander, it's just another airshow, but to pilots and aviation enthusiasts, it's the homecoming we've been waiting for.

Arriving at Oshkosh is a rite of passage. Whether it's your first time or you've been coming for the past 50 years, it's an exhilarating tradition. Aircraft from every decade, thrilling aerobatic airshows, educational workshops and seminars, and one unforgettable campground. It's the get-together of a lifetime, but it's the people that lure us back year after year. They're the family we never knew we had.

I've been a regular at AirVenture over the decades—long before I became president of AOPA—and I am constantly amazed at the magnitude of our GA community. Wide-eyed kids gazing up at the aerobatic performers pulling negative Gs takes me back to when I first found the spark.

But flying is often an elusive dream to those who don't come from an aviation background. Someone planted the aviation seed in me, and as flight instructors,

Wondering what's up with Jeff Klein's million dollar smile? That's right, he's thinking about pavements. What could be more exhilarating than guiding an airfield pavement project from formulation, through design, into construction? Make his day – call Jeff in our Fargo office to talk about concrete.

Mead&Hunt

jeff.klein@meadhunt.com
701-566-6445

airport managers, performers, or casual weekend fliers, it's up to us to spark that enthusiasm in someone else. There are so many opportunities and thrills that come with being a part of this tight-knit community, so it's a bit alarming to read headline after headline of an impending pilot shortage.

Thankfully the numbers are heading in the right direction. The number of original certificates, active aircraft, new aircraft shipments, and AOPA memberships have increased over the past two years. In 2018, the number of student pilot certificates issued was up 18 percent; private certificates were up 17 percent; and commercial certificates up 16 percent.

Many of the positive trends can be attributed to organizations striving to make flying more accessible and affordable. Some 56,000 pilots are now flying under BasicMed, the simpler aviation medical program. AOPA's You Can Fly program is improving experiences for pilots and encouraging them to stay active. You Can Fly's Rusty Pilots initiative has seen huge success in getting more than 7,000 lapsed pilots back in the air.

From older pilots to younger pilots, it's clear You Can Fly is making a difference. You Can Fly's High School Aviation STEM curriculum will be implemented in more than 160 schools for the 2019-2020 school year; 141 schools will be teaching the ninth-grade courses and 118 schools will be teaching the tenth-grade courses. The curriculum introduces students to careers in aviation and shows them the dream is within reach.

AOPA has never strayed from its mission to make flying safe, fun, and affordable, but we can't do it alone. It's up to us as individuals to introduce friends, family, and kids to aviation and show them what is attainable. Would you be where you are today if someone hadn't introduced you to aviation? It's time we invite as many as we can to our next family reunion, whether it's "the World's Greatest Aviation Celebration"; the AOPA regional fly-in at Tullahoma, Tennessee, in September; or just your neighborhood airport. We can all make a difference. ❑

AOPA GREAT LAKES REGIONAL REPORT

New & Important Laws For GA In The Great Lakes Region

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


Kyle Lewis

There are some new and important laws that have been signed into effect since my last column, all positive for general aviation and deserve some attention by our members, and the general aviation community. There has been one amendment attached to a bill in Ohio that AOPA is opposing that deserves mentioning as well.

Minnesota Airport Zoning Updates: AOPA collaborated with the MnDOT Office of Aeronautics in 2015 to work on language that would bring common sense updates to the state's airport zoning statutes. The bill was pushed in recent years, but 2019 proved to be the year it would be signed into law (5/30/2019). It was attached as an amendment to DOT's budget appropriations bill and garnered the support and votes to be sent to the Governor. The bill updated some language in the existing zoning laws, gives airports the ability to take part in "custom zoning" that would be cleared by a regional joint zoning board, and mandate MnDOT Aeronautics to respond to zoning permits from a jurisdiction or joint zoning board within 90 days, as currently there is no set time for the agency to respond. Language was also added to allow for web-based formats of public hearing notifications. Airport safety areas must be illustrated on official zoning control maps updated after August 1, 2019. The appropriations bill also funds MnDOT Aeronautics at just over $25 million each year, 2020 and 2021.

Indiana Abandoned and Derelict Aircraft: AOPA, along with EAA, assisted in providing support and language for a bill that deals directly with aircraft that have been determined to be derelict or abandoned in the state of Indiana. The issues stemmed from airports and fixed base operators that have limited legal recourse to dispense aircraft that fit these categories. Aircraft were taking up ramp and/or hangar space that could otherwise be providing income for airports. There are certain criteria that need to be met before the removal process can begin, such as non-payment of rents for at least 60 days and the aircraft is determined to be "wrecked, partially

The Green Earth Deicer Company, Inc.
Specializing In Environmentally Friendly "Runway and Non-Airside De-icing Products"
414-379-0601 or 920-238-0482

2019 AOPA Fly-In

September 13 and 14 in Tullahoma, Tennessee, at Tullahoma Regional Airport

dismantled, or inoperative." This does not include aircraft that are undergoing maintenance by a person legally authorized to do so, and does not apply to unmanned or ultralight aircraft. There is a notification process before the airport or fixed base operator can begin action to recover fees and remove the aircraft. This law takes effect on July 1, 2019.

Ohio Airport Improvement Grant Program: At the time of writing, a contested amendment in Ohio was submitted that would allow for commercial service and cargo dedicated airports to participate in the state funded airport improvement grant program. The amendment was placed into the overall state budget bill, House Bill 166. There were no caps or other protections for general aviation airports, and as written, these commercial service airports would compete on the same grant award matrix as smaller airports. Ohio DOT – Office of Aviation administers this grant program. AOPA provided testimony to the Senate Finance Committee on June 17, 2019 opposing the amendment. Our core reasons for opposition were that AOPA has historically opposed commercial service airports participating in state level grant funding. Commercial service airports have separate funding streams that general aviation airports do not have, like passenger enplanement fee revenues, concessions, and larger leaseholds. In 2018, over $20 million had been requested by general aviation airports for eligible projects. The state only awarded approximately $2 million due to limited funding. If commercial airports became eligible for these funds, the competition would be even tougher for small airports. AOPA expects the amendment to be dropped and the status quo maintained. A vote in the Senate Finance Committee has yet to occur, but the budget must be approved by June 30, 2019.

Late spring and early summer also provided AOPA opportunities to participate in regional events, such as the ***Minnesota Seaplane Pilots Association (MSPA) Safety Seminar.*** This event is well organized, well attended by the seaplane pilot community, and truly has an impact on float flying in Minnesota. Steve Guetter, MSPA president, has done a fantastic job bringing this community together in recent years. Steve also provides insight and support to AOPA in our work regarding Customs and Border Patrol (CBP) issues for general aviation and the unique situations surrounding border crossings in seaplanes.

In June of 2019, ***Southwest Ohio Flyers*** hosted an event at Cincinnati Lunken Airport in which I was able to present on legislative and airport advocacy issues. AOPA has an all-new seminar for our national events, entitled "Will Your Airport Be Here Tomorrow?" The seminar is an overview of the airport system in the United States and the threats that general aviation airports face on a daily basis. There is also a strong focus on what can be done on the local level to help protect airports, including the role of the AOPA Airport Support Network Volunteer. If you did not get to participate in the 2019 seminar at an AOPA event, look for it again at 2020 AOPA Fly-Ins, Sun 'n Fun and EAA AirVenture Oshkosh programming.

It is a privilege to be able to serve you and the GA community (kyle.lewis@aopa.org)! ❑

Jet Aviation & HK Bellawings Jet Sign Agreements For Boeing's Jeppesen Digital Solutions

GENEVA, SWITZERLAND – Boeing announced May 21, 2019, agreements with business aviation companies Jet Aviation and HK Bellawings Jet for its advanced Jeppesen Operator and Jeppesen JetPlanner Pro digital solutions.

Signing a five-year agreement for the Jeppesen Operator digital offering, Jet Aviation, which manages nearly 300 business aircraft globally, now has a tool that integrates its key business aviation functionality in a one-stop shop self-service environment for its U.S. operations. Jeppesen Operator integrates overall flight planning, runway performance, weight and balance, and crew and fleet scheduling/management. It also integrates self-service trip planning, reporting, customer account management, real-time pricing and cost accounting capabilities.

HK Bellawings Jet signed a seven-year agreement for the Jeppesen JetPlanner Pro offering, which provides end-to-end flight planning, dispatch operations and route optimization for its fleet. Based in Hong Kong, HK Bellawings Jet Limited is a business jet management company.

Both agreements were signed during the EBACE airshow in Geneva. ❑

Delta Air Lines First Officer Cheri Rohlfing

Cheri Rohlfing... Wife, Mom, Airline Pilot, Educator & Volunteer

by Dave Weiman

Cheri Rohlfing of Cleveland, Minnesota, first became interested in aviation while taking an Aerospace Science class her junior year in high school in Elk River, Minnesota. That summer she attended the first Minnesota Aviation Career Education (ACE) Camp and has been involved with the camp ever since!

Cheri started flying lessons at the age of 17, became a flight instructor while attending Minnesota State University Mankato (MSUM), and started flying for the airlines shortly after graduation. Currently, Cheri is a First Officer with Delta Air Lines flying the Airbus A320. In addition, she is a pilot recruiter, ambassador and propel liaison for the airline.

Cheri and her husband, Andy, met while she was attending MSUM. She was hired by Northwest Airlines (NWA) in May 2001, was furloughed for more than 5 years after 9/11, then recalled in 2007, shortly after NWA and Delta merged. Andy flew corporate for over 20 years, then applied at Delta and has been with them for a little over 4 years. Cheri has approximately 8,500 hours, and Andy more than 10,000.

Flying the Airbus A320 hasn't been that difficult, Cheri says, but as with flying any aircraft, it took some time to feel completely comfortable with all the systems and how the airplane handles.

"When I first started with NWA, I was flying the DC-9 – something I'm super proud of because it was a challenging aircraft at times," says Cheri. "The Airbus is fly-by-wire and we use a joystick to fly it.

"Now that I've been flying the Airbus for over 9 years, I love it, and I've figured out some techniques that make the flight smoother and more comfortable for the passengers. In addition, it has a very spacious flight deck, which makes it a great environment to work in.

"Weather can be an issue for any scheduled airline, but Delta is very proactive about cancelling flights and communicating with our customers early to try to help them reschedule their travel plans. The most challenging thing for me is getting to the airport with our crazy Minnesota winters!"

She says that the most rewarding aspect of flying for Delta has been the opportunities to give back and promote aviation to the next generation – "Something I am very passionate about."

For personal flying, the Rohlfings belong to a flying club in Mankato that has a Piper Archer III. "We joined two years ago as a way for me to teach our sons to fly. It's a great group of people and an awesome airplane. It has way more bells and whistles than what I did my flight training in!"

When not flying for Delta, Cheri teaches at Minnesota State University Mankato as an adjunct professor, and is involved in college programs, as well as aviation career education (ACE) camp.

Cheri enjoys working with college students and preparing them for careers in aviation. In addition to teaching, she is an advisor to the school's student aviation organizations and helps with the Aviation Learning Community (ALC) on campus.

ALC is a program that allows freshman in the aviation program to live in the same dorm and on the same floor, and to take all of their first-year classes together. The group has a coordinator, who is an upperclassman in aviation, who guides the group with activities and study groups, and is there for them as an advisor for the year. This group also takes a course together called "First Year Experience," which is designed to assist them with their transition from high school to college and helps them to succeed.

"One of the biggest concerns of incoming freshman is 'will I have friends?'" says Cheri. "This program almost eliminates that concern. It's been very successful!" This year, MSUM had such a huge interest in the program that the school added a second ALC!

For over 22 years, Cheri has volunteered with the Minnesota Aviation Career Education (ACE) Camp and is currently the camp director and chairperson.

ACE Camp is a week-long, overnight camp designed to introduce high school students to careers in aviation. The camp was founded in 1991 by the Minnesota Department of Transportation Office of Aeronautics in partnership with the Federal Aviation Administration (FAA). Cheri says she loves seeing the smiles on the faces of the students after they take their first airplane ride, when they visit an air traffic control tower or participate in any number of other activities while at camp. The dates for the last of three ACE Camps in 2019 are July 14-20. For additional information, visit www.mnacecamp.org.

NEWVIEW TECHNOLOGIES Inc.

Will Help You Meet The ADS-B 2020 Deadline!

Garmin GTX 345 ADS-B Compliant Transponder

✳ Comply & Enjoy The Benefits Including FREE Weather & Traffic

✳ Call or Email Bruce For A Quote & Reserve Your Installation Date:
920-303-0709 (bruce@newviewtech.com)

NewView Technologies, Inc.
Wittman Regional Airport • Oshkosh, Wisconsin
(FAA/CRS NU7R875N) is an authorized dealer for:
GARMIN SANDIA LYNX
STRATUS TRIG FREEFLIGHT
www.NewViewTech.com

But that's not all... In 2015, Cheri worked with Delta Air Lines to create the Women Inspiring our Next Generation (WING) Flight. High school girls fly to a fun, educational destination to encourage them to follow their dreams and achieve their goals. The entire flight is coordinated and operated by women pilots, flight attendants, charter coordinators, maintenance technicians, ground operations personnel, dispatchers, Transportation Security Administration (TSA) personnel, and air traffic controllers. This summer will be the 5th annual WING Flight (https://news.delta.com/all-female-wing-flight-if-they-can-do-it-i-can-do-it-too).

Cheri is a founding member of two Women in Aviation chapters in Minnesota – Stars of the North and Northern Lights. Visit www.starsofthenorth.org to learn more. She is also a board member and the banquet chairperson for the Minnesota Aviation Hall of Fame. This was her third year heading up the planning committee for the banquet which was held in Bloomington this past spring (www.mnaviationhalloffame.org).

As proud parents of three sons, Cheri and Andy enjoy spending time with them, watching their sporting events and assisting with Boy Scout activities. Most recently, Cheri taught their oldest son, Daniel, how to fly, which she said she really loved! Daniel received an aviation scholarship earlier this year to help him become a professional pilot like his parents. He started his Professional Flight Bachelor's Degree at Minnesota State University Mankato in May.

Cheri Rohlfing (third from left standing, center) with an all-woman Delta flight crew.
Aubrey Canales Photo

Cheri Rohlfing and her husband, Andy, with their three sons. (L/R): Eric (16), Jacob (14) and Daniel (18).

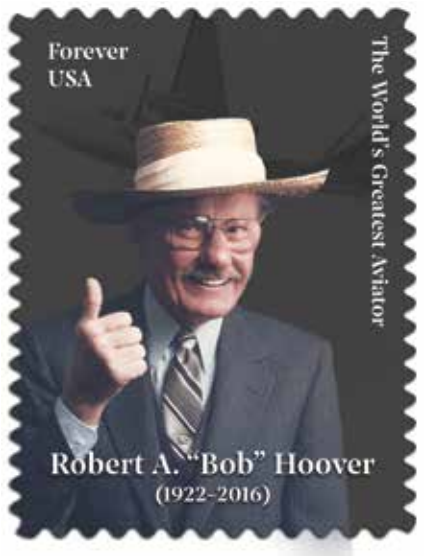
"We are really excited for him as the industry is really booming right now. He also helps me with the Minnesota ACE Camp.

"Eric and Jacob both plan to follow in the family footsteps and pursue airline careers as well. I'm hoping to start flying with Eric this summer."

The Rohlfings enjoy traveling, camping at EAA AirVenture Oshkosh, spending the summer on the lake, and playing with their golden doodle "Murry." ❑

OMNNI ASSOCIATES
"Airport Engineering and Design Services"
For Additional Information Contact
Aaron Stewart At 920-735-6900
ONE SYSTEMS DRIVE, APPLETON, WI 54914

Bob Hoover Legacy Foundation Seeks USPS Approval In 2022



JACKSONVILLE, FLA. – An effort being made by the Bob Hoover Legacy Foundation to petition the U.S. Postal Service to honor the late Robert A. "Bob" Hoover with a commemorative postage stamp on or about the time of his 100th birthday, is gaining serious momentum among the aviation organizations, professionals, and luminaries that populate the aviation world.

The International Council of Air Shows (ICAS), the preeminent organization overseeing the airshow profession and its community, has already stepped up to voice its support for the effort.

John Cudahy, President/CEO of ICAS, stated: "Bob Hoover was arguably the best pilot who ever lived. He was an American patriot and national legend who preached the gospel of aviation for nearly three-quarters of a century. And here at the International Council of Air Shows, we were fortunate to know Bob as an air show colleague, consummate professional and inspiration to millions. While much of the world learned about Bob as one of the best test pilots in aviation history, and even more so as a hero of World War II, the air show community saw him as one of aviation's best ambassadors to the rest of the world. Of all the men and women ICAS has been privileged to work with in its history, Bob Hoover stands out as being an exceptional choice for U.S. Postal Service recognition, both for the amazing history he represents, as well as providing an inspirational example for future aviation professionals. On behalf of the men and women of the air show community, it is our pleasure to endorse and support the efforts of the Bob Hoover Legacy Foundation to issue a commemorative stamp in honor of the 100th birthday of Bob Hoover in January of 2022."

BHLF President, Tracy Forrest, was pleased with the support… "Bob both loved, and was loved by, the airshow industry – so it seems more than fitting that ICAS and its remarkable community of aviation professionals should be among the first to step up in support of this exciting program."

The Foundation has commenced a multi-year process necessary to seek USPS selection of Mr. Hoover as a proper subject for such an honor in order to better inform and inspire America about the many ways that Hoover's heroic service to the nation bettered their lives. It is hoped that this effort may also serve as an inspiration to the next generation of young people looking to make their mark upon the world.

BHLF Chairman Michael Herman added that, "… of all the many ways that Bob contributed to aviation, some of his most iconic moments were undertaken while performing at hundreds of airshows all around the world. We couldn't be more pleased at their recognition of, and support for, this honor for our dear friend, Bob Hoover.

The Foundation continues to reach out to the entire aviation industry to support USPS recognition of Bob's life and contributions… and will request endorsements, undertake online and in-person petition drives, and encourage media support as the campaign for this honor escalates in the coming months.

The U.S. Postal Service and the members of the Citizens' Stamp Advisory Committee (CSAC) have set certain basic criteria used in determining the eligibility of subjects for commemoration on all U.S. stamps… including their willingness to "…honor extraordinary and enduring contributions to American society, history, culture or environment."

This fits the memory and life of Robert A. 'Bob' Hoover, to the proverbial "T".

About ICAS: The International Council of Air Shows (ICAS) is a Leesburg, Virginia-based trade association that represents the interests and concerns of air show professionals around the world and in North America, particularly. Formed in 1967 to more effectively address safety issues, manage insurance concerns and more effectively interact with the U.S. military, ICAS is today involved with a wide variety of challenges and opportunities, from legislative and regulatory advocacy to education and training to pilot credentialing and the group's annual convention.

About BHLF: The Bob Hoover Legacy Foundation is a 501c3 organization conceived and formed by R.A. Bob Hoover in 2016¬ to perpetuate his life-long dedication to aviation learning and safety, and to inspire those qualities in succeeding generations of American aviators.

FMI: Contact Jim Campbell at **info@BobHooverLegacyFoundation.org** or **863-299-8680**. ❑

Brian Ryks Elected To National Airport Executives Board

Brian Ryks, executive director and CEO of the Metropolitan Airports Commission (MAC) in the Twin Cities, has been elected to the Board of Directors of the American Association of Airport Executives (AAAE). AAAE is the world's largest professional organization representing airport management at public-use commercial and general aviation airports.


Brian Ryks

In 2016, Ryks was selected to lead MAC, which owns and operates Minneapolis-St. Paul International Airport and six general aviation reliever airports in the Twin Cities metropolitan area.

Ryks holds a professional affiliation with the Great Lakes Chapter of AAAE (GL-AAAE) of which he is past president. Ryks also serves on the Airports Council International – North America (ACI-NA) Board of Directors. ❑

Joe Harris Chosen To Lead MAC's Reliever Airports

Joe Harris, a long-time employee of the Metropolitan Airports Commission (MAC), was recently selected as the new director of Reliever Airports for the MAC. Harris was most recently the manager of the MAC's largest and smallest reliever airports – St. Paul Downtown and Lake Elmo. With his selection to lead the MAC's six-airport reliever system, Harris succeeds Gary Schmidt, who is retiring after a 35-year career at the MAC.


Joe Harris

Harris joined the MAC in 2000 after working nearly two years as the airport noise program manager for the Rhode Island Airport Corporation and earning a bachelor of science degree in aeronautical studies from the University of North Dakota. Harris also has a master's degree in management from St. Mary's University in Minnesota.

The MAC Reliever Airports system is designed to serve general aviation and relieve congestion at the Minneapolis-St. Paul International Airport. The six airports are home to more than half of all registered aircraft in Minnesota.

In addition to St. Paul Downtown and Lake Elmo airports, the reliever airports include Flying Cloud Airport in Eden Prairie; Crystal Airport in Crystal; Airlake Airport in Lakeville, and Anoka County-Blaine Airport in Blaine.

Harris' appointment was effective July 1, 2019. ❑

Longtime Iowa Aviation Director
Michelle Fletcher McEnany
July 7, 1966 - June 23, 2019

DES MOINES, IOWA – Long-time Office of Aviation director, Michelle Fletcher McEnany, passed away June 23, 2019. McEnany served as the director of the Iowa Department of Transportation's Office of Aviation and the Office of Public Transit from 2000 through 2017.


Michelle Fletcher McEnany

McEnany was responsible for the development and maintenance of safe, comprehensive, and competitive aviation and transit systems in Iowa. Her management in transportation emphasized advocacy, promotion, and partnership building, with a focus on economic development and quality of life issues. She brought a fresh perspective and contributed to the success of aviation in Iowa. She was effective in her work with stakeholders at all levels, and in implementing reorganizational changes for the Office of Aviation.

McEnany once served as president of the National Association of State Aviation Officials (NASAO), and volunteered for 8 years as a member on the Polk County Conservation Board serving one year as president.

Prior to joining the Iowa DOT, McEnany was the director of state and local relations for the Greater Des Moines Partnership, where she was responsible for advancing transportation public policy issues that enhanced business and economic development opportunities. She is a graduate of Boston College with degrees in economics and political science.

McEnany was born July 7, 1966 in Cedar Rapids, Iowa to Sondra and Robert Fletcher. In April 1991, she married Dennis McEnany and they later divorced. She is survived by their children, Colby McEnany of Flowery Branch, Ga. and Madison McEnany of West Des Moines; her parents, Sondra and Robert Fletcher; and brother, Michael Fletcher, all of Cedar Rapids. ❑

Cirrus Aircraft Announces New Chief Executive Officer

DULUTH, MINN. & KNOXVILLE, TENN. – Cirrus Aircraft has announced that Zean Nielsen has been selected to succeed cofounder Dale Klapmeier as its next Chief Executive Officer (CEO). Nielsen has held senior leadership roles in global world-class organizations, including Tesla Motors, James Hardie and Bang & Olufsen.


Zean Nielsen

"Cirrus Aircraft has a remarkably bright future ahead," noted Dale Klapmeier, cofounder and National Aviation Hall of Fame inductee. "We are fortunate to have someone of Zean's caliber and experience to lead us into the next era of growth. I am looking forward to moving into a senior advisory role and continuing to work with our exceptional team on reinventing the future of personal transportation."

Nielsen said that he is honored and humbled to join this team of experienced general aviation leaders and a world-class workforce as Cirrus continues to bring game-changing products and services to market. "Our mission is to deliver an aviation experience that is the pinnacle of innovation, quality and safety to our customers – and that is exactly what we will continue to do for many years to come," said Nielsen.

Nielsen assumed the CEO role at Cirrus Aircraft on June 3, 2019. ❑

Doug Webber with his granddaughter, Karli Reimer, and the family Cessna 180B C-GVUT at the bush strip at North Knife Lake in northern Manitoba.

Accelerated Flight Training – Is it for you?

by Jim Hanson

I like to fish, and I fly to Canada often. There are so many great lodges in Canada, but my favorite is "Webber's Lodges" at North Knife Lake, Manitoba. I've been going there for 26 years...sometimes several times a year (it doesn't take much for me to be induced to make the trip!) Webber's also conducts goose hunting trips near Churchill, on Hudson Bay. They are the leader in conducting Polar Bear and Arctic Natural Tours under their sister company, "Churchill Wild."

North Knife Lake is located exactly 1,000 miles north of my home near Albert Lea, Minnesota. I usually fly to Kenora for Canadian Customs, then to Thompson (the end of the road). North Knife Lake is an *additional* 150 miles north, near the end of the tree line. The fishing is superb, the accommodations unmatched in the northwoods, and the Webbers take special care to meet the needs of every guest.

I mention this because I've obviously developed a special relationship with the Webber clan. A few years ago, they asked me to teach their granddaughter, Karli, to fly. EVERY kid in a remote area like that should be able to fly. I manage the Albert Lea Municipal Airport, and though I own a number of planes, I lease them to ***Accelerated Aviation Instruction*** (AAI) to conduct the actual training.

Karli came down for a month to stay with us, and learn to fly. She had her paperwork in order from the Transportation Security Administration (TSA) so she could learn to fly in the U.S., had her written passed, and was ready to learn, and learn she did!

Karli was one of the best students the flight school ever

had. She received her Private Pilot Certificate in hand with the bare minimum number of hours. The FAA Designated Examiner pronounced her performance on the check-ride as *"possibly the best Private Pilot examination I've ever given!"* He was so impressed, that when I asked if he would give her tailwheel instruction and the endorsement (something he rarely does), he agreed. Karli received the endorsement in only 2 1/2 hours of flight time. "There was nothing more I could teach her," he explained. *"I demonstrated each and every maneuver—full stall landings, wheel landings, crosswinds, taxiing...she just DID them!"* I later gave her a high-performance endorsement on the U.S. license, as she would be flying her grandfather's Cessna 180.

(L/R) CFII Jeff Jorgenson with student pilot, Josh Wright.
Accelerated Aviation Instruction Photo

This year, Webber asked me about teaching a grandson to fly – Josh Wright. He had a little less than a month in which to do it. Like Karli, he would have the TSA approval completed before coming down, and he would stay with us. He came down on May 5, 2019, and immediately got to work. He needed a U.S. medical certificate – FAST! AAI made the calls...he could get in at Lamoni, Iowa, the next day, nearly 200 miles away. But if this was to happen, he HAD to get the first available medical. He drove down to Lamoni, and came back with a First Class Medical. Step 1 was out of the way!

The next day, Josh started flight training... not only the usual air work, ground reference maneuvers, and takeoffs and landings, but also night flight. Canada requires 10 hours of cross-country night flight time outside of the traffic pattern. His instruction was tailored to meet BOTH U.S. and Canada requirements.

With all of the extra time, Josh didn't solo until day 6. He also had two days "off" due to bad weather, but put them to good use with ground school. He still had to take the FAA written exam, but had studied prior to arriving in the U.S. The refresher and practical knowledge for the cross-country planning must have helped. He passed the written exam with a 90% on day 5. Step 2 accomplished!

There was too much wind to solo on day 6, so AAI started dual cross-country training. Having demonstrated his ability to fly cross-country, Josh and his instructor arrived back at Albert Lea, where he still made his first solo flight on day 6. He did a good job. After all, he had 14.1 hours in 6 days, including night and cross-country time! Step 3 accomplished!

The next two days concentrated on knocking out the required cross-country time, but that was not enough. After resting, AAI put him in the Redbird simulator where he practiced his long cross-country, airport layouts, takeoffs and landings, and radio work before actually flying the cross-country. He also practiced some night visual work, and *"wouldn't you know it—he inadvertently flew into clouds in the simulator at night—having to resort to instrument flight to escape the unseen clouds."* (Sarcasm.) Valuable experience! Step 4 – concentration on the requirements – accomplished!

Having completed the requirements for the Private Pilot Certificate, Josh took and passed his Private Pilot check-ride on day 20. He had 51.1 hours total time, 37.2 hours of dual instruction received (including the 10 hours of night time required for his Canadian certificate and the hours in the Redbird-approved flight training device), and 6 hours of instrument time in the aircraft (some of it in actual conditions at night!). MISSION ACCOMPLISHED!

Josh Wright in the Redbird Flight Simulator.
Accelerated Aviation Instruction Photo

Josh didn't rest, however. His uncle is a former Chief of Flight Training for a Canadian airline, and gave him this piece of advice: *"Get all of the night cross-country you can. We have people coming in for their Airline Transport Pilot Certificates that don't have 50 hours of night cross-country."* In some places in Canada, there are few airports to make a cross-country to. At Thompson, Manitoba, for example, there is no nearby

(L/R) Josh Wright is congratulated by his flight instructor, Jeff Jorgenson, after receiving his Private Pilot Certificate.
Accelerated Aviation Instruction Photo

airport for night cross-country. The nearest lighted airport is at Gillam or Lynn Lake – both 120 nm away over roadless forest! Josh set about building flight time, and as a Private Pilot, he could now take along an instrument instructor, and log time in several categories – night, cross-country, and instrument. The hours were piling up FAST!

We looked for other experiences and ratings for him – opportunities to LEARN, not just log time? Why not get his high-performance and "complex airplane" endorsements while conducting the above? He could now log time in up to five (5) categories! Josh obtained those two endorsements in the next two days!

We looked at doing his multi-engine rating as part of his complex aircraft endorsement, but his application for the TSA training as a foreign national was for Private Pilot Single-Engine Land. It would take too much time to change it.

We looked at a tailwheel endorsement or a seaplane rating, but in Canada, any commercially-rated tailwheel or seaplane pilot can give those endorsements. It need not be a flight instructor or examiner. Josh's grandfather, Doug Webber, could give him those endorsements once he returned to Canada. We also considered a glider rating, but while there would be time for the flight instruction, Josh had a deadline... he had to be back in Canada by May 28.

True to form, Josh didn't rest...he flew the simulator *(you can log up to 20 hours of the Instrument Rating requirements on the simulator, and up to 50 hours toward the Commercial Pilot Certificate),* and he took the opportunity to conduct IFR training in actual conditions. On the 28th -- ONLY 23 DAYS AFTER JOSH ARRIVED, a friend, Rich Skagerberg, flew him to the unique Piney/Pine Creek Airport that straddles the U.S. and Canada border in northwest Minnesota. They stopped at airports in the area along the way. Rich is "collecting airport stamps" to work on his "Fly Minnesota Passport." Once he has visited all public-use airports in Minnesota, the Minnesota Office of Aeronautics will present him with a leather flight jacket.

As a friend of the Webber family, as a flight instructor myself, and as a long-time FBO manager, I am SO PROUD of Josh! He worked hard, and never complained, and did whatever task was assigned. He will be going to college this fall with his pilot certificate already in his pocket, and with a lot of experience.

EDITORS NOTE: Jim Hanson is the long-time manager of the Albert Lea Municipal Airport in Minnesota (KAEL). He has been flying for 57 years, has over 30,000 hours in airplanes (he is type rated in six jets), helicopters, single and multi-engine seaplanes, gliders, and balloons, and holds flight instructor certificates in each of those categories as well. He can be reached at **jimhanson@deskmedia.com.**

Accelerated Aviation Instruction is a separate flight training company located at Albert Lea Municipal Airport. As the name implies, the company specializes in accelerated one-on-one instruction for Private, Commercial, Flight Instructor, and Airline Transport Pilot Certificates, and Instrument and Multi-Engine Ratings, dedicating a flight instructor to each student. ***Accelerated Aviation Instruction*** can be reached at 507-363-9210 or 507-383-5710. ❑

Minnesota Aviation Trades Association Creates Mentorship Program For Member Businesses

The Minnesota Aviation Trades Association (MATA) has a "mentorship program," which is available exclusively to member businesses, whose owners or managers need some advice or guidance on various business matters from time to time. There is no cost to the member for this benefit.

Volunteer members with expertise in business, fixed base operation management, aviation law, flight training, and risk management are available to consult with fellow members to provide basic information and answers to questions, and can refer them to resources which can further assist them in addressing a particular question or issue.

Members may contact MATA President and Mentorship Program Chairman Bill Mavencamp of St. Cloud Aviation with their initial request. Mavencamp will then direct the member to the appropriate person who can help.

To take advantage of the MATA Mentorship Program, or to become a mentor, email Bill Mavencamp at billmavencamp@mac.com for additional information.

The Minnesota Aviation Trades Association was founded in 1945 to represent the interests of aviation businesses in the state, and to assist members in operating strong, ethical and competitive businesses to serve Minnesota communities and the aviation community. A nine-member volunteer board of directors meets bimonthly to address issues affecting aviation in the state.

MATA works closely with the Metropolitan Airports Commission, Minnesota Office of Aeronautics, Federal Aviation Administration, local aviation authorities and other trade organizations, to address key issues important to aviation in the state and its members. MATA actively lobbies the Minnesota legislature, and is heard in Washington, D.C. as an affiliate member of the National Air Transportation Association (NATA). Additionally, each year a representative of MATA goes to Washington with representatives of the Minnesota Business Aviation Association (MBAA) and Minnesota Council of Airports (MCOA) to meet with congressional leaders in an effort to help keep them informed on aviation issues affecting Minnesota and the nation.

Within the state, MATA members are encouraged to participate in "Minnesota Aviation Day At The Capitol" each year, whereby they meet with state representatives to likewise inform them of pressing issues affecting aviation in Minnesota, and to be a resource on aviation matters.

MATA also sponsors a "scholarship program" to help students at MATA-member flight schools achieve their career goals in aviation.

For additional information on the Minnesota Aviation Trades Association and its programs, visit www.mata-online.org, and read about MATA's accomplishments and member activities at https://midwestflyer.com/?s=minnesota+aviation+trades+association. ❑

LifeSave Transport To Open New Base At Salina Regional Airport

SALINA, KAN. – LifeSave Transport has rented a hangar at Salina Regional Airport to provide emergency medical transportation services to Salina and north-central Kansas. At a special meeting in June, the Salina Airport Authority board approved a five-year lease for Hangar 504 to the Wichita-based air ambulance company. LifeSave will base 16 pilots, paramedics and flight nurses at its new base. At press time, LifeSave flight operations were expected to begin as early as July 15.

The board also approved financing and a budget for $195,000 in H504 improvements. The improvements will include a new fire sprinkler system and remodeled crew quarters. The hangar will house a LifeSave Bell LongRanger helicopter and has enough space to also support a Beechcraft King Air if the need arises.

LifeSave Transport is an independently held medical transport system founded by Kansas emergency medicine physicians and includes fixed-wing, rotor-wing, and ground ambulances; and a state-of-the art communication center, in-house maintenance facility, education department, and patient billing division. LifeSave operates emergency transport aircraft under its own FAA Part 135 certificates throughout Kansas, Nebraska, Texas, and Hawaii. ❑

Cirrus Now At St. Paul Downtown Airport

All photos by Randy Arneson, except where otherwise noted.

Ben Arnal of Lake Elmo Aero.

Cirrus aircraft owner, Earl Morley, with his family.
Gary Black Photo

Cirrus Aircraft cofounder, Dale Klapmeier *(right)*, with guest Tom Deml.

Newly appointed Cirrus Aircraft CEO Zean Nielsen *(left)* with Patrick Waddick, Cirrus Aircraft President of Innovation and Operations *(right)*.

ST. PAUL, MINN. – Approximately 200 Cirrus aircraft owners, pilots and interested guests attended the "Cirrus Now" event at Signature Flight Support at St. Paul Downtown Airport. The weather was fantastic and several aircraft flew in, including three Vision Jets. A fourth full-scale Vision Jet mockup was on display for guests to check out and try out the aircraft's Perspective Touch avionics.

A new Cirrus Training Center (CTC) is in operation at Lake Elmo Aero at nearby Lake Elmo Airport (21D), and they had their new 2019 SR20 Jump Start on display. The CTC (Inflight Pilot Training) at Flying Cloud Airport (KFCM), also has a new SR20 Jump Start for training and rental.

Guests were treated to catered hors d'oeuvres while learning about the latest plans at Cirrus Aircraft from the Senior Vice President of Sales and Marketing, Ben Kowalski. Cirrus cofounder and CEO, Dale Klapmeier, has moved to a Senior Advisor position, so he introduced the new CEO, Zean Nielsen. Also, in attendance was Cirrus Aircraft President of Innovation and Operations, Patrick Waddick, and Executive Director, Justin Dillon, who flew a Vision Jet to the event from Denver.

Longtime Regional Sales Director (RSD), Gary Black, was recognized as he is transitioning into a Business Development position. Jake Fielstra was introduced as the new RSD for the Northern Plains Region.

Several team members from the Cirrus Vision Center in Knoxville, Tennessee, flew in to set up the event, and the Cirrus Flying Clubs in Duluth, Minnesota, and Grand Forks, North Dakota, flew in two colorful SR20s for display. Cirrus employees are able to rent these aircraft for only $50/hour. The company has over 100 career openings in four locations in the U.S. (www.cirrusaircraft.co/careers). ❑

(Photos From Left to Right, Top to Bottom):

- Cirrus SR-22.
- Cirrus Vision Jet.
- Jake Fielstra, Regional Sales Director for the Northern Plains territory *(center)* with guests Jeffrey Bordenave (left) and Lonnie Sackett *(right*).
- Cirrus Aircraft Business Development Representative, Gary Black *(right)*, and his wife, Celeste Curley-Black (center right), with guests Kathy and John Barlow *(left)*.
- Representatives from Inflight Pilot Training at Flying Cloud Airport (KFCM), Eden Prairie, Minn., Trever Rossini *(center)* and Benjamin Porch (right) with guest Ryan Konrath *(left)*.
- Cirrus Aircraft Senior Vice President of Sales and Marketing, Ben Kowalski, describes the company's latest plans.
- Guests

Ray Aviation Scholarships... Providing A Major Boost For Youth

OSHKOSH, WIS. – The first "Ray Aviation Scholarship" recipients have been announced. The program, which involves $1 million in scholarships each year, is managed by the Experimental Aircraft Association (EAA) and administered through its chapter network, which identifies candidates and mentors them through flight training. More than 200 EAA chapters from throughout the United States have applied thus far.

Thanks to the generous support of the "Ray Foundation," recipients can receive as much as $10,000 to help cover their flight training expenses.

James C. Ray with the "EAA Freedom of Flight Award" he received in 1992 in recognition of his contributions to aviation and society. *EAA Photo*

The Ray Foundation was founded by James C. and Joan L. Ray of Naples, Fla. Ray was born in San Francisco, California on January 1, 1923 with the spirit of a true entrepreneur. As a youngster, he was never idle, and had countless part-time jobs, selling magazines, and delivering groceries and laundry. He was also an Eagle Scout, and upon graduation from high school, he became a steelworker.

Ray's dedication to aviation began shortly after the December 7, 1941, attack on Pearl Harbor which he witnessed firsthand as a civilian steelworker. Following the attack, Ray enlisted in the Army Air Corps and was involved in the D-Day invasion as a B-17 command pilot with the 8th Air Force. Post war, he served in the Air National Guard, and was very involved in general aviation.

Also following the war, Ray married the love of his life, Joan L. Paine, raised two children, and began a very successful business career. Working in venture capital investments, he became a seed investor and advisor to over 300 startup technology companies.

Ray Aviation Scholarship recipient, Noah Forcier, behind the controls of a Cessna 172 Skyhawk. Forcier is taking instruction at Morey Airplane Company in Middleton, Wisconsin (C29). *Pete Aarsvold Photo*

Aviation remained an ever-present part of his life. Throughout the years, Ray owned and flew many different aircraft. One of his favorites was a Cessna 170B, which he flew on business and personal trips in the 1950s throughout the Caribbean, Central America, Europe and Africa, visiting 58 countries. For more than 29 years, he flew Cessna Citations.

The Ray Foundation was first involved in veterinary research in the 1960s. In later years, he focused much of his philanthropy on aviation, supporting the John D. Odegard School of Aerospace Sciences at the University of North Dakota; Experimental Aircraft Association's Air Academy in Oshkosh, Wis.; Aircraft Owners and Pilots Association's youth aviation and pilot safety initiatives; and Sun 'n Fun Fly-In's youth aviation education programs. Ray was also instrumental in funding the construction of Central Florida Aerospace Academy in Lakeland, Florida.

Ray believed that the self-discipline and self-confidence he learned during flight training helped him achieve success in life and business. He felt strongly that these traits, and assuming responsibility for one's own actions, are learned skills and important character traits that can truly make one free to pursue their dreams. His generous support of so many worthwhile aviation causes helps assure that aspiring young aviators will have the opportunity to learn this philosophy for themselves for years to come.

Ray died peacefully on April 1, 2017 at the age of 94 following a short illness. He was preceded in death by his wife, Joan, in 1986; son, Jim, in 2005; and daughter, Joanie, in 2009.

Jack J. Pelton, EAA CEO and chairman of the board,

Ray Aviation Scholarship recipient, Noah Forcier, is recognized at the EAA Chapter 93 meeting held in Fitchburg, Wis. *Skot Weidemann Photo*

Ray Aviation Scholarship recipient, Noah Forcier, with his mother, Julie, beaming with pride. *Pete Aarsvold Photo*

said: "Through programs, such as Ray Aviation Scholarships, our goal is twofold: To inspire and welcome more young people who want to pursue their personal dreams of flight, and to boost the success rate of those who begin flight training through consistent mentorship and recognition."

Sporty's Pilot Shop is providing its Online Learn to Fly Course free of charge to all EAA Young Eagles. And as an added incentive for scholarship recipients, Lightspeed Aviation is awarding each scholarship recipient with a Lightspeed Zulu 3 headset upon completion of their solo flight and ground school, as steps toward ultimately completing their flight training.

One of the first youth to receive the scholarship is Noah Forcier, a junior at Edgewood High School in Madison, Wisconsin. Sponsoring Forcier is EAA Chapter 93 with Morey Airplane Company in Middleton, Wisconsin, providing the flight training.

Forcier holds a 4.0 grade point average and is a member of the Edgewood Honor Society. He is a first-generation aviator, and hopes to fly for Delta Airlines upon completion of his education and advance flight training.

Forcier said that ever since he and his family flew to Portland, Oregon, when he was 8 years old, he was hooked on aviation and wanted to become a commercial airline pilot.

Forcier was a member of the Civil Air Patrol for 3 years, has visited the EAA Museum numerous times, and has attended EAA AirVenture Oshkosh since he was 9 years old when he took his first Young Eagles flight. Since then, he has volunteered at the Heavy Bombers Weekend in Madison, Wis., and joined the Madison EAA Chapter.

Forcier's mentors include his high school aviation instructor, Diane Ballweg, who recommended him for the scholarship; EAA member, Jeff Plantz; and his flight instructor, Pete Aarsvold.

"I am very lucky to get in touch with such great people and have the support that I do," says Forcier. Forcier's parents, Scott and Julie, are not pilots, but support their son in his pursuit to become a professional pilot. ❑

Teenager Aspires To Become A Pilot, Mechanic & Engineer Thanks To EAA Chapter & Ray Aviation Scholarship

Addison Geer, 16, of Hustisford, Wisconsin, is homeschool and just completed her sophomore year in high school. Last December, she was hired by Eric Nelson at Beaver Aviation at Dodge County Airport (KUNU) in Juneau, Wisconsin, where she got the opportunity to work on aircraft and expand her knowledge of aviation. This opportunity opened up a whole new world of career choices she had not previously considered.

Ray Aviation Scholarship recipient, Addison Geer, with the 1960 Cessna 310D "Songbird III" (N6817T), which was once owned and flown by television star, Kirby Grant, who starred in the television series, "Sky King," that aired from 1951-62. Grant had two Cessna 310s, and this one was the aircraft he flew around the country with to make personal appearances. The other aircraft was used in filming the television series. If everything goes as planned, Addison Geer will soon be singing high in the sky herself, enjoying a rewarding career in aviation! *Dave Weiman Photo*

Addison was asked on multiple occasions during her first few months on the job, if she considered getting her pilot's license, and her answer was no, due to the cost. That was before she learned about the "Ray Aviation Scholarship" program.

Ray Aviation Scholarship recipient, Addison Geer, with her employer, Eric Nelson of Beaver Aviation, Dodge County Airport, Juneau, Wisconsin (KUNU). *Dave Weiman Photo*

After her first EAA Young Eagles flight, which took place in a Piper J3 Cub, she was hooked. Aviation was a world she was determined to explore.

Addison met with EAA Chapter 897 members at KUNU and learned of the requirements for the scholarship. After submitting a video and essay, she was chosen as one of two recipients from the chapter to receive the scholarship.

The Ray Aviation Scholarship was originally supposed to be granted to only one recipient in each of the EAA chapters that applied; however, EAA Chapter 897 had two extremely good candidates. Because anonymous donors stepped up to cover the difference, Chapter 897 was not required to choose between the two candidates, and EAA agreed to split the scholarship of $10,000 between them.

At press time, Addison had 20 hours of flight time, and although she had not yet soloed, she was getting extremely close. She plans to obtain her private pilot certificate by her 17th birthday in January 2020.

Receiving the scholarship has given Addison a better idea of what she wants to do upon graduating from high school. She hopes to continue with her aviation career, and has three different career goals: 1) earn her A&P and IA technician certificates, 2) get a degree in Mechanical and Aerospace Engineering, and 3) fly for the airlines.

Addison is currently a member of EAA Chapter 897, and is extremely grateful to it, EAA, and the Ray Foundation for giving her this amazing opportunity! ❑

BEAVER AVIATION, INC.
920-386-2636
SPECIALIZING IN
• Annual Inspections
• Aircraft Restorations & Repairs
All Makes & Models
• Pre-purchase Inspections
Great Turn-Around Time!
Eric Nelson & Chuck Swain, A&Ps with Inspection Authorization
Since 1946
Dodge County Airport • Juneau, Wisconsin

Women Aviation International Announces New Mid-Year Scholarships Totaling $73,000

Through a donor who wishes to be anonymous, Women Aviation International (WAI) has awarded an additional $73,000 in 17 individual scholarships to be put toward flight and aviation maintenance training. These scholarship recipients are:

WAI Private Pilot Scholarship ($5,000 each): Madison Coutu, Toronto, Ontario; Kourtnie A. Robin, Slidell, Louisiana; Rachel A. Obajtek, Tehachapi, California; Aurora E. Enriquez, Bozeman, Montana; and Morgan D. Sandstrom, ***Centerville, Ohio.***

WAI Instrument Certificate Scholarship ($5,000 each): Melissa Diaz Cooper, Kailua, Hawaii; Shana Bartell, Cedar City, Utah; and Maria Hall, Kerrville, Texas.

WAI CFI Certificate Scholarship ($3,000 each): Lauren Lynn Sherrick, ***Racine, Wisconsin;*** and Sarah Corbin, Anchorage, Alaska.

WAI CFII Rating Scholarship ($5,000): Trimbi M. Szabo, Broomfield, Colorado.

WAI Multi-Engine Rating Scholarship ($3,000 each): Morgan M. Gillespie, Prescott, Arizona; Gabrielle F. Palmas, Phoenix, Arizona; Theodore W. Johnson, ***Ypsilanti, Michigan;*** and Meira Leonard, Honolulu, Hawaii.

WAI Aircraft Maintenance Technician Scholarship ($5,000 each): Erin Walling, ***Beavercreek, Ohio;*** and Jodie A. Gawthrop, ***Westfield, Indiana.***

"As always, we're grateful to the generous companies and individuals who participate by their contributions to our scholarship program," says WAI President Peggy Chabrian. "These donors literally change the lives of our members and help guide them on a clear path to a career in aviation."

Scholarships that will be awarded at the 2020 International Women in Aviation Conference to be held March 5-7, 2020, in Lake Buena Vista, Florida, are posted at wai.org/scholarships.

WAI's International Girls in Aviation Day will be held by the WAI Chapter Network and Corporate Members, Saturday, October 5, 2019.

The 31st Annual International Women in Aviation Conference will be held March 5-7, 2020, in Orlando, Fla.

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

2020 WAI Scholarships Ready For Applications

Start applying for available scholarships!

With new scholarships being posted weekly, Women Aviation International (WAI) is ready to accept applications for dozens of scholarships. Currently, there are 85 scholarships offered for flight training, scholastic study, maintenance training, and a variety of scholarships for individuals in all stages of life. Internships are also being offered. Additional scholarships will be added in the coming weeks and months, and applicants are encouraged to check for new scholarships often. Applicants may apply for up to three scholarships per year.

"When you think of scholarships, high school and college students come to mind," says WAI President Dr. Peggy Chabrian. "Of course, we have scholarships for them, and we also have scholarships for people who are mid-career, those nearing or in retirement, and for those looking to explore what aviation offers."

In 2019, $948,500 of scholarships funds were awarded, which includes an additional $73,000 in June from an anonymous contributor. That brings the total dollar value of WAI scholarships since its inception to more than $12 million.

Continued On Page 45

Wisconsin Aviation Trades Association

PROUD SPONSORS HELPING TO MOVE WISCONSIN BY AIR!

Gold

Midwest Flyer Magazine
608-772-1776
www.midwestflyer.com
Oregon, Wis.

Silver

Cessna Aircraft Company
800-848-5181
www.cessna.com
Milwaukee, Wis.

Beaver Aviation
920-386-2636
Juneau, Wis.

Horizon Aircraft Engine Services, Inc. - d/b/a Bolduc Aviation
763-780-1185
www.bolducaviation.com
Minneapolis, Minn.

Bronze

Fond du Lac Skyport
920-922-6000
www.fdlskyport.com
Fond du Lac, Wis.

Jet Air Group
866-676-7835
www.jetairgroup.com
Green Bay, Wis.

NewView Technologies
877-303-0709
www.newviewtech.com
Oshkosh, Wis.

Racine Commercial Airport
262-631-5620
Racine, Wis.

Trimcraft Aviation
800-558-9405
www.TrimcraftAviation.com
Genoa City, Wis.

West Bend Air, Inc.
800.310.5603
www.wbair.net
West Bend, Wis.

Wisconsin Aviation, Inc.
800-657-0761
www.wisconsinaviation.com
Juneau • Madison • Watertown, Wis.

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

Madden's Attracts Good Crowd of Seaplane Owners Despite Rain

(L/R) Kyle Lewis and Richard McSpadden of AOPA tied down AOPA President & CEO Mark Baker's Piper Super Cub before it started raining. *Kjersti Kittelson Guetter Photo*

AOPA President & CEO Mark Baker shared with fellow pilots what he has learned from buying and selling more than 100 airplanes, from floatplanes to jets. *AOPA Photo*

by Dave Weiman

Under the leadership of Steve Guetter, president of the Minnesota Seaplane Pilots Association (MSPA), the organization's annual safety seminar and fly-in, May 17 - 19, 2019 at Madden's Resort on Gull Lake, Brainerd, Minnesota, was a success, despite rain and overcast skies. The seminar began with welcome messages from Guetter and event cosponsor, Cassandra Isackson, Director of the Minnesota Office of Aeronautics.

Safety seminars dominated the event, featuring Jeff Flynn from the Minnesota Office of Aeronautics, with his topic "Seaplane Flight Risk Assessment" on Friday evening.

On Saturday, Minnesota pilot, Dan Bass of Winona, Minnesota, told of his near fatal accident which occurred on February 2, 2017 on a night cross-country between Duluth and Winona in which he was overcome by carbon monoxide poisoning, and crash landed near Rochester when his Mooney ran out of fuel. He recommended that all pilots have at least one carbon monoxide detector in their aircraft to prevent such occurrences.

Dr. Brent Blue spoke on the topic of "Special Issuance Medicals." Flight instructor and examiner, Woody Minar, covered "Risk Management: Identification, Management & Mitigation." Flight instructor and 2019 Minnesota Aviation Hall of Fame inductee, Brian Addis, spoke on the topic of "Flying Unconscious." Jason Jensen of the Minnesota Department of Natural Resources discussed "Invasive Species." Allan P. Thilmany of the Federal Aviation Administration, reviewed "Regulations." Former U.S. Air Force Thunderbird Leader, Richard McSpadden, now president of the AOPA Air

Despite the rain, more than a dozen floatplanes flew in to Madden's Resort on Gull Lake, Brainerd, Minnesota, for the annual MSPA Safety Seminar & Fly-In. *Midwest Flyer Magazine Photo*

Safety Institute, presented the "Top Ten Pilot Tips." AOPA President Mark Baker shared what he has learned from buying and selling more than 100 airplanes, from floatplanes to jets.

Greg Herrick, owner of Golden Wings Museum at Anoka County-Blaine Airport in Blaine, Minnesota, and president of the Aviation Foundation of America, was the featured banquet speaker. Herrick shared his story in researching, locating and trying to retrieve a 1931 Sikorsky S-39 floatplane from the depths of a lake in Alaska. The aircraft sunk in 1958, and was found buried in thick glacial silt. While Herrick was unable to salvage the aircraft, his attempt resulted in a lifelong friendship with the pilot and former owner.

Greg Herrick, owner of Golden Wings Museum at Anoka County-Blaine Airport in Blaine, Minnesota, shared his story in researching, locating and trying to retrieve a 1931 Sikorsky S-39 floatplane from the depths of a lake in Alaska. *Midwest Flyer Magazine Photo*

Whether seaplane rated or not, the annual MSPA safety seminar is worth attending, as much of the information presented can be applied to both floatplane flying and flying on wheels. Madden's Resort operates Steamboat Bay Seaplane Base (M16) on Gull Lake, and East Gull Lake Airport (9Y2), located adjacent to the resort. Courtesy shuttle service is provided to pilots and their guests between the airport and the resort (www.maddens.com).

The Annual MSPA Pig Roast will be held August 11, 2019 at Surfside Seaplane Base in Lino Lakes, Minnesota. For details, refer to the MSPA website at www.mnseaplanes.com or email steve@penguinflight.net.

The purpose of the Minnesota Seaplane Pilots Association is to promote seaplane flying and safety pertaining to seaplane operations in Minnesota; approach government officials as a group to educate them, the legislature and the public on seaplane operations; and create safe and compatible seaplane bases throughout the state. ❑

AOPA Great Lakes Regional Manager Kyle Lewis and his wife, Jenni, met with pilots at the AOPA exhibit. *Midwest Flyer Magazine Photo*

Historic Building 19 at Wright-Patterson Air Force Base near Dayton, Ohio, is being rehabilitated.
emersion DESIGN Photo

Transforming A 1920s Historic Aviation Research Landmark Into A State-of-the-Art Aviation Laboratory

Building 19 at Wright-Patterson Air Force Base (WPAFB), located just east of Dayton, Ohio, has a rich history, which includes Orville Wright's participation in the commissioning of one of the world's most powerful and efficient wind tunnels. The decision to rehabilitate Building 19 – a historic landmark – into a new Systems Integration Laboratory, showed both the commitment to Wright-Patt's legacy in aviation research, as well as the leadership to prepare for future innovations. The project is an excellent example of the juxtaposition of an exterior historic rehabilitation with state-of-the-art interior modeling and simulation technology.

The rehabilitation of Building 19 maintains its 1929 character and preserves one of the most historically significant buildings at WPAFB. When first built in 1927, Building 19 was a temporary structure. It was not until two years later, in 1929, that the wind tunnel was installed and funds became available to complete the building as we know it today. The tunnel was 96 feet long with the largest diameter being 12 feet to accommodate a test model with wing spans up to 40 inches. When the tunnel was commissioned, it was considered the most efficient in the world. It was well known through the late 1950s for its aerodynamic testing and contributions to research in the development of nearly every major aircraft by the U.S. Air Force. The wind tunnel remains a remarkable example of woodworking craftsmanship and was considered advanced for its time because of its power, speed range, and combined features which were not available in any other single facility.

The decision to transform Building 19 into the new Systems Integration Laboratory was driven by the need for new capabilities to evaluate technology of critical systems and components under flight conditions. For the project to be successful, it would require preservation and reuse of the historic building, archival preservation; disassembly, removal and storage of the historic wind tunnel; and development of a new state-of-the-art laboratory facility to support the Integrated Vehicle Energy Technology (INVENT) program.

Numerous challenges faced "emersion DESIGN" and the rest of the renovation team. First, they needed to plan for flexibility and growth. A key feature of the flexibility/contingency planning was to ensure that the future integration and application of a research air system was possible. Also, as a candidate for the United States National Register of Historic Places, the building renovation required coordination with the Ohio State Historic Preservation Office to ensure the building exterior was maintained and improved to retain its historic character. The wind tunnel archival presentation was also a significant undertaking. The entire 96-ft. wind tunnel would require deconstruction, removal, archiving, palletizing and transportation of components to an off-site storage facility. The age, condition, deficiencies and poor soil conditions of the historic building – as well as the need to comply with current seismic code – required a new structural system be constructed within the existing building shell.

Functional needs for the INVENT program were also demanding. "The INVENT program required many

The interior of Building 19 at Wright-Patterson Air Force Base near Dayton, Ohio, is undergoing state-of-the-art remodeling.
emersion DESIGN Photo

The historic 96-ft. wind tunnel in Building 19 is being moved to an off-site storage facility to make room for a new Systems Integration Laboratory.
emersion DESIGN Photo

specialized services and utilities unique to its research needs," said Steve Kimball, principal and leader of the Science & Technology practice at emersion DESIGN. "The research and test equipment required extraordinary compressed and heated air utility service of a specific volume, mass, temperature and pressure."

To accommodate the INVENT program, more floor area was needed than was available. The high structural bays of the building allowed program areas to be stacked, which proved beneficial. On the first floor, high-bay laboratories, fabrication rooms and shops house most of the research that is performed in the building. Research air systems, electrical bus duct distribution, process water and shop air are provided throughout the building. Actuation stands – where vibration is a controlling factor – are operated by hydraulic pumps located nearby. Within the high-bay laboratories, there is an overhead system to provide flexibility while moving research equipment. Other notable areas include drivestand rooms, an electrical fabrication shop, a mezzanine level control room, and a model and simulation room for the development of software (for creating and modeling and running real time simulations). Laboratory space is located on the second level at the northern end of the building in order to take advantage of the natural daylighting provided by the north face's high and low window bands. This newly renovated facility now houses the technology required to increase the performance of military aircraft – which ultimately enhances combat performance.

The success of the newly renovated 19,000 square foot state-of-the-art laboratory capitalizes on the sustainability of renovation over new construction, demonstrates a commitment to historic building rehabilitation, and the commitment to the archival retention of a significant historical artifact. ❑

WAI Scholarships From Page 41

The 2020 scholarships will be awarded during WAI's 2020 conference, held at Disney's Coronado Springs Resort in Lake Buena Vista, Florida, March 5-7, 2020. In order to qualify for a scholarship, the applicant must be a WAI member as of November 1, 2019. The deadline for 2020 scholarships is November 12, 2019. Details on each scholarship, application requirements, and tips for submitting a winning application can be found at wai.org/scholarships. Checkout WAI's 2020 Scholarships

WAI's International Girls in Aviation Day will be held by the WAI Chapter Network and Corporate Members, Saturday, October 5, 2019.

The 31st Annual International Women in Aviation Conference will be held March 5-7, 2020, in Orlando, Fla. For more information, visit wai.org. ❑

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

Minnesota To Host NASAO & AAAE Conferences

by Cassandra Isackson
Director, Minnesota DOT Office of Aeronautics


Cassandra Isackson

September is almost here and we are excited to host the annual national convention of the National Association of State Aviation Officials (NASAO). The 88th annual convention and tradeshow will commence Saturday, September 7 and run through Wednesday, September 11, 2019. The conference will cover many of the current issues that will be impacting aviation nationally.

The NASAO Conference will be attended by nearly 250 aviation professionals, decision-makers, and influencers from across the nation, and more than 35 exhibitor/vendors. It will be held at the Intercontinental Hotel, Saint Paul Riverfront, in St. Paul, Minnesota. This location is literally a block from the Mississippi River on St. Paul's famous bluff.

The Intercontinental Hotel is also within comfortable walking distances to fabulous dining, unique museums, specialty shopping, live theatre, and some of Minnesota's famous parks and trail systems.

Though much work will be accomplished during the NASAO Conference, we've built in time to showcase Minnesota and add a 'fun/relaxation' component for the attendees and their families. The conference will conclude with an awards banquet Tuesday evening, but the learning and fun continues through the day Wednesday, culminating with a tour of the amazing 3M Innovation Center.

This year, the American Association of Airport Executives (AAAE), will also hold its 2019 General Aviation Conference, September 8-10, 2019, at the Hilton Minneapolis Downtown, in Minneapolis, Minnesota. This annual gathering of industry stakeholders focuses on the most challenging issues facing general aviation today and analyzing current trends to help airports better prepare for the road ahead.

Both conferences – NASAO and AAAE – will be packed with exceptional content. There will also be many opportunities for valuable networking and sharing of innovative training techniques. Registration links for both events are shown below.

Please consider joining us at these special events. You may register for the NASAO Conference at: https://nasao.org/page/upcoming-conferences. Please direct your questions to Tracy MacDonald at 202-868-6753.

You may register for the AAAE GA Conference at https://aaae.org/GeneralAviationConference. Register online now or complete a registration form and email it to AAAEmeetings@aaae.org or fax to +1 703-797-9018. ❑

Avoiding Loss of Control

The Federal Aviation Administration (FAA), your Minnesota Office of Aeronautics, and numerous General Aviation organizations work constantly to help pilots fly safely. News, education, guidance, and procedural documents can be produced with the best of information. But in the end, it is up to the pilot to assure he/she is well trained, proficient, and truly ready for flight.

Recently the FAA released a document titled: **FAA Says Fly Safe: Prevent Loss of Control Accidents;** National Safety Campaign Intended to Educate the GA Community. The balance of this article is adapted directly from that FAA document. While many of the main points are contained in this adaptation, it is highly recommended that pilots obtain and read the entire FAA document.

What is a LOC Accident?

A Loss of Control (LOC) accident involves an unintended departure of an aircraft from controlled flight. LOC can happen because the aircraft enters a flight regime that is outside its normal flight envelope which may quickly develop into a stall or spin. It can introduce a significant element of surprise for the pilot.

Contributing factors may include: poor judgment/

aeronautical decision making; failure to recognize an aerodynamic stall or spin and execute corrective action; intentional regulatory non-compliance; low pilot time in aircraft make and model; lack of piloting ability; failure to maintain airspeed; failure to follow procedure; pilot inexperience; lack of proficiency; or the use of over-the-counter drugs that impact pilot performance.

Unexpected events – especially those occurring close to the ground – require rapid appropriate action. Humans, however, are subject to a "startled response" when faced with an unexpected emergency situation and may delay appropriate or initiate inappropriate action in response to an emergency.

Examples of situations which can catch a pilot by surprise:

- Partial or full loss of engine power after takeoff.
- Landing gear fails to retract after takeoff, or fails to extend when ready to land.
- Bird strike.
- Control problems or failures.

According to the FAA, approximately 450 people are killed each year in GA accidents. Loss of Control is the number one cause of these accidents. LOC happens in all phases of flight and can happen anywhere at any time. On average, there is one fatal accident involving LOC every four days, the agency says.

The FAA says that fatal general aviation accidents often result from inappropriate responses to unexpected events. Loss of aircraft control is a common factor in accidents that would have been survivable if control had been maintained throughout the emergency. In some cases, pilot skill and knowledge have not been developed to prepare for the emergency. In other cases, an initial inappropriate reaction begins a chain of events that leads to an accident.

Avoiding LOC

What can GA pilots do to best manage an unexpected event that could lead to LOC?

First of all, don't let an unexpected event become an unexpected emergency! Training and preparation can help pilots manage a startled response while effectively coping with that unexpected event.

Tips for pilots:

- Think about abnormal events ahead of time! Practice your plan! Brief your plan prior to takeoff, even when flying solo!
- Have a Certificated Flight Instructor (CFI) join you to train and plan for emergencies.
- Review emergency procedures for your aircraft on a regular basis – don't wait until you need a Flight Review.
- Sit in your aircraft or a properly equipped Aviation Training Device and practice abnormal and emergency

procedures, touch the controls, and visualize your aircraft's cockpit.

• Review and practice "what if" scenarios.

• Vocalize takeoff, approach, and landing expectations: aircraft configuration, airspeed, altitude and route emergency options.

• Sign up for the FAA's WINGS Pilot Proficiency Program and have your hours with the CFI count toward a WINGS-level award.

You are urged to read the complete document release. For additional information, go to: **www.faa.gov** ❑

Making The Right Call

Imagine you are a new pilot and live in an area where you don't have an air traffic control tower (ATC) at your community airport. Perhaps you can fly from point A to a number of point B's and C's without speaking to ATC. You may be wary of the day you actually have to push the microphone button and broadcast your information across the air waves to ATC. But that day will come and you need to be able to make the right call.

Well, today is the day. So, you have your communications radio on and you are monitoring the tower frequency. If traffic is light and the tower is not busy, ATC prefers that you call and provide all your information in the initial contact. For instance, "Village Tower. Cessna 123 Xray, 12 miles west with Charlie. Inbound for full stop." Doing this reduces the number of additional questions ATC will need to ask and will reduce overall radio traffic.

Now, if ATC is busy, like when it is difficult to get a break in radio traffic so you can call up, keep your transmission simple by saying, "Village Tower. Cessna 123 Xray." This gives ATC time to record your call sign. After the tower responds, you will be able to give them your location, acknowledge that you have ATIS, and request to land.

The point is, to be respectful of the controllers and your fellow aviators, keep in mind that your aircraft radio is not a CB radio. So, before you transmit, know what you are going to say well before you say it. Remember also to include your call sign at the end of your readback to assist ATC (as well as other pilots) in knowing which aircraft the readback is from and so other pilots with perhaps similar call signs or tail numbers will know that information wasn't intended for them.

Your transmission should always be made in a clear voice, and the message transmitted should be concise and as brief as possible. Extended chatter on the radio makes it difficult for other pilots to call in. It also makes it difficult for ATC to transmit instructions to other pilots in the airport operations area or in the pattern.

A student pilot should always advise ground control and also the tower that they are a student pilot. This helps ATC assist them and perhaps keep an eye on them. This also helps controllers avoid giving them complicated instructions that could cause them undue concern or confusion.

For additional guidance and information, please review the Aeronautical Information Manual, Chapter 4, Section 2, Radio Communications, Phraseology and Techniques, 4-2-1. It is a relatively short section to read, and well worth the few minutes it will take to review the basics.

As you start your aviation career or hobby, you want to do so being as safe, smart and careful as possible. So, learn, practice, and be prepared to make the right call. ❑

Opening The Door To The Future

Nearly every child has a dream or dreams of what they want to do for their future career. Many have a dream of flying fighters, airliners or aerobatic aircraft, for instance. Once they have tasted the excitement and freedom of aviation, it becomes a burning ember in their hearts. For some, the ember becomes a flame that drives them to do amazing things in aviation.

Many, if not most, people in the aviation industry, no matter what their job or affiliation to aviation may be, are excited to see a young person take advantage of a chance to live out his/her dreams as they become a part of the aviation community. But still today, it seems to be a struggle to attract youth to the industry.

Today's youth have grown up knowing technology and rapid advancements in and with that technology. That's why many have the mindset that every other year they need a new phone, for instance. After all, it is two years old and the technology has surely been upgraded to be faster and more capable in all that it does.

Dave Franson, president of the Wichita Aero Club, said in an article published by *General Aviation News,* February 28, 2019, "The industry has no other choice — it won't grow or prosper without fresh talent," he explains. "It's imperative that a new generation of leaders and workers replace those who are retiring. The potential for the aerospace industry is extraordinary, and the technology and capabilities of the industry have advanced at an impressive pace, but that advancement is fostered by the infusion of new ideas, fresh perspective, and the boundless energy of enthusiastic new participants."

One point is that using "ancient" technology and equally "ancient" teaching methods can be extremely confusing and

off-putting for these youth. That is because they have little or no knowledge or experience with that type of equipment and they don't understand the old-style teaching methods. So, for GA and in fact, the entire aviation industry to survive and grow, we must find new ways to inform and educate today's youth about aviation!

One way to reach our young people at a very basic level is to take advantage of the spirit of mentoring that fortunately runs throughout the aviation industry. Pilots could utilize the collective strength of their favorite flying club, for instance, to visit local schools and give talks and demonstrations about aviation and the industry as a whole. Your demonstration can show students the steam gauges and how they are similar to the digital representations of instruments on your Primary Flight Display or iPad, for instance. Make yourself available to them. Share your information and passion about aviation.

Talk to your community's middle and high school teachers. Enlist their support in helping you to learn new ways to reach out to students and present/teach information to the youth of today. Work together with your local FBO and aircraft technicians to plan and host a field trip to your local airport. Take students on a tour of the facility and show them what a career in those areas of aviation could entail. Give them chances to ask questions and see things up close. Share positive stories about your experiences in aviation. Be available to answer questions and provide straight-forward guidance to them.

There are also many different avenues a person can take to reach their dream in aviation. Some may follow in their parents' footsteps, while others may reach their goals via an internship. Still others may reach their dream job through a process of personal discovery. But you can help these young people to lay that foundation of interests and possibilities in aviation.

Remember also that there are industry advocacy groups, like the Aircraft Owners and Pilots Association (AOPA), and their "You Can Fly" initiative. There is also the National Business Aviation Association's (NBAA) Young Professionals in Business Aviation (YoPro) initiative, for instance, that can be very helpful providers of resources you can use and share with your student audiences.

The point is, one-size does not fit all, and there are numerous roads that can be taken to reach that aviation dream job. This is YOUR opportunity to be the catalyst for the growth of aviation desire within today's youth in your community.

Please, take the initiative to open the door to the future, for the next generation of excited and motivated aviators! ❑

Minnesota Aviation Trades Association – Investing In The Future!

Congratulations to NATHAN WURST of Chaska, Minnesota, who was selected to receive the 2019 MATA Scholarship!

Nathan is working on his private pilot certificate at Thunderbird Aviation at Flying Cloud Airport in Eden Prairie, Minnesota, and has been accepted at the University of North Dakota John D. Odegard School of Aerospace Sciences beginning this fall.

To help pay for his education, Nathan started working as a line service technician at Thunderbird Aviation in the fall of 2018 while a senior in high school. Nathan stated: ***"I believe in hard work and focus in order to succeed as a pilot. I see the aviation community as bonded over its love of flight… It is a community that I am proud to be a part of for the rest of my life."***

To be eligible for the MATA Scholarship, applicants must be currently enrolled in a flight training curriculum at a Minnesota flight school that is also a member of MATA, and write an essay on why they want to learn to fly or continue their training. The applicant's ability to communicate their current position and future goals is very important. The scholarship application, details, updates and requirements can be found at **https://www.mata-online.org/**

One of the goals of the Minnesota Aviation Trades Association is to help create tomorrow's aviation professionals, while supporting member flight schools.

Aviation businesses interested in becoming a MATA member and supporting the organization's efforts to promote and represent the industry before government, should contact **Nancy Olson at 952-851-0631 Ext 322 or email ngo@thunderbirdaviation.com.**

MATA – The Choice & Voice of Aviation Businesses Since 1945

Aeronautics Report

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

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

www.wisconsindot.gov

Look Out For Non-Standard Traffic Patterns


Hal Davis

by Hal Davis
WisDOT Bureau of Aeronautics

The fundamentals of the standard traffic pattern are something every pilot learns early on in their flight training. Just as roads provide a safe and efficient path for ground transportation, airport traffic patterns are necessary to facilitate the safe and orderly flow of air traffic at an airport, especially at an airport without an air traffic control tower.

The standard traffic pattern for a runway involves flying a rectangular pattern utilizing left turns at 1,000 feet above ground level (AGL). Use of this standard airport traffic pattern has several advantages, all of which improve safety.

First and foremost, a standard traffic pattern reduces the likelihood of midair collisions. Although pilots should never assume the airspace around them is clear, a standard traffic pattern allows pilots to better locate other aircraft and anticipate their movements around an airport. Aircraft entering the pattern are expected to observe the aircraft already in the pattern and merge with the existing flow of traffic. In addition, consistently flying the standard traffic pattern will help pilots develop the piloting skills and habits necessary to achieve consistently stable and safe approaches.

However, not all airports and runways utilize this standard traffic pattern for a variety of reasons. In some cases, a particular runway might utilize right turns rather than left turns. This could be done to deconflict with the traffic patterns of other runways or to minimize overflight of sensitive areas.

Other airports may use a nonstandard traffic pattern altitude, typically one that is lower than 1,000 feet AGL. This might be done to avoid overlying airspace or may reflect the operating characteristics of common users of the airport, such as gliders and ultralights. In the end, it is up to the airport to determine the traffic pattern altitude and direction of traffic, though all airports are encouraged to use the standard traffic pattern whenever possible.

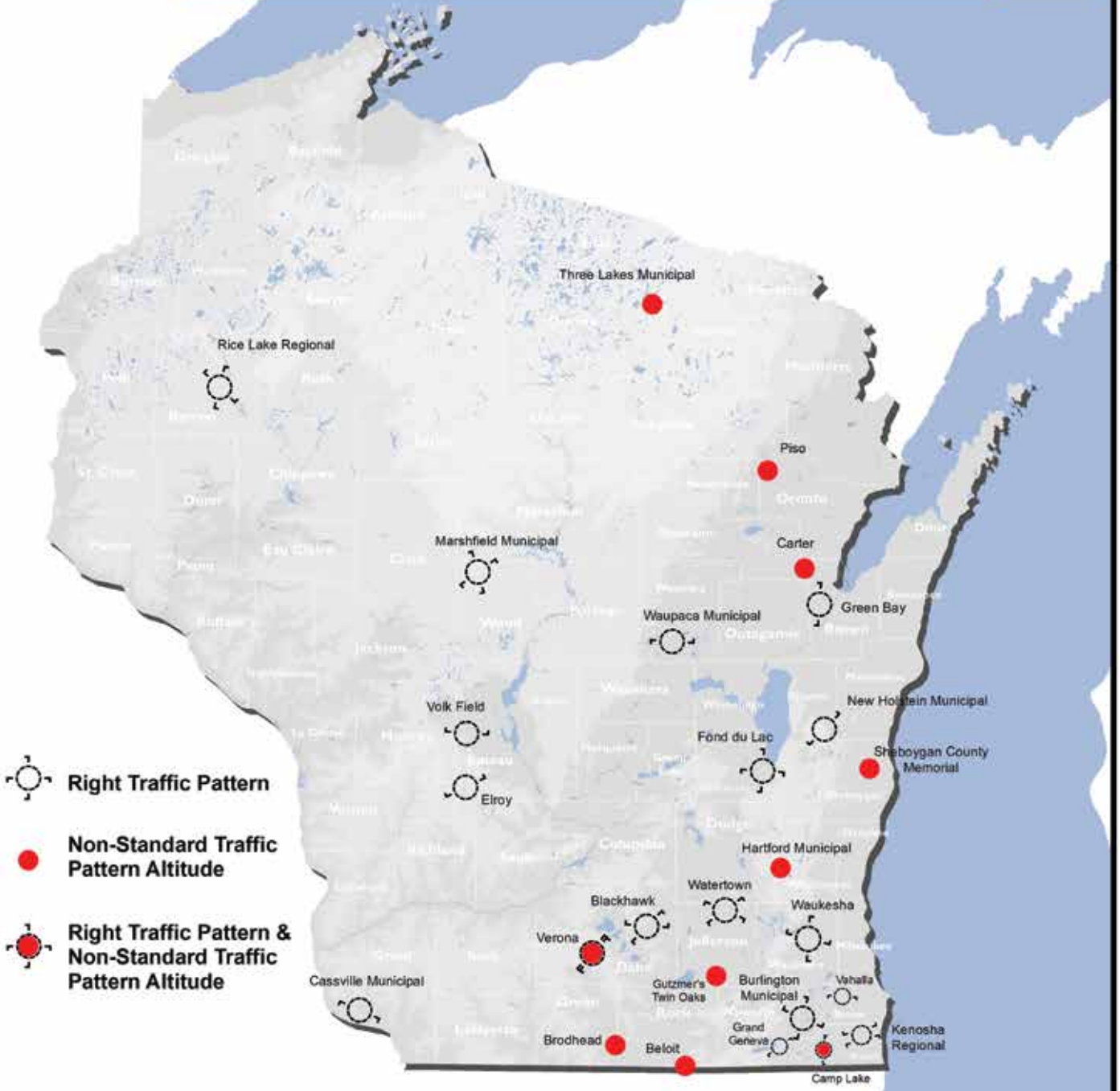
Know before you go

Before flying to an unfamiliar airport, it's important to find out if the standard traffic pattern is used. The best resource for this information is the chart supplement. Nonstandard traffic pattern altitude, abbreviated as TPA, will be listed near the top of each airport listing. If no TPA is listed, you can assume the traffic pattern altitude is 1,000 feet AGL. In some cases, the TPA will reference the remarks section of the airport listing, in which additional information about traffic pattern altitudes will be provided. For instance, some airports will publish special traffic pattern altitudes for certain types of aircraft, such as gliders. Right traffic

VERONA (W19) 1 E UTC-6(-5DT) N42°59.37′ W89°30.57′ **CHICAGO**
960 TPA—1560(600) NOTAM FILE GRB
RWY 03–21: 2190X90 (TURF)
RWY 03: Trees. Rgt tfc.
RWY 21: Trees.
RWY 04–22: 1897X85 (TURF)
RWY 04: Road. Rgt tfc.
RWY 22: Trees.
AIRPORT REMARKS: Unattended. Arpt surfaces not plowed for snow, confirm surface conditions with arpt manager 608-845-7239. Deer on and invof arpt. Ultralight activity on and invof arpt. Balloon ops normally early AM and PM—dalgt hrs. Rwy 03–21 900′ from south end rough. Rwy 04–22 marked with reflectors no markings on south end of rwy. Rwy 04–22 4–6′ fence and berm 20′ south of rwy edge parallels rwy. Avoid overflights of city of Verona 1 mile west of arpt. Avoid overflights of institution 0.5 north and Village Park 1.0 west of arpt.
AIRPORT MANAGER: 608-845-7239
COMMUNICATIONS: CTAF 122.9

Wisconsin Non-Standard Traffic Patterns

2019



Non-Standard Traffic Pattern Altitude		
Airport	LOCID	Traffic Pattern Altitude
Beloit	44C	700
Brodhead	C37	800
Camp Lake	49C	600
Carter	92C	800
Gutzmer's Twin Oaks	5Y3	800
Piso	7P5	500
Sheboygan County Memorial	SBM	800
Three Lakes Municipal	40D	800
Verona	W19	600

Right Traffic Pattern					
Airport	LOCID	Runway(s)	Airport	LOCID	Runway(s)
Blackhawk	87Y	04, 27	Marshfield Municipal	MFI	05, 16
Burlington Municipal	BUU	19, 29	New Holstein Municipal	8D1	22
Camp Lake	49C	36	Rice Lake Regional	RPD	01, 31
Cassville Municipal	C74	11	Valhalla	84C	09
Elroy	60C	24	Verona	W19	03, 04
Fond du Lac County	FLD	09, 18	Volk Field*	VOK	27
Grand Geneva Resort	C02	05	Watertown Municipal	RYV	05, 11
Green Bay*	GRB	18	Waukesha County*	UES	28, 36
Kenosha Regional*	ENW	07R, 25R	Waupaca Municipal	PCZ	10, 28

*When GRB, ENW, VOK, and UES towers are closed.

This map was created by the Wisconsin Department of Transportation's Bureau of Aeronautics. Any use or recompilation of the information, while not prohibited, is the sole responsibility of the user. WisDOT expressly disclaims all liability regarding fitness of the use of this information for other than DOT business.

information is in the runways section of the airport listing.

In addition, the Wisconsin Bureau of Aeronautics has recently published a new map identifying airports with nonstandard traffic patterns as a resource when planning flights in Wisconsin. The map is shown on page 51 in this issue, and is also available for download at: **https://wisconsindot.gov/av-pubs.**

It's always recommended that pilots overfly the airport prior to entering the traffic pattern. By overflying the airport, pilots have an opportunity to better observe the windsock and other traffic in the pattern. Some airports will also utilize segmented circles on the ground to notify pilots of traffic patterns with right turns.

While flying the published traffic pattern is highly recommended, it is not legally required. Some aircraft will require a higher, lower, larger or smaller traffic pattern than a single-engine, fixed-wing aircraft. Pilots should always remain vigilant for other air traffic. Surprisingly, accident statistics indicate most midair collisions occur during daylight hours, under good visibility, and in close proximity to an airport.

For more information about traffic patterns, see the Federal Aviation Administration Advisory Circular 90-66B *Non-Towered Airport Flight Operations.* ❑

Meet Erin Kube

Airport Land Program Manager
WisDOT Bureau of Aeronautics


Erin Kube

In April 2019, Erin Kube joined the Wisconsin Department of Transportation's (WisDOT) Bureau of Aeronautics (BOA) as the "Airport Land Program Manager." Erin is responsible for land acquisitions, releases and program development within BOA, including quality assurance and interpretation of federal and state eminent domain law. She selects and manages the land program service providers and is responsible for the contracting and financial recordkeeping of land program projects.

Erin earned a Bachelor of Arts in Political Science and English from Luther College in Decorah, Iowa. She also holds a Juris Doctor from Regent University School of Law. Before joining BOA, Erin worked for the WisDOT Bureau of Technical Services as the Statewide Acquisition & Litigation Facilitator where her primary responsibility was oversight of acquisition, condemnation and litigation matters. She provided guidance and training to region real estate specialists and consultants in all aspects of acquisition, and she served as liaison to the Department of Justice and the WisDOT Office of General Counsel for legal and litigation matters.

For any questions concerning the land program, please feel free to contact Erin at erin.kube@dot.wi.gov or (608) 266-2053. ❑

Lofty Aspirations: Airport Celebrates 80 Years of Commercial Flights

Both the west airline ramp, and the east general aviation ramp at Dane County Regional Airport (KMSN), were open to the public to celebrate the airport's 80th anniversary. Seen here is the inside of the airport's original old stone hangar, located on the east ramp. *Wisconsin Aviation Photo*

MADISON, WIS. – When the first commercial airline flights departed Madison, Wisconsin in 1939, no one could have imagined how air travel would take off over the next eight decades. Back then, flying was a novelty for the adventurous few – only about 1 million Americans took a commercial flight in all of that year. Today, Dane County Regional Airport (KMSN) alone serves twice that number each year, and is on pace to handle a record volume of passengers in 2019.

To celebrate this 80-year legacy, more than 2,000 people of all ages gathered at the airport on June 23, 2019 to explore its history and get a behind-the-scenes look at today's innovations. Highlights included airfield tours, the chance to check out an F-16 Fighting Falcon and Blackhawk helicopter, a visit to the airport's original old stone hangar, and live music from the "Soggy Prairie Boys and Chris Kroeze," finalist from NBC's "The

Looking at the east ramp from inside the airport's original old stone hangar.
Wisconsin Aviation Photo

Voice."

The family-friendly event culminated with the dedication of the historic airport beacon by Dane County Executive Joe Parisi and airport director, Kim Jones.

"After so many years of guiding aviators safely home, this beacon now has a new duty – to shine a light on the history of a community and a county that embraced air travel in its earliest inception, and continues its legacy of innovation today," said Parisi.

The beacon, an original artifact from 1939, provided a white and green rotating visual navigation aid to pilots as far as 40 miles away. Restored to exact specifications, it includes a 400-watt lamp, enclosed in a cast aluminum housing, and is designed to turn at 12 revolutions per minute.

"We're honored and humbled to carry forward the airport's long tradition of safety, growth, and exemplary service," Jones adds. "This celebration is a tribute that begins with the visionary individuals who brought air travel to Madison 80 years ago and those working for a smooth flight into the future."

The 80th anniversary celebration of Dane County Regional Airport culminated with the dedication of the original airport beacon from 1939 by Dane County Executive Joe Parisi, and airport director, Kim Jones.

"After so many years of guiding aviators safely home, this beacon now has a new duty – to shine a light on the history of a community and a county that embraced air travel in its earliest inception, and continues its legacy of innovation today," said Parisi.

Dane County Regional Airport Photo

❑

NORTHLAND AEROSPACE
www.northlandaerospace.com
1.800.959.6282
Minnesota Education Section
Minnesota Transportation Center of Excellence

Benefits of Community Engagement In Partnership With Drones and Geospatial Technologies

DNR Forestry plot survey flight.

by Stephen Sorenson
Geospatial Intelligence Analysis Instructor
Northland Community and Technical College
Co-Principal Investigator – UAS and GIT Integration
Into Technical Education
National Science Foundation ATE Program

Currently, Northland Community and Technical College's (NCTC) Aerospace Program is working with our Local Soil and Water Conservation District (SWCD) office on a Board of Water and Soil Resource (BWSR) grant to conduct drainage ditch inventory and inspection of the 58 ditches in Pennington County, Minnesota. The project is currently in its second year of a three-year project. As a part of this initiative, NCTC is helping to investigate new technology use, such as Light Detection and Ranging (LiDAR), to produce precise three-dimensional imaging for detecting soil erosion trends and other key features relating to ditch maintenance. The research we have conducted has allowed us to provide presentations that will help guide SWCD decisions in ditch maintenance prioritization and acquisition of new technology to support these and future applications.

SWCD was interested in utilizing Small Unmanned Aerial Systems (sUAS) to gather imagery of the status of the county ditches and develop a historical database for identification and prioritization of ditch maintenance issues. Gathering this information would be very labor and time intensive, while utilizing sUAS imagery would be much more efficient than physical inspection of each of the ditches.

Collaborating with community partners provides beneficial outcomes for all involved. Identifying the needs of the community partner, and being able to assist or address those needs through grant or classroom involvement, provides not only products for the partner, but data and material for education and development.

Partnering For Success

Thanks to the availability of multiple sUAS platforms and sensors thru NCTC, student and staff availability to fly the necessary subject areas, and locational information and data

from SWCD, we were able to bring together a working solution to gather the necessary information to begin to produce the desired products to include orthomosaics, raster layers, contour layers, LiDAR and photogrammetric imagery. As we were developing the project, certain aspects would lead to opportunities and uses in our Imagery Analysis, Practical Imagery Applications, Geospatial Collection Management, Geospatial Analysis, Geospatial Intelligence Operations and Geospatial Interoperability classes.

Refinement of Curriculum

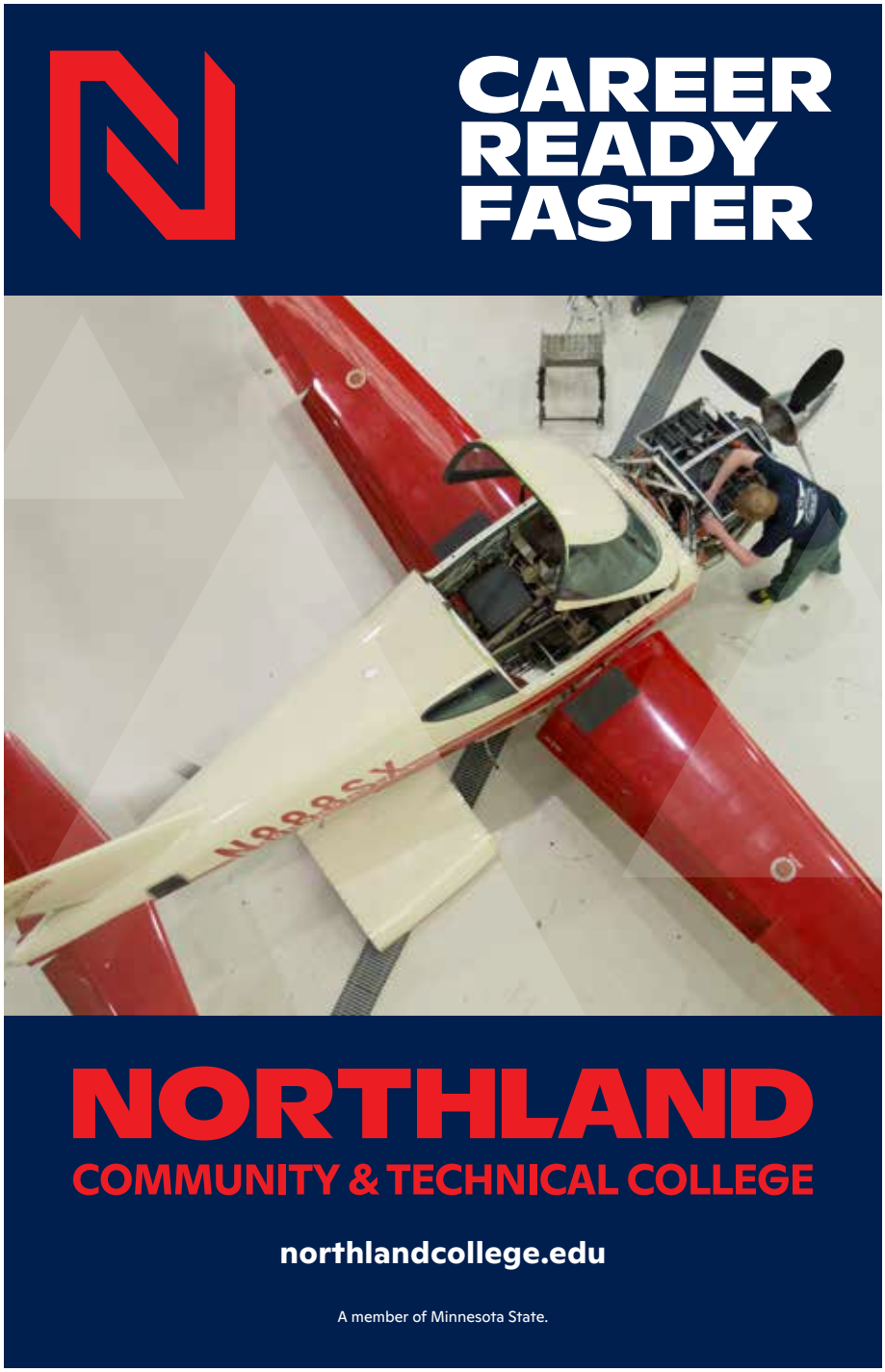
In the spring of 2018, NCTC started including drone flights, whenever possible, into the Imagery and Geospatial classes to provide students with a hands-on experience and understanding of how their data and imagery was obtained. The imagery captured by our classes, utilizing the same imagery and data requirements within the BWSR grant, was incorporated into the curriculum, along with the geospatial products developed, to build on the capstone projects for those classes.

In the GEOINT Operations class, the full spectrum of operations from the request to the completed report is covered. Utilizing the BWSR grant requirements, the customer's request was converted into a mission statement. The mission statement was then used to develop a mission plan to include a concept of operations, identification of supporting elements, coordination instructions, supporting elements, and means of communication. Once the collection plan was developed, the class executed the plan by collecting (flying a ditch), processing (creating an orthomosaic image), and analyzing the information (identifying problem areas and comparing to historical imagery). This was then assembled into a geospatial project in ArcGIS Pro for the customer as the capstone project for the class.

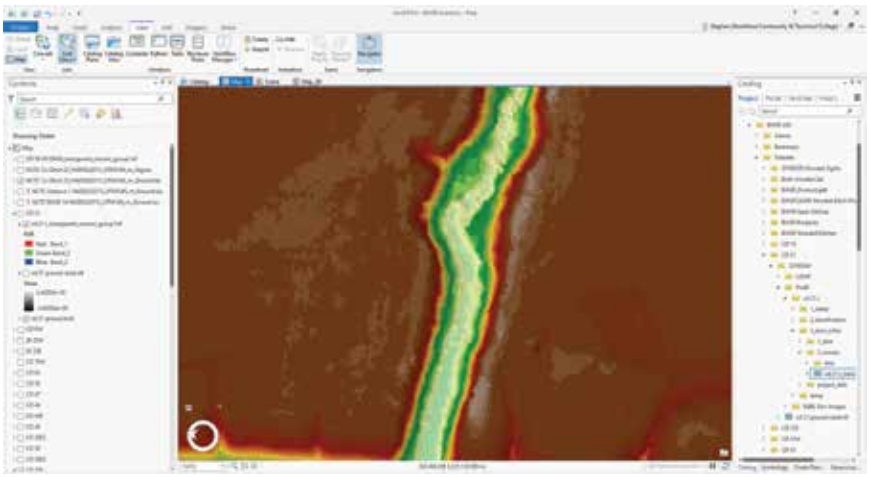
In the analysis of images, we discovered a need to import images from other systems. This in turn led to development of how to import certain GIS products in the interoperability class. Understanding how to move products from one system to another enables the addition of other available information from open sources (internet), which can then be gathered and included in operations and open source projects.

An example of this would be information from a smart phone that can be imported into a GIS system, like Google Earth, and then exported in a different file format and imported into another GIS system, such as ArcGIS. From there it can be exported and then imported into a variety of other GIS systems.

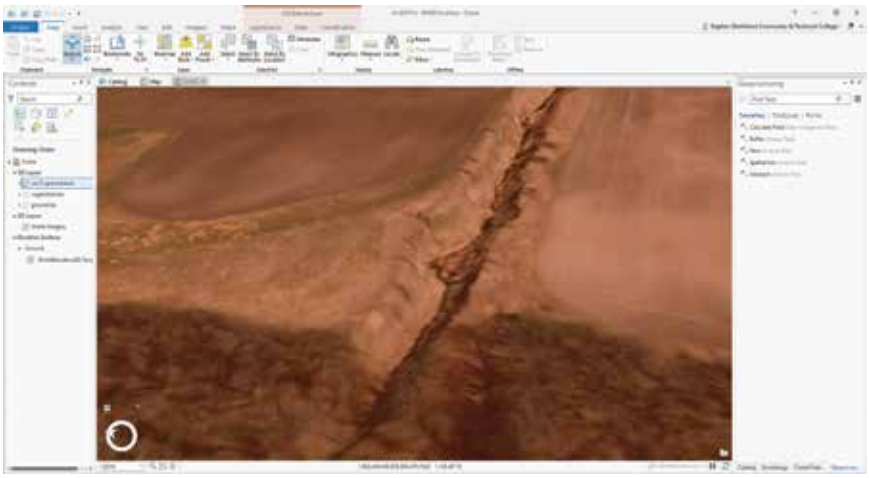
The class uses the vast availability of open source information and filters with



Student processing imagery with Sentera Field Agent and Pix4D software.



LiDAR imagery of County Ditch 21 in ArcGIS Pro.



3D imagery of County Ditch 21 in ArcGIS Pro.

the critical thinking, validation, and ethics developed in the other classes. Each of these, and many other elements, are then included in the curriculum to build upon each other and produce a better product for the customer. In this way, the local land owner can take an image of the ditch on their property with their cell phone, import that to a Geographic Information System (GIS) like Google Earth, save that image layer and send it to SWCD. The SWCD can then import that image into another GIS, like ArcGIS, and begin to analyze the imagery utilizing the tools available in ArcGIS.

Delivering the Product to the Customer

The end result of the interaction between the classes is the development and production of a more versatile and valuable product for the customer. Databases can be developed to not only hold historical imagery and data, but also integrate new and updated information to facilitate a more up to date geospatial representation of the environment. Instead of a static power point presentation, you can be provided with an interactive, comprehensive online geospatial presentation that the customer cannot only utilize and reference, but can also enhance and build upon for the future. ❑

SAFECON 2019 @ Southern Wisconsin Regional Airport

The flightline at Southern Wisconsin Regional Airport (KJVL), Janesville, Wis.
Greg Cullen Photo

Greg Cullen Photo

The National Intercollegiate Flying Association (NIFA) held its SAFECON 2019 event, May 13-18, at Southern Wisconsin Regional Airport in Janesville, Wisconsin. The event was hosted by the University of Wisconsin. The chief judge was Andrew Ross, the associate chief judge was Greg Weseman, and the senior chief judge was Erich Hess.

Airport manager, Greg Cullen, reported there were 100 airplanes on the ramp and over 13,000 operations during the 17-day window. Air traffic control, fuel suppliers and the staff at Southern Wisconsin Regional Airport kept busy. There was only one safety incident reported, and the weather cooperated for the most part. The teams were able to get in all events, canceling only a few heats on one day.

Judging in progress planeside at the National Intercollegiate Flying Association (NIFA) SAFECON 2019 competition held May 13-18 at Southern Wisconsin Regional Airport (KJVL), Janesville, Wis.
Greg Cullen Photo

"I was very impressed with the students and coaches," said Cullen. "They were very polite, respectful, and the teams were helpful to one another."

Wittman Regional Airport in Oshkosh, Wisconsin, was selected to host in 2020.

For complete contest results, go to https://nifa.aero/safecon-2019-official-results/

The National Intercollegiate Flying Association exists today as a forum for collegiate aviators to expand their studies and further their careers by participating in competitive and non-competitive events, networking with industry and contemporaries, and applying themselves to go above and beyond their ordinary curriculum. But, its history began almost a century ago.

NIFA traces its roots to early post-World War I powered flight. Young aviators, returning from the war to their collegiate studies, sought to expand upon and use their training and experience to further the nascent cause of civil aviation. "We, students of Columbia University, being ex-army and navy aviators, have organized the Aero Club of Columbia University," 12 students declared in their May 1, 1919 petition to the university secretary. Similar clubs were born in the early days of flight at Harvard, Princeton, Yale, Lehigh, and other universities and colleges across the United States.

On May 7, 1920, nine schools competed at Mitchel Field – now Milwaukee Mitchell International Airport – in the first contest held by the Intercollegiate Flying Association. Yale took first place, assisted by naval aviator and future founder of Pan American Airways, Juan Trippe, in a war-surplus Curtis Jenny.

In 1929, Grover C. Loening of the Loening Aeronautical Engineering company, who had been America's first candidate for an aeronautics degree just seven years after the Wright Brothers' historic flight, established the Loening Intercollegiate Flying Trophy. Loening's wish was to encourage flying and exceptional achievements among the now many collegiate aviation programs nationwide. The award was judged that first year by Loening and his friends, Charles Lindbergh, Amelia Earhart, and Navy Commander John Towers. The pure silver, Tiffany-designed trophy is still judged and bestowed today at SAFECON each year.

In December of 1934, 23 colleges and universities met in Washington, D.C. to broaden the competition beyond what had been mainly Ivy League schools. They elected officers, chose an air meet location for the following June, and formed a National Intercollegiate Flying Association. ❑

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.

AUGUST 2019

3* **MT. PLEASANT (KMOP), MICH. -** Pancake Breakfast 8am-Noon. 989-240-4058.

3* **NORTHPORT (K5D5), MICH. -** Pancake Breakfast, car show & live music. 8am-Noon. 616-460-8965.

3-4 **BOONE (NBNW), IOWA -** Fly Iowa Boone 2019 is Iowa's Air Fair. The main date of the event is Saturday, August 3 with Sunday being a weather date if the air show is postponed. Event includes a fly-in, static displays and exhibits, air safety seminar, youth activities, and an air show. Admission is FREE. chuckdsmcc@aol.com

4* **LONGVILLE (KXVG) , MINN. -** Pancake Breakfast 8am-Noon. Plus antique car show.

8-11 **MIMINISKA LODGE, ONTARIO CANADA - Canada Fishing Fly-Out 3-Night/2-Day Trip. FOR RESERVATIONS: Contact Lynette Mish at Wilderness North toll free: 1-888-465-3474.**

8-13 **MIMINISKA LODGE, ONTARIO CANADA - Canada Fishing Fly-Out 5-Night/4-Day Trip. FOR RESERVATIONS: Contact Lynette Mish at Wilderness North toll free: 1-888-465-3474.**

10 **CAMERON (KRPD), WIS. -** Pancake breakfast 7am-2pm. Breakfast free for pilot flying in.

10* **COUNCIL BLUFFS (KCBF), MICH. -** Great Plains Wing of the Commemorative Air Force annual Pancake Breakfast 8-11am. P51D Mustang Gunfighter & B-25 Maid in the Shade on display. 401-981-4633.

10* **SPARTA (K8D4), MICH. -** Breakfast & Vintage Cars at Paul C. Miller Airport 8am-1pm.

10* **MARSHALL (KRMY), MICH. -** Pancakes, scrambled eggs, sausage, coffee and orange juice breakfast at Brooks Field 8am-Noon. 269-330-2908.

10* **KINDRED (KK74), N.D. -** Fly-In at Robert Odegaard Field Airport in conjunction with Kindred Days.

10-11* **OSCODA (KOSC), MICH. -** Pancake Breakfast 8-11am. Free admission to Wurtsmith Air Museum for pilots and their passengers. Museum is open 8am-3pm.

11 **LINO LAKES (8Y4), MINN. -** Annual Pig Roast at the Surfside Seaplane Base. www.mnseaplanes.com

11* **HUMBOLDT (K0K7), IOWA -** Breakfast 7am-Noon. 515-368-1714.

11* **MADISON (KDXX), MINN. -** Breakfast at the Lac qui Parle County Airport 8am-Noon.

11* **SOUTH HAVEN (KLWA), MICH. -** Breakfast 7am-Noon. 269-637-7343.

11-14 **MIMINISKA LODGE, ONTARIO CANADA - Canada Fishing Fly-Out 3-Night/2-Day Trip. FOR RESERVATIONS: Contact Lynette Mish at Wilderness North toll free: 1-888-465-3474.**

17 **NEENAH (K79C), WIS. -** Brennand Old-Time Airport Days 9am-3pm. www.eaa41.org/event/brennand-old-time-airportdays-annual-fly-in-2019. 612-756-4495.

17* **HOLLAND (KBIV), MICH. -** Pancake Breakfast 8am-Noon. 616-610-5857.

17* **KULM (KD03), N.D. -** Breakfast 7-10am in conjunction with Kulm Windfest Days. www.facebook.com/kulmairport 701-830-2205.

18* **MANKATO (KMKT), MINN. -** EAA Chapter 642 Pancakes, Eggs, Sausage, Coffee, Milk & Juice Breakfast 7:30am-12:30pm. Live Music. For more info call: 507-388-3222 Gary Tyson gary@garytyson.com

18* **BOYCEVILLE (K3T3), WIS. -** Pancakes, Eggs, Sausage & Drinks Breakfast 7-11am. Kids Candy drop at 11AM, live music and more. Unicom 122.8 RWY 08/26.

24* **KALAMAZOO (K4N0), MICH. -** Breakfast at Newman's Field 7-11am. 269-352-8726.

25 **BOSCOBEL (KOVS), WIS. -** Fly-in/Drive-in Breakfast. Pilot in command eats free. Visit beautiful Boscobel- Wisconsin's Outdoor Recreation Destination.

25* **WINDOM (MWM), MINN. -** Windom Eagles Model Airplane Club/ Windom Lions Club Fly-In Pancake breakfast 8am-12:30pm at Windom Municipal Airport (MWM 122.9). PIC's free. Info: Brian (507) 830-0273.

25* **JUNEAU (KUNU), WIS. -** Lions Club Pancake Breakfast 8am-Noon. 920-386-2402.

26-28 **KANSAS CITY, MO. -** 4 States Airport Conference 2019 at the Kansas City Marriott Downtown. www.4statesairportconference.com

31 **GLENCOE (KGYL), MINN. -** Sweet Corn & Bratwurst Fly-In 10am-2pm. The contact person is Stuart Selchow cell: 320-583-8367, email: stuart.selchow@gmail.com (www.eaaul92.weebly.com).

31 **SHELL LAKE(KSSQ), WIS. -** Pancakes, Sausage, Beverage Breakfast 7:30-11:30am. Held during Shell Lake Town and Country days celebration. 715-296-3638.

SEPTEMBER 2019

7 **OSCEOLA (KOEO), WIS. -** Osceola Wheels and Wings.

7 **MERRILL (KRRL), WIS. -** Merrill Airport Day 9am-3pm. Food, flea market and kid's activities. 715-536-5266.

7* **BRAINERD (KBRD), MINN.** - 4th Annual Grass is a Gas Poker Run. Fly to 4 grass strips, collect poker cards, play your hand for great prizes. Registration strictly limited to 52 hands, one hand per person, two hands per aircraft. Registration at 07:30, be there early to assure a spot! Mike Petersen 612-750-2981.

7* **SUPERIOR (KSUW), WIS. -** Blueberry Pancake Breakfast 7:30am-Until Gone at the Bong Memorial Airport. 218-590-0507.

7* **MARSHALL (KRMY), MICH. -** Food, music, static displays and more 7am-Noon. 269-254-3719.

7-8* **JACKSON (KMJQ), MINN. - 7th** - Professional amateur kite fly. **8th** - Fly-In Breakfast.

7-11 **ST. PAUL, MINN. - NASAO's 88th Annual Conference at the Intercontinental Hotel. Register at www.nasao.org**

8 **CARROLL (KCIN), IOWA -** Breakfast 6:30am-1pm. 712-792-4980.

8 **DUBUQUE (KDBQ), IOWA -** Open house & Fly-In Breakfast 8am-Noon. 563-589-4128. www.flydbg.com

8* **NEW ULM (KULM), MINN. -** Lions Club of New Ulm 46th Annual Fly-In Breakfast 7am-12:30pm. Serving All You Can Eat Pancakes, Sausages, Apple Sauce, Coffee, Milk and Juice. Free Breakfast for all fly-in pilots. Supporting the Sight, Hearing and Diabetes Impaired.

8* **WATERTOWN (KRYV), WIS. -** Pancake Breakfast & Open House 8am-3pm. Breakfast, airplane rides & more! 920-261-4567.

8* **FOWLERVILLE (K65G), MICH. -** Annual Dawn Patrol Fly-In 7-11am. This event happens rain or shine. Camping allowed on the 6th and 7th. 517-223-7809.

8* **HILLSDALE (KJYM), MICH. -** Dawn Patrol Fly-In. 517-797-4833.

9 **CRAWFORDSVILLE (KCFJ), IND. -** Airport Day. FOLLOW US on

Facebook @CrawfordsvilleRegionalAirport as we update with more information and pricing.

13-14 **Tullahoma, (KTHA) Tenn. - AOPA 2019 Regional Fly-In. For more information on each fly-in, visit www.aopa.org/fly-ins.**

14* **Midland (KIKW), Mich. -** Pancakes, Eggs, & Sausage Breakfast made to order 7-11am. Homemade donuts. Children's activities.

14* **Marshall (KRMY), Mich. -** Pancakes, Scrambled Eggs, Sausage, Coffee & Orange Juice Breakfast 8am-Noon. 269-330-2908.

14* **Mt. Pleasant (KMOP), Mich. -** Wings and Wheels Gathering of Aircraft & Cars 10am-2pm. 989-240-4058.

14-15* **Kalamazoo (KAZO), Mich. -** Air Zoo's 40th Anniversary Fly-In at the Kalamazoo/Battle Creek International Airport 9am-5pm. For more information on this go to AirZoo.org/celebrate40. 269-350-2812.

15* **Watervliet (K40C), Mich. -** Fall fly-in featuring Chili, a 4 mile run and a 2 mile fun walk 10am-2pm. 269-806-1058.

17 **Boone (KBNW), Iowa -** Watermelon Feed & Fly-In 6-8:30pm. 515-432-1018. www.farnhamaviation.com

21* **Mora (KJMR), Minn. -** Breakfast 8am-Noon. 612-390-8217.

21-22 **Angola, Ind. -** 17th Annual Indiana Seaplane Pilots Association Splash-In at Pokagon State Park.

22 **Joliet (KJOT), Ill. -** Joliet Airport Festival. Pancake Breakfast 8-11am, Lunch 11am-3pm (nominal fee). Static aircraft and warbird displays, children's activities, airplane, warbird and helicopter rides (nominal fee) Car show featuring the Coachman Car Club until 3pm. Free Admission!

28 **Denver, Colo. -** National Aviation Hall of Fame Enshrinement. www.nationalaviation.org

28* **Ames (KAMW), Iowa -** Breakfast 7-11am. 515-292-9056.

APRIL 2020

29-5/1* **Rochester, (KRST) Minn. -** 2020 Minnesota Airports Conference at the Mayo Center.

MAY 2020

3-5* **Elkhart Lake, Wis. -** 65th Annual Wisconsin Aviation Conference sponsor by the Sheboygan County Memorial Airport (KSBM) will be held at The Osthoff Resort. (https://wiama.org).

Fly-Ins & Airshows

Blue Angels Headlined Sun 'n Fun 2019

by Bill Blake

The Sun 'n Fun Fly-In, held each year in Lakeland, Florida, was blessed with good weather the week of April 2-7, 2019, and attendance was excellent! The most exciting part of this year's event for me was the opportunity to get up close to the members of the U.S. Navy Blue Angels Demonstration Squadron as the group arrived together in tight formation.

The Blue Angels was initially formed in 1946, making it the second oldest formation flying aerobatic team in the world, after only the French Patrouille de France formed in 1931.

Members of the media were taken to the aircraft ramp used to park the F/A-18 Hornets prior to the show. We were in place to watch first the arrival of the C-130T Hercules support aircraft, affectionately called "Fat Albert." The C-130 carried 42 members of the ground support unit to the show. We then watched the six F/A-18 Hornets flown in the show land. A seventh aircraft, which is used for media and V.I.P. flights, was already in place.

We were then divided into small groups, with each group escorted to a different aircraft. The pilots were standing next to their aircraft waiting to be interviewed. The group I was in met with Maj. Jeff Mullins of the United States Marine Corps.

Maj. Mullins came from a flying family. His father flew Army helicopters in Vietnam, and his brother was also a pilot. Maj. Mullins started flying when he was 15, and today he flys #4 Blue Angel, the slot position.

Maj. Jeff Mullins, USN Blue Angel #4.
Bill Blake Photo

Maj. Jeff Mullins is a native of Memphis, Tennessee, and graduated from Saint Benedict at Auburndale High School in 2004, where he lettered in wrestling and track. He attended Embry Riddle Aeronautical University, and graduated with a Bachelor of Science in Professional Aeronautics in 2006. He earned his commission as a Second Lieutenant in the United States Marine Corps through the Platoon Leader's Course in 2006, and reported to The Basic School at Marine Corps Base (MCB) Quantico, Virginia, to complete training. Maj. Mullins reported to Naval Air Station (NAS) Pensacola, Florida, for aviation indoctrination in May 2007.

Continued On Page 62

Classifieds

SINGLE LISTING: $.75 per word. Minimum order is $20 per insertion.
ORDER ONLINE: www.MidwestFlyer.com
***or* MAIL LISTING TO – Midwest Flyer Magazine, 6031 Lawry Court, Oregon, WI 53575**
Please include payment with order! NOTE: We can invoice municipalities.
ALL LISTINGS ARE ALSO POSTED AT **www.midwestflyer.com**

FLOATPLANE LIFT FOR SALE - Heavy-duty Shore Master electric aluminum floatplane lift for sale. Adjustable to fit any floatplane: $2.000.00. Call Paul Schroeder at **563-343-0461** (cell) or email **pks@uslink.net** for more details.

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

AVIATION INSURANCE RESOURCES – Best Rates, Broadest Coverage, All Markets. Access the entire market with just one phone call: **1-877-247-7767.** Or online at **www.AIR-PROS.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.**

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.**

WANTED
FULL-TIME AIRCRAFT MECHANIC

Experience working on Cessna single & twin-engine aircraft and Inspection Authorization Certification is preferable.

Benefits are available after one year of full-time employment, including 401K, health insurance & paid vacation.
Contact Richard Morey 608-836-1711
Morey Airplane Company
is a family-owned, full-service FBO since 1942
Middleton Municipal Airport-Morey Field (C29)
Middleton, Wisconsin

MIDWEST FLYER MAGAZINE

SUBSCRIBE

OFFER EXPIRES DEC. 31, 2019

NAME _____

STREET _____

CITY, STATE & ZIP _____

USA SUBSCRIPTIONS
$20.00 ONE YEAR *(6 issues)*
CANADA SUBSCRIPTIONS - IN U.S. FUNDS
$39.00 ONE YEAR *(6 issues)*

SUBSCRIBE AT
WWW.MIDWESTFLYER.COM
OR COMPLETE & RETURN FORM TO
MIDWEST FLYER MAGAZINE
6031 LAWRY COURT
OREGON WI 53575-2617

Eagle River Union Airport
Your Full-Service airport in the Northwoods
EGV - Eagle River, Wisconsin

Restaurants & hotels nearby
Clean courtesy car
After-hour service
Overnight hangars
Preheat & ground power
Flight planning room
Pilot lounge w/ Direct TV
Ice machine
100LL
Jet A

Airport / tourist info 715-479-7442 or www.erairport.com
OPEN 7 DAYS/WK & HOLIDAYS

FUEL CELLS
All Makes & Models
Eagle Fuel Cells
Eagle River, Wisconsin

TF 800-437-8732
Tel 715-479-6149 Fax 6344
www.eaglefuelcells.com

Reach New Customers

- Custom targeted lists, labels, postcards, Excel, or CSV files
- Windows software plus 20 databases on DVD Search, print, & export
- Low cost update options provide fresh names each month

- Aircraft Owners
- Monthly new registrations
- Monthly Address Changes
- Deregistered Owners
- Pilots
- Monthly pilots with any new certificate
- New Student Pilots

- Pilots by date of certificate
- Pilots by aircraft type rating
- A&P Mechanics by date
- Flight and Ground Schools
- Airports, Air Taxi Operators, Repair Stations

Call 1-800-654-2066

20% Off First Order • New Customers • Call for details

AIRPAC
www.airpac.com
airpac@airpac.com

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

AIRCRAFT RENTAL

Diversified fleet of over 25 aircraft!

- Cessna 152 (7)
- Cessna 172 (4)
- Piper Warrior (3)
- Piper Archer (4)
- Piper Arrow (3)
- Citabria Taildragger
- Cirrus SR20 (2)
- Cirrus SR22 (2)
- Piper Seneca (2)

800-594-5359

MAINTENANCE

- Authorized Service Center for Cirrus, Cessna & 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

AIRCRAFT SALES

1975 Cessna 150M - N63646 ....First $25,900 *owns it!*
Only 2410 TTSN! Only 566 SMOH! 51 SNEW Prop! Fresh June 2019 annual! Questionable Cessna 300 NavCom, King KT-76 Transponder, Tanis heater, belly drain.

1979 Cessna 310R – N2638Y ..... Steal at $99,995!
Boots and hot props, 203-gal fuel, Primus 200 color radar, GNS 430W, HSI, KFC-200 coupled autopilot with flight director! More! 9545 TT, 1200 SMOH, January Annual.

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

800-657-0761

BLUE ANGELS CONTINUED FROM PAGE 59

He completed primary flight training in the T-34C Turbo Mentor at NAS Whiting Field, Florida, and completed intermediate and advanced flight training in the T-45C Goshawk at NAS Meridian, Mississippi. He earned his wings of gold in July 2009. He then reported to Strike Fighter Squadron (VFA) 125, the "Rough Raiders," at NAS Lemoore, California, for initial training in the F/A-18 Hornet. Since then, Maj. Mullins has flown more than 500 combat hours and supported numerous operations and exercises in Afghanistan, Iraq, Syria, Japan, Guam, the Philippines, Korea and Thailand. He joined the Blue Angels in September 2017, and has accumulated more than 2,200 flight hours and has 26 carrier arrested landings. His decorations include 11 Strike Flight Air Medals, two Navy and Marine Corps Achievement Medals, and various personal and unit awards.

To fly with the Blue Angels, pilots must be physically fit. Major Mullins explained that unlike the U.S. Air Force Thunderbirds, the Blue Angels do not wear G suits, believing the suits would interfere with maneuvering their aircraft. Not wearing a G suit means the pilot must have a very strong core to withstand the 7 G turns performed during routines. Additionally, each aircraft has been modified to require 40 pounds of back pressure to hold the control stick in its neutral position. Maj. Mullins said that the modification helped them perform precise maneuvers.

Prior to the beginning of the show season, the team trains in El Centro, California. Pilots are assigned to the team for 2 years. Extensions are not allowed. Therefore, each year 50% of the team is new. The team is based in Pensacola, Fla., so, they were close to home at Sun 'n Fun.

The new team starts out with just the basics and builds from there. As the year goes on, the new pilots become more proficient and all of the pilots become more confident in themselves and other members of the team. Gradually, the formation gets tighter and their aircraft are flying at less than 18 inches apart.

The Blue Angels are truly team dependent. In addition to the 12 pilots on the team, there are 42 support personnel. On show days, the pilots walk to their aircraft and takeoff without doing any kind of preflight, relying on the aircraft crew chiefs to have the aircraft in perfect condition to fly the mission.

Major Mullins had to apply to join the Blues, as do all members of the team. An intense screening process is involved in the selection process. Maj. Mullins said he applied because he wanted to represent the military to the civilian population and encourage others to volunteer for military service. He has enjoyed his time with the team, but come November, he is looking forward to re-joining the fleet to protect his country.

Talking with and observing members of the Blue Angels made me proud of the men and women serving in our armed forces. I will continue to thank them for their service whenever the opportunity arises, and I hope you will do the same.

EDITOR'S NOTE: Bill Blake, formerly of Peoria, Illinois, and now Sarasota, Florida, is an active pilot and aircraft owner, as is his wife, Nancy. Prior to retiring, Blake was the AOPA Great Lakes Regional Representative (1999 to 2011), and Director of the Division of Aeronautics for the State of Illinois (1992-99). Bill Blake flew the CH-34 helicopter in the U.S. Army assigned to the East-West German border during the Cold War. He retired with the rank of colonel. Later he was a contract negotiator for the Office of Naval Research in Washington, D.C. ❑

Red Bull Cancels Air Race Series After 2019 Season

Red Bull, the beverage company that sponsors high-energy sports ranging from motorcycle racing to cliff diving, has canceled the Red Bull Air Race World Championship series after the 2019 European season, as well as the Indianapolis, Indiana race scheduled for October 2019.

Red Bull issued a statement announcing the series cancellation and thanked "the pilots, their teams, partners, the host cities, as well as the Red Bull employees, for all they have done to make these enjoyable and memorable events."

The series, which began in 2003 and presented 90 races, took a three-year hiatus to restructure from 2011 to 2013, and the crowds never fully recovered.

The 2007 season saw a series-high of 10 races, but eight events have been the norm since 2014. Only races that remain in the shortened 2019 season include Lake Balaton, Hungary, July 13 to 14; and the final event in Chiba, Japan, Sept. 7 to 8. (AOPA) ❑

MIDWEST FLYER MAGAZINE

SUBSCRIBE

OFFER EXPIRES DEC. 31, 2019

NAME _____

STREET _____

CITY, STATE & ZIP _____

USA SUBSCRIPTIONS

$20.00 ONE YEAR *(6 issues)*

CANADA SUBSCRIPTIONS - IN U.S. FUNDS

$39.00 ONE YEAR *(6 issues)*

SUBSCRIBE AT
WWW.MIDWESTFLYER.COM

OR COMPLETE & RETURN FORM TO

MIDWEST FLYER MAGAZINE
6031 LAWRY COURT
OREGON WI 53575-2617

A Flying Fishing Adventure To Miminiska Lodge Ontario, Canada

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

TRIP #1: (3-Night/2-Day Trip): August 8 - 11, 2019.

TRIP #2: (3-Night/2-Day Trip): August 11 - 14, 2019.

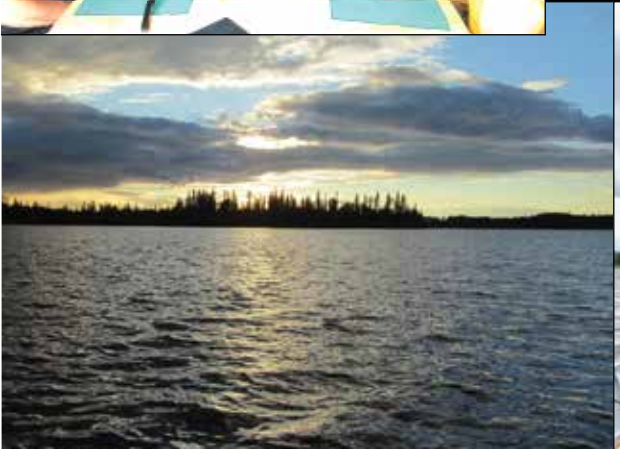
TRIP #3: (5-Night/4-Day Trip): August 8 - 13, 2019.

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



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

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

BRACKETT TOWBARS

CESSNA 150
THRU
GULFSTREAM V

plus
HELICOPTER

(928) 757-4005
FAX: (928) 757-1948
E-Mail: brackett@ctaz.com
Website: www.brackettaircraft.com
BRACKETT AIRCRAFT CO., INC.
7045 Flightline Dr. • Kingman, AZ 86401

Skycom AVIONICS, INC.
Serving you with pride, competence, and excellence since 1982
WAAS/GPS · PFD/MFD/EIS · NAV/COM
ADS-B In/Out · Autopilot · Radar
BI/AAIP Inspections · Homebuilts

(262) 521-8180
www.skycomavionics.com info@skycomavionics.com
Wisconsin's Premier Avionics Sales and Service Facility

ACADEMY COLLEGE

We'll help you get there quickly and safely!

- Commercial Aviation BS
- Commercial Pilot AAS
- Aviation Business AAS
- Aircraft Dispatcher

Financial Aid available to those who qualify

IN PARTNERSHIP WITH

952-851-0066 • www.academycollege.edu